

GakuNin Activity

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59th EUGridPMA meeting
October 4, 2023

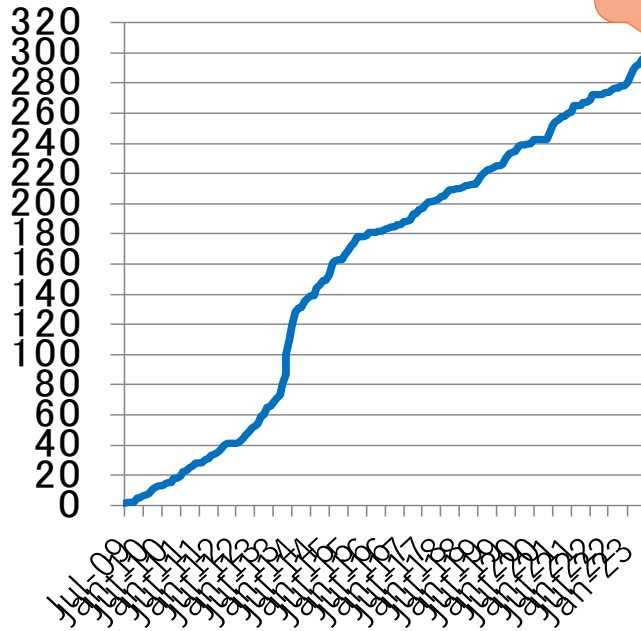
GakuNin Statistics

As of July 2023



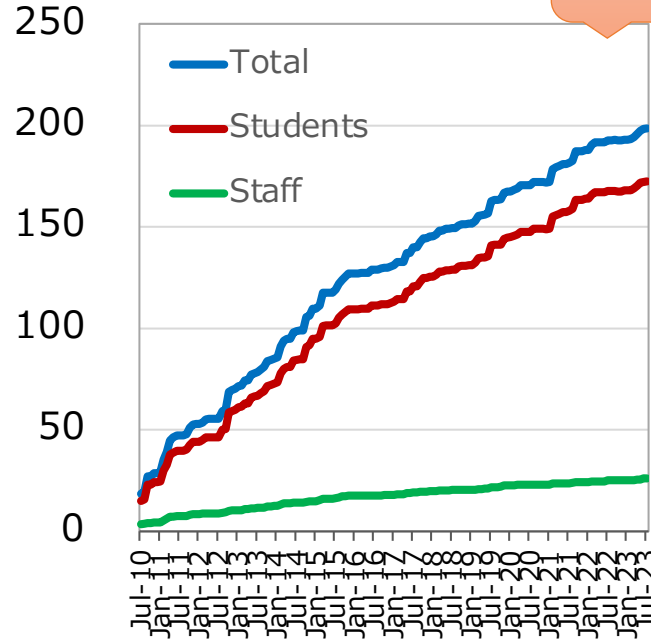
IdPs

296



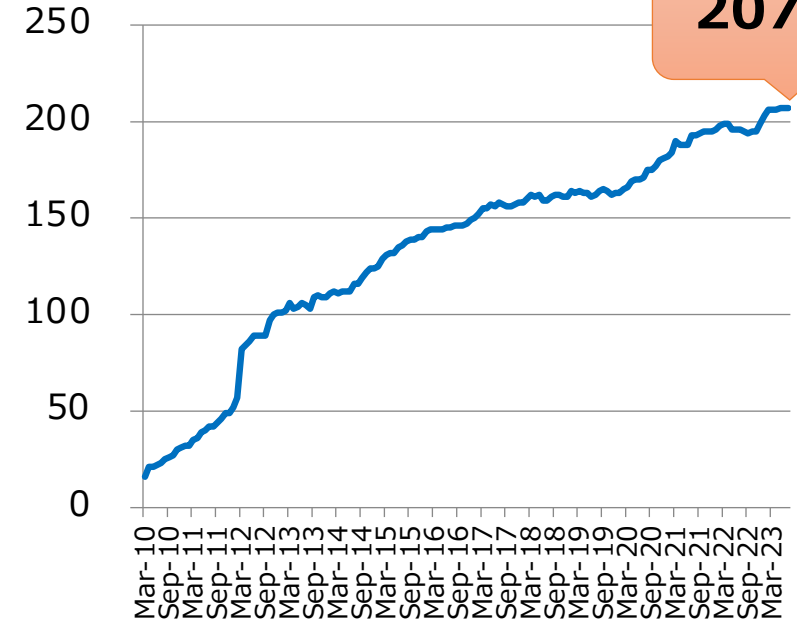
IDs

2.0M



SPs

207



	National	Public	Private	Junior College	Tech. College	Inter-Univ. RIC	Other	Total
# Participant	81	32	112	1	51	5	14	296
# Total	86	91	604	333	57			
Ratio	94%	35%	19%	0%	89%			

