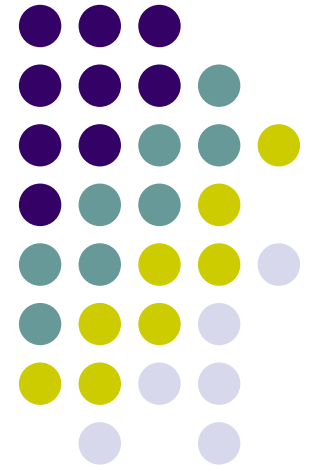


DAIS Mapping Summary

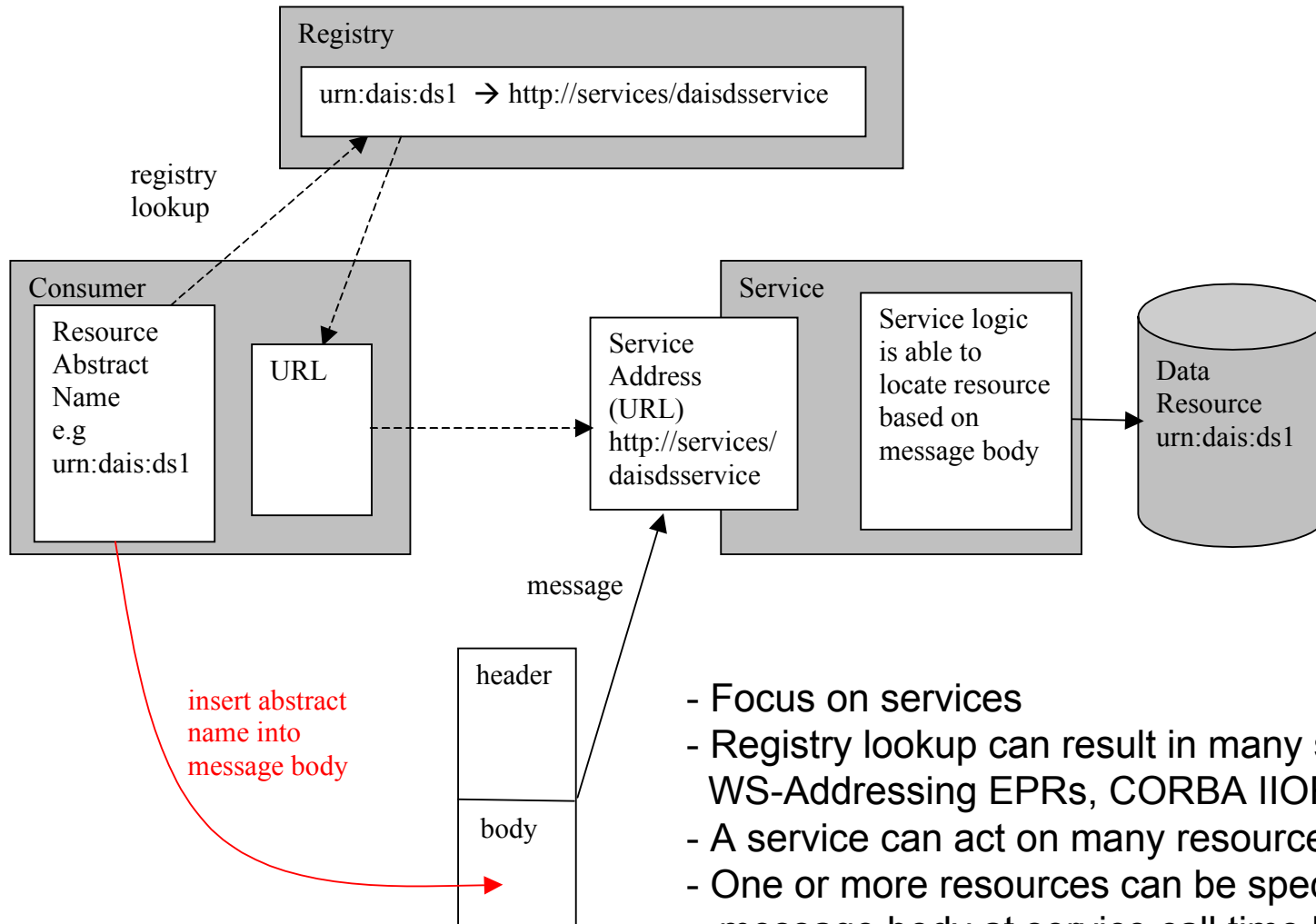
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Background

