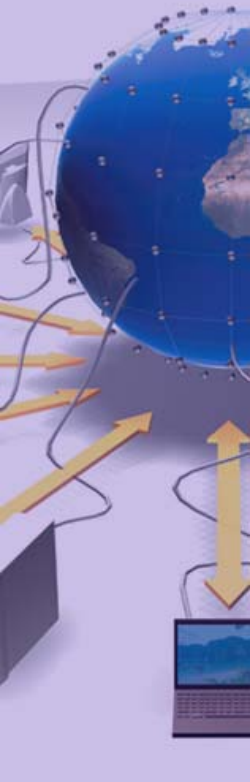


# Messaging System for the Grid

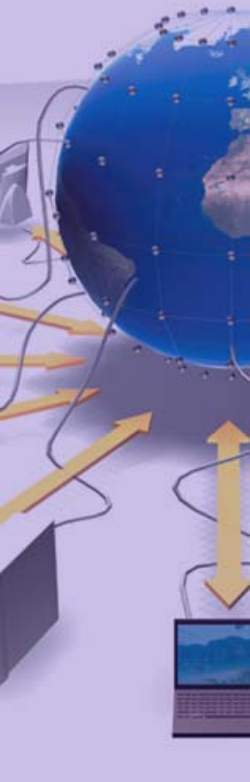
as a core component of the monitoring infrastructure for WLCG

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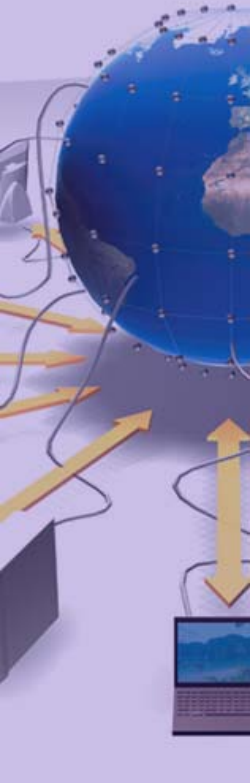
IT-GS / openlab



