Does your application need to take advantage of both CORBA-based client/server and DDS-based publish-subscribe approaches to data and process distribution? RTI’s integrated DDS and CORBA integration simplifies the development of applications that support both standards, while RTI’s unified services offering reduces the cost, complexity and risk associated with the use of multiple vendors or sources.

**Benefits:**

**Reduced Risk**
- Combines leading DDS and CORBA implementations with the assurance that they have been thoroughly tested together

**Industry-Leading Expertise**
- RTI leads the market for DDS and, by partnering with OCI, gives you access to domain expertise by a leading realtime CORBA provider

**World-Class Support and Services**
- One point of contact for support and services from the leading real-time middleware provider

**Convenience**
- Everything you need — software, support, training and engineering services — from a single vendor

Real-Time Innovations (RTI) offers a complete software and services solution for applications that take advantage of both the CORBA and DDS middleware standards. RTI’s integrated DDS and CORBA software simplifies the development of applications that support both standards while RTI’s unified services offering reduces the cost, complexity and risk associated with the use of multiple vendors or sources.

**Integrating Best-in-Class DDS and CORBA Technologies**

RTI’s solution integrates leading, field-proven DDS and CORBA implementations, providing you with today’s best technologies. RTI Connext DDS (formerly RTI Data Distribution Service) is the most widely used implementation of the Object Management Group’s (OMG) Data Distribution Service for Real-Time Systems (DDS) standard. RTI Connext DDS has been proven in many time-critical and mission-critical applications such as combat systems, air traffic management, railway control, industrial automation, traffic monitoring, and financial systems.

Many applications take advantage of both client-server (CORBA) and publish-subscribe (DDS) approaches to data and process distribution.
TAO (the ACE ORB) is a high-performance and highly configurable open-source implementation of the OMG’s Common Object Request Broker Architecture (CORBA) standard. TAO is particularly well-suited for real-time and embedded applications, with a flexible, portable architecture and a reduced memory footprint.

**Integrated Software and Support**

To support the simultaneous use of DDS and CORBA, RTI allows data types generated by the TAO IDL Compiler to be used by RTI Connext. This enables data to be shared seamlessly between portions of an application that use DDS and those that use CORBA. Without this integration, custom software would be required to translate and copy data between the different types generated by decoupled CORBA and DDS implementations. With RTI, the same type is used by each. This also has the benefit of eliminating name conflicts.

In addition to software integration, RTI acts as a single point of contact for DDS and CORBA support. Users can now conveniently obtain the software and services they need from a single vendor.

**Industry-Leading Expertise in Distributed Applications**

RTI is the industry leader in real-time communications middleware and has been involved in the design and development of distributed real-time systems for more than 15 years. RTI was a principal author of the DDS standard and RTI Connext DDS was one of the first commercial implementations. Our software, support and consulting teams have decades of experience in the implementation of distributed real-time applications, in areas ranging from military and aerospace to transportation and communications.

**Shared Advantages of CORBA and DDS**

CORBA and DDS both enable the development of heterogeneous distributed systems. Because of this, they are often used together in large, multi-vendor projects and in applications that run on diverse hardware—ranging from servers to embedded systems. Shared benefits include:

- Broad operating system support
- Broad hardware support, including both enterprise and embedded systems
- Integrated real-time capabilities
- Support for multiple programming languages
- Easy integration of software from multiple vendors

The DDS standard is used to share data across multiple computers. DDS is based on the publish-subscribe architecture and is best suited to applications in which one or more data sources (publishers) need to communicate information to one or more data users (subscribers). Because publishers and subscribers require no knowledge of each other, DDS provides a powerful integration framework for large or dynamic distributed systems. With DDS, new components can be added (as publishers and/or subscribers) without any changes to the rest of the system.

Because many applications distribute both processing and data, an integrated CORBA and DDS solution allows each requirement to be met with the best-suited middleware technology.

**OCI Partnership**

RTI is offering TAO through a partnership with OCI, the premier provider of supported open source CORBA solutions. OCI provides an implementation of TAO that is fully tested and supported and is in use in hundreds of commercial applications today. OCI has over a decade of experience enhancing and supporting enterprise infrastructure and object-oriented software that is integrated, open and interoperable.

**Complementary Standards**

CORBA and DDS are complementary middleware standards published by the OMG.

The CORBA standard is used to distribute processing across multiple computers. CORBA is based on the client-server architecture and is best-suited to applications in which one software component (the server) is supplying a service to one or more other components (clients).

About RTI

RTI is the world leader in delivering fast, scalable, communications software that addresses the challenges of building and integrating real-time operational systems. RTI Connext solutions meet the needs of enterprise-wide integration — from the operational edge to the enterprise data center. The RTI standards-based software infrastructure improves the efficiency of operational systems while facilitating better decisions, actions and outcomes for the business enterprise.

For over ten years, RTI has delivered industry-leading products and solutions for customers in markets ranging from Aerospace & Defense, Process Automation, Financial Services, Energy, Automotive, Health Sciences and Transportation Management.

Founded in 1991, RTI is privately held and headquartered in Sunnyvale, California.