

RTI Connex DDS

Core Libraries

**Custom Support for
Linux 3.8.13 Platforms**

Version 5.3.0



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1 Supported Platforms

This document supplements the [RTI Connex DDS Core Libraries Release Notes](#) and [RTI Connex DDS Core Libraries Platform Notes](#). It provides information specifically for the platform listed in [Table 1 Custom Supported Linux 3.8.13 Platforms](#).

Table 1 Custom Supported Linux 3.8.13 Platforms

Operating System	CPU	Compiler	RTI Architecture Abbreviation
Linux® 3.8.13	QorIQ™ P4080/P4040/P4081	gcc 4.7.2	ppce500mcLinux3gcc4.7.2

2 Transports

Supported and enabled by default:

- Shared memory (To clean up shared memory resources, reboot the kernel.)
- UDPv4

Supported but disabled by default:

- UDPv6 (The peers list must be modified to support IPv6. Mapping of the TransportPriority QoS is supported.)

Not supported:

- TCP/IPv4

3 Features

These features are supported:

- Modern C++ API
- Multicast
- Monotonic clock
- Request/reply communication
- Control of CPU core affinity for RTI threads
- Distributed Logger

For details on these features, see the Linux section of the [RTI Connext DDS Core Libraries Platform Notes](#).

4 Compiling and Running

[Table 2 Building Instructions](#) lists the compiler flags and libraries you will need to link into your application.

[Table 3 Running Instructions](#) shows the environment variables required to be set at run time.

[Table 4 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 2 Building Instructions

API	Library Format	Required RTI Libraries ^{abc}	Required System Libraries	Required Compiler Flags
C++	Static Release	libniddscppz.a or libniddscpp2z.a libniddscz.a libniddscorez.a librticonnextmsgcppz.a	-ldl -lnsl -lm -lpthread -lrt	-DRTI_UNIX
	Static Debug	libniddscppzd.a or libniddscpp2zd.a libniddsczd.a libniddscorezd.a librticonnextmsgcppzd.a		
	Dynamic Release	libniddscpp.so or libniddscpp2.so libniddsc.so libniddscore.so librticonnextmsgcpp.so		
	Dynamic Debug	libniddscppd.so or libniddscpp2d.so libniddscd.so libniddscored.so librticonnextmsgcppd.so		
C	Static Release	libniddscz.a libniddscorez.a librticonnextmsgcz.a	-ldl -lnsl -lm -lpthread -lrt	-DRTI_UNIX
	Static Debug	libniddsczd.a libniddscorezd.a librticonnextmsgczd.a		
	Dynamic Release	libniddsc.so libniddscore.so librticonnextmsgc.so		
	Dynamic Debug	libniddscd.so libniddscored.so librticonnextmsgcd.so		

^aThe C/C++ libraries are in <NDDSHOME>/lib/<architecture> (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 libniddscpp*.* for the Traditional C++ API or libniddscpp2*.* for the Modern C++ API.

Table 3 Running Instructions

RTI Architecture	Library Format	Environment Variables
ppce500mcLinux3gcc4.7.2	Static	None required
	Dynamic	LD_LIBRARY_PATH= \${NDDSHOME}/lib/<architecture>: \${LD_LIBRARY_PATH} ^a

Table 4 Library-Creation Details

RTI Architecture	Library Format	Compiler Flags Used by RTI
ppce500mcLinux3gcc4.7.2	Release	-m32 -mhard-float -mcpu=e500mc -O2 -pipe -feliminate-unused-debug-types -fPIC -DPOWERPC -O -Wall -Wno-unknown-pragmas -DPtrIntType=long -DCSREAL_IS_FLOAT -DCPU=e500mc -DTARGET=\"ppce500mcLinux3gcc4.7.2\" -DNDEBUG -c -Wp,-MD
	Debug	-m32 -mhard-float -mcpu=e500mc -O2 -pipe -feliminate-unused-debug-types -fPIC -DPOWERPC -O -Wall -Wno-unknown-pragmas -DPtrIntType=long -DCSREAL_IS_FLOAT -DCPU=e500mc -DTARGET=\"ppce500mcLinux3gcc4.7.2\" -g -c -Wp,-MD

^a \${NDDSHOME} represents the root directory of your Connex DDS installation. \${LD_LIBRARY_PATH} represents the value of the LD_LIBRARY_PATH variable prior to changing it to support Connex DDS.