RTI Administration Console

Release Notes

Version 5.2.0
Release Notes

1 Supported Platforms

RTI® Administration Console is supported on the platforms in Table 1.1. For details on these platforms, see the RTI Connext DDS Core Libraries Platform Notes for this release.

Table 1.1 Supported Platforms

<table>
<thead>
<tr>
<th>Platform</th>
<th>Operating System</th>
</tr>
</thead>
</table>
| Linux    | CentOS 5.4, 5.5, 6.0, 6.2 - 6.4  
          | Fedora® 12 (2.6.32 kernel)  
          | Red Hat® Enterprise Linux 5.0 - 5.2, 5.4, 5.5, 6.0 - 6.5, 7  
          | SUSE® Linux Enterprise Server 11 SP2 (3.x kernel on x86)  
          | SUSE Linux Enterprise Server 11 SP2, SP3 (2.6 kernel on x64)  
          | Ubuntu® Server 12.04 LTS and Ubuntu Server 14 (3.x kernel) |
| Mac OS®  | All Mac OS X platforms listed in the RTI Connext DDS Core Libraries Platform Notes for this release. Note: see Section 5.1. |
| Windows® | All Windows platforms listed in the RTI Connext DDS Core Libraries Platform Notes for this release. |

2 Compatibility

Note: Admin Console is built on top of Connext DDS. Therefore you should refer to the Compatibility section of the RTI Connext DDS Core Libraries Release Notes for other compatibility information.

Admin Console is compatible with these components, with the same version number:

- RTI Database Integration Service
- RTI Distributed Logger
- RTI Persistence Service
- RTI Queuing Service
- RTI Recording Service (including its Replay and Record tools)
- RTI Routing Service

In RTI Connext™ DDS 5.1.0, the default message_size_max for the UDPv4, UDPv6, TCP, Secure WAN, and shared-memory transports changed to provide better out-of-the-box performance.
Admin Console 5.1.0 and higher also uses the new default value for message_size_max. Consequently, Admin Console is not out-of-the-box compatible with applications running older versions (5.0 or lower) of Connext DDS or RTI Data Distribution Service. Please see the RTI Connext DDS Core Libraries Release Notes for instructions on how to resolve this compatibility issue with older Connext DDS and RTI Data Distribution Service applications.

The types of the remote administration and monitoring topics are not compatible with 5.0.0. Therefore:

- Admin Console 5.0.0 and other 5.0.0 RTI components that perform monitoring/administration are not compatible with Admin Console 5.1.0.
- Admin Console 5.1.0 and other 5.1.0 RTI components that perform monitoring/administration are not compatible with Admin Console 5.0.0.

2.1 QoS Profiles for Backward Compatibility with Versions Prior to 5.2.0

Admin Console provides four built-in QoS profiles, two of which are aimed at providing backward compatibility with versions prior to 5.2.0. These two profiles are:

- AdminConsole::Administration.510TransportCompatibility can be configured in Settings->Administration if you want to interact with a system that uses the non-standard transport identifiers (all Connext DDS versions prior to 5.2.0).
- AdminConsole::DataVisualization.510TransportCompatibility can be used when subscribing to Topics published by an application using the non-standard transport identifiers.

3 What's New in 5.2.0

3.1 New Platforms

This release adds support for these platforms:

- MAC OS X
- Red Hat Enterprise Linux 7
- SUSE 11 SP3 (x64)
- Ubuntu 14
- Windows 8 and 8.1
- Windows Server 2012 R2

For details on these platforms, see the RTI Connext DDS Core Libraries Platform Notes for this release.

3.2 QoS Profiles for Backward Compatibility

Admin Console provides two new built-in QoS profiles for backward-compatibility with versions prior to 5.2.0. See Section 2.1.

3.3 Column in DDS Data Type View to Indicate Optionality

A new column in the DDS Data Type View shows the optional status of each field for that data type. Please see the online help system for further details.
3.4 Easier Side-by-Side Comparisons by Unlinking/Linking Views to Selection

Now you can unlink views that display data about the currently selected entity from showing updates. You can also create multiple views of the same type. These features make it much easier to compare data from two different sources without having to change the selection. To do this, select the entity of interest and unlink the view from selection updates. Then create a second view of the same type and select the other entity of interest. The information from the two entities can then be compared in the two views.

The views included for this feature are: Match Analyses, Health, DDS Data Type, and DDS Qos.

3.5 Data Visualization

Admin Console has can now subscribe to and visualize DDS Topics. Several new views have been added, including a Sample Log, Time Chart, and Sample Inspector. These new views are organized under a new "Data Visualization" perspective. The legacy functionality is captured in the 'Administration' perspective. See the help documentation for details and getting started instructions.

