

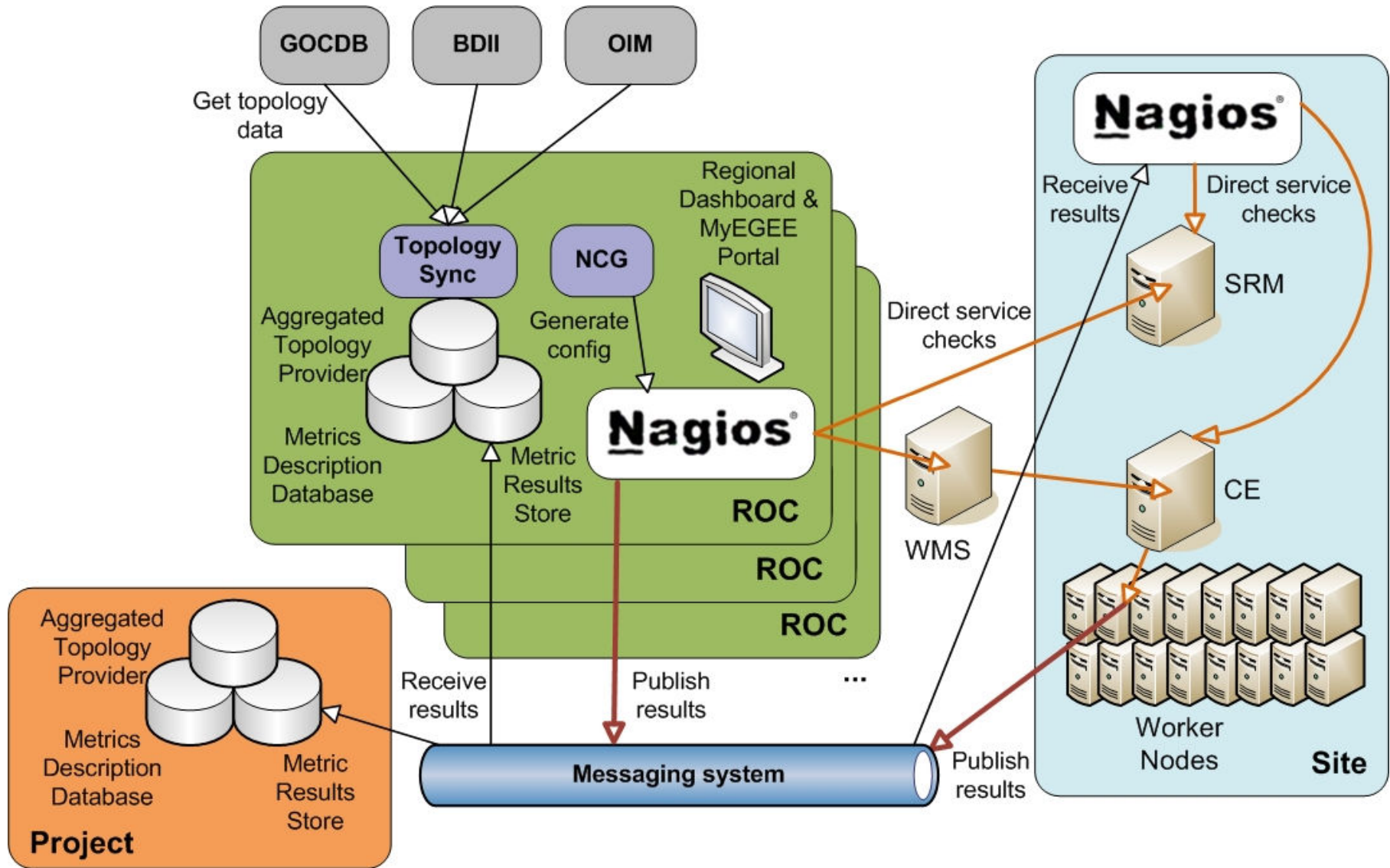
# Regional Nagios

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*EGEE'09, Barcelona, Spain*

- **Introduction**
- **Architecture**
- **Nagios**
- **Nagios Config Generator**
- **Messaging System**
- **Nagios & Messaging System Integration**
- **Conclusion**
- **Links**

