



Deploying Govroam alongside eduroam as Visited Only

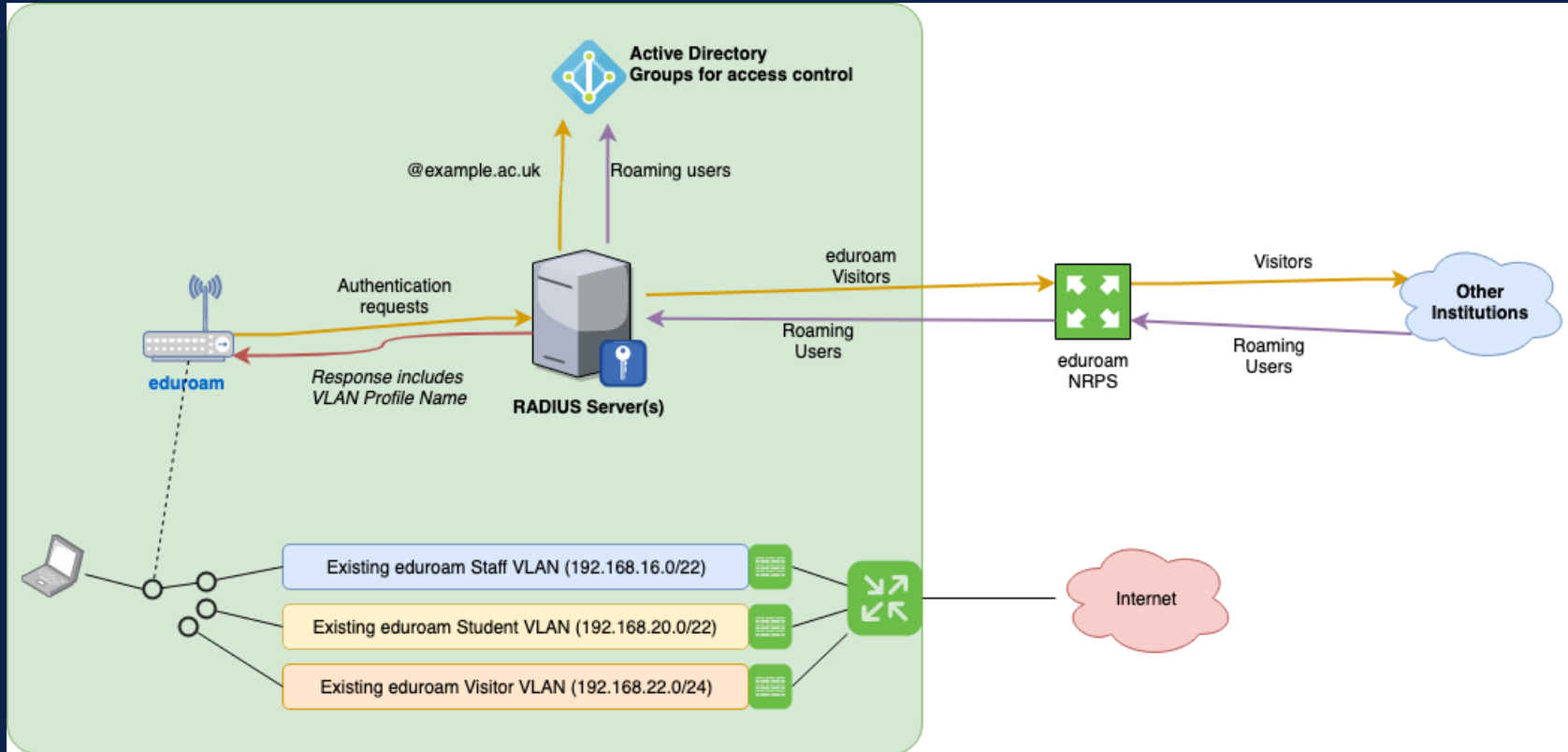
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What is Govroam?

- Replicated eduroam but for public services rather than education & research
- Technical Specifications re-used
- Central infrastructure and delegation slightly different
 - Join NRPS rather than RRPS
- Informal reciprocal arrangement with eduroam
 - (Govroam sites are encouraged to deploy eduroam as Visitor Only)
- Free to join as Visited Only for eduroam members
- <http://repository.jisc.ac.uk/6708/3/govroam-the-education-perspective.pdf>

