

GGF 10 – DAIS WG

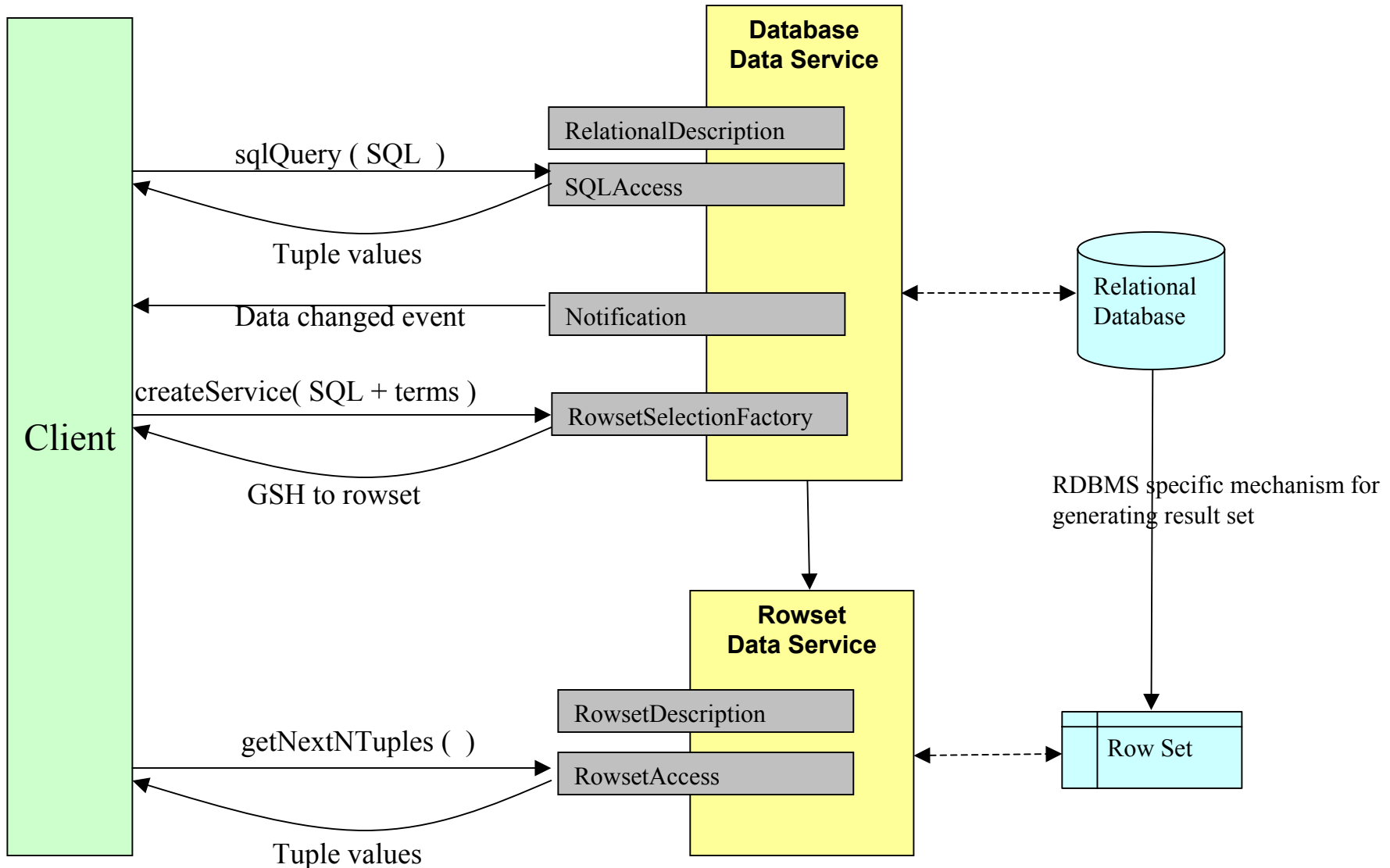
Grid Data Services Specification Update

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Agenda

- The DAIS specification at GGF10
 - Reminder of the DAIS model
 - The current DAIS draft specifications
 - What hasn't changed
 - What has changed
- Toward GGF11
 - Separating form from function
 - Separating base from realisation
- Active topics relevant to the base spec
 - Behaviour and controlling terms
- Issues for base specification

Reminder Of DAIS Approach



The Current DAIS Draft Specifications

- Grid Data Service Specification (this session)
 - Describes the DAIS modes of operation, based on OGSA Data Services
 - Defines things that are common across realisations such operations, structures and behaviour
- Relational Realisation (session 2)
 - Uses the base model to describe a relational access approach
- XML Realisation (session 2)
 - Uses the base model to describe an XML access approach

Base Spec - What Hasn't Changed?

