RTI Connext DDS Property Reference Guide

Version 7.0.0

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Chapter 1

Introduction

The Property QoS Policy stores name/value (string) pairs that can be used to configure certain parameters of *Connext* that are not exposed through formal QoS policies.

The Property QoS Policy stores name/value pairs for an entity. Both the name and value are strings. You can find more information about the *RTI Connext* Property QoS in the "PROPERTY QosPolicy (DDS Extension)" section of the Core Libraries User's Manual.

This knowledge base article also explains how to use a property. A property can be set programmatically as part of the QoS of the entity or by the XML QoS configuration. For example, here is the XML QoS configuration for the `message_size_max` property:

```
<domain_participant_qos>
    <property>
        <value>
            <element>
                <name>dds.transport.UDPv4.builtin.parent.message_size_max</
↪name>
                <value>65507</value>
            </element>
        </value>
    </property>
</domain_participant_qos>
```

All the properties that *Connext* provides (which begin with `dds.`, `com.rti.`, or `rti.`) are validated when the entity or the plugin is created. This validation is done to avoid using an unknown or incorrect property name (for example, due to a typo). Without this validation, *Connext* ignores the unknown property name, and you might not know why the property's configuration isn't being applied. Find more information in the "Property Validation" section of the Core Libraries User's Manual.

The goal of this Property Reference Guide is to gather all *Connext* properties in one place and provide the main characteristics of each. This reference guide is organized into three main indexes:

- The whole list of properties organized by hierarchy. For example, if you want to learn more about the property dds.transport.UDPv4.builtin.parent.allow_interfaces_list, go to the List of Properties: click on dds.transport, then UDPv4.builtin, then parent, to find full information on the property.

- The whole list of properties organized by entities. For example, you will see all the properties that can be set for the DataWriter.
- The whole list of properties organized by features. For example, you can find all properties related to "instances," "durability," or "reliability"; if you are working on discovery configuration, you can find all properties related to "discovery."

For each property, you will find the following information:

- An icon to copy the property name for accurate insertion into your XML file.
- A link to the full documentation of the property.
- The entity in which the property can be set and the entity to which it can apply. Usually, these will be the same, but not always. For example, some properties can be set for the DomainParticipant, DataWriter, and DataReader, but apply only to the DataWriter and DataReader.
- A brief description of the property, as well as its type, default value, value range, and so on.
- The related features for the property (is it related to "reliability" or "instances," etc.).
- If the property has been promoted to a QoS, the name of the promoted QoS.

Here is an example entry for `dds.transport.UDPv4.builtin.parent.allow_interfaces_list`:

dds.transport.UDPv4.builtin.parent.allow_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name that can be used by the transport.
Related to these features	Transport Builtin Transport
The property has been promoted to	<participant_qos><transport_builtin><udpv4><allow_interfaces_list>

Chapter 2

List of Properties

2.1 com.rti.serv

com.rti.serv.load_plugin	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	The prefix name of the security plugin suite that will be loaded by Connext DDS.
Related to these features	DDS Secure

2.1.1 secure

com.rti.serv.secure.create_function	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Pattern value	`.*`
Description	Must be set to the security plugin suite creation function that is implemented by the library.
Related to these features	DDS Secure

com.rti.serv.secure.create_function_ptr	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Pattern value	`.*`
Description	Must be set to the security plugin suite creation function implemented by the library.
Related to these features	DDS Secure

com.rti.serv.secure.library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Pattern value	`.*`
Description	Must be set to the dynamic library that implements the security plugin suite.
Related to these features	DDS Secure

com.rti.serv.secure.license_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`NULL`
Pattern value	`.*`
Description	The value for this property can be set to the location (full path and filename) of a license file.
Related to these features	DDS Secure

com.rti.serv.secure.license_string	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`NULL`
Pattern value	`.*`
Description	The value for this property can be set to the content of a license file.
Related to these features	DDS Secure

com.rti.serv.secure.openssl_engine	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`NULL`
Pattern value	`.*`
Description	A semicolon-separated list of dynamic libraries that each implement an OpenSSL engine. Each engine may implement a different set of security functions. For example, one engine may implement certificate management, while another engine may implement cryptographic operations. If the authentication.keyform property value is engine, then the private key must be successfully loaded by exactly one of the engines in this list.
Related to these features	DDS Secure

com.rti.serv.secure.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	DDS Secure

access_control

com.rti.serv.secure.access_control.alternative_permissions_authority_files	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`NULL`
Pattern value	`.*(,.*)*`
Description	A comma-separated list of alternative Permissions CA certificates.
Related to these features	DDS Secure

com.rti.serv.secure.access_control.use_530_logging_protection	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Mutability type	immutable
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	How to set the value of <metadata_protection_kind> for the Builtin Logging Topic.
Related to these features	DDS Secure

com.rti.serv.secure.access_control.use_530_partitions	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Mutability type	immutable
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	How to determine a match between a DataWriter's or DataReader's partitions and an 'allowed partitions' condition in a Permissions Document.
Related to these features	DDS Secure

com.rti.serv.secure.access_control.use_530_permissions_rules_precedence	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Mutability type	immutable
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	How to deal with conflicting allow/deny rules in a Permissions Document when checking if a topic or endpoint may exist.
Related to these features	DDS Secure

com.rti.serv.secure.access_control.use_610_permissions_rules_precedence	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Mutability type	immutable
Default Value	`auto`
Possible values	`0` `1` `TRUE` `FALSE` `YES` `NO` `AUTO` `auto`
Description	How to deal with conflicting allow/deny rules in a Permissions Document when checking if a DomainParticipant may exist.
Related to these features	DDS Secure

authentication

com.rti.serv.secure.authentication.alternative_ca_files	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`NULL`
Pattern value	`.*(,.*)*`
Description	A comma-separated list of alternative Identity CA certificates.
Related to these features	DDS Secure

com.rti.serv.secure.authentication.crl	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	mutable
Default Value	`NULL`
Pattern value	`.*`
Description	This Certificate Revocation List keeps track of untrusted X.509 certificates.
Related to these features	DDS Secure

com.rti.serv.secure.authentication.enable_custom_algorithms	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Mutability type	immutable
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Configures whether to enable custom cryptographic algorithms for the Authentication plugin. When enabled (not by default) the Security Plugins will enable additional digital signature and key establishment algorithms that are not part of the DDS Security specification (EDDSA+ED25519+SHA512, EDDSA+ED448+SHAKE256, ECDHE-CEUM+X25519, ECDHE-CEUM+X448). Currently only supported in combination with OpenSSL: this property will have no effect when used in combination with wolfSSL.
Related to these features	DDS Secure

com.rti.serv.secure.authentication.enable_custom_allocators	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Mutability type	immutable
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Configures whether to set custom crypto library (e.g., OpenSSL) allocators. When enabled (not the default) the Security Plugins will configure custom allocator functions (alloc, realloc, free) to the loaded crypto library with the goal of reducing memory fragmentation at the cost of a minimum performance impact. This is currently only supported in combination with OpenSSL. This property is only effective the first time a DomainParticipant loads the Security Plugins within the same process: subsequent DomainParticipant creations will ignore this property and leave the existing configuration unchanged. Moreover, this property is only effective if no allocation has been done with the crypto library builtin allocators before the Security Plugins have been loaded, otherwise a warning will be logged and no change will be made. Important: since the allocator functions live within the Security Plugins library, your application must not make any calls to the crypto library once the Security Plugins have been unloaded from memory.
Related to these features	DDS Secure

com.rti.serv.secure.authentication.key_establishment_algorithm	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Mutability type	immutable
Default Value	`AUTO`
Possible values	`AUTO` `DHE+MODP-2048-256` `ECDHE-CEUM+P256` `ECDHE-CEUM+P384`
Description	The algorithm used to establish a shared secret during authentication.
Related to these features	DDS Secure

com.rti.serv.secure.authentication.keyform	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Mutability type	immutable
Default Value	`pem`
Possible values	`engine` `pem`
Description	The format of the private key specified by dds.sec.auth.private_key. If the value is engine, then the openssl_engine property must be set, and the private key must be successfully loaded by exactly one of the engines in that list.
Related to these features	DDS Secure

com.rti.serv.secure.authentication.participant_discovery_protection_key	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`NULL`
Pattern value	`.*`
Description	Sets the static HMAC key used to compute participant discovery signatures.
Related to these features	DDS Secure

com.rti.serv.secure.authentication.propagate_simplified_identity_certificate	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Mutability type	immutable
Default Value	`true`
Possible values	`0` `1` `TRUE` `FALSE` `YES` `NO`
Description	Indicates whether the identity certificate should be simplified
Related to these features	DDS Secure

com.rti.serv.secure.authentication.rsa_pss_pad	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Mutability type	immutable
Default Value	`TRUE`
Possible values	`0` `1` `TRUE` `FALSE` `YES` `NO` `AUTO` `auto`
Description	Configures whether to use RSA PSS padding or standard RSA padding during authentication
Related to these features	DDS Secure

com.rti.serv.secure.authentication.shared_secret_algorithm	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Mutability type	immutable
Default Value	`ecdh`
Possible values	`dh` `ecdh`
Description	The algorithm used to establish a shared secret during authentication. This property is deprecated. Instead, use authentication.key_establishment_algorithm.
Related to these features	DDS Secure
The property has been deprecated in version	7.0.0

cryptography

com.rti.serv.secure.cryptography.encryption_algorithm	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`AES256+GCM`
Possible values	`AES128+GCM` `AES192+GCM` `AES256+GCM` `aes-128-gcm` `aes-192-gcm` `aes-256-gcm`
Description	The algorithm used for encrypting and decrypting data and metadata.
Related to these features	DDS Secure

com.rti.serv.secure.cryptography.max_blocks_per_session	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned long long
Mutability type	immutable
Default Value	`0xffffffffffffffff`
Min-Max value	`[1,ULLONG_MAX]`
Description	The number of message blocks that can be encrypted with the same key material.
Related to these features	DDS Secure

com.rti.serv.secure.cryptography.max_receiver_specific_macs	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Mutability type	immutable
Default Value	`0`
Min-Max value	`[0,3275]`
Description	The maximum number of receiver-specific Message Authentication Codes (MACs) that are appended to an encoded result.
Related to these features	DDS Secure

com.rti.serv.secure.cryptography.rtps_protection_key	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`NULL`
Pattern value	`.*`
Description	Sets the static HMAC key used to compute message signatures. This property is applied when hmac_only.enabled is false.
Related to these features	DDS Secure

com.rti.serv.secure.cryptography.share_key_for_metadata_and_data_protection	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Mutability type	immutable
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Indicator of whether the metadata and data encoding operations share the same key material or use different keys.
Related to these features	DDS Secure

hmac_only

com.rti.serv.secure.hmac_only.enabled	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Mutability type	immutable
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Enables or disables the HMAC-only mode.
Related to these features	DDS Secure

cryptography

com.rti.serv.secure.hmac_only.cryptography.key	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`NULL`
Pattern value	`.*`
Description	Sets the static HMAC key used to compute message signatures.
Related to these features	DDS Secure

com.rti.serv.secure.hmac_only.cryptography.max_blocks_per_session	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Mutability type	immutable
Default Value	`0xffffffffffffffff`
Min-Max value	`[1,ULLONG_MAX]`
Description	For signing RTPS messages, HMAC-only mode uses a key derived from the HMAC key and a sessionId that is serialized as part of the signed RTPS message representation.
Related to these features	DDS Secure

logging

com.rti.serv.secure.logging.log_level	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Mutability type	immutable
Default Value	`3`
Min-Max value	`[0,7]`
Description	The logging verbosity level.
Related to these features	DDS Secure Logging
The property has been deprecated by	com.rti.serv.secure.logging.verbosity

com.rti.serv.secure.logging.mode_mask	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	mask
Mutability type	immutable
Default Value	`BUILTIN`
Possible values	`BUILTIN` `SECURITY_TOPIC`
Description	The mask to determine the logging mode(s).
Related to these features	DDS Secure Logging

com.rti.serv.secure.logging.verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Mutability type	immutable
Default Value	`ERROR`
Possible values	`SILENT` `EMERGENCY` `ALERT` `CRITICAL` `ERROR` `WARNING` `NOTICE` `INFORMATIONAL` `DEBUG`
Description	The logging verbosity level
Related to these features	DDS Secure Logging

security_topic

com.rti.serv.secure.logging.security_topic.profile	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`NULL`
Pattern value	`.*`
Description	QoS Library and QoS profile used to create logging-related entities (Publisher, Topic and DataWriter).
Related to these features	DDS Secure Logging

security_topic.queue

com.rti.serv.secure.logging.security_topic.queue.message_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Mutability type	immutable
Default Value	`64`
Min-Max value	`[0,UINT_MAX]`
Description	Maximum number of log messages in the logging queue.
Related to these features	DDS Secure Logging

com.rti.serv.secure.logging.security_topic.queue.message_size_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Mutability type	immutable
Default Value	`792`
Min-Max value	`[27,UINT_MAX]`
Description	Maximum serialized size of a log message in the logging queue.
Related to these features	DDS Secure Logging

com.rti.serv.secure.logging.security_topic.queue.size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Mutability type	immutable
Default Value	`50688`
Min-Max value	`[0,UINT_MAX]`
Description	Size of the logging thread queue, in bytes.
Related to these features	DDS Secure Logging

security_topic.thread

com.rti.serv.secure.logging.security_topic.thread.message_threshold	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Mutability type	immutable
Default Value	`256`
Min-Max value	`[0,UINT_MAX]`
Description	Number of bytes to preallocate for the logging message string in the logging thread, beyond which dynamic allocation will occur.
Related to these features	DDS Secure Logging

com.rti.serv.secure.logging.security_topic.thread.plugin_method_threshold	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Mutability type	immutable
Default Value	`80`
Min-Max value	`[0,UINT_MAX]`
Description	Number of bytes to preallocate for the plugin method string in the logging thread, beyond which dynamic allocation will occur.
Related to these features	DDS Secure Logging

2.2 dds.builtin_type

dds.builtin_type.auto_register	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Register automatically the built-in types when a DomainParticipant is created.
Related to these features	Builtin Type

2.2.1 keyed_octets

dds.builtin_type.keyed_octets.alloc_key_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the key published by the DataWriter or received by the DataReader (includes the NULL-terminated character).
Related to these features	Builtin Type

dds.builtin_type.keyed_octets.alloc_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`2048`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the octet sequences published by the DataWriter or DataReader.
Related to these features	Builtin Type

dds.builtin_type.keyed_octets.max_key_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the key published by the DataWriter and received by the DataReaders belonging to the DomainParticipant (includes the NULL-terminated character).
Related to these features	Builtin Type

dds.builtin_type.keyed_octets.max_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`2048`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the octet sequences published by the DataWriters and DataReaders belonging to a DomainParticipant.
Related to these features	Builtin Type

2.2.2 keyed_string

dds.builtin_type.keyed_string.alloc_key_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the keys used by the DataWriter or DataReader (includes the NULL-terminated character).
Related to these features	Builtin Type

dds.builtin_type.keyed_string.alloc_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the strings published by the DataWriter or received by the DataReader (includes the NULL-terminated character).
Related to these features	Builtin Type

dds.builtin_type.keyed_string.max_key_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the keys used by the DataWriters and DataReaders belonging to a DomainParticipant (includes the NULL-terminated character).
Related to these features	Builtin Type

dds.builtin_type.keyed_string.max_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the strings published by the DataWriters and received by the DataReaders belonging to a DomainParticipant using the built-in type (includes the NULL-terminated character).
Related to these features	Builtin Type

2.2.3 octets

dds.builtin_type.octets.alloc_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`2048`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the octet sequences published by the DataWriter or DataReader.
Related to these features	Builtin Type

dds.builtin_type.octets.max_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`2048`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the octet sequences published by the DataWriters and DataReaders belonging to a DomainParticipant.
Related to these features	Builtin Type

2.2.4 string

dds.builtin_type.string.alloc_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the strings published by the DataWriter or received by the DataReader (includes the NULL-terminated character).
Related to these features	Builtin Type

dds.builtin_type.string.max_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the strings published by the DataWriters and received by the DataReaders belonging to a DomainParticipant (includes the NULL-terminated character).
Related to these features	Builtin Type

2.3 dds.clock

dds.clock.external_clock	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`realtime`
Possible values	`realtime` `system` `monotonic`
Description	Comma-delimited list of clocks to use for the external clock, in the order of preference.
Related to these features	Clock

dds.clock.internal_clock	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`realtime`
Possible values	`realtime` `system` `monotonic`
Description	Comma-delimited list of clocks to use for the internal clock, in the order of preference.
Related to these features	Clock

2.4 dds.data_reader

dds.data_reader.accept_writer_removed_batch_samples	
May be set in	DataReader
Applies to	DataReader
Type	boolean
Default Value	`FALSE`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Allow accepting invalid samples in a batch at the DataReader.
Related to these features	Queue Memory Management

dds.data_reader.shared_subscriber_name	
May be set in	DataWriter DataReader
Applies to	DataWriter DataReader
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	The DataReader must attach to the SharedSubscriber that contains the SharedReaderQueue.
Related to these features	Other

2.4.1 history.memory_manager.fast_pool

dds.data_reader.history.memory_manager.fast_pool.pool_buffer_max_size	
May be set in	DataReader
Applies to	DataReader
Type	integer
Default Value	`-1`
Min-Max value	`[-1,INT_MAX]`
Description	Controls the memory allocation for serialization.
Related to these features	Queue Memory Management

2.4.2 history.memory_manager.java_stream

dds.data_reader.history.memory_manager.java_stream.min_size	
May be set in	DataReader
Applies to	DataReader
Type	integer
Default Value	`Max Serialized Sample Size`
Min-Max value	`[0,INT_MAX]`
Description	Defines the minimum size of the buffer used for the serialized data.
Related to these features	Queue Memory Management

dds.data_reader.history.memory_manager.java_stream.trim_to_size	
May be set in	DataReader
Applies to	DataReader
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	A Boolean value that controls the growth of the deserialization buffer.
Related to these features	Queue Memory Management

2.4.3 protocol

dds.data_reader.protocol.use_43_large_data_format	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Achieve backward compatibility sending 'Large Data' between RTI Data Distribution Service 4.4d and older Releases.
Related to these features	Reliability Type System

2.4.4 reliability

dds.data_reader.reliability.delegate_reliability	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Delegates the reliability task to a separate service.
Related to these features	Reliability

2.4.5 state

dds.data_reader.state.checkpoint_frequency	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Controls how often the DataReader state is stored into the database.
Related to these features	Durability

dds.data_reader.state.filter_redundant_samples	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Enables durable DataReader state.
Related to these features	Durability Filtering

dds.data_reader.state.restore	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Indicates if the persisted DataReader state must be restored or not once the DataReader is restarted.
Related to these features	Durability

odbc

dds.data_reader.state.odbc.driver	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	string
Default Value	`odbc32.dll (Windows) libodbc.so (Otherwise)`
Pattern value	`.*`
Description	Indicates which ODBC driver to load.
Related to these features	Durability

dds.data_reader.state.odbc.dsn	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	string
Pattern value	`^.{1,512}$`
Description	The ODBC DSN (Data Source Name) associated with the database where the DataReader state must be persisted.
Related to these features	Durability

dds.data_reader.state.odbc.pass-word	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	string
Pattern value	`^.{0,30}$`
Description	Configures the password used to connect to the database.
Related to these features	Durability

dds.data_reader.state.odbc.user-name	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	string
Pattern value	`^.{0,30}$`
Description	Configures the username used to connect to the database.
Related to these features	Durability

persistence_service

dds.data_reader.state.persistence_service.request_depth	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Indicates how many of the most recent historical samples the persisted DataReader wants to receive upon start-up.
Related to these features	Durability

2.4.6 type_support

dds.data_reader.type_support.cdr_string_encoding_kind	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	enum
Default Value	`UTF-8`
Possible values	`UTF-8 ISO-8859-1`
Description	Configures the IDL wire string encoding.
Related to these features	Type System

2.5 dds.data_writer

dds.data_writer.enable_turbo_mode	
May be set in	DataWriter
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Enables Turbo Mode and adjusts the batch max_data_bytes based on how frequently the DataWriter writes data.
Related to these features	Batching Reliability

2.5.1 auto_throttle

dds.data_writer.auto_throttle.enable	
May be set in	DataWriter
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Enables automatic throttling in the DataWriter.
Related to these features	Reliability

2.5.2 cryptography

dds.data_writer.cryptography.taint_data	
May be set in	DataWriter
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Simulate tainted data. Connext DDS will modify one byte of encoded data after the final layer of GMAC or GCM is computed. This property can be used for testing validation of the GMAC hash. Tainting of encoded payloads requires running on a little-endian machine. Tainting is not supported when key_revision_max_history_depth > 0.
Related to these features	DDS Secure

2.5.3 history

dds.data_writer.history.key_material_key	
May be set in	DataWriter DomainParticipant
Applies to	DataWriter
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	The basis of the key material used to encrypt the PRSTDataWriter's key material.
Related to these features	Durability DDS Secure

dds.data_writer.history.plugin_name	
May be set in	DataWriter DomainParticipant
Applies to	DataWriter
Type	string
Default Value	`dds.data_writer.history.odbc_plugin.builtin`
Pattern value	`dds.data_writer.history.odbc_plugin.builtin`
Description	Must be set to 'dds.data_writer.history.odbc_plugin.builtin' to enable durable writer history in the DataWriter.
Related to these features	Durability

dds.data_writer.history.purge_samples_after_acknowledgment	
May be set in	DataWriter DomainParticipant
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	The DataWriter's behavior can be changed to purge DDS samples after they have been acknowledged by all the active/matching DataReaders.
Related to these features	Durability

dds.data_writer.history.source_timestamp_based_autopurge_instances_delay	
May be set in	DataWriter DomainParticipant
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	The purging of the unregistered instances can be done based on the unregistered sample source timestamp or the time when the unregistered sample was added to the DataWriter queue.
Related to these features	Durability Instance

memory_manager.fast_pool

dds.data_writer.history.memory_manager.fast_pool.pool_buffer_max_size	
May be set in	DataWriter
Applies to	DataWriter
Type	integer
Default Value	`-1`
Min-Max value	`[-1,INT_MAX]`
Description	Controls the memory allocation for the serialized sample.
Related to these features	Queue Memory Management

memory_manager.java_stream

dds.data_writer.history.memory_manager.java_stream.min_size	
May be set in	DataWriter
Applies to	DataWriter
Type	integer
Default Value	`Max Serialized Sample Size`
Min-Max value	`[0,INT_MAX]`
Description	Defines the minimum size of the buffer that will be used to serialize DDS samples.
Related to these features	Queue Memory Management

dds.data_writer.history.memory_manager.java_stream.trim_to_size	
May be set in	DataWriter
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	A boolean value that controls the growth of the serialization buffer.
Related to these features	Queue Memory Management

odbc_plugin

dds.data_writer.history.odbc_plugin.driver	
May be set in	DataWriter
Applies to	DataWriter
Type	string
Default Value	`"libodbc.so" (for Linux systems) "odbc32.dll" (for Windows systems)`
Pattern value	`^.{0,30}$`
Description	Tells Connext DDS which ODBC driver to load.
Related to these features	Durability

dds.data_writer.history.odbc_plugin.dsn	
May be set in	DataWriter
Applies to	DataWriter
Type	string
Pattern value	`^.{1,512}$`
Description	The ODBC DSN (Data Source Name) associated with the database where the writer history must be persisted.
Related to these features	Durability

dds.data_writer.history.odbc_plugin.in_memory_state	
May be set in	DataWriter
Applies to	DataWriter
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Determines how much state will be kept in memory by the ODBC writer history in order to avoid accessing the database.
Related to these features	Durability

dds.data_writer.history.odbc_plugin.instance_cache_init_size	
May be set in	DataWriter
Applies to	DataWriter
Type	integer
Min-Max value	`[0,INT_MAX]`
Description	Configures the resource limits associated with the ODBC writer history caches.
Related to these features	Durability Instance

dds.data_writer.history.odbc_plugin.instance_cache_max_size	
May be set in	DataWriter
Applies to	DataWriter
Type	integer
Default Value	`0`
Min-Max value	`[-1,INT_MAX]`
Description	Configures the resource limits associated with the ODBC writer history caches.
Related to these features	Durability Instance

dds.data_writer.history.odbc_plugin.password	
May be set in	DataWriter
Applies to	DataWriter
Type	string
Pattern value	`^.{0,30}$`
Description	Configures the password used to connect to the database.
Related to these features	Durability

dds.data_writer.history.odbc_plugin.restore	
May be set in	DataWriter
Applies to	DataWriter
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Indicates whether or not the persisted writer history must be restored once the DataWriter is restarted.
Related to these features	Durability

dds.data_writer.history.odbc_plugin.sample_cache_init_size	
May be set in	DataWriter
Applies to	DataWriter
Type	integer
Default Value	`32`
Min-Max value	`[1,INT_MAX]`
Description	Configures the resource limits associated with the ODBC writer history caches.
Related to these features	Durability

dds.data_writer.history.odbc_plugin.sample_cache_max_size	
May be set in	DataWriter
Applies to	DataWriter
Type	integer
Default Value	`32`
Min-Max value	`[-1,INT_MAX]`
Description	Configure the resource limits associated with the ODBC writer history caches.
Related to these features	Durability

dds.data_writer.history.odbc_plugin.shared	
May be set in	DataWriter
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Creates a single connection per DSN that will be shared across DataWriters within the same Publisher.
Related to these features	Durability

dds.data_writer.history.odbc_plugin.username	
May be set in	DataWriter
Applies to	DataWriter
Type	string
Pattern value	`^.{0,30}$`
Description	Configures the username used to connect to the database.
Related to these features	Durability

2.5.4 protocol

dds.data_writer.protocol.disable_repair_piggyback_heartbeat	
May be set in	DataWriter
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents piggyback HBs from being sent with repair samples
Related to these features	Reliability
The property has been promoted to	<datawriter_qos><protocol><rtps_reliable_writer><disable_repair_piggyback_heartbeat>

dds.data_writer.protocol.multicast_repair_threshold	
May be set in	DataWriter
Applies to	DataWriter
Type	integer
Default Value	`2`
Min-Max value	`[0,INT_MAX]`
Description	Support for Periodic heartbeats (HBs) over multicast.
Related to these features	Reliability

dds.data_writer.protocol.send_multicast_periodic_heartbeats	
May be set in	DataWriter DomainParticipant
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Support for periodic heartbeats (HBs) over multicast.
Related to these features	Reliability

dds.data_writer.protocol.use_43_large_data_format	
May be set in	DataWriter DomainParticipant
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Achieve backward compatibility sending 'Large Data' between RTI Data Distribution Service 4.4d and older Releases.
Related to these features	Reliability Type System

2.5.5 reliability

dds.data_writer.reliability.delegate_reliability	
May be set in	DataWriter DomainParticipant
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Delegates the reliability task to a separate service.
Related to these features	Reliability

2.5.6 type_support

dds.data_writer.type_support.cdr_string_encoding_kind	
May be set in	DataWriter DomainParticipant
Applies to	DataWriter
Type	enum
Default Value	`UTF-8`
Possible values	`UTF-8 ISO-8859-1`
Description	Configures the IDL wire string encoding.
Related to these features	Type System

2.6 dds.discovery.endpoint

dds.discovery.endpoint.load_plugins	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	String indicating the prefix name of the plugin that will be loaded by Connext DDS.
Related to these features	Discovery

2.6.1 lbediscovery

dds.discovery.endpoint.lbediscovery.config_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.+\.xml`
Description	The name of the discovery configuration file.
Related to these features	Discovery

dds.discovery.endpoint.lbediscovery.create_function	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	The name of the function that will be called by Connext DDS to create an instance of the LBED plugin.
Related to these features	Discovery

dds.discovery.endpoint.lbediscovery.library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	The name of the dynamic library that contains the LBED plugin implementation.
Related to these features	Discovery

dds.discovery.endpoint.lbediscovery.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	Discovery

dds.discovery.endpoint.lbediscovery.verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[-1,INT_MAX]`
Description	The verbosity for the plugin, for debugging purposes.
Related to these features	Discovery Logging

2.7 dds.discovery.participant

dds.discovery.participant.load_plugins	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	String indicating the prefix name of the plugin that will be loaded by Connext DDS.
Related to these features	Discovery

2.7.1 lbpdiscovery

dds.discovery.participant.lbpdiscovery.config_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.+\.xml`
Description	The name of the discovery configuration file.
Related to these features	Discovery

dds.discovery.participant.lbpdiscovery.create_function	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	The name of the function that will be called by Connext DDS to create an instance of the LBPD plugin.
Related to these features	Discovery

dds.discovery.participant.lbpdiscovery.library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	The name of the dynamic library that contains the LBPD plugin implementation.
Related to these features	Discovery

dds.discovery.participant.lbpdiscovery.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	Discovery

dds.discovery.participant.lbpdiscovery.verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[-1,INT_MAX]`
Description	The verbosity for the plugin, for debugging purposes.
Related to these features	Discovery Logging

2.8 dds.domain_participant

dds.domain_participant.asynchronous_publisher_thread_destruction_timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`10`
Min-Max value	`[0,60]`
Related to these features	Flow Controller

dds.domain_participant.domain_tag	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`^.{0,255}$`
Description	A string defining the Domain Tag the DomainParticipant will propagate through Participant Discovery.
Related to these features	Discovery

dds.domain_participant.filtering_character_encoding	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`UTF-8`
Possible values	`UTF-8` `ISO_8859`
Description	Select the character encoding for filtering
Related to these features	Filtering

dds.domain_participant.filtering_unicode_normalization	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`NFC`
Possible values	`OFF` `NFD` `NFC` `NFKD` `NFKC` `NFKC_Casefold`
Description	Select Unicode normalization for filter evaluation
Related to these features	Filtering

dds.domain_participant.max_announced_locator_list_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`16`
Min-Max value	`[0,16]`
Description	A sequence of multicast settings used to configure the multicast addresses associated with a channel.
Related to these features	Discovery

dds.domain_participant.network_interface_event_notification_delay	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,60000]`
Description	Delays the DomainParticipant announcements that include a new interface for the number of milliseconds in the value of the property.
Related to these features	Discovery

2.8.1 auto_throttle

dds.domain_participant.auto_throttle.enable	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Configures the DomainParticipant to gather internal measurements (during DomainParticipant creation) that are required for the Auto Throttle feature.
Related to these features	Reliability

2.9 dds.flow_controller.token_bucket.<flow_controller_name>

dds.flow_controller.token_bucket.<flow_controller_name>.scheduling_policy	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	enum
Default Value	`DDS_EDF_FLOW_CONTROLLER_SCHED_POLICY`

Possible values	`DDS_RR_FLOW_CONTROLLER_SCHED_POLICY`
	`DDS_EDF_FLOW_CONTROLLER_SCHED_POLICY`
	`DDS_HPF_FLOW_CONTROLLER_SCHED_POLICY`

Description	Specifies the scheduling policy to be used.
Related to these features	Flow Controller

2.9.1 token_bucket

dds.flow_controller.token_bucket.<flow_controller_name>.token_bucket.bytes_per_token	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	integer
Default Value	`-1`
Min-Max value	`[0,INT_MAX]`
Description	Maximum number of bytes allowed to send for each token available.
Related to these features	Flow Controller

dds.flow_controller.token_bucket.<flow_controller_name>.token_bucket.max_tokens	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	integer
Default Value	`-1`
Min-Max value	`[0,INT_MAX]`
Description	Maximum number of tokens than can accumulate in the token bucket.
Related to these features	Flow Controller

dds.flow_controller.token_bucket.<flow_controller_name>.token_bucket.tokens_added_per_period	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	integer
Default Value	`-1`
Min-Max value	`[-1,INT_MAX]`
Description	Number of tokens added to the token bucket per specified period.
Related to these features	Flow Controller

dds.flow_controller.token_bucket.<flow_controller_name>.token_bucket.tokens_leaked_per_period	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Number of tokens removed from the token bucket per specified period.
Related to these features	Flow Controller

period

dds.flow_controller.token_bucket.<flow_controller_name>.token_bucket.period.nanosec	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	unsigned integer
Default Value	`0`
Min-Max value	`[0,UINT_MAX]`
Description	Period for adding tokens to and removing tokens from the bucket in nanoseconds.
Related to these features	Flow Controller

dds.flow_controller.token_bucket.<flow_controller_name>.token_bucket.period.sec	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	integer
Default Value	`1`
Min-Max value	`[0,INT_MAX]`
Description	Period for adding tokens to and removing tokens from the bucket in seconds.
Related to these features	Flow Controller

2.10 dds.license

dds.license.license_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Pattern value	`.*`
Description	Sets the path to the license file
Related to these features	License

dds.license.license_string	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Sets the contents of the license.
Related to these features	License

2.11 dds.participant

dds.participant.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	Other

dds.participant.use_45d_compatible_alignment_enforcement	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0` `1` `TRUE` `FALSE` `YES` `NO`
Description	Accept RTPS messages with wrong alignment incorrectly.
Related to these features	Type System

2.11.1 builtin_data_writer.protocol

dds.participant.builtin_data_writer.protocol.disable_repair_piggyback_heartbeat	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents piggyback HBs from being sent with repair samples for builtin discovery topics
Related to these features	Reliability
The property has been promoted to	<domain_participant_qos><discovery_config><publication_writer><disable_repair_piggyback_heartbeat>

2.11.2 discovery_config

dds.participant.discovery_config.disable_endpoint_security_info_propagation	
May be set in	DomainParticipant
Applies to	DomainParticipant DataReader DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Participant may communicate for some combinations of inconsistent metadata/data protection kinds.
Related to these features	Discovery

dds.participant.discovery_config.disable_participant_security_info_propagation	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Participants may communicate for some combinations of inconsistent Governance's RTPS, discovery, and liveliness configurations.
Related to these features	Discovery

dds.participant.discovery_config.force_endpoint_announcement_on_ip_mobility_event	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Forces the sending of endpoint discovery announcements when there is an IP mobility event.
Related to these features	Discovery

dds.participant.discovery_config.use_stateless_participant_discovery_reader	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	If TRUE, makes Simple Participant Discovery robust against Sequence Number Attacks by switching the local Simple Participant Discovery DataReader's mode to pure stateless.
Related to these features	Discovery

2.11.3 inter_participant_data_reader.protocol

dds.participant.inter_participant_data_reader.protocol.disable_preemptive_nack	
May be set in	DomainParticipant
Applies to	DomainParticipant DataReader
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Disable preemptive Heartbeats and NACKs.
Related to these features	Discovery Reliability

2.11.4 inter_participant_data_writer.protocol

dds.participant.inter_participant_data_writer.protocol.disable_preemptive_heartbeat	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	boolean
Default Value	`false`
Possible values	`0` `1` `TRUE` `FALSE` `YES` `NO`
Description	Disable preemptive Heartbeats and NACKs.
Related to these features	Discovery Reliability

2.11.5 logging.time_based_logging.authentication

dds.participant.logging.time_based_logging.authentication.timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`INT_MAX`
Min-Max value	`[0,INT_MAX]`
Description	Print warning message when the authentication operation time exceeds this time threshold.
Related to these features	DDS Secure Logging

2.11.6 logging.time_based_logging.event

dds.participant.logging.time_based_logging.event.timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`INT_MAX`
Min-Max value	`[0,INT_MAX]`
Description	Print warning message when the event start/execution time exceeds this time threshold.
Related to these features	Logging

2.11.7 logging.time_based_logging.process_received_message

dds.participant.logging.time_based_logging.process_received_message.timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`INT_MAX`
Min-Max value	`[0,INT_MAX]`
Description	Print warning message when processing a received message operation exceeds this time threshold.
Related to these features	Transport Logging

dds.participant.logging.time_based_logging.process_received_message.tracked_ports	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Print warning message when the processing of a received message on a specific port exceeds the time threshold set in dds.participant.logging.time_based_logging.process_received_message.timeout.
Related to these features	Logging Transport

2.11.8 logging.time_based_logging.send

dds.participant.logging.time_based_logging.send.timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`INT_MAX`
Min-Max value	`[0,INT_MAX]`
Description	Print warning message when send operation time exceeds this time threshold.
Related to these features	Transport Logging

2.11.9 protocol

dds.participant.protocol.rtps_overhead	
May be set in	DomainParticipant
Applies to	DataWriter DomainParticipant
Type	integer
Default Value	`512`
Min-Max value	`[0,INT_MAX]`
Description	Used to adjust the overhead of the RTPS protocol without including security.
Related to these features	Reliability

2.11.10 trust_plugins.authentication_request_delay

dds.participant.trust_plugins.authentication_request_delay.sec	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`5`
Min-Max value	`[0,INT_MAX]`
Description	Controls the delay in seconds before sending an authentication_request to the remote participant.
Related to these features	DDS Secure

2.11.11 trust_plugins.authentication_request_timeout

dds.participant.trust_plugins.authentication_request_timeout.sec	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`20`
Min-Max value	`[0,INT_MAX]`
Description	It determines the timeout (in seconds) for authentication negotiations started from an authentication request message (authentication request is a DDS Security 1.1 mechanism to securely recover from an asymmetric liveliness loss). If set to a value greater than authentication_timeout, then it will be set to authentication_timeout.
Related to these features	DDS Secure

2.11.12 trust_plugins.authentication_timeout

dds.participant.trust_plugins.authentication_timeout.sec	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`60`
Min-Max value	`[0,INT_MAX]`
Description	Controls the maximum time in seconds that an ongoing authentication can remain without completing.
Related to these features	DDS Secure

2.12 dds.sample_assignability

dds.sample_assignability.accept_unknown_enum_value	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	When set to 1, samples containing an unknown enumerator can be successfully deserialized to the default enumeration value.
Related to these features	Type System

dds.sample_assignability.accept_unknown_union_discriminator	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	When set to 1, samples containing an unknown union discriminator can be successfully deserialized to the default discriminator value.
Related to these features	Type System

2.13 dds.sec.access

dds.sec.access.governance	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`[file:|data:,].*`
Description	The signed document that specifies the level of security required per domain and per topic.
Related to these features	DDS Secure

dds.sec.access.permissions	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`[file:|data:,].*`
Description	The signed document that specifies the access control permissions per domain and per topic.
Related to these features	DDS Secure

dds.sec.access.permissions_ca	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`[file:|data:,].*`
Description	This Permissions Certificate Authority is used for signing access control governance and permissions XML files and verifying the signatures of those files.
Related to these features	DDS Secure

2.14 dds.sec.auth

dds.sec.auth.identity_ca	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`[file:|data:,].*`
Description	This Identity Certificate Authority is used for signing authentication certificate files.
Related to these features	DDS Secure

dds.sec.auth.identity_certificate	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`[file:|data:,].*`
Description	The private key associated with the first certificate.
Related to these features	DDS Secure

dds.sec.auth.password	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	The password used to decrypt the private_key.
Related to these features	DDS Secure

dds.sec.auth.private_key	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`[file:|data:,].*`
Description	The private key associated with the first certificate.
Related to these features	DDS Secure

2.15 dds.sys_info

dds.sys_info.creation_timestamp	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Min-Max value	`[0,9999]`
Description	Time when the executable was created.
Related to these features	System Info Default Discovery Propagation

dds.sys_info.executable_filepath	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Name and full path of the executable.
Related to these features	System Info Default Discovery Propagation

dds.sys_info.execution_times-tamp	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Min-Max value	`[0,9999]`
Description	Time when the execution started.
Related to these features	System Info Default Discovery Propagation

dds.sys_info.hostname	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Hostname
Related to these features	System Info Default Discovery Propagation

dds.sys_info.process_id	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Min-Max value	`[0,UINT_MAX]`
Description	Process ID
Related to these features	System Info Default Discovery Propagation

dds.sys_info.target	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Architecture for which the library was compiled.
Related to these features	System Info Default Discovery Propagation

dds.sys_info.username	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Username that is running the process.
Related to these features	System Info Default Discovery Propagation

2.16 dds.transport

dds.transport.load_plugins	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Comma-separated strings indicating the prefix names of all plugins that will be loaded by Connext DDS.
Related to these features	Transport

dds.transport.minimum_compatibility_version	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`6.0.0`
Pattern value	`.*`
Description	Minimum version that the transport should be compatible with.
Related to these features	Transport Builtin Transport

dds.transport.use_510_compatible_locator_kinds	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Communicate between Connext DDS 5.2.0 and previous releases. This property is still supported, but deprecated in favour of dds.transport.minimum_compatibility_version.
Related to these features	Transport
The property has been deprecated in version	6.1.0

2.16.1 DTLS.dtls1

dds.transport.DTLS.dtls1.aliases	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`Plugin Name`
Pattern value	`.*`
Description	Used to register the transport plugin returned by NDDS_Transport_DTLS_create() to the DomainParticipant.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.create_function	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Must be 'NDDS_Transport_DTLS_create'
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.create_function_ptr	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	pointer
Default Value	`NULL`
Description	Defines the function pointer to the DTLS transport plugin creation function.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.disable_interface_tracking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Disables detection of network interface changes.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.dtls_connection_liveliness_interval	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`60`
Min-Max value	`[0,UINT_MAX]`
Description	Liveliness interval (multiple of resend interval)
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.dtls_handshake_resend_interval	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`1000`
Min-Max value	`[0,UINT_MAX]`
Description	DTLS handshake retransmission interval in milliseconds.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.force_interface_poll_detection	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Forces the interface tracker to use a polling method to detect changes to the network interfaces in IP mobility scenarios.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.ignore_loopback_interface	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Possible values	`-1 0 1`
Description	Prevents the transport plugin from using the IP loopback interface.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.ignore_nonrunning_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Possible values	`0 1`
Description	Prevents the transport plugin from using a network interface that is not reported as RUNNING by the operating system.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.interface_poll_period	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`500`
Min-Max value	`[0,UINT_MAX]`
Description	Specifies the period in milliseconds to query for changes in the state of all the interfaces.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.join_multicast_group_timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`5000`
Min-Max value	`[0,UINT_MAX]`
Description	Controls how long Connext DDS will retry to join a multicast group with a new network interface before withdrawing.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Must set to 'libnddstransporttls.so' (for Linux systems), 'libnddstransporttls.dylib' (for macOS systems), or 'nddstransporttls.dll' (for Windows systems).
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.network_address	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`0.0.0.0`
Min-Max value	`[0,255]`
Description	The network address at which to register this transport plugin.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.port_offset	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`144`
Min-Max value	`[0,INT_MAX]`
Description	Port offset to allow coexistence with non-secure UDP transport.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.recv_decode_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`65507`
Min-Max value	`[0,INT_MAX]`
Description	Size of buffer for decoding packets from wire.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.recv_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[0,INT_MAX]`
Description	Size in bytes of the receive buffer of a socket used for sending.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.security_verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[-1,INT_MAX]`
Description	Specifies the verbosity of security related log messages from the transport.
Related to these features	Transport Transport Secure Logging

dds.transport.DTLS.dtls1.send_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[0,INT_MAX]`
Description	Size in bytes of the send buffer of a socket used for sending.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.transport_priority_mapping_high	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0xFF`
Min-Max value	`[0,INT_MAX]`
Description	Sets the high value of the output range to IPv4 TOS.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.transport_priority_mapping_low	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Sets the low value of the output range to IPv4 TOS.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.transport_priority_mask	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`0`
Min-Max value	`[0,UINT_MAX]`
Description	Mask for use of transport priority field.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[-1,INT_MAX]`
Description	Specifies the verbosity of log messages from the transport.
Related to these features	Transport Transport Secure Logging

parent

dds.transport.DTLS.dtls1.parent.allow_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.parent.deny_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.parent.gather_send_buffer_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`16`
Min-Max value	`[INT_MIN,INT_MAX]`
Description	Specifies the maximum number of buffers that Connext DDS can pass to the transport plugin's send() function.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.parent.message_size_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`16384`
Min-Max value	`[0,16384]`
Description	The maximum size of a message in bytes that can be sent or received by the transport plugin.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.parent.properties_bitmap	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[INT_MIN,INT_MAX]`
Description	A bitmap that defines various properties of the transport to the Connext DDS core.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.parent.thread_name_prefix	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`rTr#####`
Pattern value	`^.{0,8}$`
Description	Prefix used to name the transport threads.
Related to these features	Transport Transport Secure

tls.cipher

dds.transport.DTLS.dtls1.tls.cipher.cipher_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	List of available DTLS ciphers when communicating with 6.0.0 or below.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.cipher.ciphersuites	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	List of available TLS ciphersuites when communicating with Connext DDS 6.0.1 or above.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.cipher.dh_param_files	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Possible values	`0-9`
Description	List of available Diffie-Hellman (DH) key files.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.cipher.engine_id	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	String ID of OpenSSL cipher engine to request.
Related to these features	Transport Transport Secure

tls.identity

dds.transport.DTLS.dtls1.tls.identity.certificate_chain_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the name of a file containing an identifying certificate chain (in PEM format).
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.identity.private_key_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the name of a file containing a private key (in PEM format)
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.identity.private_key_password	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the password for the private key.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.identity.rsa_private_key_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the name of a file containing an RSA private key (in PEM format).
Related to these features	Transport

tls.verify

dds.transport.DTLS.dtls1.tls.verify.ca_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the name of a file containing Certificate Authority certificates.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.verify.ca_path	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies paths to directories containing Certificate Authority certificates.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.verify.callback	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`NULL`
Possible values	`default` `verbose` `none`
Description	NDDS_Transport_TLS_default_verify_callback()
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.verify.verify_depth	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[0,INT_MAX]`
Description	Maximum certificate chain length for verification.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.verify.verify_peer	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	If non-zero, use mutual authentication when performing TLS handshake (default).
Related to these features	Transport Transport Secure

