



# EOSC Hub Technical Specification

## *Federation Services*

## Helpdesk

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### Abstract

The EOSC Helpdesk service is the entry point and ticketing system/request tracker for issues concerning with the available EOSC services. It works as a unified ticketing system by managing the requests for different services or resources providers from a common standalone service. It provides a 1st level support for all EOSC services and a dedicated 2nd level support for services in the EOSC Hub Portfolio (e.g. Marketplace, AAI system, Monitoring, ...). EOSC Services can use EOSC Helpdesk choosing one of three integration paths: 1) Direct usage, 2) Ticket redirection, 3) Full integration.



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## DELIVERY SLIP

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## DOCUMENT LOG

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## TERMINOLOGY

<https://wiki.eosc-hub.eu/display/EOSC/EOSC-hub+Glossary>

<i>Terminology/Acronym</i>	<i>Definition</i>

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# 1 Introduction

The EOSC Helpdesk is the entry point and ticketing system/request tracker for issues concerning with the available EOSC services.

The features of the EOSC Helpdesk can be grouped by two target groups.

Main features offered to the user are:

- Creation of a ticket for any of the EOSC Services (Hub and EOSC Portfolios)
- Display all the tickets created by the owner
- Find a previously created ticket
- Notify the user of answers and changes to the tickets
- Access integrated with the EOSC Portal AAI system

Features offered to the Helpdesk Team are:

- Notification when a new ticket is created
- Classification of the tickets
- Escalation of the tickets
- Creation of a new support unit<sup>1</sup> with assignation of an administrator role to specific users
- Management of incident or disruption of Hub services
- Interface for communicating with other service providers ticketing systems
- First level support for EOSC integrated services as a service
- Interface with a Known Errors Database and with a Change Management Database

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<sup>1</sup> A support unit allows to identify tickets for a specific service. A dedicated team of supporters can be associated to a support unit.

## 2 High-level Service Architecture

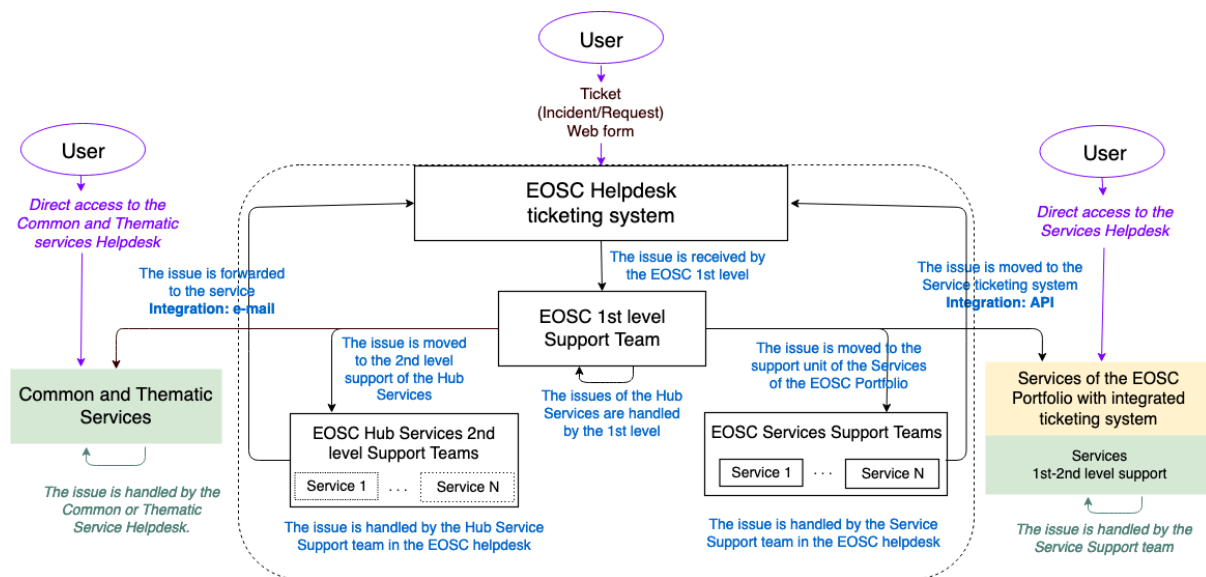


Figure 1. High-level architecture of the EOSC Helpdesk

The EOSC Helpdesk service, as part of the EOSC Federating Core, works as a unified ticketing system by managing the requests for different services or resources providers from a common standalone service.