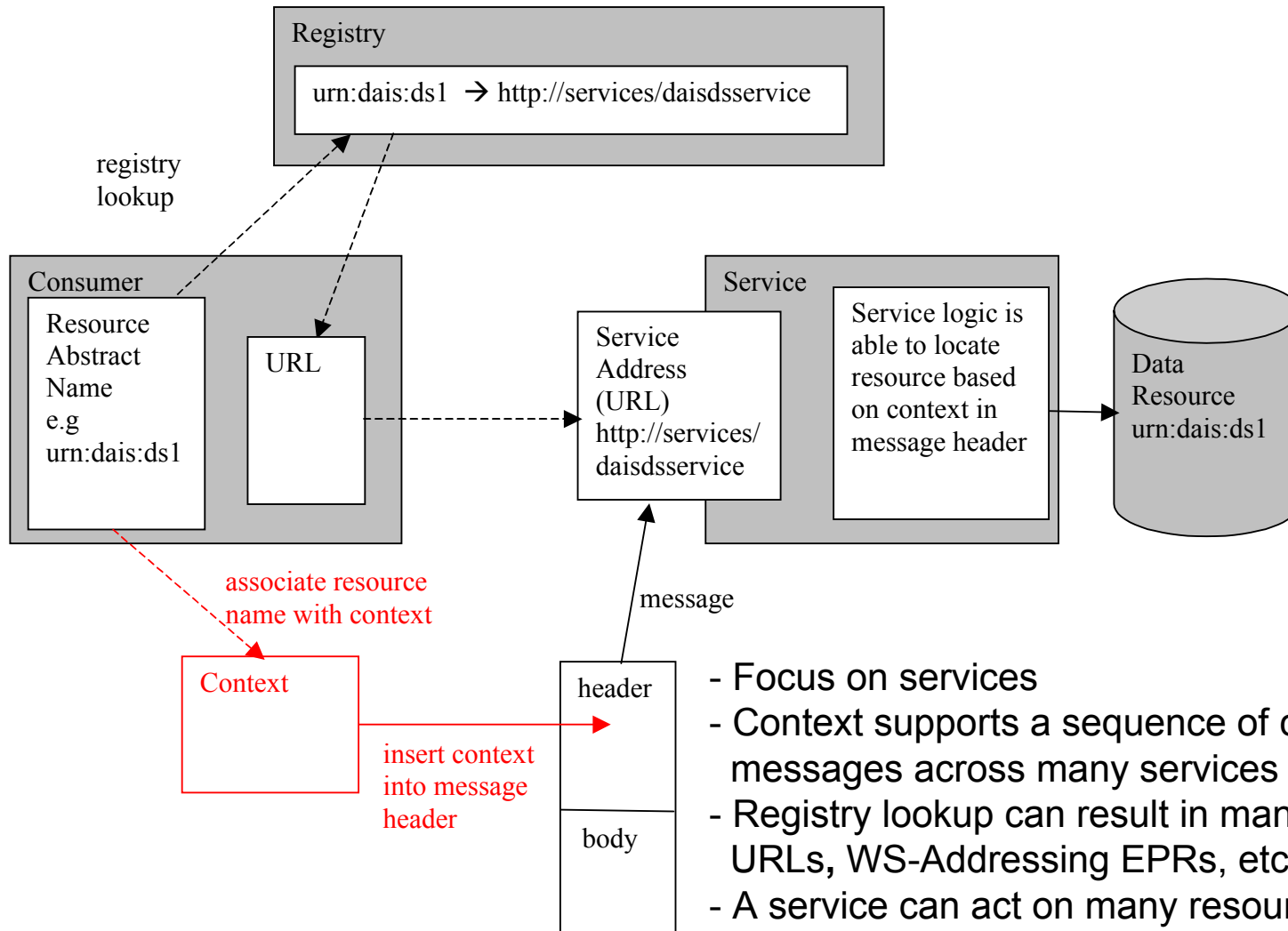
- The DAIS working group must map data access function to web services infrastructure in order to present meaningful specifications
 - We want to play nicely with OGSA
 - The current mapping is based on initial versions of WSRF
 - We want to be as widely applicable and acceptable as possible
- The DAIS mapping document was started at GGF10 and presented at GGF11
 - https://forge.gridforum.org/docman2/ViewProperties.php?group_id=49&category_id=517&document_content_id=2802
 - Objective to educate DAIS WG about options
 - Considered WS-I, WS-Context, WSRF approaches



