

RTI Connexx What's New

Version 7.7.0



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Chapter 1

What's New in 7.7.0 (7.7 LTS)

RTI® Connex® 7.7.0 is the first production release in the 7.7 long-term support (LTS) series. It is built upon and combines all of the features in releases 7.4.0, 7.5.0, and 7.6.0. See the [Connex Versions and Lifecycle](#) page for more information on RTI's software release model.

















1.1 Highlights Since 7.3 LTS

Table 1.1 highlights key new features since 7.3 LTS. See the release notes below the table for descriptions of all new features and fixes since 7.3 LTS.

Note: For backward compatibility information between 7.7.0 and previous releases, see the *Migration Guide* on the [RTI Community Portal](#).

Table 1.1: Key Features of *Connexth* 7.7.0 (7.7 LTS) since 7.3 LTS

	Start Easier
	Simplified Linux Deployment with Debian Packages enables seamless integration of <i>Connexth</i> with existing Linux based deployment tools and workflows.
	Faster Setup with Docker® container images is now available for most <i>Connexth</i> components.
	Improved Observability Framework introduces several improvements to <i>Monitoring Library 2.0</i> and <i>Collector Service</i> so <i>Observability Framework</i> is easier to start, faster to discover, better isolated, and less intrusive.*
	Integrate Everywhere
	Easily Integrate Protobuf and Connexth . The <i>Connexth Protocol Buffers Extension</i> allows you to easily reuse your Protocol Buffers data types, facilitating seamless integration between your Protobuf-centric applications and <i>Connexth</i> .*
	Integrate Your Rust Applications with DDS . <i>Connector for Rust</i> (Experimental) provides a lightweight, easy-to-use Rust interface for DDS, fully interoperable with <i>Connexth</i> . Easily publish and subscribe to DDS topics in Rust, using XML-based configuration, and a simple API with Serde support.*
	Easy ROS 2 Integration Using Topic Aliasing automatically translates between native DDS topic names and the ROS 2 topic naming conventions, enabling native DDS and ROS 2 nodes to seamlessly communicate. <i>Connexth 7.7</i> is also Lyrical-Luth ready, enabling ROS users to seamlessly migrate to the upcoming ROS LTS while staying on the latest <i>Connexth</i> release.
	Remote Debugging with Admin Console lets you visualize and analyze <i>Connexth</i> systems running on remote networks, even when <i>Admin Console</i> cannot directly participate in the DDS domains. This is especially useful for debugging systems over WANs or in environments where direct DDS participation is not possible.
	Production-ready Modern C++ RPC API includes service discovery, simplifying the development of client-server architectures. Production-ready Python support for RPC enables Python developers to bridge the gap between Python-based clients or servers and the rest of the distributed system.
	Run Better
	Optimized Endpoint Discovery . Using TypeLookup Service, <i>Connexth</i> requests full type information only when needed, reducing network traffic and system startup time.*
	Optimized Persistence Service introduces a next-generation synchronization protocol, delivering major gains in bandwidth efficiency and state recovery. <i>Persistence Service</i> is now easier to scale, cloud-ready, and resilient for large deployments.
	Reduced Memory Footprint introduces memory optimizations that reduce usage for large-scale systems between 15% to 40% based on certain QoS settings and application size.*
	Secure More
	OpenSSL 3.5.5 and wolfSSL 5.8.2 are the latest updates to <i>Connexth</i> crypto libraries.*
	Security Enhancements enable you to secure large systems more easily, periodically revalidate permissions for improved security, and reduce operational complexity by enforcing identity re-2
1.1. Highlights Since 7.3 LTS	
	Explore Connexth AI
	Connexth AI provides a rich set of tools and services for building and deploying AI applications.

