Comparison of Intermediaries for 12/11/2003 OGSA-WG Teleconference Discussions

OGSA-WG Logging Focus Area
Bill Horn
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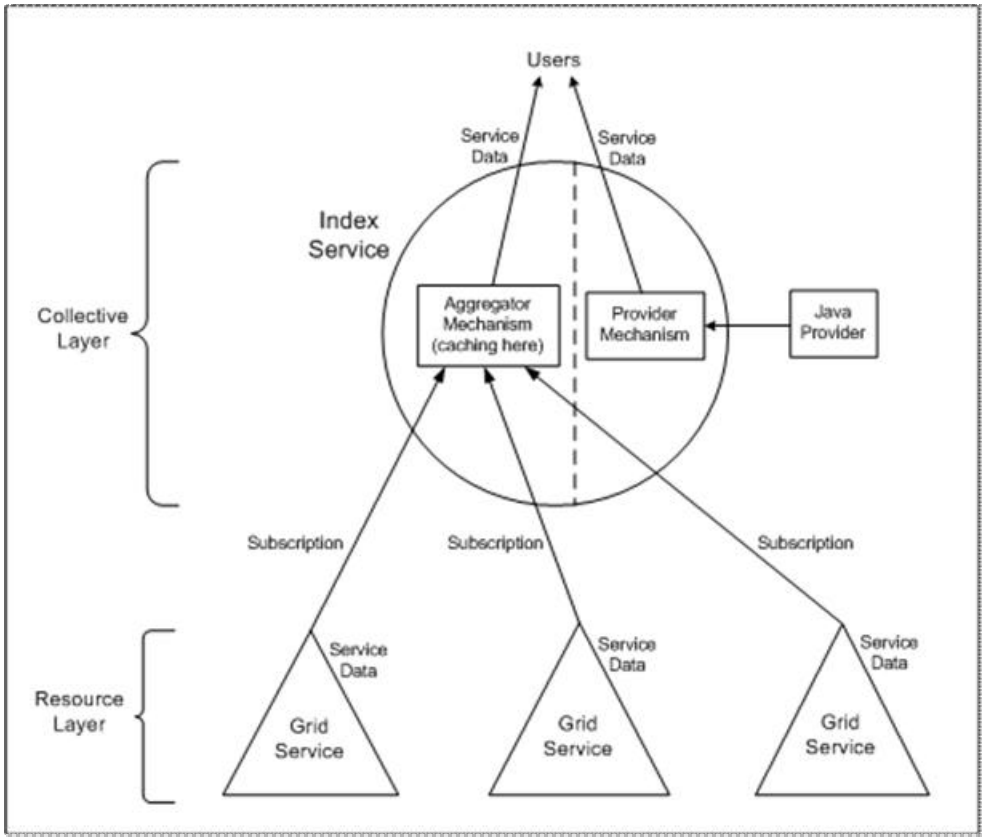
MDS in GT3



from: http://www.globus.org/ogsa/releases/final/docs/infosvcs/MDS.html

Example from GMA

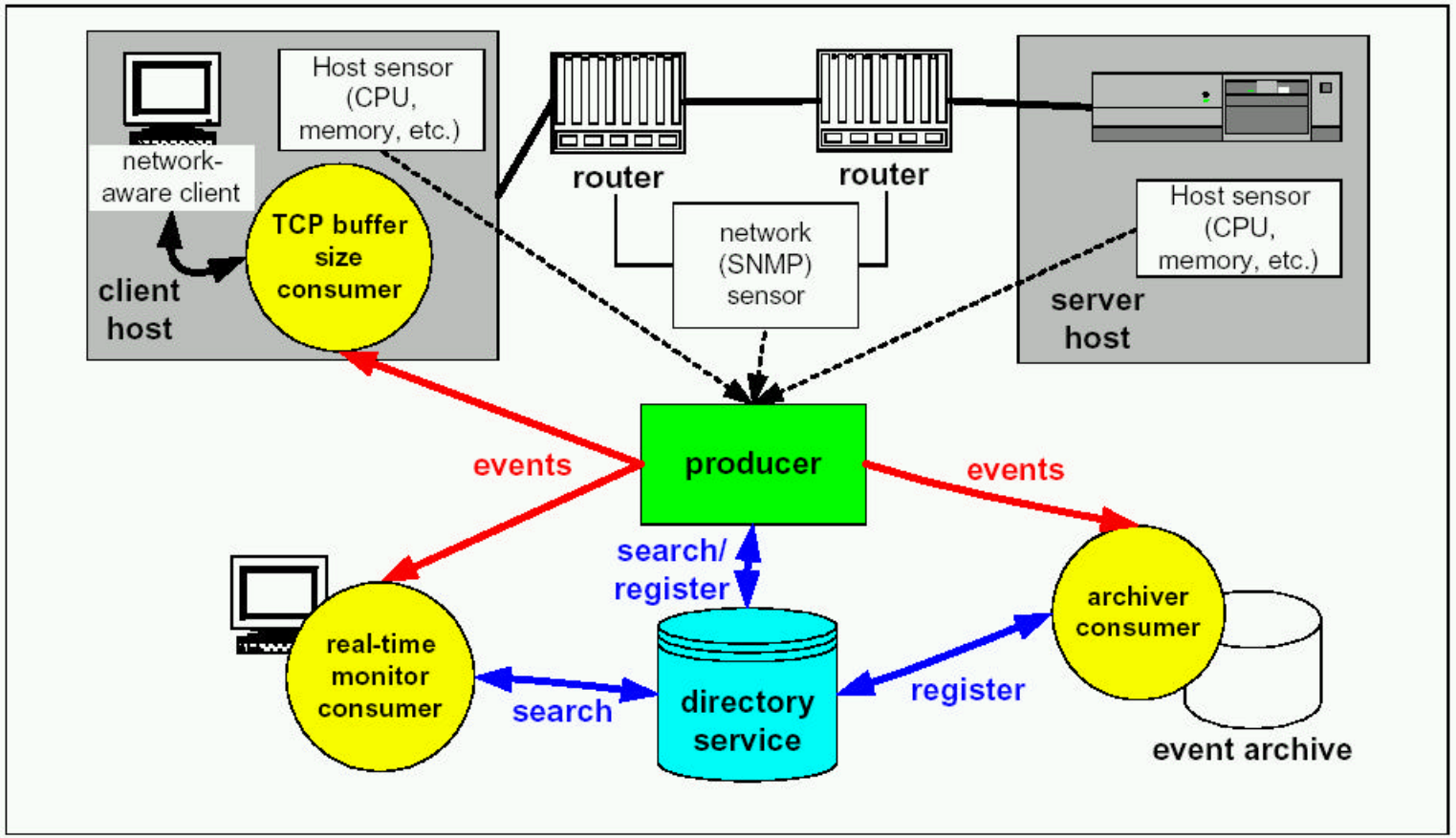
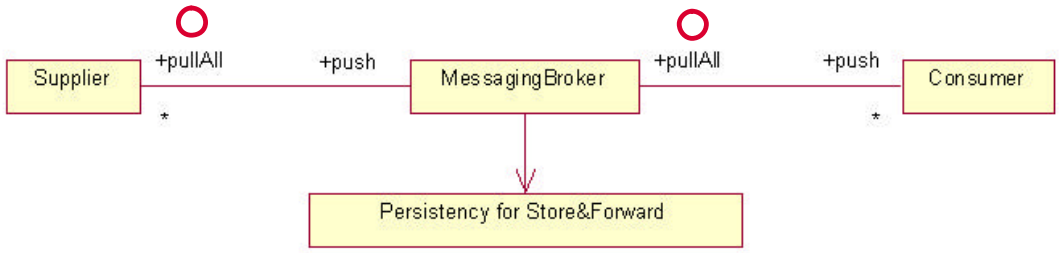