3.6 Ability to Identify Problematic Use of Standard and Non-Standard Transport IDs

Admin Console can now detect the problematic use of both standard and non-standard transport IDs (see RTI Issue ID CORE-5788 in the RTI Connext DDS Core Libraries Release Notes for details about this problem). If this situation occurs, Admin Console will transition the DomainParticipants involved to a warning state.

3.7 Disconnect Feature Removed

The ability to disconnect/reconnect the UI from/to Connext DDS has been removed. This feature was not easy to understand and was problematic for administration activities.

4 What's Fixed in 5.2.0

4.1 Equivalent IDL View may not have Displayed Dependent Structures

The Equivalent IDL tab in the DDS Data Type View did not show all of the non-primitive dependent structures for types that inherited from other types. This means if a type inherited from a base class which had, for example, a typedef, that typedef was not displayed in the Equivalent IDL tab. This problem has been resolved.

[RTI Issue ID ADMINCONSOLE-302]

4.2 Type-Consistency Logic did not Match Connext DDS

The algorithm to determine whether two data types were consistent with one another did not exactly match the logic used by the Connext DDS library. This problem has been resolved.

[RTI Issue ID ADMINCONSOLE-388]
5 Known Issues

5.1 Limited to Single Instance of Admin Console on Mac OS X Platforms

On Mac OS X platforms, only one instance of Admin Console can be run at a time. This limitation is not present on other platforms.

[RTI Issue ID ADMINCONSOLE-403]

5.2 Limited Support for Keyed, Unbounded Sequences

There is limited support when using a data type that contains a field that is an unbounded sequence and that field participates in the key. The limitation is that only a subset of the total possible (2,147,483,647) sequence elements can be used. This limitation protects against high memory and CPU consumption by the application.

The limited number of fields chosen to represent the key can be seen in the Topic Data tab and when selecting data instances for the Time Chart.

[RTI Issue ID ADMINCONSOLE-399]

5.3 Additional Library Needed on Fedora 12 64-bit Systems

On Fedora 12 64-bit systems, before starting Admin Console, follow these steps:

1. Login as super user
2. Enter this command:
   
   ```bash
   yum install libsoup
   ```

5.4 Interaction between Admin Console and RTI Recording Console

This issue only applies if you are using Admin Console and Recording Console at the same time, and you have configured Admin Console to join domain ID 99. In this scenario, do not use Admin Console to pause or disable any Recording Console services (their names begin with "RTI-Recorder-" or "RTI-Replay-"). Doing so may cause an error in Recording Console.

[RTI Issue ID RECORD-253]

5.5 Admin Console Incompatible with RTI Routing Service Configurations that use DomainParticipant Name QoS

Admin Console will not correctly display or administer instances of RTI Routing Service that have overridden the default DomainParticipant QoS participant_name. These names are used to identify the process as RTI Routing Service. You may see error messages in Admin Console’s log such as:

```
expecting process model : RoutingService : corresponding to instance handle : {X} : to be a Routing Service instance when it is not
cannot add monitoring capabilities for the RoutingService since the model was not found for instance handle : {X}
unable to find a DomainRoute named : {Domain Route name} : associated with RoutingService : {Routing Service name}
unable to find a Session named : {Session name} : associated with RoutingService : {Routing Service name} : and DomainRoute : {Domain Route name}
unable to find an AutoRoute named : {Auto Route name} : associated with RoutingService : {Routing Service name} : and DomainRoute : {Domain Route name} : and Session : {Session name}
```
unable to find a Route named : {Route name} : associated with RoutingService : {Routing Service name} : and DomainRoute : {Domain Route name} : and Session : {Session name}

[RTI Issue ID ADMINCONSOLE-270]
6  Third-Party Licenses

Portions of RTI Administration Console were developed using:

- Visualization Widget from Eclipse’s Nebula project (http://www.eclipse.org/nebula/widgets/visualization/visualization.php), licensed under the Eclipse Public License.
- Apache Commons Lang from the Apache Software Foundation (http://commons.apache.org/lang/)
- Apache Commons Logging from the Apache Software Foundation (http://commons.apache.org/logging/)
- Apache Log4j from the Apache Software Foundation (http://logging.apache.org/log4j/1.2/index.html) Brief description: Logging API
- GlazedLists from (http://www.glazedlists.com/), licensed under the terms of GNU Lesser General Public License (LGPL)
- SWFObject from (http://code.google.com/p/swfobject/), licensed under the MIT License (MIT)
- Apache Software License: http://www.apache.org/licenses/

6.1 Apache License

Apache License
Version 2.0, January 2004
http://www.apache.org/licenses/

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document. "Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For
the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

(a) You must give any other recipients of the Work or Derivative Works a copy of this License; and

(b) You must cause any modified files to carry prominent notices stating that You changed the files; and

(c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and

(d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The con-
Contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NONINFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS