

# Global Grid User Support - GGUS - in the LCG & EGEE environment

**Torsten Antoni**  
([torsten.antoni@iwr.fzk.de](mailto:torsten.antoni@iwr.fzk.de))

## Why Support?

- ✦ **New support groups**
  - ✦ **Network layer**
  - ✦ **Resource centers**
  - ✦ **CIC / GOC / etc.**
  - ✦ **more to come**
- ✦ **New Support challenges:**
  - ✦ **Jobs are spread over several locations**
  - ✦ **New types of Job and Data access**
  - ✦ **Often more than one group is involved**
- ✦ **Virtual Organizations**

## Why Support?

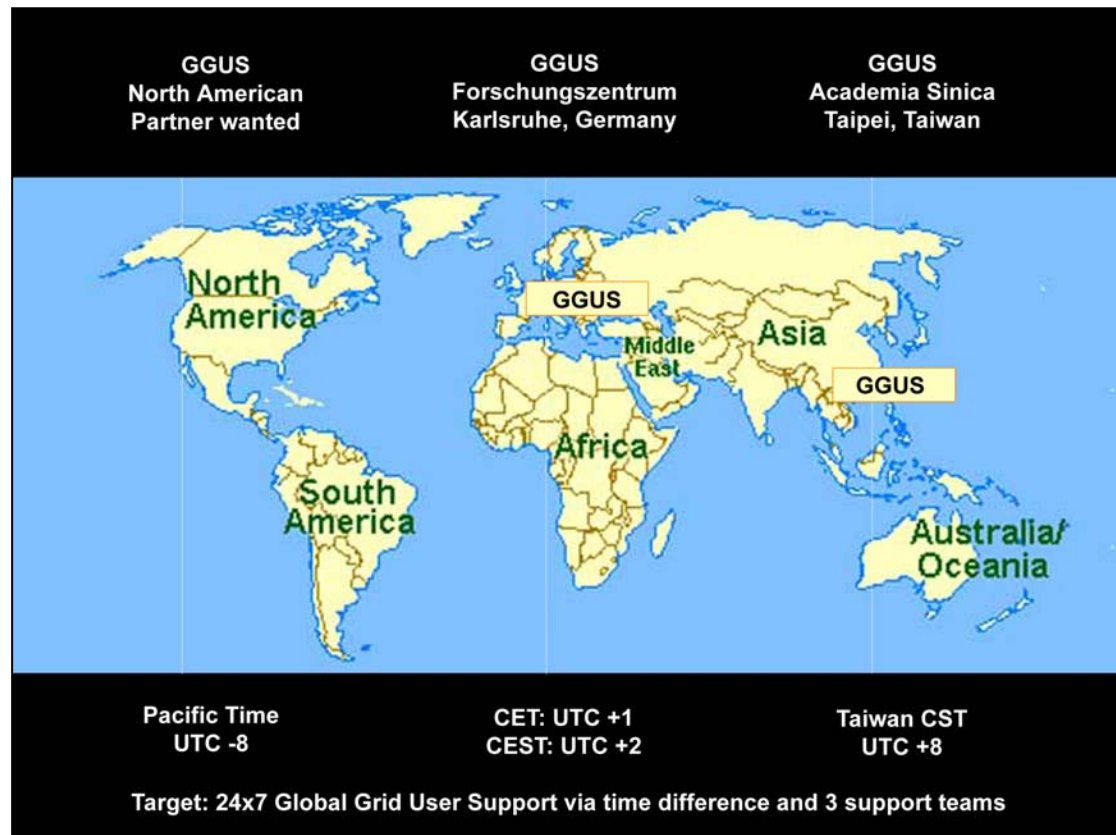
- ✚ **Need to have a common platform:**
  - ✚ **Collect service requests**
  - ✚ **Exchange service requests**
  - ✚ **Document solutions**
- ✚ **Need to document:**
  - ✚ **Quality feedback**
    - ✚ **To the VO's**
    - ✚ **Middleware development**
    - ✚ **To the Grid Operations**
  - ✚ **FAQ's**
- ✚ **Build a Knowledge Base for Grid related problems and solutions**

# Concept of Global Grid User Support - GGUS

✚ **Target:**  
**24x7 support**  
**via 3 support teams**  
**in different time zones**