- The base spec as it currently stands is mostly the same as it was at GGF9
 - Still based on OGSi 1.0
 - Still follows the model proposed by the Data Service Document from GGF9
 - Same portTypes
 - Same model for operation

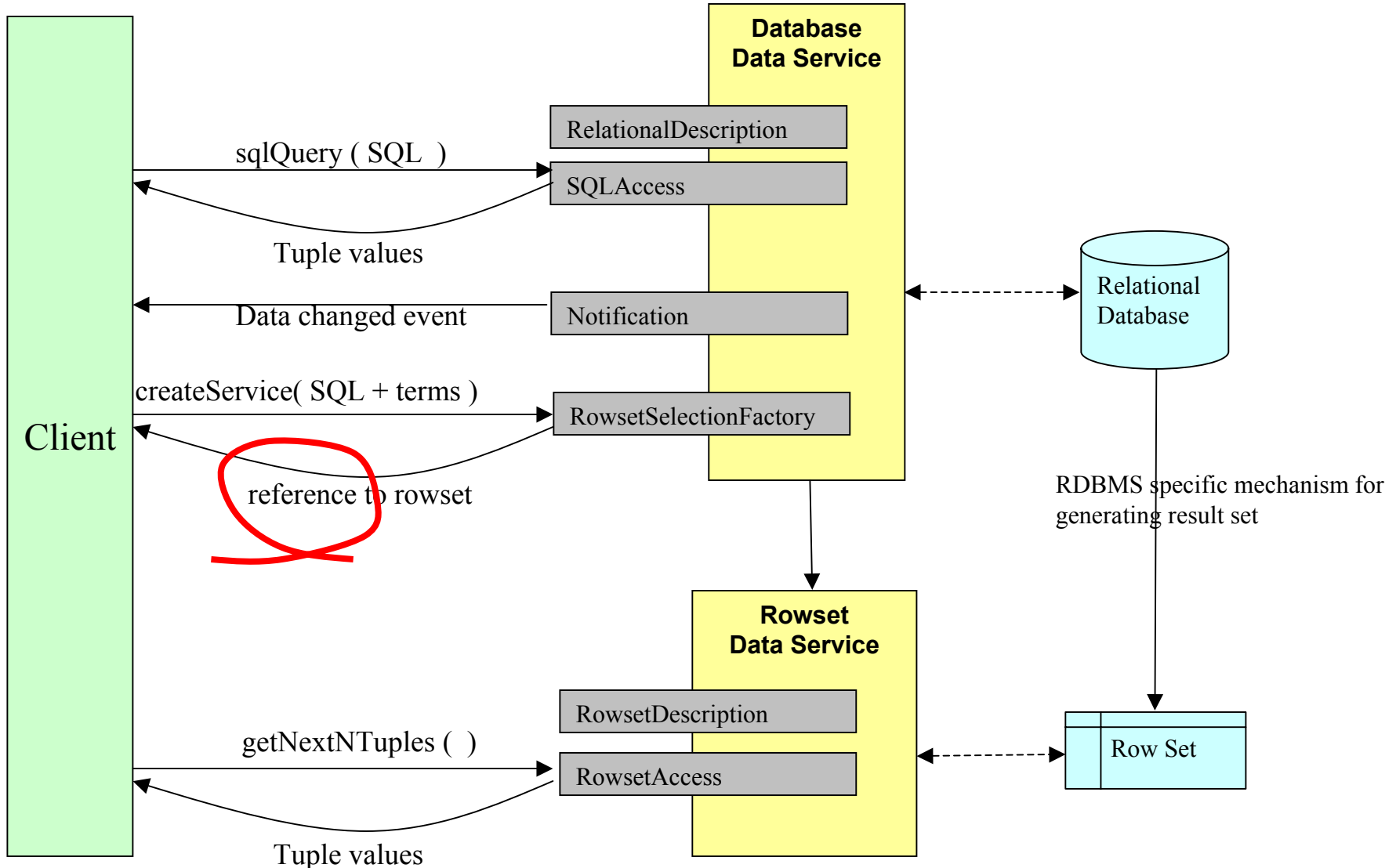
Base Spec - What Has Changed?