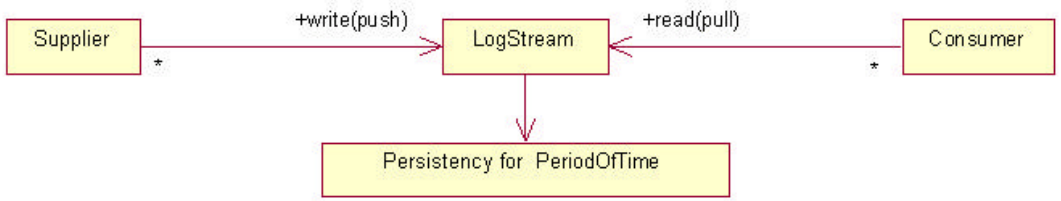
Figure 3: Sample Use of Monitoring System

from: http://www-didc.lbl.gov/GGF-PERF/GMA-WG/papers/GWD-GP-16-1.pdf

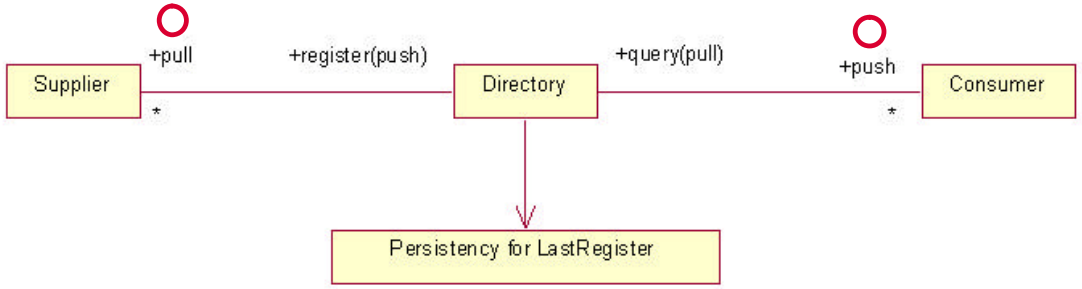
Patterns



Type 1
Message Broker



Type 2
Log



Type 3
Directory

Type 4
CORBA “generic” Event

Type 5
OGSI 1.0

OGSA Logger System: Requirements

Abstraction of Legacy Logger Systems
- eg zOS System Logger, NT events, and UNIX syslog

Persistency
- fundamental requirement

Support for Sequential Record Input and Output
- sequential I/O with record granularity

Ordering of Log Records
- (at least a partial) ordering based on timestamp

Standard Schema for Log Records
- standard xsd for log artifacts

Stateful Read Cursor
- not invalidated by concurrent reads / writes

Decoupling of Suppliers from Consumers
- eg audit, management, problem determination

Broker
- concurrent access by multiple suppliers & multiple consumers

Filtering
- everywhere, as close to source as possible

Merged Log
- support for underlying mechanisms that permit the merging of multiple log streams

Synchronous and Asynchronous Write Semantics
- .with: ack, callback for ack, and fire & forget

Duplication of Log Streams
- .create a new stream from an existing stream

Deletion of Log Records
- time-stamp based deletes

Coexistence w/ Messaging Fabric
- log-type persistency for the fabric

Standard Set of Specialized Logstreams
- Secure Logs (security QoS)
- Globally Ordered Logs
- Circular Logs
- Duplexed Logs (reliability QoS)
- Compressed Logs