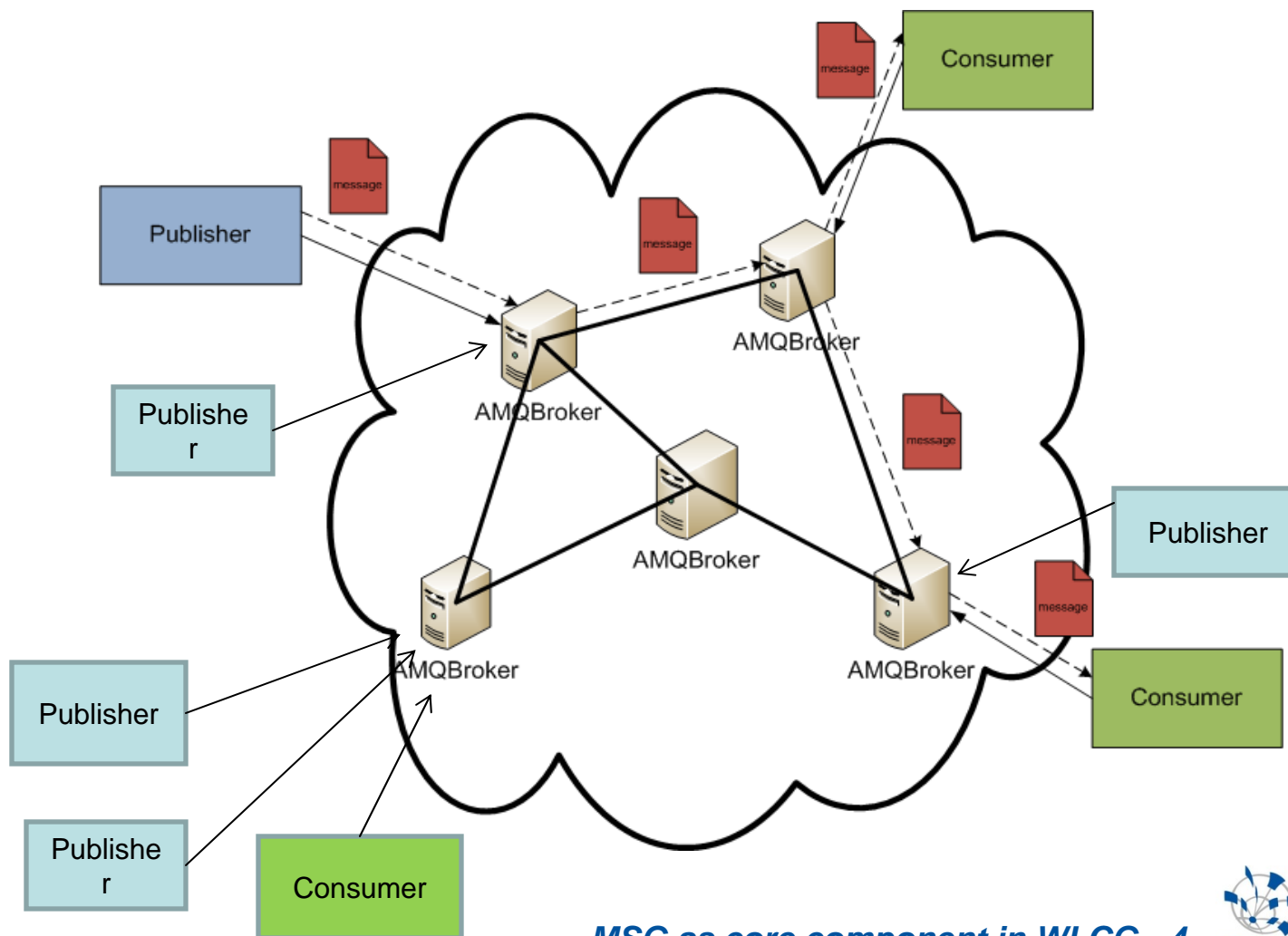
- Why use Messaging Oriented Middleware
- What is MSG
- MSG in WLCG monitoring
- How and where is it used currently
- Thank your attention



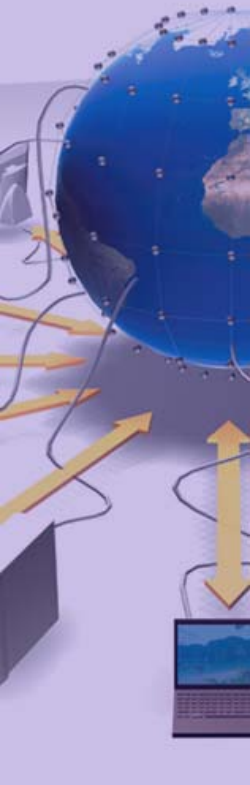
- Key ideas and benefits:
  - Loosely coupled distributed communication
  - Exceptional interoperability
  - Asynchronous
  
  - Reliable
    - Failover brokers, configurable persistence
  - Scalable
    - Network of brokers
  - Flexible
    - Topic/Queue semantics, short lived clients, ...
  
  - Proved solution in commercial environment
    - Enterprise applications integration
    - For instance, stock markets, insurance companies, ...



- What's the idea?

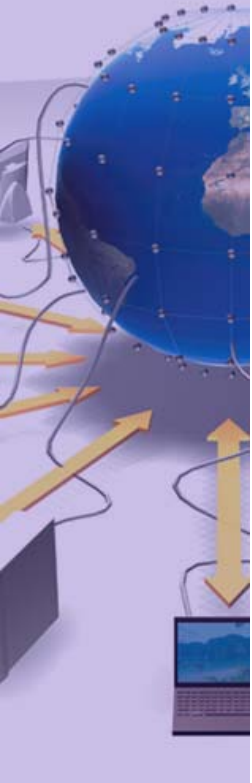


- A messaging infrastructure, based on ActiveMQ
  - an Apache open-source project
  - supports open protocols (openwire, stomp, http)
  - highly configurable
- Well defined message specification
  - Coming from grid probe specification
  - Suitable for sending records across the wire
- Lightweight clients in python
  - Simple publisher
    - REST or Stomp sending
  - Msg-consume2oracle
    - Durable subscriptions
    - Stomp -> Oracle view
- Currently deployed and in use.
  - Contact us for giving it a try!