- Mostly removed reference to WS-Agreement for the time being
- We have started adding words regarding the expected semantics of a DAIS compliant service
 - More of which later
- The document will undergo more significant changes for GGF11
 - See the next two slides

Separating Form From Function

- Many documents on which we rely are changing
 - OGSi, WSRF and WebServices generally
 - Data Services
 - WS-Agreement
- Conclusion – For now consider function separately from form
 - Consider required function and behaviour separately from any specific mapping to grid infrastructure. OGSA Data Services does this at a high level.
 - Map our requirements to grid infrastructure as it crystallises (the mapping session)

Reminder Of DAIS Approach



Separating Base From Realisation

- DAIS currently defines a base specification separately from realisation specifications (relational and XML)
- Conclusion - We like this approach
 - It allows the Working Group to concentrate specific aspects separately
 - Common model easily extended to include different data access technologies
 - Must be wary of fragmentation and incompatibilities between the realisations

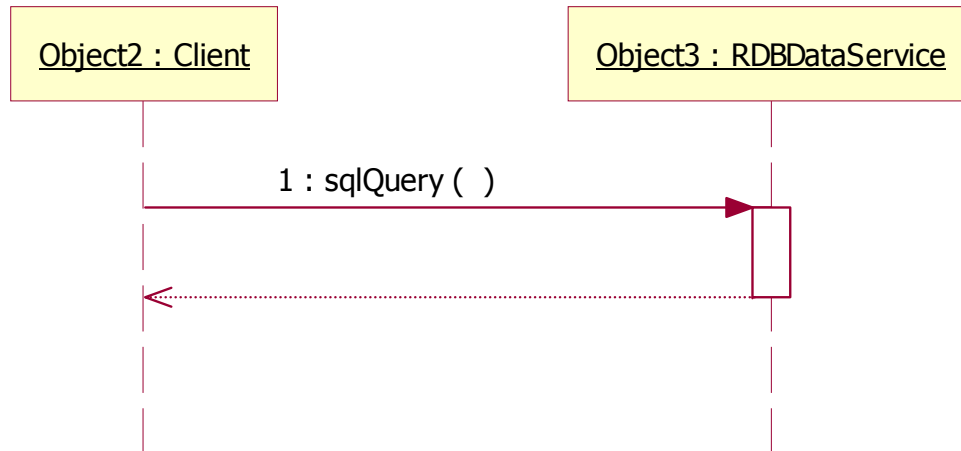
Active Topics Relevant To Base

- Mapping to grid infrastructure (the mapping session)
- OGSA Data Services (the mapping session)
 - Description
 - Access
 - Management
 - Factory
- Data management (later in this session)
- Data movement (Information Dissemination BOF)
- Behaviour and controlling terms (this session)
- Meta Data (there is a BOF at GGF10 – not specific to DAIS)
- Composite requests
- Transactions (there is a BOF at GGF10)
- Security

Behaviour and Control

- Behaviour can be grouped to match the interfaces defined in OGSA Data Services
 - Access
 - Factory
 - Description
 - Management (of services)
 - Notification
- Terms define control points for behaviour
 - Individual terms could be exposed as meta data, expressed as policy and negotiated as part of an agreement
- Examples are given here. This is not a complete list