2.16.2 TCPv4.tcp1

dds.transport.TCPv4.tcp1.aliases	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*[,.*]*`
Description	Used to register the transport plugin returned by NDDS_Transport_TCPv4_create() (as specified by <TCP_prefix>.create_function) to the DomainParticipant.
Related to these features	Transport

dds.transport.TCPv4.tcp1.bind_interface_address	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	The TCP transport can be configured to bind all sockets to a specified interface.
Related to these features	Transport

dds.transport.TCPv4.tcp1.client_connection_negotiation_timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`10`
Min-Max value	`[1,INT_MAX]`
Description	Timeout (in seconds) for negotiating a client data connection.
Related to these features	Transport

dds.transport.TCPv4.tcp1.create_function	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	If used, must be “NDDS_Transport_TCPv4_create”.
Related to these features	Transport

dds.transport.TCPv4.tcp1.create_function_ptr	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Defines the function pointer to the TCP transport plugin creation function.
Related to these features	Transport

dds.transport.TCPv4.tcp1.disable_interface_tracking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Disables detection of network interface changes.
Related to these features	Transport

dds.transport.TCPv4.tcp1.disable_nagle	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Disables the TCP nagle algorithm.
Related to these features	Transport

dds.transport.TCPv4.tcp1.enable_keep_alive	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Configures the sending of KEEP_ALIVE messages in TCP.
Related to these features	Transport

dds.transport.TCPv4.tcp1.force_asynchronous_send	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Forces asynchronous send.
Related to these features	Transport

dds.transport.TCPv4.tcp1.force_crc_check	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	When set to 1, forces the checking of the CRC for received RTI TCP messages.
Related to these features	Transport

dds.transport.TCPv4.tcp1.force_interface_poll_detection	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Forces the interface tracker to use a polling method to detect changes to the network interfaces in IP mobility scenarios.
Related to these features	Transport

dds.transport.TCPv4.tcp1.ignore_loopback_interface	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from using the IP loopback interface.
Related to these features	Transport

dds.transport.TCPv4.tcp1.ignore_nonrunning_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from using a network interface that is not reported as RUNNING by the operating system.
Related to these features	Transport

dds.transport.TCPv4.tcp1.initial_handshake_timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`10`
Min-Max value	`[1,INT_MAX]`
Description	Timeout (in seconds) for the initial handshake for a connection.
Related to these features	Transport

dds.transport.TCPv4.tcp1.interface_poll_period	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`500`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the period in milliseconds to query for changes in the state of all the interfaces.
Related to these features	Transport

dds.transport.TCPv4.tcp1.keep_alive_interval	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Specifies the interval in seconds between KEEP_ALIVE retries.
Related to these features	Transport

dds.transport.TCPv4.tcp1.keep_alive_retry_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	The maximum number of KEEP_ALIVE retries before dropping the connection.
Related to these features	Transport

dds.transport.TCPv4.tcp1.keep_alive_time	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Specifies the interval of inactivity in seconds that causes TCP to generate a KEEP_ALIVE message.
Related to these features	Transport

dds.transport.TCPv4.tcp1.library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	If used, must be 'nddstransporttcp'.
Related to these features	Transport

dds.transport.TCPv4.tcp1.logging_verbosity_bitmap	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	mask
Default Value	`-1`
Min-Max value	`[0,INT_MAX]`
Description	Bitmap that specifies the verbosity of log messages from the transport.
Related to these features	Transport Logging

dds.transport.TCPv4.tcp1.max_packet_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	The maximum size of a TCP segment.
Related to these features	Transport

dds.transport.TCPv4.tcp1.negotiate_session_id	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	When set to 1, the TCP transport plugin will perform a session negotiation that will help external load balancers identify all the connections associated with a particular session between two Connext DDS applications.
Related to these features	Transport

dds.transport.TCPv4.tcp1.outstanding_connection_cookies	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`100`
Min-Max value	`[0,INT_MAX]`
Description	Maximum number of outstanding connection cookies allowed by the transport when acting as a server .
Related to these features	Transport

dds.transport.TCPv4.tcp1.outstanding_connection_cookies_life_span	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[INT_MIN,INT_MAX]`
Description	Maximum lifespan (in seconds) of the cookies associated with pending connections.
Related to these features	Transport

dds.transport.TCPv4.tcp1.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	Transport

dds.transport.TCPv4.tcp1.public_address	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Min-Max value	`[0,255]`
Description	Public IP address and port (WAN address and port) (separated with ':') associated with the transport instantiation.
Related to these features	Transport

dds.transport.TCPv4.tcp1.recv_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Size, in bytes, of the receive buffer of a socket used for receiving.
Related to these features	Transport

dds.transport.TCPv4.tcp1.security_logging_verbosity_bitmap	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	mask
Default Value	`-1`
Min-Max value	`[0,INT_MAX]`
Description	Bitmap that specifies the verbosity of security related log messages from the transport.
Related to these features	Transport Transport Secure Logging

dds.transport.TCPv4.tcp1.send_crc	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	When set to 1, enables the computation of the CRC for sent RTI TCP messages.
Related to these features	Transport

dds.transport.TCPv4.tcp1.send_max_wait_sec	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`3`
Min-Max value	`[0,INT_MAX]`
Description	Controls the maximum time (in seconds) the low-level sendto() function is allowed to block the caller thread when the TCP send buffer becomes full.
Related to these features	Transport

dds.transport.TCPv4.tcp1.send_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Size, in bytes, of the send buffer of a socket used for sending.
Related to these features	Transport

dds.transport.TCPv4.tcp1.server_bind_port	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`7400`
Min-Max value	`[0,INT_MAX]`
Description	Private IP port (inside the LAN) used by the transport to accept TCP connections.
Related to these features	Transport

dds.transport.TCPv4.tcp1.server_connection_negotiation_timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`10`
Min-Max value	`[1,INT_MAX]`
Description	Timeout (in seconds) for negotiating a server data connection.
Related to these features	Transport

dds.transport.TCPv4.tcp1.server_socket_backlog	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`5`
Min-Max value	`[0,INT_MAX]`
Description	The backlog parameter determines what is the maximum length of the queue of pending connections.
Related to these features	Transport

dds.transport.TCPv4.tcp1.shared_write_buffer_allocation	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Indicates if the allocation settings in write_buffer_allocation are global to the transport or per destination.
Related to these features	Transport

dds.transport.TCPv4.tcp1.socket_monitoring_kind	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`SELECT`
Possible values	`SELECT` `WINDOWS_IOCP` `WINDOWS_WAITFORMULTIPLEOBJECTS`
Description	Configures the socket monitoring API used by the transport.
Related to these features	Transport

dds.transport.TCPv4.tcp1.tls_create_function_ptr	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	pointer
Pattern value	`.*`
Description	Defines the function pointer to the TLS Support creation function.
Related to these features	Transport

dds.transport.TCPv4.tcp1.tls_delete_function_ptr	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	pointer
Pattern value	`.*`
Description	Defines the function pointer to the TLS Support deletion function.
Related to these features	Transport

dds.transport.TCPv4.tcp1.transport_priority_mapping_high	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0xFF`
Min-Max value	`[0,INT_MAX]`
Description	Sets the high value of the output range to IPv4 TOS.
Related to these features	Transport

dds.transport.TCPv4.tcp1.transport_priority_mapping_low	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Sets the low value of the output range to IPv4 TOS.
Related to these features	Transport

dds.transport.TCPv4.tcp1.transport_priority_mask	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Mask for the transport priority field.
Related to these features	Transport

dds.transport.TCPv4.tcp1.user_timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Changes the default OS TCP User Timeout configuration.
Related to these features	Transport

connection_liveliness

dds.transport.TCPv4.tcp1.connection_liveliness.assertions_per_lease_duration	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`3`
Min-Max value	`[0,INT_MAX]`
Description	Configures the connection liveliness feature.
Related to these features	Transport

dds.transport.TCPv4.tcp1.connection_liveliness.enable	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Configures the connection liveliness feature.
Related to these features	Transport

dds.transport.TCPv4.tcp1.connection_liveliness.lease_duration	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`10`
Min-Max value	`[0,INT_MAX]`
Description	Configures the connection liveliness feature.
Related to these features	Transport

control_attribute_allocation

dds.transport.TCPv4.tcp1.control_attribute_allocation.incremental_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Allocation settings applied to control message attributes.
Related to these features	Transport

dds.transport.TCPv4.tcp1.control_attribute_allocation.initial_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`2`
Min-Max value	`[0,INT_MAX]`
Description	Allocation settings applied to control message attributes.
Related to these features	Transport

dds.transport.TCPv4.tcp1.control_attribute_allocation.max_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Allocation settings applied to control message attributes.
Related to these features	Transport

control_buffer_allocation

dds.transport.TCPv4.tcp1.control_buffer_allocation.incremental_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Allocation settings applied to buffers used to serialize and send control messages.
Related to these features	Transport

dds.transport.TCPv4.tcp1.control_buffer_allocation.initial_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`2`
Min-Max value	`[0,INT_MAX]`
Description	Allocation settings applied to buffers used to serialize and send control messages.
Related to these features	Transport

dds.transport.TCPv4.tcp1.control_buffer_allocation.max_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Allocation settings applied to buffers used to serialize and send control messages.
Related to these features	Transport

control_message_allocation

dds.transport.TCPv4.tcp1.control_message_allocation.incremental_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[-MIN_INT,MAX_INT]`
Description	Allocation settings applied to control messages.
Related to these features	Transport

dds.transport.TCPv4.tcp1.control_message_allocation.initial_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`2`
Min-Max value	`[0,INT_MAX]`
Description	Allocation settings applied to control messages.
Related to these features	Transport

dds.transport.TCPv4.tcp1.control_message_allocation.max_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Allocation settings applied to control messages.
Related to these features	Transport

event_thread

dds.transport.TCPv4.tcp1.event_thread.mask	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	mask
Default Value	`PRIORITY_ENFORCE | STDIO`
Possible values	`STDIO` `FLOATING_POINT` `REALTIME_PRIORITY` `PRIORITY_ENFORCE`
Description	Configures the event thread used by the TCP Transport plugin for providing some features.
Related to these features	Transport

dds.transport.TCPv4.tcp1.event_thread.priority	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`THREAD_PRIORITY_NORMAL`
Possible values	`THREAD_PRIORITY_DEFAULT` `THREAD_PRIORITY_HIGH` `THREAD_PRIORITY_ABOVE_NORMAL` `THREAD_PRIORITY_NORMAL` `THREAD_PRIORITY_BELOW_NORMAL` `THREAD_PRIORITY_LOW`
Description	Configures the event thread used by the TCP Transport plugin for providing some features.
Related to these features	Transport

dds.transport.TCPv4.tcp1.event_thread.stack_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`THREAD_STACK_SIZE_DEFAULT`
Pattern value	`THREAD_STACK_SIZE_DEFAULT`
Min-Max value	`[INT_MIN,INT_MAX]`
Description	Configures the event thread used by the TCP Transport plugin for providing some features.
Related to these features	Transport

parent

dds.transport.TCPv4.tcp1.parent.allow_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name that can be used by the transport.
Related to these features	Transport

dds.transport.TCPv4.tcp1.parent.classid	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`NDDS_TRANSPORT_CLASSID_TCPV4_LAN`
Min-Max value	`[INT_MIN,INT_MAX]`
Possible values	`NDDS_TRANSPORT_CLASSID_INVALID` `NDDS_TRANSPORT_CLASSID_ANY` `NDDS_TRANSPORT_CLASSID_TCPV4_WAN` `NDDS_TRANSPORT_CLASSID_TCPV4_LAN` `NDDS_TRANSPORT_CLASSID_TLSV4_LAN` `NDDS_TRANSPORT_CLASSID_TLSV4_WAN`
Description	Must be set to one of the listed possible values.
Related to these features	Transport

dds.transport.TCPv4.tcp1.parent.deny_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name that will not be used by the transport.
Related to these features	Transport

dds.transport.TCPv4.tcp1.parent.gather_send_buffer_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`128`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the maximum number of buffers that Connext DDS can pass to the send() method of a transport plugin.
Related to these features	Transport

dds.transport.TCPv4.tcp1.parent.message_size_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`65536`
Min-Max value	`[0,INT_MAX]`
Description	The maximum size of a message in bytes that can be sent or received by the transport plugin.
Related to these features	Transport

dds.transport.TCPv4.tcp1.parent.thread_name_prefix	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`rTr#####`
Pattern value	`^.{0,8}$`
Description	Prefix used to name the transport threads.
Related to these features	Transport

read_buffer_allocation

dds.transport.TCPv4.tcp1.read_buffer_allocation.incremental_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Allocation settings applied to read buffers.
Related to these features	Transport

dds.transport.TCPv4.tcp1.read_buffer_allocation.initial_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`2`
Min-Max value	`[0,INT_MAX]`
Description	Allocation settings applied to read buffers.
Related to these features	Transport

dds.transport.TCPv4.tcp1.read_buffer_allocation.max_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Allocation settings applied to read buffers.
Related to these features	Transport

tls.cipher

dds.transport.TCPv4.tcp1.tls.cipher.cipher_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`NULL`
Possible values	`RTITLS_CIPHER_LIST_DEFAULT` `RTITLS_CIPHER_LIST_ENCRYPT_HIGH` `RTITLS_CIPHER_LIST_UNENCRYPTED`
Description	List of available TLS ciphers when communicating with 6.0.0 or below.
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.cipher.ciphersuites	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	List of available TLS ciphersuites when communicating with 6.0.1 or above.
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.cipher.dh_param_files	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Possible values	`0-9`
Description	List of available Diffie-Hellman (DH) key files.
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.cipher.engine_id	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	ID of OpenSSL cipher engine to request.
Related to these features	Transport Transport Secure

tls.identity

dds.transport.TCPv4.tcp1.tls.identity.certificate_chain	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	String containing an identifying certificate (in PEM format) or certificate chain (appending intermediate CA certs in order).
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.identity.certificate_chain_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	File containing identifying certificate (in PEM format) or certificate chain (appending intermediate CA certs in order).
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.identity.private_key	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	String containing private key (in PEM format).
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.identity.private_key_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	File containing private key (in PEM format).
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.identity.private_key_password	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the password for the private key.
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.identity.rsa_private_key	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	String containing additional RSA private key (in PEM format).
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.identity.rsa_private_key_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	File containing additional RSA private key (in PEM format).
Related to these features	Transport Transport Secure

tls.verify

dds.transport.TCPv4.tcp1.tls.verify.ca_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the name of a file containing Certificate Authority certificates.
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.verify.ca_path	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies paths to directories containing Certificate Authority certificates.
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.verify.crl_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Name of the file containing the Certificate Revocation List.
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.verify.verify_depth	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[INT_MIN,INT_MAX]`
Description	Maximum certificate chain length for verification.
Related to these features	Transport Transport Secure

windows_iocp

dds.transport.TCPv4.tcp1.windows_iocp.concurrency_value	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`1`
Min-Max value	`[0,INT_MAX]`
Description	Configures I/O completion ports.
Related to these features	Transport

dds.transport.TCPv4.tcp1.windows_iocp.thread_pool_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`2`
Min-Max value	`[0,INT_MAX]`
Description	Configures I/O completion ports.
Related to these features	Transport

write_buffer_allocation

dds.transport.TCPv4.tcp1.write_buffer_allocation.incremental_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`10`
Min-Max value	`[0,INT_MAX]`
Description	Allocation settings applied to buffers used for asynchronous (non-blocking) write.
Related to these features	Transport

dds.transport.TCPv4.tcp1.write_buffer_allocation.initial_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`4`
Min-Max value	`[0,INT_MAX]`
Description	Allocation settings applied to buffers used for asynchronous (non-blocking) write.
Related to these features	Transport

dds.transport.TCPv4.tcp1.write_buffer_allocation.max_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1000`
Min-Max value	`[0,INT_MAX]`
Description	Allocation settings applied to buffers used for asynchronous (non-blocking) write.
Related to these features	Transport

2.16.3 UDPv4.builtin

dds.transport.UDPv4.builtin.aliases	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*[,.*]*`
Description	Aliases used to register the transport to the DomainParticipant.
Related to these features	Transport

dds.transport.UDPv4.builtin.disable_interface_tracking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Disables detection of network interface changes.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><disable_interface_tracking>

dds.transport.UDPv4.builtin.force_interface_poll_detection	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Forces the interface tracker to use a polling method to detect changes to the network interfaces in IP mobility scenarios.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><force_interface_poll_detection>

dds.transport.UDPv4.builtin.ignore_loopback_interface	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Possible values	`-1 0 1`
Description	Prevents the transport plugin from using the IP loopback interface.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><ignore_loopback_interface>

dds.transport.UDPv4.builtin.ignore_nonrunning_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from using a network interface that is not reported as RUNNING by the operating system.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><ignore_nonrunning_interfaces>

dds.transport.UDPv4.builtin.ignore_nonup_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	This property is only supported on Windows platforms with statically configured IP addresses.
Related to these features	Transport Builtin Transport

dds.transport.UDPv4.builtin.interface_poll_period	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`500`
Min-Max value	`[0,UINT_MAX]`
Description	Specifies the period in milliseconds to query for changes in the state of all the interfaces.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><interface_poll_period>

dds.transport.UDPv4.builtin.join_multicast_group_timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`5000`
Min-Max value	`[0,UINT_MAX]`
Description	Controls how long Connext DDS will retry to join a multicast group with a new network interface before withdrawing.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><join_multicast_group_timeout>

dds.transport.UDPv4.builtin.multicast_enabled	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Allows the transport plugin to use multicast for sending and receiving.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><multicast_enabled>

dds.transport.UDPv4.builtin.multicast_loopback_disabled	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from putting multicast packets onto the loopback interface.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><multicast_loopback_disabled>

dds.transport.UDPv4.builtin.multicast_ttl	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[0,INT_MAX]`
Description	Value for the time-to-live parameter for all multicast sends using this plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><multicast_ttl>

dds.transport.UDPv4.builtin.no_zero_copy	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from doing a zero copy.
Related to these features	Transport Builtin Transport

dds.transport.UDPv4.builtin.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	Transport

dds.transport.UDPv4.builtin.protocol_overhead_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`28`
Min-Max value	`[0,UINT_MAX]`
Description	Maximum size in bytes of protocol overhead, including headers.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><protocol_overhead_max>

dds.transport.UDPv4.builtin.public_address	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Public IP address associated with the transport instantiation.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><public_address>

dds.transport.UDPv4.builtin.recv_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Size in bytes of the receive buffer of a socket used for receiving.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><recv_socket_buffer_size>

dds.transport.UDPv4.builtin.reuse_multicast_receive_resource	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Controls whether or not to reuse receive resources.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><reuse_multicast_receive_resource>

dds.transport.UDPv4.builtin.send_blocking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NDDS_TRANSPORT_UDP_BLOCKING_ALWAYS`
Possible values	`0 1 NDDS_TRANSPORT_UDP_BLOCKING_NEVER NDDS_TRANSPORT_UDPV4_BLOCKING_NEVER TRANSPORT_BLOCKING_NEVER NDDS_TRANSPORT_UDP_BLOCKING_ALWAYS NDDS_TRANSPORT_UDPV4_BLOCKING_ALWAYS TRANSPORT_BLOCKING_ALWAYS`
Description	Controls the blocking behavior of send sockets.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><send_blocking>

dds.transport.UDPv4.builtin.send_ping	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[0,INT_MAX]`
Description	This property specifies whether to send a PING message before commencing the discovery process.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><send_ping>

dds.transport.UDPv4.builtin.send_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Size in bytes of the send buffer of a socket used for sending.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><send_socket_buffer_size>

dds.transport.UDPv4.builtin.transport_priority_mapping_high	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0xFF`
Min-Max value	`[0,INT_MAX]`
Description	Sets the high value of the output range to IPv4 TOS.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><transport_priority_mapping_high>

dds.transport.UDPv4.builtin.transport_priority_mapping_low	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Sets the low value of the output range to IPv4 TOS.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><transport_priority_mapping_low>

dds.transport.UDPv4.builtin.transport_priority_mask	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Mask for the transport priority field.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><transport_priority_mask>

dds.transport.UDPv4.builtin.unicast_enabled	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Allows the transport plugin to use unicast UDP for sending and receiving.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><unicast_enabled>

dds.transport.UDPv4.builtin.use_checksum	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Specifies whether the UDP checksum will be computed.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><use_checksum>

parent

dds.transport.UDPv4.builtin.parent.allow_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name that can be used by the transport.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><allow_interfaces_list>

dds.transport.UDPv4.builtin.parent.allow_multicast_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><allow_multicast_interfaces_list>

dds.transport.UDPv4.builtin.parent.deny_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name that will not be used by the transport.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><deny_interfaces_list>

dds.transport.UDPv4.builtin.parent.deny_multicast_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><deny_multicast_interfaces_list>

dds.transport.UDPv4.builtin.parent.gather_send_buffer_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`16`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the maximum number of buffers that Connext DDS can pass to the send() method of a transport plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><gather_send_buffer_count_max>

dds.transport.UDPv4.builtin.parent.message_size_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`65507`
Min-Max value	`[INT_MIN,MAX_INT]`
Possible values	`UDPV4_MESSAGE_SIZE_MAX_DEFAULT` `NDDS_TRANSPORT_UDPV4_MESSAGE_SIZE_MAX_DEFAULT`
Description	The maximum size of a message in bytes that can be sent or received by the transport plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><message_size_max>

dds.transport.UDPv4.builtin.parent.properties_bitmap	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	String
Default Value	`NDDS_TRANSPORT_PROPERTIES_BITMAP_DEFAULT`
Possible values	`0 1 2 TRANSPORT_PROPERTY_BIT_BUFFER_ALWAYS_LOANED` `NDDS_TRANSPORT_PROPERTY_BIT_BUFFER_ALWAYS_LOANED` `TRANSPORT_PROPERTY_BITMAP_DEFAULT` `NDDS_TRANSPORT_PROPERTIES_BITMAP_DEFAULT`
Description	A bitmap that defines various properties of the transport to the Connext DDS core.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><properties_bitmap>

dds.transport.UDPv4.builtin.parent.thread_name_prefix	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`rTr#####`
Pattern value	`^.{0,8}$`
Description	Prefix used to name the transport threads.
Related to these features	Transport Builtin Transport

2.16.4 UDPv4_WAN.builtin

dds.transport.UDPv4_WAN.builtin.aliases	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*[,.*]*`
Description	Aliases used to register the transport to the DomainParticipant.
Related to these features	Transport

dds.transport.UDPv4_WAN.builtin.binding_ping_period	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1000`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the period in milliseconds at which BINDING PINGS messages are sent to keep NAT mappings open
Related to these features	Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><binding_ping_period>

dds.transport.UDPv4_WAN.builtin.comm_ports	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	json
Description	Configures the mapping between <RTPS ports>, <UDP receive host ports>, and <UDP receive public ports>.
Related to these features	Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><comm_ports>

dds.transport.UDPv4_WAN.builtin.disable_interface_tracking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Disables detection of network interface changes.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><disable_interface_tracking>

dds.transport.UDPv4_WAN.builtin.force_interface_poll_detection	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Forces the interface tracker to use a polling method to detect changes to the network interfaces in IP mobility scenarios.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><force_interface_poll_detection>

dds.transport.UDPv4_WAN.builtin.ignore_loopback_interface	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Possible values	`-1 0 1`
Description	Prevents the transport plugin from using the IP loopback interface.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><ignore_loopback_interface>

dds.transport.UDPv4_WAN.builtin.ignore_nonrunning_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from using a network interface that is not reported as RUNNING by the operating system.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><ignore_nonrunning_interfaces>

dds.transport.UDPv4_WAN.builtin.ignore_nonup_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	This property is only supported on Windows platforms with statically configured IP addresses.
Related to these features	Transport Builtin Transport
The property has been deprecated in version	6.1.0

dds.transport.UDPv4_WAN.builtin.interface_poll_period	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`500`
Min-Max value	`[0,UINT_MAX]`
Description	Specifies the period in milliseconds to query for changes in the state of all the interfaces.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><interface_poll_period>

dds.transport.UDPv4_WAN.builtin.no_zero_copy	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from doing a zero copy.
Related to these features	Transport Builtin Transport
The property has been deprecated in version	6.1.0

dds.transport.UDPv4_WAN.builtin.plugin_enabled_function_ptr	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Only required if statically linking the Real-Time Wan Transport (RWT) support library. Must be set to the stringified pointer value of RWT support library's NDDS_Transport_UDP_WAN_Library_is_plugin_enabled function. Please refer to the RWT documentation for details.
Related to these features	Transport Builtin Transport

dds.transport.UDPv4_WAN.builtin.port_offset	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`125`
Min-Max value	`[0,INT_MAX]`
Description	Port offset to allow coexistence with non-WAN UDP transport.
Related to these features	Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><port_offset>

dds.transport.UDPv4_WAN.builtin.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	Transport

dds.transport.UDPv4_WAN.builtin.protocol_overhead_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`28`
Min-Max value	`[0,UINT_MAX]`
Description	Maximum size in bytes of protocol overhead, including headers.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><protocol_overhead_max>

dds.transport.UDPv4_WAN.builtin.public_address	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Public IP address associated with the transport instantiation.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><public_address>

dds.transport.UDPv4_WAN.builtin.recv_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Size in bytes of the receive buffer of a socket used for receiving.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><recv_socket_buffer_size>

dds.transport.UDPv4_WAN.builtin.send_blocking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NDDS_TRANSPORT_UDP_BLOCKING_ALWAYS`
Possible values	`0` `1` `NDDS_TRANSPORT_UDP_BLOCKING_NEVER` `NDDS_TRANSPORT_UDPV4_BLOCKING_NEVER` `TRANSPORT_BLOCKING_NEVER` `NDDS_TRANSPORT_UDP_BLOCKING_ALWAYS` `NDDS_TRANSPORT_UDPV4_BLOCKING_ALWAYS` `TRANSPORT_BLOCKING_ALWAYS`
Description	Controls the blocking behavior of send sockets.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><send_blocking>

dds.transport.UDPv4_WAN.builtin.send_ping	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[0,INT_MAX]`
Description	This property specifies whether to send a PING message before commencing the discovery process.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><send_ping>

dds.transport.UDPv4_WAN.builtin.send_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Size in bytes of the send buffer of a socket used for sending.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><send_socket_buffer_size>

dds.transport.UDPv4_WAN.builtin.transport_priority_mapping_high	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0xFF`
Min-Max value	`[0,INT_MAX]`
Description	Sets the high value of the output range to IPv4 TOS.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><transport_priority_mapping_high>

dds.transport.UDPv4_WAN.builtin.transport_priority_mapping_low	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Sets the low value of the output range to IPv4 TOS.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><transport_priority_mapping_low>

dds.transport.UDPv4_WAN.builtin.transport_priority_mask	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Mask for the transport priority field.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><transport_priority_mask>

dds.transport.UDPv4_WAN.builtin.use_checksum	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Specifies whether the UDP checksum will be computed.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><use_checksum>

parent

dds.transport.UDPv4_WAN.builtin.parent.allow_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name that can be used by the transport.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><allow_interfaces_list>

dds.transport.UDPv4_WAN.builtin.parent.deny_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name that will not be used by the transport.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><deny_interfaces_list>

dds.transport.UDPv4_WAN.builtin.parent.gather_send_buffer_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`16`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the maximum number of buffers that Connext DDS can pass to the send() method of a transport plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><gather_send_buffer_count_

dds.transport.UDPv4_WAN.builtin.parent.message_size_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`65507`
Min-Max value	`[INT_MIN,MAX_INT]`
Possible values	`UDPV4_MESSAGE_SIZE_MAX_DEFAULT` `NDDS_TRANSPORT_UDPV4_MESSAGE_SIZE_MAX_DEFAULT`
Description	The maximum size of a message in bytes that can be sent or received by the transport plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><message_size_max>

dds.transport.UDPv4_WAN.builtin.parent.properties_bitmap	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	String
Default Value	`NDDS_TRANSPORT_PROPERTIES_BITMAP_DEFAULT`
Possible values	`0 1 2 TRANSPORT_PROPERTY_BIT_BUFFER_ALWAYS_LOANED NDDS_TRANSPORT_PROPERTY_BIT_BUFFER_ALWAYS_LOANED TRANSPORT_PROPERTY_BITMAP_DEFAULT NDDS_TRANSPORT_PROPERTIES_BITMAP_DEFAULT`
Description	A bitmap that defines various properties of the transport to the Connext DDS core.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><properties_bitmap>

dds.transport.UDPv4_WAN.builtin.parent.thread_name_prefix	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`rTr#####`
Pattern value	`^.{0,8}$`
Description	Prefix used to name the transport threads.
Related to these features	Transport Builtin Transport

2.16.5 UDPv6.builtin

dds.transport.UDPv6.builtin.aliases	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*[,.*]*`
Description	Aliases used to register the transport to the DomainParticipant.
Related to these features	Transport

dds.transport.UDPv6.builtin.disable_interface_tracking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Disables detection of network interface changes.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><disable_interface_tracking>

dds.transport.UDPv6.builtin.enable_v4mapped	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Specifies whether the UDPv6 transport will process IPv4 addresses.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><enable_v4mapped>

dds.transport.UDPv6.builtin.force_interface_poll_detection	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Forces the interface tracker to use a polling method to detect changes to the network interfaces in IP mobility scenarios.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><force_interface_poll_detection>

dds.transport.UDPv6.builtin.ignore_loopback_interface	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Possible values	`-1 0 1`
Description	Prevents the transport plugin from using the IP loopback interface.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><ignore_loopback_interface>

dds.transport.UDPv6.builtin.ignore_nonrunning_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from using a network interface that is not reported as RUNNING by the operating system.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><ignore_nonrunning_interfaces>

dds.transport.UDPv6.builtin.interface_poll_period	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`500`
Min-Max value	`[0,UINT_MAX]`
Description	Specifies the period in milliseconds to query for changes in the state of all the interfaces.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><interface_poll_period>

dds.transport.UDPv6.builtin.join_multicast_group_timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`5000`
Min-Max value	`[0,UINT_MAX]`
Description	Controls how long Connext DDS will retry to join a multicast group with a new network interface before withdrawing.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><join_multicast_group_timeout>

dds.transport.UDPv6.builtin.multicast_enabled	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Allows the transport plugin to use multicast for sending and receiving.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><multicast_enabled>

dds.transport.UDPv6.builtin.multicast_loopback_disabled	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from putting multicast packets onto the loopback interface.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><multicast_loopback_disabled>

dds.transport.UDPv6.builtin.multicast_ttl	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[0,INT_MAX]`
Description	Value for the time-to-live parameter for all multicast sends using this plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><multicast_ttl>

dds.transport.UDPv6.builtin.no_zero_copy	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from doing a zero copy.
Related to these features	Transport Builtin Transport

dds.transport.UDPv6.builtin.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING VALIDATION_ACTION_EXCEPTION VALIDATION_ACTION_SKIP -1 0 1`
Description	configures the validation of the properties.
Related to these features	Transport

dds.transport.UDPv6.builtin.protocol_overhead_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`48`
Min-Max value	`[0,UINT_MAX]`
Description	Maximum size in bytes of protocol overhead, including headers.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><protocol_overhead_max>

dds.transport.UDPv6.builtin.public_address	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Public IP address associated with the transport instantiation.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><public_address>

dds.transport.UDPv6.builtin.recv_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Size in bytes of the receive buffer of a socket used for receiving.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><recv_socket_buffer_size>

dds.transport.UDPv6.builtin.reuse_multicast_receive_resource	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Controls whether or not to reuse receive resources.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><reuse_multicast_receive_resource>

dds.transport.UDPv6.builtin.send_blocking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NDDS_TRANSPORT_UDP_BLOCKING_ALWAYS`
Possible values	`0 1 NDDS_TRANSPORT_UDP_BLOCKING_NEVER NDDS_TRANSPORT_UDPV6_BLOCKING_NEVER TRANSPORT_BLOCKING_NEVER NDDS_TRANSPORT_UDP_BLOCKING_ALWAYS NDDS_TRANSPORT_UDPV6_BLOCKING_ALWAYS TRANSPORT_BLOCKING_ALWAYS`
Description	Controls the blocking behavior of send sockets.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><send_blocking>

dds.transport.UDPv6.builtin.send_ping	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[0,INT_MAX]`
Description	This property specifies whether to send a PING message before commencing the discovery process.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><send_ping>

dds.transport.UDPv6.builtin.send_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Size in bytes of the send buffer of a socket used for sending.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><send_socket_buffer_size>

dds.transport.UDPv6.builtin.transport_priority_mapping_high	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0xFF`
Min-Max value	`[0,INT_MAX]`
Description	Sets the high value of the output range to IPv4 TOS.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><transport_priority_mapping_high>

dds.transport.UDPv6.builtin.transport_priority_mapping_low	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Sets the low value of the output range to IPv4 TOS.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><transport_priority_mapping_low>

dds.transport.UDPv6.builtin.transport_priority_mask	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Mask for the transport priority field.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><transport_priority_mask>

dds.transport.UDPv6.builtin.unicast_enabled	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Allows the transport plugin to use unicast UDP for sending and receiving.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><unicast_enabled>

parent

dds.transport.UDPv6.builtin.parent.allow_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name that can be used by the transport.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><allow_interfaces_list>

dds.transport.UDPv6.builtin.parent.allow_multicast_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><allow_multicast_interfaces_list>

dds.transport.UDPv6.builtin.parent.deny_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name that will not be used by the transport.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><deny_interfaces_list>

dds.transport.UDPv6.builtin.parent.deny_multicast_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><deny_multicast_interfaces_list>

dds.transport.UDPv6.builtin.parent.gather_send_buffer_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`16`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the maximum number of buffers that Connext DDS can pass to the send() method of a transport plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><gather_send_buffer_count_max>

dds.transport.UDPv6.builtin.parent.message_size_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`65487`
Min-Max value	`[INT_MIN,MAX_INT]`
Possible values	`UDPV4_MESSAGE_SIZE_MAX_DEFAULT` `NDDS_TRANSPORT_UDPV4_MESSAGE_SIZE_MAX_DEFAULT`
Description	The maximum size of a message in bytes that can be sent or received by the transport plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><message_size_max>

dds.transport.UDPv6.builtin.parent.properties_bitmap	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	String
Default Value	`NDDS_TRANSPORT_PROPERTIES_BITMAP_DEFAULT`
Possible values	`0 1 2 TRANSPORT_PROPERTY_BIT_BUFFER_ALWAYS_LOANED NDDS_TRANSPORT_PROPERTY_BIT_BUFFER_ALWAYS_LOANED TRANSPORT_PROPERTY_BITMAP_DEFAULT NDDS_TRANSPORT_PROPERTIES_BITMAP_DEFAULT`
Description	A bitmap that defines various properties of the transport to the Connext DDS core.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><properties_bitmap>

dds.transport.UDPv6.builtin.parent.thread_name_prefix	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`rTr#####`
Pattern value	`^.{0,8}$`
Description	Prefix used to name the transport threads.
Related to these features	Transport Builtin Transport

2.16.6 WAN.wan1

dds.transport.WAN.wan1.aliases	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*[,.*]*`
Description	Used to register the transport plugin returned by NDDS_Transport_WAN_create() (as specified by <WAN_prefix>.create_function) to the DomainParticipant.
Related to these features	Transport

dds.transport.WAN.wan1.create_function	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Must be 'NDDS_Transport_WAN_create'.
Related to these features	Transport

dds.transport.WAN.wan1.dtls_connection_liveliness_interval	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`60`
Min-Max value	`[0,UINT_MAX]`
Description	Liveliness interval (multiple of resend interval)
Related to these features	Transport

dds.transport.WAN.wan1.dtls_handshake_resend_interval	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`1000`
Min-Max value	`[0,UINT_MAX]`
Description	DTLS handshake retransmission interval in milliseconds.
Related to these features	Transport

dds.transport.WAN.wan1.enable_security	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Possible values	`0 1`
Description	Required if you want to use security.
Related to these features	Transport

dds.transport.WAN.wan1.interface_address	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Locator, as a string
Related to these features	Transport

dds.transport.WAN.wan1.library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Must set to 'libnddstransportwan.so' (for Linux systems), 'libnddstransportwan.dylib' (for macOS systems), or 'nddstransportwan.dll' (for Windows systems).
Related to these features	Transport

dds.transport.WAN.wan1.port_offset	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`144`
Min-Max value	`[0,INT_MAX]`
Description	Port offset to allow coexistence with non-secure UDP transport.
Related to these features	Transport

dds.transport.WAN.wan1.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	Transport

dds.transport.WAN.wan1.recv_decode_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`65507`
Min-Max value	`[0,INT_MAX]`
Description	Size of buffer for decoding packets from wire.
Related to these features	Transport

dds.transport.WAN.wan1.security_verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[-1,INT_MAX]`
Description	Specifies the verbosity of security-related log messages from the transport.
Related to these features	Transport Transport Secure Logging

dds.transport.WAN.wan1.server	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Server locator, as a string.
Related to these features	Transport

dds.transport.WAN.wan1.server_port	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`3478`
Min-Max value	`[0,UINT_MAX]`
Description	Server port number.
Related to these features	Transport

dds.transport.WAN.wan1.stun_liveliness_period	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`15000`
Min-Max value	`[0,UINT_MAX]`
Description	Period at which messages are sent to peers to keep NAT holes open.
Related to these features	Transport

dds.transport.WAN.wan1.stun_number_of_retransmissions	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`7`
Min-Max value	`[0,UINT_MAX]`
Description	Maximum number of times STUN messages are resent unless a response is received.
Related to these features	Transport

dds.transport.WAN.wan1.stun_retransmission_interval	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`100`
Min-Max value	`[0,UINT_MAX]`
Description	STUN request messages requiring a response are resent with this interval.
Related to these features	Transport

dds.transport.WAN.wan1.transport_instance_id	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`{0,0,0,0,0,0,0,0,0,0,0,0}`
Min-Max value	`[0,0xef]`
Description	A set of comma-separated values to specify the elements of the array.
Related to these features	Transport

dds.transport.WAN.wan1.verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[-1,INT_MAX]`
Description	Specifies the verbosity of log messages from the transport.
Related to these features	Transport Logging

parent

dds.transport.WAN.wan1.parent.ignore_loopback_interface	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Possible values	`-1 0 1`
Description	Prevents the transport plugin from using the IP loopback interface.
Related to these features	Transport

dds.transport.WAN.wan1.parent.ignore_nonrunning_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Possible values	`0 1`
Description	Prevents the transport plugin from using a network interface that is not reported as RUNNING by the operating system.
Related to these features	Transport

dds.transport.WAN.wan1.parent.join_multicast_group_timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`5000`
Min-Max value	`[0,UINT_MAX]`
Description	Controls how long Connext DDS will retry to join a multicast group with a new network interface before withdrawing.
Related to these features	Transport

dds.transport.WAN.wan1.parent.no_zero_copy	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Possible values	`0 1`
Description	Prevents the transport plugin from doing a zero copy.
Related to these features	Transport
The property has been deprecated in version	6.0.0

dds.transport.WAN.wan1.parent.recv_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[0,INT_MAX]`
Description	Size in bytes of the receive buffer of a socket used for receiving.
Related to these features	Transport

dds.transport.WAN.wan1.parent.send_blocking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Possible values	`0 1 2`
Description	Controls the blocking behavior of send sockets.
Related to these features	Transport

dds.transport.WAN.wan1.parent.send_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[0,INT_MAX]`
Description	Size in bytes of the send buffer of a socket used for sending.
Related to these features	Transport

dds.transport.WAN.wan1.parent.transport_priority_mapping_high	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0xFF`
Min-Max value	`[0,INT_MAX]`
Description	Sets the high value of the output range to IPv4 TOS.
Related to these features	Transport

dds.transport.WAN.wan1.parent.transport_priority_mapping_low	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Sets the low value of the output range to IPv4 TOS.
Related to these features	Transport

dds.transport.WAN.wan1.parent.transport_priority_mask	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Mask for the transport priority field.
Related to these features	Transport

dds.transport.WAN.wan1.parent.unicast_enabled	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Possible values	`0 1`
Description	Allows the transport plugin to use unicast UDP for sending and receiving.
Related to these features	Transport

parent

dds.transport.WAN.wan1.parent.parent.allow_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses.
Related to these features	Transport

dds.transport.WAN.wan1.parent.parent.deny_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses
Related to these features	Transport

dds.transport.WAN.wan1.parent.parent.gather_send_buffer_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`16`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the maximum number of buffers that Connext DDS can pass to the send() method of a transport plugin.
Related to these features	Transport

dds.transport.WAN.wan1.parent.parent.message_size_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`65507`
Min-Max value	`[0,INT_MAX]`
Description	The maximum size of a message in bytes that can be sent or received by the transport plugin.
Related to these features	Transport

dds.transport.WAN.wan1.parent.parent.properties_bitmap	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	A bitmap that defines various properties of the transport to the Connext DDS core.
Related to these features	Transport

dds.transport.WAN.wan1.parent.parent.thread_name_prefix	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`rTr#####`
Pattern value	`^.{0,8}$`
Description	Prefix used to name the transport threads.
Related to these features	Transport

tls.cipher

dds.transport.WAN.wan1.tls.cipher.cipher_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	List of available DTLS ciphers when communicating with 6.0.0 or below.
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.cipher.dh_param_files	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`(.+:[0-9]+)(,.+:[0-9]+).*`
Description	List of available Diffie-Hellman (DH) key files.
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.cipher.engine_id	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	ID of OpenSSL cipher engine to request.
Related to these features	Transport Transport Secure

tls.identity

dds.transport.WAN.wan1.tls.identity.certificate_chain_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the name of a file containing an identifying certificate chain (in PEM format).
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.identity.private_key_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	File containing private key (in PEM format).
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.identity.private_key_password	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the password for the private key.
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.identity.rsa_private_key_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	File containing additional RSA private key (in PEM format).
Related to these features	Transport Transport Secure

tls.verify

dds.transport.WAN.wan1.tls.verify.ca_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the name of a file containing Certificate Authority certificates.
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.verify.ca_path	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies paths to directories containing Certificate Authority certificates.
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.verify.callback	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`NULL`
Possible values	`default` `verbose` `none`
Description	NDDS_Transport_TLS_default_verify_callback()
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.verify.verify_depth	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[INT_MIN,INT_MAX]`
Description	Maximum certificate chain length for verification.
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.verify.verify_peer	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	If non-zero, use mutual authentication when performing TLS handshake (default).
Related to these features	Transport Transport Secure

