

RTI TLS Support

Core Libraries and Utilities

Installation Guide

Version 4.5



Your systems. Working as one.



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Installation

RTI[®] *TLS Support* is an optional product for use with the TCP transport that is included with *RTI Connex*[™] (formerly *RTI Data Distribution Service*). If you choose to use *TLS Support*, it must be installed on top of a *Connex* installation with the same version number/letter; it can only be used on architectures that support TCP transport.

The distribution file uses the naming convention, **rtidds45x-tlssupport-<architecture>.tar.gz** (or **.zip** on Windows systems), where <architecture> will match your system architecture and *x* is a release-specific letter. (System architecture names are described in the *RTI Core Libraries and Utilities Release Notes*.) For example:

- ❑ **rtidds45x-tlssupport-i86Linux2.6gcc4.1.2.tar.gz**
- ❑ **rtidds45x-tlssupport-i86Win32VS2005.zip**

TLS Support also requires OpenSSL 0.9.8n (or higher). It is available from RTI's Customer Portal, or you may obtain it from another source.

To see a simple 'Hello, World' example application that uses TCP and TLS, look in the **helloWorldTCP** and **Hello_builtin_tcp** directories under <install dir>/examples/C.

1 Installing on Linux Systems

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

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 *TLS Support* on top of *Connex*.

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- a. Move the distribution file, **rtidds45x-tlssupport-<architecture>.tar.gz**, to the *same* directory where you installed *Connex* 4.5x. For instance, if you already have **/local/rti/ndds.4.5x**, 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 rtidds45x-tlssupport-i86Linux2.6gcc4.1.2.tar.gz
```

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

```
> gtar xvf rtidds45x-tlssupport-i86Linux2.6gcc4.1.2.tar
```

This will extract files into the existing **ndds.4.5x** directory; including placement of the **rtiwanserver** application in **/local/rti/ndds.4.5x/scripts**.

- d. Include **\$NDDSHOME/lib/<architecture>** in your **LD_LIBRARY_PATH** environment variable, if it is not already included. For example:

```
> setenv LD_LIBRARY_PATH \  
${NDDSHOME}/lib/i86Linux2.6gcc4.1.2:${LD_LIBRARY_PATH}
```

3. Install OpenSSL 0.9.8n:

- 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-0.9.8n-sparcSol2.10gcc3.4.2.tar.gz
```

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

```
> gtar xvf openssl-0.9.8n-sparcSol2.10gcc3.4.2.tar
```

This will extract files into **/local/rti/openssl-0.9.8n**.

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

```
> setenv PATH \  
/local/rti/openssl-0.9.8n/sparcSol2.10gcc3.4.2/bin:$PATH
```

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

```
> setenv LD_LIBRARY_PATH \  
/local/rti/openssl-0.9.8n/sparcSol2.10gcc3.4.2/lib:${LD_LIBRARY_PATH}
```

- f. To verify your installation, enter:

```
> openssl version
```

You should see a response similar to:

```
OpenSSL 0.9.8n 24 Mar 2010
```

2 Installing on Windows Systems

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

1. Right-click the distribution file and extract the contents in the *same* directory where you installed *Connex* 4.5x. For instance, if you already have `c:\rti\ndds.4.5x`, then extract to `c:\rti`.
2. Add the *TLS Support lib* directory to your **Path** environment variable if it is not already included: `%NDDSHOME%\lib\<architecture>`. (If you need help with this process, please see the *RTI Core Libraries and Utilities Getting Started Guide*.)
3. Install OpenSSL 0.9.8n:
 - a. Right-click the OpenSSL distribution file and extract the contents in a directory of your choice. We suggest using the same directory where you installed *Connex* 4.5x. For instance, if you already have `c:\rti\ndds.4.5x`, then extract to `c:\rti`. The extracted files will be in `c:\rti\openssl-0.9.8n`.
 - b. Add the resulting **bin** directory to your **Path** environment variable: `c:\rti\openssl-0.9.8n\<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 0.9.8n 24 Mar 2010
```

