



eduroam in Ireland Policy

Last updated: 31st May 2021

Notation as defined in RFC 2119

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in RFC 2119.

1. Background to this document

1. This document sets out guidelines that cover the control of the supply and receipt of roaming Internet access for educational purposes.

2. eduroam is a registered GÉANT trademark and is an abbreviation for "educational roaming" that originated from a European national education and research networks project to deliver a user-friendly, secure and scalable Internet access solution for visitors.

3. More information about eduroam is available at <http://www.eduroam.org>

2. Roles and Responsibilities

1. Asiera CLG (hereafter called 'Asiera') acts as the eduroam National Roaming Operator (NRO) for Ireland.

2. Organisations that participate in eduroam by providing their users' credentials for authentication against the eduroam infrastructure are called Identity Providers, abbreviated to IdP.

3. Organisations that participate in eduroam by providing networking equipment that allows users to connect to the Internet using eduroam are called Service Providers, abbreviated to SP.



3. eduroam National Roaming Operator (NRO)

1. Asiera is responsible for the national eduroam service. Asiera acts as the federation's eduroam policy authority, in accordance with the European eduroam confederation policy.

2. Asiera's role is three-fold:

i)

ii)

to coordinate and support the eduroam service to nominated technical contacts of participating organisations only

to maintain links with the European eduroam community and their authentication servers

iii) contribute to the further development of the eduroam concept.

3. Asiera is responsible for maintaining and developing a national authentication server network that connects to participating organisations. The NRO assumes no liability for any impact as a result of a loss or disruption of service. The eduroam IdPs and SPs (whether in the same or a different federation or confederation) accept no liability from each other.

4. Asiera is responsible for managing a second line technical support function covering pre-connection and ongoing technical support and maintenance of a dedicated website containing technical, service, policy and process information.

5. Asiera is responsible for coordinating communications between participating organisations so that policies and procedures contained herein are adhered to in a timely manner and, as a matter of last resort, has the right to impose technical sanctions.

6. Asiera will work with the nominated eduroam technical contact of a participating organisation to test one or more of the following aspects:

i)

ii)

initial connectivity

authentication and authorisation processes

iii) the authorised services offered, and review of the logging activities and the relevant authentication server configuration for compliance with the policy



4. eduroam Identity Providers (IdPs)

1. The role of the IdP (home organisation) is to act as the credential provider for registered staff and students. Also, it will act as a technical and service support function for its users who want to access eduroam services at SPs (visited sites). Only nominated technical contacts can escalate technical support, service support, or security issues on behalf of their users to Asiera.

2. IdPs MUST make their users aware of roaming conditions, especially of the user obligations in section 6. They MUST educate their users to follow security best practices, including identifying the correct server certificate of the IdP.

3. IdPs MUST engage cooperatively with Asiera to resolve security incidents involving their users. IdPs shall not be required to provide logs or other data in response to incidents other than as required by statutory instrument.

4. IdPs MUST deploy an authentication server in accordance with the national eduroam technical and policy requirements guidelines available at <http://www.eduroam.ie>. A secondary authentication server is recommended for resilience purposes. The network equipment MUST comply with RFC 2865 (RADIUS) and SHOULD comply with RFC 2866 (RADIUS Accounting).

5. The IdP authentication server(s) MUST be reachable from Asiera's national authentication servers for authentication purposes.

6. The IdP MUST create an eduroam test account (eduroam username and password credential) and make it accessible to Asiera to assist in pre-connection testing, ongoing monitoring, support and fault-finding activities. If the test account's password is changed, Asiera MUST be notified by the home organisation promptly. Do not deploy any authorised services to the test account.



5. eduroam Service Providers (SPs)

1. The role of the SPs is to supply Internet access to users via eduroam (based on accepting that the user's IdP (home organisation) authentication check and response are valid). The SP authorises the use of any service it provides.
2. Where user activity is monitored, the SP MUST clearly announce this fact, including how it is monitored, stored, and accessed to comply with legislation.
3. The SP MUST abide by this policy and follow Asiera's service processes and guidelines listed herein.
4. The SP may offer any media; however, as a minimum, the SP MUST provide wireless LAN.
5. The SP MUST deploy the SSID 'eduroam' and IEEE 802.1X Extensible Authentication Protocol (EAP) authentication (excluding EAPMD5) to promote a consistent service and minimum level of security. The SSID 'eduroam' MUST be broadcasted.
6. The SP MUST, as a minimum, implement IEEE 802.1X and WPA2/AES (WPA/TKIP MUST NOT be used).
7. The SP SHOULD, as a minimum, permit the following traffic to/from users of their eduroam service:
 - Domain Name Service: UDP/53 egress only; TCP/53 egress only
 - Standard IPsec VPN: IP protocols 50 (ESP) and 51 (AH) both egress and ingress; UDP/500 (IKE) egress only
 - OpenVPN 2.0: UDP/1194
 - IPv6 Tunnel Broker service: IP protocol 41 ingress and egress
 - IPsec NATTraversal UDP/4500
 - Cisco IPsec VPN over TCP: TCP/10000 egress only
 - PPTP VPN: IP protocol 47 (GRE) ingress and egress; TCP/1723 egress only
 - SSH: TCP/22 egress only
 - HTTP: TCP/80 egress only



- HTTPS: TCP/443 egress only
- IMAP2+4: TCP/143 egress only
- IMAP3: TCP/220 egress only
- IMAPS: TCP/993 egress only
- POP: TCP/110 egress only
- POP3S: TCP/995 egress only
- Passive (S)FTP: TCP/21 egress only
- SMTPS: TCP/465 egress only
- SMTP submit with STARTTLS: TCP/587 egress only
- RDP: TCP/3389 egress only

8. The SP SHOULD implement a visitor virtual local area network (VLAN) for eduroam authenticated users that is not shared with other network services.

