eduroam database specification
ver 2.0 (17.10.2017)

1. Overview

The eduroam database has been introduced in order to provide necessary information needed for operation of the eduroam service and related supporting services (e.g. CAT, monitoring, service location maps, usage statistics). The eduroam database has been build as a central database with the mechanism that enables automatic data collection from (National) Roaming Operators - (N)ROs.

The information stored in the eduroam database includes:
- Information about (N)ROs
- Information about SPs and IdPs
- Information about eduroam hot spots (service locations).
- Monitoring information.
- Usage statistics (based on f-ticks mechanism)

The access to the database is provided via web site at monitor.eduroam.org with the different access rights aligned with the roles and responsibilities a person has.

Whole eduroam database can be divided into 3 main parts:
- general data
- monitoring data
- usage data

Monitoring and usage data are automatically populated by the appropriate applications.

The general data part is used to store information about the:
- (N)ROs
- institutions (SPs and IdPs)
- eduroam hot spots (service locations).

The general data is collected from the (N)ROs on regular basis (schedule defined by the database operator).

(N)ROs should provide general data in the defined XML or JSON format. The data should be available at the specific, predefined URLs: http://www.eduroam.<tld>/general/<dataset-name> and must be accessible from the eduroam database server site. The database operator will provide proper tools for XML and JSON validation and harvesting.

Next section of this document provides the detailed specification of datasets (database tables) and fields (attributes) containing the general data.

Appropriate XML and JSON profiles are provided at http://monitor.eduroam.org/database.php.

2. eduroam database specification – general data

In this section we list the datasets (i.e. database tables) and respective fields (attributes) containing the general data. Note that required fields are listed with bold typeface.

Some fields (e.g. names of organizations/institutions) may have multiple values in different languages. In that case English is mandatory one.

dataset RO (old name: realm)

Contains information about the (N)ROs.

XML URL: http://www.eduroam.<tld>/general/ro.xml

field name	field description
ROid	Unique identifier provided by the database operator during the RO registration process
country	two letter country code
stage	0=preproduction/test, 1=active (default value =1)
org_name*	(N)RO's corporate name
address_street*	(N)RO's address
address_city*	(N)RO's address
coordinates	longitude, latitude, altitude (altitude may be omitted) of organisation's location
contact_name*	(N)RO's contact: name
contact_email*	(N)RO's contact: e-mail
contact_phone*	(N)RO's contact: phone no.
contact_type*	0=person (default), 1=service/department
contact_privacy*	0=private (default), 1=public
info_URL*	(N)RO's web page URL
policy_URL*	(N)RO's Policy URL
ts	date: last changed

* multiple values (name, address, city) can be specified via respective XML/JSON file; note that it is mandatory to provide language info; name in English is required;

** multiple contact info can be specified via respective XML/JSON file; minimum of 1 public address has to be specified

*** multiple URLs can be specified via respective XML/JSON file; note that it is mandatory to provide language info;

dataset: institution

Contains information about the institutions (SPs and IdPs) under control of certain RO.

XML URL: http://www.eduroam.<tld>/general/institution.xml

field name	field description
instid	Unique identifier provided by the NRO
ROid	Unique identifier provided by the database operator during the RO registration process
type	IdP, SP, IdP+SP
stage	0=preproduction/test, 1=active (default value =1)
inst_realm****	(only for IdP or IdP+SP)
inst_name*	institution's corporate name
address_street*	institution's address
address_city*	institution's address: city
coordinates	longitude, latitude, altitude (altitude may be omitted) of institution's location
inst_type	IEEE 802.11-2012, clause 8.4.1.34 Venue Info (note: this is a pair of numbers separated with comma (,))
contact_name**	institution's contact: name
contact_email**	institution's contact: e-mail
contact_phone**	institution's contact: phone no.
contact_type**	0=person (default), 1=service/department
contact_privacy**	0=private (default), 1=public
info_URL***	institution's web page with the information related to the service
policy_URL***	institution's Policy
ts	date: last changed

* multiple values (name, address, city) can be specified via respective XML/JSON file; note that it is mandatory to provide language info; name in English is required;

** multiple contact info can be specified via respective XML/JSON file

*** multiple URLs can be specified via respective XML/JSON file; note that it is mandatory to provide language info;

**** multiple realms can be specified via respective XML/JSON file; for type SP no realms should be specified

dataset: service_loc

Contains information about the eduroam service locations operated by an institution listed in the table institution.

XML URL: http://www.eduroam.<tld>/general/institution.xml

field name	field description
instid	Unique identifier provided by the NRO
ROid	Unique identifier provided by the database operator during the RO registration process
locationid	Unique identifier provided by the NRO
coordinates	longitude, latitude, altitude (altitude may be omitted; to define a lager (polygonal) area multiple triples/value pairs of coordinates must be provided (in order that allows to form one cohesive area))
stage	0=preproduction/test, 1=active (default value =1)
type	0=single spot; 1=area; 2=mobile (default value =0)
loc_name*	location's name
address_street*	location's address (if applicable)
address_city*	location's address: city
location_type	IEEE 802.11-2012, clause 8.4.1.34 Venue Info (note: this is a pair of numbers separated with comma (,))
contact_name**	on site contact: name
contact_email**	on site contact: e-mail
contact_phone**	on site contact: phone no.
contact_type**	0=person (default), 1=service/department
contact_privacy**	0=private (default), 1=public
SSID	SSID used
enc_level	list of supported encryption levels separated with comma (,)
AP_no	number of APs ; put <blank> for unknown number;
wired_no	number of enabled sockets for wired access; put <blank> for unknown number
tag	specific characteristic(s); provide allowed values separated with comma (,) if a feature is enabled; allowed value(s): port_restrict, transp_proxy, IPv6, NAT, HS2.0
availability	0=default (no restrictions), 1=physical access restrictions
operation_hours	Provide info (in free text) if service is not available 24 hours per day by specifying operation hours (local time)
info_URL***	info page with additional info in case of any restrictions (port, availability, operation hours)
ts	date: last changed

* multiple values (name, address, city) can be specified via respective XML/JSON file; note that it is mandatory to provide language info; name in English is required;

** multiple contact info can be specified via respective XML/JSON file

*** multiple URLs can be specified via respective XML/JSON file; note that it is mandatory to provide language info;

3. Transition and previous version

Previous version of the eduroam database specification ver17042008 (see https://monitor.eduroam.org/databasefiles/eduroam-database-ver17042008a.doc) is now obsolete.

Nevertheless XMLs using the data format based on specification ver17042008 will be accepted until November 30, 2018.