* *New since release 7.6.0.*

For details about additional features and fixes, see the release notes for a specific product:

- [RTI Connexth Core Libraries](#)
- [RTI Security Plugins](#)
- [RTI Admin Console](#)
- [RTI System Designer](#)
- [RTI Observability Framework](#)
- [RTI Code Generator](#)
- [RTI Routing Service](#)
- [RTI Cloud Discovery Service](#)
- [RTI Real-Time WAN Transport](#)
- [RTI Recording Service](#)
- [RTI Persistence Service](#)
- [RTI Web Integration Service](#)
- [RTI Launcher](#)
- [RTI DDS Spy](#)
- [RTI DDS Ping](#)
- [RTI Monitor](#)
- [RTI Shapes Demo](#)
- [RTI TLS Support](#)
- [RTI Ada Language Support](#)
- [RTI Limited Bandwidth Plugins](#)
- [RTI Queuing Service](#)
- [Connector for JavaScript](#)
- [Connector for Rust](#)

1.2 Platform and Build Changes

1.2.1 New supported platforms

See [Supported Platforms](#) in the *Connexth Core Libraries Release Notes* for the full list of supported platforms in 7.7.0.

See the [Core Libraries Platform Notes](#) for more details on these and other platforms in 7.7.0.

Any platforms *not* listed in [Supported Platforms](#) are not available in this release. If you wish to obtain *Connexth* for a platform that is not listed in [Supported Platforms](#), contact sales@rti.com.

1.2.2 Native Arm Linux host installer

This release includes a new Arm Linux host installer. Previously, to install *Connexth* on Arm Linux systems, you had to install an x64 Linux host bundle, then an Arm Linux target bundle, and then copy or transfer your installation to the Arm Linux machine. Now, there is an Arm Linux host. You can directly install host and target packages on an Arm Linux machine. These new Arm Linux host installers contain RTI utilities and libraries, but not tools; RTI Tools (*Launcher, Admin Console, Shapes Demo, System Designer, and Monitor UI*) are not currently supported on Arm Linux systems.

For installation instructions, see the [RTI Connexth Installation Guide](#).

Chapter 2

Previous Releases

2.1 What's New in 7.6.0 EAR




RTI® Connex® 7.6.0 is the third feature release in the Jackson Hole series of releases culminating in Jackson Hole LTS in 2026. This release is marked as an early access release (EAR), which means that customers can use it in development, but not in production environments. This release enhances and stabilizes key features, in preparation for Jackson Hole LTS.



This document highlights changes since *Connex 7.5.0* (unless otherwise noted). See the [Connex Versions and Lifecycle](#) page for more information on RTI's software release model.

Note: For backward compatibility information between 7.6.0 and previous releases, see the *Migration Guide* on the [RTI Community Portal](#).

Table 2.1: Key Features of *Connex* 7.6.0

	<i>Remote Debugging Enhancements in Admin Console</i> make collecting debug telemetry information more efficient and scalable.
	<i>Strengthen Security while Reducing Operational Complexity</i> by using short-lived permissions.
	<i>Persistence Service Synchronization</i> is more performant and production-ready.

For details about additional features and fixes in this release, see the release notes for a specific product:

- [RTI Connex Core Libraries](#)
- [RTI Security Plugins](#)
- [RTI Admin Console](#)
- [RTI System Designer](#)
- [RTI Observability Framework](#)
- [RTI Code Generator](#)
- [RTI Routing Service](#)
- [RTI Cloud Discovery Service](#)
- [RTI Real-Time WAN Transport](#)
- [RTI Recording Service](#)
- [RTI Persistence Service](#)
- [RTI Web Integration Service](#)
- [RTI Launcher](#)
- [RTI DDS Spy](#)
- [RTI DDS Ping](#)
- [RTI Monitor](#)
- [RTI Shapes Demo](#)
- [RTI TLS Support](#)
- [RTI Ada Language Support](#)
- [RTI Limited Bandwidth Plugins](#)
- [RTI Queuing Service](#)
- [Connector for JavaScript](#)