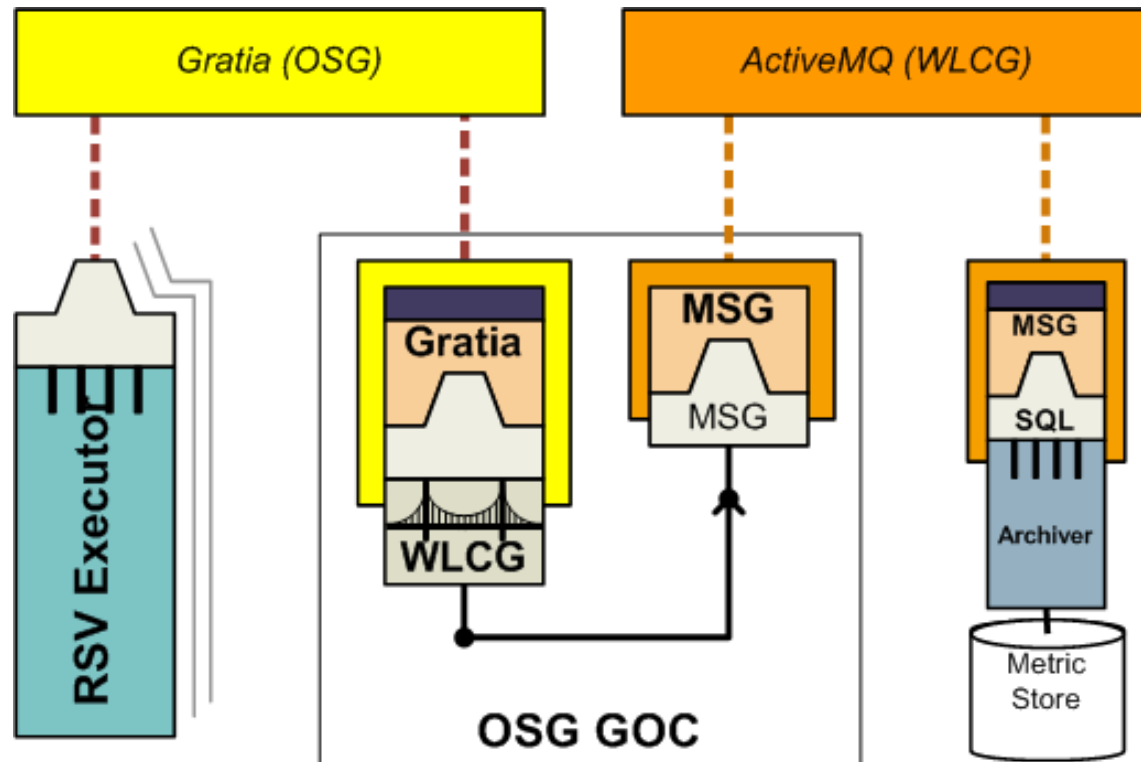




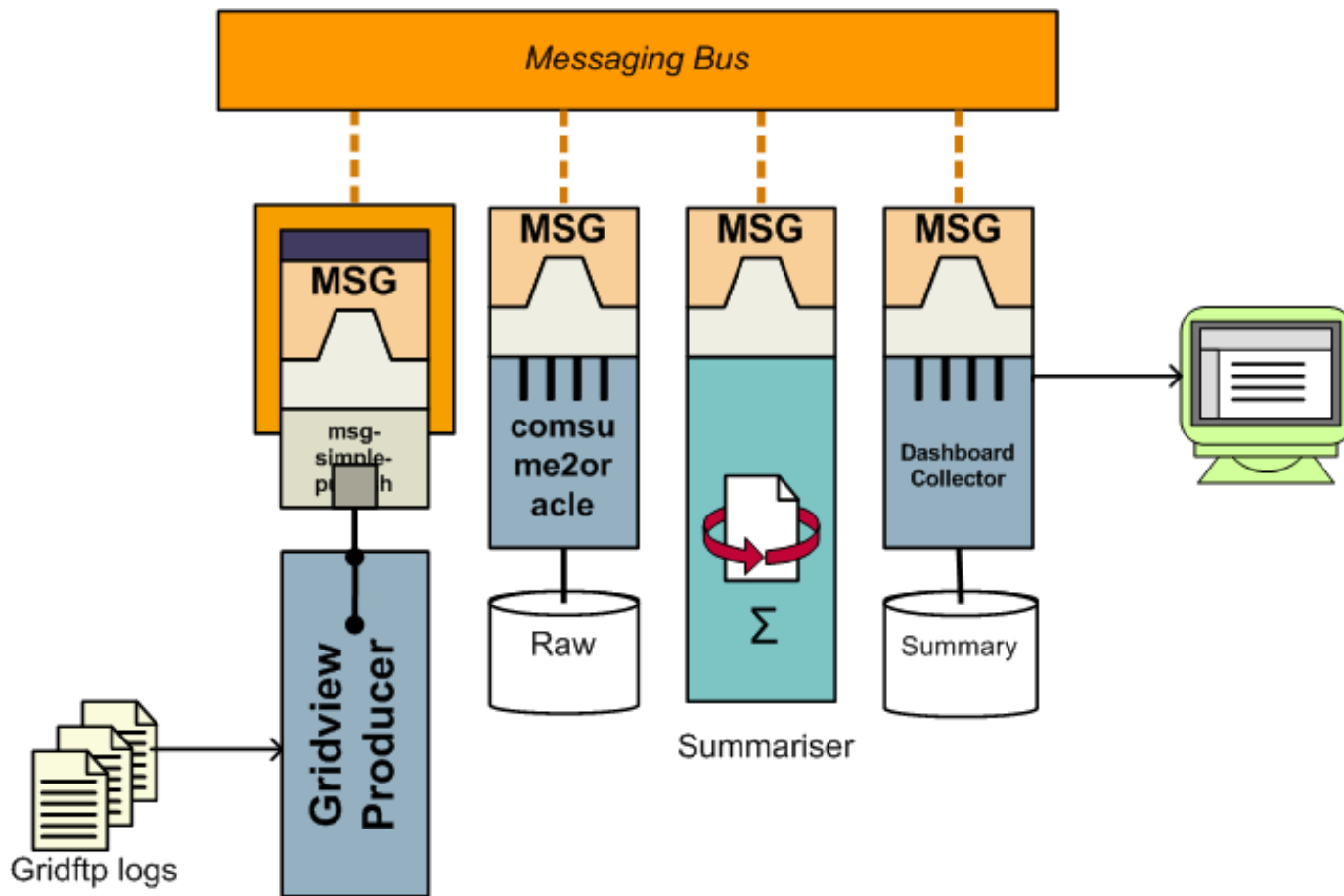
- Grid:
  - complex infrastructure
  - many different services
  - deployed in different environments
  - where many things can go wrong
- We need to monitor the services in order to:
  - Know when an action to repair is necessary
  - Help improve the overall reliability
  - Provide stakeholders with current and historical status information
- A vast amount of monitoring data is produced
  - Local fabric monitoring( e.g., Nagios, LEMON)
  - Remote monitoring (e.g., SAM)
  - Visualized in many different tools (e.g., Gridview, Dashboards)
- MSG provides reliable, flexible, communication between all the components.



