

# Access Grid 2.0

Services

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# Overview

- Types of Services
  - User level services
    - Venues Services
    - Voyager
    - Computational Resources
    - Cool Stuff
  - Network Services
  - Node Services



# Use Cases I

- Actor: User
  - User adds a service to a Venue
  - User removes a service from a Venue
  - User interacts with a service

# Use Cases II

- Actor: Venue Administrator
  - Administrator enables others to add Services to the Venue
  - Administrator disables others from adding services to Venue
  - Modifies the authorization policy on a Service
  - Administrator removes “rogue” Service



# Requirements I

- User Level Services
  - Users need to discover what a service does
  - Users need to know what client to use to access the service
  - Users need to know where the service is



# Requirements II

- User Level Services need to be able to
  - Know user identities
  - Know the authorization policy
  - Enforce authorization

# Requirements III

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# Architecture I

- User Level Services
  - Live outside the Venues
  - Discovered in Venues
  - Represented by Service Descriptions

# Architecture II

- Service Descriptions
  - Human Readable Service Description
  - Client API Specification
  - Service Location
  - Authorization Policy
  - Default Client Location
  - Service Provider Information



# Architecture III

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# Technology Strategy

- Services implemented in Service appropriate way
- Web Service provides language, platform, and location independent access to the service
- Identification/Authentication from Globus
- Authorization from ???



# Technology Choices

- Web Services
  - SOAP
  - WSDL
- Globus Toolkit 2.x
  - Identity
  - Authorization

# Design I

- The Actual Services are provided by the Service Provider.
- The Service is represented in the Venue by a Service Description.
- A Service Description for the same Service may appear in multiple Venues.
- The Service Description should provide enough information for a user to access the service.

# Design II

- The Service Description is an XML Document defined by the Access Grid Service Description Schema.
- The Service is a Web Service to Service Adaptor.
- The Venue provides interfaces for adding, removing, and configuring authorization policies for the services.



# Design III

- Client Repository – Place for default service clients

# Design IV

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# Design V

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# Open Issues

- Example Service Voyager undergoing major work (addressed in the Voyager Talk)
- We would like to see other example services implemented by others.

# Conclusion

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# Final Notes

- Questions?
- We'll meet monthly:
  - The first Tuesday of every month
  - Starting in December
  - 9AM Central – 11 AM Central
  - Argonne Institutional Venue