- Focus on services
- Registry lookup can result in many service URLs, WS-Addressing EPRs, CORBA IIORs, etc.
- A service can act on many resources
- One or more resources can be specified in the message body at service call time by name
- Abstract names can be passed to any service that understands them

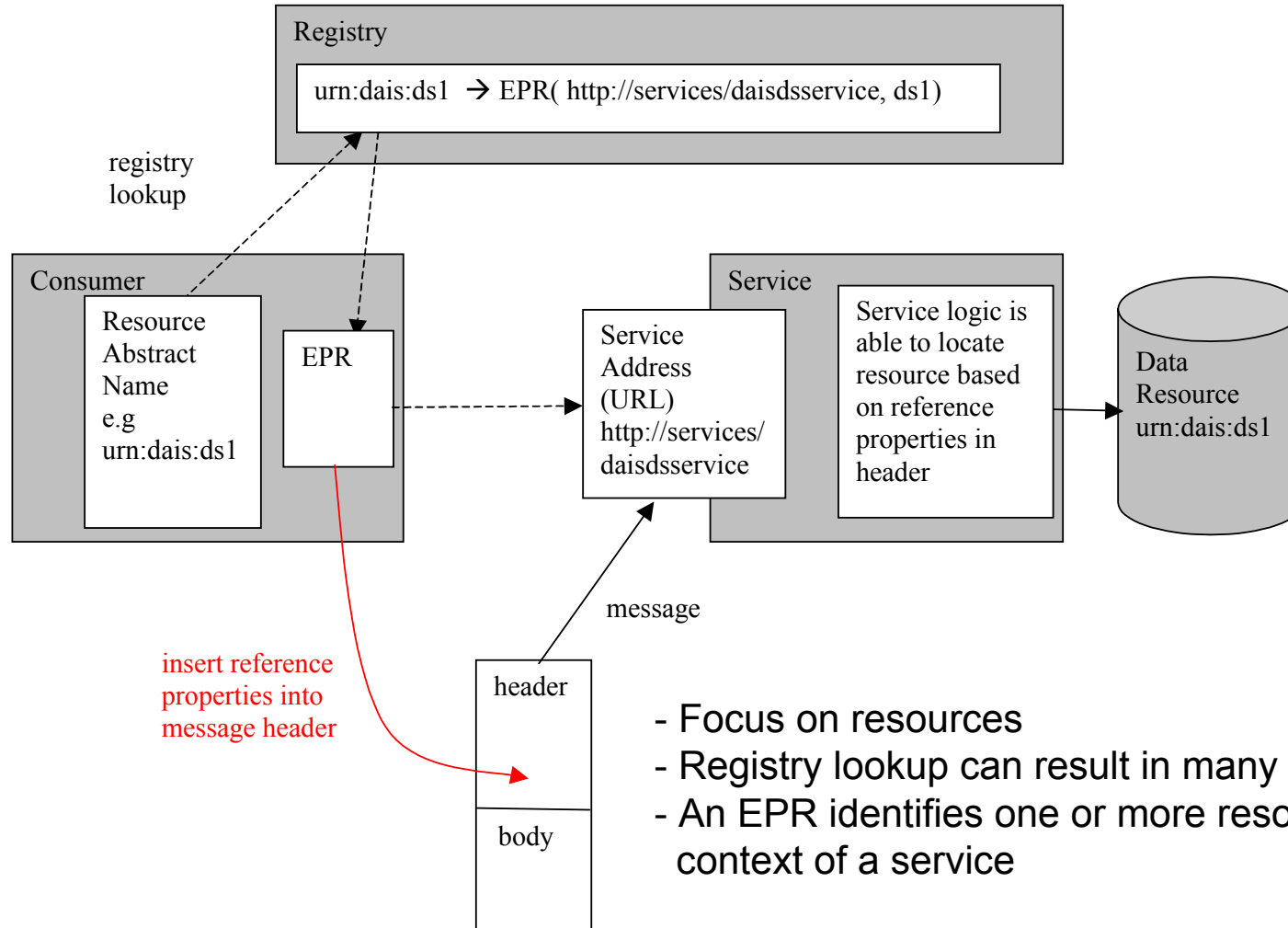


WS-I + WS-Context



- Focus on services
- Context supports a sequence of correlated messages across many services
- Registry lookup can result in many service URLs, WS-Addressing EPRs, etc.
- A service can act on many resources
- One or more resources can be associated with a context (the association is controlled by each service)

WS-RF



- Focus on resources
- Registry lookup can result in many EPRs
- An EPR identifies one or more resources in the context of a service



Breaking News

- WS-Transfer
- WS-Enumeration



DAIS and Naming

- DAIS is about defining service interfaces for accessing data resources
 - We want to be able to send messages services in order to access named data resources
- OGSA V1 describes a three level naming scheme for resources
 - Human Readable Name
 - Abstract Name
 - Address
- The approaches investigated fall into one of two camps
 - Explicit use of data resource names in the context of services that we know are able to operate on those resources
 - Focus is on services
 - Implicit use of data resource names to allow us to direct messages at resources without having to locate a service separately
 - Focus is on resources



Comparing Approaches

- All of the approaches we investigated will work and appear very similar down to where the abstract name is mapped to a resource address
 - In the explicit case this happens behind the service interface
 - In the implicit case this happens in front of the service interface
