ARC information in the (top) BDII

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Outline

- ARC GLUE2 Implementation: choices in the LDIF/LDAP rendering
- Trees and top-bdii: a comparison
- LDIF vs XML: the closer the better
ARC LDIF tree

- o=glue (GLUE2)
  - o=grid
    - Mds-vo-name=local,o=grid (NorduGrid)
    - Mds-vo-name=resource,o=grid (Glue 1.2/1.3)
ARC GLUE2 LDIF choices

- Separate administrative objects from computational/storage
- Group when number of objects might be big
- Seek global uniqueness and persistence in object Ids
ARC GLUE2 resource level LDAP tree

1. **o=glue (GLUE2)**
   - **GLUE2GroupID=grid**
     - AdminDomain
     - **Service (ARIS)**
       - Endpoint(s)
     - **ComputingService (A-REX)**
       - ComputingManager
       - ComputingShare
       - MappingPolicy(ies)
     - **ComputingEndpoint(s)**
     - **GLUE2GroupID=**
       - ComputingActivities
       - ComputingActivity(ies)
     - **AccessPolicy(ies)**
     - **GLUE2GroupID=**
       - ApplicationEnvironments
     - ApplicationEnvironment(s)
       - ApplicationHandle(s)
     - **ExecutionEnvironments**
     - ExecutionEnvironment(s)
     - Benchmark
     - Location
     - Can be attached to AdminDomain or Service
     - Contact
TOP-BDII LDAP tree

- o=glue (GLUE2)
  - GLUE2GroupID=resource
    - Service (BDII)
      - Endpoint(s)
        - Location
          - Can be attached to AdminDomain or Service
        - Contact
  - GLUE2GroupID=grid
    - AdminDomain1
      - ComputingService
        - Service
        - AdminDomain2
          - ComputingService (gLite)
          - ....
ARC in top-bdii: A possible merge...
A custom script gets a list of URLs from GOC DB

For the script to work properly, ARC tree needs to be changed, breaking our choices

Currently the aggregation process reshuffles branches and admindomains in a non intuitive way for us

It seems that “trees matters”-- not possible to rely on ForeignKeys
Other trees

Resource BDII

Site BDII

Everything that comes from resource-bdii
ARC GLUE2 XML

- <Domain>
  - AdminDomain
  - Service (ARIS)
    - Endpoint(s)
    - AccessPolicy(ies)
  - ComputingService (A-REX)
    - ComputingEndpoint(s)
    - ComputingManager
    - ComputingShare
      - MappingPolicy(ies)
- <ComputingActivities>
  - ComputingActivity(ies)
- <ApplicationEnvironments>
  - ApplicationEnvironment(s)
    - ApplicationHandle(s)
- <ExecutionEnvironments>
  - ExecutionEnvironment(s)
    - Benchmark
      - Location
      - Contact

Can be attached to AdminDomain or Service
Summary of LDIF vs XML

- No GroupID=resource or GroupID=grid in XML
- AdminDomain child of Domain, that doesn't exist in LDAP
- No grouping for services in XML in the latest version
Some proposals

- Change the name *resource* to *services*
- Add a grouping for Services in XML. They might grow in the future!
- Make XML and LDIF similar (making developers has life easier)
- Separate administrative side from computing
- Enforce the use of LDAP features: it's good that tree matters, but let's use it in a smart way, no need to rely completely on foreignkeys
Some open questions

• Is a domain really unique? Can't a CE belong to more than one admindomain?

• Unknowns: how to calculate UserDomains?
Wishlist for today

- Define once and for all an agreed tree structure
- Define a strategy to have ARC in the top-BDII cache
- Plan a simple mapping between XML and LDAP, better if no mapping