RTI Secure WAN Transport

Core Libraries and Utilities

Installation Guide

Version 5.1.0

Your systems. Working as one.

Trademarks

Copy and Use Restrictions

Third-Party Software

This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (http://www.openssl.org/).
Redistributions in binary form must reproduce the copyright notice below, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
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Installation

This chapter provides instructions on how to download and install *RTI® WAN Secure Transport* and other required components.

This document contains the following sections:

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1 Download Instructions

Download the distribution file for *RTI Secure WAN Transport* from the RTI Support Portal, accessible from https://support.rti.com/.

RTI Secure WAN Transport also requires OpenSSL 1.0.1e (or higher). It is available from RTI's Support Portal, or you may obtain it from another source.

You will need your username and password to log into the portal; these are included in the letter confirming your purchase or evaluation copy. If you do not have this letter, please contact **license@rti.com**.

Once you have logged into the portal, select the **Downloads** link, then select the appropriate version of *RTI Secure WAN Transport* and OpenSSL for your platform.

If you need help with the download process, contact **support@rti.com**.

- ❏ **RTI Secure WAN Transport**: Distribution files follow the naming convention, **RTI_Secure_WAN_Transport-5.x.y-<*architecture*>.tar.gz** (or **.zip** on Windows systems), where <*architecture*> will match your system architecture and *x* and *y* are release-specific numbers. (System architecture names are described in the *RTI Secure WAN Transport Release Notes*.) For example:
  - **RTI_Secure_WAN_Transport-5.x.y-sparcSol2.10gcc3.4.2.tar.gz**
  - **RTI_Secure_WAN_Transport-5.x.y-i86Win32VS2005.zip**
- ❏ **OpenSSL**: Distribution files follow the naming convention, **openssl-<*version*>-<*architecture*>.tar.gz** (or **.zip** on Windows systems), where <*architecture*> will match your system architecture. (System architecture names are described in the *RTI Secure WAN Transport Release Notes*.) For example:
  - **openssl-1.0.1e-sparcSol2.10gcc3.4.2.tar.gz**
  - **openssl-1.0.1e-i86Win32VS2005.zip**

2 Installation Instructions

You do not need administrator privileges. All directory locations are meant as examples only; adjust them to suit your site.

2.1 Linux/Solaris Systems

1. Make sure you have GNU's version of the tar utility, **gtar** (which handles long file names), and GNU's version of the unzip utility, **gunzip**.
2. Install *Secure WAN Transport* on top of *RTI Connext*™ (formerly *RTI Data Distribution Service*). After installation, the **rtiwanserver** application will be located in the **<NDDSHOME>/scripts** directory (the same place where you will find **rtiddsgen**, **rtiddsping**, etc.):
   a. Move the downloaded file, **RTI_Secure_WAN_Transport-5.x.y-<*architecture*>.tar.gz**, to the *same* directory where you installed *Connext* 5.x.y (where <*architecture*> will match your system architecture, and *x* and *y* are release-specific numbers). For instance, if you already have **/local/rti/ndds.5.x.y**, then move the downloaded file to **/local/rti** and change to that directory:

      ```
      > cd /local/rti
      ```

   b. Use **gunzip** to uncompress the file. For example (your filename will be different):

      ```
      > gunzip RTI_Secure_WAN_Transport-5.x.y-sparcSol2.10gcc3.4.2.tar.gz
      ```

   c. Use **gtar** to extract the distribution from the uncompressed file. For example:

      ```
      > gtar xvf RTI_Secure_WAN_Transport-5.x.y-sparcSol2.10gcc3.4.2.tar
      ```

      This will extract files into the existing **ndds.5.x.y** directory; including placement of the **rtiwanserver** application in **/local/rti/ndds.5.x.y/scripts**.

   d. Include **$NDDSHOME/scripts** in your **PATH** environment variable, if it is not already included:

      ```
      > setenv PATH $NDDSHOME/scripts:$PATH
      ```

   e. Include **$NDDSHOME/lib/sparcSol2.10gcc3.4.2** in your **LD_LIBRARY_PATH** environment variable, if it is not already included. For example:

      ```
      > setenv LD_LIBRARY_PATH
         ${NDDSHOME}/lib/sparcSol2.10gcc3.4.2:${LD_LIBRARY_PATH}
      ```

   f. To verify your installation, enter:

      ```
      > rtiwanserver -help
      ```

      You should see a response similar to:

      ```
      Usage: rtiwanserver [options] ...
      Options:
        -help              Display this information
        -address <string>  Server address (default: gethostname() output)
        -port <integer>    Server port (default: 3478)
        -verbosity <integer> Log verbosity [0-5] (default:1-exceptions -)
      ```