2.1.1 Remotely Debug Systems Across Separate Networks with Admin Console

This release brings several enhancements to the remote debugging capabilities introduced in *Connex* 7.5.0:

- **Efficient Telemetry Data Handling:** Telemetry required by *Admin Console* in remote mode is now sent to the *Collector Service* only if there is at least one active *Admin Console* session requesting it.
- **Scalable Debugging with Collector Chains:** *Admin Console* now supports retrieving remote debugging telemetry through a chain of *Collector Service* instances. This enables debugging of larger, distributed systems spanning multiple networks. Edge *Collector Service* instances collect and forward telemetry to a central, cloud-based *Collector Service*, to which *Admin Console* connects for a unified view.

For details, see [What's New in 7.6.0](#) in the *Admin Console Release Notes*.

2.1.2 Short-Lived Permissions Increase System Security

SECURITY PLUGINS (*RTI Security Plugins*) now support short-lived permissions by enforcing a *DomainParticipant*'s permissions expiration time and subsequent *DomainParticipant* removal from the system. We also introduce a way to renew the permissions. With permissions expiration and renewal available, it is now possible to implement a short-lived permissions approach, where *DomainParticipants* must periodically revalidate their permissions within the system and continue their operations on an as-needed basis. This practice leads to increased security of a dynamic system and limits access to required participants only. For details, see [Permissions Expiration](#) in the *RTI Security Plugins User's Manual*.

See also the [RTI Security Plugins Release Notes](#).

2.1.3 Persistence Service Synchronization Ready for Production

The new *Persistence Service* synchronization protocol, introduced in *Connex* 7.5.0, is now ready for production use.

While this synchronization protocol was already significantly more efficient than the protocol used before *Connex* 7.5.0, this release includes further enhancements to reduce bandwidth consumption and ensure faster convergence when changing data providers.

See the [Persistence Service Release Notes](#).

2.1.4 Platform and Build Changes

See [Supported Platforms](#) in the *Connex Core Libraries Release Notes* for the full list of supported platforms in 7.6.0.

The following platforms are new since 7.3.0:

- Android™ 14 and Android AOSP 14 on ARM64
- gcc8.5.0 replaces gcc7.3.0 for Red Hat® Enterprise Linux 8 and 9 and for Ubuntu® 22.04 and 24.04 on x64
- gcc8.5.0 replaces gcc7.3.0 for Ubuntu 22.04 and 24.04 on ARMv8

- arm64Darwin23clang16.0 replaces arm64Darwin20clang12.0 for macOS® 14 (Darwin 23) on ARM64, adding macOS 15 (Darwin 24) support
- QNX® Neutrino® 8.0 on x64 and ARMv8 (with LLVM C++ library)
- Docker image gcc7.3.0 libraries are replaced with gcc8.5.0 for amd64 and ARM64
- Debian gcc7.3.0 libraries are replaced with gcc8.5.0 for amd64 and ARM64, adding Ubuntu 24.04 (noble) support

See the [Core Libraries Platform Notes](#) for more details on these and other platforms in 7.6.0.

Any platforms *not* listed in [Supported Platforms](#) are not available in this release. If you wish to obtain *Connexth* for a platform that is not listed in [Supported Platforms](#), contact sales@rti.com.

2.1.5 Product Availability

The following products are available with 7.6.0 (they were not available with 7.4.0 or 7.5.0):

- *RTI Ada Language Support*
- *RTI Limited Bandwidth Plugins*
- *RTI Queuing Service*
- *RTI Connector for Javascript*

Find their release notes listed above under Table 2.1.

2.2 What's New in 7.5.0 EAR








RTI® Connexth® 7.5.0 is the second feature release in the Jackson Hole series of releases culminating in Jackson Hole LTS in 2026. This release is marked as an early access release (EAR), which means that customers can use it in development, but not in production environments.



This document highlights changes since *Connexth 7.4.0*. See the [Connexth Versions and Lifecycle](#) page for more information on RTI's software release model.