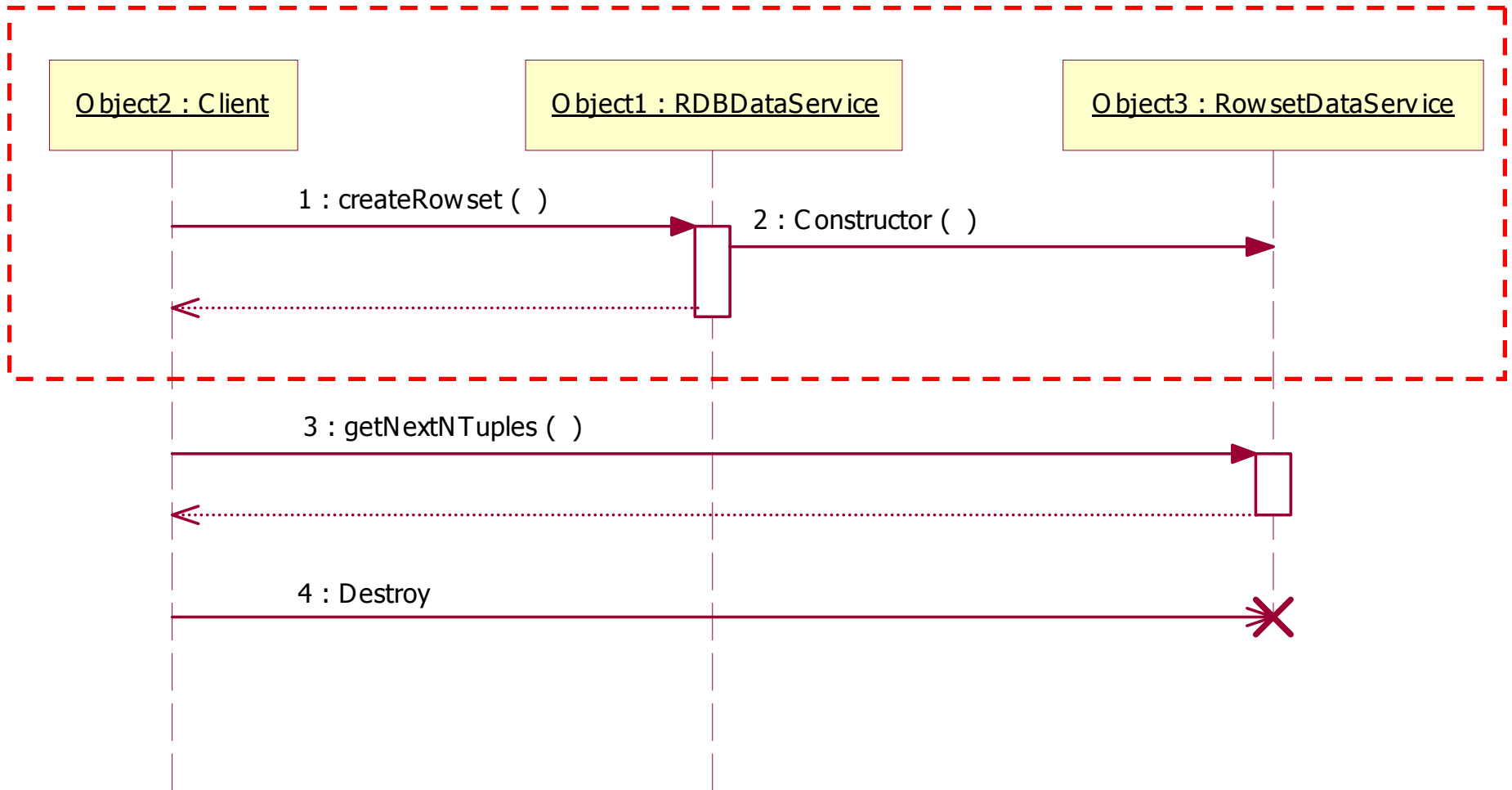
Access



Access Terms

- Access Modes
 - Read/Write/Read Write, Sequential/Random Access
- Concurrency of operation calls
 - Sequential/Concurrent
- Concurrency of data access
 - Transaction Initiation/Transaction Isolation
- Holdability (JDBC)
 - Access State Persists Over Transaction Boundary
- Sensitivity to external change (JDBC)
 - Sensitive/Insensitive
- TypeMapping
 - Types/Rounding/Faults
- Partial Data
 - Partial Results Acceptable
- Maximum Data Size
 - Maximum size for binding

