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Recommended regional helpdesk approach for interfacing with GGUS system

Version	Authors	Date	Comments
0.1	Guenter Grein	17/11/2008	First draft

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1. Introduction

This document provides a technical description on how to interface a regional help desk system with GGUS. It describes the interface of choice and gives some examples for tools that can be used to reach this goal.

It does not give a description of the things to be done on management level before implementing an interface to GGUS. As the things to be done on management level are currently not documented please send an email to usag@cern.ch or add your request for interfacing GGUS system to the ESC shopping list at <https://savannah.cern.ch/support/?func=additem&group=esc>. The ESC shopping list is a savannah project for collecting and discussing change requests for GGUS system.

2. Basics

In the past many interfaces of GGUS to other systems were at least partially based on email exchange. As email exchange is not as reliable as necessary the goal is to replace email interfaces by a SOAP web services interface. The SOAP web services are described in chapter 4 Web services

In future there may also be a GridMessaging interface, but although this is on the to-do list of GGUS developers this is not implemented in GGUS up to now. GridMessaging is defined as a communication standard for EGEE III by OAT.

3. Tools

For implementing a help desk system to be interfaced with GGUS system many tools are available. Tools which are already in production are:

Xoops,
OneorZero,
Footprints,
Request Tracker.

Up to now there is one system in production that provides web services itself and could also consume web services of GGUS system. This system is using a “OneorZero” tool. This implementation of “OneorZero” is the help desk system of choice recommended by GGUS at the moment.

4. Web services

Remedy ARS is able to provide web services as well as to consume web services. So data transfer can be done by web services in both directions.

4.1 Web services provided by a remote system

As an example for web services provided by a remote system the web services of ROC SW help desk system are described here.

The SW web services use a document/literal wrapped style. This style offers enough information on the WSDL and SOAP message and the operations and their parameters. The only restriction is the impossibility to use overloading (same name for operations with different parameters).

The operations related to the communication between GGUS web services and the SW helpdesk web services are the following (the input and output fields for the operations can be obtained from the WSDL document <http://swegus.ific.uv.es/SWEws>).

- **opCreate:** is used to create a new ticket. Is mandatory to fill the `Short_description` parameter as input parameter. Any other parameter is optional. With this information the system creates the ticket and returns the value of the local ID. The ticket ID in GGUS should be provided in order to allow the identification of the ticket at GGUS with the copy ticket at SW helpdesk. However, the GGUS ID can be provided with the `opCreate` operation or with the `TicketModify` operation, setting the field `Origin_ID`.
- **TicketGet:** to obtain information of a ticket. With the `Request-ID` field (local ID) as input, the system returns an Array with the values for the fields for the ticket.
- **TicketModify:** to modify the ticket. The general mandatory field is `Request-ID`. Additionally there are other mandatory fields in case the `Status` field is set to “solved”: `Solution__short_form` or `Solution__long_form`. The other fields are optional. The return value is the local ID.

Additionally, the WSDL document describes operations used for internal and local use and not needed for the GGUS-SW communication: `OpGetList`, `AuxValues`, `getSupporters`, `getSites`.

The SW helpdesk uses the same system for the local tickets, i.e., tickets only related to the local SW Sites and that can be solved internally. Only when the ticket can not be solved locally, is send to GGUS using the `TicketModify` operation with the field `Status` set to “toggus”. Then the workflow continues as a GGUS ticket.

The external user can connect to the web services once is validated. Only these users can use these methods. Besides that, there are different users levels according to the information about the user obtained from the GOCDB or/and the local helpdesk.

The web services do not require additional input. Once the external user is validated and fulfilled the mandatory fields, the operations are executed. The correct resolution and ending of the operation will depend on the coherence of the values, completely independent of the web services, or on the implementation of the correct workflow.

4.2 Web services provided by GGUS system

The web services provided by GGUS system offer four different operations for

- creating a new ticket (OpCreate),
- modifying an existing ticket (TicketModify),
- getting data of one existing ticket (TicketGet) and
- getting a list of existing tickets (OpGetList).

These operations can be used for retrieving and modifying data in GGUS system. A detailed description of all the fields and their meaning is given in [Mappings for GGUS webservice.pdf](#).

4.2.1 Examples and documentation

Examples of interfaces in production are available for tools based on PHP and Perl. They can be found at XXXXXX. There is also information about available tools used for help desk systems to be interfaces with GGUS system on this page. For accessing it a valid grid certificate is necessary.

4.2.2 Developing and testing

For developing and testing an interface to GGUS there is a test and training system which can be used. This system is a copy of the production system. The WSDL-file for the web services provided for this test and training system can be found at http://iwrgustrain.fzk.de/arsys/WSDL/public/iwrgustrain/Grid_HelpDesk. For further information please contact support<AT>ggus.org.