2.16.7 lbrtps

dds.transport.lbrtps.aliases	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*[,.*]*`
Description	Aliases used to register the LBRTPS transport plugin with the DomainParticipant.
Related to these features	Transport

dds.transport.lbrtps.create_function	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	The name of the function that will be called by Connext DDS to create an instance of the LBRTPS transport.
Related to these features	Transport

dds.transport.lbrtps.library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	The name of the dynamic library that contains the LBRTPS transport plugin implementation.
Related to these features	Transport

dds.transport.lbrtps.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	Transport

dds.transport.lbrtps.subtransport	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`[UDPv4|zrtps|.*]`
Description	Name of the plugin to be loaded by the LBRTPS transport.
Related to these features	Transport

dds.transport.lbrtps.verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Possible values	`-1` `0` `2`
Description	The verbosity for the plugin, for debugging purposes.
Related to these features	Transport Logging

rtps_header

dds.transport.lbrtps.rtps_header.eliminate_protocol	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Whether or not to eliminate the 4-byte protocol field in the RTPS header.
Related to these features	Transport

dds.transport.lbrtps.rtps_header.eliminate_vendorId	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Whether or not to eliminate the 2-byte vendorId field in the RTPS header.
Related to these features	Transport

dds.transport.lbrtps.rtps_header.eliminate_version	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Whether or not to eliminate the 2-byte version field in the RTPS header.
Related to these features	Transport

dds.transport.lbrtps.rtps_header.reduce_guidPrefix	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`32,32,32`
Min-Max value	`[0,32]`
Description	The reduce_guidPrefix field is composed of 12 bytes that represent 3 different fields of 4 bytes each: hostId, appId and instanceId.
Related to these features	Transport

submessage_header

dds.transport.lbrtps.submessage_header.combine_submessageId_with_flags	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Combine the first two fields in the SubmessageHeader; do not use all the bits.
Related to these features	Transport

submessages

dds.transport.lbrtps.submessages.reduce_entitiesId	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`32,32`
Min-Max value	`[8,32]`
Description	Many submessage kinds include two fields: readerId and writerId. You may be able to reduce the size of these fields if you know ahead of time how many DataReaders and DataWriters you will have.
Related to these features	Transport

dds.transport.lbrtps.submessages.reduce_sequenceNumber	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`64`
Min-Max value	`[16,64]`
Description	Some submessage kinds keep track of the number of submessages received by using an 8-byte sequence number field. You can reduce the number of bytes used for the sequence number by using this property.
Related to these features	Transport

2.16.8 shmem.builtin

dds.transport.shmem.builtin.aliases	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*[,.*]*`
Description	Aliases used to register the transport to the DomainParticipant.
Related to these features	Transport

dds.transport.shmem.builtin.enable_udp_debugging	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Enables UDP debugging when using shared memory.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><enable_udp_debugging>

dds.transport.shmem.builtin.host_id	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`0`
Min-Max value	`[0,UINT_MAX]`
Description	Host ID used to generate the shared memory transport network address.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><host_id>

dds.transport.shmem.builtin.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	Transport

dds.transport.shmem.builtin.receive_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Mutability type	mutableUntilEnable
Default Value	`1048576`
Min-Max value	`[0,INT_MAX]`
Description	The total number of bytes that can be buffered in the receive queue.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><receive_buffer_size>

dds.transport.shmem.builtin.received_message_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Mutability type	mutableUntilEnable
Default Value	`64`
Min-Max value	`[0,INT_MAX]`
Description	Number of messages that can be buffered in the receive queue.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><received_message_count_max>

dds.transport.shmem.builtin.udp_debugging_address	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`239.255.1.2`
Min-Max value	`[0,255]`
Description	IP address to which shared memory traffic will be published
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><udp_debugging_address>

dds.transport.shmem.builtin.udp_debugging_port	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`7399`
Min-Max value	`[0,UINT_MAX]`
Description	Port to which shared memory traffic will be published.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><udp_debugging_port>

dds.transport.shmem.builtin.use_530_from_uuid_locator	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	This property only applies when the WireProtocol QoS policy (specifically rtps_auto_id_kind) is set to DDS_RTPS_AUTO_ID_FROM_UUID. Consider using the transport QoS or the newer dds.transport.minimum_compatibility_version property.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><use_530_from_uuid_locator>

parent

dds.transport.shmem.builtin.parent.gather_send_buffer_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the maximum number of buffers that Connext DDS can pass to the send() method of a transport plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><gather_send_buffer_count_max

dds.transport.shmem.builtin.parent.message_size_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`65536`
Min-Max value	`[INT_MIN,INT_MAX]`
Description	The maximum size of a message in bytes that can be sent or received by the transport plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><message_size_max>

dds.transport.shmem.builtin.parent.properties_bitmap	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0x2`
Min-Max value	`[0,INT_MAX]`
Description	A bitmap that defines various properties of the transport to the Connext DDS core.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><properties_bitmap>

dds.transport.shmem.builtin.parent.thread_name_prefix	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`rTr#####`
Pattern value	`^.{0,8}$`
Description	Prefix used to name the transport threads.
Related to these features	Transport Builtin Transport

2.16.9 zrtps

dds.transport.zrtps.aliases	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*[,.*]*`
Related to these features	Transport

dds.transport.zrtps.compression_level	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`9`
Min-Max value	`[1,9]`
Description	Defines the compression level that the compression algorithm will use for all RTPS packages.
Related to these features	Transport

dds.transport.zrtps.compression_library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`ZLIB_COMPRESSION`
Possible values	`BZIP2_COMPRESSION` `EXTERNAL_COMPRESSION` `AUTOMATIC_COMPRESSION` `ZLIB_COMPRESSION`
Description	Aliases used to register the ZRTPS transport plugin with the DomainParticipant.
Related to these features	Transport

dds.transport.zrtps.create_function	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Must be set to ZRTPS_Transport_create_plugin.
Related to these features	Transport

dds.transport.zrtps.external_library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Sets the name of a user's external library that is to be located and used by the ZRTPS transport plugin.
Related to these features	Transport

dds.transport.zrtps.high_mark	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`512`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the size for small, medium, and large RTPS packages.
Related to these features	Transport

dds.transport.zrtps.library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	The value must be rtizrtps.
Related to these features	Transport

dds.transport.zrtps.low_mark	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`128`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the size for small, medium, and large RTPS packages.
Related to these features	Transport

dds.transport.zrtps.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	Transport

dds.transport.zrtps.subtransport	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*\\|UDPv4`
Description	The required property, dds.transport.zrtps.subtransport, specifies the plugin to be loaded by the ZRTPS transport. Supported subtransports are UDPv4 or a user-specified transport. Connext DDS builtin transports other than UDPv4 are not currently supported as subtransports. Once you set the value for a subtransport, the names of all the properties for that subtransport should be in the form dds.transport.lbrtps.<subtransport>.<property>.
Related to these features	Transport

dds.transport.zrtps.verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[INT_MIN,INT_MAX]`
Description	The verbosity for the plugin, for debugging purposes.
Related to these features	Transport

compression_level

dds.transport.zrtps.compression_level.large_packets	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`9`
Min-Max value	`[1,9]`
Description	Defines the compression level that the compression algorithm will use for large RTPS packages.
Related to these features	Transport

dds.transport.zrtps.compression_level.medium_packets	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`9`
Min-Max value	`[1,9]`
Description	Defines the compression level that the compression algorithm will use for medium RTPS packages.
Related to these features	Transport

dds.transport.zrtps.compression_level.small_packets	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`9`
Min-Max value	`[1,9]`
Description	Defines the compression level that the compression algorithm will use for small RTPS packages.
Related to these features	Transport

compression_library

dds.transport.zrtps.compression_library.large_packets	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`ZLIB_COMPRESSION`
Possible values	`BZIP2_COMPRESSION` `EXTERNAL_COMPRESSION` `AUTOMATIC_COMPRESSION` `ZLIB_COMPRESSION`
Description	Specifies the compression algorithm to be used for large RTPS packages.
Related to these features	Transport

dds.transport.zrtps.compression_library.medium_packets	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`ZLIB_COMPRESSION`
Possible values	`BZIP2_COMPRESSION` `EXTERNAL_COMPRESSION` `AUTOMATIC_COMPRESSION` `ZLIB_COMPRESSION`
Description	Specifies the compression algorithm to be used for medium RTPS packages.
Related to these features	Transport

dds.transport.zrtps.compression_library.small_packets	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`ZLIB_COMPRESSION`
Possible values	`BZIP2_COMPRESSION` `EXTERNAL_COMPRESSION` `AUTOMATIC_COMPRESSION` `ZLIB_COMPRESSION`
Description	Specifies the compression algorithm to be used for small RTPS packages.
Related to these features	Transport

2.17 dds.type_consistency

dds.type_consistency.ignore_member_names	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Controls whether member names are taken into consideration for type assignability.
Related to these features	Type System
The property has been deprecated by	<datareader_qos><type_consistency><ignore_member_names>

dds.type_consistency.ignore_sequence_bounds	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Controls whether sequence bounds are taken into consideration for type assignability.
Related to these features	Type System
The property has been deprecated by	<datareader_qos><type_consistency><ignore_sequence_bounds>

2.18 rti.monitor

rti.monitor.create_function	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`RTIDefaultMonitor_create`
Related to these features	Monitor

rti.monitor.create_function_ptr	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	pointer
Default Value	`NULL`
Related to these features	Monitor

rti.monitor.library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`rtimonitoring`
Related to these features	Monitor

2.18.1 config

rti.monitor.config.get_process_statistics	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`true` `false`
Description	This boolean value specifies whether or not Monitoring Library should collect CPU and memory usage statistics for the process in the topic rti/dds/monitoring/domainParticipantDescription.
Related to these features	Monitor

rti.monitor.config.new_participant_domain_id	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[0,255]`
Description	To create a separate participant that will be used to publish monitoring information in the application, set this to the domain ID that you want to use for the newly created participant.
Related to these features	Monitor

rti.monitor.config.publish_period	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`5`
Min-Max value	`[0,INT_MAX]`
Description	Period of time to sample and publish all monitoring topics, in units of seconds.
Related to these features	Monitor

rti.monitor.config.publish_thread_options	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	mask
Default Value	`FLOATING_POINT | STDIO`
Possible values	`STDIO FLOATING_POINT REALTIME_PRIORITY PRIORITY_ENFORCE`
Description	Describes the type of thread.
Related to these features	Monitor

rti.monitor.config.publish_thread_priority	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`RTI_OSAPI_THREAD_PRIORITY_BELOW_NORMAL`
Description	Priority of the thread used to sample and publish monitoring data.
Related to these features	Monitor

rti.monitor.config.publish_thread_stacksize	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`RTI_OSAPI_THREAD_STACK_SIZE_DEFAULT`
Description	Stack size used for the thread that samples and publishes monitoring data.
Related to these features	Monitor

rti.monitor.config.qos_library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Specifies the name of the QoS library that you want to use for creating entities in the monitoring library (if you do not want to use default QoS values as set by the monitoring library).
Related to these features	Monitor

rti.monitor.config.qos_profile	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Specifies the name of the QoS profile that you want to use for creating entities in the monitoring library (if you do not want to use the default QoS values).
Related to these features	Monitor

rti.monitor.config.reset_status_change_counts	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`true` `false`
Description	Monitoring Library obtains all statuses of all entities in the Connext DDS application. This boolean value controls whether or not the change counts in those statuses are reset by Monitoring Library.
Related to these features	Monitor

rti.monitor.config.skip_monitor_entities	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`true` `false`
Description	This boolean value controls whether or not the entities created internally by Monitoring Library should be included in the entity counts published by the participant entity statistics topic.
Related to these features	Monitor

rti.monitor.config.skip_participant_properties	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`true` `false`
Description	If set to true, DomainParticipant PropertyQosPolicy name and value pairs will not be sent out through the domainParticipantDescriptionTopic.
Related to these features	Monitor

rti.monitor.config.skip_reader_properties	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`true` `false`
Related to these features	Monitor

rti.monitor.config.skip_writer_properties	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`true` `false`
Description	If set to true, DataReader PropertyQosPolicy name and value pairs will not be sent out through the dataReaderDescriptionTopic.
Related to these features	Monitor

rti.monitor.config.topics	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Filter for monitoring topics, with regular expression matching syntax as specified in the Connext DDS documentation (similar to the POSIX fnmatch syntax).
Related to these features	Monitor

rti.monitor.config.usertopics	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Filter for user topics, with regular expression matching syntax as specified in the Connext DDS documentation (similar to the POSIX fnmatch syntax).
Related to these features	Monitor

rti.monitor.config.verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[-1,INT_MAX]`
Description	Sets the verbosity on the monitoring library for debugging purposes.
Related to these features	Monitor Logging

rti.monitor.con-fig.writer_pool_buffer_max_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[-1,INT_MAX]`
Description	Controls the threshold at which dynamic memory allocation is used, expressed as a number of bytes.
Related to these features	Monitor

Chapter 3

List of Properties by Entity

3.1 DomainParticipant

3.1.1 com.rti.serv

com.rti.serv.load_plugin	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	The prefix name of the security plugin suite that will be loaded by Connext DDS.
Related to these features	DDS Secure

secure

com.rti.serv.secure.create_function	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Pattern value	`.*`
Description	Must be set to the security plugin suite creation function that is implemented by the library.
Related to these features	DDS Secure

com.rti.serv.secure.create_function_ptr	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Pattern value	`.*`
Description	Must be set to the security plugin suite creation function implemented by the library.
Related to these features	DDS Secure

com.rti.serv.secure.library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Pattern value	`.*`
Description	Must be set to the dynamic library that implements the security plugin suite.
Related to these features	DDS Secure

com.rti.serv.secure.license_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`NULL`
Pattern value	`.*`
Description	The value for this property can be set to the location (full path and filename) of a license file.
Related to these features	DDS Secure

com.rti.serv.secure.license_string	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`NULL`
Pattern value	`.*`
Description	The value for this property can be set to the content of a license file.
Related to these features	DDS Secure

com.rti.serv.secure.openssl_engine	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`NULL`
Pattern value	`.*`
Description	A semicolon-separated list of dynamic libraries that each implement an OpenSSL engine. Each engine may implement a different set of security functions. For example, one engine may implement certificate management, while another engine may implement cryptographic operations. If the authentication.keyform property value is engine, then the private key must be successfully loaded by exactly one of the engines in this list.
Related to these features	DDS Secure

com.rti.serv.secure.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	DDS Secure

access_control

com.rti.serv.secure.access_control.alternative_permissions_authority_files	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`NULL`
Pattern value	`.*(,.*)*`
Description	A comma-separated list of alternative Permissions CA certificates.
Related to these features	DDS Secure

com.rti.serv.secure.access_control.use_530_logging_protection	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Mutability type	immutable
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	How to set the value of <metadata_protection_kind> for the Builtin Logging Topic.
Related to these features	DDS Secure

com.rti.serv.secure.access_control.use_530_partitions	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Mutability type	immutable
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	How to determine a match between a DataWriter's or DataReader's partitions and an 'allowed partitions' condition in a Permissions Document.
Related to these features	DDS Secure

com.rti.serv.secure.access_control.use_530_permissions_rules_precedence	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Mutability type	immutable
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	How to deal with conflicting allow/deny rules in a Permissions Document when checking if a topic or endpoint may exist.
Related to these features	DDS Secure

com.rti.serv.secure.access_control.use_610_permissions_rules_precedence	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Mutability type	immutable
Default Value	`auto`
Possible values	`0` `1` `TRUE` `FALSE` `YES` `NO` `AUTO` `auto`
Description	How to deal with conflicting allow/deny rules in a Permissions Document when checking if a DomainParticipant may exist.
Related to these features	DDS Secure

authentication

com.rti.serv.secure.authentication.alternative_ca_files	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`NULL`
Pattern value	`.*(,.*)*`
Description	A comma-separated list of alternative Identity CA certificates.
Related to these features	DDS Secure

com.rti.serv.secure.authentication.crl	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	mutable
Default Value	`NULL`
Pattern value	`.*`
Description	This Certificate Revocation List keeps track of untrusted X.509 certificates.
Related to these features	DDS Secure

com.rti.serv.secure.authentication.enable_custom_algorithms	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Mutability type	immutable
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Configures whether to enable custom cryptographic algorithms for the Authentication plugin. When enabled (not by default) the Security Plugins will enable additional digital signature and key establishment algorithms that are not part of the DDS Security specification (EDDSA+ED25519+SHA512, EDDSA+ED448+SHAKE256, ECDHE-CEUM+X25519, ECDHE-CEUM+X448). Currently only supported in combination with OpenSSL: this property will have no effect when used in combination with wolfSSL.
Related to these features	DDS Secure

com.rti.serv.secure.authentication.enable_custom_allocators	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Mutability type	immutable
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Configures whether to set custom crypto library (e.g., OpenSSL) allocators. When enabled (not the default) the Security Plugins will configure custom allocator functions (alloc, realloc, free) to the loaded crypto library with the goal of reducing memory fragmentation at the cost of a minimum performance impact. This is currently only supported in combination with OpenSSL. This property is only effective the first time a DomainParticipant loads the Security Plugins within the same process: subsequent DomainParticipant creations will ignore this property and leave the existing configuration unchanged. Moreover, this property is only effective if no allocation has been done with the crypto library builtin allocators before the Security Plugins have been loaded, otherwise a warning will be logged and no change will be made. Important: since the allocator functions live within the Security Plugins library, your application must not make any calls to the crypto library once the Security Plugins have been unloaded from memory.
Related to these features	DDS Secure

com.rti.serv.secure.authentication.key_establishment_algorithm	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Mutability type	immutable
Default Value	`AUTO`
Possible values	`AUTO` `DHE+MODP-2048-256` `ECDHE-CEUM+P256` `ECDHE-CEUM+P384`
Description	The algorithm used to establish a shared secret during authentication.
Related to these features	DDS Secure

com.rti.serv.secure.authentication.keyform	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Mutability type	immutable
Default Value	`pem`
Possible values	`engine` `pem`
Description	The format of the private key specified by dds.sec.auth.private_key. If the value is engine, then the openssl_engine property must be set, and the private key must be successfully loaded by exactly one of the engines in that list.
Related to these features	DDS Secure

com.rti.serv.secure.authentication.participant_discovery_protection_key	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`NULL`
Pattern value	`.*`
Description	Sets the static HMAC key used to compute participant discovery signatures.
Related to these features	DDS Secure

com.rti.serv.secure.authentication.propagate_simplified_identity_certificate	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Mutability type	immutable
Default Value	`true`
Possible values	`0` `1` `TRUE` `FALSE` `YES` `NO`
Description	Indicates whether the identity certificate should be simplified
Related to these features	DDS Secure

com.rti.serv.secure.authentication.rsa_pss_pad	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Mutability type	immutable
Default Value	`TRUE`
Possible values	`0` `1` `TRUE` `FALSE` `YES` `NO` `AUTO` `auto`
Description	Configures whether to use RSA PSS padding or standard RSA padding during authentication
Related to these features	DDS Secure

com.rti.serv.secure.authentication.shared_secret_algorithm	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Mutability type	immutable
Default Value	`ecdh`
Possible values	`dh` `ecdh`
Description	The algorithm used to establish a shared secret during authentication. This property is deprecated. Instead, use authentication.key_establishment_algorithm.
Related to these features	DDS Secure
The property has been deprecated in version	7.0.0

cryptography

com.rti.serv.secure.cryptography.encryption_algorithm	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`AES256+GCM`
Possible values	`AES128+GCM` `AES192+GCM` `AES256+GCM` `aes-128-gcm` `aes-192-gcm` `aes-256-gcm`
Description	The algorithm used for encrypting and decrypting data and metadata.
Related to these features	DDS Secure

com.rti.serv.secure.cryptography.max_blocks_per_session	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned long long
Mutability type	immutable
Default Value	`0xffffffffffffffff`
Min-Max value	`[1,ULLONG_MAX]`
Description	The number of message blocks that can be encrypted with the same key material.
Related to these features	DDS Secure

com.rti.serv.secure.cryptography.max_receiver_specific_macs	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Mutability type	immutable
Default Value	`0`
Min-Max value	`[0,3275]`
Description	The maximum number of receiver-specific Message Authentication Codes (MACs) that are appended to an encoded result.
Related to these features	DDS Secure

com.rti.serv.secure.cryptography.rtps_protection_key	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`NULL`
Pattern value	`.*`
Description	Sets the static HMAC key used to compute message signatures. This property is applied when hmac_only.enabled is false.
Related to these features	DDS Secure

com.rti.serv.secure.cryptography.share_key_for_metadata_and_data_protection	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Mutability type	immutable
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Indicator of whether the metadata and data encoding operations share the same key material or use different keys.
Related to these features	DDS Secure

hmac_only

com.rti.serv.secure.hmac_only.enabled	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Mutability type	immutable
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Enables or disables the HMAC-only mode.
Related to these features	DDS Secure

hmac_only.cryptography

com.rti.serv.secure.hmac_only.cryptography.key	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`NULL`
Pattern value	`.*`
Description	Sets the static HMAC key used to compute message signatures.
Related to these features	DDS Secure

com.rti.serv.secure.hmac_only.cryptography.max_blocks_per_session	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Mutability type	immutable
Default Value	`0xffffffffffffffff`
Min-Max value	`[1,ULLONG_MAX]`
Description	For signing RTPS messages, HMAC-only mode uses a key derived from the HMAC key and a sessionId that is serialized as part of the signed RTPS message representation.
Related to these features	DDS Secure

logging

com.rti.serv.secure.logging.log_level	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Mutability type	immutable
Default Value	`3`
Min-Max value	`[0,7]`
Description	The logging verbosity level.
Related to these features	DDS Secure Logging
The property has been deprecated by	com.rti.serv.secure.logging.verbosity

com.rti.serv.secure.logging.mode_mask	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	mask
Mutability type	immutable
Default Value	`BUILTIN`
Possible values	`BUILTIN` `SECURITY_TOPIC`
Description	The mask to determine the logging mode(s).
Related to these features	DDS Secure Logging

com.rti.serv.secure.logging.verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Mutability type	immutable
Default Value	`ERROR`
Possible values	`SILENT` `EMERGENCY` `ALERT` `CRITICAL` `ERROR` `WARNING` `NOTICE` `INFORMATIONAL` `DEBUG`
Description	The logging verbosity level
Related to these features	DDS Secure Logging

logging.security_topic

com.rti.serv.secure.logging.security_topic.profile	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`NULL`
Pattern value	`.*`
Description	QoS Library and QoS profile used to create logging-related entities (Publisher, Topic and DataWriter).
Related to these features	DDS Secure Logging

logging.security_topic.queue

com.rti.serv.secure.logging.security_topic.queue.message_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Mutability type	immutable
Default Value	`64`
Min-Max value	`[0,UINT_MAX]`
Description	Maximum number of log messages in the logging queue.
Related to these features	DDS Secure Logging

com.rti.serv.secure.logging.security_topic.queue.message_size_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Mutability type	immutable
Default Value	`792`
Min-Max value	`[27,UINT_MAX]`
Description	Maximum serialized size of a log message in the logging queue.
Related to these features	DDS Secure Logging

com.rti.serv.secure.logging.security_topic.queue.size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Mutability type	immutable
Default Value	`50688`
Min-Max value	`[0,UINT_MAX]`
Description	Size of the logging thread queue, in bytes.
Related to these features	DDS Secure Logging

logging.security_topic.thread

com.rti.serv.secure.logging.security_topic.thread.message_threshold	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Mutability type	immutable
Default Value	`256`
Min-Max value	`[0,UINT_MAX]`
Description	Number of bytes to preallocate for the logging message string in the logging thread, beyond which dynamic allocation will occur.
Related to these features	DDS Secure Logging

com.rti.serv.secure.logging.security_topic.thread.plugin_method_threshold	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Mutability type	immutable
Default Value	`80`
Min-Max value	`[0,UINT_MAX]`
Description	Number of bytes to preallocate for the plugin method string in the logging thread, beyond which dynamic allocation will occur.
Related to these features	DDS Secure Logging

3.1.2 dds.builtin_type

dds.builtin_type.auto_register	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Register automatically the built-in types when a DomainParticipant is created.
Related to these features	Builtin Type

3.1.3 dds.clock

dds.clock.external_clock	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`realtime`
Possible values	`realtime` `system` `monotonic`
Description	Comma-delimited list of clocks to use for the external clock, in the order of preference.
Related to these features	Clock

dds.clock.internal_clock	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`realtime`
Possible values	`realtime` `system` `monotonic`
Description	Comma-delimited list of clocks to use for the internal clock, in the order of preference.
Related to these features	Clock

3.1.4 dds.discovery.endpoint

dds.discovery.end-point.load_plugins	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	String indicating the prefix name of the plugin that will be loaded by Connext DDS.
Related to these features	Discovery

lbediscovery

dds.discovery.endpoint.lbediscovery.config_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.+\.xml`
Description	The name of the discovery configuration file.
Related to these features	Discovery

dds.discovery.endpoint.lbediscovery.create_function	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	The name of the function that will be called by Connext DDS to create an instance of the LBED plugin.
Related to these features	Discovery

dds.discovery.endpoint.lbediscovery.library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	The name of the dynamic library that contains the LBED plugin implementation.
Related to these features	Discovery

dds.discovery.endpoint.lbediscovery.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	Discovery

dds.discovery.endpoint.lbedis-covery.verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[-1,INT_MAX]`
Description	The verbosity for the plugin, for debugging purposes.
Related to these features	Discovery Logging

3.1.5 dds.discovery.participant

dds.discovery.partici-pant.load_plugins	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	String indicating the prefix name of the plugin that will be loaded by Connext DDS.
Related to these features	Discovery

lbpdiscovery

dds.discovery.participant.lbpdis-covery.config_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.+\.xml`
Description	The name of the discovery configuration file.
Related to these features	Discovery

dds.discovery.participant.lbpdis-covery.create_function	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	The name of the function that will be called by Connext DDS to create an instance of the LBPD plugin.
Related to these features	Discovery

dds.discovery.participant.lbpdiscovery.library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	The name of the dynamic library that contains the LBPD plugin implementation.
Related to these features	Discovery

dds.discovery.participant.lbpdiscovery.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	Discovery

dds.discovery.participant.lbpdiscovery.verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[-1,INT_MAX]`
Description	The verbosity for the plugin, for debugging purposes.
Related to these features	Discovery Logging

3.1.6 dds.domain_participant

dds.domain_participant.asynchronous_publisher_thread_destruction_timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`10`
Min-Max value	`[0,60]`
Related to these features	Flow Controller

dds.domain_participant.domain_tag	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`^.{0,255}$`
Description	A string defining the Domain Tag the DomainParticipant will propagate through Participant Discovery.
Related to these features	Discovery

dds.domain_participant.filtering_character_encoding	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`UTF-8`
Possible values	`UTF-8` `ISO_8859`
Description	Select the character encoding for filtering
Related to these features	Filtering

dds.domain_participant.filtering_unicode_normalization	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`NFC`
Possible values	`OFF` `NFD` `NFC` `NFKD` `NFKC` `NFKC_Casefold`
Description	Select Unicode normalization for filter evaluation
Related to these features	Filtering

dds.domain_participant.max_announced_locator_list_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`16`
Min-Max value	`[0,16]`
Description	A sequence of multicast settings used to configure the multicast addresses associated with a channel.
Related to these features	Discovery

dds.domain_participant.network_interface_event_notification_delay	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,60000]`
Description	Delays the DomainParticipant announcements that include a new interface for the number of milliseconds in the value of the property.
Related to these features	Discovery

auto_throttle

dds.domain_participant.auto_throttle.enable	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Configures the DomainParticipant to gather internal measurements (during DomainParticipant creation) that are required for the Auto Throttle feature.
Related to these features	Reliability

3.1.7 dds.flow_controller.token_bucket.<flow_controller_name>

dds.flow_controller.token_bucket.<flow_controller_name>.scheduling_policy	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	enum
Default Value	`DDS_EDF_FLOW_CONTROLLER_SCHED_POLICY`

Possible values	`DDS_RR_FLOW_CONTROLLER_SCHED_POLICY`
	`DDS_EDF_FLOW_CONTROLLER_SCHED_POLICY`
	`DDS_HPF_FLOW_CONTROLLER_SCHED_POLICY`

Description	Specifies the scheduling policy to be used.
Related to these features	Flow Controller

token_bucket

dds.flow_controller.token_bucket.<flow_controller_name>.token_bucket.bytes_per_token	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	integer
Default Value	`-1`
Min-Max value	`[0,INT_MAX]`
Description	Maximum number of bytes allowed to send for each token available.
Related to these features	Flow Controller

dds.flow_controller.token_bucket.<flow_controller_name>.token_bucket.max_tokens	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	integer
Default Value	`-1`
Min-Max value	`[0,INT_MAX]`
Description	Maximum number of tokens than can accumulate in the token bucket.
Related to these features	Flow Controller

dds.flow_controller.token_bucket.<flow_controller_name>.token_bucket.tokens_added_per_period	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	integer
Default Value	`-1`
Min-Max value	`[-1,INT_MAX]`
Description	Number of tokens added to the token bucket per specified period.
Related to these features	Flow Controller

dds.flow_controller.token_bucket.<flow_controller_name>.token_bucket.tokens_leaked_per_period	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Number of tokens removed from the token bucket per specified period.
Related to these features	Flow Controller

period

dds.flow_controller.token_bucket.<flow_controller_name>.token_bucket.period.nanosec	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	unsigned integer
Default Value	`0`
Min-Max value	`[0,UINT_MAX]`
Description	Period for adding tokens to and removing tokens from the bucket in nanoseconds.
Related to these features	Flow Controller

dds.flow_controller.token_bucket.<flow_controller_name>.token_bucket.period.sec	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	integer
Default Value	`1`
Min-Max value	`[0,INT_MAX]`
Description	Period for adding tokens to and removing tokens from the bucket in seconds.
Related to these features	Flow Controller

3.1.8 dds.license

dds.license.license_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Pattern value	`.*`
Description	Sets the path to the license file
Related to these features	License

dds.license.license_string	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Sets the contents of the license.
Related to these features	License

3.1.9 dds.participant

dds.participant.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	Other

dds.participant.use_45d_compatible_alignment_enforcement	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0` `1` `TRUE` `FALSE` `YES` `NO`
Description	Accept RTPS messages with wrong alignment incorrectly.
Related to these features	Type System

builtin_data_writer.protocol

dds.participant.builtin_data_writer.protocol.disable_repair_piggyback_heartbeat	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents piggyback HBs from being sent with repair samples for builtin discovery topics
Related to these features	Reliability
The property has been promoted to	<domain_participant_qos><discovery_config><publication_writer><disable_repair_piggyback_heartbeat>

discovery_config

dds.participant.discovery_config.disable_endpoint_security_info_propagation	
May be set in	DomainParticipant
Applies to	DomainParticipant DataReader DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Participant may communicate for some combinations of inconsistent metadata/data protection kinds.
Related to these features	Discovery

dds.participant.discovery_config.disable_participant_security_info_propagation	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Participants may communicate for some combinations of inconsistent Governance's RTPS, discovery, and liveliness configurations.
Related to these features	Discovery

dds.participant.discovery_config.force_endpoint_announcement_on_ip_mobility_event	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Forces the sending of endpoint discovery announcements when there is an IP mobility event.
Related to these features	Discovery

dds.participant.discovery_config.use_stateless_participant_discovery_reader	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	If TRUE, makes Simple Participant Discovery robust against Sequence Number Attacks by switching the local Simple Participant Discovery DataReader's mode to pure stateless.
Related to these features	Discovery

inter_participant_data_reader.protocol

dds.participant.inter_participant_data_reader.protocol.disable_preemptive_nack	
May be set in	DomainParticipant
Applies to	DomainParticipant DataReader
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Disable preemptive Heartbeats and NACKs.
Related to these features	Discovery Reliability

inter_participant_data_writer.protocol

dds.participant.inter_participant_data_writer.protocol.disable_preemptive_heartbeat	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	boolean
Default Value	`false`
Possible values	`0` `1` `TRUE` `FALSE` `YES` `NO`
Description	Disable preemptive Heartbeats and NACKs.
Related to these features	Discovery Reliability

logging.time_based_logging.authentication

dds.participant.logging.time_based_logging.authentication.timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`INT_MAX`
Min-Max value	`[0,INT_MAX]`
Description	Print warning message when the authentication operation time exceeds this time threshold.
Related to these features	DDS Secure Logging

logging.time_based_logging.event

dds.participant.logging.time_based_logging.event.timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`INT_MAX`
Min-Max value	`[0,INT_MAX]`
Description	Print warning message when the event start/execution time exceeds this time threshold.
Related to these features	Logging

logging.time_based_logging.process_received_message

dds.participant.logging.time_based_logging.process_received_message.timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`INT_MAX`
Min-Max value	`[0,INT_MAX]`
Description	Print warning message when processing a received message operation exceeds this time threshold.
Related to these features	Transport Logging

dds.participant.logging.time_based_logging.process_received_message.tracked_ports	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Print warning message when the processing of a received message on a specific port exceeds the time threshold set in dds.participant.logging.time_based_logging.process_received_message.timeout.
Related to these features	Logging Transport

logging.time_based_logging.send

dds.participant.logging.time_based_logging.send.timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`INT_MAX`
Min-Max value	`[0,INT_MAX]`
Description	Print warning message when send operation time exceeds this time threshold.
Related to these features	Transport Logging

protocol

dds.participant.protocol.rtps_overhead	
May be set in	DomainParticipant
Applies to	DataWriter DomainParticipant
Type	integer
Default Value	`512`
Min-Max value	`[0,INT_MAX]`
Description	Used to adjust the overhead of the RTPS protocol without including security.
Related to these features	Reliability

trust_plugins.authentication_request_delay

dds.participant.trust_plugins.authentication_request_delay.sec	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`5`
Min-Max value	`[0,INT_MAX]`
Description	Controls the delay in seconds before sending an authentication_request to the remote participant.
Related to these features	DDS Secure

trust_plugins.authentication_request_timeout

dds.participant.trust_plugins.authentication_request_timeout.sec	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`20`
Min-Max value	`[0,INT_MAX]`
Description	It determines the timeout (in seconds) for authentication negotiations started from an authentication request message (authentication request is a DDS Security 1.1 mechanism to securely recover from an asymmetric liveliness loss). If set to a value greater than authentication_timeout, then it will be set to authentication_timeout.
Related to these features	DDS Secure

trust_plugins.authentication_timeout

dds.participant.trust_plugins.authentication_timeout.sec	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`60`
Min-Max value	`[0,INT_MAX]`
Description	Controls the maximum time in seconds that an ongoing authentication can remain without completing.
Related to these features	DDS Secure

3.1.10 dds.sec.access

dds.sec.access.governance	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`[file:|data:,].*`
Description	The signed document that specifies the level of security required per domain and per topic.
Related to these features	DDS Secure

dds.sec.access.permissions	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`[file:|data:,].*`
Description	The signed document that specifies the access control permissions per domain and per topic.
Related to these features	DDS Secure

dds.sec.access.permissions_ca	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`[file:|data:,].*`
Description	This Permissions Certificate Authority is used for signing access control governance and permissions XML files and verifying the signatures of those files.
Related to these features	DDS Secure

3.1.11 dds.sec.auth

dds.sec.auth.identity_ca	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`[file:|data:,].*`
Description	This Identity Certificate Authority is used for signing authentication certificate files.
Related to these features	DDS Secure

dds.sec.auth.identity_certificate	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`[file:|data:,].*`
Description	The private key associated with the first certificate.
Related to these features	DDS Secure

dds.sec.auth.password	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	The password used to decrypt the private_key.
Related to these features	DDS Secure

dds.sec.auth.private_key	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`[file:|data:,].*`
Description	The private key associated with the first certificate.
Related to these features	DDS Secure

3.1.12 dds.sys_info

dds.sys_info.creation_timestamp	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Min-Max value	`[0,9999]`
Description	Time when the executable was created.
Related to these features	System Info Default Discovery Propagation

dds.sys_info.executable_filepath	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Name and full path of the executable.
Related to these features	System Info Default Discovery Propagation

dds.sys_info.execution_times-tamp	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Min-Max value	`[0,9999]`
Description	Time when the execution started.
Related to these features	System Info Default Discovery Propagation

dds.sys_info.hostname	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Hostname
Related to these features	System Info Default Discovery Propagation

dds.sys_info.process_id	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Min-Max value	`[0,UINT_MAX]`
Description	Process ID
Related to these features	System Info Default Discovery Propagation

dds.sys_info.target	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Architecture for which the library was compiled.
Related to these features	System Info Default Discovery Propagation

dds.sys_info.username	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Username that is running the process.
Related to these features	System Info Default Discovery Propagation

3.1.13 dds.transport

dds.transport.load_plugins	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Comma-separated strings indicating the prefix names of all plugins that will be loaded by Connext DDS.
Related to these features	Transport

dds.transport.minimum_compatibility_version	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`6.0.0`
Pattern value	`.*`
Description	Minimum version that the transport should be compatible with.
Related to these features	Transport Builtin Transport

dds.transport.use_510_compatible_locator_kinds	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Communicate between Connext DDS 5.2.0 and previous releases. This property is still supported, but deprecated in favour of dds.transport.minimum_compatibility_version.
Related to these features	Transport
The property has been deprecated in version	6.1.0

DTLS.dtls1

dds.transport.DTLS.dtls1.aliases	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`Plugin Name`
Pattern value	`.*`
Description	Used to register the transport plugin returned by NDDS_Transport_DTLS_create() to the DomainParticipant.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.create_function	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Must be 'NDDS_Transport_DTLS_create'
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.create_function_ptr	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	pointer
Default Value	`NULL`
Description	Defines the function pointer to the DTLS transport plugin creation function.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.disable_interface_tracking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Disables detection of network interface changes.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.dtls_connection_liveliness_interval	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`60`
Min-Max value	`[0,UINT_MAX]`
Description	Liveliness interval (multiple of resend interval)
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.dtls_handshake_resend_interval	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`1000`
Min-Max value	`[0,UINT_MAX]`
Description	DTLS handshake retransmission interval in milliseconds.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.force_interface_poll_detection	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Forces the interface tracker to use a polling method to detect changes to the network interfaces in IP mobility scenarios.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.ignore_loopback_interface	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Possible values	`-1 0 1`
Description	Prevents the transport plugin from using the IP loopback interface.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.ignore_nonrunning_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Possible values	`0 1`
Description	Prevents the transport plugin from using a network interface that is not reported as RUNNING by the operating system.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.interface_poll_period	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`500`
Min-Max value	`[0,UINT_MAX]`
Description	Specifies the period in milliseconds to query for changes in the state of all the interfaces.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.join_multicast_group_timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`5000`
Min-Max value	`[0,UINT_MAX]`
Description	Controls how long Connext DDS will retry to join a multicast group with a new network interface before withdrawing.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Must set to 'libnddstransporttls.so' (for Linux systems), 'libnddstransporttls.dylib' (for macOS systems), or 'nddstransporttls.dll' (for Windows systems).
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.network_address	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`0.0.0.0`
Min-Max value	`[0,255]`
Description	The network address at which to register this transport plugin.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.port_offset	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`144`
Min-Max value	`[0,INT_MAX]`
Description	Port offset to allow coexistence with non-secure UDP transport.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.recv_decode_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`65507`
Min-Max value	`[0,INT_MAX]`
Description	Size of buffer for decoding packets from wire.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.recv_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[0,INT_MAX]`
Description	Size in bytes of the receive buffer of a socket used for sending.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.security_verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[-1,INT_MAX]`
Description	Specifies the verbosity of security related log messages from the transport.
Related to these features	Transport Transport Secure Logging

dds.transport.DTLS.dtls1.send_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[0,INT_MAX]`
Description	Size in bytes of the send buffer of a socket used for sending.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.transport_priority_mapping_high	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0xFF`
Min-Max value	`[0,INT_MAX]`
Description	Sets the high value of the output range to IPv4 TOS.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.transport_priority_mapping_low	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Sets the low value of the output range to IPv4 TOS.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.transport_priority_mask	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`0`
Min-Max value	`[0,UINT_MAX]`
Description	Mask for use of transport priority field.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[-1,INT_MAX]`
Description	Specifies the verbosity of log messages from the transport.
Related to these features	Transport Transport Secure Logging

parent

dds.transport.DTLS.dtls1.parent.allow_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.parent.deny_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.parent.gather_send_buffer_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`16`
Min-Max value	`[INT_MIN,INT_MAX]`
Description	Specifies the maximum number of buffers that Connext DDS can pass to the transport plugin's send() function.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.parent.message_size_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`16384`
Min-Max value	`[0,16384]`
Description	The maximum size of a message in bytes that can be sent or received by the transport plugin.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.parent.properties_bitmap	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[INT_MIN,INT_MAX]`
Description	A bitmap that defines various properties of the transport to the Connext DDS core.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.parent.thread_name_prefix	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`rTr#####`
Pattern value	`^.{0,8}$`
Description	Prefix used to name the transport threads.
Related to these features	Transport Transport Secure

tls.cipher

dds.transport.DTLS.dtls1.tls.cipher.cipher_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	List of available DTLS ciphers when communicating with 6.0.0 or below.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.cipher.ciphersuites	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	List of available TLS ciphersuites when communicating with Connext DDS 6.0.1 or above.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.cipher.dh_param_files	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Possible values	`0-9`
Description	List of available Diffie-Hellman (DH) key files.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.cipher.engine_id	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	String ID of OpenSSL cipher engine to request.
Related to these features	Transport Transport Secure

tls.identity

dds.transport.DTLS.dtls1.tls.identity.certificate_chain_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the name of a file containing an identifying certificate chain (in PEM format).
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.identity.private_key_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the name of a file containing a private key (in PEM format)
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.identity.private_key_password	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the password for the private key.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.identity.rsa_private_key_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the name of a file containing an RSA private key (in PEM format).
Related to these features	Transport

tls.verify

dds.transport.DTLS.dtls1.tls.verify.ca_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the name of a file containing Certificate Authority certificates.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.verify.ca_path	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies paths to directories containing Certificate Authority certificates.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.verify.callback	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`NULL`
Possible values	`default` `verbose` `none`
Description	NDDS_Transport_TLS_default_verify_callback()
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.verify.verify_depth	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[0,INT_MAX]`
Description	Maximum certificate chain length for verification.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.verify.verify_peer	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	If non-zero, use mutual authentication when performing TLS handshake (default).
Related to these features	Transport Transport Secure

