2.2.18 - Integration with external repositories

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Summary

Description of the profile

There are numerous data repositories on the web today. These data repositories contain essential information that must be accessible to services in the ecosystem. As a result, caGrid 2.0 must provide capabilities to integrate these external repositories into the grid with the assumption that the remote service cannot be changed.

Aspects of external repository include:

- Search for services, policies, and other artifact descriptions accessible via some repository mechanism

Capabilities

- externalMetadataRepositoryIntegration

Requirements traceability

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Source</th>
<th>Capability</th>
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<tbody>
<tr>
<td>There are numerous data repositories on the web today. These data repositories contain essential information that must be accessible to services in the ecosystem. As a result, caGrid 2.0 must provide capabilities to integrate these external repositories into the grid with the assumption that the remote service cannot be changed. The semantic infrastructure will support integration with other metadata repositories, allowing the platform to leverage the semantic infrastructure for federated metadata discovery and analysis. The federated data query capabilities will be implemented by the platform. Link to use case satisfied from caGRID 2.0 roadmap: The oncologist searches both TCGA glioblastoma data as well as de-identified data that has been added by care providers around the country. The additional data sets are external data repositories.</td>
<td>Semantic Infrastructure Requirements: caGRID 2.0 Platform and Terminology Integration: External Data Repositories</td>
<td>externalMetadataRepositoryIntegration</td>
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<td>monitor from inherited abstract profile Metrics, metrics from inherited abstract profile Metrics, discovery from inherited abstract profile Artifact, identity from inherited abstract profile Artifact, metadata from inherited abstract profile Artifact, store from inherited abstract profile Artifact,</td>
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<td>discovery from inherited abstract profile Artifact, identity from inherited abstract profile Artifact, metadata from inherited abstract profile Artifact, monitor from inherited abstract profile Metrics, metrics from inherited abstract profile Metrics, discovery from inherited abstract profile Metrics, metadata from inherited abstract profile Metrics, interoperabilityDiscovery from inherited abstract profile Interoperability, serviceChangeNotification from inherited abstract profile Interoperability,</td>
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</table>

Description
One or more discovery mechanisms that enable searching for artifacts that best meet the search criteria specified by the service participant; where the discovery mechanism will have access to the individual artifact descriptions, possibly through some repository mechanism.

Requirements addressed
- Governance Model
- Service Description Model

Overview of possible operations

externalMetadataRepositoryIntegration

Description
The semantic infrastructure will support integration with other metadata repositories, allowing the platform to leverage the semantic infrastructure for federated metadata discovery and analysis. The federated data query capabilities will be implemented by the platform.

Requirements addressed
- External Data Repositories

Overview of possible operations

interoperabilityDiscovery

Description
One or more discovery mechanisms that enable searching for described resources that best meet the criteria specified by a service participant, where the discovery mechanism will have access to individual descriptions, possibly through some repository mechanism.

Requirements addressed
- Service Description Model

Overview of possible operations

metadata

Description
A representation of the meaning of terms used to describe the artifact, its functions, and its effects.

Requirements addressed
- Service Description Model
- Governance Model