- **Improve the reliability of the grid by giving grid administrators better tools**
- **Rely on existing and widely accepted solution**
- **Provide system which fits current and future organizational model**
- **Integrate components and automate operations to reduce manpower**



- **What is the Nagios?**
  - open source monitoring framework
  - highly flexible with advanced features
  - widely used & actively developed
  
- **Why do we need it?**
  - probes need to be executed
  - avoid development & maintenance of house-grown tools
  - provide solution admins are familiar with

- **What is the Nagios Config Generator (NCG)?**
  - automatic generation of Nagios configuration
  - based on multiple information sources
  - simple bootstrap of Nagios instances
- **Why do we need it?**
  - configuring Nagios is hard
  - information is out there, why not use it?
  - consistent configuration of entities

- **Database components**
  - Aggregated Topology Provider (ATP)
  - Metric Description Database (MDDDB)
- **Operations services**
  - GOCDB, SAM, ENOC
- **Grid information services**
  - BDII
- **Static files**
  - [https://twiki.cern.ch/twiki/bin/view/EGEE/GridMonitoringNcgOverview#Static file rules](https://twiki.cern.ch/twiki/bin/view/EGEE/GridMonitoringNcgOverview#Static_file_rules)

- **Local probes**

- probes executed by Nagios
- SAM probes (CE, WN and SRM)
- WLCG probes (SRCE, CERN)
- BDII & Gstat probes
- Nagios native probes
- lightweight service checks (ENOC Downcollector)

- **Contributions welcome**

- <http://nagiosplug.sourceforge.net/developer-guidelines.html>
- <https://twiki.cern.ch/twiki/bin/view/EGEE/EGEESA1BuildingPackages>