✚ **Currently:**  
**GGUS FZK**  
**GGUS ASCC**

✚ **Planned:**  
**GGUS North America**



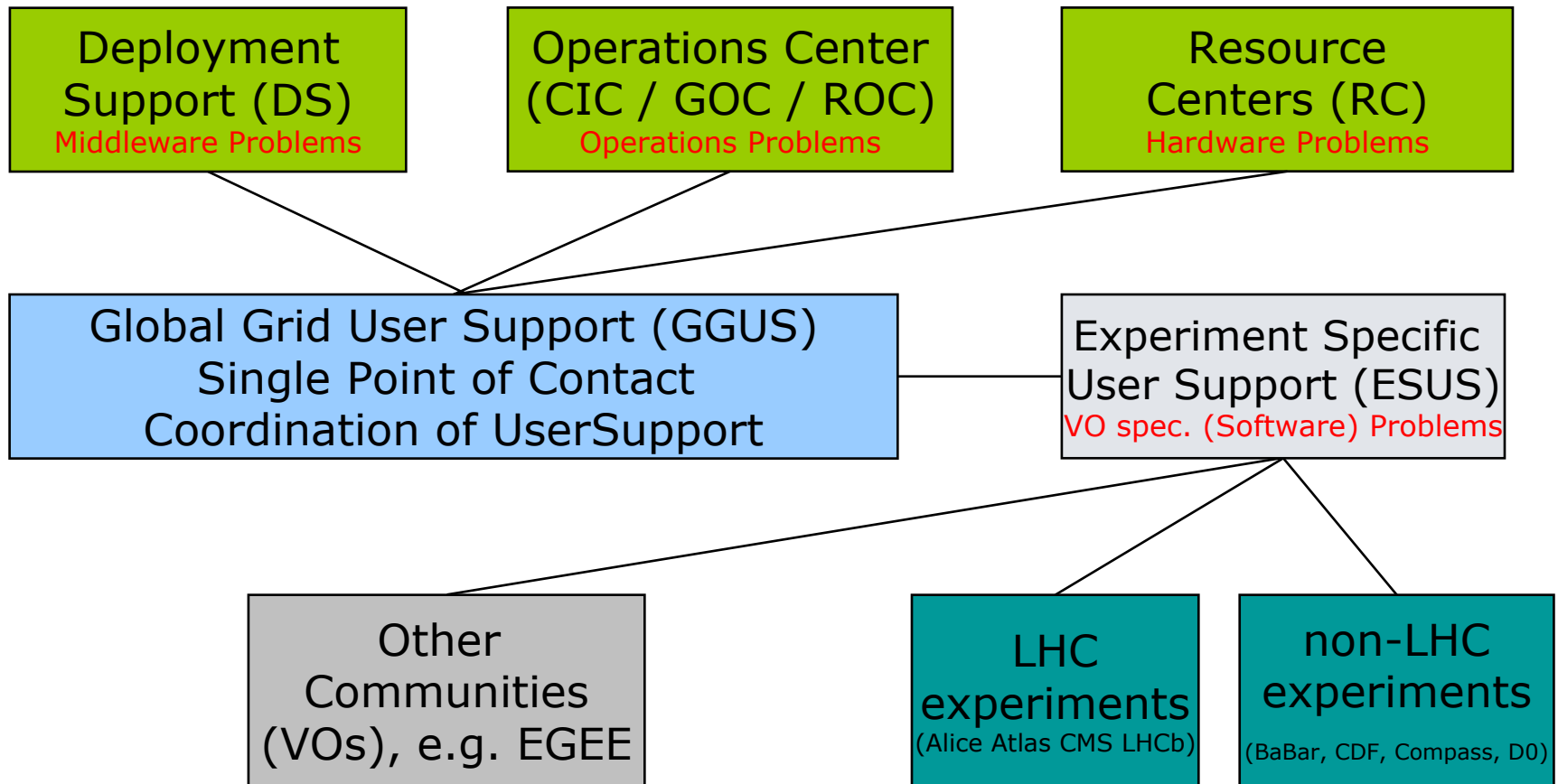
## Objectives

- ✚ **Single point of contact and information for Grid related questions (by now for LCG and EGEE)**
  - **FAQ's**
  - **Downloads**
  - **News and problems**
- ✚ **Support entry point for 8 × HEP experiments and other Grid user communities in EGEE**
- ✚ **Operate a central trouble ticket database and system**
- ✚ **Design, implementation and operation of a knowledge base**
- ✚ **Be the last resort for all support requests**

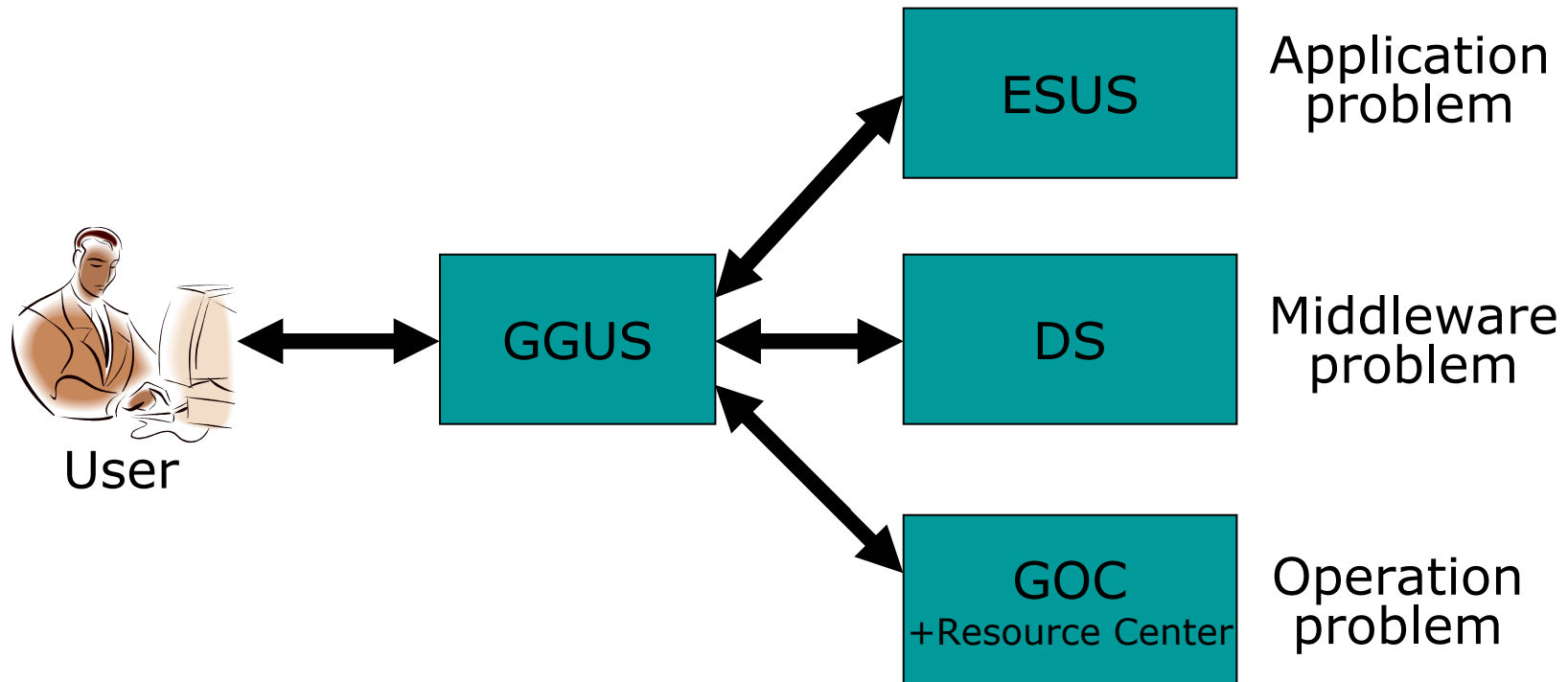
## Objectives

- ✚ **Provide ready to use Helpdesk web applications for as many Grid communities and projects as possible**
- ✚ **Build a large Knowledge Base for Grid related problems**
- ✚ **Try to develop tools to prevent problems before they arise in a grid environment in cooperation with the middleware development and the operation team**
- ✚ **Work closely with GGF**

