NaradaBrokering is an open-source technology, based on the publish/subscribe paradigm, supporting a suite of capabilities for reliable/robust and flexible messaging. This middleware infrastructure is designed around a scalable distributed network of cooperating message routers and processors. NaradaBrokering is funded in part by the United States National Science Foundation (NSF) and the Open Middleware Infrastructure Institute (OMII) of the United Kingdom.

NaradaBrokering supports: High Performance Collaborative Environments, and Core Web and Grid Capabilities.

Current Capabilities

Quality of Services and Grid/Web Application Support

- **Reliable Delivery**: Robust and exactly-once delivery of messages in the presence of failures
- **Ordered Delivery**: Producer Order and Total Order over a message type, Time-Ordered delivery using Grid-Wide NTP-based absolute time
- **Message Payload Options**: Compression and Decompression of payloads, Fragmentation and Coalescing of payloads.
- **Grid Application Support**: NaradaBrokering enhanced Grid-FTP. Bridge to the Globus Toolkit-3.
- **Web Services**: WS-Eventing, WS-Reliable Messaging and WS-Reliability
- **Security**: Secure end-to-end delivery of messages

Transports and Publish/Subscribe

- **Multiple Transport Support**: Transport protocols supported include TCP, Parallel TCP streams, UDP, Multicast, SSL, HTTP and HTTPS
- **Subscription Formats**: Subscription constraints can be expressed as Strings, Integers, XPath queries, Regular Expressions, SQL and comma-separated tag=value pairs
- **Messaging Related Compliance**: Java Message Service (JMS) 1.02b compliant, WS-Eventing support.

Intra-Messaging Features

Redundancy and Failure Resilience

Support for fault-tolerant replicated distributed stable storages