

EISCAT 3D user authentication and authorization

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EISCAT Scientific Association

User meeting 16 Dec 2020

$AA(A)I$

Who is trying to access our data?

AA(A)I = Infrastructure for

1. **Authentication**: Who is the user? Identity
2. **Authorization**: Grant access to resources depending on who the user is
3. (Accounting: e.g. who has downloaded what)

Authentication

- ▶ EU
- ▶ China
- ▶ Japan
- ▶ US
- ▶ etc

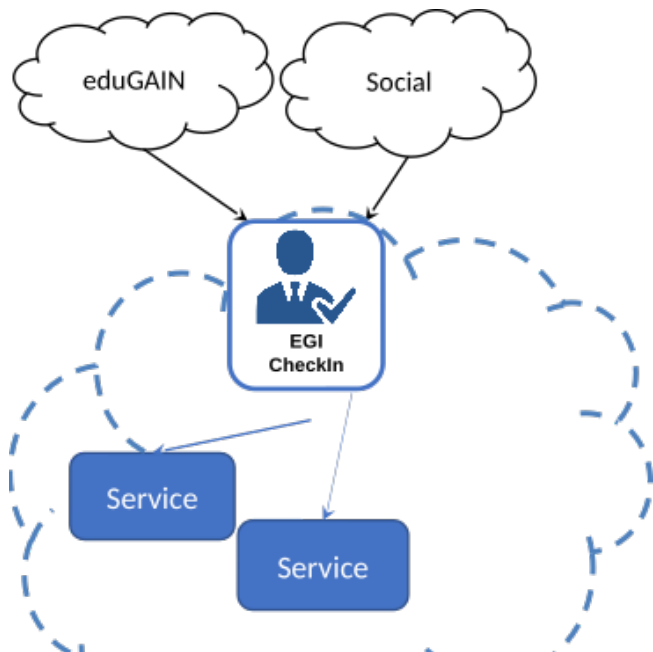
Who is the user

- ▶ A chain of trust
- ▶ Identity providers
 - ▶ Ultimately responsible for providing user credentials
 - ▶ Different Levels of Assurance (LoA)

Examples of ID providers

- ▶ Institutional IDs
- ▶ Social logins
- ▶ Google account
- ▶ OrCID

Connecting to ID providers: EGI CheckIn as ID proxy





Check-in

Welcome to Check-in.

LOGIN 



[Terms](#) [Privacy](#)

Copyright © 2016-2020 | Check-in is an EGI service provided by GRNET, receiving funding from the [EGI Foundation \(EGI.eu\)](#) and the [EOSC-hub project](#) (Horizon 2020) under Grant number 777536 | Powered by [RCIAM](#)

Figure 2: Checkin login page

EGI Checkin account page, example

The screenshot displays the EGI User Community interface for editing the profile of Carl-Fredrik Enell. The page layout includes a left sidebar with navigation links for People, Groups, and Collaborations. The main content area is titled 'Edit Carl-Fredrik Enell' and contains several sections: Name (Carl-Fredrik Enell), Identifiers (with a red text overlay 'My unique ID' pointing to 'cenell (UITS)'), Email Addresses (carl-fredrik.enell@irf.se), Certificates, and URLs. A right sidebar contains a link to 'Review Acceptable Use Policy'. The footer shows the URL 'https://asi.egi.eu/registry/co_people/canvas/Q189#tabs-identifier_ups' and a 'Manage Group Memberships' link.

EGI User Community

Home > EGI User Community > My Population > Carl-Fredrik Enell

Edit Carl-Fredrik Enell

Name
Carl-Fredrik Enell (Primary, Official)

Identifiers
cenell (UITS) [View](#)

Email Addresses
carl-fredrik.enell@irf.se (Official, Verified) [View](#)

Certificates

URLs

[Review Acceptable Use Policy](#)

https://asi.egi.eu/registry/co_people/canvas/Q189#tabs-identifier_ups [Manage Group Memberships](#)