TCPv4.tcp1

dds.transport.TCPv4.tcp1.aliases	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*[,.*]*`
Description	Used to register the transport plugin returned by NDDS_Transport_TCPv4_create() (as specified by <TCP_prefix>.create_function) to the DomainParticipant.
Related to these features	Transport

dds.transport.TCPv4.tcp1.bind_interface_address	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	The TCP transport can be configured to bind all sockets to a specified interface.
Related to these features	Transport

dds.transport.TCPv4.tcp1.client_connection_negotiation_timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`10`
Min-Max value	`[1,INT_MAX]`
Description	Timeout (in seconds) for negotiating a client data connection.
Related to these features	Transport

dds.transport.TCPv4.tcp1.create_function	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	If used, must be “NDDS_Transport_TCPv4_create”.
Related to these features	Transport

dds.transport.TCPv4.tcp1.create_function_ptr	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Defines the function pointer to the TCP transport plugin creation function.
Related to these features	Transport

dds.transport.TCPv4.tcp1.disable_interface_tracking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Disables detection of network interface changes.
Related to these features	Transport

dds.transport.TCPv4.tcp1.disable_nagle	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Disables the TCP nagle algorithm.
Related to these features	Transport

dds.transport.TCPv4.tcp1.enable_keep_alive	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Configures the sending of KEEP_ALIVE messages in TCP.
Related to these features	Transport

dds.transport.TCPv4.tcp1.force_asynchronous_send	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Forces asynchronous send.
Related to these features	Transport

dds.transport.TCPv4.tcp1.force_crc_check	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	When set to 1, forces the checking of the CRC for received RTI TCP messages.
Related to these features	Transport

dds.transport.TCPv4.tcp1.force_interface_poll_detection	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Forces the interface tracker to use a polling method to detect changes to the network interfaces in IP mobility scenarios.
Related to these features	Transport

dds.transport.TCPv4.tcp1.ignore_loopback_interface	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from using the IP loopback interface.
Related to these features	Transport

dds.transport.TCPv4.tcp1.ignore_nonrunning_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from using a network interface that is not reported as RUNNING by the operating system.
Related to these features	Transport

dds.transport.TCPv4.tcp1.initial_handshake_timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`10`
Min-Max value	`[1,INT_MAX]`
Description	Timeout (in seconds) for the initial handshake for a connection.
Related to these features	Transport

dds.transport.TCPv4.tcp1.interface_poll_period	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`500`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the period in milliseconds to query for changes in the state of all the interfaces.
Related to these features	Transport

dds.transport.TCPv4.tcp1.keep_alive_interval	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Specifies the interval in seconds between KEEP_ALIVE retries.
Related to these features	Transport

dds.transport.TCPv4.tcp1.keep_alive_retry_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	The maximum number of KEEP_ALIVE retries before dropping the connection.
Related to these features	Transport

dds.transport.TCPv4.tcp1.keep_alive_time	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Specifies the interval of inactivity in seconds that causes TCP to generate a KEEP_ALIVE message.
Related to these features	Transport

dds.transport.TCPv4.tcp1.library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	If used, must be 'nddstransporttcp'.
Related to these features	Transport

dds.transport.TCPv4.tcp1.logging_verbosity_bitmap	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	mask
Default Value	`-1`
Min-Max value	`[0,INT_MAX]`
Description	Bitmap that specifies the verbosity of log messages from the transport.
Related to these features	Transport Logging

dds.transport.TCPv4.tcp1.max_packet_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	The maximum size of a TCP segment.
Related to these features	Transport

dds.transport.TCPv4.tcp1.negotiate_session_id	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	When set to 1, the TCP transport plugin will perform a session negotiation that will help external load balancers identify all the connections associated with a particular session between two Connext DDS applications.
Related to these features	Transport

dds.transport.TCPv4.tcp1.outstanding_connection_cookies	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`100`
Min-Max value	`[0,INT_MAX]`
Description	Maximum number of outstanding connection cookies allowed by the transport when acting as a server .
Related to these features	Transport

dds.transport.TCPv4.tcp1.outstanding_connection_cookies_life_span	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[INT_MIN,INT_MAX]`
Description	Maximum lifespan (in seconds) of the cookies associated with pending connections.
Related to these features	Transport

dds.transport.TCPv4.tcp1.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	Transport

dds.transport.TCPv4.tcp1.public_address	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Min-Max value	`[0,255]`
Description	Public IP address and port (WAN address and port) (separated with ':') associated with the transport instantiation.
Related to these features	Transport

dds.transport.TCPv4.tcp1.recv_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Size, in bytes, of the receive buffer of a socket used for receiving.
Related to these features	Transport

dds.transport.TCPv4.tcp1.security_logging_verbosity_bitmap	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	mask
Default Value	`-1`
Min-Max value	`[0,INT_MAX]`
Description	Bitmap that specifies the verbosity of security related log messages from the transport.
Related to these features	Transport Transport Secure Logging

dds.transport.TCPv4.tcp1.send_crc	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	When set to 1, enables the computation of the CRC for sent RTI TCP messages.
Related to these features	Transport

dds.transport.TCPv4.tcp1.send_max_wait_sec	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`3`
Min-Max value	`[0,INT_MAX]`
Description	Controls the maximum time (in seconds) the low-level sendto() function is allowed to block the caller thread when the TCP send buffer becomes full.
Related to these features	Transport

dds.transport.TCPv4.tcp1.send_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Size, in bytes, of the send buffer of a socket used for sending.
Related to these features	Transport

dds.transport.TCPv4.tcp1.server_bind_port	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`7400`
Min-Max value	`[0,INT_MAX]`
Description	Private IP port (inside the LAN) used by the transport to accept TCP connections.
Related to these features	Transport

dds.transport.TCPv4.tcp1.server_connection_negotiation_timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`10`
Min-Max value	`[1,INT_MAX]`
Description	Timeout (in seconds) for negotiating a server data connection.
Related to these features	Transport

dds.transport.TCPv4.tcp1.server_socket_backlog	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`5`
Min-Max value	`[0,INT_MAX]`
Description	The backlog parameter determines what is the maximum length of the queue of pending connections.
Related to these features	Transport

dds.transport.TCPv4.tcp1.shared_write_buffer_allocation	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Indicates if the allocation settings in write_buffer_allocation are global to the transport or per destination.
Related to these features	Transport

dds.transport.TCPv4.tcp1.socket_monitoring_kind	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`SELECT`
Possible values	`SELECT` `WINDOWS_IOCP` `WINDOWS_WAITFORMULTIPLEOBJECTS`
Description	Configures the socket monitoring API used by the transport.
Related to these features	Transport

dds.transport.TCPv4.tcp1.tls_create_function_ptr	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	pointer
Pattern value	`.*`
Description	Defines the function pointer to the TLS Support creation function.
Related to these features	Transport

dds.transport.TCPv4.tcp1.tls_delete_function_ptr	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	pointer
Pattern value	`.*`
Description	Defines the function pointer to the TLS Support deletion function.
Related to these features	Transport

dds.transport.TCPv4.tcp1.transport_priority_mapping_high	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0xFF`
Min-Max value	`[0,INT_MAX]`
Description	Sets the high value of the output range to IPv4 TOS.
Related to these features	Transport

dds.transport.TCPv4.tcp1.transport_priority_mapping_low	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Sets the low value of the output range to IPv4 TOS.
Related to these features	Transport

dds.transport.TCPv4.tcp1.transport_priority_mask	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Mask for the transport priority field.
Related to these features	Transport

dds.transport.TCPv4.tcp1.user_timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Changes the default OS TCP User Timeout configuration.
Related to these features	Transport

connection_liveliness

dds.transport.TCPv4.tcp1.connection_liveliness.assertions_per_lease_duration	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`3`
Min-Max value	`[0,INT_MAX]`
Description	Configures the connection liveliness feature.
Related to these features	Transport

dds.transport.TCPv4.tcp1.connection_liveliness.enable	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Configures the connection liveliness feature.
Related to these features	Transport

dds.transport.TCPv4.tcp1.connection_liveliness.lease_duration	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`10`
Min-Max value	`[0,INT_MAX]`
Description	Configures the connection liveliness feature.
Related to these features	Transport

control_attribute_allocation

dds.transport.TCPv4.tcp1.control_attribute_allocation.incremental_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Allocation settings applied to control message attributes.
Related to these features	Transport

dds.transport.TCPv4.tcp1.control_attribute_allocation.initial_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`2`
Min-Max value	`[0,INT_MAX]`
Description	Allocation settings applied to control message attributes.
Related to these features	Transport

dds.transport.TCPv4.tcp1.control_attribute_allocation.max_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Allocation settings applied to control message attributes.
Related to these features	Transport

control_buffer_allocation

dds.transport.TCPv4.tcp1.control_buffer_allocation.incremental_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Allocation settings applied to buffers used to serialize and send control messages.
Related to these features	Transport

dds.transport.TCPv4.tcp1.control_buffer_allocation.initial_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`2`
Min-Max value	`[0,INT_MAX]`
Description	Allocation settings applied to buffers used to serialize and send control messages.
Related to these features	Transport

dds.transport.TCPv4.tcp1.control_buffer_allocation.max_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Allocation settings applied to buffers used to serialize and send control messages.
Related to these features	Transport

control_message_allocation

dds.transport.TCPv4.tcp1.control_message_allocation.incremental_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[-MIN_INT,MAX_INT]`
Description	Allocation settings applied to control messages.
Related to these features	Transport

dds.transport.TCPv4.tcp1.control_message_allocation.initial_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`2`
Min-Max value	`[0,INT_MAX]`
Description	Allocation settings applied to control messages.
Related to these features	Transport

dds.transport.TCPv4.tcp1.control_message_allocation.max_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Allocation settings applied to control messages.
Related to these features	Transport

event_thread

dds.transport.TCPv4.tcp1.event_thread.mask	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	mask
Default Value	`PRIORITY_ENFORCE | STDIO`
Possible values	`STDIO FLOATING_POINT REALTIME_PRIORITY PRIORITY_ENFORCE`
Description	Configures the event thread used by the TCP Transport plugin for providing some features.
Related to these features	Transport

dds.transport.TCPv4.tcp1.event_thread.priority	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`THREAD_PRIORITY_NORMAL`
Possible values	`THREAD_PRIORITY_DEFAULT` `THREAD_PRIORITY_HIGH` `THREAD_PRIORITY_ABOVE_NORMAL` `THREAD_PRIORITY_NORMAL` `THREAD_PRIORITY_BELOW_NORMAL` `THREAD_PRIORITY_LOW`
Description	Configures the event thread used by the TCP Transport plugin for providing some features.
Related to these features	Transport

dds.transport.TCPv4.tcp1.event_thread.stack_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`THREAD_STACK_SIZE_DEFAULT`
Pattern value	`THREAD_STACK_SIZE_DEFAULT`
Min-Max value	`[INT_MIN,INT_MAX]`
Description	Configures the event thread used by the TCP Transport plugin for providing some features.
Related to these features	Transport

parent

dds.transport.TCPv4.tcp1.parent.allow_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name that can be used by the transport.
Related to these features	Transport

dds.transport.TCPv4.tcp1.parent.classid	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`NDDS_TRANSPORT_CLASSID_TCPV4_LAN`
Min-Max value	`[INT_MIN,INT_MAX]`
Possible values	`NDDS_TRANSPORT_CLASSID_INVALID` `NDDS_TRANSPORT_CLASSID_ANY` `NDDS_TRANSPORT_CLASSID_TCPV4_WAN` `NDDS_TRANSPORT_CLASSID_TCPV4_LAN` `NDDS_TRANSPORT_CLASSID_TLSV4_LAN` `NDDS_TRANSPORT_CLASSID_TLSV4_WAN`
Description	Must be set to one of the listed possible values.
Related to these features	Transport

dds.transport.TCPv4.tcp1.parent.deny_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name that will not be used by the transport.
Related to these features	Transport

dds.transport.TCPv4.tcp1.parent.gather_send_buffer_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`128`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the maximum number of buffers that Connext DDS can pass to the send() method of a transport plugin.
Related to these features	Transport

dds.transport.TCPv4.tcp1.parent.message_size_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`65536`
Min-Max value	`[0,INT_MAX]`
Description	The maximum size of a message in bytes that can be sent or received by the transport plugin.
Related to these features	Transport

dds.transport.TCPv4.tcp1.parent.thread_name_prefix	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`rTr#####`
Pattern value	`^.{0,8}$`
Description	Prefix used to name the transport threads.
Related to these features	Transport

read_buffer_allocation

dds.transport.TCPv4.tcp1.read_buffer_allocation.incremental_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Allocation settings applied to read buffers.
Related to these features	Transport

dds.transport.TCPv4.tcp1.read_buffer_allocation.initial_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`2`
Min-Max value	`[0,INT_MAX]`
Description	Allocation settings applied to read buffers.
Related to these features	Transport

dds.transport.TCPv4.tcp1.read_buffer_allocation.max_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Allocation settings applied to read buffers.
Related to these features	Transport

tls.cipher

dds.transport.TCPv4.tcp1.tls.cipher.cipher_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`NULL`
Possible values	`RTITLS_CIPHER_LIST_DEFAULT` `RTITLS_CIPHER_LIST_ENCRYPT_HIGH` `RTITLS_CIPHER_LIST_UNENCRYPTED`
Description	List of available TLS ciphers when communicating with 6.0.0 or below.
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.cipher.ciphersuites	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	List of available TLS ciphersuites when communicating with 6.0.1 or above.
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.cipher.dh_param_files	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Possible values	`0-9`
Description	List of available Diffie-Hellman (DH) key files.
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.cipher.engine_id	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	ID of OpenSSL cipher engine to request.
Related to these features	Transport Transport Secure

tls.identity

dds.transport.TCPv4.tcp1.tls.identity.certificate_chain	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	String containing an identifying certificate (in PEM format) or certificate chain (appending intermediate CA certs in order).
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.identity.certificate_chain_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	File containing identifying certificate (in PEM format) or certificate chain (appending intermediate CA certs in order).
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.identity.private_key	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	String containing private key (in PEM format).
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.identity.private_key_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	File containing private key (in PEM format).
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.identity.private_key_password	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the password for the private key.
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.identity.rsa_private_key	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	String containing additional RSA private key (in PEM format).
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.identity.rsa_private_key_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	File containing additional RSA private key (in PEM format).
Related to these features	Transport Transport Secure

tls.verify

dds.transport.TCPv4.tcp1.tls.verify.ca_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the name of a file containing Certificate Authority certificates.
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.verify.ca_path	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies paths to directories containing Certificate Authority certificates.
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.verify.crl_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Name of the file containing the Certificate Revocation List.
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.verify.verify_depth	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[INT_MIN,INT_MAX]`
Description	Maximum certificate chain length for verification.
Related to these features	Transport Transport Secure

windows_iocp

dds.transport.TCPv4.tcp1.windows_iocp.concurrency_value	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`1`
Min-Max value	`[0,INT_MAX]`
Description	Configures I/O completion ports.
Related to these features	Transport

dds.transport.TCPv4.tcp1.windows_iocp.thread_pool_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`2`
Min-Max value	`[0,INT_MAX]`
Description	Configures I/O completion ports.
Related to these features	Transport

write_buffer_allocation

dds.transport.TCPv4.tcp1.write_buffer_allocation.incremental_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`10`
Min-Max value	`[0,INT_MAX]`
Description	Allocation settings applied to buffers used for asynchronous (non-blocking) write.
Related to these features	Transport

dds.transport.TCPv4.tcp1.write_buffer_allocation.initial_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`4`
Min-Max value	`[0,INT_MAX]`
Description	Allocation settings applied to buffers used for asynchronous (non-blocking) write.
Related to these features	Transport

dds.transport.TCPv4.tcp1.write_buffer_allocation.max_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1000`
Min-Max value	`[0,INT_MAX]`
Description	Allocation settings applied to buffers used for asynchronous (non-blocking) write.
Related to these features	Transport

UDPv4.builtin

dds.transport.UDPv4.builtin.aliases	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*[,.*]*`
Description	Aliases used to register the transport to the DomainParticipant.
Related to these features	Transport

dds.transport.UDPv4.builtin.disable_interface_tracking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Disables detection of network interface changes.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><disable_interface_tracking>

dds.transport.UDPv4.builtin.force_interface_poll_detection	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Forces the interface tracker to use a polling method to detect changes to the network interfaces in IP mobility scenarios.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><force_interface_poll_detection>

dds.transport.UDPv4.builtin.ignore_loopback_interface	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Possible values	`-1 0 1`
Description	Prevents the transport plugin from using the IP loopback interface.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><ignore_loopback_interface>

dds.transport.UDPv4.builtin.ignore_nonrunning_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from using a network interface that is not reported as RUNNING by the operating system.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><ignore_nonrunning_interfaces>

dds.transport.UDPv4.builtin.ignore_nonup_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	This property is only supported on Windows platforms with statically configured IP addresses.
Related to these features	Transport Builtin Transport

dds.transport.UDPv4.builtin.interface_poll_period	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`500`
Min-Max value	`[0,UINT_MAX]`
Description	Specifies the period in milliseconds to query for changes in the state of all the interfaces.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><interface_poll_period>

dds.transport.UDPv4.builtin.join_multicast_group_timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`5000`
Min-Max value	`[0,UINT_MAX]`
Description	Controls how long Connext DDS will retry to join a multicast group with a new network interface before withdrawing.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><join_multicast_group_timeout>

dds.transport.UDPv4.builtin.multicast_enabled	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Allows the transport plugin to use multicast for sending and receiving.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><multicast_enabled>

dds.transport.UDPv4.builtin.multicast_loopback_disabled	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from putting multicast packets onto the loopback interface.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><multicast_loopback_disabled>

dds.transport.UDPv4.builtin.multicast_ttl	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[0,INT_MAX]`
Description	Value for the time-to-live parameter for all multicast sends using this plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><multicast_ttl>

dds.transport.UDPv4.builtin.no_zero_copy	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from doing a zero copy.
Related to these features	Transport Builtin Transport

dds.transport.UDPv4.builtin.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	Transport

dds.transport.UDPv4.builtin.protocol_overhead_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`28`
Min-Max value	`[0,UINT_MAX]`
Description	Maximum size in bytes of protocol overhead, including headers.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><protocol_overhead_max>

dds.transport.UDPv4.builtin.public_address	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Public IP address associated with the transport instantiation.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><public_address>

dds.transport.UDPv4.builtin.recv_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Size in bytes of the receive buffer of a socket used for receiving.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><recv_socket_buffer_size>

dds.transport.UDPv4.builtin.reuse_multicast_receive_resource	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Controls whether or not to reuse receive resources.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><reuse_multicast_receive_resource>

dds.transport.UDPv4.builtin.send_blocking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NDDS_TRANSPORT_UDP_BLOCKING_ALWAYS`
Possible values	`0 1 NDDS_TRANSPORT_UDP_BLOCKING_NEVER NDDS_TRANSPORT_UDPV4_BLOCKING_NEVER TRANSPORT_BLOCKING_NEVER NDDS_TRANSPORT_UDP_BLOCKING_ALWAYS NDDS_TRANSPORT_UDPV4_BLOCKING_ALWAYS TRANSPORT_BLOCKING_ALWAYS`
Description	Controls the blocking behavior of send sockets.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><send_blocking>

dds.transport.UDPv4.builtin.send_ping	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[0,INT_MAX]`
Description	This property specifies whether to send a PING message before commencing the discovery process.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><send_ping>

dds.transport.UDPv4.builtin.send_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Size in bytes of the send buffer of a socket used for sending.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><send_socket_buffer_size>

dds.transport.UDPv4.builtin.transport_priority_mapping_high	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0xFF`
Min-Max value	`[0,INT_MAX]`
Description	Sets the high value of the output range to IPv4 TOS.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><transport_priority_mapping_high>

dds.transport.UDPv4.builtin.transport_priority_mapping_low	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Sets the low value of the output range to IPv4 TOS.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><transport_priority_mapping_low>

dds.transport.UDPv4.builtin.transport_priority_mask	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Mask for the transport priority field.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><transport_priority_mask>

dds.transport.UDPv4.builtin.unicast_enabled	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Allows the transport plugin to use unicast UDP for sending and receiving.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><unicast_enabled>

dds.transport.UDPv4.builtin.use_checksum	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Specifies whether the UDP checksum will be computed.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><use_checksum>

parent

dds.transport.UDPv4.builtin.parent.allow_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name that can be used by the transport.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><allow_interfaces_list>

dds.transport.UDPv4.builtin.parent.allow_multicast_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><allow_multicast_interfaces_list>

dds.transport.UDPv4.builtin.parent.deny_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name that will not be used by the transport.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><deny_interfaces_list>

dds.transport.UDPv4.builtin.parent.deny_multicast_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><deny_multicast_interfaces_list>

dds.transport.UDPv4.builtin.parent.gather_send_buffer_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`16`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the maximum number of buffers that Connext DDS can pass to the send() method of a transport plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><gather_send_buffer_count_max>

dds.transport.UDPv4.builtin.parent.message_size_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`65507`
Min-Max value	`[INT_MIN,MAX_INT]`
Possible values	`UDPV4_MESSAGE_SIZE_MAX_DEFAULT` `NDDS_TRANSPORT_UDPV4_MESSAGE_SIZE_MAX_DEFAULT`
Description	The maximum size of a message in bytes that can be sent or received by the transport plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><message_size_max>

dds.transport.UDPv4.builtin.parent.properties_bitmap	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	String
Default Value	`NDDS_TRANSPORT_PROPERTIES_BITMAP_DEFAULT`
Possible values	`0 1 2 TRANSPORT_PROPERTY_BIT_BUFFER_ALWAYS_LOANED` `NDDS_TRANSPORT_PROPERTY_BIT_BUFFER_ALWAYS_LOANED` `TRANSPORT_PROPERTY_BITMAP_DEFAULT` `NDDS_TRANSPORT_PROPERTIES_BITMAP_DEFAULT`
Description	A bitmap that defines various properties of the transport to the Connext DDS core.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><properties_bitmap>

dds.transport.UDPv4.builtin.parent.thread_name_prefix	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`rTr#####`
Pattern value	`^.{0,8}$`
Description	Prefix used to name the transport threads.
Related to these features	Transport Builtin Transport

UDPv4_WAN.builtin

dds.transport.UDPv4_WAN.builtin.aliases	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*[,.*]*`
Description	Aliases used to register the transport to the DomainParticipant.
Related to these features	Transport

dds.transport.UDPv4_WAN.builtin.binding_ping_period	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1000`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the period in milliseconds at which BINDING PINGS messages are sent to keep NAT mappings open
Related to these features	Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><binding_ping_period>

dds.transport.UDPv4_WAN.builtin.comm_ports	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	json
Description	Configures the mapping between <RTPS ports>, <UDP receive host ports>, and <UDP receive public ports>.
Related to these features	Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><comm_ports>

dds.transport.UDPv4_WAN.builtin.disable_interface_tracking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Disables detection of network interface changes.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><disable_interface_tracking>

dds.transport.UDPv4_WAN.builtin.force_interface_poll_detection	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Forces the interface tracker to use a polling method to detect changes to the network interfaces in IP mobility scenarios.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><force_interface_poll_detection>

dds.transport.UDPv4_WAN.builtin.ignore_loopback_interface	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Possible values	`-1 0 1`
Description	Prevents the transport plugin from using the IP loopback interface.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><ignore_loopback_interface>

dds.transport.UDPv4_WAN.builtin.ignore_nonrunning_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from using a network interface that is not reported as RUNNING by the operating system.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><ignore_nonrunning_interfaces>

dds.transport.UDPv4_WAN.builtin.ignore_nonup_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	This property is only supported on Windows platforms with statically configured IP addresses.
Related to these features	Transport Builtin Transport
The property has been deprecated in version	6.1.0

dds.transport.UDPv4_WAN.builtin.interface_poll_period	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`500`
Min-Max value	`[0,UINT_MAX]`
Description	Specifies the period in milliseconds to query for changes in the state of all the interfaces.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><interface_poll_period>

dds.transport.UDPv4_WAN.builtin.no_zero_copy	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from doing a zero copy.
Related to these features	Transport Builtin Transport
The property has been deprecated in version	6.1.0

dds.transport.UDPv4_WAN.builtin.plugin_enabled_function_ptr	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Only required if statically linking the Real-Time Wan Transport (RWT) support library. Must be set to the stringified pointer value of RWT support library's NDDS_Transport_UDP_WAN_Library_is_plugin_enabled function. Please refer to the RWT documentation for details.
Related to these features	Transport Builtin Transport

dds.transport.UDPv4_WAN.builtin.port_offset	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`125`
Min-Max value	`[0,INT_MAX]`
Description	Port offset to allow coexistence with non-WAN UDP transport.
Related to these features	Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><port_offset>

dds.transport.UDPv4_WAN.builtin.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	Transport

dds.transport.UDPv4_WAN.builtin.protocol_overhead_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`28`
Min-Max value	`[0,UINT_MAX]`
Description	Maximum size in bytes of protocol overhead, including headers.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><protocol_overhead_max>

dds.transport.UDPv4_WAN.builtin.public_address	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Public IP address associated with the transport instantiation.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><public_address>

dds.transport.UDPv4_WAN.builtin.recv_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Size in bytes of the receive buffer of a socket used for receiving.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><recv_socket_buffer_size>

dds.transport.UDPv4_WAN.builtin.send_blocking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NDDS_TRANSPORT_UDP_BLOCKING_ALWAYS`
Possible values	`0` `1` `NDDS_TRANSPORT_UDP_BLOCKING_NEVER` `NDDS_TRANSPORT_UDPV4_BLOCKING_NEVER` `TRANSPORT_BLOCKING_NEVER` `NDDS_TRANSPORT_UDP_BLOCKING_ALWAYS` `NDDS_TRANSPORT_UDPV4_BLOCKING_ALWAYS` `TRANSPORT_BLOCKING_ALWAYS`
Description	Controls the blocking behavior of send sockets.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><send_blocking>

dds.transport.UDPv4_WAN.builtin.send_ping	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[0,INT_MAX]`
Description	This property specifies whether to send a PING message before commencing the discovery process.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><send_ping>

dds.transport.UDPv4_WAN.builtin.send_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Size in bytes of the send buffer of a socket used for sending.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><send_socket_buffer_size>

dds.transport.UDPv4_WAN.builtin.transport_priority_mapping_high	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0xFF`
Min-Max value	`[0,INT_MAX]`
Description	Sets the high value of the output range to IPv4 TOS.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><transport_priority_mapping_high>

dds.transport.UDPv4_WAN.builtin.transport_priority_mapping_low	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Sets the low value of the output range to IPv4 TOS.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><transport_priority_mapping_low>

dds.transport.UDPv4_WAN.builtin.transport_priority_mask	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Mask for the transport priority field.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><transport_priority_mask>

dds.transport.UDPv4_WAN.builtin.use_checksum	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Specifies whether the UDP checksum will be computed.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><use_checksum>

parent

dds.transport.UDPv4_WAN.builtin.parent.allow_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name that can be used by the transport.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><allow_interfaces_list>

dds.transport.UDPv4_WAN.builtin.parent.deny_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name that will not be used by the transport.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><deny_interfaces_list>

dds.transport.UDPv4_WAN.builtin.parent.gather_send_buffer_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`16`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the maximum number of buffers that Connext DDS can pass to the send() method of a transport plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><gather_send_buffer_count_

dds.transport.UDPv4_WAN.builtin.parent.message_size_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`65507`
Min-Max value	`[INT_MIN,MAX_INT]`
Possible values	`UDPV4_MESSAGE_SIZE_MAX_DEFAULT` `NDDS_TRANSPORT_UDPV4_MESSAGE_SIZE_MAX_DEFAULT`
Description	The maximum size of a message in bytes that can be sent or received by the transport plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><message_size_max>

dds.transport.UDPv4_WAN.builtin.parent.properties_bitmap	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	String
Default Value	`NDDS_TRANSPORT_PROPERTIES_BITMAP_DEFAULT`
Possible values	`0 1 2 TRANSPORT_PROPERTY_BIT_BUFFER_ALWAYS_LOANED NDDS_TRANSPORT_PROPERTY_BIT_BUFFER_ALWAYS_LOANED TRANSPORT_PROPERTY_BITMAP_DEFAULT NDDS_TRANSPORT_PROPERTIES_BITMAP_DEFAULT`
Description	A bitmap that defines various properties of the transport to the Connext DDS core.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><properties_bitmap>

dds.transport.UDPv4_WAN.builtin.parent.thread_name_prefix	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`rTr#####`
Pattern value	`^.{0,8}$`
Description	Prefix used to name the transport threads.
Related to these features	Transport Builtin Transport

UDPv6.builtin

dds.transport.UDPv6.builtin.aliases	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*[,.*]*`
Description	Aliases used to register the transport to the DomainParticipant.
Related to these features	Transport

dds.transport.UDPv6.builtin.disable_interface_tracking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Disables detection of network interface changes.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><disable_interface_tracking>

dds.transport.UDPv6.builtin.enable_v4mapped	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Specifies whether the UDPv6 transport will process IPv4 addresses.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><enable_v4mapped>

dds.transport.UDPv6.builtin.force_interface_poll_detection	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Forces the interface tracker to use a polling method to detect changes to the network interfaces in IP mobility scenarios.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><force_interface_poll_detection>

dds.transport.UDPv6.builtin.ignore_loopback_interface	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Possible values	`-1 0 1`
Description	Prevents the transport plugin from using the IP loopback interface.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><ignore_loopback_interface>

dds.transport.UDPv6.builtin.ignore_nonrunning_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from using a network interface that is not reported as RUNNING by the operating system.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><ignore_nonrunning_interfaces>

dds.transport.UDPv6.builtin.interface_poll_period	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`500`
Min-Max value	`[0,UINT_MAX]`
Description	Specifies the period in milliseconds to query for changes in the state of all the interfaces.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><interface_poll_period>

dds.transport.UDPv6.builtin.join_multicast_group_timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`5000`
Min-Max value	`[0,UINT_MAX]`
Description	Controls how long Connext DDS will retry to join a multicast group with a new network interface before withdrawing.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><join_multicast_group_timeout>

dds.transport.UDPv6.builtin.multicast_enabled	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Allows the transport plugin to use multicast for sending and receiving.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><multicast_enabled>

dds.transport.UDPv6.builtin.multicast_loopback_disabled	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from putting multicast packets onto the loopback interface.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><multicast_loopback_disabled>

dds.transport.UDPv6.builtin.multicast_ttl	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[0,INT_MAX]`
Description	Value for the time-to-live parameter for all multicast sends using this plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><multicast_ttl>

dds.transport.UDPv6.builtin.no_zero_copy	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from doing a zero copy.
Related to these features	Transport Builtin Transport

dds.transport.UDPv6.builtin.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING VALIDATION_ACTION_EXCEPTION VALIDATION_ACTION_SKIP -1 0 1`
Description	configures the validation of the properties.
Related to these features	Transport

dds.transport.UDPv6.builtin.protocol_overhead_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`48`
Min-Max value	`[0,UINT_MAX]`
Description	Maximum size in bytes of protocol overhead, including headers.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><protocol_overhead_max>

dds.transport.UDPv6.builtin.public_address	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Public IP address associated with the transport instantiation.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><public_address>

dds.transport.UDPv6.builtin.recv_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Size in bytes of the receive buffer of a socket used for receiving.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><recv_socket_buffer_size>

dds.transport.UDPv6.builtin.reuse_multicast_receive_resource	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Controls whether or not to reuse receive resources.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><reuse_multicast_receive_resource>

dds.transport.UDPv6.builtin.send_blocking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NDDS_TRANSPORT_UDP_BLOCKING_ALWAYS`
Possible values	`0 1 NDDS_TRANSPORT_UDP_BLOCKING_NEVER NDDS_TRANSPORT_UDPV6_BLOCKING_NEVER TRANSPORT_BLOCKING_NEVER NDDS_TRANSPORT_UDP_BLOCKING_ALWAYS NDDS_TRANSPORT_UDPV6_BLOCKING_ALWAYS TRANSPORT_BLOCKING_ALWAYS`
Description	Controls the blocking behavior of send sockets.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><send_blocking>

dds.transport.UDPv6.builtin.send_ping	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[0,INT_MAX]`
Description	This property specifies whether to send a PING message before commencing the discovery process.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><send_ping>

dds.transport.UDPv6.builtin.send_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Size in bytes of the send buffer of a socket used for sending.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><send_socket_buffer_size>

dds.transport.UDPv6.builtin.transport_priority_mapping_high	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0xFF`
Min-Max value	`[0,INT_MAX]`
Description	Sets the high value of the output range to IPv4 TOS.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><transport_priority_mapping_high>

dds.transport.UDPv6.builtin.transport_priority_mapping_low	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Sets the low value of the output range to IPv4 TOS.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><transport_priority_mapping_low>

dds.transport.UDPv6.builtin.transport_priority_mask	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Mask for the transport priority field.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><transport_priority_mask>

dds.transport.UDPv6.builtin.unicast_enabled	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Allows the transport plugin to use unicast UDP for sending and receiving.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><unicast_enabled>

parent

dds.transport.UDPv6.builtin.parent.allow_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name that can be used by the transport.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><allow_interfaces_list>

dds.transport.UDPv6.builtin.parent.allow_multicast_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><allow_multicast_interfaces_list>

dds.transport.UDPv6.builtin.parent.deny_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name that will not be used by the transport.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><deny_interfaces_list>

dds.transport.UDPv6.builtin.parent.deny_multicast_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><deny_multicast_interfaces_list>

dds.transport.UDPv6.builtin.parent.gather_send_buffer_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`16`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the maximum number of buffers that Connext DDS can pass to the send() method of a transport plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><gather_send_buffer_count_max>

dds.transport.UDPv6.builtin.parent.message_size_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`65487`
Min-Max value	`[INT_MIN,MAX_INT]`
Possible values	`UDPV4_MESSAGE_SIZE_MAX_DEFAULT` `NDDS_TRANSPORT_UDPV4_MESSAGE_SIZE_MAX_DEFAULT`
Description	The maximum size of a message in bytes that can be sent or received by the transport plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><message_size_max>

dds.transport.UDPv6.builtin.parent.properties_bitmap	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	String
Default Value	`NDDS_TRANSPORT_PROPERTIES_BITMAP_DEFAULT`
Possible values	`0 1 2 TRANSPORT_PROPERTY_BIT_BUFFER_ALWAYS_LOANED NDDS_TRANSPORT_PROPERTY_BIT_BUFFER_ALWAYS_LOANED TRANSPORT_PROPERTY_BITMAP_DEFAULT NDDS_TRANSPORT_PROPERTIES_BITMAP_DEFAULT`
Description	A bitmap that defines various properties of the transport to the Connext DDS core.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><properties_bitmap>

dds.transport.UDPv6.builtin.parent.thread_name_prefix	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`rTr#####`
Pattern value	`^.{0,8}$`
Description	Prefix used to name the transport threads.
Related to these features	Transport Builtin Transport

WAN.wan1

dds.transport.WAN.wan1.aliases	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*[,.*]*`
Description	Used to register the transport plugin returned by NDDS_Transport_WAN_create() (as specified by <WAN_prefix>.create_function) to the DomainParticipant.
Related to these features	Transport

dds.transport.WAN.wan1.create_function	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Must be 'NDDS_Transport_WAN_create'.
Related to these features	Transport

dds.transport.WAN.wan1.dtls_connection_liveliness_interval	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`60`
Min-Max value	`[0,UINT_MAX]`
Description	Liveliness interval (multiple of resend interval)
Related to these features	Transport

dds.transport.WAN.wan1.dtls_handshake_resend_interval	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`1000`
Min-Max value	`[0,UINT_MAX]`
Description	DTLS handshake retransmission interval in milliseconds.
Related to these features	Transport

dds.transport.WAN.wan1.enable_security	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Possible values	`0 1`
Description	Required if you want to use security.
Related to these features	Transport

dds.transport.WAN.wan1.interface_address	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Locator, as a string
Related to these features	Transport

dds.transport.WAN.wan1.library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Must set to 'libnddstransportwan.so' (for Linux systems), 'libnddstransportwan.dylib' (for macOS systems), or 'nddstransportwan.dll' (for Windows systems).
Related to these features	Transport

dds.transport.WAN.wan1.port_offset	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`144`
Min-Max value	`[0,INT_MAX]`
Description	Port offset to allow coexistence with non-secure UDP transport.
Related to these features	Transport

dds.transport.WAN.wan1.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	Transport

dds.transport.WAN.wan1.recv_decode_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`65507`
Min-Max value	`[0,INT_MAX]`
Description	Size of buffer for decoding packets from wire.
Related to these features	Transport

dds.transport.WAN.wan1.security_verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[-1,INT_MAX]`
Description	Specifies the verbosity of security-related log messages from the transport.
Related to these features	Transport Transport Secure Logging

dds.transport.WAN.wan1.server	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Server locator, as a string.
Related to these features	Transport

dds.transport.WAN.wan1.server_port	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`3478`
Min-Max value	`[0,UINT_MAX]`
Description	Server port number.
Related to these features	Transport

dds.transport.WAN.wan1.stun_liveliness_period	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`15000`
Min-Max value	`[0,UINT_MAX]`
Description	Period at which messages are sent to peers to keep NAT holes open.
Related to these features	Transport

dds.transport.WAN.wan1.stun_number_of_retransmissions	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`7`
Min-Max value	`[0,UINT_MAX]`
Description	Maximum number of times STUN messages are resent unless a response is received.
Related to these features	Transport

dds.transport.WAN.wan1.stun_retransmission_interval	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`100`
Min-Max value	`[0,UINT_MAX]`
Description	STUN request messages requiring a response are resent with this interval.
Related to these features	Transport

dds.transport.WAN.wan1.transport_instance_id	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`{0,0,0,0,0,0,0,0,0,0,0,0}`
Min-Max value	`[0,0xef]`
Description	A set of comma-separated values to specify the elements of the array.
Related to these features	Transport

dds.transport.WAN.wan1.verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[-1,INT_MAX]`
Description	Specifies the verbosity of log messages from the transport.
Related to these features	Transport Logging

parent

dds.transport.WAN.wan1.parent.ignore_loopback_interface	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Possible values	`-1 0 1`
Description	Prevents the transport plugin from using the IP loopback interface.
Related to these features	Transport

dds.transport.WAN.wan1.parent.ignore_nonrunning_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Possible values	`0 1`
Description	Prevents the transport plugin from using a network interface that is not reported as RUNNING by the operating system.
Related to these features	Transport

dds.transport.WAN.wan1.parent.join_multicast_group_timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`5000`
Min-Max value	`[0,UINT_MAX]`
Description	Controls how long Connext DDS will retry to join a multicast group with a new network interface before withdrawing.
Related to these features	Transport

dds.transport.WAN.wan1.parent.no_zero_copy	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Possible values	`0 1`
Description	Prevents the transport plugin from doing a zero copy.
Related to these features	Transport
The property has been deprecated in version	6.0.0

dds.transport.WAN.wan1.parent.recv_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[0,INT_MAX]`
Description	Size in bytes of the receive buffer of a socket used for receiving.
Related to these features	Transport

dds.transport.WAN.wan1.parent.send_blocking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Possible values	`0 1 2`
Description	Controls the blocking behavior of send sockets.
Related to these features	Transport

dds.transport.WAN.wan1.parent.send_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[0,INT_MAX]`
Description	Size in bytes of the send buffer of a socket used for sending.
Related to these features	Transport

dds.transport.WAN.wan1.parent.transport_priority_mapping_high	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0xFF`
Min-Max value	`[0,INT_MAX]`
Description	Sets the high value of the output range to IPv4 TOS.
Related to these features	Transport

dds.transport.WAN.wan1.parent.transport_priority_mapping_low	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Sets the low value of the output range to IPv4 TOS.
Related to these features	Transport

dds.transport.WAN.wan1.parent.transport_priority_mask	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Mask for the transport priority field.
Related to these features	Transport

dds.transport.WAN.wan1.parent.unicast_enabled	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Possible values	`0 1`
Description	Allows the transport plugin to use unicast UDP for sending and receiving.
Related to these features	Transport

parent.parent

dds.transport.WAN.wan1.parent.parent.allow_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses.
Related to these features	Transport

dds.transport.WAN.wan1.parent.parent.deny_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses
Related to these features	Transport

dds.transport.WAN.wan1.parent.parent.gather_send_buffer_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`16`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the maximum number of buffers that Connext DDS can pass to the send() method of a transport plugin.
Related to these features	Transport

dds.transport.WAN.wan1.parent.parent.message_size_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`65507`
Min-Max value	`[0,INT_MAX]`
Description	The maximum size of a message in bytes that can be sent or received by the transport plugin.
Related to these features	Transport

dds.transport.WAN.wan1.parent.parent.properties_bitmap	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	A bitmap that defines various properties of the transport to the Connext DDS core.
Related to these features	Transport

dds.transport.WAN.wan1.parent.parent.thread_name_prefix	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`rTr#####`
Pattern value	`^.{0,8}$`
Description	Prefix used to name the transport threads.
Related to these features	Transport

tls.cipher

dds.transport.WAN.wan1.tls.cipher.cipher_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	List of available DTLS ciphers when communicating with 6.0.0 or below.
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.cipher.dh_param_files	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`(.+:[0-9]+)(,.+:[0-9]+).*`
Description	List of available Diffie-Hellman (DH) key files.
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.cipher.engine_id	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	ID of OpenSSL cipher engine to request.
Related to these features	Transport Transport Secure

tls.identity

dds.transport.WAN.wan1.tls.identity.certificate_chain_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the name of a file containing an identifying certificate chain (in PEM format).
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.identity.private_key_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	File containing private key (in PEM format).
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.identity.private_key_password	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the password for the private key.
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.identity.rsa_private_key_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	File containing additional RSA private key (in PEM format).
Related to these features	Transport Transport Secure

tls.verify

dds.transport.WAN.wan1.tls.verify.ca_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the name of a file containing Certificate Authority certificates.
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.verify.ca_path	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies paths to directories containing Certificate Authority certificates.
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.verify.callback	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`NULL`
Possible values	`default` `verbose` `none`
Description	NDDS_Transport_TLS_default_verify_callback()
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.verify.verify_depth	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[INT_MIN,INT_MAX]`
Description	Maximum certificate chain length for verification.
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.verify.verify_peer	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	If non-zero, use mutual authentication when performing TLS handshake (default).
Related to these features	Transport Transport Secure

lbrtps

dds.transport.lbrtps.aliases	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*[,.*]*`
Description	Aliases used to register the LBRTPS transport plugin with the DomainParticipant.
Related to these features	Transport

dds.transport.lbrtps.create_function	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	The name of the function that will be called by Connext DDS to create an instance of the LBRTPS transport.
Related to these features	Transport

dds.transport.lbrtps.library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	The name of the dynamic library that contains the LBRTPS transport plugin implementation.
Related to these features	Transport

dds.transport.lbrtps.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	Transport

dds.transport.lbrtps.subtransport	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`[UDPv4|zrtps|.*]`
Description	Name of the plugin to be loaded by the LBRTPS transport.
Related to these features	Transport

dds.transport.lbrtps.verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Possible values	`-1 0 2`
Description	The verbosity for the plugin, for debugging purposes.
Related to these features	Transport Logging

rtps_header

dds.transport.lbrtps.rtps_header.eliminate_protocol	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Whether or not to eliminate the 4-byte protocol field in the RTPS header.
Related to these features	Transport

dds.transport.lbrtps.rtps_header.eliminate_vendorId	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Whether or not to eliminate the 2-byte vendorId field in the RTPS header.
Related to these features	Transport

dds.transport.lbrtps.rtps_header.eliminate_version	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Whether or not to eliminate the 2-byte version field in the RTPS header.
Related to these features	Transport

dds.transport.lbrtps.rtps_header.reduce_guidPrefix	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`32,32,32`
Min-Max value	`[0,32]`
Description	The reduce_guidPrefix field is composed of 12 bytes that represent 3 different fields of 4 bytes each: hostId, appId and instanceId.
Related to these features	Transport

submessage_header

dds.transport.lbrtps.submessage_header.combine_submessageId_with_flags	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Combine the first two fields in the SubmessageHeader; do not use all the bits.
Related to these features	Transport

submessages

dds.transport.lbrtps.submessages.reduce_entitiesId	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`32,32`
Min-Max value	`[8,32]`
Description	Many submessage kinds include two fields: readerId and writerId. You may be able to reduce the size of these fields if you know ahead of time how many DataReaders and DataWriters you will have.
Related to these features	Transport

dds.transport.lbrtps.submessages.reduce_sequenceNumber	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`64`
Min-Max value	`[16,64]`
Description	Some submessage kinds keep track of the number of submessages received by using an 8-byte sequence number field. You can reduce the number of bytes used for the sequence number by using this property.
Related to these features	Transport

shmem.builtin

dds.transport.shmem.builtin.aliases	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*[,.*]*`
Description	Aliases used to register the transport to the DomainParticipant.
Related to these features	Transport

dds.transport.shmem.builtin.enable_udp_debugging	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Enables UDP debugging when using shared memory.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><enable_udp_debugging>

dds.transport.shmem.builtin.host_id	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`0`
Min-Max value	`[0,UINT_MAX]`
Description	Host ID used to generate the shared memory transport network address.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><host_id>

dds.transport.shmem.builtin.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING VALIDATION_ACTION_EXCEPTION VALIDATION_ACTION_SKIP -1 0 1`
Description	configures the validation of the properties.
Related to these features	Transport

dds.transport.shmem.builtin.receive_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Mutability type	mutableUntilEnable
Default Value	`1048576`
Min-Max value	`[0,INT_MAX]`
Description	The total number of bytes that can be buffered in the receive queue.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><receive_buffer_size>

dds.transport.shmem.builtin.received_message_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Mutability type	mutableUntilEnable
Default Value	`64`
Min-Max value	`[0,INT_MAX]`
Description	Number of messages that can be buffered in the receive queue.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><received_message_count_max>

dds.transport.shmem.builtin.udp_debugging_address	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`239.255.1.2`
Min-Max value	`[0,255]`
Description	IP address to which shared memory traffic will be published
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><udp_debugging_address>

dds.transport.shmem.builtin.udp_debugging_port	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`7399`
Min-Max value	`[0,UINT_MAX]`
Description	Port to which shared memory traffic will be published.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><udp_debugging_port>

dds.transport.shmem.builtin.use_530_from_uuid_locator	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0` `1` `TRUE` `FALSE` `YES` `NO`
Description	This property only applies when the WireProtocol QoS policy (specifically rtps_auto_id_kind) is set to DDS_RTPS_AUTO_ID_FROM_UUID. Consider using the transport QoS or the newer dds.transport.minimum_compatibility_version property.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><use_530_from_uuid_locator>

parent

dds.transport.shmem.builtin.parent.gather_send_buffer_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the maximum number of buffers that Connext DDS can pass to the send() method of a transport plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><gather_send_buffer_count_max

dds.transport.shmem.builtin.parent.message_size_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`65536`
Min-Max value	`[INT_MIN,INT_MAX]`
Description	The maximum size of a message in bytes that can be sent or received by the transport plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><message_size_max>

dds.transport.shmem.builtin.parent.properties_bitmap	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0x2`
Min-Max value	`[0,INT_MAX]`
Description	A bitmap that defines various properties of the transport to the Connext DDS core.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><properties_bitmap>

dds.transport.shmem.builtin.parent.thread_name_prefix	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`rTr#####`
Pattern value	`^.{0,8}$`
Description	Prefix used to name the transport threads.
Related to these features	Transport Builtin Transport

zrtps

dds.transport.zrtps.aliases	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*[,.*]*`
Related to these features	Transport

dds.transport.zrtps.compression_level	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`9`
Min-Max value	`[1,9]`
Description	Defines the compression level that the compression algorithm will use for all RTPS packages.
Related to these features	Transport

dds.transport.zrtps.compression_library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`ZLIB_COMPRESSION`
Possible values	`BZIP2_COMPRESSION` `EXTERNAL_COMPRESSION` `AUTOMATIC_COMPRESSION` `ZLIB_COMPRESSION`
Description	Aliases used to register the ZRTPS transport plugin with the DomainParticipant.
Related to these features	Transport

dds.transport.zrtps.create_function	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Must be set to ZRTPS_Transport_create_plugin.
Related to these features	Transport

dds.transport.zrtps.external_library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Sets the name of a user's external library that is to be located and used by the ZRTPS transport plugin.
Related to these features	Transport

dds.transport.zrtps.high_mark	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`512`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the size for small, medium, and large RTPS packages.
Related to these features	Transport

dds.transport.zrtps.library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	The value must be rtizrtps.
Related to these features	Transport

dds.transport.zrtps.low_mark	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`128`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the size for small, medium, and large RTPS packages.
Related to these features	Transport

dds.transport.zrtps.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	Transport

dds.transport.zrtps.subtransport	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*|UDPv4`
Description	The required property, dds.transport.zrtps.subtransport, specifies the plugin to be loaded by the ZRTPS transport. Supported subtransports are UDPv4 or a user-specified transport. Connext DDS builtin transports other than UDPv4 are not currently supported as subtransports. Once you set the value for a subtransport, the names of all the properties for that subtransport should be in the form dds.transport.lbrtps.<subtransport>.<property>.
Related to these features	Transport

dds.transport.zrtps.verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[INT_MIN,INT_MAX]`
Description	The verbosity for the plugin, for debugging purposes.
Related to these features	Transport

compression_level

dds.transport.zrtps.compression_level.large_packets	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`9`
Min-Max value	`[1,9]`
Description	Defines the compression level that the compression algorithm will use for large RTPS packages.
Related to these features	Transport

dds.transport.zrtps.compression_level.medium_packets	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`9`
Min-Max value	`[1,9]`
Description	Defines the compression level that the compression algorithm will use for medium RTPS packages.
Related to these features	Transport

dds.transport.zrtps.compression_level.small_packets	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`9`
Min-Max value	`[1,9]`
Description	Defines the compression level that the compression algorithm will use for small RTPS packages.
Related to these features	Transport

compression_library

dds.transport.zrtps.compression_library.large_packets	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`ZLIB_COMPRESSION`
Possible values	`BZIP2_COMPRESSION` `EXTERNAL_COMPRESSION` `AUTOMATIC_COMPRESSION` `ZLIB_COMPRESSION`
Description	Specifies the compression algorithm to be used for large RTPS packages.
Related to these features	Transport

dds.transport.zrtps.compression_library.medium_packets	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`ZLIB_COMPRESSION`
Possible values	`BZIP2_COMPRESSION` `EXTERNAL_COMPRESSION` `AUTOMATIC_COMPRESSION` `ZLIB_COMPRESSION`
Description	Specifies the compression algorithm to be used for medium RTPS packages.
Related to these features	Transport

dds.transport.zrtps.compression_library.small_packets	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`ZLIB_COMPRESSION`
Possible values	`BZIP2_COMPRESSION` `EXTERNAL_COMPRESSION` `AUTOMATIC_COMPRESSION` `ZLIB_COMPRESSION`
Description	Specifies the compression algorithm to be used for small RTPS packages.
Related to these features	Transport