9. The SP SHOULD give public IP addresses to its visitors and, where available, SHOULD provide IPv6 connectivity.

10. The SP MUST NOT charge for eduroam access. This service is based on a shared access model where SPs supply and receive Internet access for their users.

6. Users

1. A user's role is, in principle, always a visitor who wants Internet access at an SP. The user MUST abide by their IdP's AUP or equivalent and respect the visited organisation's AUP or equivalent. Where regulations differ, the more restrictive applies. Users MUST, as a minimum, abide by the relevant law of the country where (s)he is physically situated while using the service, home or abroad.



2. The user is responsible for taking reasonable steps to ensure that (s)he is connected to a genuine eduroam service (as directed by their home organisation) prior to entering their login credentials. The primary means to achieve this is to validate the server certificate that is presented to the user upon login.
3. The user is responsible for their credentials and the use of any service they might provide.
4. If credentials are thought to have been compromised, the user MUST immediately report back to their IdP.
5. The user is obliged to inform the SP (where possible) and IdP of any faults with the eduroam service.

7. Logging

1. Both SPs and IdPs MUST log all authentication and MUST record the following information:

- The date and time the authentication request was received
 - The authentication result returned by the authentication database or upstream server
 - The MAC address of the connecting mobile device
 - For SPs: The anonymised/outer identity of the request.
 - For IdPs: The inner identity of the request
2. The SP MUST log all DHCP transactions, including:
- The MAC address of the client
 - The date and time of issue of the client's DHCP lease
 - The client's allocated IP address



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3. The SP MUST keep a log of DHCP transactions for a minimum of three months and a maximum of six months. Cooperation regarding the content of these logs will be restricted to the eduroam technical contacts and Asiera technical contact to assist in resolving specific security or abuse issues reported to Asiera.

4. All relevant logs MUST be timestamped with accurate dates and times.

8. Support

1. The IdP MUST provide support to their users requesting access at an SP.

2. The SP SHOULD provide support to users from other IdP's that request eduroam services at the SP site.

3. The SP MUST publish local information about eduroam services on dedicated web pages on their organisation website containing the following minimum information:

- Text that confirms adherence to this policy document as published on <http://www.eduroam.ie>
- A URL link to the SPs acceptable use policy or equivalent
- A list or map showing eduroam access coverage areas
- Details of the broadcasted or non-broadcasted SSID as 'eduroam'
- Details of the authentication process and authorised services offered
- Details about the use of a non-transparent application proxy, including user configuration guidelines (if applicable)
- A URL link to the website <http://www.eduroam.ie> and posting of the eduroam logo and trademark statement
- Where user activity is monitored, the SP MUST clearly announce this fact, including how it is monitored to meet with state or national legislation, how long the information will be held for and who has access to it

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- The contact details of the appropriate technical support that is responsible for eduroam services
- The IP traffic (protocols/port numbers/services) which the site will permit to be passed to/from the client of an eduroam user once successfully authenticated.

9. Communications

1. Both IdPs and SPs MUST provide Asiera with contact details of two nominated technical contacts. Each contact may be either a named individual or a defined role. Any changes to contact details MUST be notified to Asiera promptly.

2. The IdP MUST designate a contact and their contact details to respond to security issues. This may be the same person designated as the nominated technical contact.

3. Participating organisations MUST notify Asiera promptly of the following incidents:

- security breaches
- misuse or abuse
- service faults
- changes to access controls (e.g. permit or deny of a user or realm)

10. Authority, Compliance & Sanctions

1. Asiera is the policy authority and will implement this policy.

2. Any changes to this policy will be made in consultation with participating organisations and Asiera.



3. Connecting to the national eduroam national authentication server network will be deemed as acceptance of this policy. Any organisation that is currently connected will be given a period of one month's grace from the official ratification date of this policy by Asiera, to either continue to connect as a statement of acceptance of this policy or the removal of their authentication server connection(s) to indicate an inability to accept this policy at present.

4. In cases where immediate action is required to protect the integrity and security of the eduroam service, Asiera has the right to suspend the eduroam service or restrict eduroam access to only those participating organisations that can comply with the required changes. To do so, Asiera will notify participating organisations of such incidents, outages and remedial action to be taken.

5. Asiera will email the nominated technical and/or security contact of the participating organisation of any technical or policy breach or incident that requires resolution. Where such notifications are not acted upon in a timely manner, or where the breach or incident may impact the security and integrity of eduroam, Asiera has the right to block eduroam access to that organisation.

6. SPs may prevent use of their networks by all users from a particular IdP by configuring their authentication server(s) to reject that realm; in some cases a SP may also be able to block a single visiting user.

7. IdPs may withdraw an individual user's ability to use eduroam by configuring their own authentication server or removing that user from their authentication database.

8. IdPs MUST also ensure that their computing regulations enable users who breach this policy to be subject to an appropriate internal disciplinary process irrespective of their location at the time.



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Participating Organisation:

Technical Contact 1.

Technical Contact 2:

Participating as

Name:

E-Mail:

Tel:

Name:

E-Mail:

Tel:

Service Provider (SP): Y/N

Identity Provider (IdP): Y/N

For the following realm(s) (IdPs Only):

Security Contact (IdP only): Same as Technical Contact Y/N:

Dedicated Contact:

Signatures & Dates:

Date:

Date:

Name:

E-Mail:

Tel:

Participating Organisation – sign below:

For Asiera – sign below:



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