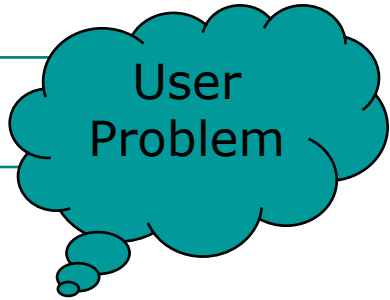
## Support Teams within LCG & EGEE



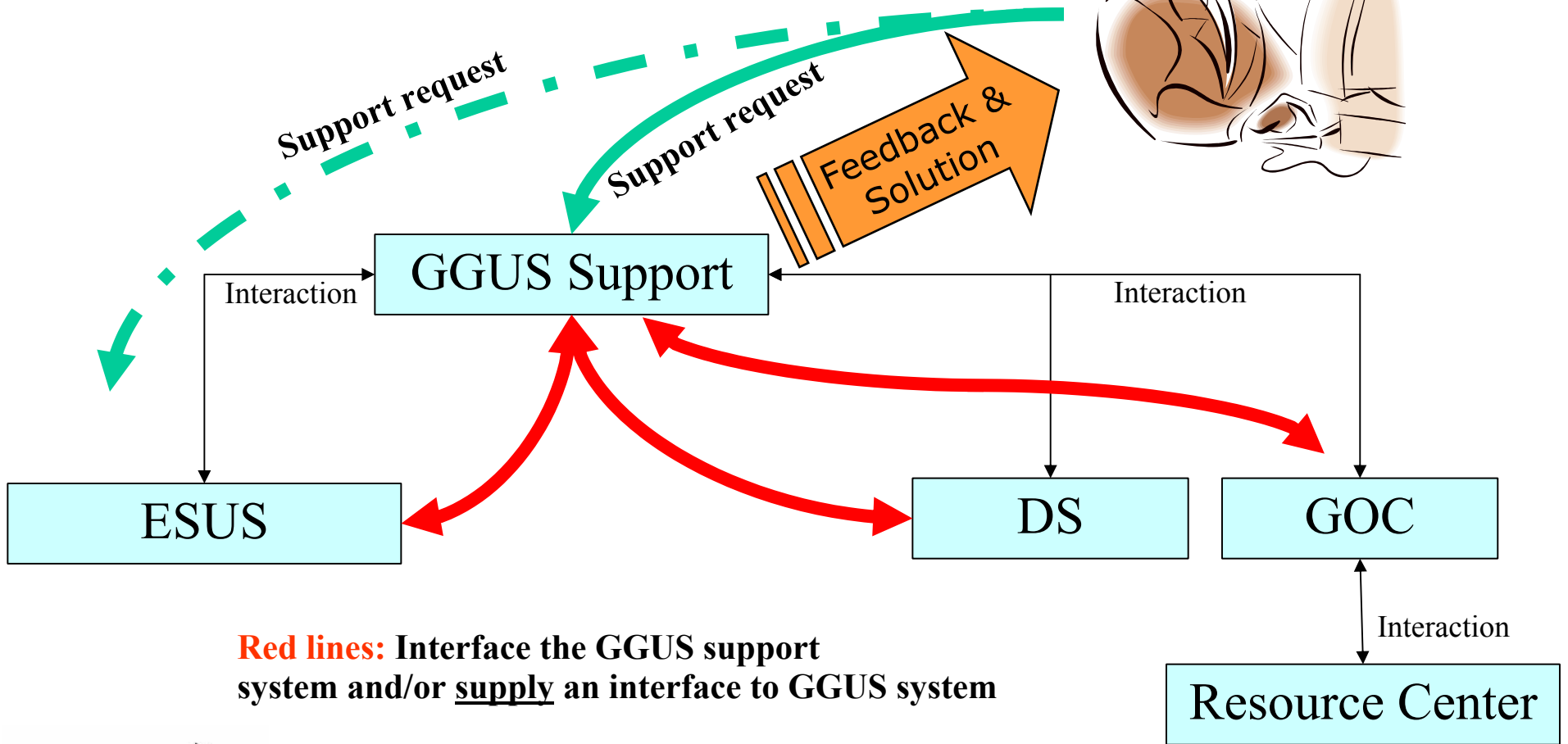
## Support Workflow (LCG)





