

21st TF-Mobility and Network Middleware Meeting  
Feb. 18, 2010, Vienna, Austria

# eduroam JP update & eduroam/ISP Collaboration

Hideaki {Goto, Sone}

NII / Tohoku University, Japan



# A great challenge ...

How many higher education institutions are there in Japan?

1,200+ (govt. survey in year 2008)

- 765 universities (86 national, 90 public)
- 481 two-year colleges and vocational colleges

eduroam deployment:  $11 / 1200 = 0.9\%$



*An institution has shown interest. -- still 1%*



- Problems

- Difficulties in RADIUS deployment
- Laborious eduroam connection / management work

- Our solutions

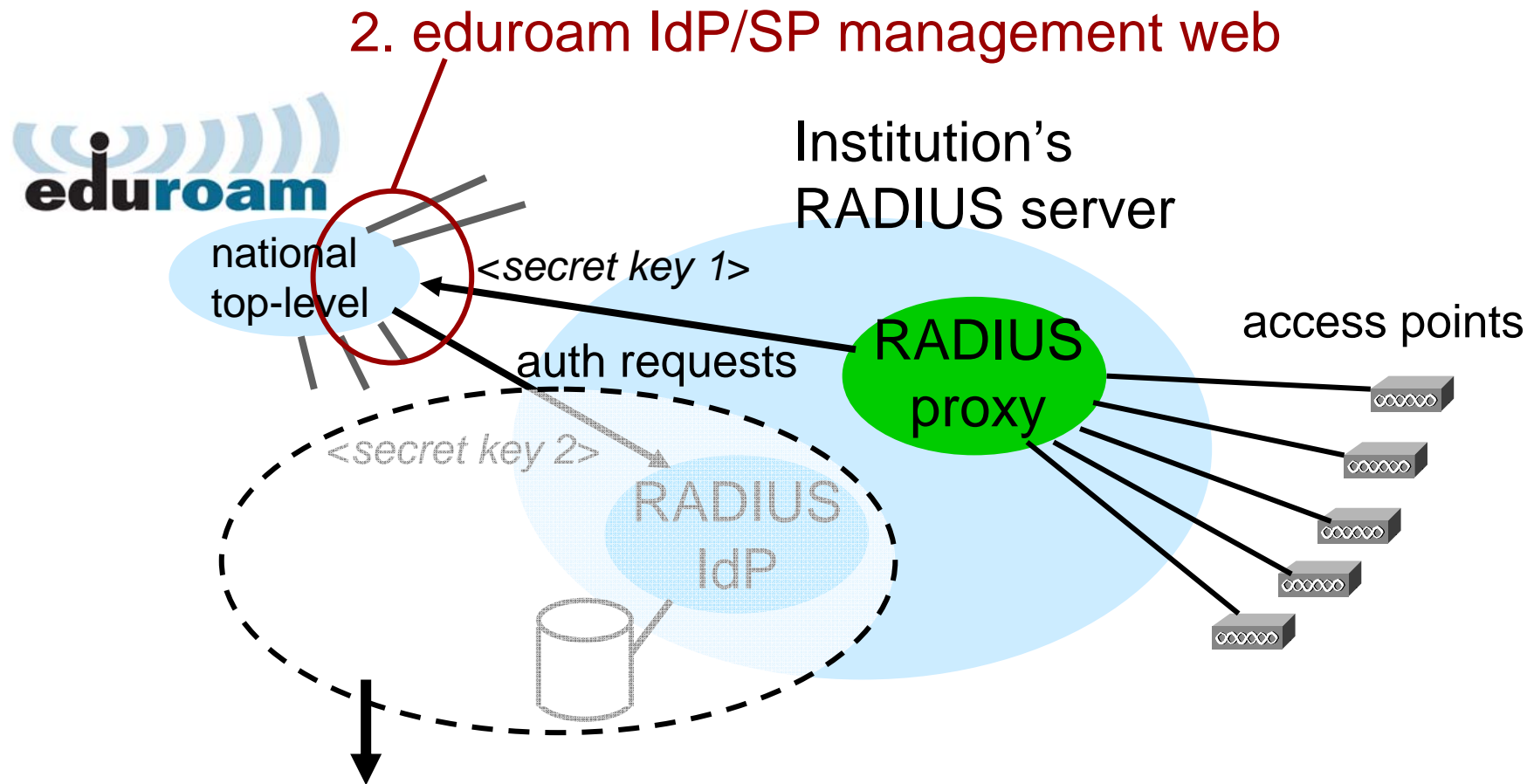
- Federated Delegate Authentication System  
with centralized RADIUS server
  - remove RADIUS IdP at each institution
  - Federation using Shibboleth SSO
  - simplify RADIUS tree (higher stability)
- Web-based eduroam IdP / SP management system
  - simplify connection and administration at both the eduroam JP office and each institution