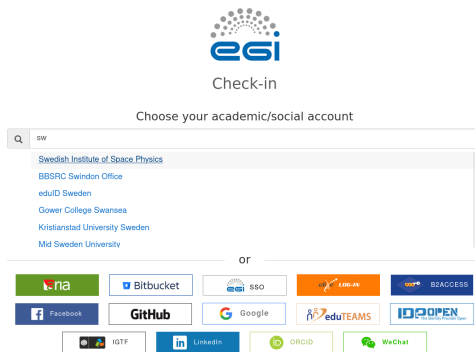
Figure 3: Checkin account page

Identity providers linked to EGI account

	https://openidconnect.egi.eu/	https://openidconnect.egi.eu/	
Carl-Fredrik Enell	https://idpshibboleth.iri.se/idp/shibboleth	IRF	(epuid)
Carl-Fredrik Enell	https://aai.egi.eu/orcid/saml2/idp/metadata.php	OrcID	(epuid)
Carl-Fredrik Enell	https://aai.egi.eu/github/saml2/idp/metadata.php	Github	(epuid)
Carl-Fredrik Enell	https://aai.egi.eu/github/saml2/idp/metadata.php		(epuid)
Carl-Fredrik Enell	https://aai.egi.eu/google/saml2/idp/metadata.php	Google	(epuid)
Carl-Fredrik Enell	https://aai.egi.eu/linkedin/saml2/idp/metadata.php	Linkedin	(epuid)

Figure 4: Carl-Fredrik's IdPs

Authenticating via EGI Checkin



The screenshot displays the EGI Check-in interface. At the top is the EGI logo, consisting of a semi-circle of dots above the text 'egi'. Below the logo is the text 'Check-in'. A heading 'Choose your academic/social account' is centered above a search bar. The search bar contains the text 'SW'. Below the search bar is a list of search results: 'Swedish Institute of Space Physics', 'BBSRC Swindon Office', 'eduID Sweden', 'Gower College Swansea', 'Kristianstad University Sweden', and 'Mid Sweden University'. Below the list is a horizontal line with the word 'OR' in the center. Below this line is a grid of 14 buttons for different authentication providers: 'ria', 'Bitbucket', 'SSO', 'E.ON-AN', 'BRACCESS', 'Facebook', 'GitHub', 'Google', 'eduTEAMS', 'IDOPEN', 'IGTF', 'LinkedIn', 'ORCID', and 'WeChat'.

egi

Check-in

Choose your academic/social account

Q SW

Swedish Institute of Space Physics

BBSRC Swindon Office

eduID Sweden

Gower College Swansea

Kristianstad University Sweden

Mid Sweden University

OR

ria Bitbucket SSO E.ON-AN BRACCESS

Facebook GitHub Google eduTEAMS IDOPEN

IGTF LinkedIn ORCID WeChat

Figure 5: Checkin ID provider selection

EGI Checkin with institutional login



Figure 6: IRF Shibboleth login page

<https://docs.egi.eu/users/check-in/>

Authorization

Can we grant access to this user?

- ▶ Capability based authorizaion
 - ▶ E.g. list of resources
- ▶ User attribute based authorization
 - ▶ E.g. Virtual Organization group membership

VOs

- ▶ Virtual Organization
 - ▶ One for EISCAT **eiscat.se** (our domain name)
- ▶ VO Roles
 - ▶ VO Manager
 - ▶ VO Group manager
 - ▶ ...
- ▶ Virtual Organization groups
 - ▶ Membership = User attribute
 - ▶ EISCAT Associates and Affiliates
 - ▶ Subgroups possible

VO management

- ▶ Perun <https://perun-aai.org/>



❯ EGI Perun

Access EGI Perun ➤

Acceptable Use Policy ▼

Cookies ▼

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Support: contact@egi.eu

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Figure 7: Login page of EGI Perun instance

The screenshot displays the Perun VO management interface. At the top left is the Perun logo. The top right shows the user's name, Carl-Fredrik Enell, and their role, VO MANAGER, with a Logout button. The left sidebar contains navigation links: VO manager, Select VO, EGI eiscat.se VO, Members, Groups, Resources, Applications, show advanced >>, Group manager, and User. The main content area is titled 'EGI eiscat.se VO' and includes a breadcrumb trail. Below the title is a tabbed interface with 'Overview' selected. The 'Quick tools' section lists six actions with descriptions: 'Add member...' (Add new member into your VO. Candidates can be searched for in VO's external sources or among user already existing in Perun.), 'Create service member...' (Create new member which represent service account (account usually used by more users with separate login and password).), 'Invite member...' (Invite person to become member of your Virtual organization.), 'Add manager...' (Add new manager which can manage your VO in Perun.), 'Create group...' (Create new group in your VO.), and 'Add member to resource...' (Add selected member to specific resource (grant some type of access to Facility resources)). The 'Statistics' section is partially visible at the bottom.