- RSV OSG bridge to SAM

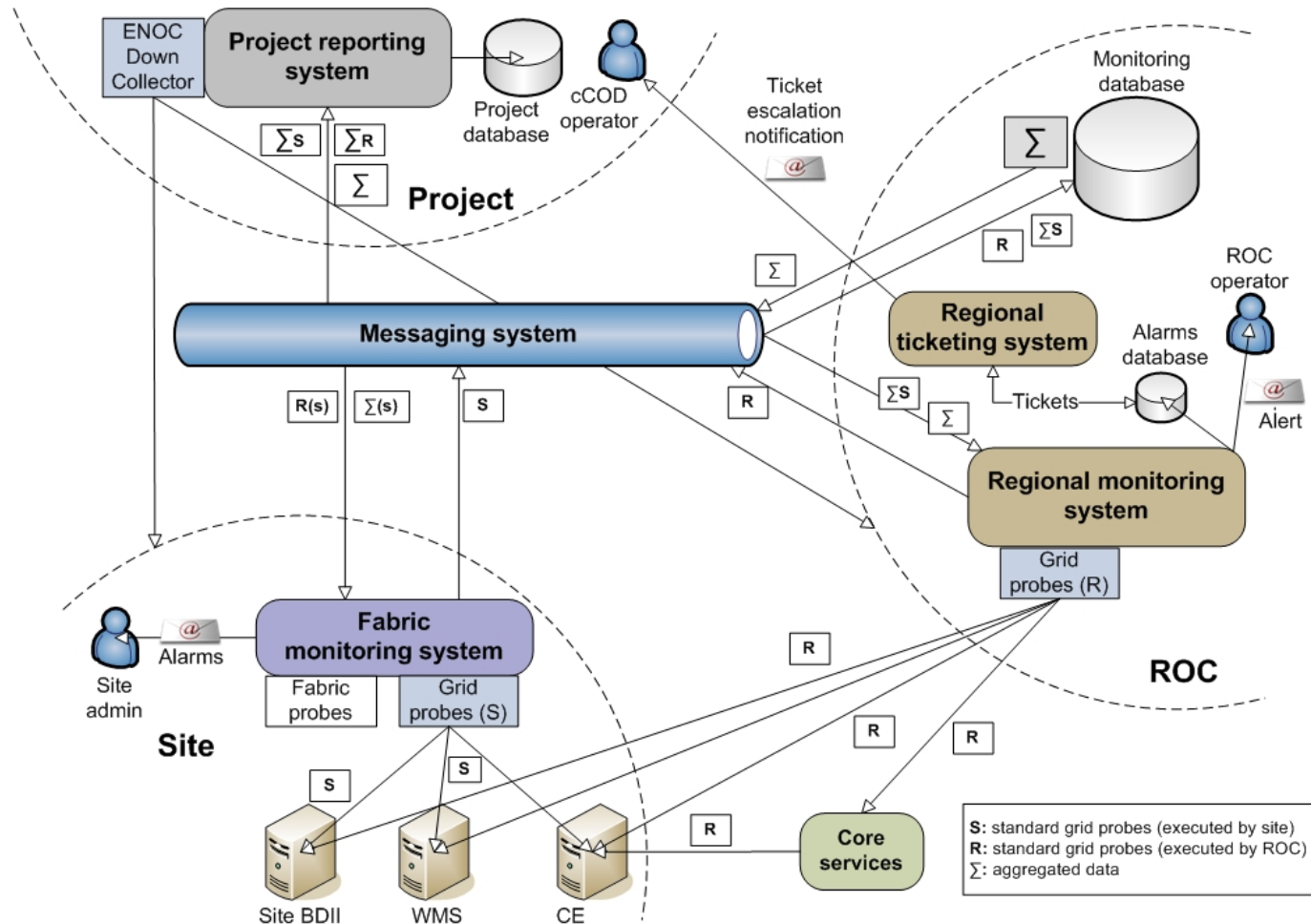


- GridFTP transfer monitoring





- Operations Automation vision



- Thank you for your attention!