- eduroam / ISP collaboration

- *negotiation is at the final stage*



# Easy-to-join eduroam system



1. Delegate Authentication System (DEAS)



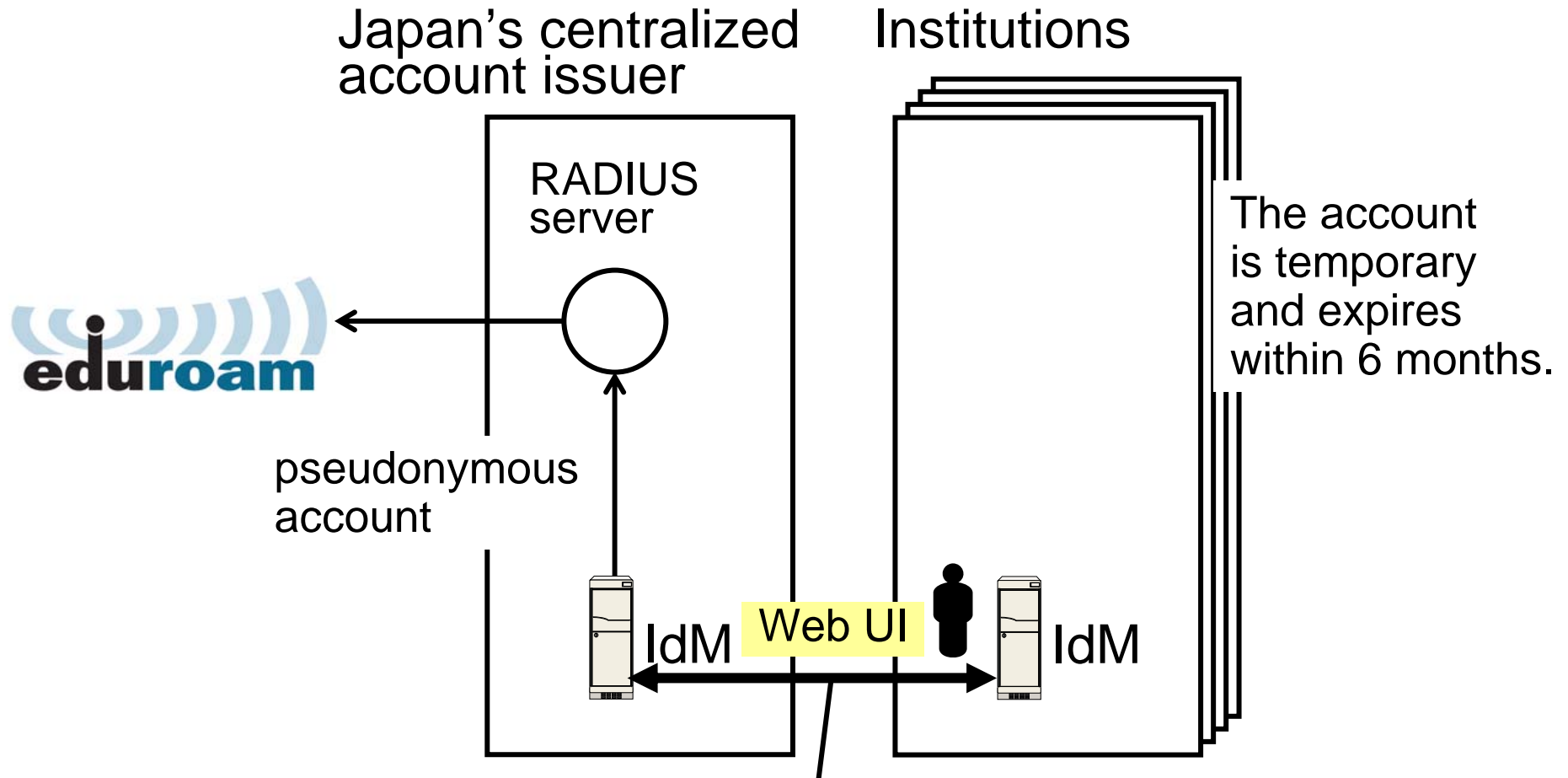


# Federated Delegate Authentication System

- Account Issuer as a *Shibboleth SP* of Japan's UPKI inter-university federation
- Centralized RADIUS server  
to simplify the RADIUS proxy tree
- 3 types depending on the needs and federation level
- Pseudo-anonymized, fixed-term, and traceable roaming IDs