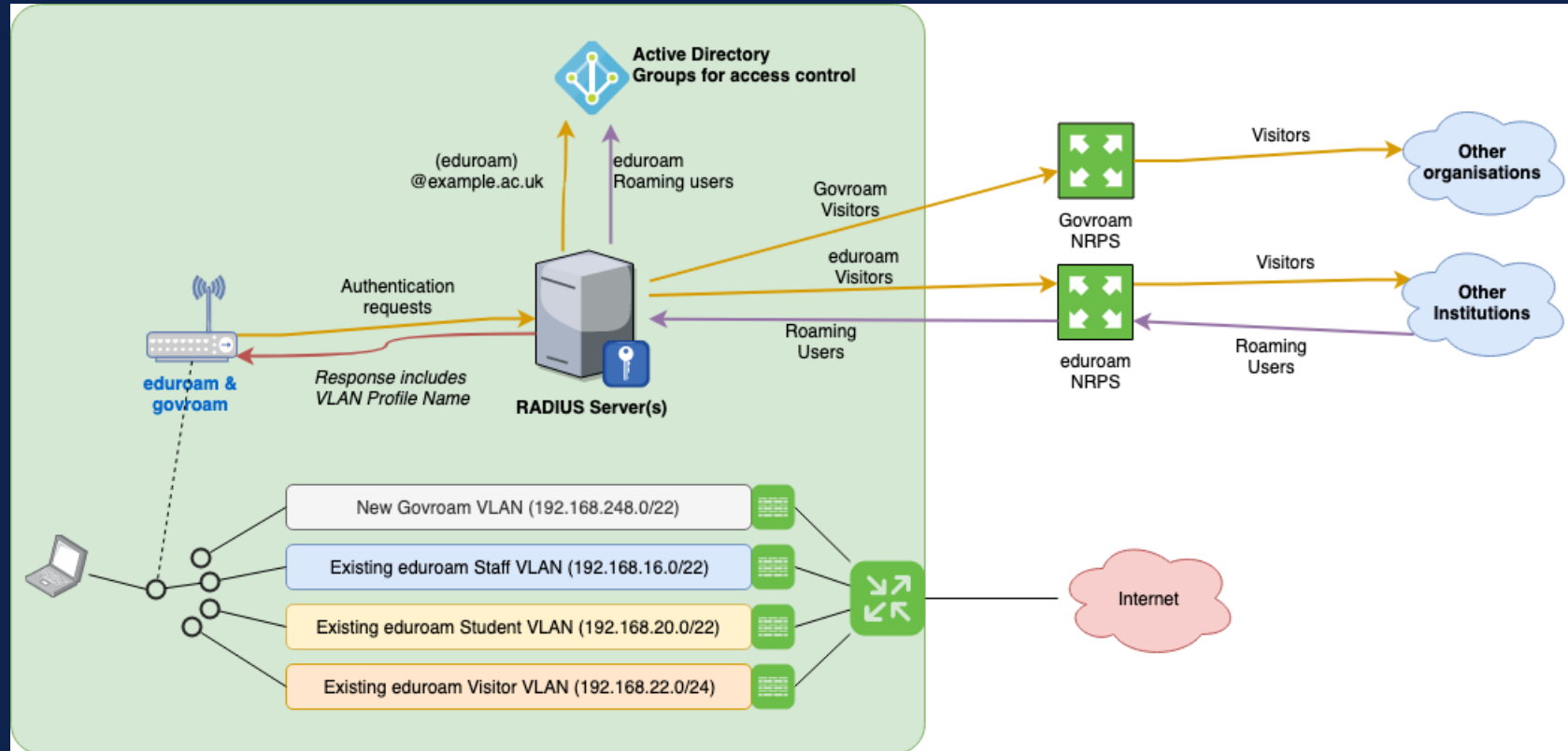
Current eduroam only deployment



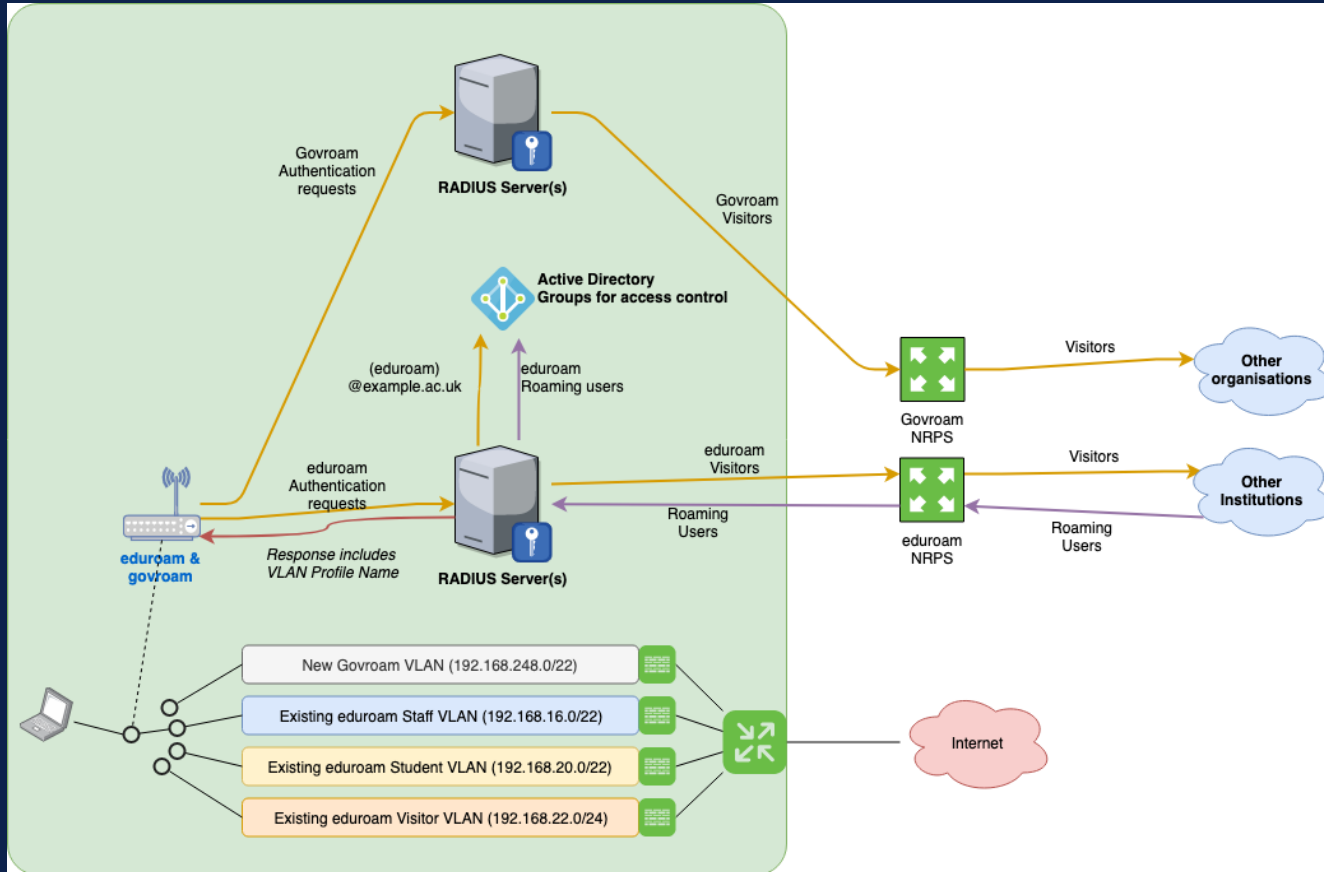
Considerations

- Does WLAN send SSID in RADIUS (Called-Station-Id)?
 - eg. `Called-Station-Id = 00-11-22-33-44-55:eduroam`
- VLAN and/or address space available?
- Paperwork
- Logging (ensure you know it's a Govroam device)

Possible joint edu/Govroam deployment



Possible joint edu/Govroam deployment (2)



Probable todo list

- Review Govroam documentation (<https://wiki.govroam.uk>)
- Check Called-Station-Id is sent (different path if not!)
- Ensure your existing eduroam policies are tied to Called-Station-Id = :eduroam\$ (regular expression?) [or that new Govroam policies hit first]
 - NPS Connection Request Policies
 - FreeRADIUS needs a bit of code to choose a path
- Update logging rules if needed
- Allocate new VLAN and address space
- Create new policies/code for Govroam (SSID=govroam)
- Contact govroam@jisc.ac.uk to join as a VO organisation, get connection details
- Configure WLAN to advertise Govroam SSID
- Test 😊

NPS per-SSID selection

The screenshot shows the NPS (Local) console with the 'Connection Request Policies' folder expanded. The 'eduroam proxy to eduroam' policy is selected and highlighted in blue. Below the list, the configuration for this policy is shown, including a table of conditions.

Policy Name	Status	Processing Order	Source
authenticate proxied requests from eduroam nrps	Enabled	1	Unspecified
eduroam authenticate local users	Enabled	2	Unspecified
eduroam authenticate local machines	Disabled	3	Unspecified
eduroam proxy to eduroam	Enabled	4	Unspecified
govroam proxy to nrps	Enabled	5	Unspecified
Copy of eduroam authenticate local users	Disabled	6	Unspecified

