

NaradaBrokering

NaradaBrokering is an open source technology 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 supports:

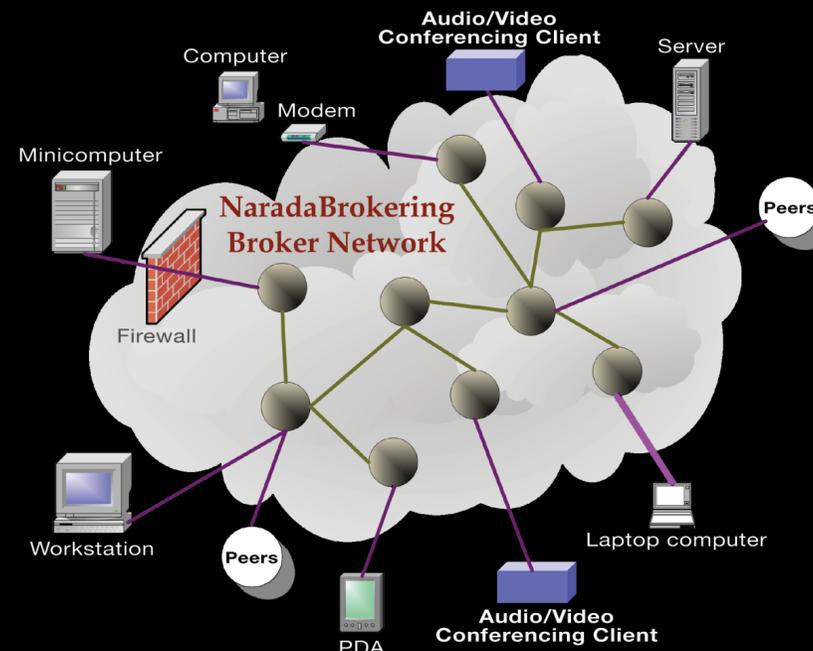
- Core Web and Grid capabilities
- High-performance Collaborative environments

Specifications within the Grid/Web Services area that are presently being implemented within NaradaBrokering include: WS-ReliableMessaging, WS-Reliability, WS-Eventing and WS-Notification.

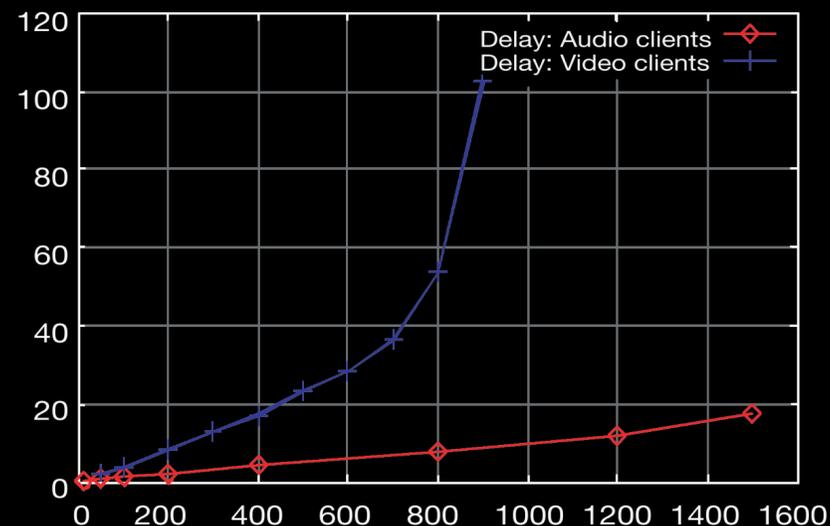
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www.naradabrokering.org

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Plots for a NaradaBrokering broker with multiple A/V clients
Audio stream: 64 kbps ULAW
Video stream: h.263 stream with 300 kbps & 15 frames/sec



Current Capabilities

- TCP, Parallel TCP streams, UDP, Multicast, SSL, HTTP & HTTPS transports supported
- Subscription Formats include: XPath, Regular Expressions, and SQL queries
- JMS compliant and support for routing P2P JXTA interactions
- Reliable and exactly-once delivery
- Ordered delivery
- Recovery and Replay after failures
- Message-level WS-Security compatible security
- Optimizations for large message payloads
- NaradaBrokering enhanced Grid-FTP and Bridge to the Globus Toolkit-3
- Prototype implementation of WS-ReliableMessaging

Forthcoming features

- Production implementation of Web Service specifications: WS-Eventing (Dec-2005), WS-Notification suite of specifications (March 2005), WS-ReliableMessaging (Dec 2005) WS-Reliability (March 2005)
- Pausing and Replaying of Live streams
- Support for fault-tolerant replicated distributed stable storages

Applications using NaradaBrokering

- Shared Display for collaborative applications
- PDA cell phone integration with Grid sharing applications, whiteboard, audio/video and SVG
- Message-based MVC clients with SVG as example
- Collaborative PowerPoint and OpenOffice
- SERVGrid Earthquake Prediction Grid
- Audio/Video Conferencing applications (GlobalMMCS)