The EOSC Helpdesk provides a 1st level support for all EOSC services and a dedicated 2nd level support for services in the EOSC Hub Portfolio (e.g. Marketplace, AAI system, Monitoring, ...). Services of the EOSC Portfolio<sup>2</sup> can use EOSC Helpdesk choosing one of the following integration paths as shown in the figure above:

1. **Direct Usage:** Use directly the EOSC helpdesk as the ticketing system for the service ("EOSC Services support team" box in the dashed rectangle in the picture).
2. **Ticket Redirection:** Use the EOSC helpdesk only as a contact point to redirect the entry request for the specific service to a mailing list or 2nd level ticketing system ("Common and Thematic services" in the picture). In this case, the EOSC Helpdesk central service would simply redirect by e-mail the incoming tickets to the external system.
3. **Full Integration:** Integrate the service ticketing system with the EOSC helpdesk infrastructure to have full integration of the service Trouble Ticketing System (TTS) with the EOSC helpdesk ("Services in the EOSC Portfolio with integrated ticketing system" in the picture).

Services in the EOSC Portfolio should directly manage the 2nd level of support providing adequate human resources independently by the chosen integration path.

<sup>2</sup> Services in the EOSC Hub Portfolio support the operations of the EOSC and EOSC Portal. Services of the EOSC Portfolio are all the other EOSC services. For more details refer to the EOSC-hub D2.6: <https://www.eosc-hub.eu/deliverable/d26-first-service-roadmap-service-portfolio-and-service-catalogue-approved-ec>

Each of the Helpdesk systems has its own database. The Helpdesk databases belonging to the EOSC Hub services or EOSC Portfolio services directly using the Helpdesk ("Direct usage" integration path) share the same infrastructure (marked with the dashed rectangle in the graph above). As a consequence, when the Helpdesk infrastructure is shared, the communication with the central Helpdesk database is direct.

For services with a Helpdesk in different infrastructures the integration towards EOSC is performed via interface and established protocols and APIs (in case of x-GUS and RT, the interface is SOAP), as indicated in the table below and shown as a yellow rectangle in the figure above. In the case a service maintains its own independent Helpdesk system, the user can directly access the external Helpdesk system. The Central system receiving tickets for services that chose the "Ticket redirection" integration path would redirect the incoming tickets by e-mail.

### 3 Adopted standards

Coherence of information between systems and communication among them need a specified standard integration protocol.

Protocol/API	Short description	References
X-GUS protocol implemented over SOAP	SOAP method that allows communication between two helpdesk systems.	<a href="https://wiki.egi.eu/wiki/GGUS:SOAP_Interface_FAQ">https://wiki.egi.eu/wiki/GGUS:SOAP_Interface_FAQ</a>

Information about the structure and the semantics of the exchanged messages can be found in the referenced document.

### 4 Interoperability guidelines

For new services, there are three levels of interoperability corresponding to the three integration paths described above:

1. **Direct Usage:** Use directly the EOSC helpdesk as the ticketing system for the service. It implies the creation of accounts for the service owners and service responsible in order to receive the request and be able to answer them from the EOSC Helpdesk system.
2. **Ticket redirection:** Use the EOSC helpdesk only as a contact point to **redirect** the entry request for the specific service to a mailing list or 2nd level ticketing system, without further integration.
3. **Full integration:** Integrate the service ticketing system with the EOSC helpdesk infrastructure to have **full integration** of the service TTS with the EOSC helpdesk (see next

section). For this level of integration, the new services that should be made interoperable with the EOSC helpdesk will need to synchronize both endpoints via the interface specified and available at the main service infrastructure.

EOSC-hub developed a central helpdesk for EOSC using the XGUS technology. This helpdesk is currently offered through the EOSC Portal to providers during the service onboarding process. It can be found at: <https://helpdesk.eosc-hub.eu> and it is accessible through the EOSC Portal AAI.

This central Helpdesk has been already integrated to EUDAT (RT) and EGI (GGUS) helpdesks (Full Integration option). New services joining the EOSC Portal can already use XGUS as helpdesk selecting one of the options described above.