- There is space in this world of ours for focus on of services and focus on resources.
 - We don't have the general experience required to tell us when to use one approach instead of the other
 - Many applications have successfully deployed web services interfaces
 - The management space, e.g. WSDM, seems to be making good use of WSRF
- But we are not in the business of judging these approaches generally we must decide whether DAIS is best served by one or many mappings.



Do We Have To Make A Choice?

- Mitigating the differences
 - Optional discriminators in the message body
 - WSDL binding operation parts
 - WSRF TC in OASIS is considering embodiments of the ~~Implied Resource Pattern~~ WS-Resource Access Pattern
 - WS-Addressing EPR
 - Singleton pattern
 - Context based approaches
- Leveraging the differences
 - Mix and match
- Ultimately the consumer of the service has to know what to do when sending a message
 - To put a resource discriminator in the message body or not



The Options For DAIS

- Support no mappings
 - Wait until the dust has settled around WSRF etc
 - Restricts us to expressing our ideas abstractly
 - Creates requirements for the mapping when it is done eventually
- Support one mapping
 - We currently support an early version of WSRF as this is compatible with OGSA at present
 - Any of the approaches could fit the bill and could provide a mapping
 - WSRF will change and we have to do work at some point to track these changes
 - Building on the WS-I approach gives the advantage of the specification being implementable on all platforms, using any of the current tooling, and supported by all vendors
- Support many mappings
 - This creates even more work with potentially many changing approaches to track

Questions/Debate