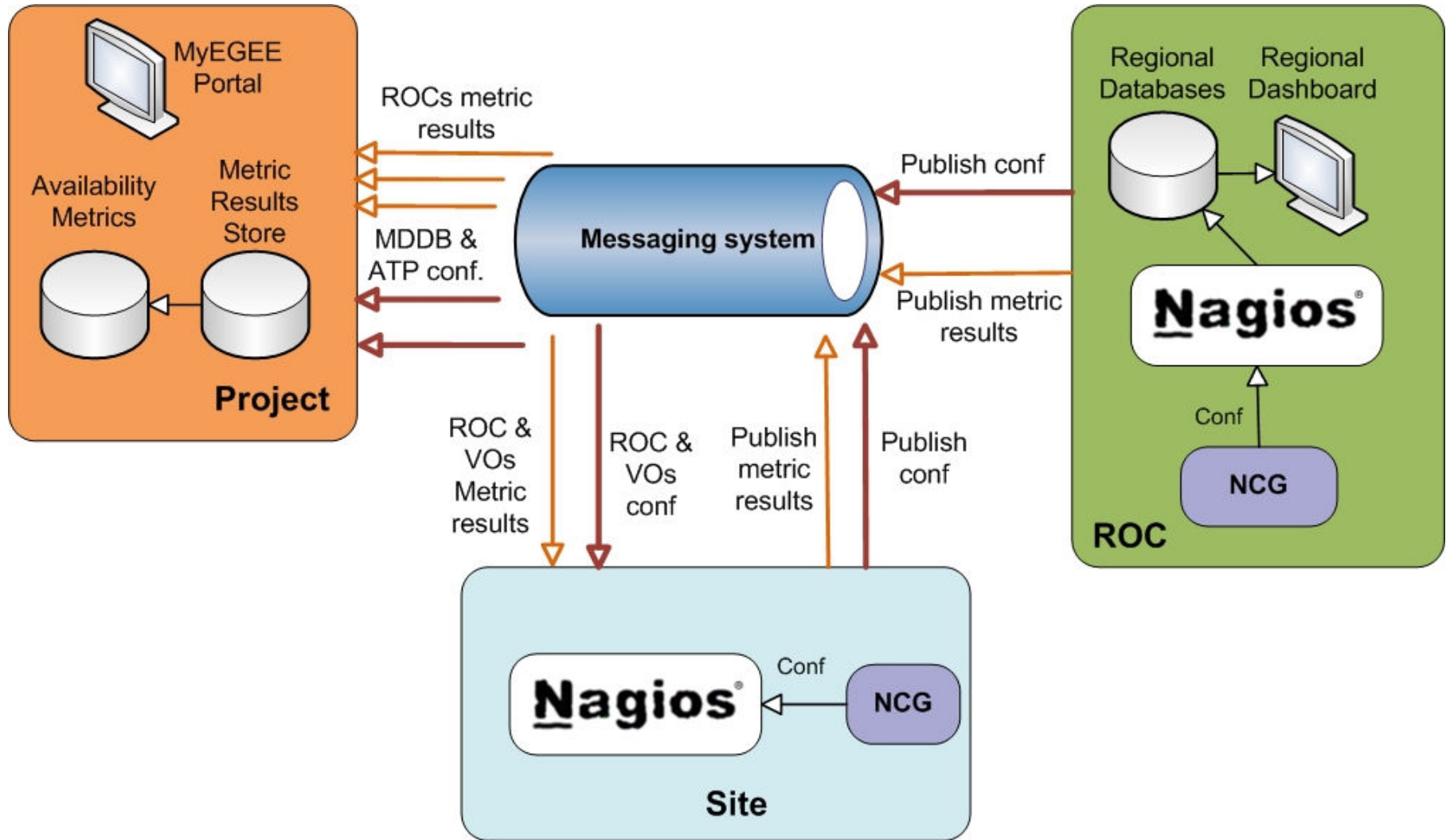


- **Remote probes**
  - results imported from external systems
  - remote Nagios instances
  - classic SAM monitoring system
  - ENOC Downcollector

- **Network topology information**
  - distinguish service failure from network failure
- **Feedback from regional to site instance**
  - via the messaging system
- **Feedback to operational tools**
  - Dashboard, Metric Result Store
- **Multiple VO support**
  - execute probes for multiple VOs
- **Packages for SL4 & SL5 available**

- **What is the messaging system?**
  - standardized, asynchronous and scalable communication between distributed entities
  - reliable network of brokers that provides guaranteed delivery of messages
  - <https://twiki.cern.ch/twiki/bin/view/EGEE/MsgArchitecture>
- **Why do we need it?**
  - interaction between distributed monitoring components
  - standard interface enables integration of components

- **FUSE Message Broker**
  - based on Apache ActiveMQ
  - industry support contract is being negotiated
  - training organized in July
- **Deployment**
  - networked brokers at CERN and SRCE
  - <https://twiki.cern.ch/twiki/bin/view/EGEE/MsgServerDetails>
- **Packages for SL4 & SL5 available**



- **Multilevel monitoring based on proven commodity software**
- **System fits the organizational model of the grid**
- **Provide the means for administrators to better monitor their services**
- **Integration with existing components to automate operations of monitoring instances**

- **OAT web page**  
[https://twiki.cern.ch/twiki/bin/view/EGEE/OAT\\_EGEE\\_III](https://twiki.cern.ch/twiki/bin/view/EGEE/OAT_EGEE_III)
- **OAT Multi-level monitoring architecture**  
<https://twiki.cern.ch/twiki/bin/view/EGEE/MultiLevelMonitoringOverview>
- **OAT Milestones**  
<https://twiki.cern.ch/twiki/bin/view/EGEE/MultiLevelMonitoringMilestones>
- **Operations Automation Strategy**  
<https://edms.cern.ch/document/927171>

**Thank You!**

**Questions?**