

The Italian Regional Helpdesk System

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- **Overview of the system**
 - Framework
 - Base features
- **Extended features**
 - Custom fields
 - Web service interface
 - Interface with external systems
- **Conclusions**

- **The Italian Regional Ticketing System is built inside a OO CMS called XOOPS**
- **One of the available XOOPS modules (XHELP) provides a basic Ticketing System**
- **We extended the basic functionalities of XHELP in order to cope with the EGEE requirements**
 - Additional custom fields
 - Web service interface

- **XOOPS is a well known CMS completely open source and maintained by a very large community**
- **It's built on the standard "triad": Apache+PHP+MySQL**
- **XHELP already has almost all is needed for a ticketing system**
- **XHELP is completely integrated into XOOPS**
 - Single Sign On
 - Interaction with other modules (FAQ,WIKI,RSS etc..)

- **Possibility to define any number of support departments**
- **Users can be registered as department “staff members”**
- **Actions on tickets depend on staff member’s privileges (browser, ticket managers etc..)**
- **Internal engine allows to trigger various actions when tickets get modified**
- **E-mail notifications upon actions on tickets**
- **Tickets can be created/modified using web interface or e-mail**



User Menu

- Administration Menu
- View Account
- Edit Account
- Notifications
- Inbox
- Logout

Main Menu

- Home
- Knowledge base
- Tickets**
- Summary
- Log Ticket
- My Profile
- View All Tickets
- Search
- View Reports
- News
- External News
- Wiki Pages
- Calendar
- Frozen Bubble

Department Tickets

- ALICE (1)
- CMT (5)
- CNR-PROD-PISA (1)
- CREAM-CE (3)
- DGAS (1)
- ESA-ESRIN (3)
- GRISU-COMETA-INAFC-T (1)
- GRISU-COMETA-INFN-LNS (1)
- GRISU-COMETA-ING-MESSINA (3)
- GRISU-COMETA-UNICT-DIIT (3)
- GRISU-COMETA-UNICT-DMI (1)

[Summary](#)
[Log Ticket](#)
[My Profile](#)
[Knowledge base](#)
[View All Tickets](#)
[Search](#)

Highest Priority Unassigned Tickets [View More Tickets](#)

ID:	GGUS-ID	Priority:	Subject:	Status:	Department:	Logged By:	Log Time:	Owner:
<input type="checkbox"/> 6078			certificazione sito INFN-CS	On hold	INFN-CS	apaolini	2009/5/7 9:39:28	No owner
<input type="checkbox"/> 6899			Unknown SE implementation published	Waiting for reply	INFN-PISA	Paolo Veronesi	2009/10/20 12:02:34	No owner
<input type="checkbox"/> 7140			SNS authentication error	In progress	CMT	fcalzolari	2009/12/1 8:55:02	No owner
<input type="checkbox"/> 7259			submission error	In progress	CREAM-CE	gplatania	2010/1/7 8:37:58	No owner
<input type="checkbox"/> 7290			StoRM - come pubblicare una nuov...	In progress	CMT	fcalzolari	2010/1/12 14:25:40	No owner
<input type="checkbox"/> 6907			Area AFS per software esperimento	In progress	CMT	fcalzolari	2009/10/21 11:15:37	No owner
<input type="checkbox"/> 7109			multi problemi per i jobs theophys	In progress	CMT	tboccali	2009/11/25 12:46:34	No owner
<input type="checkbox"/> 7155			problema del 44444	On hold	INFN-MILANO-ATLASC	apaolini	2009/12/4 14:31:06	No owner
<input type="checkbox"/> 7326	54767		Job submission to CREAM failed	Assigned	CREAM-CE	GGUSTeam	2010/1/19 8:00:53	No owner
<input type="checkbox"/> 6961	52826		Shared Area problem at gridce.sn...	Reopened	SNS-PISA	GGUSTeam	2009/10/30 8:27:24	No owner

New Tickets [View More Tickets](#)

