CoreDX DDS Multiplexor ™

Take Control of Complex DDS Deployments

BENEFITS

- **Eases deployment of complex DDS data architectures**
- **Reduces integration dependencies and cost**
- **Supports complex network configurations**
- **Enables run-time transformation of DDS QoS policies**
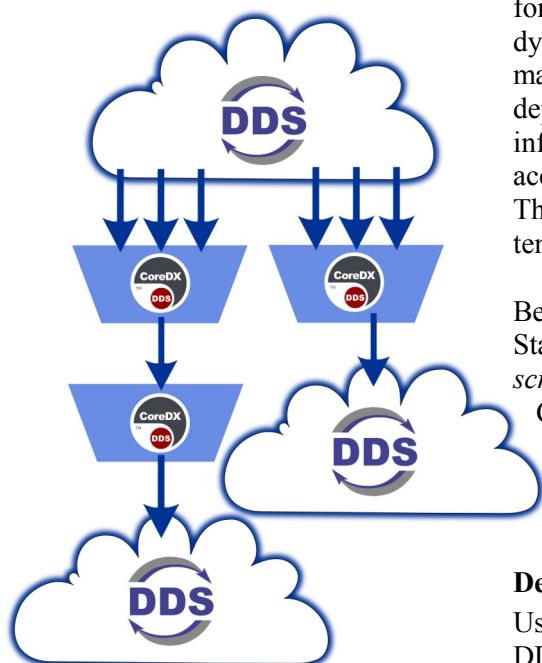
The **CoreDX DDS Multiplexor** software is designed to provide system developers with maximum control over DDS publications and subscriptions. The CoreDX DDS Multiplexor includes robust facilities to aggregate, transform, and bridge DDS data.

The power of the CoreDX DDS Multiplexor comes from its flexibility. With the ability to transform any DDS Topic, based on dynamically discovered type information, the Multiplexor is easily deployed into an existing DDS infrastructure without requiring access to application source code. This eases deployment and maintenance.

Because it is based on the Open-Standard *Real-Time Publish Subscribe (RTPS)* protocol, the CoreDX DDS Multiplexor can be used to bridge DDS data from any RTPS compliant DDS implementation.

Deployment Scenarios

Used as a bridge between two DDS Domains, the CoreDX DDS Multiplexor can selectively forward topic data and transform topic QoS policies. This configuration is very useful when bridging data between different systems with varying DDS deployment strategies.

Used as a bridge between realtime system components and non-realtime components, the CoreDX DDS Multiplexor can insulate the different requirement domains.

There are many other ways to combine the CoreDX DDS Multiplexor technology to solve complex integration challenges.

- Bridge DDS data over multiple network segments
- Bridge DDS data between multiples DDS Domains
- Aggregate multiple data sources in to one
- Transform published data QoS
- Transform published data types

Built on the Leading Small Footprint CoreDX DDS middleware, the CoreDX DDS Multiplexor offers all these features and is still easy on system resources.

Get started by visiting our website and downloading the 30-day Full Featured CoreDX DDS™ Evaluation software.
Start here: Download 30-Day evaluation

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CoreDX DDS Multiplexor Features

The CoreDX DDS Multiplexor allows the user to configure multiple *Ports*. Each port provides a mechanism to manipulate multiple DDS topics, transforming QoS policies, changing Domain ID, changing topic name, and changing transports. Each port reads the specified topics, applies the specified QoS policies, aggregates the data, and forwards the data onto the other end of the port.

The network designer can specify all QoS policies, specify the Domain ID,

specify transport specific configuration, and specify topic names on both the incoming and outgoing port.

Connecting multiple Multiplexors together creates a dynamic mechanism to bridge DDS data across complex network segments—not possible using the standard multicast protocols of RTPS.

The CoreDX DDS Multiplexor includes *CoreDX DDS Dynamic Type* technology. The Dynamic Type tech-

nology enables discovery of data type information at runtime, and makes deploying a multiplexor network very easy. The Multiplexor can adapt to changing data types at run-time with no additional configuration required.

The CoreDX DDS Multiplexor can support multiple ports simultaneously, and can run on the same machine with other Multiplexors.

CoreDX DDS Multiplexor Configuration
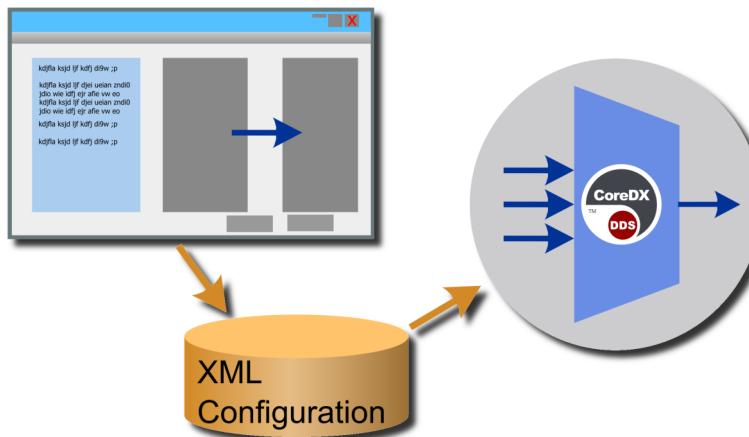
The CoreDX DDS Multiplexor accepts configuration information in XML format. The XML configuration can be generated manually. In the future, a CoreDX DDS Multiplexor GUI will provide a mechanism to develop multiplexor configurations as well as display the status information from running multiplexors. The GUI will support dynamic reconfiguration of running multiplexors as well as generation of XML configuration files for later use.

CoreDX DDS Multiplexor Specifications

Operating Systems:
- Linux 2.6
- Solaris

Hardware Platforms:
- X86, 32bit & 64bit
- UltraSPARC

Configuration Tools:
- XML
- GUI (future)

Transports:
- RTPS Multicast / Unicast
- Serial (future)

Customizations for additional platforms and transports are possible, contact us for information.

About Twin Oaks Computing

Twin Oaks Computing, Inc. provides state-of-the-art engineering in support of high-performance communications, including device drivers, communication protocols, inter-process communications, network services, and secure environments. Our unique company culture allows us to be agile and provide superior responsiveness to our customers, and our extensive domain experience is essential to our customers' ability to perform their missions. We are committed to being a premier source of quality high-performance communications technologies for use in DoD and commercial applications.

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