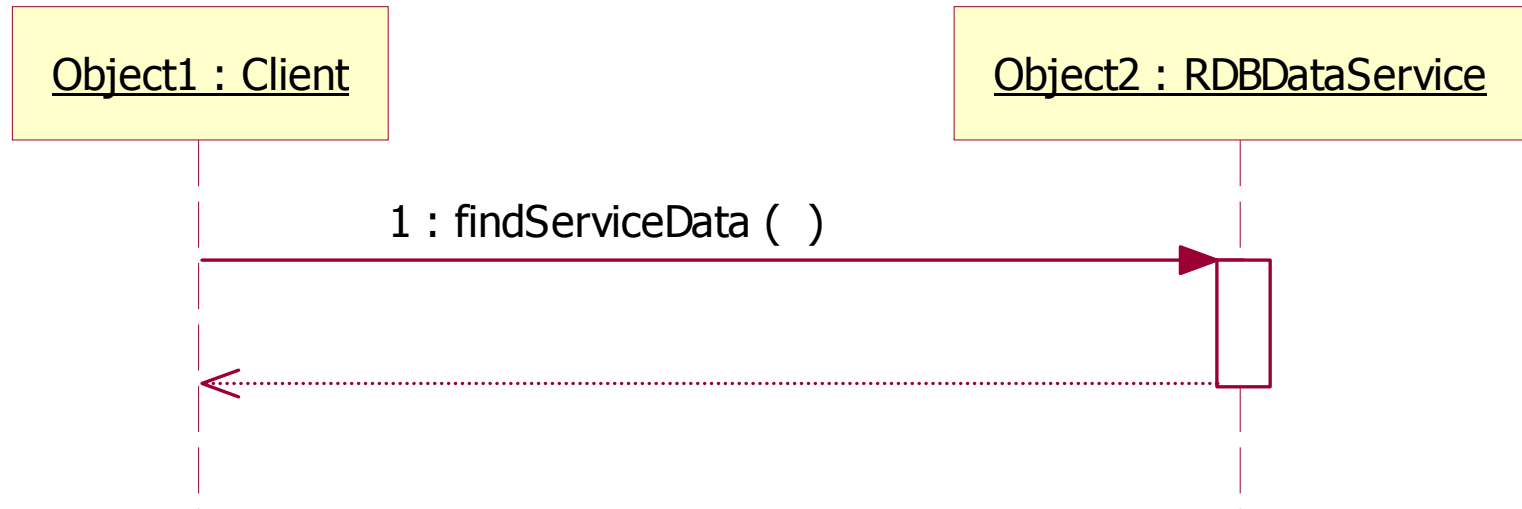
Factory



Factory Terms

- DataMaterialisation
 - Materialise On Create / Materialise On Demand
- Lifecycle
 - Destruction Criteria / Inactivity Settings
- Relationships
 - Behaviour of Parent and Child Relationships

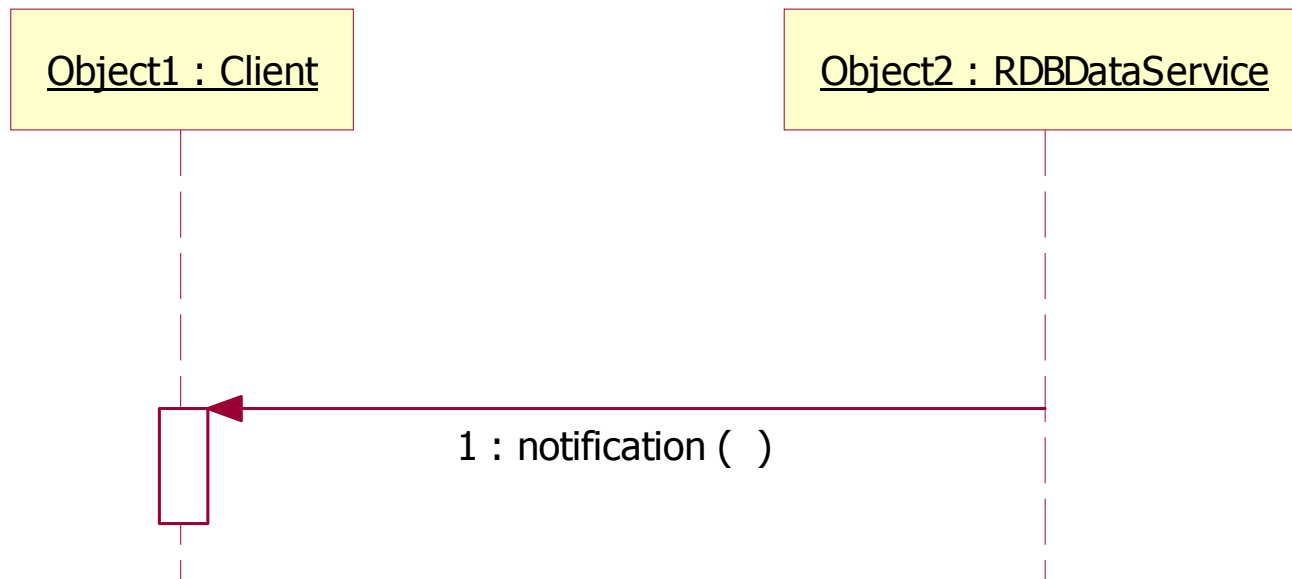
Description



Description Terms

- Sensitivity to external change
 - Sensitive/Insensitive

Notification



Notification Terms

- Granularity
- Sensitivity
- This may be the preserve of INFO-D

Issues For Base Specification

- Do we have the functions correct?
- Do we have the meta data/description correct?
- How do we describe expected behaviour?
 - What terms?
 - Do we specify precisely in the spec and if so how?
- How does base map to grid infrastructure?
- What is the function of service management?
- What is the overlap with data management?
- What is the overlap with information dissemination?

Actions For Base Specification For GGF11

- Revisit and decide where to document design principles
- Achieve consistency with new version of OGSA-Data Services
- Verify function scope
- Verify meta-data/description scope
- Document behaviour model
- Document mapping to emerging grid infrastructure