

Connect your Identity Federation to **eduGAIN** to support global R&E collaboration

Today, online services are crucial for research and education. This can be for e-learning, teaching and conferencing, scientific collaboration, analysing and sharing data, accessing journals and libraries etc. Enabling easy and convenient access for users is a key part of delivering a service. Service providers do not want the “headaches” associated with issuing and supporting passwords for users, and the user does not want yet another password.

eduGAIN provides an efficient, flexible way for participating institutions, and their affiliated users and services, to interconnect authentication and authorisation infrastructures.

With just one trusted identity provided by user’s institution and as part of an identity federation participating in eduGAIN, users can access services from other participating federations. Even better, it allows for single sign-on (SSO), so that a user needs to login only one time during a browser session.

R&E identity federations are typically deployed on a national level and use different architectures, systems and policies. eduGAIN enables identity federations to interconnect, so that participating institutions and services can collaborate without the need to establish individual bilateral connections.

Users, services and organisations who need to easily and securely manage access to services benefit from eduGAIN. This is achieved through identity federations enabling the reuse of their existing identity systems, across borders, by conforming to a set of standard guidelines, avoiding the need to make many individual agreements with service providers.

eduGAIN is a global service. Around the world, there are more than 55 federations participating in or in the process of joining eduGAIN, with more than 2,600 identity providers and 1,900 service providers. eduGAIN now supports nearly 27 million students, staff and researchers around the world.

eduGAIN WORLDWIDE



55+
FEDERATIONS

>2.600
IDENTITY PROVIDERS

>1.900
SERVICE PROVIDERS

33M
AUTHENTIFICATIONS
PER WEEK (est)

27M
USERS (est)

Who is eduGAIN for?

eduGAIN provides a range of benefits for organisations and individuals who wish to access or share services and data.

NRENS

By linking an Identity Federation to eduGAIN (or developing a Identity Federations) NRENS can provide a range of benefits.



Through eduGAIN, the users can get access to an ever growing number of federated services available worldwide



eduGAIN's service enables secure exchange of federation information through established and reliable mechanisms



Time saving and lower administration costs as no need for bilateral federation agreements

SERVICE PROVIDERS

When your identity federation participates in eduGAIN it offers Service Providers the ability to:



Grow your audience by making your service available to users around the world



Lower costs per user – your audience grows without increasing costs for maintenance of users' credentials

IDENTITY PROVIDERS

Joining an eduGAIN federated identity federation offers:



More services to your users – enables access to a wider range of national and international services



No extra administrative burden if you are already participating in an identity federation



Reduction in cost and effort by reducing the need for bilateral agreements with service providers

Key concepts

Many organisations use **Authentication and Authorisation Infrastructures** (AAIs) to build a trusted environment where users can be identified using a single identity. The necessity for identity to cross borders between organisations, domain and services, created federated identity environments.

Home organisations (e.g. a university, library, research institute etc.) register users by assigning a digital identity. They also operate an **Identity Provider** (IdP), e.g. university, and are able to authenticate their users and provide a limited set of attributes that characterise the user in a given

context. **Service Providers** (SP), e.g. libraries, delegate authentication to Identity Providers in order to control access to the provided resources.

An **Identity federation** is a group of Identity and Service Providers that sign up to an agreed set of policies for exchanging information about users and resources to enable access to and use of the resources. There are many Research and Education identity federations around the globe usually with national coverage.

eduGAIN interconnects identity federations around the world, simplifying access to content, services and resources for the global research and education community. The eduGAIN technology involves a "**metadata service**", which regularly retrieves and aggregates information from participating federations about Service and Identity Providers, and makes this information available to federations. eduGAIN coordinates necessary elements of the federations' technical infrastructure and provides a policy framework controlling the exchange of this information between Identity Federations.

SP = Service Provider
IdP = Identity Provider
MDS = Metadata Service