Policy: eduroam proxy to eduroam

Conditions - If the following conditions are met:

Condition	Value
User Name	@{1}{[a-zA-Z0-9]+\.[a-zA-Z0-9_]+}\$
Called Station ID	:eduroam\$

The screenshot shows the NPS (Local) console with the 'govroam proxy to nrps' policy selected and highlighted in blue. Below the list, the configuration for this policy is shown, including a table of conditions.

eduroam proxy to eduroam	Enabled	4
govroam proxy to nrps	Enabled	5
Copy of eduroam authenticate local users	Disabled	6

Policy: govroam proxy to nrps

Conditions - If the following conditions are met:

Condition	Value
User Name	@{1}{[a-zA-Z0-9]+\.[a-zA-Z0-9_]+}\$
Called Station ID	:govroam\$

FreeRADIUS per-SSID selection

```
authorize {
    # ...
    rewrite_called_station_id
    if(&Called-Station-SSID == "govroam") {
        update control {
            &Proxy-To-Realm := 'govroam'
        }
        update request {
            &Realm = 'govroam'
        }
        updated
    } elseif {
        # ... existing per-realm routing ...
    } else { throw_an_error }
    # ...
}
```

Other options

- radsecproxy
- Using existing WLAN infrastructure directly with Govroam NRPS
 - Cisco
 - Clearpass
 - ...

Testing

- Test credentials supplied during registration
- Connect to your shiny new SSID
- Run the network test kit to verify firewall compliance
 - <https://github.com/jiscfoo/eduroam-test>
- Check logging works as expected
- Invite someone from your local (Govroam enabled) council over for a coffee to test and celebrate

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<https://jisc.ac.uk/network/trust-and-identity>

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