Note: For backward compatibility information between 7.5.0 and previous releases, see the *Migration Guide* on the [RTI Community Portal](#).

Table 2.2: Key Features of *Connexth 7.5.0*

	<i>Remote Debugging with Admin Console (Experimental)</i> enables you to remotely debug your systems that are running in separate networks.
	<i>Productized Python RPC API</i> enables Python developers to bridge the gap between Python-based clients or servers and the rest of the distributed system.
	<i>AI Assistant in System Designer (Experimental)</i> leverages the <i>Connexth Intelligence</i> platform grounded in RTI's vast knowledge base to help you design your system.
	<i>Easier Security Management for Reducing Operational Complexity</i> enforce identity revocation in the <i>RTI Security Plugins</i> without system restarts and improve authentication efficiency without affecting performance.
	<i>Reduced Bandwidth Usage for Persistence Service Synchronization (Experimental)</i> guarantees eventual consistency at the DDS instance level using enhanced synchronization mechanisms.
	<i>Unbounded Types without Manual Configuration</i> — <i>Connexth</i> performs automatic memory allocation based on actual sample sizes.
	<i>Achieve Faster Network Performance</i> with out-of-the-box UDP socket buffer sizes that have been increased to reduce sample losses and improve throughput performance.

For details about additional features and fixes in this release, see the release notes for a specific product:

- [RTI Connexth Core Libraries](#)
- [RTI Security Plugins](#)
- [RTI Admin Console](#)
- [RTI System Designer](#)
- [RTI Observability Framework](#)
- [RTI Code Generator](#)
- [RTI Routing Service](#)
- [RTI Cloud Discovery Service](#)
- [RTI Real-Time WAN Transport](#)
- [RTI Recording Service](#)
- [RTI Persistence Service](#)

- [RTI Web Integration Service](#)
- [RTI Launcher](#)
- [RTI DDS Spy](#)
- [RTI DDS Ping](#)
- [RTI Monitor](#)
- [RTI Shapes Demo](#)
- [RTI TLS Support](#)

2.2.1 Remote Debugging with Admin Console (Experimental)

Admin Console can now participate in distributed systems, such as layered architectures and remotely deployed systems, allowing you to remotely debug your systems running in separate networks. For details, see [What's New in 7.5.0](#) in the *Admin Console Release Notes*.

Note: Remote Debugging was experimental when it was introduced in 7.5.0, but is no longer experimental starting in 7.6.0.

2.2.2 Productized Python RPC API

New Python support for RPC enables Python developers to bridge the gap between Python-based clients or servers and the rest of the distributed system. For details, see [What's New in 7.5.0](#) in the *Connexth Core Libraries Release Notes*.

2.2.3 AI Assistant in System Designer (Experimental)

Create and modify your systems using natural language through an AI assistant in *System Designer* that leverages the *Connexth Intelligence* platform grounded in RTI's vast knowledge base. Ask questions, make changes, and get suggestions for improving your design. For details, see [What's New in 7.5.0](#) in the *System Designer Release Notes*.

2.2.4 Easier Security Management for Reducing Operational Complexity

Enhance flexibility and scalability by enforcing identity revocation without system restarts. The *RTI Security Plugins* implement key material regeneration and distribution independently of the remote DomainParticipant vendor. OCSP stapling simplifies certificate revocation checks, improving the efficiency of authentication processes without affecting performance. For details, see the [RTI Security Plugins Release Notes](#).

2.2.5 Reduced Bandwidth Usage for Persistence Service Synchronization (Experimental)

Enhanced synchronization mechanisms improve data sharing across *Persistence Service* instances, minimizing bandwidth usage. In most cases, each *Persistence Service* will receive a DDS sample only once. The new synchronization protocol guarantees eventual consistency at the DDS instance level. For details, see the [Persistence Service Release Notes](#).

Note: This enhanced synchronization was experimental when it was introduced in 7.5.0, but is no longer experimental starting in 7.6.0.