3.1.14 rti.monitor

rti.monitor.create_function	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`RTIDefaultMonitor_create`
Related to these features	Monitor

rti.monitor.create_function_ptr	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	pointer
Default Value	`NULL`
Related to these features	Monitor

rti.monitor.library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`rtimonitoring`
Related to these features	Monitor

config

rti.monitor.config.get_process_statistics	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`true` `false`
Description	This boolean value specifies whether or not Monitoring Library should collect CPU and memory usage statistics for the process in the topic rti/dds/monitoring/domainParticipantDescription.
Related to these features	Monitor

rti.monitor.config.new_participant_domain_id	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[0,255]`
Description	To create a separate participant that will be used to publish monitoring information in the application, set this to the domain ID that you want to use for the newly created participant.
Related to these features	Monitor

rti.monitor.config.publish_period	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`5`
Min-Max value	`[0,INT_MAX]`
Description	Period of time to sample and publish all monitoring topics, in units of seconds.
Related to these features	Monitor

rti.monitor.config.publish_thread_options	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	mask
Default Value	`FLOATING_POINT | STDIO`
Possible values	`STDIO FLOATING_POINT REALTIME_PRIORITY PRIORITY_ENFORCE`
Description	Describes the type of thread.
Related to these features	Monitor

rti.monitor.config.publish_thread_priority	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`RTI_OSAPI_THREAD_PRIORITY_BELOW_NORMAL`
Description	Priority of the thread used to sample and publish monitoring data.
Related to these features	Monitor

rti.monitor.config.publish_thread_stacksize	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`RTI_OSAPI_THREAD_STACK_SIZE_DEFAULT`
Description	Stack size used for the thread that samples and publishes monitoring data.
Related to these features	Monitor

rti.monitor.config.qos_library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Specifies the name of the QoS library that you want to use for creating entities in the monitoring library (if you do not want to use default QoS values as set by the monitoring library).
Related to these features	Monitor

rti.monitor.config.qos_profile	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Specifies the name of the QoS profile that you want to use for creating entities in the monitoring library (if you do not want to use the default QoS values).
Related to these features	Monitor

rti.monitor.config.reset_status_change_counts	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`true` `false`
Description	Monitoring Library obtains all statuses of all entities in the Connext DDS application. This boolean value controls whether or not the change counts in those statuses are reset by Monitoring Library.
Related to these features	Monitor

rti.monitor.config.skip_monitor_entities	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`true` `false`
Description	This boolean value controls whether or not the entities created internally by Monitoring Library should be included in the entity counts published by the participant entity statistics topic.
Related to these features	Monitor

rti.monitor.config.skip_participant_properties	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`true` `false`
Description	If set to true, DomainParticipant PropertyQosPolicy name and value pairs will not be sent out through the domainParticipantDescriptionTopic.
Related to these features	Monitor

rti.monitor.config.skip_reader_properties	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`true` `false`
Related to these features	Monitor

rti.monitor.config.skip_writer_properties	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`true` `false`
Description	If set to true, DataReader PropertyQosPolicy name and value pairs will not be sent out through the dataReaderDescriptionTopic.
Related to these features	Monitor

rti.monitor.config.topics	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Filter for monitoring topics, with regular expression matching syntax as specified in the Connext DDS documentation (similar to the POSIX fnmatch syntax).
Related to these features	Monitor

rti.monitor.config.usertopics	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Filter for user topics, with regular expression matching syntax as specified in the Connext DDS documentation (similar to the POSIX fnmatch syntax).
Related to these features	Monitor

rti.monitor.config.verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[-1,INT_MAX]`
Description	Sets the verbosity on the monitoring library for debugging purposes.
Related to these features	Monitor Logging

rti.monitor.config.writer_pool_buffer_max_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[-1,INT_MAX]`
Description	Controls the threshold at which dynamic memory allocation is used, expressed as a number of bytes.
Related to these features	Monitor

3.2 DataWriter

3.2.1 dds.builtin_type.keyed_octets

dds.builtin_type.keyed_octets.alloc_key_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the key published by the DataWriter or received by the DataReader (includes the NULL-terminated character).
Related to these features	Builtin Type

dds.builtin_type.keyed_octets.alloc_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`2048`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the octet sequences published by the DataWriter or DataReader.
Related to these features	Builtin Type

dds.builtin_type.keyed_octets.max_key_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the key published by the DataWriter and received by the DataReaders belonging to the DomainParticipant (includes the NULL-terminated character).
Related to these features	Builtin Type

dds.builtin_type.keyed_octets.max_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`2048`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the octet sequences published by the DataWriters and DataReaders belonging to a DomainParticipant.
Related to these features	Builtin Type

3.2.2 dds.builtin_type.keyed_string

dds.builtin_type.keyed_string.alloc_key_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the keys used by the DataWriter or DataReader (includes the NULL-terminated character).
Related to these features	Builtin Type

dds.builtin_type.keyed_string.alloc_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the strings published by the DataWriter or received by the DataReader (includes the NULL-terminated character).
Related to these features	Builtin Type

dds.builtin_type.keyed_string.max_key_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the keys used by the DataWriters and DataReaders belonging to a DomainParticipant (includes the NULL-terminated character).
Related to these features	Builtin Type

dds.builtin_type.keyed_string.max_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the strings published by the DataWriters and received by the DataReaders belonging to a DomainParticipant using the built-in type (includes the NULL-terminated character).
Related to these features	Builtin Type

3.2.3 dds.builtin_type.octets

dds.builtin_type.octets.alloc_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`2048`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the octet sequences published by the DataWriter or DataReader.
Related to these features	Builtin Type

dds.builtin_type.octets.max_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`2048`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the octet sequences published by the DataWriters and DataReaders belonging to a DomainParticipant.
Related to these features	Builtin Type

3.2.4 dds.builtin_type.string

dds.builtin_type.string.alloc_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the strings published by the DataWriter or received by the DataReader (includes the NULL-terminated character).
Related to these features	Builtin Type

dds.builtin_type.string.max_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the strings published by the DataWriters and received by the DataReaders belonging to a DomainParticipant (includes the NULL-terminated character).
Related to these features	Builtin Type

3.2.5 dds.data_reader

dds.data_reader.shared_subscriber_name	
May be set in	DataWriter DataReader
Applies to	DataWriter DataReader
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	The DataReader must attach to the SharedSubscriber that contains the SharedReaderQueue.
Related to these features	Other

3.2.6 dds.data_writer

dds.data_writer.enable_turbo_mode	
May be set in	DataWriter
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Enables Turbo Mode and adjusts the batch max_data_bytes based on how frequently the DataWriter writes data.
Related to these features	Batching Reliability

auto_throttle

dds.data_writer.auto_throttle.enable	
May be set in	DataWriter
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Enables automatic throttling in the DataWriter.
Related to these features	Reliability

cryptography

dds.data_writer.cryptography.taint_data	
May be set in	DataWriter
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Simulate tainted data. Connext DDS will modify one byte of encoded data after the final layer of GMAC or GCM is computed. This property can be used for testing validation of the GMAC hash. Tainting of encoded payloads requires running on a little-endian machine. Tainting is not supported when key_revision_max_history_depth > 0.
Related to these features	DDS Secure

history

dds.data_writer.history.key_material_key	
May be set in	DataWriter DomainParticipant
Applies to	DataWriter
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	The basis of the key material used to encrypt the PRSTDataWriter's key material.
Related to these features	Durability DDS Secure

dds.data_writer.history.plugin_name	
May be set in	DataWriter DomainParticipant
Applies to	DataWriter
Type	string
Default Value	`dds.data_writer.history.odbc_plugin.builtin`
Pattern value	`dds.data_writer.history.odbc_plugin.builtin`
Description	Must be set to 'dds.data_writer.history.odbc_plugin.builtin' to enable durable writer history in the DataWriter.
Related to these features	Durability

dds.data_writer.history.purge_samples_after_acknowledgment	
May be set in	DataWriter DomainParticipant
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	The DataWriter's behavior can be changed to purge DDS samples after they have been acknowledged by all the active/matching DataReaders.
Related to these features	Durability

dds.data_writer.history.source_timestamp_based_autopurge_instances_delay	
May be set in	DataWriter DomainParticipant
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	The purging of the unregistered instances can be done based on the unregistered sample source timestamp or the time when the unregistered sample was added to the DataWriter queue.
Related to these features	Durability Instance

memory_manager.fast_pool

dds.data_writer.history.memory_manager.fast_pool.pool_buffer_max_size	
May be set in	DataWriter
Applies to	DataWriter
Type	integer
Default Value	`-1`
Min-Max value	`[-1,INT_MAX]`
Description	Controls the memory allocation for the serialized sample.
Related to these features	Queue Memory Management

memory_manager.java_stream

dds.data_writer.history.memory_manager.java_stream.min_size	
May be set in	DataWriter
Applies to	DataWriter
Type	integer
Default Value	`Max Serialized Sample Size`
Min-Max value	`[0,INT_MAX]`
Description	Defines the minimum size of the buffer that will be used to serialize DDS samples.
Related to these features	Queue Memory Management

dds.data_writer.history.memory_manager.java_stream.trim_to_size	
May be set in	DataWriter
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	A boolean value that controls the growth of the serialization buffer.
Related to these features	Queue Memory Management

odbc_plugin

dds.data_writer.history.odbc_plugin.driver	
May be set in	DataWriter
Applies to	DataWriter
Type	string
Default Value	`"libodbc.so" (for Linux systems) "odbc32.dll" (for Windows systems)`
Pattern value	`^.{0,30}$`
Description	Tells Connext DDS which ODBC driver to load.
Related to these features	Durability

dds.data_writer.history.odbc_plugin.dsn	
May be set in	DataWriter
Applies to	DataWriter
Type	string
Pattern value	`^.{1,512}$`
Description	The ODBC DSN (Data Source Name) associated with the database where the writer history must be persisted.
Related to these features	Durability

dds.data_writer.history.odbc_plugin.in_memory_state	
May be set in	DataWriter
Applies to	DataWriter
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Determines how much state will be kept in memory by the ODBC writer history in order to avoid accessing the database.
Related to these features	Durability

dds.data_writer.history.odbc_plugin.instance_cache_init_size	
May be set in	DataWriter
Applies to	DataWriter
Type	integer
Min-Max value	`[0,INT_MAX]`
Description	Configures the resource limits associated with the ODBC writer history caches.
Related to these features	Durability Instance

dds.data_writer.history.odbc_plugin.instance_cache_max_size	
May be set in	DataWriter
Applies to	DataWriter
Type	integer
Default Value	`0`
Min-Max value	`[-1,INT_MAX]`
Description	Configures the resource limits associated with the ODBC writer history caches.
Related to these features	Durability Instance

dds.data_writer.history.odbc_plugin.password	
May be set in	DataWriter
Applies to	DataWriter
Type	string
Pattern value	`^.{0,30}$`
Description	Configures the password used to connect to the database.
Related to these features	Durability

dds.data_writer.history.odbc_plugin.restore	
May be set in	DataWriter
Applies to	DataWriter
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Indicates whether or not the persisted writer history must be restored once the DataWriter is restarted.
Related to these features	Durability

dds.data_writer.history.odbc_plugin.sample_cache_init_size	
May be set in	DataWriter
Applies to	DataWriter
Type	integer
Default Value	`32`
Min-Max value	`[1,INT_MAX]`
Description	Configures the resource limits associated with the ODBC writer history caches.
Related to these features	Durability

dds.data_writer.history.odbc_plugin.sample_cache_max_size	
May be set in	DataWriter
Applies to	DataWriter
Type	integer
Default Value	`32`
Min-Max value	`[-1,INT_MAX]`
Description	Configure the resource limits associated with the ODBC writer history caches.
Related to these features	Durability

dds.data_writer.history.odbc_plugin.shared	
May be set in	DataWriter
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Creates a single connection per DSN that will be shared across DataWriters within the same Publisher.
Related to these features	Durability

dds.data_writer.history.odbc_plugin.username	
May be set in	DataWriter
Applies to	DataWriter
Type	string
Pattern value	`^.{0,30}$`
Description	Configures the username used to connect to the database.
Related to these features	Durability

protocol

dds.data_writer.protocol.disable_repair_piggyback_heartbeat	
May be set in	DataWriter
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents piggyback HBs from being sent with repair samples
Related to these features	Reliability
The property has been promoted to	<datawriter_qos><protocol><rtps_reliable_writer><disable_repair_piggyback_heartbeat>

dds.data_writer.protocol.multicast_repair_threshold	
May be set in	DataWriter
Applies to	DataWriter
Type	integer
Default Value	`2`
Min-Max value	`[0,INT_MAX]`
Description	Support for Periodic heartbeats (HBs) over multicast.
Related to these features	Reliability

dds.data_writer.protocol.send_multicast_periodic_heartbeats	
May be set in	DataWriter DomainParticipant
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Support for periodic heartbeats (HBs) over multicast.
Related to these features	Reliability

dds.data_writer.protocol.use_43_large_data_format	
May be set in	DataWriter DomainParticipant
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Achieve backward compatibility sending 'Large Data' between RTI Data Distribution Service 4.4d and older Releases.
Related to these features	Reliability Type System

reliability

dds.data_writer.reliability.delegate_reliability	
May be set in	DataWriter DomainParticipant
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Delegates the reliability task to a separate service.
Related to these features	Reliability

type_support

dds.data_writer.type_support.cdr_string_encoding_kind	
May be set in	DataWriter DomainParticipant
Applies to	DataWriter
Type	enum
Default Value	`UTF-8`
Possible values	`UTF-8` `ISO-8859-1`
Description	Configures the IDL wire string encoding.
Related to these features	Type System

3.2.7 dds.domain_participant.auto_throttle

dds.domain_participant.auto_throttle.enable	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	boolean
Default Value	`false`
Possible values	`0` `1` `TRUE` `FALSE` `YES` `NO`
Description	Configures the DomainParticipant to gather internal measurements (during DomainParticipant creation) that are required for the Auto Throttle feature.
Related to these features	Reliability

3.2.8 dds.flow_controller.token_bucket.<flow_controller_name>

dds.flow_controller.token_bucket.<flow_controller_name>.scheduling_policy	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	enum
Default Value	`DDS_EDF_FLOW_CONTROLLER_SCHED_POLICY`

Possible values	`DDS_RR_FLOW_CONTROLLER_SCHED_POLICY`
	`DDS_EDF_FLOW_CONTROLLER_SCHED_POLICY`
	`DDS_HPF_FLOW_CONTROLLER_SCHED_POLICY`

Description	Specifies the scheduling policy to be used.
Related to these features	Flow Controller

token_bucket

dds.flow_controller.token_bucket.<flow_controller_name>.token_bucket.bytes_per_token	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	integer
Default Value	`-1`
Min-Max value	`[0,INT_MAX]`
Description	Maximum number of bytes allowed to send for each token available.
Related to these features	Flow Controller

dds.flow_controller.token_bucket.<flow_controller_name>.token_bucket.max_tokens	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	integer
Default Value	`-1`
Min-Max value	`[0,INT_MAX]`
Description	Maximum number of tokens than can accumulate in the token bucket.
Related to these features	Flow Controller

dds.flow_controller.token_bucket.<flow_controller_name>.token_bucket.tokens_added_per_period	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	integer
Default Value	`-1`
Min-Max value	`[-1,INT_MAX]`
Description	Number of tokens added to the token bucket per specified period.
Related to these features	Flow Controller

dds.flow_controller.token_bucket.<flow_controller_name>.token_bucket.tokens_leaked_per_period	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Number of tokens removed from the token bucket per specified period.
Related to these features	Flow Controller

period

dds.flow_controller.token_bucket.<flow_controller_name>.token_bucket.period.nanosec	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	unsigned integer
Default Value	`0`
Min-Max value	`[0,UINT_MAX]`
Description	Period for adding tokens to and removing tokens from the bucket in nanoseconds.
Related to these features	Flow Controller

dds.flow_controller.token_bucket.<flow_controller_name>.token_bucket.period.sec	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	integer
Default Value	`1`
Min-Max value	`[0,INT_MAX]`
Description	Period for adding tokens to and removing tokens from the bucket in seconds.
Related to these features	Flow Controller

3.2.9 dds.participant.builtin_data_writer.protocol

dds.participant.builtin_data_writer.protocol.disable_repair_piggyback_heartbeat	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents piggyback HBs from being sent with repair samples for builtin discovery topics
Related to these features	Reliability
The property has been promoted to	<domain_participant_qos><discovery_config><publication_writer><disable_repair_piggyback_heartbeat>

3.2.10 dds.participant.discovery_config

dds.participant.discovery_config.disable_endpoint_security_info_propagation	
May be set in	DomainParticipant
Applies to	DomainParticipant DataReader DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Participant may communicate for some combinations of inconsistent metadata/data protection kinds.
Related to these features	Discovery

3.2.11 dds.participant.inter_participant_data_writer.protocol

dds.participant.inter_participant_data_writer.protocol.disable_preemptive_heartbeat	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Disable preemptive Heartbeats and NACKs.
Related to these features	Discovery Reliability

3.2.12 dds.participant.protocol

dds.participant.protocol.rtps_overhead	
May be set in	DomainParticipant
Applies to	DataWriter DomainParticipant
Type	integer
Default Value	`512`
Min-Max value	`[0,INT_MAX]`
Description	Used to adjust the overhead of the RTPS protocol without including security.
Related to these features	Reliability

3.2.13 dds.sample_assignability

dds.sample_assignability.accept_unknown_enum_value	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	When set to 1, samples containing an unknown enumerator can be successfully deserialized to the default enumeration value.
Related to these features	Type System

dds.sample_assignability.accept_unknown_union_discriminator	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	When set to 1, samples containing an unknown union discriminator can be successfully deserialized to the default discriminator value.
Related to these features	Type System

3.2.14 dds.type_consistency

dds.type_consistency.ignore_member_names	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Controls whether member names are taken into consideration for type assignability.
Related to these features	Type System
The property has been deprecated by	<datareader_qos><type_consistency><ignore_member_names>

dds.type_consistency.ignore_sequence_bounds	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Controls whether sequence bounds are taken into consideration for type assignability.
Related to these features	Type System
The property has been deprecated by	<datareader_qos><type_consistency><ignore_sequence_bounds>

3.3 DataReader

3.3.1 dds.builtin_type.keyed_octets

dds.builtin_type.keyed_octets.alloc_key_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the key published by the DataWriter or received by the DataReader (includes the NULL-terminated character).
Related to these features	Builtin Type

dds.builtin_type.keyed_octets.alloc_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`2048`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the octet sequences published by the DataWriter or DataReader.
Related to these features	Builtin Type

dds.builtin_type.keyed_octets.max_key_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the key published by the DataWriter and received by the DataReaders belonging to the DomainParticipant (includes the NULL-terminated character).
Related to these features	Builtin Type

dds.builtin_type.keyed_octets.max_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`2048`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the octet sequences published by the DataWriters and DataReaders belonging to a DomainParticipant.
Related to these features	Builtin Type

3.3.2 dds.builtin_type.keyed_string

dds.builtin_type.keyed_string.alloc_key_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the keys used by the DataWriter or DataReader (includes the NULL-terminated character).
Related to these features	Builtin Type

dds.builtin_type.keyed_string.alloc_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the strings published by the DataWriter or received by the DataReader (includes the NULL-terminated character).
Related to these features	Builtin Type

dds.builtin_type.keyed_string.max_key_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the keys used by the DataWriters and DataReaders belonging to a DomainParticipant (includes the NULL-terminated character).
Related to these features	Builtin Type

dds.builtin_type.keyed_string.max_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the strings published by the DataWriters and received by the DataReaders belonging to a DomainParticipant using the built-in type (includes the NULL-terminated character).
Related to these features	Builtin Type

3.3.3 dds.builtin_type.octets

dds.builtin_type.octets.alloc_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`2048`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the octet sequences published by the DataWriter or DataReader.
Related to these features	Builtin Type

dds.builtin_type.octets.max_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`2048`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the octet sequences published by the DataWriters and DataReaders belonging to a DomainParticipant.
Related to these features	Builtin Type

3.3.4 dds.builtin_type.string

dds.builtin_type.string.alloc_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the strings published by the DataWriter or received by the DataReader (includes the NULL-terminated character).
Related to these features	Builtin Type

dds.builtin_type.string.max_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the strings published by the DataWriters and received by the DataReaders belonging to a DomainParticipant (includes the NULL-terminated character).
Related to these features	Builtin Type

3.3.5 dds.data_reader

dds.data_reader.accept_writer_removed_batch_samples	
May be set in	DataReader
Applies to	DataReader
Type	boolean
Default Value	`FALSE`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Allow accepting invalid samples in a batch at the DataReader.
Related to these features	Queue Memory Management

dds.data_reader.shared_subscriber_name	
May be set in	DataWriter DataReader
Applies to	DataWriter DataReader
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	The DataReader must attach to the SharedSubscriber that contains the SharedReaderQueue.
Related to these features	Other

history.memory_manager.fast_pool

dds.data_reader.history.memory_manager.fast_pool.pool_buffer_max_size	
May be set in	DataReader
Applies to	DataReader
Type	integer
Default Value	`-1`
Min-Max value	`[-1,INT_MAX]`
Description	Controls the memory allocation for serialization.
Related to these features	Queue Memory Management

history.memory_manager.java_stream

dds.data_reader.history.memory_manager.java_stream.min_size	
May be set in	DataReader
Applies to	DataReader
Type	integer
Default Value	`Max Serialized Sample Size`
Min-Max value	`[0,INT_MAX]`
Description	Defines the minimum size of the buffer used for the serialized data.
Related to these features	Queue Memory Management

dds.data_reader.history.memory_manager.java_stream.trim_to_size	
May be set in	DataReader
Applies to	DataReader
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	A Boolean value that controls the growth of the deserialization buffer.
Related to these features	Queue Memory Management

protocol

dds.data_reader.protocol.use_43_large_data_format	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Achieve backward compatibility sending 'Large Data' between RTI Data Distribution Service 4.4d and older Releases.
Related to these features	Reliability Type System

reliability

dds.data_reader.reliability.delegate_reliability	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Delegates the reliability task to a separate service.
Related to these features	Reliability

state

dds.data_reader.state.checkpoint_frequency	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Controls how often the DataReader state is stored into the database.
Related to these features	Durability

dds.data_reader.state.filter_redundant_samples	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Enables durable DataReader state.
Related to these features	Durability Filtering

dds.data_reader.state.restore	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Indicates if the persisted DataReader state must be restored or not once the DataReader is restarted.
Related to these features	Durability

odbc

dds.data_reader.state.odbc.driver	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	string
Default Value	`odbc32.dll (Windows) libodbc.so (Otherwise)`
Pattern value	`.*`
Description	Indicates which ODBC driver to load.
Related to these features	Durability

dds.data_reader.state.odbc.dsn	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	string
Pattern value	`^.{1,512}$`
Description	The ODBC DSN (Data Source Name) associated with the database where the DataReader state must be persisted.
Related to these features	Durability

dds.data_reader.state.odbc.password	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	string
Pattern value	`^.{0,30}$`
Description	Configures the password used to connect to the database.
Related to these features	Durability

dds.data_reader.state.odbc.username	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	string
Pattern value	`^.{0,30}$`
Description	Configures the username used to connect to the database.
Related to these features	Durability

persistence_service

dds.data_reader.state.persistence_service.request_depth	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Indicates how many of the most recent historical samples the persisted DataReader wants to receive upon start-up.
Related to these features	Durability

type_support

dds.data_reader.type_support.cdr_string_encoding_kind	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	enum
Default Value	`UTF-8`
Possible values	`UTF-8` `ISO-8859-1`
Description	Configures the IDL wire string encoding.
Related to these features	Type System

3.3.6 dds.participant.discovery_config

dds.participant.discovery_config.disable_endpoint_security_info_propagation	
May be set in	DomainParticipant
Applies to	DomainParticipant DataReader DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Participant may communicate for some combinations of inconsistent metadata/data protection kinds.
Related to these features	Discovery

3.3.7 dds.participant.inter_participant_data_reader.protocol

dds.participant.inter_participant_data_reader.protocol.disable_preemptive_nack	
May be set in	DomainParticipant
Applies to	DomainParticipant DataReader
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Disable preemptive Heartbeats and NACKs.
Related to these features	Discovery Reliability

3.3.8 dds.sample_assignability

dds.sample_assignability.accept_unknown_enum_value	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	When set to 1, samples containing an unknown enumerator can be successfully deserialized to the default enumeration value.
Related to these features	Type System

dds.sample_assignability.accept_unknown_union_discriminator	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	When set to 1, samples containing an unknown union discriminator can be successfully deserialized to the default discriminator value.
Related to these features	Type System

3.3.9 dds.type_consistency

dds.type_consistency.ignore_member_names	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Controls whether member names are taken into consideration for type assignability.
Related to these features	Type System
The property has been deprecated by	<datareader_qos><type_consistency><ignore_member_names>

dds.type_consistency.ignore_sequence_bounds	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Controls whether sequence bounds are taken into consideration for type assignability.
Related to these features	Type System
The property has been deprecated by	<datareader_qos><type_consistency><ignore_sequence_bounds>

Chapter 4

List of Properties by Feature

4.1 Batching

4.1.1 dds.data_writer

dds.data_writer.enable_turbo_mode	
May be set in	DataWriter
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0` `1` `TRUE` `FALSE` `YES` `NO`
Description	Enables Turbo Mode and adjusts the batch max_data_bytes based on how frequently the DataWriter writes data.
Related to these features	Batching Reliability

4.2 Builtin Transport

4.2.1 dds.transport

dds.transport.minimum_compatibility_version	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`6.0.0`
Pattern value	`.*`
Description	Minimum version that the transport should be compatible with.
Related to these features	Transport Builtin Transport

UDPv4.builtin

dds.transport.UDPv4.builtin.disable_interface_tracking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Disables detection of network interface changes.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><disable_interface_tracking>

dds.transport.UDPv4.builtin.force_interface_poll_detection	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Forces the interface tracker to use a polling method to detect changes to the network interfaces in IP mobility scenarios.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><force_interface_poll_detection>

dds.transport.UDPv4.builtin.ignore_loopback_interface	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Possible values	`-1 0 1`
Description	Prevents the transport plugin from using the IP loopback interface.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><ignore_loopback_interface>

dds.transport.UDPv4.builtin.ignore_nonrunning_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from using a network interface that is not reported as RUNNING by the operating system.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><ignore_nonrunning_interfaces>

dds.transport.UDPv4.builtin.ignore_nonup_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	This property is only supported on Windows platforms with statically configured IP addresses.
Related to these features	Transport Builtin Transport

dds.transport.UDPv4.builtin.interface_poll_period	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`500`
Min-Max value	`[0,UINT_MAX]`
Description	Specifies the period in milliseconds to query for changes in the state of all the interfaces.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><interface_poll_period>

dds.transport.UDPv4.builtin.join_multicast_group_timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`5000`
Min-Max value	`[0,UINT_MAX]`
Description	Controls how long Connext DDS will retry to join a multicast group with a new network interface before withdrawing.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><join_multicast_group_timeout>

dds.transport.UDPv4.builtin.multicast_enabled	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Allows the transport plugin to use multicast for sending and receiving.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><multicast_enabled>

dds.transport.UDPv4.builtin.multicast_loopback_disabled	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from putting multicast packets onto the loopback interface.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><multicast_loopback_disabled>

dds.transport.UDPv4.builtin.multicast_ttl	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[0,INT_MAX]`
Description	Value for the time-to-live parameter for all multicast sends using this plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><multicast_ttl>

dds.transport.UDPv4.builtin.no_zero_copy	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from doing a zero copy.
Related to these features	Transport Builtin Transport

dds.transport.UDPv4.builtin.protocol_overhead_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`28`
Min-Max value	`[0,UINT_MAX]`
Description	Maximum size in bytes of protocol overhead, including headers.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><protocol_overhead_max>

dds.transport.UDPv4.builtin.public_address	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Public IP address associated with the transport instantiation.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><public_address>

dds.transport.UDPv4.builtin.recv_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Size in bytes of the receive buffer of a socket used for receiving.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><recv_socket_buffer_size>

dds.transport.UDPv4.builtin.reuse_multicast_receive_resource	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0` `1` `TRUE` `FALSE` `YES` `NO`
Description	Controls whether or not to reuse receive resources.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><reuse_multicast_receive_resource>

dds.transport.UDPv4.builtin.send_blocking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NDDS_TRANSPORT_UDP_BLOCKING_ALWAYS`
Possible values	`0` `1` `NDDS_TRANSPORT_UDP_BLOCKING_NEVER` `NDDS_TRANSPORT_UDPV4_BLOCKING_NEVER` `TRANSPORT_BLOCKING_NEVER` `NDDS_TRANSPORT_UDP_BLOCKING_ALWAYS` `NDDS_TRANSPORT_UDPV4_BLOCKING_ALWAYS` `TRANSPORT_BLOCKING_ALWAYS`
Description	Controls the blocking behavior of send sockets.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><send_blocking>

dds.transport.UDPv4.builtin.send_ping	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[0,INT_MAX]`
Description	This property specifies whether to send a PING message before commencing the discovery process.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><send_ping>

dds.transport.UDPv4.builtin.send_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Size in bytes of the send buffer of a socket used for sending.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><send_socket_buffer_size>

dds.transport.UDPv4.builtin.transport_priority_mapping_high	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0xFF`
Min-Max value	`[0,INT_MAX]`
Description	Sets the high value of the output range to IPv4 TOS.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><transport_priority_mapping_high>

dds.transport.UDPv4.builtin.transport_priority_mapping_low	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Sets the low value of the output range to IPv4 TOS.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><transport_priority_mapping_low>

dds.transport.UDPv4.builtin.transport_priority_mask	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Mask for the transport priority field.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><transport_priority_mask>

dds.transport.UDPv4.builtin.unicast_enabled	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Allows the transport plugin to use unicast UDP for sending and receiving.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><unicast_enabled>

dds.transport.UDPv4.builtin.use_checksum	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Specifies whether the UDP checksum will be computed.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><use_checksum>

parent

dds.transport.UDPv4.builtin.parent.allow_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name that can be used by the transport.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><allow_interfaces_list>

dds.transport.UDPv4.builtin.parent.allow_multicast_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><allow_multicast_interfaces_list>

dds.transport.UDPv4.builtin.parent.deny_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name that will not be used by the transport.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><deny_interfaces_list>

dds.transport.UDPv4.builtin.parent.deny_multicast_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><deny_multicast_interfaces_list>

dds.transport.UDPv4.builtin.parent.gather_send_buffer_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`16`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the maximum number of buffers that Connext DDS can pass to the send() method of a transport plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><gather_send_buffer_count_max>

dds.transport.UDPv4.builtin.parent.message_size_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`65507`
Min-Max value	`[INT_MIN,MAX_INT]`
Possible values	`UDPV4_MESSAGE_SIZE_MAX_DEFAULT` `NDDS_TRANSPORT_UDPV4_MESSAGE_SIZE_MAX_DEFAULT`
Description	The maximum size of a message in bytes that can be sent or received by the transport plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><message_size_max>

dds.transport.UDPv4.builtin.parent.properties_bitmap	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	String
Default Value	`NDDS_TRANSPORT_PROPERTIES_BITMAP_DEFAULT`
Possible values	`0 1 2 TRANSPORT_PROPERTY_BIT_BUFFER_ALWAYS_LOANED NDDS_TRANSPORT_PROPERTY_BIT_BUFFER_ALWAYS_LOANED TRANSPORT_PROPERTY_BITMAP_DEFAULT NDDS_TRANSPORT_PROPERTIES_BITMAP_DEFAULT`
Description	A bitmap that defines various properties of the transport to the Connext DDS core.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><properties_bitmap>

dds.transport.UDPv4.builtin.parent.thread_name_prefix	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`rTr#####`
Pattern value	`^.{0,8}$`
Description	Prefix used to name the transport threads.
Related to these features	Transport Builtin Transport

UDPv4_WAN.builtin

dds.transport.UDPv4_WAN.builtin.disable_interface_tracking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Disables detection of network interface changes.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><disable_interface_tracking>

dds.transport.UDPv4_WAN.builtin.force_interface_poll_detection	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Forces the interface tracker to use a polling method to detect changes to the network interfaces in IP mobility scenarios.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><force_interface_poll_detection>

dds.transport.UDPv4_WAN.builtin.ignore_loopback_interface	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Possible values	`-1 0 1`
Description	Prevents the transport plugin from using the IP loopback interface.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><ignore_loopback_interface>

dds.transport.UDPv4_WAN.builtin.ignore_nonrunning_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from using a network interface that is not reported as RUNNING by the operating system.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><ignore_nonrunning_interfaces>

dds.transport.UDPv4_WAN.builtin.ignore_nonup_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	This property is only supported on Windows platforms with statically configured IP addresses.
Related to these features	Transport Builtin Transport
The property has been deprecated in version	6.1.0

dds.transport.UDPv4_WAN.builtin.interface_poll_period	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`500`
Min-Max value	`[0,UINT_MAX]`
Description	Specifies the period in milliseconds to query for changes in the state of all the interfaces.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><interface_poll_period>

dds.transport.UDPv4_WAN.builtin.no_zero_copy	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from doing a zero copy.
Related to these features	Transport Builtin Transport
The property has been deprecated in version	6.1.0

dds.transport.UDPv4_WAN.builtin.plugin_enabled_function_ptr	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Only required if statically linking the Real-Time Wan Transport (RWT) support library. Must be set to the stringified pointer value of RWT support library's NDDS_Transport_UDP_WAN_Library_is_plugin_enabled function. Please refer to the RWT documentation for details.
Related to these features	Transport Builtin Transport

dds.transport.UDPv4_WAN.builtin.protocol_overhead_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`28`
Min-Max value	`[0,UINT_MAX]`
Description	Maximum size in bytes of protocol overhead, including headers.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><protocol_overhead_max>

dds.transport.UDPv4_WAN.builtin.public_address	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Public IP address associated with the transport instantiation.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><public_address>

dds.transport.UDPv4_WAN.builtin.recv_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Size in bytes of the receive buffer of a socket used for receiving.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><recv_socket_buffer_size>

dds.transport.UDPv4_WAN.builtin.send_blocking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NDDS_TRANSPORT_UDP_BLOCKING_ALWAYS`
Possible values	`0` `1` `NDDS_TRANSPORT_UDP_BLOCKING_NEVER` `NDDS_TRANSPORT_UDPV4_BLOCKING_NEVER` `TRANSPORT_BLOCKING_NEVER` `NDDS_TRANSPORT_UDP_BLOCKING_ALWAYS` `NDDS_TRANSPORT_UDPV4_BLOCKING_ALWAYS` `TRANSPORT_BLOCKING_ALWAYS`
Description	Controls the blocking behavior of send sockets.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><send_blocking>

dds.transport.UDPv4_WAN.builtin.send_ping	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[0,INT_MAX]`
Description	This property specifies whether to send a PING message before commencing the discovery process.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><send_ping>

dds.transport.UDPv4_WAN.builtin.send_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Size in bytes of the send buffer of a socket used for sending.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><send_socket_buffer_size>

dds.transport.UDPv4_WAN.builtin.transport_priority_mapping_high	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0xFF`
Min-Max value	`[0,INT_MAX]`
Description	Sets the high value of the output range to IPv4 TOS.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><transport_priority_mapping_high>

dds.transport.UDPv4_WAN.builtin.transport_priority_mapping_low	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Sets the low value of the output range to IPv4 TOS.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><transport_priority_mapping_low>

dds.transport.UDPv4_WAN.builtin.transport_priority_mask	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Mask for the transport priority field.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><transport_priority_mask>

dds.transport.UDPv4_WAN.builtin.use_checksum	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Specifies whether the UDP checksum will be computed.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><use_checksum>

parent

dds.transport.UDPv4_WAN.builtin.parent.allow_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name that can be used by the transport.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><allow_interfaces_list>

dds.transport.UDPv4_WAN.builtin.parent.deny_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name that will not be used by the transport.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><deny_interfaces_list>

dds.transport.UDPv4_WAN.builtin.parent.gather_send_buffer_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`16`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the maximum number of buffers that Connext DDS can pass to the send() method of a transport plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><gather_send_buffer_count_

dds.transport.UDPv4_WAN.builtin.parent.message_size_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`65507`
Min-Max value	`[INT_MIN,MAX_INT]`
Possible values	`UDPV4_MESSAGE_SIZE_MAX_DEFAULT` `NDDS_TRANSPORT_UDPV4_MESSAGE_SIZE_MAX_DEFAULT`
Description	The maximum size of a message in bytes that can be sent or received by the transport plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><message_size_max>

dds.transport.UDPv4_WAN.builtin.parent.properties_bitmap	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	String
Default Value	`NDDS_TRANSPORT_PROPERTIES_BITMAP_DEFAULT`
Possible values	`0 1 2 TRANSPORT_PROPERTY_BIT_BUFFER_ALWAYS_LOANED NDDS_TRANSPORT_PROPERTY_BIT_BUFFER_ALWAYS_LOANED TRANSPORT_PROPERTY_BITMAP_DEFAULT NDDS_TRANSPORT_PROPERTIES_BITMAP_DEFAULT`
Description	A bitmap that defines various properties of the transport to the Connext DDS core.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><properties_bitmap>

dds.transport.UDPv4_WAN.builtin.parent.thread_name_prefix	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`rTr#####`
Pattern value	`^.{0,8}$`
Description	Prefix used to name the transport threads.
Related to these features	Transport Builtin Transport