GakuNin Activity

- Necessity for a new trust framework in Japan
 - GakuNin has provided a stable trust framework to academia in Japan.
 - There are many research communities in Japan, but they don't always rely on IdPs in GakuNin because all GakuNin IdP do not satisfy the requirement of the communities.
 - As a result, a trust framework has been formed in each research community.
 - Many of users in the research communities are also constituent members of IdPs that join GakuNin.
 - It is natural for users to demand to use home organization account for services in the research communities. In other words, users shouldn't want to manage several accounts.
- In order to solve the situation, we launched a new working group in GakuNin in FY2021.

Goal

- The goal of the working group is to build a new trust framework focused on identification and authentication:
 - useful for research communities in Japan,
 - collaborating industrial sector,
 - promoting international collaboration,
 - ensuring world-wide interoperability.

Request from Research Communities

- Authenticating users that don't have suitable IdP accounts.
 - Users that RC offers services not always possess the account of an IdP joining GakuNin.
 - RC want to rely on IdP that provides sufficient identity assurance.
- Grasping authenticator level
 - Password only or multi-factor authentication
 - For certain services RC want users to impose MFA.
- Identification user that belongs to several organization.
- Ensuring user identity moving between different organizations.
 - SP want to provide continuously and efficiently services to users moving between different organizations.
- Support for suitable attributes for purpose
 - e.g., grasping whether resident or not (export control)

Key Components in New GakuNin Trust Framework

GakuNin IAL/AAL

- Stipulation of IAL and AAL

Authenticator Registry

- Evaluation of authenticators based on GakuNin AAL

Authentication Proxy Service "Orthros"

- AL matching, credential bridging, attribute coordination

IdP Hosting Service

- Addressing issues of IdP building and operation

Advanced Group Management

- Support for high and complex authorization control

GakuNin IAL2/AAL2

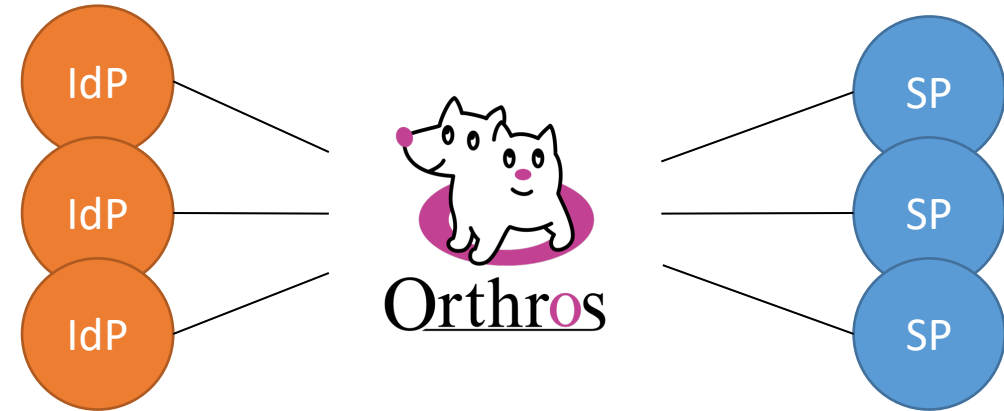
- The results of the working group for the next generation of IAM federation
 - Proposals: Operation policy of IAL2/AAL2 in the next generation of GakuNin (in Japanese/**English**)
 - CrP/CrPS sample (in Japanese/**English**)
 - Documents are available from <https://meatwiki.nii.ac.jp/confluence/x/JoSfBQ>
- Now in progress
 - being reviewed by stakeholders; RIKEN, NIMS, RCOS, HPCI,
 - checking the interoperability with existing trust framework such as RÉFEDS and IGTF,
 - conducting experiments in the implementation of new trust framework and evaluating the results.