2.2.6 Unbounded Types without Manual Configuration

Manual configuration of buffer sizes is no longer necessary when working with unbounded data types; now we perform automatic memory allocation based on actual sample sizes. For details, see [What's New in 7.5.0](#) in the *Connexth Core Libraries Release Notes*.

2.2.7 Achieve Faster Network Performance

The out-of-the-box UDP socket buffer sizes have been increased to reduce sample losses and improve throughput performance. For details, see [What's New in 7.5.0](#) in the *Connexth Core Libraries Release Notes*.

2.2.8 Product Availability

The following products are not included in 7.5.0:

- RTI Ada Language Support
- RTI Queuing Service
- RTI Limited Bandwidth Plugins

If you need these products, please use a previous release in which they were available. The latest release in which these products were available is [7.3.0](#).

2.3 What's New in 7.4.0 EAR

RTI® Connexth® 7.4.0 is the first feature release in the Jackson Hole series of releases culminating in Jackson Hole LTS in 2026. This release is marked as an Early Access Release (EAR), which means that customers can use it in development, but not in production environments.

This document highlights changes since *Connexth 7.3.0*. See the [Connexth Versions and Lifecycle](#) page for more information on RTI's software release model.



Note: For backward compatibility information between 7.4.0 and previous releases, see the *Migration Guide* on the [RTI Community Portal](#).

Table 2.3: Key Features of *Connex* 7.4.0











	<i>Easily Send Data of Any Size</i> without considering special QoS settings.
	<i>Default MTU Size for Real-Time WAN Transport</i> is now 1400 bytes, removing the need to manually adjust MTU sizes, to avoid IP fragmentation for most networks.
	<i>Productized Modern C++ RPC API</i> includes service discovery, simplifying the development of client-server architectures.
	<i>Streamlined Application Design in System Designer</i> offers pre-defined templates to create projects quickly, and uses categories and labels to help you discover QoS parameters more easily.
	<i>Granular Access Control and Security Permissions</i> in SECURITY PLUGINS enable you to better manage access and permissions in large-scale, dynamically grouped applications by using participant partition-based access control, domain tags, and explicit identity permissions.
	<i>Better Organized QoS</i> categorizes QoS fields (as related to performance, latency, memory management, and so on) in the API Reference documentation, making it easier to find the QoS for your use case.

Table 2.4: Additional Enhancements Available Since 7.3.0

	Connex Chatbot. Free, AI-based support tool that helps you navigate documentation, understand <i>Connex</i> features, generate sample code, and troubleshoot issues with <i>Connex</i> applications.
	Learn and Get Started with Connex Features Faster. New developer resources page offers self-contained, easy-to-follow tutorial modules that help you learn specific aspects of <i>Connex</i> and prototype faster.
	Containerized Connex Products. Container images in Docker™ Hub are now available for most <i>Connex</i> components.
	Install Connex Using Debian Packages. This new feature enables seamless integration with existing Linux based deployment tools and workflows.

For details about additional features and fixes in this release, see the release notes for a specific product:

- [RTI Connex Core Libraries](#)
- [RTI Security Plugins](#)
- [RTI Admin Console](#)
- [RTI System Designer](#)
- [RTI Observability Framework](#)
- [RTI Code Generator](#)
- [RTI Routing Service](#)
- [RTI Cloud Discovery Service](#)
- [RTI Real-Time WAN Transport](#)
- [RTI Recording Service](#)
- [RTI Persistence Service](#)
- [RTI Web Integration Service](#)
- [RTI Launcher](#)
- [RTI DDS Spy](#)
- [RTI DDS Ping](#)
- [RTI Monitor](#)
- [RTI Shapes Demo](#)
- [RTI TLS Support](#)

2.3.1 Easily Send Data of Any Size

Previously, to reliably send data using DDS fragmentation (data whose serialized size exceeds the configured transport maximum message size), it was necessary to enable Asynchronous Publish Mode on the *DataWriter*. In this release, setting asynchronous publishing for reliable data fragmentation transmissions is no longer required. **You can now send data of any size without needing any special QoS settings** for your *DataWriter*'s Publish Mode, based on your Reliability configuration.