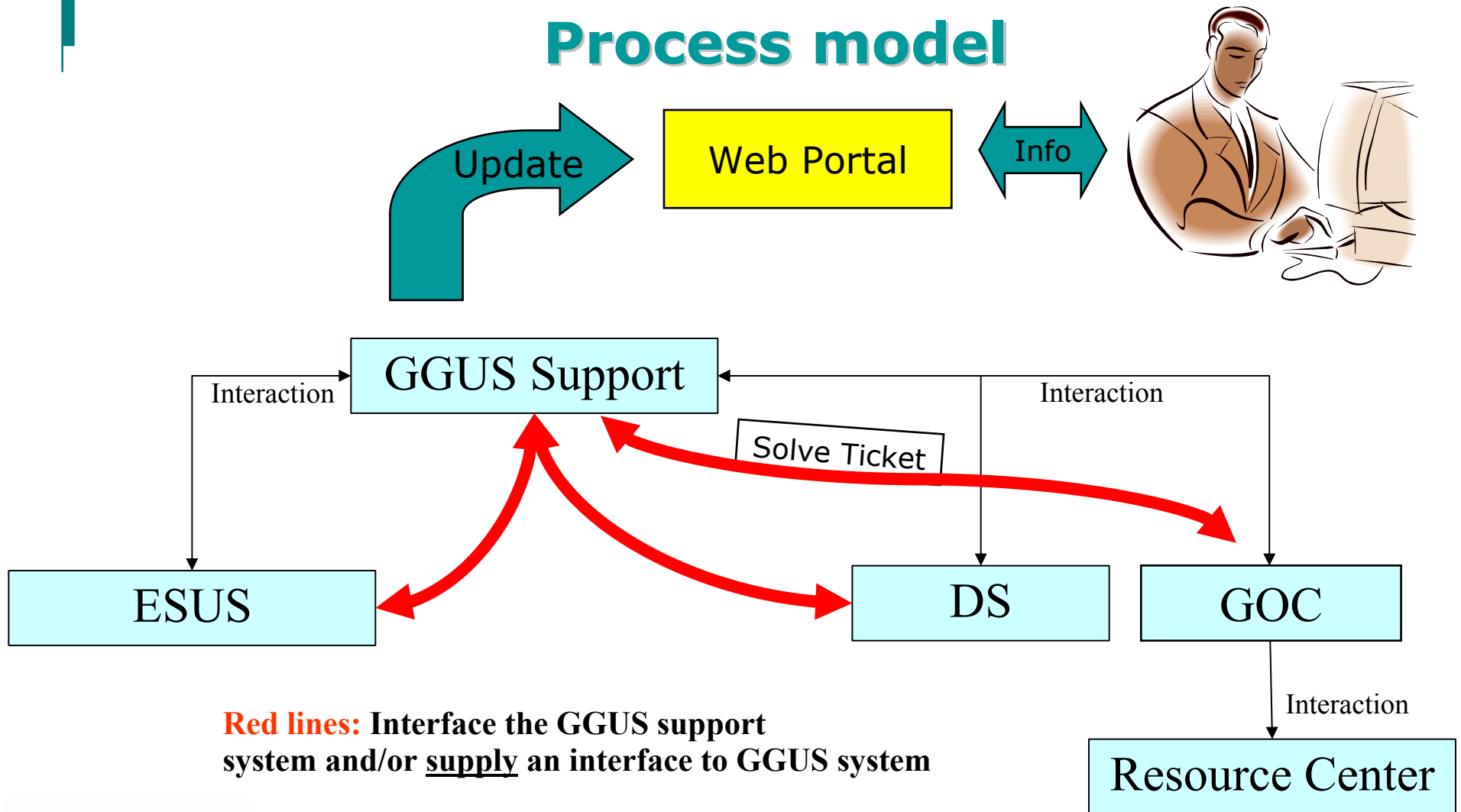


# Process model



**Red lines:** Interface the GGUS support system and/or supply an interface to GGUS system

## Process model



# GGUS

Operations  
Center

Regional  
Support

Regional  
Support

Regional  
Support

Infrastructure

**Regional  
Support  
Center**

(Support for Applications  
Local Resources)

**Resource  
Center**

(Processors, disks)