UDPv6.builtin

dds.transport.UDPv6.builtin.disable_interface_tracking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Disables detection of network interface changes.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><disable_interface_tracking>

dds.transport.UDPv6.builtin.enable_v4mapped	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Specifies whether the UDPv6 transport will process IPv4 addresses.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><enable_v4mapped>

dds.transport.UDPv6.builtin.force_interface_poll_detection	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Forces the interface tracker to use a polling method to detect changes to the network interfaces in IP mobility scenarios.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><force_interface_poll_detection>

dds.transport.UDPv6.builtin.ignore_loopback_interface	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Possible values	`-1 0 1`
Description	Prevents the transport plugin from using the IP loopback interface.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><ignore_loopback_interface>

dds.transport.UDPv6.builtin.ignore_nonrunning_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from using a network interface that is not reported as RUNNING by the operating system.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><ignore_nonrunning_interfaces>

dds.transport.UDPv6.builtin.interface_poll_period	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`500`
Min-Max value	`[0,UINT_MAX]`
Description	Specifies the period in milliseconds to query for changes in the state of all the interfaces.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><interface_poll_period>

dds.transport.UDPv6.builtin.join_multicast_group_timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`5000`
Min-Max value	`[0,UINT_MAX]`
Description	Controls how long Connext DDS will retry to join a multicast group with a new network interface before withdrawing.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><join_multicast_group_timeout>

dds.transport.UDPv6.builtin.multicast_enabled	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Allows the transport plugin to use multicast for sending and receiving.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><multicast_enabled>

dds.transport.UDPv6.builtin.multicast_loopback_disabled	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from putting multicast packets onto the loopback interface.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><multicast_loopback_disabled>

dds.transport.UDPv6.builtin.multicast_ttl	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[0,INT_MAX]`
Description	Value for the time-to-live parameter for all multicast sends using this plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><multicast_ttl>

dds.transport.UDPv6.builtin.no_zero_copy	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0` `1` `TRUE` `FALSE` `YES` `NO`
Description	Prevents the transport plugin from doing a zero copy.
Related to these features	Transport Builtin Transport

dds.transport.UDPv6.builtin.protocol_overhead_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`48`
Min-Max value	`[0,UINT_MAX]`
Description	Maximum size in bytes of protocol overhead, including headers.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><protocol_overhead_max>

dds.transport.UDPv6.builtin.public_address	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Public IP address associated with the transport instantiation.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><public_address>

dds.transport.UDPv6.builtin.recv_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Size in bytes of the receive buffer of a socket used for receiving.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><recv_socket_buffer_size>

dds.transport.UDPv6.builtin.reuse_multicast_receive_resource	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Controls whether or not to reuse receive resources.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><reuse_multicast_receive_resource>

dds.transport.UDPv6.builtin.send_blocking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NDDS_TRANSPORT_UDP_BLOCKING_ALWAYS`
Possible values	`0 1 NDDS_TRANSPORT_UDP_BLOCKING_NEVER NDDS_TRANSPORT_UDPV6_BLOCKING_NEVER TRANSPORT_BLOCKING_NEVER NDDS_TRANSPORT_UDP_BLOCKING_ALWAYS NDDS_TRANSPORT_UDPV6_BLOCKING_ALWAYS TRANSPORT_BLOCKING_ALWAYS`
Description	Controls the blocking behavior of send sockets.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><send_blocking>

dds.transport.UDPv6.builtin.send_ping	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[0,INT_MAX]`
Description	This property specifies whether to send a PING message before commencing the discovery process.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><send_ping>

dds.transport.UDPv6.builtin.send_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Size in bytes of the send buffer of a socket used for sending.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><send_socket_buffer_size>

dds.transport.UDPv6.builtin.transport_priority_mapping_high	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0xFF`
Min-Max value	`[0,INT_MAX]`
Description	Sets the high value of the output range to IPv4 TOS.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><transport_priority_mapping_high>

dds.transport.UDPv6.builtin.transport_priority_mapping_low	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Sets the low value of the output range to IPv4 TOS.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><transport_priority_mapping_low>

dds.transport.UDPv6.builtin.transport_priority_mask	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Mask for the transport priority field.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><transport_priority_mask>

dds.transport.UDPv6.builtin.unicast_enabled	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Allows the transport plugin to use unicast UDP for sending and receiving.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><unicast_enabled>

parent

dds.transport.UDPv6.builtin.parent.allow_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name that can be used by the transport.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><allow_interfaces_list>

dds.transport.UDPv6.builtin.parent.allow_multicast_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><allow_multicast_interfaces_list>

dds.transport.UDPv6.builtin.parent.deny_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name that will not be used by the transport.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><deny_interfaces_list>

dds.transport.UDPv6.builtin.parent.deny_multicast_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><deny_multicast_interfaces_list>

dds.transport.UDPv6.builtin.parent.gather_send_buffer_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`16`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the maximum number of buffers that Connext DDS can pass to the send() method of a transport plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><gather_send_buffer_count_max>

dds.transport.UDPv6.builtin.parent.message_size_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`65487`
Min-Max value	`[INT_MIN,MAX_INT]`
Possible values	`UDPV4_MESSAGE_SIZE_MAX_DEFAULT` `NDDS_TRANSPORT_UDPV4_MESSAGE_SIZE_MAX_DEFAULT`
Description	The maximum size of a message in bytes that can be sent or received by the transport plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><message_size_max>

dds.transport.UDPv6.builtin.parent.properties_bitmap	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	String
Default Value	`NDDS_TRANSPORT_PROPERTIES_BITMAP_DEFAULT`
Possible values	`0 1 2 TRANSPORT_PROPERTY_BIT_BUFFER_ALWAYS_LOANED NDDS_TRANSPORT_PROPERTY_BIT_BUFFER_ALWAYS_LOANED TRANSPORT_PROPERTY_BITMAP_DEFAULT NDDS_TRANSPORT_PROPERTIES_BITMAP_DEFAULT`
Description	A bitmap that defines various properties of the transport to the Connext DDS core.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><properties_bitmap>

dds.transport.UDPv6.builtin.parent.thread_name_prefix	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`rTr#####`
Pattern value	`^.{0,8}$`
Description	Prefix used to name the transport threads.
Related to these features	Transport Builtin Transport

shmem.builtin

dds.transport.shmem.builtin.enable_udp_debugging	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Enables UDP debugging when using shared memory.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><enable_udp_debugging>

dds.transport.shmem.builtin.host_id	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`0`
Min-Max value	`[0,UINT_MAX]`
Description	Host ID used to generate the shared memory transport network address.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><host_id>

dds.transport.shmem.builtin.receive_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Mutability type	mutableUntilEnable
Default Value	`1048576`
Min-Max value	`[0,INT_MAX]`
Description	The total number of bytes that can be buffered in the receive queue.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><receive_buffer_size>

dds.transport.shmem.builtin.received_message_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Mutability type	mutableUntilEnable
Default Value	`64`
Min-Max value	`[0,INT_MAX]`
Description	Number of messages that can be buffered in the receive queue.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><received_message_count_max>

dds.transport.shmem.builtin.udp_debugging_address	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`239.255.1.2`
Min-Max value	`[0,255]`
Description	IP address to which shared memory traffic will be published
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><udp_debugging_address>

dds.transport.shmem.builtin.udp_debugging_port	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`7399`
Min-Max value	`[0,UINT_MAX]`
Description	Port to which shared memory traffic will be published.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><udp_debugging_port>

dds.transport.shmem.builtin.use_530_from_uuid_locator	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	This property only applies when the WireProtocol QoS policy (specifically rtps_auto_id_kind) is set to DDS_RTPS_AUTO_ID_FROM_UUID. Consider using the transport QoS or the newer dds.transport.minimum_compatibility_version property.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><use_530_from_uuid_locator>

parent

dds.transport.shmem.builtin.parent.gather_send_buffer_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the maximum number of buffers that Connext DDS can pass to the send() method of a transport plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><gather_send_buffer_count_max

dds.transport.shmem.builtin.parent.message_size_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`65536`
Min-Max value	`[INT_MIN,INT_MAX]`
Description	The maximum size of a message in bytes that can be sent or received by the transport plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><message_size_max>

dds.transport.shmem.builtin.parent.properties_bitmap	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0x2`
Min-Max value	`[0,INT_MAX]`
Description	A bitmap that defines various properties of the transport to the Connext DDS core.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><properties_bitmap>

dds.transport.shmem.builtin.parent.thread_name_prefix	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`rTr#####`
Pattern value	`^.{0,8}$`
Description	Prefix used to name the transport threads.
Related to these features	Transport Builtin Transport

4.3 Builtin Type

4.3.1 dds.builtin_type

dds.builtin_type.auto_register	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Register automatically the built-in types when a DomainParticipant is created.
Related to these features	Builtin Type

keyed_octets

dds.builtin_type.keyed_octets.alloc_key_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the key published by the DataWriter or received by the DataReader (includes the NULL-terminated character).
Related to these features	Builtin Type

dds.builtin_type.keyed_octets.alloc_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`2048`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the octet sequences published by the DataWriter or DataReader.
Related to these features	Builtin Type

dds.builtin_type.keyed_octets.max_key_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the key published by the DataWriter and received by the DataReaders belonging to the DomainParticipant (includes the NULL-terminated character).
Related to these features	Builtin Type

dds.builtin_type.keyed_octets.max_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`2048`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the octet sequences published by the DataWriters and DataReaders belonging to a DomainParticipant.
Related to these features	Builtin Type

keyed_string

dds.builtin_type.keyed_string.alloc_key_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the keys used by the DataWriter or DataReader (includes the NULL-terminated character).
Related to these features	Builtin Type

dds.builtin_type.keyed_string.alloc_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the strings published by the DataWriter or received by the DataReader (includes the NULL-terminated character).
Related to these features	Builtin Type

dds.builtin_type.keyed_string.max_key_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the keys used by the DataWriters and DataReaders belonging to a DomainParticipant (includes the NULL-terminated character).
Related to these features	Builtin Type

dds.builtin_type.keyed_string.max_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the strings published by the DataWriters and received by the DataReaders belonging to a DomainParticipant using the built-in type (includes the NULL-terminated character).
Related to these features	Builtin Type

octets

dds.builtin_type.octets.alloc_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`2048`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the octet sequences published by the DataWriter or DataReader.
Related to these features	Builtin Type

dds.builtin_type.octets.max_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`2048`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the octet sequences published by the DataWriters and DataReaders belonging to a DomainParticipant.
Related to these features	Builtin Type

string

dds.builtin_type.string.alloc_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the strings published by the DataWriter or received by the DataReader (includes the NULL-terminated character).
Related to these features	Builtin Type

dds.builtin_type.string.max_size	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Maximum size of the strings published by the DataWriters and received by the DataReaders belonging to a DomainParticipant (includes the NULL-terminated character).
Related to these features	Builtin Type

4.4 Clock

4.4.1 dds.clock

dds.clock.external_clock	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`realtime`
Possible values	`realtime` `system` `monotonic`
Description	Comma-delimited list of clocks to use for the external clock, in the order of preference.
Related to these features	Clock

dds.clock.internal_clock	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`realtime`
Possible values	`realtime` `system` `monotonic`
Description	Comma-delimited list of clocks to use for the internal clock, in the order of preference.
Related to these features	Clock

4.5 DDS Secure

4.5.1 com.rti.serv

com.rti.serv.load_plugin	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	The prefix name of the security plugin suite that will be loaded by Connext DDS.
Related to these features	DDS Secure

secure

com.rti.serv.secure.create_function	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Pattern value	`.*`
Description	Must be set to the security plugin suite creation function that is implemented by the library.
Related to these features	DDS Secure

com.rti.serv.secure.create_function_ptr	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Pattern value	`.*`
Description	Must be set to the security plugin suite creation function implemented by the library.
Related to these features	DDS Secure

com.rti.serv.secure.library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Pattern value	`.*`
Description	Must be set to the dynamic library that implements the security plugin suite.
Related to these features	DDS Secure

com.rti.serv.secure.license_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`NULL`
Pattern value	`.*`
Description	The value for this property can be set to the location (full path and filename) of a license file.
Related to these features	DDS Secure

com.rti.serv.secure.license_string	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`NULL`
Pattern value	`.*`
Description	The value for this property can be set to the content of a license file.
Related to these features	DDS Secure

com.rti.serv.secure.openssl_engine	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`NULL`
Pattern value	`.*`
Description	A semicolon-separated list of dynamic libraries that each implement an OpenSSL engine. Each engine may implement a different set of security functions. For example, one engine may implement certificate management, while another engine may implement cryptographic operations. If the authentication.keyform property value is engine, then the private key must be successfully loaded by exactly one of the engines in this list.
Related to these features	DDS Secure

com.rti.serv.secure.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	DDS Secure

access_control

com.rti.serv.secure.access_control.alternative_permissions_authority_files	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`NULL`
Pattern value	`.*(,.*)*`
Description	A comma-separated list of alternative Permissions CA certificates.
Related to these features	DDS Secure

com.rti.serv.secure.access_control.use_530_logging_protection	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Mutability type	immutable
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	How to set the value of <metadata_protection_kind> for the Builtin Logging Topic.
Related to these features	DDS Secure

com.rti.serv.secure.access_control.use_530_partitions	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Mutability type	immutable
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	How to determine a match between a DataWriter's or DataReader's partitions and an 'allowed partitions' condition in a Permissions Document.
Related to these features	DDS Secure

com.rti.serv.secure.access_control.use_530_permissions_rules_precedence	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Mutability type	immutable
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	How to deal with conflicting allow/deny rules in a Permissions Document when checking if a topic or endpoint may exist.
Related to these features	DDS Secure

com.rti.serv.secure.access_control.use_610_permissions_rules_precedence	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Mutability type	immutable
Default Value	`auto`
Possible values	`0` `1` `TRUE` `FALSE` `YES` `NO` `AUTO` `auto`
Description	How to deal with conflicting allow/deny rules in a Permissions Document when checking if a DomainParticipant may exist.
Related to these features	DDS Secure

authentication

com.rti.serv.secure.authentication.alternative_ca_files	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`NULL`
Pattern value	`.*(,.*)*`
Description	A comma-separated list of alternative Identity CA certificates.
Related to these features	DDS Secure

com.rti.serv.secure.authentication.crl	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	mutable
Default Value	`NULL`
Pattern value	`.*`
Description	This Certificate Revocation List keeps track of untrusted X.509 certificates.
Related to these features	DDS Secure

com.rti.serv.secure.authentication.enable_custom_algorithms	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Mutability type	immutable
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Configures whether to enable custom cryptographic algorithms for the Authentication plugin. When enabled (not by default) the Security Plugins will enable additional digital signature and key establishment algorithms that are not part of the DDS Security specification (EDDSA+ED25519+SHA512, EDDSA+ED448+SHAKE256, ECDHE-CEUM+X25519, ECDHE-CEUM+X448). Currently only supported in combination with OpenSSL: this property will have no effect when used in combination with wolfSSL.
Related to these features	DDS Secure

com.rti.serv.secure.authentication.enable_custom_allocators	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Mutability type	immutable
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Configures whether to set custom crypto library (e.g., OpenSSL) allocators. When enabled (not the default) the Security Plugins will configure custom allocator functions (alloc, realloc, free) to the loaded crypto library with the goal of reducing memory fragmentation at the cost of a minimum performance impact. This is currently only supported in combination with OpenSSL. This property is only effective the first time a DomainParticipant loads the Security Plugins within the same process: subsequent DomainParticipant creations will ignore this property and leave the existing configuration unchanged. Moreover, this property is only effective if no allocation has been done with the crypto library builtin allocators before the Security Plugins have been loaded, otherwise a warning will be logged and no change will be made. Important: since the allocator functions live within the Security Plugins library, your application must not make any calls to the crypto library once the Security Plugins have been unloaded from memory.
Related to these features	DDS Secure

com.rti.serv.secure.authentication.key_establishment_algorithm	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Mutability type	immutable
Default Value	`AUTO`
Possible values	`AUTO` `DHE+MODP-2048-256` `ECDHE-CEUM+P256` `ECDHE-CEUM+P384`
Description	The algorithm used to establish a shared secret during authentication.
Related to these features	DDS Secure

com.rti.serv.secure.authentication.keyform	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Mutability type	immutable
Default Value	`pem`
Possible values	`engine` `pem`
Description	The format of the private key specified by dds.sec.auth.private_key. If the value is engine, then the openssl_engine property must be set, and the private key must be successfully loaded by exactly one of the engines in that list.
Related to these features	DDS Secure

com.rti.serv.secure.authentication.participant_discovery_protection_key	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`NULL`
Pattern value	`.*`
Description	Sets the static HMAC key used to compute participant discovery signatures.
Related to these features	DDS Secure

com.rti.serv.secure.authentication.propagate_simplified_identity_certificate	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Mutability type	immutable
Default Value	`true`
Possible values	`0` `1` `TRUE` `FALSE` `YES` `NO`
Description	Indicates whether the identity certificate should be simplified
Related to these features	DDS Secure

com.rti.serv.secure.authentication.rsa_pss_pad	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Mutability type	immutable
Default Value	`TRUE`
Possible values	`0` `1` `TRUE` `FALSE` `YES` `NO` `AUTO` `auto`
Description	Configures whether to use RSA PSS padding or standard RSA padding during authentication
Related to these features	DDS Secure

com.rti.serv.secure.authentication.shared_secret_algorithm	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Mutability type	immutable
Default Value	`ecdh`
Possible values	`dh` `ecdh`
Description	The algorithm used to establish a shared secret during authentication. This property is deprecated. Instead, use authentication.key_establishment_algorithm.
Related to these features	DDS Secure
The property has been deprecated in version	7.0.0

cryptography

com.rti.serv.secure.cryptography.encryption_algorithm	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`AES256+GCM`
Possible values	`AES128+GCM` `AES192+GCM` `AES256+GCM` `aes-128-gcm` `aes-192-gcm` `aes-256-gcm`
Description	The algorithm used for encrypting and decrypting data and metadata.
Related to these features	DDS Secure

com.rti.serv.secure.cryptography.max_blocks_per_session	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned long long
Mutability type	immutable
Default Value	`0xffffffffffffffff`
Min-Max value	`[1,ULLONG_MAX]`
Description	The number of message blocks that can be encrypted with the same key material.
Related to these features	DDS Secure

com.rti.serv.secure.cryptography.max_receiver_specific_macs	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Mutability type	immutable
Default Value	`0`
Min-Max value	`[0,3275]`
Description	The maximum number of receiver-specific Message Authentication Codes (MACs) that are appended to an encoded result.
Related to these features	DDS Secure

com.rti.serv.secure.cryptography.rtps_protection_key	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`NULL`
Pattern value	`.*`
Description	Sets the static HMAC key used to compute message signatures. This property is applied when hmac_only.enabled is false.
Related to these features	DDS Secure

com.rti.serv.secure.cryptography.share_key_for_metadata_and_data_protection	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Mutability type	immutable
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Indicator of whether the metadata and data encoding operations share the same key material or use different keys.
Related to these features	DDS Secure

hmac_only

com.rti.serv.secure.hmac_only.enabled	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Mutability type	immutable
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Enables or disables the HMAC-only mode.
Related to these features	DDS Secure

hmac_only.cryptography

com.rti.serv.secure.hmac_only.cryptography.key	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`NULL`
Pattern value	`.*`
Description	Sets the static HMAC key used to compute message signatures.
Related to these features	DDS Secure

com.rti.serv.secure.hmac_only.cryptography.max_blocks_per_session	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Mutability type	immutable
Default Value	`0xffffffffffffffff`
Min-Max value	`[1,ULLONG_MAX]`
Description	For signing RTPS messages, HMAC-only mode uses a key derived from the HMAC key and a sessionId that is serialized as part of the signed RTPS message representation.
Related to these features	DDS Secure

logging

com.rti.serv.secure.logging.log_level	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Mutability type	immutable
Default Value	`3`
Min-Max value	`[0,7]`
Description	The logging verbosity level.
Related to these features	DDS Secure Logging
The property has been deprecated by	com.rti.serv.secure.logging.verbosity

com.rti.serv.secure.logging.mode_mask	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	mask
Mutability type	immutable
Default Value	`BUILTIN`
Possible values	`BUILTIN` `SECURITY_TOPIC`
Description	The mask to determine the logging mode(s).
Related to these features	DDS Secure Logging

com.rti.serv.secure.logging.verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Mutability type	immutable
Default Value	`ERROR`
Possible values	`SILENT` `EMERGENCY` `ALERT` `CRITICAL` `ERROR` `WARNING` `NOTICE` `INFORMATIONAL` `DEBUG`
Description	The logging verbosity level
Related to these features	DDS Secure Logging

logging.security_topic

com.rti.serv.secure.logging.security_topic.profile	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`NULL`
Pattern value	`.*`
Description	QoS Library and QoS profile used to create logging-related entities (Publisher, Topic and DataWriter).
Related to these features	DDS Secure Logging

logging.security_topic.queue

com.rti.serv.secure.logging.security_topic.queue.message_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Mutability type	immutable
Default Value	`64`
Min-Max value	`[0,UINT_MAX]`
Description	Maximum number of log messages in the logging queue.
Related to these features	DDS Secure Logging

com.rti.serv.secure.logging.security_topic.queue.message_size_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Mutability type	immutable
Default Value	`792`
Min-Max value	`[27,UINT_MAX]`
Description	Maximum serialized size of a log message in the logging queue.
Related to these features	DDS Secure Logging

com.rti.serv.secure.logging.security_topic.queue.size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Mutability type	immutable
Default Value	`50688`
Min-Max value	`[0,UINT_MAX]`
Description	Size of the logging thread queue, in bytes.
Related to these features	DDS Secure Logging

logging.security_topic.thread

com.rti.serv.secure.logging.security_topic.thread.message_threshold	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Mutability type	immutable
Default Value	`256`
Min-Max value	`[0,UINT_MAX]`
Description	Number of bytes to preallocate for the logging message string in the logging thread, beyond which dynamic allocation will occur.
Related to these features	DDS Secure Logging

com.rti.serv.secure.logging.security_topic.thread.plugin_method_threshold	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Mutability type	immutable
Default Value	`80`
Min-Max value	`[0,UINT_MAX]`
Description	Number of bytes to preallocate for the plugin method string in the logging thread, beyond which dynamic allocation will occur.
Related to these features	DDS Secure Logging

4.5.2 dds.data_writer.cryptography

dds.data_writer.cryptography.taint_data	
May be set in	DataWriter
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Simulate tainted data. Connext DDS will modify one byte of encoded data after the final layer of GMAC or GCM is computed. This property can be used for testing validation of the GMAC hash. Tainting of encoded payloads requires running on a little-endian machine. Tainting is not supported when key_revision_max_history_depth > 0.
Related to these features	DDS Secure

4.5.3 dds.data_writer.history

dds.data_writer.history.key_material_key	
May be set in	DataWriter DomainParticipant
Applies to	DataWriter
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	The basis of the key material used to encrypt the PRSTDataWriter's key material.
Related to these features	Durability DDS Secure

4.5.4 dds.participant.logging.time_based_logging.authentication

dds.participant.logging.time_based_logging.authentication.timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`INT_MAX`
Min-Max value	`[0,INT_MAX]`
Description	Print warning message when the authentication operation time exceeds this time threshold.
Related to these features	DDS Secure Logging

4.5.5 dds.participant.trust_plugins.authentication_request_delay

dds.participant.trust_plugins.authentication_request_delay.sec	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`5`
Min-Max value	`[0,INT_MAX]`
Description	Controls the delay in seconds before sending an authentication_request to the remote participant.
Related to these features	DDS Secure

4.5.6 dds.participant.trust_plugins.authentication_request_timeout

dds.participant.trust_plugins.authentication_request_timeout.sec	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`20`
Min-Max value	`[0,INT_MAX]`
Description	It determines the timeout (in seconds) for authentication negotiations started from an authentication request message (authentication request is a DDS Security 1.1 mechanism to securely recover from an asymmetric liveliness loss). If set to a value greater than authentication_timeout, then it will be set to authentication_timeout.
Related to these features	DDS Secure

4.5.7 dds.participant.trust_plugins.authentication_timeout

dds.participant.trust_plugins.authentication_timeout.sec	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`60`
Min-Max value	`[0,INT_MAX]`
Description	Controls the maximum time in seconds that an ongoing authentication can remain without completing.
Related to these features	DDS Secure

4.5.8 dds.sec.access

dds.sec.access.governance	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`[file:|data:,].*`
Description	The signed document that specifies the level of security required per domain and per topic.
Related to these features	DDS Secure

dds.sec.access.permissions	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`[file:|data:,].*`
Description	The signed document that specifies the access control permissions per domain and per topic.
Related to these features	DDS Secure

dds.sec.access.permissions_ca	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`[file:|data:,].*`
Description	This Permissions Certificate Authority is used for signing access control governance and permissions XML files and verifying the signatures of those files.
Related to these features	DDS Secure

4.5.9 dds.sec.auth

dds.sec.auth.identity_ca	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`[file:|data:,].*`
Description	This Identity Certificate Authority is used for signing authentication certificate files.
Related to these features	DDS Secure

dds.sec.auth.identity_certificate	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`[file:|data:,].*`
Description	The private key associated with the first certificate.
Related to these features	DDS Secure

dds.sec.auth.password	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	The password used to decrypt the private_key.
Related to these features	DDS Secure

dds.sec.auth.private_key	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`[file:|data:,].*`
Description	The private key associated with the first certificate.
Related to these features	DDS Secure

4.6 Default Discovery Propagation

4.6.1 dds.sys_info

dds.sys_info.creation_timestamp	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Min-Max value	`[0,9999]`
Description	Time when the executable was created.
Related to these features	System Info Default Discovery Propagation

dds.sys_info.executable_filepath	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Name and full path of the executable.
Related to these features	System Info Default Discovery Propagation

dds.sys_info.execution_times-tamp	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Min-Max value	`[0,9999]`
Description	Time when the execution started.
Related to these features	System Info Default Discovery Propagation

dds.sys_info.hostname	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Hostname
Related to these features	System Info Default Discovery Propagation

dds.sys_info.process_id	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Min-Max value	`[0,UINT_MAX]`
Description	Process ID
Related to these features	System Info Default Discovery Propagation

dds.sys_info.target	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Architecture for which the library was compiled.
Related to these features	System Info Default Discovery Propagation

dds.sys_info.username	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Username that is running the process.
Related to these features	System Info Default Discovery Propagation

4.7 Discovery

4.7.1 dds.discovery.endpoint

dds.discovery.endpoint.load_plugins	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	String indicating the prefix name of the plugin that will be loaded by Connext DDS.
Related to these features	Discovery

lbediscovery

dds.discovery.endpoint.lbediscovery.config_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.+\.xml`
Description	The name of the discovery configuration file.
Related to these features	Discovery

dds.discovery.endpoint.lbediscovery.create_function	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	The name of the function that will be called by Connext DDS to create an instance of the LBED plugin.
Related to these features	Discovery

dds.discovery.endpoint.lbediscovery.library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	The name of the dynamic library that contains the LBED plugin implementation.
Related to these features	Discovery

dds.discovery.endpoint.lbediscovery.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	Discovery

dds.discovery.endpoint.lbediscovery.verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[-1,INT_MAX]`
Description	The verbosity for the plugin, for debugging purposes.
Related to these features	Discovery Logging

4.7.2 dds.discovery.participant

dds.discovery.participant.load_plugins	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	String indicating the prefix name of the plugin that will be loaded by Connext DDS.
Related to these features	Discovery

lbpdiscovery

dds.discovery.participant.lbpdiscovery.config_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.+\.xml`
Description	The name of the discovery configuration file.
Related to these features	Discovery

dds.discovery.participant.lbpdiscovery.create_function	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	The name of the function that will be called by Connext DDS to create an instance of the LBPD plugin.
Related to these features	Discovery

dds.discovery.participant.lbpdiscovery.library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	The name of the dynamic library that contains the LBPD plugin implementation.
Related to these features	Discovery

dds.discovery.participant.lbpdiscovery.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	Discovery

dds.discovery.participant.lbpdiscovery.verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[-1,INT_MAX]`
Description	The verbosity for the plugin, for debugging purposes.
Related to these features	Discovery Logging

4.7.3 dds.domain_participant

dds.domain_participant.domain_tag	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`^.{0,255}$`
Description	A string defining the Domain Tag the DomainParticipant will propagate through Participant Discovery.
Related to these features	Discovery

dds.domain_participant.max_announced_locator_list_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`16`
Min-Max value	`[0,16]`
Description	A sequence of multicast settings used to configure the multicast addresses associated with a channel.
Related to these features	Discovery

dds.domain_participant.network_interface_event_notification_delay	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,60000]`
Description	Delays the DomainParticipant announcements that include a new interface for the number of milliseconds in the value of the property.
Related to these features	Discovery

4.7.4 dds.participant.discovery_config

dds.participant.discovery_config.disable_endpoint_security_info_propagation	
May be set in	DomainParticipant
Applies to	DomainParticipant DataReader DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Participant may communicate for some combinations of inconsistent metadata/data protection kinds.
Related to these features	Discovery

dds.participant.discovery_config.disable_participant_security_info_propagation	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Participants may communicate for some combinations of inconsistent Governance's RTPS, discovery, and liveliness configurations.
Related to these features	Discovery

dds.participant.discovery_config.force_endpoint_announcement_on_ip_mobility_event	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Forces the sending of endpoint discovery announcements when there is an IP mobility event.
Related to these features	Discovery

dds.participant.discovery_config.use_stateless_participant_discovery_reader	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	If TRUE, makes Simple Participant Discovery robust against Sequence Number Attacks by switching the local Simple Participant Discovery DataReader's mode to pure stateless.
Related to these features	Discovery

4.7.5 dds.participant.inter_participant_data_reader.protocol

dds.participant.inter_participant_data_reader.protocol.disable_preemptive_nack	
May be set in	DomainParticipant
Applies to	DomainParticipant DataReader
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Disable preemptive Heartbeats and NACKs.
Related to these features	Discovery Reliability

4.7.6 dds.participant.inter_participant_data_writer.protocol

dds.participant.inter_participant_data_writer.protocol.disable_preemptive_heartbeat	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Disable preemptive Heartbeats and NACKs.
Related to these features	Discovery Reliability

4.8 Durability

4.8.1 dds.data_reader.state

dds.data_reader.state.checkpoint_frequency	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Controls how often the DataReader state is stored into the database.
Related to these features	Durability

dds.data_reader.state.filter_redundant_samples	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Enables durable DataReader state.
Related to these features	Durability Filtering

dds.data_reader.state.restore	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Indicates if the persisted DataReader state must be restored or not once the DataReader is restarted.
Related to these features	Durability

odbc

dds.data_reader.state.odbc.driver	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	string
Default Value	`odbc32.dll (Windows) libodbc.so (Otherwise)`
Pattern value	`.*`
Description	Indicates which ODBC driver to load.
Related to these features	Durability

dds.data_reader.state.odbc.dsn	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	string
Pattern value	`^.{1,512}$`
Description	The ODBC DSN (Data Source Name) associated with the database where the DataReader state must be persisted.
Related to these features	Durability

dds.data_reader.state.odbc.pass-word	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	string
Pattern value	`^.{0,30}$`
Description	Configures the password used to connect to the database.
Related to these features	Durability

dds.data_reader.state.odbc.user-name	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	string
Pattern value	`^.{0,30}$`
Description	Configures the username used to connect to the database.
Related to these features	Durability

persistence_service

dds.data_reader.state.persis-tence_service.request_depth	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Indicates how many of the most recent historical samples the persisted DataReader wants to receive upon start-up.
Related to these features	Durability

4.8.2 dds.data_writer.history

dds.data_writer.history.key_ma-terial_key	
May be set in	DataWriter DomainParticipant
Applies to	DataWriter
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	The basis of the key material used to encrypt the PRSTDataWriter's key ma-terial.
Related to these features	Durability DDS Secure

dds.data_writer.history.plugin_name	
May be set in	DataWriter DomainParticipant
Applies to	DataWriter
Type	string
Default Value	`dds.data_writer.history.odbc_plugin.builtin`
Pattern value	`dds.data_writer.history.odbc_plugin.builtin`
Description	Must be set to 'dds.data_writer.history.odbc_plugin.builtin' to enable durable writer history in the DataWriter.
Related to these features	Durability

dds.data_writer.history.purge_samples_after_acknowledgment	
May be set in	DataWriter DomainParticipant
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	The DataWriter's behavior can be changed to purge DDS samples after they have been acknowledged by all the active/matching DataReaders.
Related to these features	Durability

dds.data_writer.history.source_timestamp_based_autopurge_instances_delay	
May be set in	DataWriter DomainParticipant
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	The purging of the unregistered instances can be done based on the unregistered sample source timestamp or the time when the unregistered sample was added to the DataWriter queue.
Related to these features	Durability Instance

odbc_plugin

dds.data_writer.history.odbc_plugin.driver	
May be set in	DataWriter
Applies to	DataWriter
Type	string
Default Value	`"libodbc.so" (for Linux systems) "odbc32.dll" (for Windows systems)`
Pattern value	`^.{0,30}$`
Description	Tells Connext DDS which ODBC driver to load.
Related to these features	Durability

dds.data_writer.history.odbc_plugin.dsn	
May be set in	DataWriter
Applies to	DataWriter
Type	string
Pattern value	`^.{1,512}$`
Description	The ODBC DSN (Data Source Name) associated with the database where the writer history must be persisted.
Related to these features	Durability

dds.data_writer.history.odbc_plugin.in_memory_state	
May be set in	DataWriter
Applies to	DataWriter
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Determines how much state will be kept in memory by the ODBC writer history in order to avoid accessing the database.
Related to these features	Durability

dds.data_writer.history.odbc_plugin.instance_cache_init_size	
May be set in	DataWriter
Applies to	DataWriter
Type	integer
Min-Max value	`[0,INT_MAX]`
Description	Configures the resource limits associated with the ODBC writer history caches.
Related to these features	Durability Instance

dds.data_writer.history.odbc_plugin.instance_cache_max_size	
May be set in	DataWriter
Applies to	DataWriter
Type	integer
Default Value	`0`
Min-Max value	`[-1,INT_MAX]`
Description	Configures the resource limits associated with the ODBC writer history caches.
Related to these features	Durability Instance

dds.data_writer.history.odbc_plugin.password	
May be set in	DataWriter
Applies to	DataWriter
Type	string
Pattern value	`^.{0,30}$`
Description	Configures the password used to connect to the database.
Related to these features	Durability

dds.data_writer.history.odbc_plugin.restore	
May be set in	DataWriter
Applies to	DataWriter
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Indicates whether or not the persisted writer history must be restored once the DataWriter is restarted.
Related to these features	Durability

dds.data_writer.history.odbc_plugin.sample_cache_init_size	
May be set in	DataWriter
Applies to	DataWriter
Type	integer
Default Value	`32`
Min-Max value	`[1,INT_MAX]`
Description	Configures the resource limits associated with the ODBC writer history caches.
Related to these features	Durability

dds.data_writer.history.odbc_plugin.sample_cache_max_size	
May be set in	DataWriter
Applies to	DataWriter
Type	integer
Default Value	`32`
Min-Max value	`[-1,INT_MAX]`
Description	Configure the resource limits associated with the ODBC writer history caches.
Related to these features	Durability

dds.data_writer.history.odbc_plugin.shared	
May be set in	DataWriter
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Creates a single connection per DSN that will be shared across DataWriters within the same Publisher.
Related to these features	Durability

dds.data_writer.history.odbc_plugin.username	
May be set in	DataWriter
Applies to	DataWriter
Type	string
Pattern value	`^.{0,30}$`
Description	Configures the username used to connect to the database.
Related to these features	Durability

4.9 Filtering

4.9.1 dds.data_reader.state

dds.data_reader.state.filter_redundant_samples	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Enables durable DataReader state.
Related to these features	Durability Filtering

4.9.2 dds.domain_participant

dds.domain_participant.filtering_character_encoding	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`UTF-8`
Possible values	`UTF-8 ISO_8859`
Description	Select the character encoding for filtering
Related to these features	Filtering

dds.domain_participant.filtering_unicode_normalization	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`NFC`
Possible values	`OFF NFD NFC NFKD NFKC NFKC_Casefold`
Description	Select Unicode normalization for filter evaluation
Related to these features	Filtering

4.10 Flow Controller

4.10.1 dds.domain_participant

dds.domain_participant.asynchronous_publisher_thread_destruction_timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`10`
Min-Max value	`[0,60]`
Related to these features	Flow Controller

4.10.2 dds.flow_controller.token_bucket.<flow_controller_name>

dds.flow_controller.token_bucket.<flow_controller_name>.scheduling_policy	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	enum
Default Value	`DDS_EDF_FLOW_CONTROLLER_SCHED_POLICY`

Possible values	`DDS_RR_FLOW_CONTROLLER_SCHED_POLICY`
	`DDS_EDF_FLOW_CONTROLLER_SCHED_POLICY`
	`DDS_HPF_FLOW_CONTROLLER_SCHED_POLICY`

Description	Specifies the scheduling policy to be used.
Related to these features	Flow Controller

token_bucket

dds.flow_controller.token_bucket.<flow_controller_name>.token_bucket.bytes_per_token	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	integer
Default Value	`-1`
Min-Max value	`[0,INT_MAX]`
Description	Maximum number of bytes allowed to send for each token available.
Related to these features	Flow Controller

dds.flow_controller.token_bucket.<flow_controller_name>.token_bucket.max_tokens	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	integer
Default Value	`-1`
Min-Max value	`[0,INT_MAX]`
Description	Maximum number of tokens than can accumulate in the token bucket.
Related to these features	Flow Controller

dds.flow_controller.token_bucket.<flow_controller_name>.token_bucket.tokens_added_per_period	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	integer
Default Value	`-1`
Min-Max value	`[-1,INT_MAX]`
Description	Number of tokens added to the token bucket per specified period.
Related to these features	Flow Controller

dds.flow_controller.token_bucket.<flow_controller_name>.token_bucket.tokens_leaked_per_period	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Number of tokens removed from the token bucket per specified period.
Related to these features	Flow Controller

period

dds.flow_controller.token_bucket.<flow_controller_name>.token_bucket.period.nanosec	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	unsigned integer
Default Value	`0`
Min-Max value	`[0,UINT_MAX]`
Description	Period for adding tokens to and removing tokens from the bucket in nanoseconds.
Related to these features	Flow Controller

dds.flow_controller.token_bucket.<flow_controller_name>.token_bucket.period.sec	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	integer
Default Value	`1`
Min-Max value	`[0,INT_MAX]`
Description	Period for adding tokens to and removing tokens from the bucket in seconds.
Related to these features	Flow Controller

4.11 Instance

4.11.1 dds.data_writer.history

dds.data_writer.history.source_timestamp_based_autopurge_instances_delay	
May be set in	DataWriter DomainParticipant
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0` `1` `TRUE` `FALSE` `YES` `NO`
Description	The purging of the unregistered instances can be done based on the unregistered sample source timestamp or the time when the unregistered sample was added to the DataWriter queue.
Related to these features	Durability Instance

odbc_plugin

dds.data_writer.history.odbc_plugin.instance_cache_init_size	
May be set in	DataWriter
Applies to	DataWriter
Type	integer
Min-Max value	`[0,INT_MAX]`
Description	Configures the resource limits associated with the ODBC writer history caches.
Related to these features	Durability Instance

dds.data_writer.history.odbc_plugin.instance_cache_max_size	
May be set in	DataWriter
Applies to	DataWriter
Type	integer
Default Value	`0`
Min-Max value	`[-1,INT_MAX]`
Description	Configures the resource limits associated with the ODBC writer history caches.
Related to these features	Durability Instance

4.12 License

4.12.1 dds.license

dds.license.license_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Pattern value	`.*`
Description	Sets the path to the license file
Related to these features	License

dds.license.license_string	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Sets the contents of the license.
Related to these features	License

4.13 Logging

4.13.1 com.rti.serv.secure.logging

com.rti.serv.secure.logging.log_level	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Mutability type	immutable
Default Value	`3`
Min-Max value	`[0,7]`
Description	The logging verbosity level.
Related to these features	DDS Secure Logging
The property has been deprecated by	com.rti.serv.secure.logging.verbosity

com.rti.serv.secure.logging.mode_mask	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	mask
Mutability type	immutable
Default Value	`BUILTIN`
Possible values	`BUILTIN` `SECURITY_TOPIC`
Description	The mask to determine the logging mode(s).
Related to these features	DDS Secure Logging

com.rti.serv.secure.logging.verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Mutability type	immutable
Default Value	`ERROR`
Possible values	`SILENT` `EMERGENCY` `ALERT` `CRITICAL` `ERROR` `WARNING` `NOTICE` `INFORMATIONAL` `DEBUG`
Description	The logging verbosity level
Related to these features	DDS Secure Logging

security_topic

com.rti.serv.secure.logging.security_topic.profile	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Mutability type	immutable
Default Value	`NULL`
Pattern value	`.*`
Description	QoS Library and QoS profile used to create logging-related entities (Publisher, Topic and DataWriter).
Related to these features	DDS Secure Logging

queue

com.rti.serv.secure.logging.security_topic.queue.message_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Mutability type	immutable
Default Value	`64`
Min-Max value	`[0,UINT_MAX]`
Description	Maximum number of log messages in the logging queue.
Related to these features	DDS Secure Logging

com.rti.serv.secure.logging.security_topic.queue.message_size_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Mutability type	immutable
Default Value	`792`
Min-Max value	`[27,UINT_MAX]`
Description	Maximum serialized size of a log message in the logging queue.
Related to these features	DDS Secure Logging

com.rti.serv.secure.logging.security_topic.queue.size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Mutability type	immutable
Default Value	`50688`
Min-Max value	`[0,UINT_MAX]`
Description	Size of the logging thread queue, in bytes.
Related to these features	DDS Secure Logging

thread

com.rti.serv.secure.logging.security_topic.thread.message_threshold	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Mutability type	immutable
Default Value	`256`
Min-Max value	`[0,UINT_MAX]`
Description	Number of bytes to preallocate for the logging message string in the logging thread, beyond which dynamic allocation will occur.
Related to these features	DDS Secure Logging

com.rti.serv.secure.logging.security_topic.thread.plugin_method_threshold	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Mutability type	immutable
Default Value	`80`
Min-Max value	`[0,UINT_MAX]`
Description	Number of bytes to preallocate for the plugin method string in the logging thread, beyond which dynamic allocation will occur.
Related to these features	DDS Secure Logging

4.13.2 dds.discovery.endpoint.lbediscovery

dds.discovery.endpoint.lbediscovery.verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[-1,INT_MAX]`
Description	The verbosity for the plugin, for debugging purposes.
Related to these features	Discovery Logging

4.13.3 dds.discovery.participant.lbpdiscovery

dds.discovery.participant.lbpdiscovery.verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[-1,INT_MAX]`
Description	The verbosity for the plugin, for debugging purposes.
Related to these features	Discovery Logging

4.13.4 dds.participant.logging.time_based_logging.authentication

dds.participant.logging.time_based_logging.authentication.timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`INT_MAX`
Min-Max value	`[0,INT_MAX]`
Description	Print warning message when the authentication operation time exceeds this time threshold.
Related to these features	DDS Secure Logging

4.13.5 dds.participant.logging.time_based_logging.event

dds.participant.logging.time_based_logging.event.timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`INT_MAX`
Min-Max value	`[0,INT_MAX]`
Description	Print warning message when the event start/execution time exceeds this time threshold.
Related to these features	Logging

4.13.6 dds.participant.logging.time_based_logging.process_received_message

dds.participant.logging.time_based_logging.process_received_message.timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`INT_MAX`
Min-Max value	`[0,INT_MAX]`
Description	Print warning message when processing a received message operation exceeds this time threshold.
Related to these features	Transport Logging

dds.participant.logging.time_based_logging.process_received_message.tracked_ports	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Print warning message when the processing of a received message on a specific port exceeds the time threshold set in dds.participant.logging.time_based_logging.process_received_message.timeout.
Related to these features	Logging Transport

4.13.7 dds.participant.logging.time_based_logging.send

dds.participant.logging.time_based_logging.send.timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`INT_MAX`
Min-Max value	`[0,INT_MAX]`
Description	Print warning message when send operation time exceeds this time threshold.
Related to these features	Transport Logging

4.13.8 dds.transport.DTLS.dtls1

dds.transport.DTLS.dtls1.security_verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[-1,INT_MAX]`
Description	Specifies the verbosity of security related log messages from the transport.
Related to these features	Transport Transport Secure Logging

dds.transport.DTLS.dtls1.verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[-1,INT_MAX]`
Description	Specifies the verbosity of log messages from the transport.
Related to these features	Transport Transport Secure Logging

4.13.9 dds.transport.TCPv4.tcp1

dds.transport.TCPv4.tcp1.logging_verbosity_bitmap	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	mask
Default Value	`-1`
Min-Max value	`[0,INT_MAX]`
Description	Bitmap that specifies the verbosity of log messages from the transport.
Related to these features	Transport Logging

dds.transport.TCPv4.tcp1.security_logging_verbosity_bitmap	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	mask
Default Value	`-1`
Min-Max value	`[0,INT_MAX]`
Description	Bitmap that specifies the verbosity of security related log messages from the transport.
Related to these features	Transport Transport Secure Logging

4.13.10 dds.transport.WAN.wan1

dds.transport.WAN.wan1.security_verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[-1,INT_MAX]`
Description	Specifies the verbosity of security-related log messages from the transport.
Related to these features	Transport Transport Secure Logging

dds.transport.WAN.wan1.verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[-1,INT_MAX]`
Description	Specifies the verbosity of log messages from the transport.
Related to these features	Transport Logging

4.13.11 dds.transport.lbrtps

dds.transport.lbrtps.verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Possible values	`-1 0 2`
Description	The verbosity for the plugin, for debugging purposes.
Related to these features	Transport Logging

4.13.12 rti.monitor.config

rti.monitor.config.verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[-1,INT_MAX]`
Description	Sets the verbosity on the monitoring library for debugging purposes.
Related to these features	Monitor Logging

