

Voyager 2.0

A Multimedia Server



Overview

- Voyager has provided RTP Archiving and Playback for almost 10 years
- Voyager has an RTSP 1.0 client interface
- Voyager 1.0 supported a CORBA interface for browsing, searching and doing administrative tasks.
- Voyager 2.0 needs to provide a solid platform for further research and integration with the Access Grid



Use Cases I

- Actor: User
 - User records a session
 - User plays back a session
 - User searches for a particular archive
 - User browses archives
 - User exports a archive
 - User imports a archive



Use Cases II

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Requirements I

- Store Metadata about Archives
- Manage Archives
- Exposes Network Interfaces
- Integrates Security

Requirements II

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Requirements III

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Architecture I

- Voyager Resources
 - Sessions
 - Media
 - Archives
 - Storage
 - Users



Architecture II

- Voyager Operations
 - Create a new Archive
 - Delete an Archive
 - Search for an Archive
 - Export an Archive
 - Import an Archive
 - Play an Archive



Architecture III

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Technology Strategy

- Goals
 - Portability
 - Small number of prerequisite software packages
 - Integrate existing solutions
 - Enable developers to augment with new media capabilities



Technology Choices

- C++
- ACE Toolkit for Core Code
- RTP from UCL common library
- RTP Dump Software from H. Schulzrinne
- Separate Media Recording Services
- Separate Storage Services

Design I

- Create Core Data Structures and Objects
 - Sessions
 - Media
 - Network Configurations
 - Transport Configurations
 - Time
 - User



Design II

- Create Media Recording Tools
 - RTP
 - Block Data
 - Event Streams
- Create Storage Tools
 - File System Storage
 - Database Storage

Design III

- Create Client Interfaces
 - SOAP/WSDL
 - RTSP 1.0 +
 - Fast Forward
 - Rewind

Design IV

- Write Voyager Client
 - Browsing
 - Searching
 - Recording
 - Playing
 - Export
 - Adobe Premiere, iMovie
 - Import



Design V

- Future Work on
 - Annotating Archives

Open Issues

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Conclusion

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Final Notes

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