

OGSA 2.0

OGSA - Now

- Have an architectural view
 - But Individual independent composable components
- Low-level specifications/profiles for:
 - Simple basic secure authentication & data integrity
 - Multi-level naming scheme
 - Compute job submission & management
 - Data access and transfer
- There are multiple interoperable implementations of some of these specifications
 - With more interop activity in the pipeline

OGSA - Issues

- Low adoption in research and commercial software
 - Despite having specifications and prototype implementations
 - Low customer awareness, hence low demand
- Reduced number of active participants
 - Confused message as to what OGSA (& OGF) is doing
 - Reducing number of industrial participants

OGSA – Future Opportunities

- Set of specifications to address business use cases
 - Need to engage with software providers & end-user customers
- Need to work at demonstrating solutions
- Scenarios from the OGSA Primer
 - High throughput computing
 - Transparent access to data
 - Federated data environment
 - Service mobility

Accessing the low-level services

- Providing web service clients is not enough
 - Accessing low-level services this way is hard
- Different clients for different communities:
 - Browser based (Web 2.0)
 - ‘Real’ Operating System emulation
 - Transparently access the grid from desktop Windows & Linux
 - E.g. from with shell environments
 - APIs (from Browser or OS)
- Multiple API bindings
 - C#, Java
 - Map existing web based authentication to lower-level mechanisms

Jumping on the Cloud!

- Is Cloud Computing just Web 2.0 services?
 - Browsers used to access simple JSON ‘services’ in the cloud
 - JSON: Moving Javascript objects over the wire
- Is Cloud Computing just an instantiation of SOA?
 - A cloud is location transparent & SOA is not...?
- Is Cloud Computing just a Portal Access Layer to the Grid?
 - Are cloud services just grid services accessed through the web?
 - Go from higher-level user oriented services to low-level OGSA ‘type’ services
 - E.g. resource brokers

What is the Grid?

- Standards drive secured Web Services
 - Document not RPC
- Grid is the backplane for the Cloud
 - USB/PnP interface for the Grid
 - Standard interface for the Grid
- Need common core to bring the Cloud together
 - Standard interface for security, management & monitoring to unify the cloud

Grid Computing in the Cloud

- Still a need for standards to provide uniformity
 - But not for the application (facing the user)
 - Standards are within the cloud – not to access it?
- Common interfaces to enable scalability (a platform)
 - Security: Authentication & Authorization (& Audit)
 - Naming & Binding
 - Discovery: What's out there & how to use it!
 - Management: Deployment Life Cycle (provisioning)
 - Monitoring: Health & Performance (autonomic)
 - Utility Model: Payment & accounting

What is OGSA going to do now?

- Reduce the interim meetings between OGFs
 - Continue telecon schedule
- Continue meeting at regular OGF meetings
- Implementation of existing/emerging specs
 - Socialize adoption through scenarios
- Examine linkage between the Grid & the Cloud
 - Attend cloud computing BOF @ OGF22
 - See what OGSA can bring to the discussion
 - Existing specifications to access resources

New Activity: The Access Layer

- Scenario driven focus for accessing the Grid
 - Real small incremental scenarios (c.f. EMS)
- Incremental scenario led 'API' development
 - Reflect port-type into an API using tooling
 - Wrap web services through RESTian/CRUD model
 - Examine role of SAGA in this space
- Community Group around a scenario
 - Bring specific vendors, software providers & vendors for a specific activity
 - Make it a very specific activity, finite scope.
 - End-user driven & led
 - Use the OGSA primer to show what we have & how to use it