Related to this change, RTI updated settings such as `nack_suppression_duration`, `min/max_nack_response_delay`, and `max_bytes_per_nack_response` to now also apply to Negative Fragment Acknowledgments (NACK_FRAGs) to better manage missing data fragment repair traffic for synchronous *DataWriters*. Previously, the flow of repair data was assumed to be taken care of by whatever flow controller the asynchronous publish thread was configured to use.

See “Set up reliable communications for fragmented data more easily and with better performance, by removing asynchronous publishing requirement”, in the [RTI Connexthats Core Libraries Release Notes](#) for more information.

2.3.2 New Default MTU Size for Real-Time WAN Transport Helps Avoid WAN Communication Issues

This release now sets a default MTU size of 1400 bytes (via the `message_size_max` property) for the *Real-Time WAN Transport* (UDPv4_WAN) in order to avoid IP fragmentation for WAN communications. IP fragmentation causes significant issues for UDP WAN communications, especially over cellular networks. See [Disabling IP Fragmentation for Real-Time WAN Transport](#) in the *RTI Connexthats Core Libraries User's Manual* for more information.

2.3.3 Productized Modern C++ API with Service Discovery Allows Writing Reliable RPC-Based Applications

This release promotes the RPC C++ API from experimental to productized, meaning the feature is stable, reliable, performant, and well-integrated into *Connexthats*. Although *Connexthats 7.4.0* is an early-access release, if your project is currently in development and you expect to go to production with Jackson Hole LTS or later, we encourage the use of this RPC C++ API.

Note: The RPC Python API is still experimental and is not interoperable with the RPC C++ API.

An enhanced service discovery protocol in both the Request-Reply and RPC APIs now also allows client applications to reliably discover a service before making a call. Clients can call a new method, `wait_for_service()`, to ensure that a service has been discovered.

See the [RTI Connexthats Core Libraries Release Notes](#) for more information on RPC and Request-Reply enhancements. See [Request-Reply Exchanges](#) and [Remote Procedure Calls \(RPC\)](#) in the *Connexthats Core Libraries User's Manual* for information on the APIs.

Note: The RPC API is still not compliant with the OMG RPC-DDS standard; however, a future update of

the OMG RPC-DDS standard will make it compliant.

2.3.4 Suggested QoS and Templates in System Designer Get Your Application Designed and Running Quickly

New project templates in *System Designer* provide guidance when building your system architecture. See [Creating New Projects](#) in the *RTI System Designer Getting Started Guide*.

As described in *Better Organized Quality of Service (QoS) for Easier Search*, RTI has categorized *Connexthats* QoS policies to make it easier to set up and adjust your system. *System Designer* displays the complexity categories, Basic or Advanced, to make it easier to browse the available policies. See [Configuring Quality of Service \(QoS\)](#) in the *RTI System Designer Getting Started Guide*.

2.3.5 Security Plugins Improvements Make it Easier to Secure Large Systems

This release of the SECURITY PLUGINS introduces a series of features that help secure large systems. Now you can:

- **Apply permissions to a group of identities.** Every Identity Certificate represents one identity. The actions that an identity can take in your system are detailed in the Permissions Document. The Permissions Document contains a set of grants, each grant specifies a subject name and what the associated identity can do. In previous releases, each grant could only refer to one identity. The new `<subject_name_expression>` element allows you to bind the permissions in a `<grant>` section with a group of identities. For example, your Identity Certificates can have subject names based on the roles their *DomainParticipants* should take in your system. Doing so will vastly simplify the management of your Permissions Documents.
- **Enforce permissions based on DomainParticipants.** You can limit the permissions of a `<grant>` so that it only applies to *DomainParticipants* that have partitions matching a specific pattern. Your system can adapt better, since *DomainParticipant* partitions are mutable at run-time.
- **Use domain tags in the Governance and Permissions Documents.** Domain tags provide isolation in large-scale systems where domain IDs may not be enough. Domain IDs are numbers associated with a physical port and are limited to about 200. Domain tags are string-based and overcome these limitations. You can now secure traffic and configure permissions based not only on the domain ID, but also on the (optional) domain tag subdivision. A rule will only apply to a *DomainParticipant* if its domain ID and tag match the rule.