4.14 Monitor

4.14.1 rti.monitor

rti.monitor.create_function	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`RTIDefaultMonitor_create`
Related to these features	Monitor

rti.monitor.create_function_ptr	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	pointer
Default Value	`NULL`
Related to these features	Monitor

rti.monitor.library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`rtimonitoring`
Related to these features	Monitor

config

rti.monitor.config.get_process_statistics	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`true false`
Description	This boolean value specifies whether or not Monitoring Library should collect CPU and memory usage statistics for the process in the topic rti/dds/monitoring/domainParticipantDescription.
Related to these features	Monitor

rti.monitor.config.new_participant_domain_id	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[0,255]`
Description	To create a separate participant that will be used to publish monitoring information in the application, set this to the domain ID that you want to use for the newly created participant.
Related to these features	Monitor

rti.monitor.config.publish_period	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`5`
Min-Max value	`[0,INT_MAX]`
Description	Period of time to sample and publish all monitoring topics, in units of seconds.
Related to these features	Monitor

rti.monitor.config.publish_thread_options	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	mask
Default Value	`FLOATING_POINT | STDIO`
Possible values	`STDIO FLOATING_POINT REALTIME_PRIORITY PRIORITY_ENFORCE`
Description	Describes the type of thread.
Related to these features	Monitor

rti.monitor.config.publish_thread_priority	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`RTI_OSAPI_THREAD_PRIORITY_BELOW_NORMAL`
Description	Priority of the thread used to sample and publish monitoring data.
Related to these features	Monitor

rti.monitor.config.publish_thread_stacksize	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`RTI_OSAPI_THREAD_STACK_SIZE_DEFAULT`
Description	Stack size used for the thread that samples and publishes monitoring data.
Related to these features	Monitor

rti.monitor.config.qos_library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Specifies the name of the QoS library that you want to use for creating entities in the monitoring library (if you do not want to use default QoS values as set by the monitoring library).
Related to these features	Monitor

rti.monitor.config.qos_profile	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Specifies the name of the QoS profile that you want to use for creating entities in the monitoring library (if you do not want to use the default QoS values).
Related to these features	Monitor

rti.monitor.config.reset_status_change_counts	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`true` `false`
Description	Monitoring Library obtains all statuses of all entities in the Connext DDS application. This boolean value controls whether or not the change counts in those statuses are reset by Monitoring Library.
Related to these features	Monitor

rti.monitor.config.skip_monitor_entities	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`true` `false`
Description	This boolean value controls whether or not the entities created internally by Monitoring Library should be included in the entity counts published by the participant entity statistics topic.
Related to these features	Monitor

rti.monitor.config.skip_participant_properties	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`true` `false`
Description	If set to true, DomainParticipant PropertyQosPolicy name and value pairs will not be sent out through the domainParticipantDescriptionTopic.
Related to these features	Monitor

rti.monitor.config.skip_reader_properties	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`true` `false`
Related to these features	Monitor

rti.monitor.config.skip_writer_properties	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`true` `false`
Description	If set to true, DataReader PropertyQosPolicy name and value pairs will not be sent out through the dataReaderDescriptionTopic.
Related to these features	Monitor

rti.monitor.config.topics	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Filter for monitoring topics, with regular expression matching syntax as specified in the Connext DDS documentation (similar to the POSIX fnmatch syntax).
Related to these features	Monitor

rti.monitor.config.usertopics	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Filter for user topics, with regular expression matching syntax as specified in the Connext DDS documentation (similar to the POSIX fnmatch syntax).
Related to these features	Monitor

rti.monitor.config.verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[-1,INT_MAX]`
Description	Sets the verbosity on the monitoring library for debugging purposes.
Related to these features	Monitor Logging

rti.monitor.con-fig.writer_pool_buffer_max_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[-1,INT_MAX]`
Description	Controls the threshold at which dynamic memory allocation is used, expressed as a number of bytes.
Related to these features	Monitor

4.15 Other

4.15.1 dds.data_reader

dds.data_reader.shared_sub-scriber_name	
May be set in	DataWriter DataReader
Applies to	DataWriter DataReader
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	The DataReader must attach to the SharedSubscriber that contains the Share-dReaderQueue.
Related to these features	Other

4.15.2 dds.participant

dds.participant.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	Other

4.16 Queue Memory Management

4.16.1 dds.data_reader

dds.data_reader.accept_writer_removed_batch_samples	
May be set in	DataReader
Applies to	DataReader
Type	boolean
Default Value	`FALSE`
Possible values	`0` `1` `TRUE` `FALSE` `YES` `NO`
Description	Allow accepting invalid samples in a batch at the DataReader.
Related to these features	Queue Memory Management

history.memory_manager.fast_pool

dds.data_reader.history.memory_manager.fast_pool.pool_buffer_max_size	
May be set in	DataReader
Applies to	DataReader
Type	integer
Default Value	`-1`
Min-Max value	`[-1,INT_MAX]`
Description	Controls the memory allocation for serialization.
Related to these features	Queue Memory Management

history.memory_manager.java_stream

dds.data_reader.history.memory_manager.java_stream.min_size	
May be set in	DataReader
Applies to	DataReader
Type	integer
Default Value	`Max Serialized Sample Size`
Min-Max value	`[0,INT_MAX]`
Description	Defines the minimum size of the buffer used for the serialized data.
Related to these features	Queue Memory Management

dds.data_reader.history.memory_manager.java_stream.trim_to_size	
May be set in	DataReader
Applies to	DataReader
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	A Boolean value that controls the growth of the deserialization buffer.
Related to these features	Queue Memory Management

4.16.2 dds.data_writer.history.memory_manager.fast_pool

dds.data_writer.history.memory_manager.fast_pool.pool_buffer_max_size	
May be set in	DataWriter
Applies to	DataWriter
Type	integer
Default Value	`-1`
Min-Max value	`[-1,INT_MAX]`
Description	Controls the memory allocation for the serialized sample.
Related to these features	Queue Memory Management

4.16.3 dds.data_writer.history.memory_manager.java_stream

dds.data_writer.history.memory_manager.java_stream.min_size	
May be set in	DataWriter
Applies to	DataWriter
Type	integer
Default Value	`Max Serialized Sample Size`
Min-Max value	`[0,INT_MAX]`
Description	Defines the minimum size of the buffer that will be used to serialize DDS samples.
Related to these features	Queue Memory Management

dds.data_writer.history.memory_manager.java_stream.trim_to_size	
May be set in	DataWriter
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	A boolean value that controls the growth of the serialization buffer.
Related to these features	Queue Memory Management

4.17 Reliability

4.17.1 dds.data_reader.protocol

dds.data_reader.protocol.use_43_large_data_format	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Achieve backward compatibility sending 'Large Data' between RTI Data Distribution Service 4.4d and older Releases.
Related to these features	Reliability Type System

4.17.2 dds.data_reader.reliability

dds.data_reader.reliability.delegate_reliability	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Delegates the reliability task to a separate service.
Related to these features	Reliability

4.17.3 dds.data_writer

dds.data_writer.enable_turbo_mode	
May be set in	DataWriter
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Enables Turbo Mode and adjusts the batch max_data_bytes based on how frequently the DataWriter writes data.
Related to these features	Batching Reliability

auto_throttle

dds.data_writer.auto_throttle.enable	
May be set in	DataWriter
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Enables automatic throttling in the DataWriter.
Related to these features	Reliability

protocol

dds.data_writer.protocol.disable_repair_piggyback_heartbeat	
May be set in	DataWriter
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents piggyback HBs from being sent with repair samples
Related to these features	Reliability
The property has been promoted to	<datawriter_qos><protocol><rtps_reliable_writer><disable_repair_piggyback_heartbeat>

dds.data_writer.protocol.multicast_repair_threshold	
May be set in	DataWriter
Applies to	DataWriter
Type	integer
Default Value	`2`
Min-Max value	`[0,INT_MAX]`
Description	Support for Periodic heartbeats (HBs) over multicast.
Related to these features	Reliability

dds.data_writer.protocol.send_multicast_periodic_heartbeats	
May be set in	DataWriter DomainParticipant
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Support for periodic heartbeats (HBs) over multicast.
Related to these features	Reliability

dds.data_writer.protocol.use_43_large_data_format	
May be set in	DataWriter DomainParticipant
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Achieve backward compatibility sending 'Large Data' between RTI Data Distribution Service 4.4d and older Releases.
Related to these features	Reliability Type System

reliability

dds.data_writer.reliability.delegate_reliability	
May be set in	DataWriter DomainParticipant
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Delegates the reliability task to a separate service.
Related to these features	Reliability

4.17.4 dds.domain_participant.auto_throttle

dds.domain_participant.auto_throttle.enable	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Configures the DomainParticipant to gather internal measurements (during DomainParticipant creation) that are required for the Auto Throttle feature.
Related to these features	Reliability

4.17.5 dds.participant.builtin_data_writer.protocol

dds.participant.builtin_data_writer.protocol.disable_repair_piggyback_heartbeat	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents piggyback HBs from being sent with repair samples for builtin discovery topics
Related to these features	Reliability
The property has been promoted to	<domain_participant_qos><discovery_config><publication_writer><disable_repair_piggyback_heartbeat>

4.17.6 dds.participant.inter_participant_data_reader.protocol

dds.participant.inter_participant_data_reader.protocol.disable_preemptive_nack	
May be set in	DomainParticipant
Applies to	DomainParticipant DataReader
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Disable preemptive Heartbeats and NACKs.
Related to these features	Discovery Reliability

4.17.7 dds.participant.inter_participant_data_writer.protocol

dds.participant.inter_participant_data_writer.protocol.disable_preemptive_heartbeat	
May be set in	DomainParticipant
Applies to	DomainParticipant DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Disable preemptive Heartbeats and NACKs.
Related to these features	Discovery Reliability

4.17.8 dds.participant.protocol

dds.participant.protocol.rtps_overhead	
May be set in	DomainParticipant
Applies to	DataWriter DomainParticipant
Type	integer
Default Value	`512`
Min-Max value	`[0,INT_MAX]`
Description	Used to adjust the overhead of the RTPS protocol without including security.
Related to these features	Reliability

4.18 System Info

4.18.1 dds.sys_info

dds.sys_info.creation_timestamp	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Min-Max value	`[0,9999]`
Description	Time when the executable was created.
Related to these features	System Info Default Discovery Propagation

dds.sys_info.executable_filepath	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Name and full path of the executable.
Related to these features	System Info Default Discovery Propagation

dds.sys_info.execution_timestamp	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Min-Max value	`[0,9999]`
Description	Time when the execution started.
Related to these features	System Info Default Discovery Propagation

dds.sys_info.hostname	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Hostname
Related to these features	System Info Default Discovery Propagation

dds.sys_info.process_id	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Min-Max value	`[0,UINT_MAX]`
Description	Process ID
Related to these features	System Info Default Discovery Propagation

dds.sys_info.target	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Architecture for which the library was compiled.
Related to these features	System Info Default Discovery Propagation

dds.sys_info.username	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Username that is running the process.
Related to these features	System Info Default Discovery Propagation

4.19 Transport

4.19.1 dds.participant.logging.time_based_logging.process_received_message

dds.participant.logging.time_based_logging.process_received_message.timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`INT_MAX`
Min-Max value	`[0,INT_MAX]`
Description	Print warning message when processing a received message operation exceeds this time threshold.
Related to these features	Transport Logging

dds.participant.logging.time_based_logging.process_received_message.tracked_ports	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Print warning message when the processing of a received message on a specific port exceeds the time threshold set in dds.participant.logging.time_based_logging.process_received_message.timeout.
Related to these features	Logging Transport

4.19.2 dds.participant.logging.time_based_logging.send

dds.participant.logging.time_based_logging.send.timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`INT_MAX`
Min-Max value	`[0,INT_MAX]`
Description	Print warning message when send operation time exceeds this time threshold.
Related to these features	Transport Logging

4.19.3 dds.transport

dds.transport.load_plugins	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Comma-separated strings indicating the prefix names of all plugins that will be loaded by Connext DDS.
Related to these features	Transport

dds.transport.minimum_compatibility_version	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`6.0.0`
Pattern value	`.*`
Description	Minimum version that the transport should be compatible with.
Related to these features	Transport Builtin Transport

dds.transport.use_510_compatible_locator_kinds	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0` `1` `TRUE` `FALSE` `YES` `NO`
Description	Communicate between Connext DDS 5.2.0 and previous releases. This property is still supported, but deprecated in favour of dds.transport.minimum_compatibility_version.
Related to these features	Transport
The property has been deprecated in version	6.1.0

DTLS.dtls1

dds.transport.DTLS.dtls1.aliases	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`Plugin Name`
Pattern value	`.*`
Description	Used to register the transport plugin returned by NDDS_Transport_DTLS_create() to the DomainParticipant.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.create_function	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Must be 'NDDS_Transport_DTLS_create'
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.create_function_ptr	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	pointer
Default Value	`NULL`
Description	Defines the function pointer to the DTLS transport plugin creation function.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.disable_interface_tracking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Disables detection of network interface changes.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.dtls_connection_liveliness_interval	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`60`
Min-Max value	`[0,UINT_MAX]`
Description	Liveliness interval (multiple of resend interval)
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.dtls_handshake_resend_interval	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`1000`
Min-Max value	`[0,UINT_MAX]`
Description	DTLS handshake retransmission interval in milliseconds.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.force_interface_poll_detection	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Forces the interface tracker to use a polling method to detect changes to the network interfaces in IP mobility scenarios.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.ignore_loopback_interface	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Possible values	`-1 0 1`
Description	Prevents the transport plugin from using the IP loopback interface.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.ignore_nonrunning_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Possible values	`0 1`
Description	Prevents the transport plugin from using a network interface that is not reported as RUNNING by the operating system.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.interface_poll_period	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`500`
Min-Max value	`[0,UINT_MAX]`
Description	Specifies the period in milliseconds to query for changes in the state of all the interfaces.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.join_multicast_group_timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`5000`
Min-Max value	`[0,UINT_MAX]`
Description	Controls how long Connext DDS will retry to join a multicast group with a new network interface before withdrawing.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Must set to 'libnddstransporttls.so' (for Linux systems), 'libnddstransporttls.dylib' (for macOS systems), or 'nddstransporttls.dll' (for Windows systems).
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.network_address	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`0.0.0.0`
Min-Max value	`[0,255]`
Description	The network address at which to register this transport plugin.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.port_offset	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`144`
Min-Max value	`[0,INT_MAX]`
Description	Port offset to allow coexistence with non-secure UDP transport.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.recv_decode_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`65507`
Min-Max value	`[0,INT_MAX]`
Description	Size of buffer for decoding packets from wire.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.recv_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[0,INT_MAX]`
Description	Size in bytes of the receive buffer of a socket used for sending.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.security_verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[-1,INT_MAX]`
Description	Specifies the verbosity of security related log messages from the transport.
Related to these features	Transport Transport Secure Logging

dds.transport.DTLS.dtls1.send_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[0,INT_MAX]`
Description	Size in bytes of the send buffer of a socket used for sending.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.transport_priority_mapping_high	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0xFF`
Min-Max value	`[0,INT_MAX]`
Description	Sets the high value of the output range to IPv4 TOS.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.transport_priority_mapping_low	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Sets the low value of the output range to IPv4 TOS.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.transport_priority_mask	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`0`
Min-Max value	`[0,UINT_MAX]`
Description	Mask for use of transport priority field.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[-1,INT_MAX]`
Description	Specifies the verbosity of log messages from the transport.
Related to these features	Transport Transport Secure Logging

parent

dds.transport.DTLS.dtls1.parent.allow_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.parent.deny_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.parent.gather_send_buffer_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`16`
Min-Max value	`[INT_MIN,INT_MAX]`
Description	Specifies the maximum number of buffers that Connext DDS can pass to the transport plugin's send() function.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.parent.message_size_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`16384`
Min-Max value	`[0,16384]`
Description	The maximum size of a message in bytes that can be sent or received by the transport plugin.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.parent.properties_bitmap	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[INT_MIN,INT_MAX]`
Description	A bitmap that defines various properties of the transport to the Connext DDS core.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.parent.thread_name_prefix	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`rTr#####`
Pattern value	`^.{0,8}$`
Description	Prefix used to name the transport threads.
Related to these features	Transport Transport Secure

tls.cipher

dds.transport.DTLS.dtls1.tls.cipher.cipher_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	List of available DTLS ciphers when communicating with 6.0.0 or below.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.cipher.ciphersuites	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	List of available TLS ciphersuites when communicating with Connext DDS 6.0.1 or above.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.cipher.dh_param_files	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Possible values	`0-9`
Description	List of available Diffie-Hellman (DH) key files.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.cipher.engine_id	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	String ID of OpenSSL cipher engine to request.
Related to these features	Transport Transport Secure

tls.identity

dds.transport.DTLS.dtls1.tls.identity.certificate_chain_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the name of a file containing an identifying certificate chain (in PEM format).
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.identity.private_key_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the name of a file containing a private key (in PEM format)
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.identity.private_key_password	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the password for the private key.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.identity.rsa_private_key_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the name of a file containing an RSA private key (in PEM format).
Related to these features	Transport

tls.verify

dds.transport.DTLS.dtls1.tls.verify.ca_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the name of a file containing Certificate Authority certificates.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.verify.ca_path	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies paths to directories containing Certificate Authority certificates.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.verify.callback	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`NULL`
Possible values	`default` `verbose` `none`
Description	NDDS_Transport_TLS_default_verify_callback()
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.verify.verify_depth	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[0,INT_MAX]`
Description	Maximum certificate chain length for verification.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.verify.verify_peer	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	If non-zero, use mutual authentication when performing TLS handshake (default).
Related to these features	Transport Transport Secure

TCPv4.tcp1

dds.transport.TCPv4.tcp1.aliases	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*[,.*]*`
Description	Used to register the transport plugin returned by NDDS_Transport_TCPv4_create() (as specified by <TCP_prefix>.create_function) to the DomainParticipant.
Related to these features	Transport

dds.transport.TCPv4.tcp1.bind_interface_address	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	The TCP transport can be configured to bind all sockets to a specified interface.
Related to these features	Transport

dds.transport.TCPv4.tcp1.client_connection_negotiation_timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`10`
Min-Max value	`[1,INT_MAX]`
Description	Timeout (in seconds) for negotiating a client data connection.
Related to these features	Transport

dds.transport.TCPv4.tcp1.create_function	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	If used, must be "NDDS_Transport_TCPv4_create".
Related to these features	Transport

dds.transport.TCPv4.tcp1.create_function_ptr	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Defines the function pointer to the TCP transport plugin creation function.
Related to these features	Transport

dds.transport.TCPv4.tcp1.disable_interface_tracking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Disables detection of network interface changes.
Related to these features	Transport

dds.transport.TCPv4.tcp1.disable_nagle	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Disables the TCP nagle algorithm.
Related to these features	Transport

dds.transport.TCPv4.tcp1.enable_keep_alive	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Configures the sending of KEEP_ALIVE messages in TCP.
Related to these features	Transport

dds.transport.TCPv4.tcp1.force_asynchronous_send	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Forces asynchronous send.
Related to these features	Transport

dds.transport.TCPv4.tcp1.force_crc_check	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	When set to 1, forces the checking of the CRC for received RTI TCP messages.
Related to these features	Transport

dds.transport.TCPv4.tcp1.force_interface_poll_detection	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Forces the interface tracker to use a polling method to detect changes to the network interfaces in IP mobility scenarios.
Related to these features	Transport

dds.transport.TCPv4.tcp1.ignore_loopback_interface	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from using the IP loopback interface.
Related to these features	Transport

dds.transport.TCPv4.tcp1.ignore_nonrunning_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from using a network interface that is not reported as RUNNING by the operating system.
Related to these features	Transport

dds.transport.TCPv4.tcp1.initial_handshake_timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`10`
Min-Max value	`[1,INT_MAX]`
Description	Timeout (in seconds) for the initial handshake for a connection.
Related to these features	Transport

dds.transport.TCPv4.tcp1.interface_poll_period	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`500`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the period in milliseconds to query for changes in the state of all the interfaces.
Related to these features	Transport

dds.transport.TCPv4.tcp1.keep_alive_interval	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Specifies the interval in seconds between KEEP_ALIVE retries.
Related to these features	Transport

dds.transport.TCPv4.tcp1.keep_alive_retry_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	The maximum number of KEEP_ALIVE retries before dropping the connection.
Related to these features	Transport

dds.transport.TCPv4.tcp1.keep_alive_time	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Specifies the interval of inactivity in seconds that causes TCP to generate a KEEP_ALIVE message.
Related to these features	Transport

dds.transport.TCPv4.tcp1.library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	If used, must be 'nddstransporttcp'.
Related to these features	Transport

dds.transport.TCPv4.tcp1.logging_verbosity_bitmap	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	mask
Default Value	`-1`
Min-Max value	`[0,INT_MAX]`
Description	Bitmap that specifies the verbosity of log messages from the transport.
Related to these features	Transport Logging

dds.transport.TCPv4.tcp1.max_packet_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	The maximum size of a TCP segment.
Related to these features	Transport

dds.transport.TCPv4.tcp1.negotiate_session_id	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	When set to 1, the TCP transport plugin will perform a session negotiation that will help external load balancers identify all the connections associated with a particular session between two Connext DDS applications.
Related to these features	Transport

dds.transport.TCPv4.tcp1.outstanding_connection_cookies	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`100`
Min-Max value	`[0,INT_MAX]`
Description	Maximum number of outstanding connection cookies allowed by the transport when acting as a server .
Related to these features	Transport

dds.transport.TCPv4.tcp1.outstanding_connection_cookies_life_span	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[INT_MIN,INT_MAX]`
Description	Maximum lifespan (in seconds) of the cookies associated with pending connections.
Related to these features	Transport

dds.transport.TCPv4.tcp1.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	Transport

dds.transport.TCPv4.tcp1.public_address	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Min-Max value	`[0,255]`
Description	Public IP address and port (WAN address and port) (separated with ':') associated with the transport instantiation.
Related to these features	Transport

dds.transport.TCPv4.tcp1.recv_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Size, in bytes, of the receive buffer of a socket used for receiving.
Related to these features	Transport

dds.transport.TCPv4.tcp1.security_logging_verbosity_bitmap	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	mask
Default Value	`-1`
Min-Max value	`[0,INT_MAX]`
Description	Bitmap that specifies the verbosity of security related log messages from the transport.
Related to these features	Transport Transport Secure Logging

dds.transport.TCPv4.tcp1.send_crc	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	When set to 1, enables the computation of the CRC for sent RTI TCP messages.
Related to these features	Transport

dds.transport.TCPv4.tcp1.send_max_wait_sec	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`3`
Min-Max value	`[0,INT_MAX]`
Description	Controls the maximum time (in seconds) the low-level sendto() function is allowed to block the caller thread when the TCP send buffer becomes full.
Related to these features	Transport

dds.transport.TCPv4.tcp1.send_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Size, in bytes, of the send buffer of a socket used for sending.
Related to these features	Transport

dds.transport.TCPv4.tcp1.server_bind_port	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`7400`
Min-Max value	`[0,INT_MAX]`
Description	Private IP port (inside the LAN) used by the transport to accept TCP connections.
Related to these features	Transport

dds.transport.TCPv4.tcp1.server_connection_negotiation_timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`10`
Min-Max value	`[1,INT_MAX]`
Description	Timeout (in seconds) for negotiating a server data connection.
Related to these features	Transport

dds.transport.TCPv4.tcp1.server_socket_backlog	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`5`
Min-Max value	`[0,INT_MAX]`
Description	The backlog parameter determines what is the maximum length of the queue of pending connections.
Related to these features	Transport

dds.transport.TCPv4.tcp1.shared_write_buffer_allocation	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0` `1` `TRUE` `FALSE` `YES` `NO`
Description	Indicates if the allocation settings in write_buffer_allocation are global to the transport or per destination.
Related to these features	Transport

dds.transport.TCPv4.tcp1.socket_monitoring_kind	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`SELECT`
Possible values	`SELECT` `WINDOWS_IOCP` `WINDOWS_WAITFORMULTIPLEOBJECTS`
Description	Configures the socket monitoring API used by the transport.
Related to these features	Transport

dds.transport.TCPv4.tcp1.tls_create_function_ptr	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	pointer
Pattern value	`.*`
Description	Defines the function pointer to the TLS Support creation function.
Related to these features	Transport

dds.transport.TCPv4.tcp1.tls_delete_function_ptr	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	pointer
Pattern value	`.*`
Description	Defines the function pointer to the TLS Support deletion function.
Related to these features	Transport

dds.transport.TCPv4.tcp1.transport_priority_mapping_high	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0xFF`
Min-Max value	`[0,INT_MAX]`
Description	Sets the high value of the output range to IPv4 TOS.
Related to these features	Transport

dds.transport.TCPv4.tcp1.transport_priority_mapping_low	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Sets the low value of the output range to IPv4 TOS.
Related to these features	Transport

dds.transport.TCPv4.tcp1.transport_priority_mask	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Mask for the transport priority field.
Related to these features	Transport

dds.transport.TCPv4.tcp1.user_timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Changes the default OS TCP User Timeout configuration.
Related to these features	Transport

connection_liveliness

dds.transport.TCPv4.tcp1.connection_liveliness.assertions_per_lease_duration	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`3`
Min-Max value	`[0,INT_MAX]`
Description	Configures the connection liveliness feature.
Related to these features	Transport

dds.transport.TCPv4.tcp1.connection_liveliness.enable	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Configures the connection liveliness feature.
Related to these features	Transport

dds.transport.TCPv4.tcp1.connection_liveliness.lease_duration	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`10`
Min-Max value	`[0,INT_MAX]`
Description	Configures the connection liveliness feature.
Related to these features	Transport

control_attribute_allocation

dds.transport.TCPv4.tcp1.control_attribute_allocation.incremental_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Allocation settings applied to control message attributes.
Related to these features	Transport

dds.transport.TCPv4.tcp1.control_attribute_allocation.initial_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`2`
Min-Max value	`[0,INT_MAX]`
Description	Allocation settings applied to control message attributes.
Related to these features	Transport

dds.transport.TCPv4.tcp1.control_attribute_allocation.max_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Allocation settings applied to control message attributes.
Related to these features	Transport

control_buffer_allocation

dds.transport.TCPv4.tcp1.control_buffer_allocation.incremental_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Allocation settings applied to buffers used to serialize and send control messages.
Related to these features	Transport

dds.transport.TCPv4.tcp1.control_buffer_allocation.initial_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`2`
Min-Max value	`[0,INT_MAX]`
Description	Allocation settings applied to buffers used to serialize and send control messages.
Related to these features	Transport

dds.transport.TCPv4.tcp1.control_buffer_allocation.max_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Allocation settings applied to buffers used to serialize and send control messages.
Related to these features	Transport

control_message_allocation

dds.transport.TCPv4.tcp1.control_message_allocation.incremental_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[-MIN_INT,MAX_INT]`
Description	Allocation settings applied to control messages.
Related to these features	Transport

dds.transport.TCPv4.tcp1.control_message_allocation.initial_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`2`
Min-Max value	`[0,INT_MAX]`
Description	Allocation settings applied to control messages.
Related to these features	Transport

dds.transport.TCPv4.tcp1.control_message_allocation.max_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Allocation settings applied to control messages.
Related to these features	Transport

event_thread

dds.transport.TCPv4.tcp1.event_thread.mask	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	mask
Default Value	`PRIORITY_ENFORCE | STDIO`
Possible values	`STDIO` `FLOATING_POINT` `REALTIME_PRIORITY` `PRIORITY_ENFORCE`
Description	Configures the event thread used by the TCP Transport plugin for providing some features.
Related to these features	Transport

dds.transport.TCPv4.tcp1.event_thread.priority	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`THREAD_PRIORITY_NORMAL`
Possible values	`THREAD_PRIORITY_DEFAULT` `THREAD_PRIORITY_HIGH` `THREAD_PRIORITY_ABOVE_NORMAL` `THREAD_PRIORITY_NORMAL` `THREAD_PRIORITY_BELOW_NORMAL` `THREAD_PRIORITY_LOW`
Description	Configures the event thread used by the TCP Transport plugin for providing some features.
Related to these features	Transport

dds.transport.TCPv4.tcp1.event_thread.stack_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`THREAD_STACK_SIZE_DEFAULT`
Pattern value	`THREAD_STACK_SIZE_DEFAULT`
Min-Max value	`[INT_MIN,INT_MAX]`
Description	Configures the event thread used by the TCP Transport plugin for providing some features.
Related to these features	Transport

parent

dds.transport.TCPv4.tcp1.parent.allow_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name that can be used by the transport.
Related to these features	Transport

dds.transport.TCPv4.tcp1.parent.classid	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`NDDS_TRANSPORT_CLASSID_TCPV4_LAN`
Min-Max value	`[INT_MIN,INT_MAX]`
Possible values	`NDDS_TRANSPORT_CLASSID_INVALID` `NDDS_TRANSPORT_CLASSID_ANY` `NDDS_TRANSPORT_CLASSID_TCPV4_WAN` `NDDS_TRANSPORT_CLASSID_TCPV4_LAN` `NDDS_TRANSPORT_CLASSID_TLSV4_LAN` `NDDS_TRANSPORT_CLASSID_TLSV4_WAN`
Description	Must be set to one of the listed possible values.
Related to these features	Transport

dds.transport.TCPv4.tcp1.parent.deny_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name that will not be used by the transport.
Related to these features	Transport

dds.transport.TCPv4.tcp1.parent.gather_send_buffer_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`128`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the maximum number of buffers that Connext DDS can pass to the send() method of a transport plugin.
Related to these features	Transport

dds.transport.TCPv4.tcp1.parent.message_size_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`65536`
Min-Max value	`[0,INT_MAX]`
Description	The maximum size of a message in bytes that can be sent or received by the transport plugin.
Related to these features	Transport

dds.transport.TCPv4.tcp1.parent.thread_name_prefix	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`rTr#####`
Pattern value	`^.{0,8}$`
Description	Prefix used to name the transport threads.
Related to these features	Transport

read_buffer_allocation

dds.transport.TCPv4.tcp1.read_buffer_allocation.incremental_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Allocation settings applied to read buffers.
Related to these features	Transport

dds.transport.TCPv4.tcp1.read_buffer_allocation.initial_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`2`
Min-Max value	`[0,INT_MAX]`
Description	Allocation settings applied to read buffers.
Related to these features	Transport

dds.transport.TCPv4.tcp1.read_buffer_allocation.max_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Allocation settings applied to read buffers.
Related to these features	Transport

tls.cipher

dds.transport.TCPv4.tcp1.tls.cipher.cipher_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`NULL`
Possible values	`RTITLS_CIPHER_LIST_DEFAULT` `RTITLS_CIPHER_LIST_ENCRYPT_HIGH` `RTITLS_CIPHER_LIST_UNENCRYPTED`
Description	List of available TLS ciphers when communicating with 6.0.0 or below.
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.cipher.ciphersuites	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	List of available TLS ciphersuites when communicating with 6.0.1 or above.
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.cipher.dh_param_files	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Possible values	`0-9`
Description	List of available Diffie-Hellman (DH) key files.
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.cipher.engine_id	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	ID of OpenSSL cipher engine to request.
Related to these features	Transport Transport Secure

tls.identity

dds.transport.TCPv4.tcp1.tls.identity.certificate_chain	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	String containing an identifying certificate (in PEM format) or certificate chain (appending intermediate CA certs in order).
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.identity.certificate_chain_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	File containing identifying certificate (in PEM format) or certificate chain (appending intermediate CA certs in order).
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.identity.private_key	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	String containing private key (in PEM format).
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.identity.private_key_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	File containing private key (in PEM format).
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.identity.private_key_password	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the password for the private key.
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.identity.rsa_private_key	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	String containing additional RSA private key (in PEM format).
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.identity.rsa_private_key_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	File containing additional RSA private key (in PEM format).
Related to these features	Transport Transport Secure

tls.verify

dds.transport.TCPv4.tcp1.tls.verify.ca_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the name of a file containing Certificate Authority certificates.
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.verify.ca_path	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies paths to directories containing Certificate Authority certificates.
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.verify.crl_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Name of the file containing the Certificate Revocation List.
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.verify.verify_depth	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[INT_MIN,INT_MAX]`
Description	Maximum certificate chain length for verification.
Related to these features	Transport Transport Secure

windows_iocp

dds.transport.TCPv4.tcp1.windows_iocp.concurrency_value	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`1`
Min-Max value	`[0,INT_MAX]`
Description	Configures I/O completion ports.
Related to these features	Transport

dds.transport.TCPv4.tcp1.windows_iocp.thread_pool_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`2`
Min-Max value	`[0,INT_MAX]`
Description	Configures I/O completion ports.
Related to these features	Transport

write_buffer_allocation

dds.transport.TCPv4.tcp1.write_buffer_allocation.incremental_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`10`
Min-Max value	`[0,INT_MAX]`
Description	Allocation settings applied to buffers used for asynchronous (non-blocking) write.
Related to these features	Transport

dds.transport.TCPv4.tcp1.write_buffer_allocation.initial_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`4`
Min-Max value	`[0,INT_MAX]`
Description	Allocation settings applied to buffers used for asynchronous (non-blocking) write.
Related to these features	Transport

dds.transport.TCPv4.tcp1.write_buffer_allocation.max_count	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1000`
Min-Max value	`[0,INT_MAX]`
Description	Allocation settings applied to buffers used for asynchronous (non-blocking) write.
Related to these features	Transport

UDPv4.builtin

dds.transport.UDPv4.builtin.aliases	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*[,.*]*`
Description	Aliases used to register the transport to the DomainParticipant.
Related to these features	Transport

dds.transport.UDPv4.builtin.disable_interface_tracking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Disables detection of network interface changes.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><disable_interface_tracking>

dds.transport.UDPv4.builtin.force_interface_poll_detection	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Forces the interface tracker to use a polling method to detect changes to the network interfaces in IP mobility scenarios.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><force_interface_poll_detection>

dds.transport.UDPv4.builtin.ignore_loopback_interface	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Possible values	`-1 0 1`
Description	Prevents the transport plugin from using the IP loopback interface.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><ignore_loopback_interface>

dds.transport.UDPv4.builtin.ignore_nonrunning_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from using a network interface that is not reported as RUNNING by the operating system.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><ignore_nonrunning_interfaces>

dds.transport.UDPv4.builtin.ignore_nonup_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	This property is only supported on Windows platforms with statically configured IP addresses.
Related to these features	Transport Builtin Transport

dds.transport.UDPv4.builtin.interface_poll_period	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`500`
Min-Max value	`[0,UINT_MAX]`
Description	Specifies the period in milliseconds to query for changes in the state of all the interfaces.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><interface_poll_period>

dds.transport.UDPv4.builtin.join_multicast_group_timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`5000`
Min-Max value	`[0,UINT_MAX]`
Description	Controls how long Connext DDS will retry to join a multicast group with a new network interface before withdrawing.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><join_multicast_group_timeout>

dds.transport.UDPv4.builtin.multicast_enabled	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Allows the transport plugin to use multicast for sending and receiving.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><multicast_enabled>

dds.transport.UDPv4.builtin.multicast_loopback_disabled	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from putting multicast packets onto the loopback interface.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><multicast_loopback_disabled>

dds.transport.UDPv4.builtin.multicast_ttl	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[0,INT_MAX]`
Description	Value for the time-to-live parameter for all multicast sends using this plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><multicast_ttl>

dds.transport.UDPv4.builtin.no_zero_copy	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from doing a zero copy.
Related to these features	Transport Builtin Transport

dds.transport.UDPv4.builtin.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	Transport

dds.transport.UDPv4.builtin.protocol_overhead_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`28`
Min-Max value	`[0,UINT_MAX]`
Description	Maximum size in bytes of protocol overhead, including headers.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><protocol_overhead_max>

dds.transport.UDPv4.builtin.public_address	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Public IP address associated with the transport instantiation.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><public_address>

dds.transport.UDPv4.builtin.recv_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Size in bytes of the receive buffer of a socket used for receiving.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><recv_socket_buffer_size>

dds.transport.UDPv4.builtin.reuse_multicast_receive_resource	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Controls whether or not to reuse receive resources.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><reuse_multicast_receive_resource>

dds.transport.UDPv4.builtin.send_blocking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NDDS_TRANSPORT_UDP_BLOCKING_ALWAYS`
Possible values	`0 1 NDDS_TRANSPORT_UDP_BLOCKING_NEVER NDDS_TRANSPORT_UDPV4_BLOCKING_NEVER TRANSPORT_BLOCKING_NEVER NDDS_TRANSPORT_UDP_BLOCKING_ALWAYS NDDS_TRANSPORT_UDPV4_BLOCKING_ALWAYS TRANSPORT_BLOCKING_ALWAYS`
Description	Controls the blocking behavior of send sockets.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><send_blocking>

dds.transport.UDPv4.builtin.send_ping	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[0,INT_MAX]`
Description	This property specifies whether to send a PING message before commencing the discovery process.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><send_ping>

dds.transport.UDPv4.builtin.send_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Size in bytes of the send buffer of a socket used for sending.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><send_socket_buffer_size>

dds.transport.UDPv4.builtin.transport_priority_mapping_high	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0xFF`
Min-Max value	`[0,INT_MAX]`
Description	Sets the high value of the output range to IPv4 TOS.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><transport_priority_mapping_high>

dds.transport.UDPv4.builtin.transport_priority_mapping_low	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Sets the low value of the output range to IPv4 TOS.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><transport_priority_mapping_low>

dds.transport.UDPv4.builtin.transport_priority_mask	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Mask for the transport priority field.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><transport_priority_mask>

dds.transport.UDPv4.builtin.unicast_enabled	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Allows the transport plugin to use unicast UDP for sending and receiving.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><unicast_enabled>

dds.transport.UDPv4.builtin.use_checksum	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Specifies whether the UDP checksum will be computed.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><use_checksum>

parent

dds.transport.UDPv4.builtin.parent.allow_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name that can be used by the transport.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><allow_interfaces_list>

dds.transport.UDPv4.builtin.parent.allow_multicast_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><allow_multicast_interfaces_list>

dds.transport.UDPv4.builtin.parent.deny_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name that will not be used by the transport.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><deny_interfaces_list>

dds.transport.UDPv4.builtin.parent.deny_multicast_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><deny_multicast_interfaces_list>

dds.transport.UDPv4.builtin.parent.gather_send_buffer_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`16`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the maximum number of buffers that Connext DDS can pass to the send() method of a transport plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><gather_send_buffer_count_max>

dds.transport.UDPv4.builtin.parent.message_size_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`65507`
Min-Max value	`[INT_MIN,MAX_INT]`
Possible values	`UDPV4_MESSAGE_SIZE_MAX_DEFAULT` `NDDS_TRANSPORT_UDPV4_MESSAGE_SIZE_MAX_DEFAULT`
Description	The maximum size of a message in bytes that can be sent or received by the transport plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><message_size_max>

dds.transport.UDPv4.builtin.parent.properties_bitmap	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	String
Default Value	`NDDS_TRANSPORT_PROPERTIES_BITMAP_DEFAULT`
Possible values	`0 1 2 TRANSPORT_PROPERTY_BIT_BUFFER_ALWAYS_LOANED` `NDDS_TRANSPORT_PROPERTY_BIT_BUFFER_ALWAYS_LOANED` `TRANSPORT_PROPERTY_BITMAP_DEFAULT` `NDDS_TRANSPORT_PROPERTIES_BITMAP_DEFAULT`
Description	A bitmap that defines various properties of the transport to the Connext DDS core.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><properties_bitmap>

dds.transport.UDPv4.builtin.parent.thread_name_prefix	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`rTr#####`
Pattern value	`^.{0,8}$`
Description	Prefix used to name the transport threads.
Related to these features	Transport Builtin Transport

UDPv4_WAN.builtin

dds.transport.UDPv4_WAN.builtin.aliases	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*[,.*]*`
Description	Aliases used to register the transport to the DomainParticipant.
Related to these features	Transport

dds.transport.UDPv4_WAN.builtin.binding_ping_period	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1000`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the period in milliseconds at which BINDING PINGS messages are sent to keep NAT mappings open
Related to these features	Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><binding_ping_period>

dds.transport.UDPv4_WAN.builtin.comm_ports	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	json
Description	Configures the mapping between <RTPS ports>, <UDP receive host ports>, and <UDP receive public ports>.
Related to these features	Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><comm_ports>

dds.transport.UDPv4_WAN.builtin.disable_interface_tracking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Disables detection of network interface changes.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><disable_interface_tracking>

dds.transport.UDPv4_WAN.builtin.force_interface_poll_detection	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Forces the interface tracker to use a polling method to detect changes to the network interfaces in IP mobility scenarios.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><force_interface_poll_detection>

dds.transport.UDPv4_WAN.builtin.ignore_loopback_interface	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Possible values	`-1 0 1`
Description	Prevents the transport plugin from using the IP loopback interface.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><ignore_loopback_interface>

dds.transport.UDPv4_WAN.builtin.ignore_nonrunning_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from using a network interface that is not reported as RUNNING by the operating system.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><ignore_nonrunning_interfaces>

dds.transport.UDPv4_WAN.builtin.ignore_nonup_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	This property is only supported on Windows platforms with statically configured IP addresses.
Related to these features	Transport Builtin Transport
The property has been deprecated in version	6.1.0

dds.transport.UDPv4_WAN.builtin.interface_poll_period	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`500`
Min-Max value	`[0,UINT_MAX]`
Description	Specifies the period in milliseconds to query for changes in the state of all the interfaces.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><interface_poll_period>

dds.transport.UDPv4_WAN.builtin.no_zero_copy	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from doing a zero copy.
Related to these features	Transport Builtin Transport
The property has been deprecated in version	6.1.0

dds.transport.UDPv4_WAN.builtin.plugin_enabled_function_ptr	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Only required if statically linking the Real-Time Wan Transport (RWT) support library. Must be set to the stringified pointer value of RWT support library's NDDS_Transport_UDP_WAN_Library_is_plugin_enabled function. Please refer to the RWT documentation for details.
Related to these features	Transport Builtin Transport

dds.transport.UDPv4_WAN.builtin.port_offset	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`125`
Min-Max value	`[0,INT_MAX]`
Description	Port offset to allow coexistence with non-WAN UDP transport.
Related to these features	Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><port_offset>

dds.transport.UDPv4_WAN.builtin.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	Transport

dds.transport.UDPv4_WAN.builtin.protocol_overhead_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`28`
Min-Max value	`[0,UINT_MAX]`
Description	Maximum size in bytes of protocol overhead, including headers.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><protocol_overhead_max>

dds.transport.UDPv4_WAN.builtin.public_address	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Public IP address associated with the transport instantiation.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><public_address>

dds.transport.UDPv4_WAN.builtin.recv_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Size in bytes of the receive buffer of a socket used for receiving.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><recv_socket_buffer_size>

dds.transport.UDPv4_WAN.builtin.send_blocking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NDDS_TRANSPORT_UDP_BLOCKING_ALWAYS`
Possible values	`0` `1` `NDDS_TRANSPORT_UDP_BLOCKING_NEVER` `NDDS_TRANSPORT_UDPV4_BLOCKING_NEVER` `TRANSPORT_BLOCKING_NEVER` `NDDS_TRANSPORT_UDP_BLOCKING_ALWAYS` `NDDS_TRANSPORT_UDPV4_BLOCKING_ALWAYS` `TRANSPORT_BLOCKING_ALWAYS`
Description	Controls the blocking behavior of send sockets.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><send_blocking>

dds.transport.UDPv4_WAN.builtin.send_ping	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[0,INT_MAX]`
Description	This property specifies whether to send a PING message before commencing the discovery process.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><send_ping>

dds.transport.UDPv4_WAN.builtin.send_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Size in bytes of the send buffer of a socket used for sending.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><send_socket_buffer_size>

dds.transport.UDPv4_WAN.builtin.transport_priority_mapping_high	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0xFF`
Min-Max value	`[0,INT_MAX]`
Description	Sets the high value of the output range to IPv4 TOS.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><transport_priority_mapping_high>

dds.transport.UDPv4_WAN.builtin.transport_priority_mapping_low	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Sets the low value of the output range to IPv4 TOS.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><transport_priority_mapping_low>

dds.transport.UDPv4_WAN.builtin.transport_priority_mask	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Mask for the transport priority field.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><transport_priority_mask>

dds.transport.UDPv4_WAN.builtin.use_checksum	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Specifies whether the UDP checksum will be computed.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><use_checksum>

parent

dds.transport.UDPv4_WAN.builtin.parent.allow_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name that can be used by the transport.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><allow_interfaces_list>

dds.transport.UDPv4_WAN.builtin.parent.deny_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name that will not be used by the transport.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><deny_interfaces_list>

dds.transport.UDPv4_WAN.builtin.parent.gather_send_buffer_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`16`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the maximum number of buffers that Connext DDS can pass to the send() method of a transport plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><gather_send_buffer_count_

dds.transport.UDPv4_WAN.builtin.parent.message_size_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`65507`
Min-Max value	`[INT_MIN,MAX_INT]`
Possible values	`UDPV4_MESSAGE_SIZE_MAX_DEFAULT` `NDDS_TRANSPORT_UDPV4_MESSAGE_SIZE_MAX_DEFAULT`
Description	The maximum size of a message in bytes that can be sent or received by the transport plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><message_size_max>

dds.transport.UDPv4_WAN.builtin.parent.properties_bitmap	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	String
Default Value	`NDDS_TRANSPORT_PROPERTIES_BITMAP_DEFAULT`
Possible values	`0 1 2 TRANSPORT_PROPERTY_BIT_BUFFER_ALWAYS_LOANED NDDS_TRANSPORT_PROPERTY_BIT_BUFFER_ALWAYS_LOANED TRANSPORT_PROPERTY_BITMAP_DEFAULT NDDS_TRANSPORT_PROPERTIES_BITMAP_DEFAULT`
Description	A bitmap that defines various properties of the transport to the Connext DDS core.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4_wan><properties_bitmap>

dds.transport.UDPv4_WAN.builtin.parent.thread_name_prefix	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`rTr#####`
Pattern value	`^.{0,8}$`
Description	Prefix used to name the transport threads.
Related to these features	Transport Builtin Transport