Perun

EGI eiscat.se VO

Name: Carl-Fredrik Enell
Role: VO MANAGER Logout

VO manager

Select VO
EGI eiscat.se VO
Members
Groups
Resources
Applications
show advanced >>
Group manager
User

EGI eiscat.se VO

Overview Members Groups Resources Applications Application form Settings Managers External sources

Quick tools

- + Add member... Add new member into your VO. Candidates can be searched for in VO's external sources or among user already existing in Perun.
- + Create service member... Create new member which represent service account (account usually used by more users with separate login and password).
- + Invite member... Invite person to become member of your Virtual organization.
- + Add manager... Add new manager which can manage your VO in Perun.
- + Create group... Create new group in your VO.
- + Add member to resource... Add selected member to specific resource (grant some type of access to Facility resources).

Statistics

Figure 8: Perun VO management

Perun groups page

Perun EGI eiscat.se VO

Name: Carl-Fredrik Enell
Role: VO MANAGER Logout

VO manager

- Select VO
- EGI eiscat.se VO
- Members
- Groups
- Resources
- Applications
- show advanced >>

Group manager

User

EGI eiscat.se VO

Overview Members **Groups** Resources Applications Application form Settings Managers External sources

Create... Delete Filter

<input type="checkbox"/>	Sync	Name	Description	Count: 25
<input type="checkbox"/>		members	Group containing VO members for VO eiscat.se	
<input type="checkbox"/>		CN	EISCAT P.R. China CRIRP	
<input type="checkbox"/>		CN:Experiments	Users who can submit experiment requests	
<input type="checkbox"/>		Dev	System developers	
<input type="checkbox"/>		DLRSO	EISCAT DLR-SO Germany	
<input type="checkbox"/>		DLRSO:Experiments	Users who can submit experiment requests	
<input type="checkbox"/>		EI	EISCAT internal	
<input type="checkbox"/>		FI	EISCAT Finland SA	
<input type="checkbox"/>		FI:Experiments	Users who can submit experiment requests	
<input type="checkbox"/>		JHUAPL	EISCAT Johns Hopkins University US	
<input type="checkbox"/>		JHUAPL:Experiments	Users who can submit experiment requests	

Figure 9: Groups defined in Perun: EISCAT members

Perun groups, example of members

The screenshot displays the Perun Group Manager interface. The top navigation bar shows the Perun logo and the current context: VO: EGI eiscat.se VO > Group: Dev. The user's name, Carl-Fredrik Enell, and role, VO MANAGER, are shown in the top right corner. The left sidebar contains a 'Group manager' section with links to 'Select group', 'Dev', 'Members', 'Subgroups', 'Relations', 'Resources', 'Applications', and 'User'. The main content area shows the 'Dev' group details, including a description 'System developers'. Below this, there are tabs for 'Members', 'Subgroups', 'Relations', 'Resources', 'Applications', 'Application form', 'Settings', 'Managers', and 'External sources'. The 'Members' tab is active, displaying a table of group members. The table has columns for Status, Group Status, Name, Organization, Email, Logins, and Count. There are 9 members listed, all with a status of 'Active' and a group status of 'Active'. The members are: Simon Brown, Carl-Fredrik Enell, Ingemar Haggstrom, and Nicolas Liampotis. The table also includes a 'Show also expired / disabled members' checkbox and a 'List all members' button.