Grid server Nodes

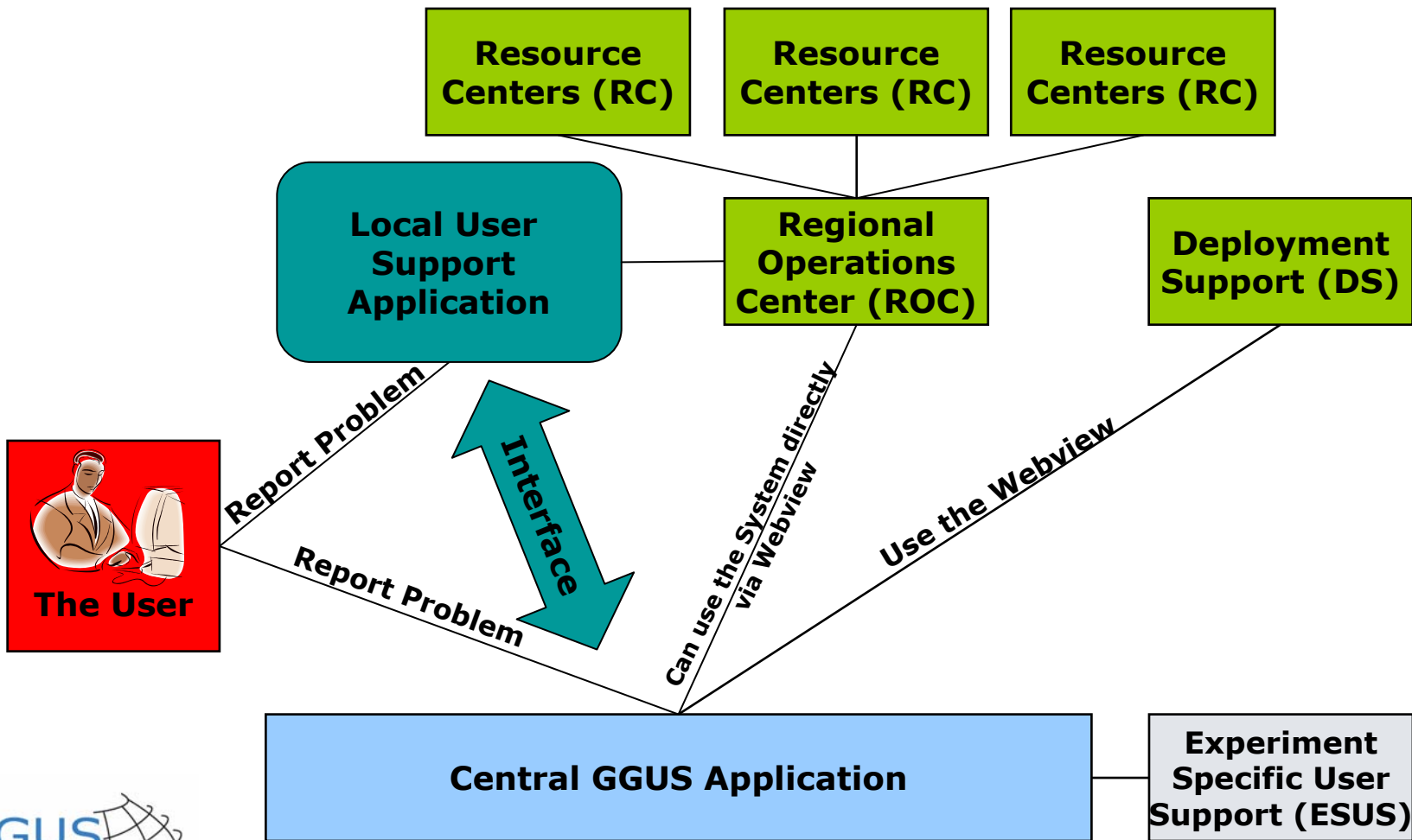
Resource  
Center

Resource  
Center

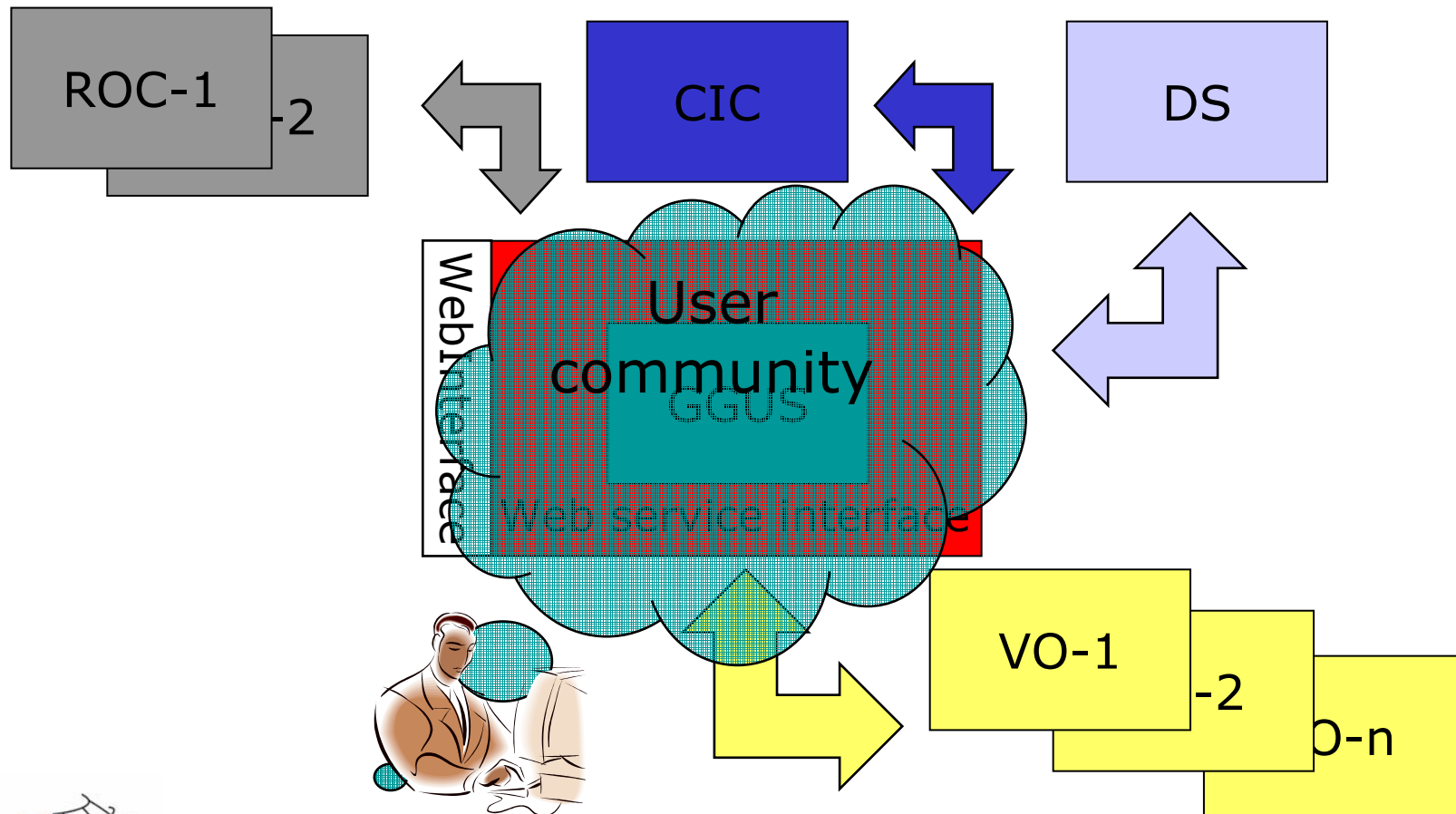
Resource  
Center

**EGEE Operations Structure**

# EGEE Support Concept

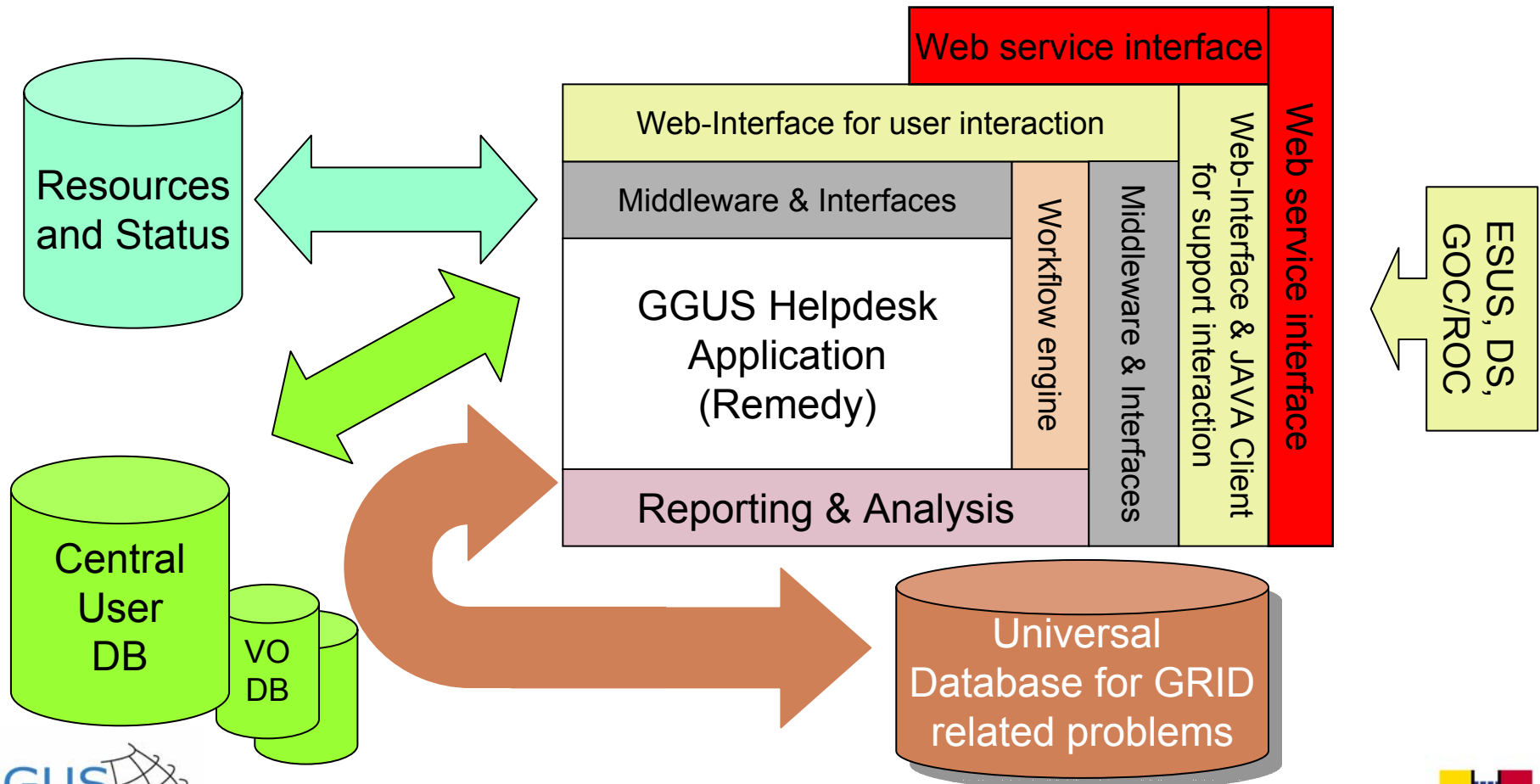


# Support in EGEE



# Architecture

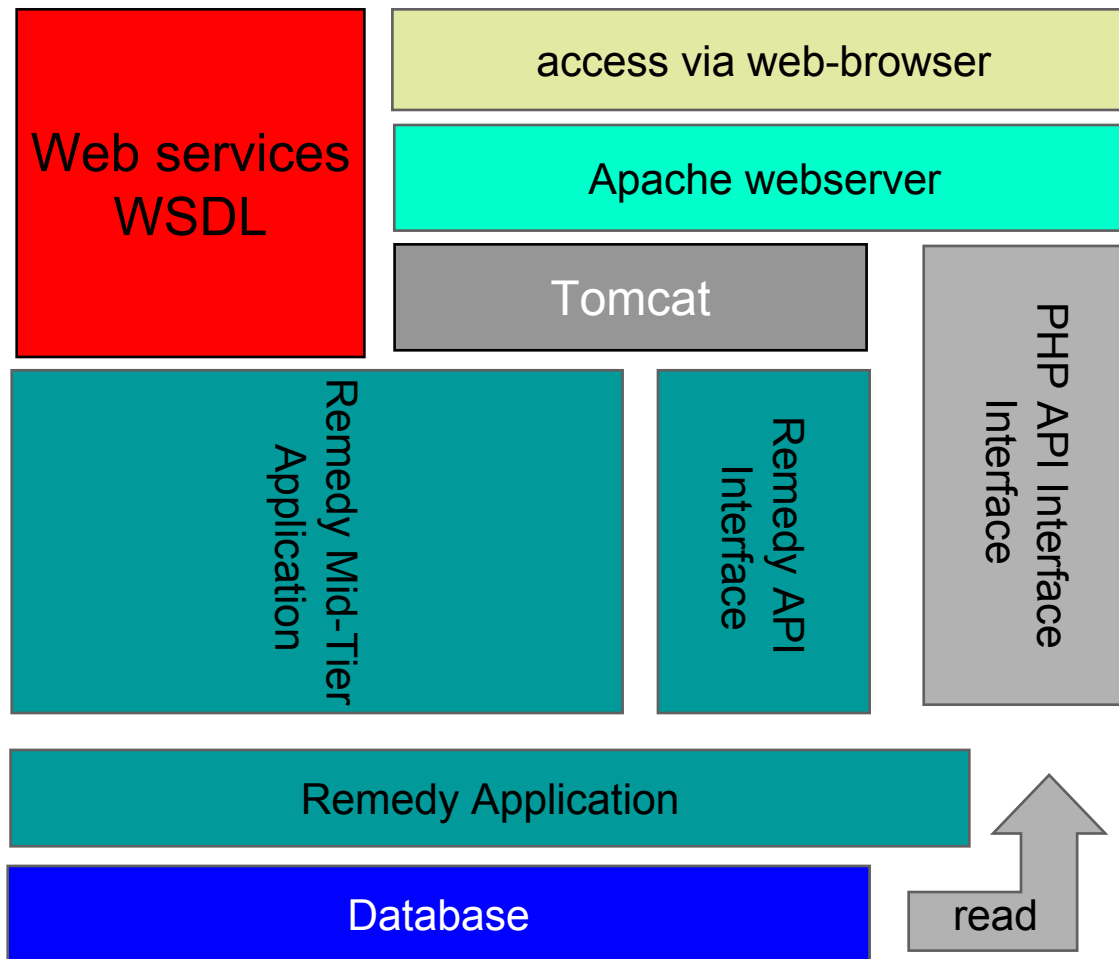
User



# Application model

- ✚ **SuSE Linux**
- ✚ **Apache 1.3.x**
- ✚ **Tomcat 4.1.x (because of Remedy)**
- ✚ **MySQL 4.0.x**
- ✚ **PHP 4.x**
- ✚ **Remedy 5.1 Server & Middleware**
  - Next Release will base on Remedy 6.0
- ✚ **Remedy 5.1 C/C++ API**
  - Next Release will base on Remedy 6.0
- ✚ **Oracle OCI 9.x with Oracle in a cluster environment**

# Application model





# Application model

- ✦ **Remedy directly provides Web Service Interface to**
  - ✦ **Create**
  - ✦ **Modify**
  - ✦ **Delete a service request**
- ✦ **Fast and reliable installation**
- ✦ **Use of standard tools for integration and development**
- ✦ **High amount of know how at Forschungszentrum**