UDPv6.builtin

dds.transport.UDPv6.builtin.aliases	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*[,.*]*`
Description	Aliases used to register the transport to the DomainParticipant.
Related to these features	Transport

dds.transport.UDPv6.builtin.disable_interface_tracking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Disables detection of network interface changes.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><disable_interface_tracking>

dds.transport.UDPv6.builtin.enable_v4mapped	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Specifies whether the UDPv6 transport will process IPv4 addresses.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><enable_v4mapped>

dds.transport.UDPv6.builtin.force_interface_poll_detection	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Forces the interface tracker to use a polling method to detect changes to the network interfaces in IP mobility scenarios.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><force_interface_poll_detection>

dds.transport.UDPv6.builtin.ignore_loopback_interface	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Possible values	`-1 0 1`
Description	Prevents the transport plugin from using the IP loopback interface.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><ignore_loopback_interface>

dds.transport.UDPv6.builtin.ignore_nonrunning_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from using a network interface that is not reported as RUNNING by the operating system.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><ignore_nonrunning_interfaces>

dds.transport.UDPv6.builtin.interface_poll_period	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`500`
Min-Max value	`[0,UINT_MAX]`
Description	Specifies the period in milliseconds to query for changes in the state of all the interfaces.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><interface_poll_period>

dds.transport.UDPv6.builtin.join_multicast_group_timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`5000`
Min-Max value	`[0,UINT_MAX]`
Description	Controls how long Connext DDS will retry to join a multicast group with a new network interface before withdrawing.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><join_multicast_group_timeout>

dds.transport.UDPv6.builtin.multicast_enabled	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Allows the transport plugin to use multicast for sending and receiving.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><multicast_enabled>

dds.transport.UDPv6.builtin.multicast_loopback_disabled	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from putting multicast packets onto the loopback interface.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><multicast_loopback_disabled>

dds.transport.UDPv6.builtin.multicast_ttl	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[0,INT_MAX]`
Description	Value for the time-to-live parameter for all multicast sends using this plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><multicast_ttl>

dds.transport.UDPv6.builtin.no_zero_copy	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Prevents the transport plugin from doing a zero copy.
Related to these features	Transport Builtin Transport

dds.transport.UDPv6.builtin.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING VALIDATION_ACTION_EXCEPTION VALIDATION_ACTION_SKIP -1 0 1`
Description	configures the validation of the properties.
Related to these features	Transport

dds.transport.UDPv6.builtin.protocol_overhead_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`48`
Min-Max value	`[0,UINT_MAX]`
Description	Maximum size in bytes of protocol overhead, including headers.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><protocol_overhead_max>

dds.transport.UDPv6.builtin.public_address	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Public IP address associated with the transport instantiation.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><public_address>

dds.transport.UDPv6.builtin.recv_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Size in bytes of the receive buffer of a socket used for receiving.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><recv_socket_buffer_size>

dds.transport.UDPv6.builtin.reuse_multicast_receive_resource	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Controls whether or not to reuse receive resources.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><reuse_multicast_receive_resource>

dds.transport.UDPv6.builtin.send_blocking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NDDS_TRANSPORT_UDP_BLOCKING_ALWAYS`
Possible values	`0 1 NDDS_TRANSPORT_UDP_BLOCKING_NEVER NDDS_TRANSPORT_UDPV6_BLOCKING_NEVER TRANSPORT_BLOCKING_NEVER NDDS_TRANSPORT_UDP_BLOCKING_ALWAYS NDDS_TRANSPORT_UDPV6_BLOCKING_ALWAYS TRANSPORT_BLOCKING_ALWAYS`
Description	Controls the blocking behavior of send sockets.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv4><send_blocking>

dds.transport.UDPv6.builtin.send_ping	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[0,INT_MAX]`
Description	This property specifies whether to send a PING message before commencing the discovery process.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><send_ping>

dds.transport.UDPv6.builtin.send_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[MIN_INT,MAX_INT]`
Description	Size in bytes of the send buffer of a socket used for sending.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><send_socket_buffer_size>

dds.transport.UDPv6.builtin.transport_priority_mapping_high	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0xFF`
Min-Max value	`[0,INT_MAX]`
Description	Sets the high value of the output range to IPv4 TOS.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><transport_priority_mapping_high>

dds.transport.UDPv6.builtin.transport_priority_mapping_low	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Sets the low value of the output range to IPv4 TOS.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><transport_priority_mapping_low>

dds.transport.UDPv6.builtin.transport_priority_mask	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Mask for the transport priority field.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><transport_priority_mask>

dds.transport.UDPv6.builtin.unicast_enabled	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Allows the transport plugin to use unicast UDP for sending and receiving.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><unicast_enabled>

parent

dds.transport.UDPv6.builtin.parent.allow_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name that can be used by the transport.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><allow_interfaces_list>

dds.transport.UDPv6.builtin.parent.allow_multicast_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><allow_multicast_interfaces_list>

dds.transport.UDPv6.builtin.parent.deny_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name that will not be used by the transport.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><deny_interfaces_list>

dds.transport.UDPv6.builtin.parent.deny_multicast_interfaces_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses or an interface name.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><deny_multicast_interfaces_list>

dds.transport.UDPv6.builtin.parent.gather_send_buffer_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`16`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the maximum number of buffers that Connext DDS can pass to the send() method of a transport plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><gather_send_buffer_count_max

dds.transport.UDPv6.builtin.parent.message_size_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`65487`
Min-Max value	`[INT_MIN,MAX_INT]`
Possible values	`UDPV4_MESSAGE_SIZE_MAX_DEFAULT` `NDDS_TRANSPORT_UDPV4_MESSAGE_SIZE_MAX_DEFAULT`
Description	The maximum size of a message in bytes that can be sent or received by the transport plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><message_size_max>

dds.transport.UDPv6.builtin.parent.properties_bitmap	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	String
Default Value	`NDDS_TRANSPORT_PROPERTIES_BITMAP_DEFAULT`
Possible values	`0 1 2 TRANSPORT_PROPERTY_BIT_BUFFER_ALWAYS_LOANED NDDS_TRANSPORT_PROPERTY_BIT_BUFFER_ALWAYS_LOANED TRANSPORT_PROPERTY_BITMAP_DEFAULT NDDS_TRANSPORT_PROPERTIES_BITMAP_DEFAULT`
Description	A bitmap that defines various properties of the transport to the Connext DDS core.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><udpv6><properties_bitmap>

dds.transport.UDPv6.builtin.parent.thread_name_prefix	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`rTr#####`
Pattern value	`^.{0,8}$`
Description	Prefix used to name the transport threads.
Related to these features	Transport Builtin Transport

WAN.wan1

dds.transport.WAN.wan1.aliases	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*[,.*]*`
Description	Used to register the transport plugin returned by NDDS_Transport_WAN_create() (as specified by <WAN_prefix>.create_function) to the DomainParticipant.
Related to these features	Transport

dds.transport.WAN.wan1.create_function	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Must be 'NDDS_Transport_WAN_create'.
Related to these features	Transport

dds.transport.WAN.wan1.dtls_connection_liveliness_interval	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`60`
Min-Max value	`[0,UINT_MAX]`
Description	Liveliness interval (multiple of resend interval)
Related to these features	Transport

dds.transport.WAN.wan1.dtls_handshake_resend_interval	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`1000`
Min-Max value	`[0,UINT_MAX]`
Description	DTLS handshake retransmission interval in milliseconds.
Related to these features	Transport

dds.transport.WAN.wan1.enable_security	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Possible values	`0 1`
Description	Required if you want to use security.
Related to these features	Transport

dds.transport.WAN.wan1.interface_address	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Locator, as a string
Related to these features	Transport

dds.transport.WAN.wan1.library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Must set to 'libnddstransportwan.so' (for Linux systems), 'libnddstransportwan.dylib' (for macOS systems), or 'nddstransportwan.dll' (for Windows systems).
Related to these features	Transport

dds.transport.WAN.wan1.port_offset	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`144`
Min-Max value	`[0,INT_MAX]`
Description	Port offset to allow coexistence with non-secure UDP transport.
Related to these features	Transport

dds.transport.WAN.wan1.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	Transport

dds.transport.WAN.wan1.recv_decode_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`65507`
Min-Max value	`[0,INT_MAX]`
Description	Size of buffer for decoding packets from wire.
Related to these features	Transport

dds.transport.WAN.wan1.security_verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[-1,INT_MAX]`
Description	Specifies the verbosity of security-related log messages from the transport.
Related to these features	Transport Transport Secure Logging

dds.transport.WAN.wan1.server	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Server locator, as a string.
Related to these features	Transport

dds.transport.WAN.wan1.server_port	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`3478`
Min-Max value	`[0,UINT_MAX]`
Description	Server port number.
Related to these features	Transport

dds.transport.WAN.wan1.stun_liveliness_period	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`15000`
Min-Max value	`[0,UINT_MAX]`
Description	Period at which messages are sent to peers to keep NAT holes open.
Related to these features	Transport

dds.transport.WAN.wan1.stun_number_of_retransmissions	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`7`
Min-Max value	`[0,UINT_MAX]`
Description	Maximum number of times STUN messages are resent unless a response is received.
Related to these features	Transport

dds.transport.WAN.wan1.stun_retransmission_interval	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`100`
Min-Max value	`[0,UINT_MAX]`
Description	STUN request messages requiring a response are resent with this interval.
Related to these features	Transport

dds.transport.WAN.wan1.transport_instance_id	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`{0,0,0,0,0,0,0,0,0,0,0,0}`
Min-Max value	`[0,0xef]`
Description	A set of comma-separated values to specify the elements of the array.
Related to these features	Transport

dds.transport.WAN.wan1.verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[-1,INT_MAX]`
Description	Specifies the verbosity of log messages from the transport.
Related to these features	Transport Logging

parent

dds.transport.WAN.wan1.parent.ignore_loopback_interface	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Possible values	`-1 0 1`
Description	Prevents the transport plugin from using the IP loopback interface.
Related to these features	Transport

dds.transport.WAN.wan1.parent.ignore_nonrunning_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Possible values	`0 1`
Description	Prevents the transport plugin from using a network interface that is not reported as RUNNING by the operating system.
Related to these features	Transport

dds.transport.WAN.wan1.parent.join_multicast_group_timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`5000`
Min-Max value	`[0,UINT_MAX]`
Description	Controls how long Connext DDS will retry to join a multicast group with a new network interface before withdrawing.
Related to these features	Transport

dds.transport.WAN.wan1.parent.no_zero_copy	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Possible values	`0 1`
Description	Prevents the transport plugin from doing a zero copy.
Related to these features	Transport
The property has been deprecated in version	6.0.0

dds.transport.WAN.wan1.parent.recv_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[0,INT_MAX]`
Description	Size in bytes of the receive buffer of a socket used for receiving.
Related to these features	Transport

dds.transport.WAN.wan1.parent.send_blocking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Possible values	`0 1 2`
Description	Controls the blocking behavior of send sockets.
Related to these features	Transport

dds.transport.WAN.wan1.parent.send_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[0,INT_MAX]`
Description	Size in bytes of the send buffer of a socket used for sending.
Related to these features	Transport

dds.transport.WAN.wan1.parent.transport_priority_mapping_high	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0xFF`
Min-Max value	`[0,INT_MAX]`
Description	Sets the high value of the output range to IPv4 TOS.
Related to these features	Transport

dds.transport.WAN.wan1.parent.transport_priority_mapping_low	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Sets the low value of the output range to IPv4 TOS.
Related to these features	Transport

dds.transport.WAN.wan1.parent.transport_priority_mask	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Mask for the transport priority field.
Related to these features	Transport

dds.transport.WAN.wan1.parent.unicast_enabled	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Possible values	`0 1`
Description	Allows the transport plugin to use unicast UDP for sending and receiving.
Related to these features	Transport

parent.parent

dds.transport.WAN.wan1.parent.parent.allow_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses.
Related to these features	Transport

dds.transport.WAN.wan1.parent.parent.deny_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses
Related to these features	Transport

dds.transport.WAN.wan1.parent.parent.gather_send_buffer_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`16`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the maximum number of buffers that Connext DDS can pass to the send() method of a transport plugin.
Related to these features	Transport

dds.transport.WAN.wan1.parent.parent.message_size_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`65507`
Min-Max value	`[0,INT_MAX]`
Description	The maximum size of a message in bytes that can be sent or received by the transport plugin.
Related to these features	Transport

dds.transport.WAN.wan1.parent.parent.properties_bitmap	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	A bitmap that defines various properties of the transport to the Connext DDS core.
Related to these features	Transport

dds.transport.WAN.wan1.parent.parent.thread_name_prefix	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`rTr#####`
Pattern value	`^.{0,8}$`
Description	Prefix used to name the transport threads.
Related to these features	Transport

tls.cipher

dds.transport.WAN.wan1.tls.cipher.cipher_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	List of available DTLS ciphers when communicating with 6.0.0 or below.
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.cipher.dh_param_files	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`(.+:[0-9]+)(,.+:[0-9]+).*`
Description	List of available Diffie-Hellman (DH) key files.
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.cipher.engine_id	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	ID of OpenSSL cipher engine to request.
Related to these features	Transport Transport Secure

tls.identity

dds.transport.WAN.wan1.tls.identity.certificate_chain_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the name of a file containing an identifying certificate chain (in PEM format).
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.identity.private_key_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	File containing private key (in PEM format).
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.identity.private_key_password	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the password for the private key.
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.identity.rsa_private_key_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	File containing additional RSA private key (in PEM format).
Related to these features	Transport Transport Secure

tls.verify

dds.transport.WAN.wan1.tls.verify.ca_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the name of a file containing Certificate Authority certificates.
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.verify.ca_path	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies paths to directories containing Certificate Authority certificates.
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.verify.callback	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`NULL`
Possible values	`default` `verbose` `none`
Description	NDDS_Transport_TLS_default_verify_callback()
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.verify.verify_depth	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[INT_MIN,INT_MAX]`
Description	Maximum certificate chain length for verification.
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.verify.verify_peer	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	If non-zero, use mutual authentication when performing TLS handshake (default).
Related to these features	Transport Transport Secure

lbrtps

dds.transport.lbrtps.aliases	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*[,.*]*`
Description	Aliases used to register the LBRTPS transport plugin with the DomainParticipant.
Related to these features	Transport

dds.transport.lbrtps.create_function	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	The name of the function that will be called by Connext DDS to create an instance of the LBRTPS transport.
Related to these features	Transport

dds.transport.lbrtps.library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	The name of the dynamic library that contains the LBRTPS transport plugin implementation.
Related to these features	Transport

dds.transport.lbrtps.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	Transport

dds.transport.lbrtps.subtransport	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`[UDPv4|zrtps|.*]`
Description	Name of the plugin to be loaded by the LBRTPS transport.
Related to these features	Transport

dds.transport.lbrtps.verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Possible values	`-1 0 2`
Description	The verbosity for the plugin, for debugging purposes.
Related to these features	Transport Logging

rtps_header

dds.transport.lbrtps.rtps_header.eliminate_protocol	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Whether or not to eliminate the 4-byte protocol field in the RTPS header.
Related to these features	Transport

dds.transport.lbrtps.rtps_header.eliminate_vendorId	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Whether or not to eliminate the 2-byte vendorId field in the RTPS header.
Related to these features	Transport

dds.transport.lbrtps.rtps_header.eliminate_version	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Whether or not to eliminate the 2-byte version field in the RTPS header.
Related to these features	Transport

dds.transport.lbrtps.rtps_header.reduce_guidPrefix	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`32,32,32`
Min-Max value	`[0,32]`
Description	The reduce_guidPrefix field is composed of 12 bytes that represent 3 different fields of 4 bytes each: hostId, appId and instanceId.
Related to these features	Transport

submessage_header

dds.transport.lbrtps.submessage_header.combine_submessageId_with_flags	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Combine the first two fields in the SubmessageHeader; do not use all the bits.
Related to these features	Transport

submessages

dds.transport.lbrtps.submessages.reduce_entitiesId	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`32,32`
Min-Max value	`[8,32]`
Description	Many submessage kinds include two fields: readerId and writerId. You may be able to reduce the size of these fields if you know ahead of time how many DataReaders and DataWriters you will have.
Related to these features	Transport

dds.transport.lbrtps.submessages.reduce_sequenceNumber	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`64`
Min-Max value	`[16,64]`
Description	Some submessage kinds keep track of the number of submessages received by using an 8-byte sequence number field. You can reduce the number of bytes used for the sequence number by using this property.
Related to these features	Transport

shmem.builtin

dds.transport.shmem.builtin.aliases	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*[,.*]*`
Description	Aliases used to register the transport to the DomainParticipant.
Related to these features	Transport

dds.transport.shmem.builtin.enable_udp_debugging	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Enables UDP debugging when using shared memory.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><enable_udp_debugging>

dds.transport.shmem.builtin.host_id	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`0`
Min-Max value	`[0,UINT_MAX]`
Description	Host ID used to generate the shared memory transport network address.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><host_id>

dds.transport.shmem.builtin.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING VALIDATION_ACTION_EXCEPTION VALIDATION_ACTION_SKIP -1 0 1`
Description	configures the validation of the properties.
Related to these features	Transport

dds.transport.shmem.builtin.receive_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Mutability type	mutableUntilEnable
Default Value	`1048576`
Min-Max value	`[0,INT_MAX]`
Description	The total number of bytes that can be buffered in the receive queue.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><receive_buffer_size>

dds.transport.shmem.builtin.received_message_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Mutability type	mutableUntilEnable
Default Value	`64`
Min-Max value	`[0,INT_MAX]`
Description	Number of messages that can be buffered in the receive queue.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><received_message_count_max>

dds.transport.shmem.builtin.udp_debugging_address	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`239.255.1.2`
Min-Max value	`[0,255]`
Description	IP address to which shared memory traffic will be published
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><udp_debugging_address>

dds.transport.shmem.builtin.udp_debugging_port	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`7399`
Min-Max value	`[0,UINT_MAX]`
Description	Port to which shared memory traffic will be published.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><udp_debugging_port>

dds.transport.shmem.builtin.use_530_from_uuid_locator	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0` `1` `TRUE` `FALSE` `YES` `NO`
Description	This property only applies when the WireProtocol QoS policy (specifically rtps_auto_id_kind) is set to DDS_RTPS_AUTO_ID_FROM_UUID. Consider using the transport QoS or the newer dds.transport.minimum_compatibility_version property.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><use_530_from_uuid_locator>

parent

dds.transport.shmem.builtin.parent.gather_send_buffer_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1024`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the maximum number of buffers that Connext DDS can pass to the send() method of a transport plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><gather_send_buffer_count_max

dds.transport.shmem.builtin.parent.message_size_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`65536`
Min-Max value	`[INT_MIN,INT_MAX]`
Description	The maximum size of a message in bytes that can be sent or received by the transport plugin.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><message_size_max>

dds.transport.shmem.builtin.parent.properties_bitmap	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0x2`
Min-Max value	`[0,INT_MAX]`
Description	A bitmap that defines various properties of the transport to the Connext DDS core.
Related to these features	Transport Builtin Transport
The property has been promoted to	<domain_participant_qos><transport_builtin><shmem><properties_bitmap>

dds.transport.shmem.builtin.parent.thread_name_prefix	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`rTr#####`
Pattern value	`^.{0,8}$`
Description	Prefix used to name the transport threads.
Related to these features	Transport Builtin Transport

zrtps

dds.transport.zrtps.aliases	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*[,.*]*`
Related to these features	Transport

dds.transport.zrtps.compression_level	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`9`
Min-Max value	`[1,9]`
Description	Defines the compression level that the compression algorithm will use for all RTPS packages.
Related to these features	Transport

dds.transport.zrtps.compression_library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`ZLIB_COMPRESSION`
Possible values	`BZIP2_COMPRESSION` `EXTERNAL_COMPRESSION` `AUTOMATIC_COMPRESSION` `ZLIB_COMPRESSION`
Description	Aliases used to register the ZRTPS transport plugin with the DomainParticipant.
Related to these features	Transport

dds.transport.zrtps.create_function	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Must be set to ZRTPS_Transport_create_plugin.
Related to these features	Transport

dds.transport.zrtps.external_library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Sets the name of a user's external library that is to be located and used by the ZRTPS transport plugin.
Related to these features	Transport

dds.transport.zrtps.high_mark	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`512`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the size for small, medium, and large RTPS packages.
Related to these features	Transport

dds.transport.zrtps.library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	The value must be rtizrtps.
Related to these features	Transport

dds.transport.zrtps.low_mark	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`128`
Min-Max value	`[0,INT_MAX]`
Description	Specifies the size for small, medium, and large RTPS packages.
Related to these features	Transport

dds.transport.zrtps.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	Transport

dds.transport.zrtps.subtransport	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*|UDPv4`
Description	The required property, dds.transport.zrtps.subtransport, specifies the plugin to be loaded by the ZRTPS transport. Supported subtransports are UDPv4 or a user-specified transport. Connext DDS builtin transports other than UDPv4 are not currently supported as subtransports. Once you set the value for a subtransport, the names of all the properties for that subtransport should be in the form dds.transport.lbrtps.<subtransport>.<property>.
Related to these features	Transport

dds.transport.zrtps.verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[INT_MIN,INT_MAX]`
Description	The verbosity for the plugin, for debugging purposes.
Related to these features	Transport

compression_level

dds.transport.zrtps.compression_level.large_packets	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`9`
Min-Max value	`[1,9]`
Description	Defines the compression level that the compression algorithm will use for large RTPS packages.
Related to these features	Transport

dds.transport.zrtps.compression_level.medium_packets	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`9`
Min-Max value	`[1,9]`
Description	Defines the compression level that the compression algorithm will use for medium RTPS packages.
Related to these features	Transport

dds.transport.zrtps.compression_level.small_packets	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`9`
Min-Max value	`[1,9]`
Description	Defines the compression level that the compression algorithm will use for small RTPS packages.
Related to these features	Transport

compression_library

dds.transport.zrtps.compression_library.large_packets	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`ZLIB_COMPRESSION`
Possible values	`BZIP2_COMPRESSION` `EXTERNAL_COMPRESSION` `AUTOMATIC_COMPRESSION` `ZLIB_COMPRESSION`
Description	Specifies the compression algorithm to be used for large RTPS packages.
Related to these features	Transport

dds.transport.zrtps.compression_library.medium_packets	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`ZLIB_COMPRESSION`
Possible values	`BZIP2_COMPRESSION` `EXTERNAL_COMPRESSION` `AUTOMATIC_COMPRESSION` `ZLIB_COMPRESSION`
Description	Specifies the compression algorithm to be used for medium RTPS packages.
Related to these features	Transport

dds.transport.zrtps.compression_library.small_packets	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`ZLIB_COMPRESSION`
Possible values	`BZIP2_COMPRESSION` `EXTERNAL_COMPRESSION` `AUTOMATIC_COMPRESSION` `ZLIB_COMPRESSION`
Description	Specifies the compression algorithm to be used for small RTPS packages.
Related to these features	Transport

4.20 Transport Secure

4.20.1 dds.transport.DTLS.dtls1

dds.transport.DTLS.dtls1.aliases	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`Plugin Name`
Pattern value	`.*`
Description	Used to register the transport plugin returned by NDDS_Transport_DTLS_create() to the DomainParticipant.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.create_function	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Must be 'NDDS_Transport_DTLS_create'
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.create_function_ptr	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	pointer
Default Value	`NULL`
Description	Defines the function pointer to the DTLS transport plugin creation function.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.disable_interface_tracking	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0` `1` `TRUE` `FALSE` `YES` `NO`
Description	Disables detection of network interface changes.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.dtls_connection_liveliness_interval	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`60`
Min-Max value	`[0,UINT_MAX]`
Description	Liveliness interval (multiple of resend interval)
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.dtls_handshake_resend_interval	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`1000`
Min-Max value	`[0,UINT_MAX]`
Description	DTLS handshake retransmission interval in milliseconds.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.force_interface_poll_detection	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Forces the interface tracker to use a polling method to detect changes to the network interfaces in IP mobility scenarios.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.ignore_loopback_interface	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Possible values	`-1 0 1`
Description	Prevents the transport plugin from using the IP loopback interface.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.ignore_nonrunning_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Possible values	`0 1`
Description	Prevents the transport plugin from using a network interface that is not reported as RUNNING by the operating system.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.interface_poll_period	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`500`
Min-Max value	`[0,UINT_MAX]`
Description	Specifies the period in milliseconds to query for changes in the state of all the interfaces.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.join_multicast_group_timeout	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`5000`
Min-Max value	`[0,UINT_MAX]`
Description	Controls how long Connext DDS will retry to join a multicast group with a new network interface before withdrawing.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.library	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*`
Description	Must set to 'libnddstransporttls.so' (for Linux systems), 'libnddstransporttls.dylib' (for macOS systems), or 'nddstransporttls.dll' (for Windows systems).
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.network_address	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`0.0.0.0`
Min-Max value	`[0,255]`
Description	The network address at which to register this transport plugin.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.port_offset	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`144`
Min-Max value	`[0,INT_MAX]`
Description	Port offset to allow coexistence with non-secure UDP transport.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.property_validation_action	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`VALIDATION_ACTION_EXCEPTION`
Possible values	`VALIDATION_ACTION_WARNING` `VALIDATION_ACTION_EXCEPTION` `VALIDATION_ACTION_SKIP` `-1` `0` `1`
Description	configures the validation of the properties.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.recv_decode_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`65507`
Min-Max value	`[0,INT_MAX]`
Description	Size of buffer for decoding packets from wire.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.recv_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[0,INT_MAX]`
Description	Size in bytes of the receive buffer of a socket used for sending.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.security_verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[-1,INT_MAX]`
Description	Specifies the verbosity of security related log messages from the transport.
Related to these features	Transport Transport Secure Logging

dds.transport.DTLS.dtls1.send_socket_buffer_size	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`131072`
Min-Max value	`[0,INT_MAX]`
Description	Size in bytes of the send buffer of a socket used for sending.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.transport_priority_mapping_high	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0xFF`
Min-Max value	`[0,INT_MAX]`
Description	Sets the high value of the output range to IPv4 TOS.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.transport_priority_mapping_low	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	Sets the low value of the output range to IPv4 TOS.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.transport_priority_mask	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	unsigned integer
Default Value	`0`
Min-Max value	`[0,UINT_MAX]`
Description	Mask for use of transport priority field.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`1`
Min-Max value	`[-1,INT_MAX]`
Description	Specifies the verbosity of log messages from the transport.
Related to these features	Transport Transport Secure Logging

parent

dds.transport.DTLS.dtls1.parent.allow_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.parent.deny_interfaces	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Pattern value	`.*(,.*)*`
Description	A list of strings, each identifying a range of interface addresses.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.parent.gather_send_buffer_count_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`16`
Min-Max value	`[INT_MIN,INT_MAX]`
Description	Specifies the maximum number of buffers that Connext DDS can pass to the transport plugin's send() function.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.parent.message_size_max	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`16384`
Min-Max value	`[0,16384]`
Description	The maximum size of a message in bytes that can be sent or received by the transport plugin.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.parent.properties_bitmap	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[INT_MIN,INT_MAX]`
Description	A bitmap that defines various properties of the transport to the Connext DDS core.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.parent.thread_name_prefix	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`rTr#####`
Pattern value	`^.{0,8}$`
Description	Prefix used to name the transport threads.
Related to these features	Transport Transport Secure

tls.cipher

dds.transport.DTLS.dtls1.tls.cipher.cipher_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	List of available DTLS ciphers when communicating with 6.0.0 or below.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.cipher.ciphersuites	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	List of available TLS ciphersuites when communicating with Connext DDS 6.0.1 or above.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.cipher.dh_param_files	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Possible values	`0-9`
Description	List of available Diffie-Hellman (DH) key files.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.cipher.engine_id	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	String ID of OpenSSL cipher engine to request.
Related to these features	Transport Transport Secure

tls.identity

dds.transport.DTLS.dtls1.tls.identity.certificate_chain_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the name of a file containing an identifying certificate chain (in PEM format).
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.identity.private_key_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the name of a file containing a private key (in PEM format)
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.identity.private_key_password	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the password for the private key.
Related to these features	Transport Transport Secure

tls.verify

dds.transport.DTLS.dtls1.tls.verify.ca_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the name of a file containing Certificate Authority certificates.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.verify.ca_path	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies paths to directories containing Certificate Authority certificates.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.verify.callback	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`NULL`
Possible values	`default` `verbose` `none`
Description	NDDS_Transport_TLS_default_verify_callback()
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.verify.verify_depth	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[0,INT_MAX]`
Description	Maximum certificate chain length for verification.
Related to these features	Transport Transport Secure

dds.transport.DTLS.dtls1.tls.verify.verify_peer	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	If non-zero, use mutual authentication when performing TLS handshake (default).
Related to these features	Transport Transport Secure

4.20.2 dds.transport.TCPv4.tcp1

dds.transport.TCPv4.tcp1.security_logging_verbosity_bitmap	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	mask
Default Value	`-1`
Min-Max value	`[0,INT_MAX]`
Description	Bitmap that specifies the verbosity of security related log messages from the transport.
Related to these features	Transport Transport Secure Logging

tls.cipher

dds.transport.TCPv4.tcp1.tls.cipher.cipher_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`NULL`
Possible values	`RTITLS_CIPHER_LIST_DEFAULT` `RTITLS_CIPHER_LIST_ENCRYPT_HIGH` `RTITLS_CIPHER_LIST_UNENCRYPTED`
Description	List of available TLS ciphers when communicating with 6.0.0 or below.
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.cipher.ciphersuites	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	List of available TLS ciphersuites when communicating with 6.0.1 or above.
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.cipher.dh_param_files	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Possible values	`0-9`
Description	List of available Diffie-Hellman (DH) key files.
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.cipher.engine_id	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	ID of OpenSSL cipher engine to request.
Related to these features	Transport Transport Secure

tls.identity

dds.transport.TCPv4.tcp1.tls.identity.certificate_chain	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	String containing an identifying certificate (in PEM format) or certificate chain (appending intermediate CA certs in order).
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.identity.certificate_chain_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	File containing identifying certificate (in PEM format) or certificate chain (appending intermediate CA certs in order).
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.identity.private_key	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	String containing private key (in PEM format).
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.identity.private_key_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	File containing private key (in PEM format).
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.identity.private_key_password	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the password for the private key.
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.identity.rsa_private_key	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	String containing additional RSA private key (in PEM format).
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.identity.rsa_private_key_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	File containing additional RSA private key (in PEM format).
Related to these features	Transport Transport Secure

tls.verify

dds.transport.TCPv4.tcp1.tls.verify.ca_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the name of a file containing Certificate Authority certificates.
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.verify.ca_path	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies paths to directories containing Certificate Authority certificates.
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.verify.crl_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	Name of the file containing the Certificate Revocation List.
Related to these features	Transport Transport Secure

dds.transport.TCPv4.tcp1.tls.verify.verify_depth	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[INT_MIN,INT_MAX]`
Description	Maximum certificate chain length for verification.
Related to these features	Transport Transport Secure

4.20.3 dds.transport.WAN.wan1

dds.transport.WAN.wan1.security_verbosity	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[-1,INT_MAX]`
Description	Specifies the verbosity of security-related log messages from the transport.
Related to these features	Transport Transport Secure Logging

tls.cipher

dds.transport.WAN.wan1.tls.cipher.cipher_list	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	List of available DTLS ciphers when communicating with 6.0.0 or below.
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.cipher.dh_param_files	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`(.+:[0-9]+)(,.+:[0-9]+).*`
Description	List of available Diffie-Hellman (DH) key files.
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.cipher.engine_id	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	ID of OpenSSL cipher engine to request.
Related to these features	Transport Transport Secure

tls.identity

dds.transport.WAN.wan1.tls.identity.certificate_chain_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the name of a file containing an identifying certificate chain (in PEM format).
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.identity.private_key_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	File containing private key (in PEM format).
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.identity.private_key_password	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the password for the private key.
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.identity.rsa_private_key_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	File containing additional RSA private key (in PEM format).
Related to these features	Transport Transport Secure

tls.verify

dds.transport.WAN.wan1.tls.verify.ca_file	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies the name of a file containing Certificate Authority certificates.
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.verify.ca_path	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	string
Default Value	`NULL`
Pattern value	`.*`
Description	A string that specifies paths to directories containing Certificate Authority certificates.
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.verify.callback	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	enum
Default Value	`NULL`
Possible values	`default` `verbose` `none`
Description	NDDS_Transport_TLS_default_verify_callback()
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.verify.verify_depth	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`-1`
Min-Max value	`[INT_MIN,INT_MAX]`
Description	Maximum certificate chain length for verification.
Related to these features	Transport Transport Secure

dds.transport.WAN.wan1.tls.verify.verify_peer	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	integer
Default Value	`0`
Min-Max value	`[0,INT_MAX]`
Description	If non-zero, use mutual authentication when performing TLS handshake (default).
Related to these features	Transport Transport Secure

4.21 Type System

4.21.1 dds.data_reader.protocol

dds.data_reader.protocol.use_43_large_data_format	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Achieve backward compatibility sending 'Large Data' between RTI Data Distribution Service 4.4d and older Releases.
Related to these features	Reliability Type System

4.21.2 dds.data_reader.type_support

dds.data_reader.type_support.cdr_string_encoding_kind	
May be set in	DataReader DomainParticipant
Applies to	DataReader
Type	enum
Default Value	`UTF-8`
Possible values	`UTF-8 ISO-8859-1`
Description	Configures the IDL wire string encoding.
Related to these features	Type System

4.21.3 dds.data_writer.protocol

dds.data_writer.protocol.use_43_large_data_format	
May be set in	DataWriter DomainParticipant
Applies to	DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Achieve backward compatibility sending 'Large Data' between RTI Data Distribution Service 4.4d and older Releases.
Related to these features	Reliability Type System

4.21.4 dds.data_writer.type_support

dds.data_writer.type_support.cdr_string_encoding_kind	
May be set in	DataWriter DomainParticipant
Applies to	DataWriter
Type	enum
Default Value	`UTF-8`
Possible values	`UTF-8` `ISO-8859-1`
Description	Configures the IDL wire string encoding.
Related to these features	Type System

4.21.5 dds.participant

dds.participant.use_45d_compatible_alignment_enforcement	
May be set in	DomainParticipant
Applies to	DomainParticipant
Type	boolean
Default Value	`true`
Possible values	`0` `1` `TRUE` `FALSE` `YES` `NO`
Description	Accept RTPS messages with wrong alignment incorrectly.
Related to these features	Type System

4.21.6 dds.sample_assignability

dds.sample_assignability.accept_unknown_enum_value	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	boolean
Default Value	`false`
Possible values	`0` `1` `TRUE` `FALSE` `YES` `NO`
Description	When set to 1, samples containing an unknown enumerator can be successfully deserialized to the default enumeration value.
Related to these features	Type System

dds.sample_assignability.accept_unknown_union_discriminator	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	When set to 1, samples containing an unknown union discriminator can be successfully deserialized to the default discriminator value.
Related to these features	Type System

4.21.7 dds.type_consistency

dds.type_consistency.ignore_member_names	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	boolean
Default Value	`false`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Controls whether member names are taken into consideration for type assignability.
Related to these features	Type System
The property has been deprecated by	<datareader_qos><type_consistency><ignore_member_names>

dds.type_consistency.ignore_sequence_bounds	
May be set in	DataReader DataWriter DomainParticipant
Applies to	DataReader DataWriter
Type	boolean
Default Value	`true`
Possible values	`0 1 TRUE FALSE YES NO`
Description	Controls whether sequence bounds are taken into consideration for type assignability.
Related to these features	Type System
The property has been deprecated by	<datareader_qos><type_consistency><ignore_sequence_bounds>

Chapter 5

Security Plugins Properties

RTI Security Plugins includes a set of builtin plugins that implement the plugins defined by the DDS Security specification. You can customize these builtin plugins: for example, to accommodate proprietary or FIPS 140-2 compliant cryptography solutions, take advantage of custom security hardware, or change the behavior of the plugins in any number of ways. The *Security Plugins SDK* enables customizing the *Security Plugins* to meet your system's security requirements.

All the security properties (described in the com.rti.serv list of properties) are validated when the plugin is created. This validation is done in order to avoid using an unknown or incorrect property name (for example, due to a typo). Without this validation, *Connext* ignores the unknown property name and you might not know why the property's configuration isn't being applied. You can find more information in the "Property Validation" section of the Core Libraries User's Manual.

If you add a new property to the Property Qos Policy, the creation of the *Security Plugins* by default will fail with an error similar to the following:

```
DDS_PropertyQosPolicy_validate_plugin_property_suffixes:Unexpected property:␣
↪com.rti.serv.secure.new_property. Closest valid property: com.rti.serv.
↪secure.openssl_engine
RTI_Security_PluginSuite_create:Inconsistent QoS property: com.rti.serv.
↪secure.
```

This problem can be solved in one of two ways:

5.1 Configuring the validation behavior

You can configure the behavior of the validation by setting the `com.rti.serv.secure.property_validation_action` property (see Properties for Enabling Security) as follows:

```
<domain_participant_qos>
<property>
    <value>
    <element>
        <name>com.rti.serv.load_plugin</name>
```

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```
        <value>com.rti.serv.secure</value>
    </element>
    <element>
        <name>com.rti.serv.secure.property_validation_action</name>
        <value>VALIDATION_ACTION_SKIP</value>
    </element>
    </value>
</property>
</domain_participant_qos>
```

5.2 Validating your own properties

The *Security Plugins SDK* properties are validated in the function `RTI_Security_PluginSuite_create`:

```
if (!RTI_Security_Utility_validatePluginPropertySuffixes(
        (struct DDS_PropertyQosPolicy *) properties,
        prefix,
        PROPERTY_PLUGIN_VALID_PUBLIC_PROPERTIES_SECURITY,
        PROPERTY_PLUGIN_VALID_PRIVATE_PROPERTIES_SECURITY,
        /*
         * Do not validate the passed 'dds.sec' properties in the plugin␣
↪creation,
         * those are already validated by core.
         */
        DDS_TRUST_PLUGIN_PROPERTY_PREFIX,
        validationAction)) {
    RTI_Security_Log_exception(
            &RTI_LOG_INCONSISTENT_PROPERTY_s,
            prefix);
    return;
}
```

If you add a new property and still want to validate the properties, you will need to create a new list of properties to validate. The new list will be a combination of the Properties for Enabling Security and your new properties.

To create the new list of properties for validation, perform the following steps:

1. Add the following list into the *Security Plugins SDK*.

```
const char *PROPERTY_CUSTOM_PLUGIN_VALID_PUBLIC_PROPERTIES_SECURITY[] = {
    PROPERTY_NAME_COM_RTI_SERV_SECURE_ACCESS_CONTROL_ALTERNATIVE_PERMISSIONS_
↪AUTHORITY_FILES,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_ACCESS_CONTROL_USE_530_LOGGING_
↪PROTECTION,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_ACCESS_CONTROL_USE_530_PARTITIONS,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_ACCESS_CONTROL_USE_530_PERMISSIONS_
↪RULES_PRECEDENCE,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_ACCESS_CONTROL_USE_610_PERMISSIONS_
↪RULES_PRECEDENCE,
```

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```
    PROPERTY_NAME_COM_RTI_SERV_SECURE_AUTHENTICATION_ALTERNATIVE_CA_FILES,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_AUTHENTICATION_CRL,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_AUTHENTICATION_ENABLE_CUSTOM_ALGORITHMS,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_AUTHENTICATION_ENABLE_CUSTOM_ALLOCATORS,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_AUTHENTICATION_KEY_ESTABLISHMENT_
↪ALGORITHM,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_AUTHENTICATION_KEYFORM,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_AUTHENTICATION_PARTICIPANT_DISCOVERY_
↪PROTECTION_KEY,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_AUTHENTICATION_PROPAGATE_SIMPLIFIED_
↪IDENTITY_CERTIFICATE,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_AUTHENTICATION_RSA_PSS_PAD,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_AUTHENTICATION_SHARED_SECRET_ALGORITHM,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_CREATE_FUNCTION,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_CREATE_FUNCTION_PTR,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_CRYPTOGRAPHY_ENCRYPTION_ALGORITHM,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_CRYPTOGRAPHY_MAX_BLOCKS_PER_SESSION,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_CRYPTOGRAPHY_MAX_RECEIVER_SPECIFIC_MACS,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_CRYPTOGRAPHY_RTPS_PROTECTION_KEY,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_CRYPTOGRAPHY_SHARE_KEY_FOR_METADATA_AND_
↪DATA_PROTECTION,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_HMAC_ONLY_CRYPTOGRAPHY_KEY,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_HMAC_ONLY_CRYPTOGRAPHY_MAX_BLOCKS_PER_
↪SESSION,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_HMAC_ONLY_ENABLED,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_LIBRARY,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_LICENSE_FILE,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_LICENSE_STRING,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_LOGGING_LOG_LEVEL,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_LOGGING_MODE_MASK,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_LOGGING_SECURITY_TOPIC_PROFILE,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_LOGGING_SECURITY_TOPIC_QUEUE_MESSAGE_
↪COUNT_MAX,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_LOGGING_SECURITY_TOPIC_QUEUE_MESSAGE_
↪SIZE_MAX,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_LOGGING_SECURITY_TOPIC_QUEUE_SIZE,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_LOGGING_SECURITY_TOPIC_THREAD_MESSAGE_
↪THRESHOLD,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_LOGGING_SECURITY_TOPIC_THREAD_PLUGIN_
↪METHOD_THRESHOLD,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_LOGGING_VERBOSITY,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_OPENSSL_ENGINE,
    PROPERTY_NAME_COM_RTI_SERV_SECURE_PROPERTY_VALIDATION_ACTION,
    "" /* Specify end of array */
};
```

2. Add your new properties to the list `PROPERTY_CUSTOM_PLUGIN_VALID_PUBLIC_PROPERTIES_SECURITY`.

3. In the function `RTI_Security_Utility_validatePluginPropertySuffixes`, replace `PROPERTY_PLUGIN_VALID_PUBLIC_PROPERTIES_SECURITY` with `PROPERTY_CUSTOM_PLUGIN_VALID_PUBLIC_PROPERTIES_SECURITY`.

4. Recompile the *Security Plugins SDK*.
5. Your properties will be validated.