

# **RTI Real-Time WAN Transport**

**Release Notes**

**Version 7.2.0**



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# Release Notes

## 1 Supported Platforms

*RTI® Real-Time WAN Transport* is supported on all platforms in the table of [Supported Platforms for Compiler-Dependent Products, in the RTI Connex Core Libraries Release Notes](#).

## 2 Compatibility

*Real-Time WAN Transport* is an optional product for use with *Connex* with the same version number.

## 3 What's New in 7.2.0

### 3.1 Added Pre-Shared Key Protection to Cloud Discovery Service and Real-Time WAN Transport

In release 7.1.0, the *Security Plugins* introduced Pre-Shared Key (PSK) Protection as a new protection mechanism, complementary to more-advanced *Security Plugins* features or standalone. In this release, the *Security Plugins* added PSK support for *RTI Cloud Discovery Service* (protecting discovery information relayed by *Cloud Discovery Service*) and *Real-Time WAN transport* (protecting UDP Binding Ping).

## 4 Previous Releases

### 4.1 What's Fixed in 7.1.0

#### 4.1.1 Duplicate participant announcements sent to WAN peers when using Real-Time WAN Transport

Previous versions of *Real-Time WAN Transport* required you to add “0@” to the beginning of an entry in the **initial\_peers** list, or else extra discovery traffic would be generated (five duplicate participant announcements (DATA(P)/DATA(Pb)) would be sent to each initial peer each time one should be written). For example, if you used a value of 5 for **initial\_participant\_**

**announcements**, then 25 initial participant announcements would be sent. This problem has now been fixed so that only a single participant announcement will be sent to each initial peer. For example, if you use a value of 5 for **initial\_participant\_announcements**, then five initial participant announcements will be sent.

Excess discovery traffic was also produced from the locators received from a remote participant. If a remote participant had multiple UUID locators that mapped to the same **<peer\_public\_address>:<peer\_public\_port>**, then a participant would send duplicate participant announcements to each UUID locator, resulting in duplicate traffic to the same **<peer\_public\_address>:<peer\_public\_port>**. This issue has been resolved, and UUID locators that map to the same **<peer\_public\_address>:<peer\_public\_port>** will only result in one participant announcement being sent, regardless of the number of UUID locators.

[RTI Issue ID CORE-13245]

## 4.2 What's New in 7.0.0

### 4.2.1 New builtin XML snippets facilitate UDP communication over WAN or third-party networks

This release includes two new XML snippets to facilitate UDP communication over WAN or third-party networks:

- Transport.UDP.AvoidIPFragmentation
- Transport.UDP.WAN

For WAN communications, it is not a good idea to rely on IP fragmentation. IP fragmentation causes significant issues in UDP, where there is no integrated support for a path MTU (maximum transmission unit) discovery protocol as there is in TCP.

The Transport.UDP.AvoidIPFragmentation snippet configures a Participant to avoid IP fragmentation when using the builtin UDP transports.

The Transport.UDP.WAN snippet uses Transport.UDP.AvoidIPFragmentation and enables the *Real-Time WAN Transport*. We recommend this snippet for configurations that require sending data over the WAN.

Example:

```
<qos_profile name="DisableIPFragmentationWAN">
  <base_name>
    <element>Transport.UDP.WAN</element>
  </base_name>
</qos_profile>
```

## 4.3 What's Fixed in 7.0.0

### 4.3.1 Real-Time WAN Transport did not work if `accept_unknown_peers` was FALSE

With *Real-Time WAN Transport*, an internal participant should be able to communicate with an external participant regardless of the **`discovery.accept_unknown_peers`** setting, as long as the internal participant sets its initial peer to the public IP address and port of the external participant. For example:

```
udpv4_wan://34.45.6.1:3456
```

But communication with **`discovery.accept_unknown_peers`** set to FALSE on the internal participant was not possible. This problem has been resolved.

For more information, see *Disabling IP Fragmentation for Real-Time WAN Transport*, in the [RTI Connect Core Libraries User's Manual](#).

[RTI Issue ID COREPLG-628]