ID:	GGUS-ID	Priority:	Subject:	Status:	Department:	Logged By:	Log Time:	Owner:
<input type="checkbox"/> 7342	54833		SAM *CREAMCE-sft-job* failed on...	Assigned	INFN-ROMA1	GGUSTeam	2010/1/21 10:14:00	No owner
<input type="checkbox"/> 7341	54832		SAM *SRMv2-host-cert-valid* fai...	Assigned	INFN-CATANIA	GGUSTeam	2010/1/21 9:54:52	No owner
<input type="checkbox"/> 7340	54831		SAM *APEL-pub* failed on grid-e...	Assigned	ESA-ESRIN	GGUSTeam	2010/1/21 9:33:40	No owner
<input type="checkbox"/> 7339			SE con ruolo ClassicSE	New	INFN-ROMA3	misva	2010/1/20 15:22:45	No owner
<input type="checkbox"/> 7338			Verifica variabile Broker Info s...	In progress	INFN-ROMA1	misva	2010/1/20 14:57:14	No owner
<input type="checkbox"/> 7337			servizio obsoleto	In progress	GRISU-COMETA-ING-MESSINA	apaolini	2010/1/20 10:55:59	No owner
<input type="checkbox"/> 7336			servizio obsoleto	New	CNR-PROD-PISA	apaolini	2010/1/20 10:53:24	No owner
<input type="checkbox"/> 7335			servizio obsoleto	New	GRISU-CYBERSAR-CAGLIARI	apaolini	2010/1/20 10:50:07	No owner
<input type="checkbox"/> 7333	54789		SAM *CE-sft-lcg-rm* failed on g...	Assigned	INFN-FERRARA	GGUSTeam	2010/1/19 16:26:53	No owner
<input type="checkbox"/> 7332			problema informazioni	New	INFN-T1	apaolini	2010/1/19 16:22:31	No owner

Open Tickets Assigned to Me [View More Tickets](#)

No tickets found

My Submitted Tickets [View More Tickets](#)

ID:	GGUS-ID	Priority:	Subject:	Status:	Department:	Logged By:	Log Time:	Owner:
<input type="checkbox"/> 7332			problema informazioni	New	INFN-T1	apaolini	2010/1/19 16:22:31	No owner
<input type="checkbox"/> 7335			servizio obsoleto	New	GRISU-CYBERSAR-CAGLIARI	apaolini	2010/1/20 10:50:07	No owner
<input type="checkbox"/> 7336			servizio obsoleto	New	CNR-PROD-PISA	apaolini	2010/1/20 10:53:24	No owner

- **Custom fields have been added to the ticket schema in order to be compliant with EGEE/GGUS schema**
- **A SOAP interface has been developed in order to exchange tickets with other helpdesk systems**
 - NB. In principle an arbitrary number of ticket formats and in/out interfaces can be defined but...

We need to define and use a standardization for tickets format and communication

The screenshot shows a web browser window titled "EGEESA1 - Tickets - Mozilla Firefox" with the URL "http://gri52xl.to.infn.it/checklist-new/modules/xhelp/addTicket.php". The interface includes a navigation menu on the left with sections for "User Menu", "Main Menu", and "Department Tickets". The main content area is titled "Log Ticket" and contains a form with the following fields:

- Username:** rbrunetti (with a "Lookup User" icon)
- Assign To:** GGUS (dropdown menu)
- Priority:** Radio buttons for various priority levels
- Subject:** Text input field
- Description:** Large text area
- Add File:** File selection button labeled "Sfoglia..."
- VO:** None (dropdown menu)
- VO specific problem:** Radio buttons for Yes and No (No is selected)
- Category:** Other (dropdown menu)
- Responsible Unit:** TPM (dropdown menu)
- User notification:** Solution (dropdown menu)
- Submitter mail:** Text input field
- Share with:** Text input field
- Related issue:** Text input field

A red circle highlights the "VO specific problem" field. At the bottom of the form, there is a section for "Available Filetypes" with a list: sh, tar, gtar, zip, doc, pdf, csh, src, bmp, gif, jpeg, jpg, jpe, png, tiff, tif, html, txt, rtf, log, jdl, gz, tgz.

- **The interface with the external helpdesks is based on Web services.**
 - Before July 2009:
 - Input : e-mail + external e-mail parser
 - Output: integrated web service client
 - Now:
 - Input: integrated web service server
 - Output: integrated web service client
- **The same input web service interface can be used to communicate with other regional helpdesk systems and/or other operational tools (dashboards etc..)**

