

RTI Connex DDS

Core Libraries

Custom Support for

Red Hat Enterprise Linux 5.2 Platforms

on x86 CPUs with gcc 4.2.1

Version 5.2.3



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1 Supported Platforms

This document supplements the *RTI® ConnexTM DDS Core Libraries Release Notes* and *Platform Notes*. It provides information specifically for the platforms listed in [Table 1.1 Custom Supported Red Hat Enterprise Linux 5.2 Platforms](#).

Table 1.1 Custom Supported Red Hat Enterprise Linux 5.2 Platforms

Operating System	CPU	Compiler	RTI Architecture Abbreviation
Red Hat Enterprise Linux 5.2	x86	gcc 4.2.1	i86Linux2.6gcc4.2.1
		Sun Java Platform Standard Edition JDK 1.7 or 1.8	

2 Transports

These transports are supported:

- Shared memory: Supported and enabled by default
- UDPv4: Supported and enabled by default
- UDPv6: Supported. Not enabled by default, and the peers list must be modified to support IPv6. Mapping of the TransportPriority QoS *is* supported.

These transports are not supported:

- TCP/IPv4
- RTI Secure WAN Transport

3 Features

These features are supported:

- Modern C++ API
- Multicast
- Monotonic clock
- Control of CPU core affinity for RTI threads

These features are not supported:

- RTI Distributed Logger

4 Compiling and Running

[Table 4.1 Building Instructions](#) lists the compiler flags and libraries you will need to link into your application.

[Table 4.2 Running Instructions](#) shows the environment variables required to be set at run time.

[Table 4.3 Library-Creation Details](#) provides details on how these custom libraries were built. This table is provided strictly for informational purposes; you do not need to use these parameters to compile your application. You may find this information useful if you are involved in any in-depth debugging.

Table 4.1 Building Instructions

API	Library Format	Required RTI Libraries ^{abc}	Required System Libraries	Required Compiler Flags
C++ (Traditional and Modern APIs)	Static Release	libnddscppz.a or libnddscpp2z.a libnddscz.a libnddscorz.a librticonnextmsgcz.a	-ldl -lnsl -lm -lpthread -lrt -L/usr/lib/nptl	-DRTI_UNIX -m32
	Static Debug	libnddscppzd.a or libnddscpp2zd.a libnddsczd.a libnddscorz.d.a librticonnextmsgcppzd.a		
	Dynamic Release	libnddscpp.so or libnddscpp2.so libnddsc.so libnddscorz.so librticonnextmsgcpp.so		
	Dynamic Debug	libnddscppd.so or libnddscpp2d.so libnddscd.so libnddscord.so librticonnextmsgcppd.so		

^aThe C/C++/Java libraries are in <NDDSHOME>/lib/<architecture>; the jar files are in <NDDSHOME>/lib/java (where <NDDSHOME> is where Connex DDS is installed, such as /home/your user name/rti_connext_dds-5.x.y).

^bThe *rticonnextmsg* library only applies if you have the **Connex DDS** Professional, Evaluation, or Basic package type. It is not provided with the Connex DDS Core package type.

^cChoose libnddscpp*.* for the Traditional C++ API or libnddscpp2*.* for the Modern C++ API.

Table 4.1 Building Instructions

API	Library Format	Required RTI Libraries ^{abc}	Required System Libraries	Required Compiler Flags
C	Static Release	libnddscz.a libnddscorz.a librticonnextmsgcz.a	-ldl -lnsl -lm -lpthread -lrt -L/usr/lib/nptl	-DRTI_UNIX -m32
	Static Debug	libnddsczd.a libnddscorz.d.a librticonnextmsgcz.d.a		
	Dynamic Release	libnddsc.so libnddscorz.so librticonnextmsgc.so		
	Dynamic Debug	libnddscd.so libnddscorz.d.so librticonnextmsgcd.so		
Java	Release	nddsjava.jar rticonnextmsg.jar	N/A	None required
	Debug	nddsjavad.jar rticonnextmsgd.jar		

^aThe C/C++/Java libraries are in <NDDSHOME>/lib/<architecture>; the jar files are in <NDDSHOME>/lib/java (where <NDDSHOME> is where Connex DDS is installed, such as /home/your user name/rti_connex_dds-5.x.y).

^bThe *rticonnextmsg* library only applies if you have the **Connex DDS** Professional, Evaluation, or Basic package type. It is not provided with the Connex DDS Core package type.

^cChoose libnddscpp*. * for the Traditional C++ API or libnddscpp2*. * for the Modern C++ API.

Table 4.2 Running Instructions

RTI Architecture	Library Format	Environment Variables ^a
i86Linux2.6gcc4.2.1	Static	None required
	Dynamic	LD_LIBRARY_PATH= \${NDDSHOME}/lib/<architecture>:\${LD_LIBRARY_PATH}
i86Linux2.6gcc4.2.1 for Java	N/A	LD_LIBRARY_PATH= \${NDDSHOME}/lib/<architecture>: \${LD_LIBRARY_PATH}

Table 4.3 Library-Creation Details

RTI Architecture	Library Format	Compiler Flags Used by RTI
i86Linux2.6gcc4.2.1	Release	-fPIC -DLINUX -O -Wall -Wno-unknown-pragmas -DPtrIntType=long -DCSREAL_IS_FLOAT -DCPU=I80586 -DTARGET=\"i86Linux2.6gcc4.2.1\" -fmessage-length=0 -DNDEBUG -c -Wp,-MD
	Debug	-fPIC -DLINUX -g -Wall -Wno-unknown-pragmas -DPtrIntType=long -DCSREAL_IS_FLOAT -DCPU=I80586 -DTARGET=\"i86Linux2.6gcc4.2.1\" -fmessage-length=0 -c -Wp,-MD
i86Linux2.6gcc4.2.1 for Java	Release	-target 1.4 -source 1.4
	Debug	-target 1.4 -source 1.4 -g

^a \${NDDSHOME} is where is installed. \${LD_LIBRARY_PATH} represents the value of the LD_LIBRARY_PATH variable prior to changing it to support . When using nddsjava.jar, the Java virtual machine (JVM) will attempt to load release versions of the native libraries. When using nddsjavad.jar, the JVM will attempt to load debug versions of the native libraries.