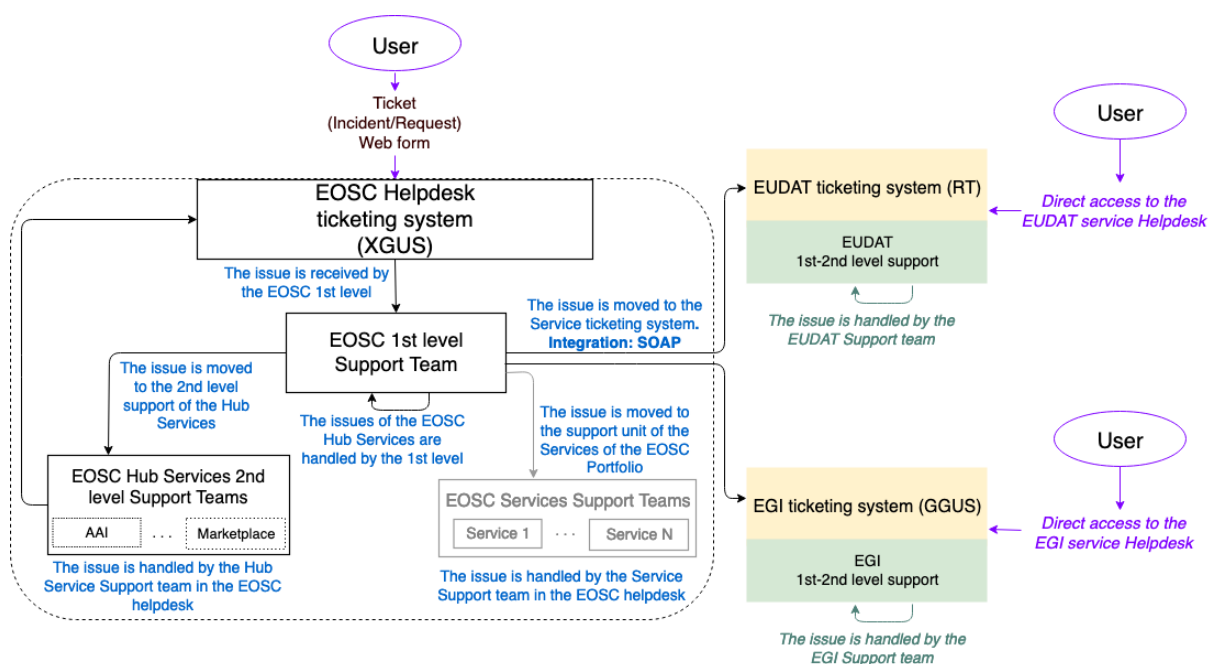


Figure 2. Current deployment of the EOSC Helpdesk

Currently, a service provider can decide to adopt the EOSC Helpdesk during the onboarding process. The request should be expressed filling in the Service Description Template<sup>3</sup>.

The EOSC Portal onboarding team will register the request and put the service provider in contact with the Helpdesk team. The first two integration options (Direct Usage and Ticket Redirection of the EOSC helpdesk) will only require configurations on the central helpdesk. The XGUS support team will take care to gather the needed information from the service provider and to configure the central helpdesk accordingly.

If the provider selects the third integration option (Full Integration), a SOAP interface has to be developed following the xGUS specification available at [https://wiki.egi.eu/wiki/GGUS:SOAP\\_Interface\\_FAQ](https://wiki.egi.eu/wiki/GGUS:SOAP_Interface_FAQ).

Integration procedures are detailed in the last section of the document.

<sup>3</sup> <https://wiki.eosc-hub.eu/display/EOSC/Service+Provider+Documentation>

## 5 Examples of solutions implementing this specification

xGUS has been used by EOSC-hub to implement this specification. Details are available at <https://xgus.scc.kit.edu/>.

The EUDAT (RT) Helpdesk (<http://helpdesk.eudat.eu/>) system is already integrated with the EOSC-hub Helpdesk using the SOAP interface provided by xGUS. In this case, four RT scripts have been implemented in order to achieve a full integration:

- Owner change in RT is updated in xGUS
- Priority change in xGUS is updated in RT
- Status and priority changes in xGUS are updated in RT
- Status change in RT is updated in xGUS

The interface is described in the following WSDL, which can be located at [https://train-ars.ggus.eu/arsys/WSDL/public/train-ars/XGUS\\_EOSCHub](https://train-ars.ggus.eu/arsys/WSDL/public/train-ars/XGUS_EOSCHub). This webservice uses a local authentication (username and password) in order to accept the communication.

### 5.1 Procedure to integrate a service with the EOSC Hub Helpdesk

The procedure to integrate a service in the EOSC helpdesk is the following, some steps are required only for the **Direct usage** and **Full integration** integration options.

1. Create in the xGUS Helpdesk service the Support Unit for the new service or infrastructure.
2. Assign to the Support Unit the contact points to be notified when a request is assigned to the Support Unit.
3. If the service owner/responsible wants to use xGUS as their own ticketing system (Direct usage integration), it implies the creation of user accounts for the required people and the grant of the permissions to see and answer any request/incident assigned to their support unit.
4. Only for the services/infrastructures interested in the full integration, it implies to develop the required scripts in their own ticketing system to communicate with the xGUS soap interface, for this point the xGUS responsible will need to create a specific user/password for the service/infrastructure in order to make the connection.