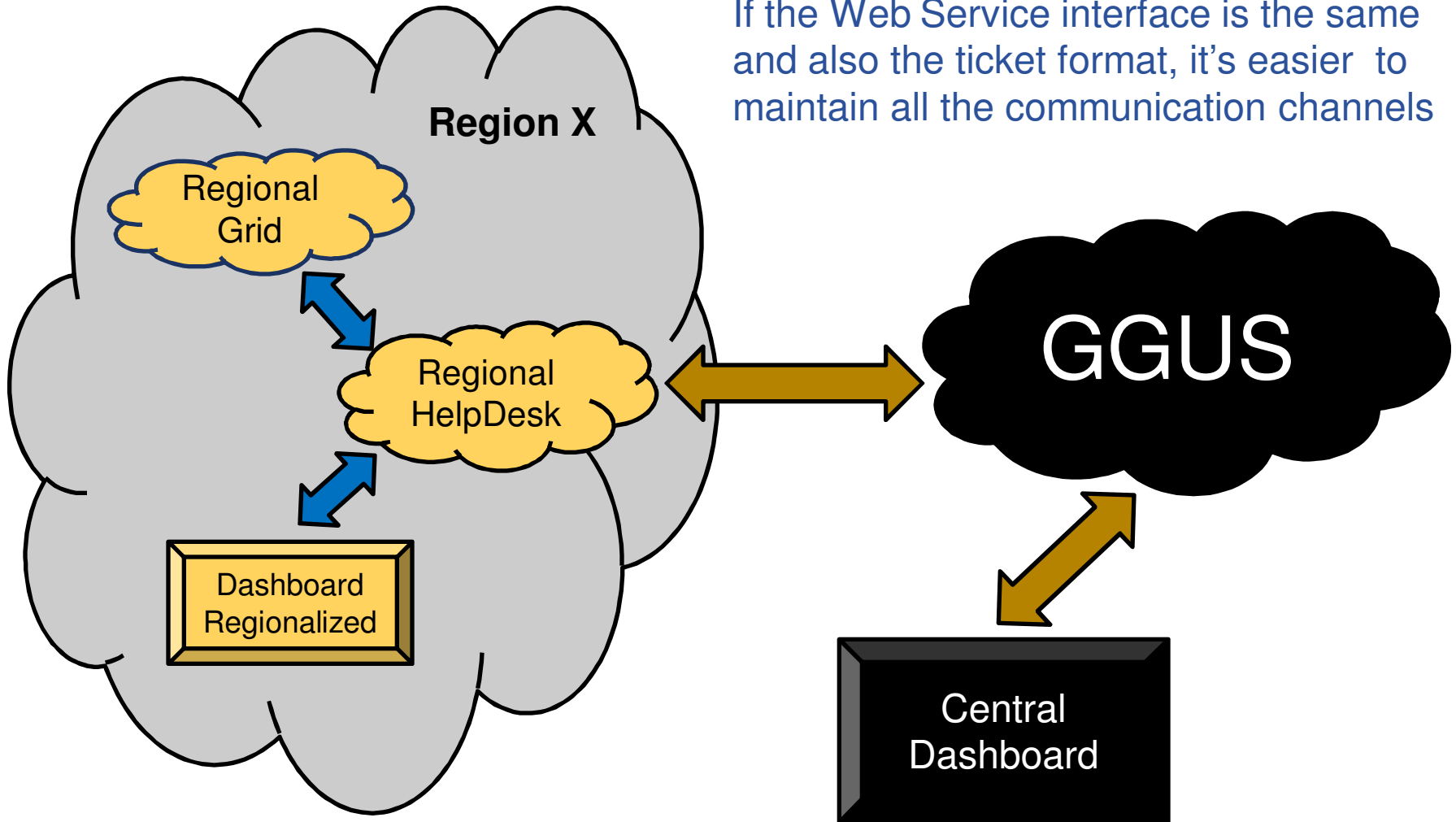
- **Both client and server use the native PHP5 SOAP libraries**
- **The Web service exposes the same interface as GGUS (same methods and attributes)**
 - OpCreate
 - TicketModify
- **Tickets in the local system and in the remote systems are kept synchronized using the ticket-id**
 - I.e. When a ticket from GGUS comes in, a new internal ticket is created and the pair (GGUS-ID, internal-ticket-id) is used to manage the following workflow

1. **A ticket is opened on GGUS and assigned to ROC_Italy**
 - A new ticket is created and assigned to the generic GGUS department
2. **A ticket is opened on GGUS and assigned to (ROC_Italy, INFN-TORINO)**
 - A new ticket is created and assigned directly to INFN-TORINO
3. **A new ticket is created on the local helpdesk and assigned to (GGUS, SuppX)**
 - A new ticket is created on GGUS and assigned to SuppX
4. **An existing internal ticket is modified to become a GGUS ticket for SuppX**
 - A new ticket is created in GGUS and assigned to SuppX
5. **A ticket has been wrongly assigned to ROC_Italy**
 - The ticket can be placed in “Reassigned” state. It means “closed” in the internal system, but not in GGUS. In case the future modification can be propagated back to XOOPS/XHELP

- **The dashboard that is now centrally used is interfaced through web service with GGUS.**
- **The web service now available for the Italian ticketing system is the same as GGUS**
 - It should be not so difficult to interface the regional dashboard with the regional ticketing system.
 - Need to understand better the role of Lavoisier

Interface with External Systems

If the Web Service interface is the same and also the ticket format, it's easier to maintain all the communication channels



- **The Italian regional helpdesk is based on XOOPS/XHELP**
- **The system was customized to fulfill the requirements of both the international and national user communities, and of the NGI site managers**
- **The system is fully interfaced with the EGEE central helpdesk and support a variety of ticket workflow types**
- **The web service currently exposed by the system facilitates its direct integration with the regional dashboard**
- **We recommend it to new NGIs willing to operate a local helpdesk, we can provide support if needed.**
- **The system requires ongoing maintenance to keep pace with the evolution of the user requirements and of relevant operations tools**