



**GridPP**  
UK Computing for Particle Physics

# Handling Operational problems

John Gordon

- Site mis-configuration was responsible for **most** of the problems that occurred during the experiments Data Challenges. Here is a non-complete list of problems:

integrated all common small problems into

1

**BIG PROBLEM**

- – Default user shell environment too big
- 
- Only partly related to middleware complexity



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- Operational problems are currently mainly due to configuration of the sites
  - Either on installation or due to subsequent changes
- Many of them can be seen by the GOC monitoring
  - Seen but not solved
- So this monitoring could drive proactive operations
  - See piotr's talk
- A rough outline of the proposed procedures follows



## GOC Tools

GridICE  
Gppmon  
Site CERT  
Gstat

## LCG-ROLLOUT

**Manage the  
Problem List**

### Problem List

- Problem 1001
- Problem 1002
- Problem 1003
- Problem 1004
- Problem 1005
- Problem 1006
- Problem 1007

RC (site)

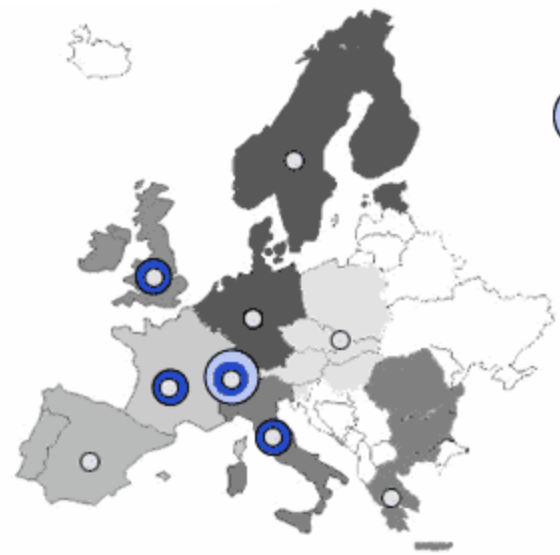
RC (site)

RC (site)

RC (site)

RC (site)

# EGEE – ROC/CIC



- Operations Management Centre
- Core Infrastructure Centre
- Regional Operations Centre

## Service activities



- Middleware Integration and Testing Centre
- Middleware Re-engineering Centre
- Quality and Security Centres

## Middleware activities



- Lead Networking Centre
- Pilot Application Centre
- Regional Networking Centre

## Networking activities



## GOC Tools

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Manage the  
Problem List

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FAQ

DOC

ROC

ROC

ROC

ROC

ROC

RC (site)

RC (site)

RC (site)

RC (site)