Perun VO: EGI eiscat.se VO > Group: Dev Name: Carl-Fredrik Enell Role: VO MANAGER Logout

VO manager Group manager

Select group Dev Members Subgroups Relations Resources Applications show advanced >> User

Dev Description: System developers

Members Subgroups Relations Resources Applications Application form Settings Managers External sources

Add... Invite member... Remove Search List all members Show also expired / disabled members

	Status	Group Status	Name	Organization	Email	Logins	Count: 9
<input type="checkbox"/>	✓	✓					
<input type="checkbox"/>	✓	✓	Simon Brown		simon.brown@eiscat.se		
<input type="checkbox"/>	✓	✓	Carl-Fredrik Enell	EISCAT Scientific Association	carl-fredrik.enell@eiscat.se		
<input type="checkbox"/>	✓	✓					
<input type="checkbox"/>	✓	✓	Ingemar Haggstrom	EISCAT	ingemar.haggstrom@eiscat.se		
<input type="checkbox"/>	✓	✓	Nicolas Liampotis				
<input type="checkbox"/>	✓	✓					
<input type="checkbox"/>	✓	✓					
<input type="checkbox"/>	✓	✓					

Figure 10: Group members: Developer group

Group managers

The screenshot shows the Perun Group manager interface. The top navigation bar includes the Perun logo, the path "VO: EGI eiscat.se VO > Group: SE", and user information for "Carl-Fredrik Enell" (Role: VO MANAGER) with a Logout button. The left sidebar contains a "VO manager" section and a "Group manager" section. Under "Group manager", there is a "Select group" dropdown set to "SE", and links for "Members", "Subgroups", "Relations", "Resources", and "Applications". A "User" section is also visible. The main content area shows the "SE" group with a description "EISCAT Sweden VR". A tabbed interface at the top of the main area includes "Members", "Subgroups", "Relations", "Resources", "Applications", "Application form", "Settings", "Managers", and "External sources". The "Managers" tab is active, displaying a table of assigned managers. The table has columns for Name, Organization, E-mail, Logins, and Count. One manager is listed: Buchert Stephan, with Organization "scb@irfu.se" and Logins "egi-ui: stephan".

Perun VO: EGI eiscat.se VO > Group: SE Name: Carl-Fredrik Enell Role: VO MANAGER Logout

VO manager Group manager

Select group SE Members Subgroups Relations Resources Applications Application form Settings Managers External sources

SE Description: EISCAT Sweden VR

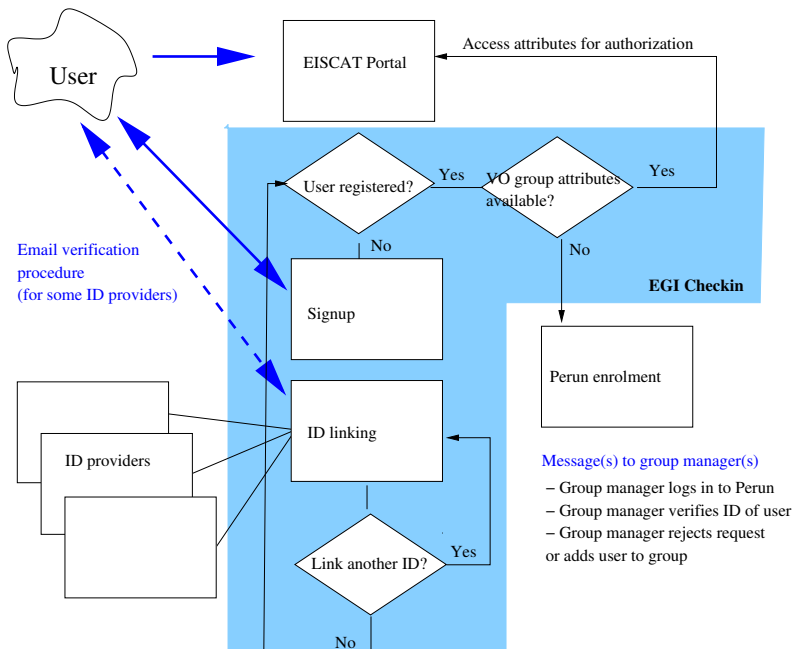
Members Subgroups Relations Resources Applications Application form Settings Managers External sources

Add... Remove Select mode: Users

	Name	Organization	E-mail	Logins	Count: 1
<input type="checkbox"/>	Buchert Stephan	scb@irfu.se	egi-ui: stephan		

Figure 11: Group managers: Assigned manager of SE group

EISCAT workflow in a nutshell



Regular mini workshops

- ▶ On Zoom
- ▶ So far, participation from
 - ▶ EGI
 - ▶ GRNET
 - ▶ U Oulu + SGO
 - ▶ IRF
- ▶ Welcome to join! Next meeting TBD