3. Install OpenSSL 1.0.1e:
   a. Move the downloaded OpenSSL distribution file to a directory of your choice, such as **/local/rti**, and change to that directory:

      ```
      > cd /local/rti
      ```

b. Use **gunzip** to uncompress the OpenSSL file. For example (your filename may be different):

```
> gunzip openssl-1.0.1e-sparcSol2.10gcc3.4.2.tar.gz
```

c. Use **gtar** to extract the distribution from the uncompressed file. For example:

```
> gtar xvf openssl-1.0.1e-sparcSol2.10gcc3.4.2.tar
```

This will extract files into **/local/rti/openssl-1.0.1e**.

d. Include the resulting **/bin** directory in your PATH. For example:

```
> setenv PATH \
   /local/rti/openssl-1.0.1e/sparcSol2.10gcc3.4.2/bin:$PATH
```

e. Include the resulting **/lib** directory in your LD_LIBRARY_PATH. For example:

```
> setenv LD_LIBRARY_PATH \
 /local/rti/openssl-1.0.1e/sparcSol2.10gcc3.4.2/lib:${LD_LIBRARY_PATH}
```

f. To verify your installation, enter:

```
> openssl version
```

You should see a response similar to:

```
OpenSSL 1.0.1e
```

This completes the installation process. Please see Available Documentation (Section 3).

2.2 Windows Systems

1. Install *Secure WAN Transport* on top of *RTI Connext* (formerly *RTI Data Distribution Service*). After installation, the **rtiwanserver** application will be located in the **<NDDSHOME>/scripts** directory (the same place where you will find **rtiddsgen**, **rtiddsping**, etc.):

   a. Right-click the distribution file and extract the contents in the *same* directory where you installed *Connext* 5.x.y (where *x* and *y* are release-specific numbers). For instance, if you already have **c:\Program Files\RTI\ndds.5.x.y**, then extract to **c:\Program Files\RTI**.

   b. Add *RTI Secure WAN Transport*'s **scripts** directory to your **Path** environment variable if it is not already included: **%NDDSHOME%\scripts**. (If you need help with this process, please see the *RTI Core Libraries and Utilities Getting Started Guide*.)

   c. Add *RTI Secure WAN Transport's* **lib** directory to your **Path** environment variable if it is not already included: **%NDDSHOME%\lib\<*architecture*>**, where <*architecture*> will match your system architecture. (If you need help with this process, please see the *RTI Core Libraries and Utilities Getting Started Guide*.)

   d. To verify your installation, open a command prompt and enter:

   ```
   > rtiwanserver -help
   ```

   You should see a response similar to:

   ```
   Usage: rtiwanserver [options] ...
   Options:
   -help                Display this information
   -address <string>    Server address (default: gethostname() output)
   -port <integer>      Server port (default: 3478)
   -verbosity <integer> Log verbosity [0-5] (default: 1-exceptions-)
   ```

2. Install OpenSSL 1.0.1e:

   a. Right-click the distribution file and extract the contents in a directory of your choice. We suggest using the same directory where you installed *Connext*. For instance, if you already have **c:\Program Files\RTI\ndds.5.*x.y*,** then extract to **c:\Program Files\RTI**. The extracted files will be in **c:\rti\openssl-1.0.1e**.

   b. Add the resulting **bin** directory to your **Path** environment variable: **c:\rti\openssl-1.0.1e\<*architecture*>\bin**. (If you need help with this process, please see the *RTI Core Libraries and Utilities Getting Started Guide*.)

   c. To verify your installation, open a command prompt and enter:

      ```
      > openssl version
      ```

      You should see a response similar to:

      ```
      OpenSSL 1.0.1e
      ```

This completes the installation process. Please see Available Documentation (Section 3).

3 Available Documentation

The following documentation is provided with the *RTI Secure WAN Transport* distribution (where NDDSHOME is the path to **ndds.5.*x.y*,** such as **/local/rti/ndds.5.*x.y*** on Linux systems or **c:\Program Files\RTI\ndds.5.x.y** on Windows systems):

- ❏ *Secure WAN Transport Release Notes* (**<NDDSHOME>/doc/pdf/RTI_Secure_WAN_Transport_ReleaseNotes.pdf**)
- ❏ *Core Libraries and Utilities User's Manual* (**<NDDSHOME>/doc/pdf/RTI_CoreLibrariesAndUtilities_UsersManual.pdf**)
- ❏ *Secure WAN* API Reference HTML documentation*:* Open **<NDDSHOME>/ReadMe.html**, then select *RTI Secure WAN Transport*.
- ❏ *Secure WAN* API Reference Manual, **RTI_Secure_WAN_Transport_API.pdf**. This is the same as the API Reference HTML documentation listed above, except in PDF format.
- ❏ Example code: **<NDDSHOME>/example/<language>/helloWorldWAN**.