Authenticator Registry

- Purpose
 - Evaluate authenticators based on GakuNin AAL, publish the results, and promote multi-factor authentication support for IdPs of universities and research institutions
- FY2022
 - Formulated authenticator evaluation criteria (document preparation)
 - Established authenticator registry operation system (documentation)
- FY2023
 - Starting trial operation
 - MS Authenticator/Google Authenticator
 - UPKI (PKIX) client certificate
 - Others

Authentication Proxy Service “Orthros”

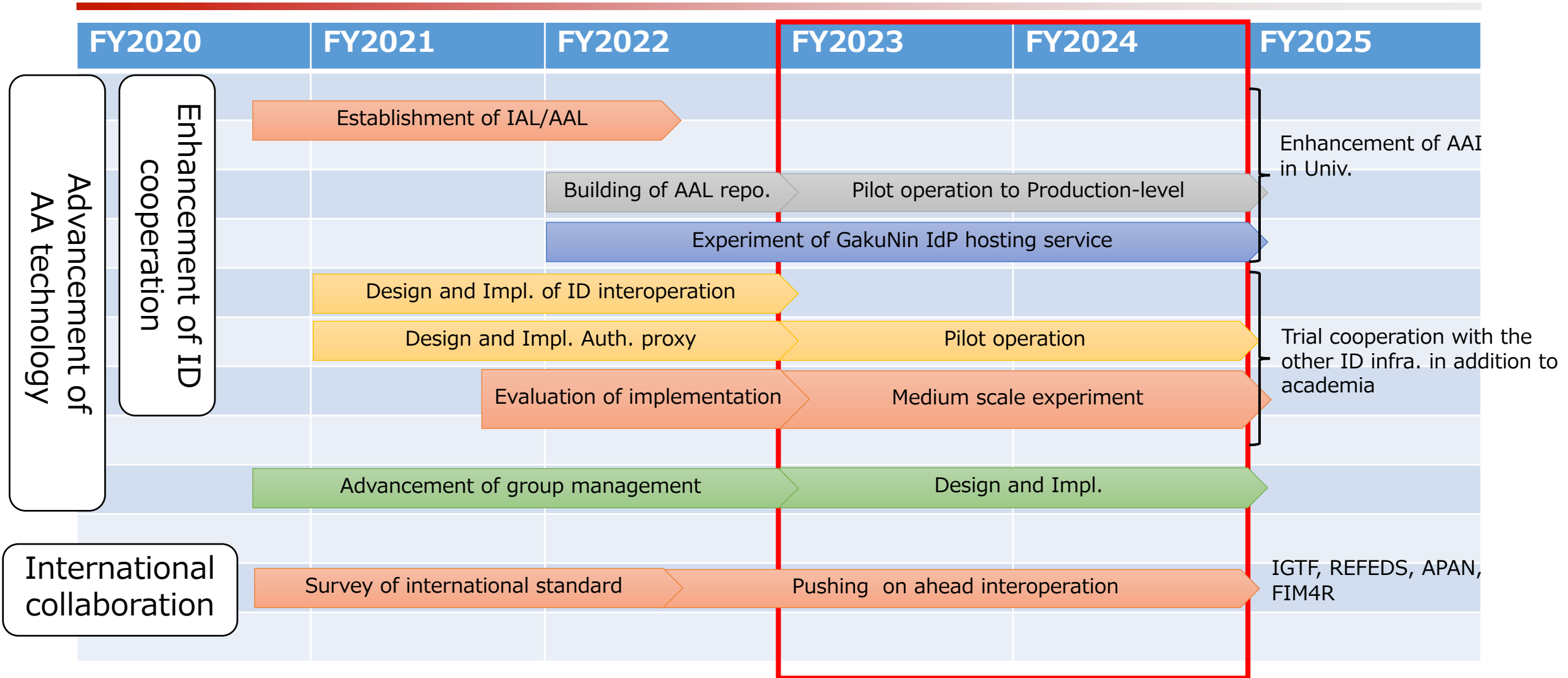
- Support for the new GakuNin trust framework
- Bridging between IdPs and SPs, and enabling IAL/AAL management and attribute assurance.
- FY2022
 - Prepared migration from OpenIdP
 - Developed systems and procedures for production-level operation
- FY2023
 - OpenIdP migration now in progress
 - External IdP linkage
 - Home IdP binding due to change of organization
 - Support for new GakuNin IAL/AAL policy
 - Enhancement of authorization attributes handling



IdP Hosting Service

- Future Vision of GakuNin
 - All universities and research institutes nationwide participate in GakuNin.
 - Fundamental ID infrastructure for researchers and students
- R&D for supporting the diversification of operation modes, and improving operational efficiency.
- FY2023
 - Demonstrative experiment started this March.

Timeline



Pilot operation phase

Summary

- We have introduced the activity of GakuNin projects:
 - GakuNin IAL2/AAL2
 - Authenticator Registry
 - Authentication Proxy Service “Orthros”
 - IdP Hosting Service
- If you are interested in the above projects, please contact me or
 - visit <https://gakunin.jp/en> for GakuNin