See [What's New in 7.4.0](#) in the *RTI Security Plugins Release Notes* for more details.

2.3.6 Better Organized Quality of Service (QoS) for Easier Search

RTI has simplified its QoS policies and settings, making it easier to set up and adjust your system:

- **Deprecated some QoS settings.** See [Simplify QoS configuration by deprecating unnecessary or rarely used QoS settings and policies](#) in the *RTI Connexth Core Libraries Release Notes*.
- **Categorized QoS** in the documentation and in *System Designer*. See [Discover relevant QoS more easily through categorizations added to API Reference HTML documentation](#) in the *RTI Connexth Core Libraries Release Notes* and [Suggested QoS and Templates in System Designer Get Your Application Designed and Running Quickly](#) in this document.
- **Adjusted the default MTU size** (via the `message_size_max` property) for the *Real-Time WAN Transport* to avoid IP fragmentation for WAN communications. See the [RTI Real-Time WAN Transport Release Notes](#).

2.3.7 Deploy Connexth Products in Docker Containers, Reducing Setup Time and Complexity

RTI is pleased to announce the release of RTI's Docker container images, now available on [Docker Hub](#). This significant milestone provides enhanced flexibility and efficiency through Docker containers, facilitating the seamless integration of RTI *Connexth*'s powerful software into your CI/CD and DevSecOps pipelines.

Currently, the following RTI products are available as images on [Docker Hub](#). Click each product link on the Docker Hub to get information about each image:

- Observability Collector Service
- Persistence Service
- Routing Service
- Recording Service
- Replay Service
- Cloud Discovery Service
- Web Integration Service
- DDS Spy
- DDS Ping
- Perfctest

These containerized products are already available for release 7.3.0. They are not yet available for 7.4.0, but are planned to be available later in the Jackson Hole series.

2.3.8 Install Connexth via Debian Packages, for Easier Linux Deployment

RTI is excited to announce the availability of Debian packages for installing and deploying *Connexth* products. These packages can be used independently or in combination with our newly released Docker images. This flexibility allows for seamless integration into your existing workflows, ensuring reliable and reproducible deployments across various environments. By using RTI's pre-built solutions, you can minimize setup time and complexity, enabling a more efficient and robust deployment process.

Debian packages for Linux installations of *Connexth* are already available for *Connexth* releases 6.1.2 and 7.3.0. They are not yet available for 7.4.0, but are planned to be available later in the Jackson Hole series.

For instructions on installing these packages, see [RTI Connexth 6.1.2 for Debian Linux](#) and [RTI Connexth 7.3.0 for Debian Linux](#).

2.3.9 Platform and Build Changes

Support for macOS 14 and Ubuntu 24.04 LTS

RTI has validated that the existing libraries for macOS 11-13 also work on macOS 14 systems. Similarly, the existing libraries for Ubuntu 22.04 LTS have been validated on Ubuntu 24.04 LTS systems.

Table 2.5: New Platforms in *Connexth* 7.4.0

OS	CPU	Compiler	RTI Architecture
macOS 14	ARM64	clang 15.0	arm64Darwin20clang12.0
Ubuntu 24.04 LTS	x64	gcc 7.3.0	x64Linux4gcc7.3.0

Enhanced performance for x64Linux4gcc7.3.0 by updating optimization flag to -O3

This release significantly enhances the performance of the x64Linux4gcc7.3.0 libraries by updating the compilation policy, resulting in faster final applications.

