



Enabling Grids for
E-science in Europe

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Multiple VO Support

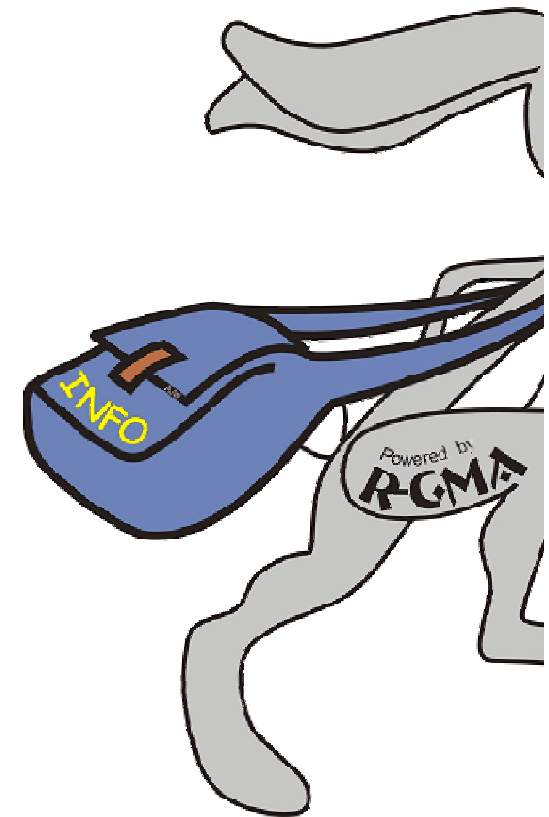
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Contents

- VOs and Scalability
- Publishing and Querying
- Consideration and Issues



- Provides a logical grouping of related users (and their resources)
- Users may belong to several different VOs
- A VO should:
 - Have its own namespace
 - Control who can define information (within that namespace)
 - Control who can publish information
 - Control who can read its information

Scalability Issues

- It would be possible to deal with the namespace by defining a VO prefix to each table – but this does not scale
- Cannot have one logical schema and one logical registry for the whole world
 - It would be huge
 - Who would manage it?

- Better to make the VO responsible for the namespace:
 - Define a set of registry “instances” (a registry service can deal with many instances – **lightweight VO**)
 - Define a set of schema “instances”
 - Define the authorization policy (held in VO’s schema)
- Large VOs could partition their namespace by assigning groups of people their own prefix – *within the VO namespace.*

Publishing

- To publish, user provides a list of VOs
- For each VO, the Producer endpoint will be stored in the corresponding Registry
- The tuples are only published once

Publishing Example

- Using Java API

```
StringList voList = new StringList();  
voList.add("ATLAS");  
voList.add("CMS");  
PrimaryProducer producer =  
    producerFactory.createPrimaryProducer(terminationInterval,  
        producerProperties, voList);
```

- Uses normal SQL syntax
- User prefixes the relevant table name with the VO name
 - `SELECT * FROM CMS.MCJobs`
- Can select from multiple VOs

- Do we want VOs for resource providers?
 - Such as GridPP, CNAF
- Will we normally have a “small” number of VOs per resource?

Timescales

- Plan to have multiple VO support for R-GMA by early 2005
- Will be added to the web service implementation

Further Information

- R-GMA web site
 - <http://www.r-gma.org/>
- JRA1-UK web site
 - <http://hepunx.rl.ac.uk/egee/jra1-uk/>
- E-mail
 - jra1-uk@physics.gla.ac.uk

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