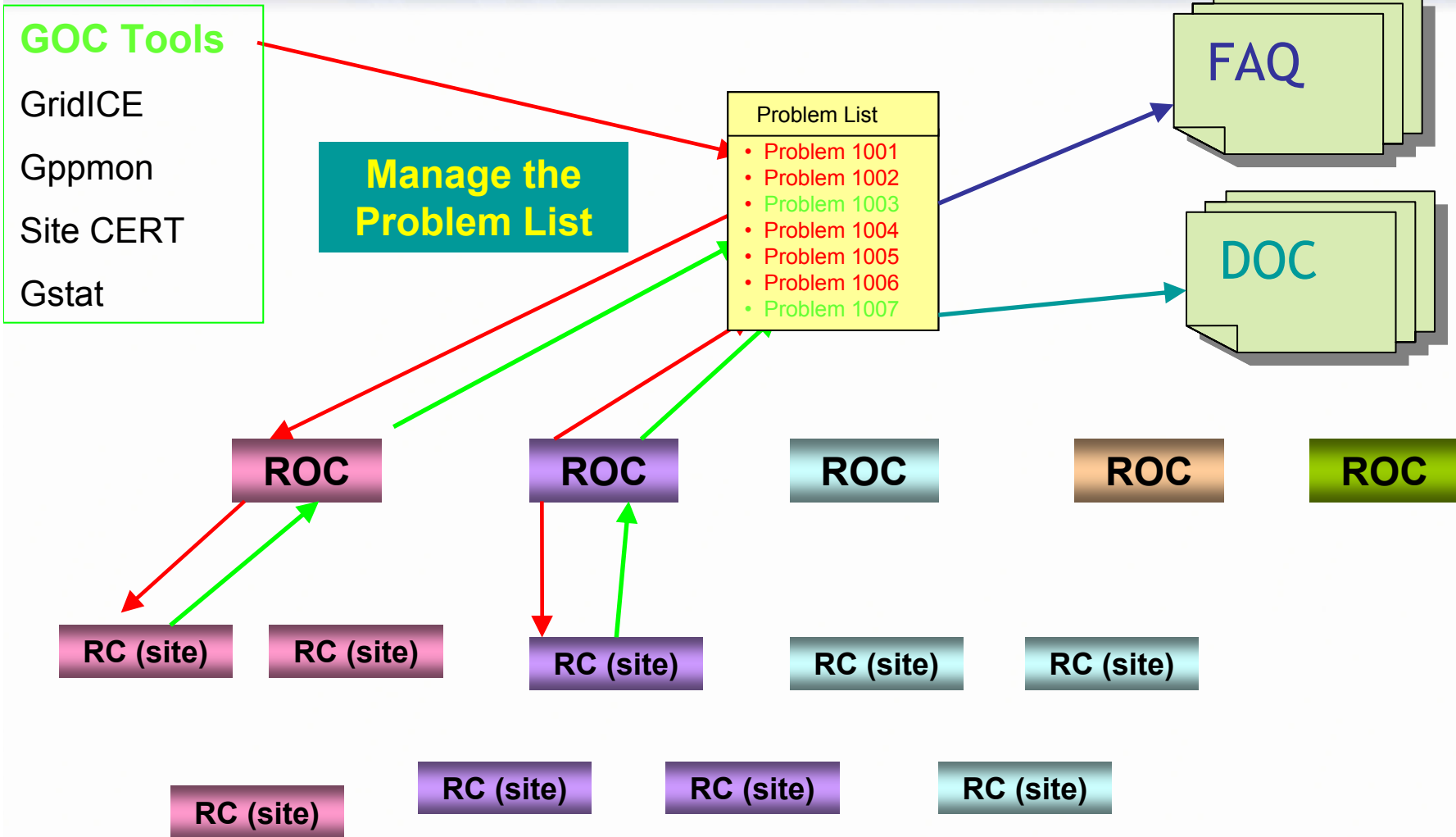
RC (site)

RC (site)

RC (site)

RC (site)

RC (site)





- Problems seen by monitoring tools are logged centrally by GOC (CIC)
- Tickets passed to relevant ROC
- ROC resolves problem with the site
- And reports back to GOC



- One person from each of the 4 CICs (CERN, CNAF, IN2P3, RAL) will manage this procedure for a week at a time
- Savannah will contain the list of tickets
  - Q is this the best tool?
- The weekly GDA meeting will review the current status





- Raising tickets is a manual procedure
  - Monitoring tools well-placed to raise tickets automatically
- ROCs are alerted by email
  - Which can go to their helpdesk
  - but no return path, have to login
- Other sources of problems
  - users, sites, ROCs
  - produces workflow that has not been fully thought through



- Some problems are too urgent for a two-step process.
  - also need to contact sites directly
- Resolving problems often leads to new deployment ticket being raised
  - More work for Markus et al.



- All tickets in a single system
  - GGUS?
  - or in a network of fully-integrated helpdesks
  - including user problems
  - managed by a variety of people.
- Problem solutions populate FAQs and documentation
- CIC/ROC could use remote management tools to control services
  - stop/start/restart/reload
  - root access?
  - Middleware requirement
- Mechanism for removing sites to improve stability of Grid.



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- Scope for discussion during the workshop