Previously, the libraries for this architecture was compiled with the **-O** optimization flag. Now RTI compiles the libraries with the highest stable optimization flag available. We first attempt to use **-O3** for maximum performance, falling back to **-O2** or **-O1** if necessary. For specific details for each library, see the *Library-Creation Details for Linux Architectures* table in the [Linux Platforms](#) chapter of the *RTI Connexth Core Libraries Platform Notes*.

This change also applies to armv8Linux4gcc7.3.0, which will be available in a future release.

2.3.10 Product Availability

The following products are not included in 7.4.0:

- RTI Ada Language Support
- RTI Queuing Service
- RTI Limited Bandwidth Plugins

If you need these products, please use a previous release in which they were available. The latest release in which these products were available is [7.3.0](#).

Chapter 3

Experimental Features

This software may contain experimental features. These are used to evaluate potential new features and obtain customer feedback. They are not guaranteed to be consistent or supported and they should not be used in production.

In the API Reference HTML documentation, experimental APIs are marked with `<<experimental>>`.

Experimental features are also clearly noted as such in the *User's Manual* or *Getting Started Guide* for the component in which they are included.

Disclaimers:

- Experimental features may be only available in a subset of the supported languages and for a subset of the supported platforms.
- Experimental features may change in the future.
- Experimental features may or may not appear in future product releases.
- Experimental features should not be used in production.

Please submit your comments and suggestions about experimental features to support@rti.com or via the RTI Customer Portal (<https://support.rti.com/>).

Chapter 4

Deprecations and Removals

Sometimes features or products are deprecated or removed in a *Connex* release.

4.1 Finding Deprecations or Removals in a Release

To find deprecations and removals in recent LTS releases:

- **7.3.0 and 7.7.0:** See individual product release notes under Table 1.1 for specific deprecations or removals between releases 7.3.0 and 7.7.0. Any release that had a deprecation or removal has a Deprecations and Removals section. You may need to look under Previous Releases.
- **6.1.2 and 7.3.0:** See [here](#) for deprecations and removals between releases 6.1.2 and 7.3.0.

See also *Platform and Build Changes*.

4.2 Definitions

Deprecated means that the item is still supported in this release, but will be removed in a future release. *Removed* means that the item is discontinued or no longer supported.

Any deprecations or removals noted in RTI's documentation serve as notice under the Real-Time Innovations, Inc., Maintenance Policy #4220 and/or any other agreements by and between RTI and customer regarding maintenance and support of RTI's software. RTI's current standard terms and support and maintenance policies are available at <https://www.rti.com/terms>.

Chapter 5

Additional Documentation

Many readers will also want to look at additional documentation available online. In particular, RTI recommends the following:

- **Connex Developer page** (<https://community.rti.com/static/documentation/developers/>) to explore short, independent modules that help you implement common distributed systems patterns (publish-subscribe, RPC, content filtering, data persistence, and so on) and design, debug, and deploy observable and secure systems.
- **RTI Customer Portal** (<https://support.rti.com>) to download RTI software and contact RTI Support. The RTI Customer Portal requires a username and password. You will receive this in the email confirming your purchase. If you do not have this email, please contact **license@rti.com**. Resetting your login password can be done directly at the RTI Customer Portal.
- **RTI Community Forum** (<https://community.rti.com>) for a wealth of knowledge to help you use *Connex*, including:
 - Documentation, at <https://community.rti.com/documentation>
 - Best Practices,
 - Example code for specific features,
 - Solutions to common questions,
 - A glossary,
 - Downloads of experimental software,
 - And more.
- **Performance benchmark results** for *Connex* are published online at <http://www.rti.com/products/dds/benchmarks.html>. Updated results for new releases are typically published within two months after general availability of that release.
- **Whitepapers and other articles** are available from <http://www.rti.com/resources>.

Chapter 6

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Notices

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