User support is …

- User education
- Simple access to a broad range of information
- Application integration and support
- Day-to-day support for the users of grid data, compute, networking and VO specific services
User support is …

• User education

• Simple access to a broad range of information

• Application integration and support

• Day-to-day support for the users of grid data, compute, networking and VO specific services
… complicated in a grid environment

- Distributed nature of the Grid:
  experts located everywhere, sometimes in specific centres;
  spread of resources and services; different policies and laws

- Variety of users:
  beginners, system administrators, operators, network specialists,
  Virtual Organization communities

- Variety of applications:
  high energy physics, biomedical, earth observation,
  astrophysics, computational chemistry, etc.
EGEE approach

- Global Grid User Support (GGUS) is the EGEE support infrastructure for grid users, deployment and operation problems.

- It does not substitute but integrate existing infrastructures and coordinates support efforts.
Services offered to the user

- An access point for support
- A portal containing information and documentation concerning the set of services involved
- (Links to) tools to help resolve problems
  - search engine
  - monitoring applications
  - resources status
  - ...
- Integrated interfaces with other Grid infrastructures’ support systems
- A knowledge base combining information from various sources throughout the project
A little history

- GGUS started in 2003 as a prototype support system in LHC
- Strictly hierarchical structure in LCG (tier model)
- Transition to EGEE meant migration to a different operations model: The federative approach
- 11 Regional Operation Centres instead of one Grid Operation Centre
- Different approach was needed in user support also
- Transition to EGI might require adaptations again
User support workflow

First Line Support

TPM + VO

VO Support Units

ROC Support Units

Services Support Units

Other Grid Infrastructures

Network Support

External Support Units

Middleware Support Units

Deployment Support Units

Software Support Units
User interaction

Central Application (GGUS)

Global Support Units

VO Support Infrastructure/Regional Helpdesk

VO Support Units/Regional Support Units
Support staff

- Ticket Processing Managers (TPM): Grid experts as first line support
- First line support for VOs
- Specialized Support: Middleware, Deployment, VO Support
- ROCs and RCs: Local support and services
- ENOC: Network support
GGUS system

Enabling Grids for E-sciencE

User

web application

web services

Remedy
Action Request System

OCH-MODUL

GGUS user accounts

Ticket DB Oracle 9i Cluster

Reports and Metrics

XMI mail exchange

workflow engine

Support staff

other HelpDesks

Knowledge Base
Interfaces to external helpdesk systems

GGUS/TPM

Web Portal

Ticket assignment

Operations

Interface

notification

GGUS System

XML Mail Interface

Ticket solved

Web services

Connected Helpdesks

SUPP Unit A

SUPP Unit B

SUPP Unit C
• **Purpose/role**
  – Detect problems by monitoring the grid
  – Report them by creating and assigning GGUS tickets
  – Provide help and follow-up on problems

• **Operations Support teams : “COD”**
  – Teams from the ROCs
  – Weekly shift

• **CIC-Portal/GGUS interface**
  – Based on Web services at GGUS side
  – “COD dashboard”: graphic user interface for operators, hosted at IN2P3 Computing Centre (Lyon, France)
Bridging between monitoring and helpdesk

FZK, Karlsruhe, Germany

GGUS

Central Helpdesk

CIC Helpdesk

Ticket

Ticket

CIC PORTAL

COD dashboard

GGUS Interface

UK

FR

DECH

IT

Operator on duty

Problem detection & reporting

Ticket follow-up

Regional Support Units

IN2P3-CC, Lyon, France

SOAP

- Get(ticket)
- Get_all()

SOAP

- Create()
- Set(ticket)

- Create()
• Interface with NRENs is running like in EGEE:
  • ENOC receives Trouble Tickets (incident, maintenance) from GÉANT and the NRENs (currently France, Germany, Greece, Hungary, Ireland, Italy, Russia, Spain, Switzerland, and United Kingdom);
  • More to come: Poland, the Netherlands, Czech Republic;
  • Forward it to GGUS after analysis and if relevant to EGEE.
• Identified as the Network Support unit in GGUS:
• 2nd level support for network related issues.
Bridging between grids

VO support centre

VO support centre

Service support centre

Service support centre

OSG Footprints

Regional Helpdesk

Regional Helpdesk

Regional Helpdesk

Regional Helpdesk

Regional Helpdesk

GGUS

Open Science Grid

EGEE-II INFSO-RI-031688

Torsten Antoni | ISGC’08 | Taipei 11/04/2008
Semantic analysis of information

GGUS Knowledge Base

Web  Wiki  Documentation  Solution Data Base
A look to the future

- The structure of the GGUS system is very well suited for adaption to changing requirements or project structures.
- In EGI it could easily interface all the participating NGIs.
- New support units for other middleware could be easily added.
- Special requirements, e.g. for WLCG, could be handled separately.
- Other types of usage will also be implemented: service tickets, protected tickets.
- Workload can be shared between partners.