## Current status

### GGUS Team

- ✚ 4 people at FZK
- ✚ 4 people at ASCC
- ✚ Teamed up with ASCC since April 2004
- ✚ Support time from 01:00 ~ 17:00 CET

## Current status

### Helpdesk application

- + **Release version 1.0 is deployed and operational**
- + **Workflows and escalations are running**
- + **Application is accessible via web interface and via windows client**
- + **User authentication via certificates and userid/password are in place**
- + **DS, GOC/ROC and ESUS may use a central application via the Web**

## Current status

### Web Portal

- ✚ **www.ggus.org is online since October 2003**
- ✚ **User interface to submit, modify and track tickets is deployed and operational**
- ✚ **News information system in preparation**
- ✚ **First version of FAQ system and a documentation section is online**
- ✚ **Monitoring and status information is available from LCG-2 Sites and local operations (GridKa)**

## Screenshots

- ✚ **GGUS-website "Home"**
- ✚ **GGUS-website "Submit a Service Request"**
- ✚ **Remedy web view for support staff**
- ✚ **Deep PBS monitoring interface**

**GGUS - Global Grid User Support - Netscape**

www.ggus.org

**GGUS**  
Global Grid User Support

Current Status | Documentation | Download | Support staff | Monitoring

**Welcome to Global Grid User Support**

**GOC LCG-2 Submission Status (via CERN RB)**

Site	Status
BHAM	●
BNL	●
BUDAPEST	●
CAMBRIDGE	●
CARLETONLCG02	●
CERN	●
CIEMAT	●
CNAF	●
CNRS / IN2P3 - LPC Clermont-Ferrand	●
CSCS	●
CYFRONET	●
Centro de Astrobiología (INTA)	●
DESY	●
Dept of Physics, Royal Holloway college, University of London	●
EKPLCG2	●
FNAL	●
FZK	●
Gesellschaft für Schwerionenforschung mbH	●
HELLASGRID	●
HPTC-LCG2	●
IFCA	●
IFIC	●

**Latest news**

GridKa - Thursday, 2004-07-15 6:54 UTC  
! Barbar12, CMS2, CDF2

GridKa - Tuesday, 2004-05-04 07:05 UTC  
Please check data on your homedirectories

GridKa - Wednesday, 2004-04-07 14:32 UTC  
GGUS access with certificate

Select news from center

Get information about the following Grid Computing Centers around the world:

Select a center

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File Bearbeiten Anzeigen Gehe Lesezeichen Extras Fenster Hilfe

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**GGUS**  
Global Grid User Support

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Home  
Submit a Service Request  
Track a Service Request  
Current Problems  
Read the FAQs  
Contact & Feedback

**Submit a Service Request**

**User information:**

Name: Helmut Dres E-Mail: helmut.dres@iwr.fzk.de  
CC to: Experiment: none

**Trouble Ticket:**

Date / Time of Problem: 2004 . 06 . 03 / 12 . 17 UTC local time and UTC information  
Short description (required):  
Describe your problem:  
Type of problem: please select Priority: very urgent  
Experiment specific problem?  yes  no  
Upload attachment: Durchsuchen...  
Submit your request

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Grid:HelpDesK - Mozilla Firefox

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3 entries returned - 3 entries matched

Ticket-ID	Name	Date/Time of problem	HEP-Experiment	Priority	Status
759	Marc Lob	2004-09-29 08:59	none	urgent	assigned
746	steve traylen	2004-09-10 16:54	none	Less urgent	in progress
745	Fokke Dijkstra	2004-09-10 13:19	egee	Less urgent	in progress

Refresh

Login:

Name:

E-mail:

Phone:

HEP-Experiment:

TicketID:

Responsible Unit:

Status:

Priority:

Changed by:

**Problem** | Attachments | Solution | Internals

**Short Description**  
Installationproblem: two scsi-cards

Description  
Dear GGUS-Team,  
on behalf of the IT/WM I'd like to ask you how it is possible to use two scsi-cards within the server-based installation of LCG2 SE:

Experiment specific problem  
 Yes  No

Type of Problem  
Software Problem

Date/Time of problem (UTC)  
2004-09-29 08:59

Show All Tickets

Show New Tickets

Show Open Tickets

Show Reopened Tickets

Show Solved Tickets

New Search

Start Search

Clear Fields

Save Changes

Help



Logout



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- Home
- Submit a Service Request
- Track a Service Request
- Current Problems
- Read the FAQs
- Contact & Feedback

**System Overview :**

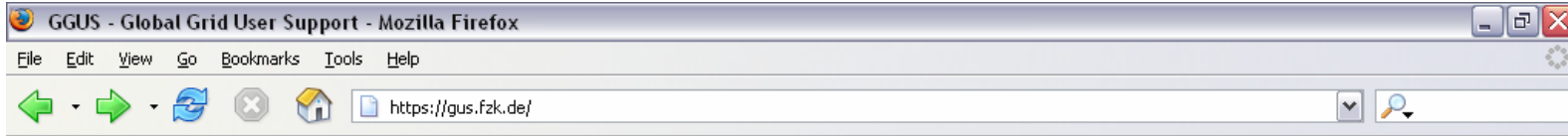
The current status of PBS GridKa at 2004-09-29 10:13:18 UTC+0200 :



The overall status is:	<span style="color: green;">●</span>	Monitoring GridKa:	Ganglia
PBS Status is:	Active	Held Jobs:	144
Max configured Jobs are:	998	Total Jobs in Queues are:	934
Running Jobs are:	790	Queued Jobs are:	0
Exiting Jobs are:	0	Wait Jobs in Queue:	0

**Systems Queues Overview :**

QueueName	Max Jobs	Total Jobs	Running Jobs	Queued Jobs	Max CPU	Wall Time	Hold Jobs	Wait Jobs	Trn Jobs	Ext Jobs	Queue Status
alice	1	0	0	0	02:00:00	02:00:00	0	0	0	0	ER
alicelcg	0	0	0	0	10:00:00	20:00:00	0	0	0	0	ER
atlaslcg	0	2	2	0	48:00:00	96:00:00	0	0	0	0	ER
babar_mg	6	1	1	0	120:00:0	168:00:0	0	0	0	0	ER
babar_sk	280	254	244	0	168:00:0	264:00:0	10	0	0	0	ER
default	300	0	0	0	00:20:00	01:00:00	0	0	0	0	ER
e-long	0	28	19	0	48:00:00	96:00:00	9	0	0	0	ER
lcg	0	0	0	0	01:00:00	02:00:00	0	0	0	0	ER
long	0	58	1	0	10:00:00	20:00:00	57	0	0	0	ER
short	0	591	523	0	01:00:00	02:00:00	68	0	0	0	ER


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Current Status
Documentation
Download
Support staff
Monitoring

	Job-ID	Machine	User-ID	Memory	CPU Used	Elap Time	State	Queue	NDS	TSK
<a href="#">Home</a>										
<a href="#">Submit a Service Request</a>	589866.pbs-server2	c01-003-112	atlasng	512mb	42:37:07	42:47:11	R	e-long	1	1
<a href="#">Track a Service Request</a>	590073.pbs-server2	c01-003-105	atlasng	512mb	42:10:22	42:24:37	R	e-long	1	1
<a href="#">Current Problems</a>	591251.pbs-server2	c01-003-104	atlasng	512mb	41:00:03	41:08:23	R	e-long	1	1
<a href="#">Read the FAQs</a>	591252.pbs-server2	c01-004-101	atlasng	512mb	40:59:27	41:08:44	R	e-long	1	1
<a href="#">Contact &amp; Feedback</a>	598492.pbs-server2	c01-001-101	lhcb001	--	21:26:39	21:36:00	R	e-long	1	1
	598509.pbs-server2	c01-001-105	lhcb001	--	21:14:25	21:21:30	R	e-long	1	1
	598516.pbs-server2	c01-010-104	aliproduct	--	01:12:01	21:18:12	R	e-long	1	1
	603192.pbs-server2	--	aliproduct	--	--	--	H	e-long	1	1
	603222.pbs-server2	--	aliproduct	--	--	--	H	e-long	1	1
	<a href="#">603404.pbs-server2</a>	--	aliproduct	--	--	--	H	e-long	1	1
	603628.pbs-server2	--	aliproduct	--	--	--	H	e-long	1	1
	603659.pbs-server2	c01-003-109	lhcb001	--	17:29:04	17:35:09	R	e-long	1	1
	603662.pbs-server2	c01-002-122	lhcb001	--	17:18:26	17:31:22	R	e-long	1	1
	606958.pbs-server2	--	aliproduct	--	--	--	H	e-long	1	1
	607164.pbs-server2	--	aliproduct	--	--	--	H	e-long	1	1
	608769.pbs-server2	--	aliproduct	--	--	--	H	e-long	1	1
	608782.pbs-server2	--	aliproduct	--	--	--	H	e-long	1	1
	608783.pbs-server2	--	aliproduct	--	--	--	H	e-long	1	1
	608825.pbs-server2	c01-005-117	lhcb001	--	13:36:27	13:45:31	R	e-long	1	1
	608889.pbs-server2	c01-005-108	lhcb001	--	13:28:17	13:42:50	R	e-long	1	1
	608915.pbs-server2	c01-002-127	lhcb001	--	13:23:58	13:32:24	R	e-long	1	1
	608997.pbs-server2	c01-001-105	lhcb001	--	09:39:48	09:42:07	R	e-long	1	1
	608998.pbs-server2	c01-001-110	lhcb001	--	09:29:21	09:31:05	R	e-long	1	1
	609101.pbs-server2	c01-001-103	lhcb001	--	05:27:16	05:28:45	R	e-long	1	1



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Job Id: 603404.pbs-server2  
Job\_Name = AliEn-439402  
Job\_Owner = aliproduct@101-001-114.gridka.de  
job\_state = H  
queue = e-long  
server = pbs-server2  
Checkpoint = u  
ctime = Tue Sep 28 16:06:52 2004  
Error\_Path = alice:/grid/fzk.de/alice/alice5/AliEn/logs/AliEn-439402.err  
Hold\_Types = s  
Join\_Path = n  
Keep\_Files = n  
Mail\_Points = a  
mtime = Tue Sep 28 16:15:23 2004  
Output\_Path = alice:/grid/fzk.de/alice/alice5/AliEn/logs/AliEn-439402  
Priority = 0  
qtime = Tue Sep 28 16:06:52 2004  
Rerunable = True  
Resource\_List.cput = 48:00:00  
Resource\_List.help\_run = 1  
Resource\_List.long\_e = 1  
Resource\_List.ncpus = 1  
Resource\_List.nodect = 1  
Resource\_List.pcpus = 48:00:00  
Resource\_List.tmp = 1mb  
Resource\_List.walltime = 96:00:00  
Variable\_List = PBS\_O\_HOME=/grid/fzk.de/home/aliproduct,PBS\_O\_LANG=en\_US,  
PBS\_O\_LOGNAME=aliproduct,  
PBS\_O\_PATH=/grid/fzk.de/home/aliproduct/.alien/software/Installation/alie  
n/bin:/grid/fzk.de/software/alice/bin:/opt/globus/bin:/opt/globus/sbin:  
/usr/local/bin:/bin:/usr/bin:/usr/X11R6/bin:/usr/local/bin:/usr/local/f

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## Outlook

- ✚ **Updated Helpdesk application (based on Remedy release 6.0)**
  - ✚ Enhancements based on user and support feedback
  - ✚ Provide a simple interface for other helpdesk systems (short term)
  - ✚ Update Apache & PHP
- ✚ **Develop a web-services interface to other helpdesk applications**
- ✚ **Implement the knowledge base**
- ✚ **Start providing support for EGEE community**
- ✚ **Search for a third partner in the US to achieve the goal of 24h support → Currently under way**
- ✚ **Work more closely with the GGF support working group**

## Access to GGUS

- ✚ **GGUS web portal: <http://www.ggus.org>**
- ✚ **Email: [support@ggus.org](mailto:support@ggus.org)**
- ✚ **Phone FZK: +49 7247 828383**
- ✚ **Support time:**
  - **ASCC: Mon. to Fri. 0:00 to 08:00 UTC**  
(local time: 8 am to 4 pm)
  - **FZK: Mon. to Fri. 7:00 to 15:00 UTC**  
(local time: 9 am to 5 pm)