# Delegate Authentication System – Type II

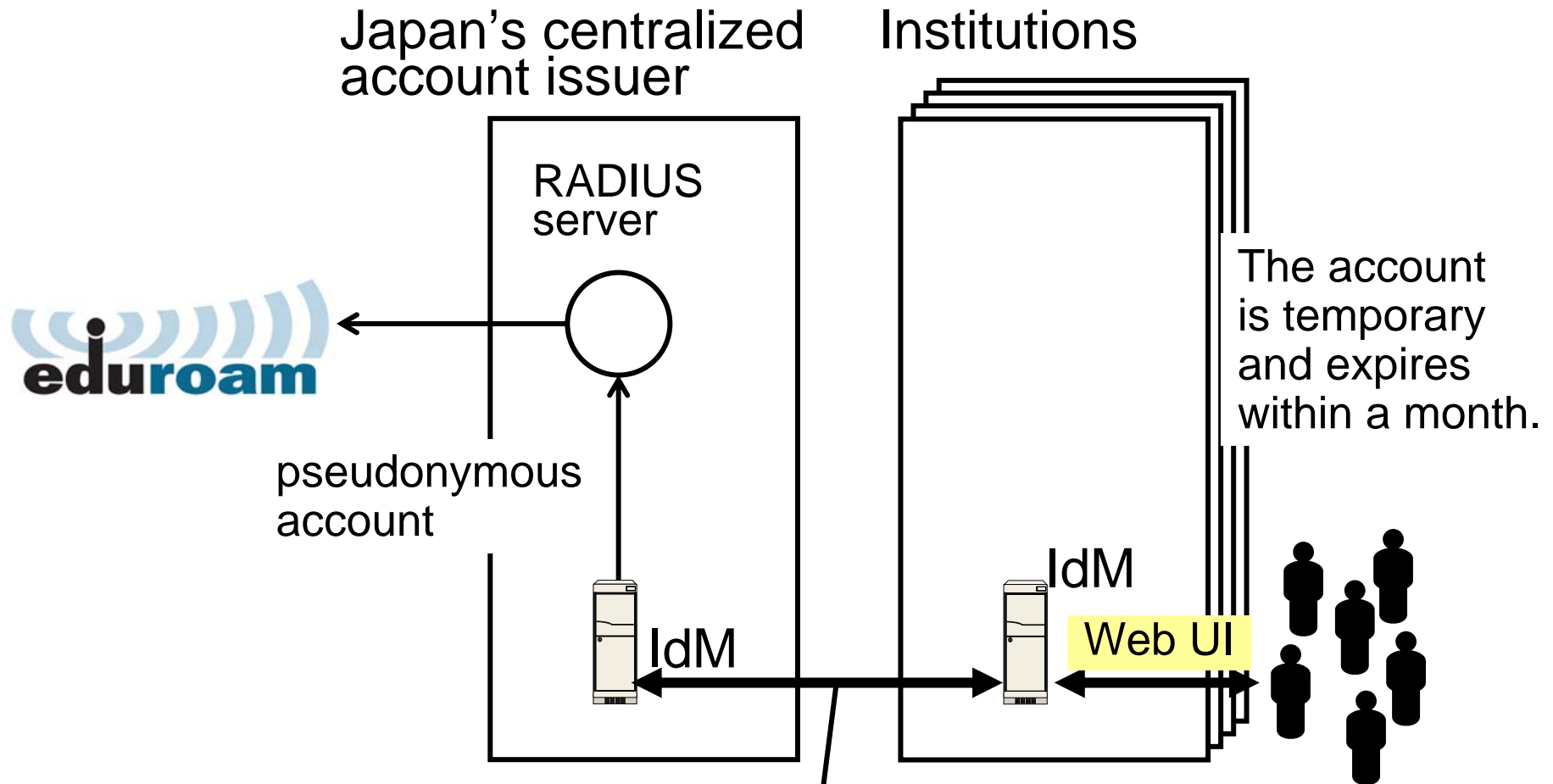


ID federation using Shibboleth/SAML for administrators only.

- Administrators can request for user accounts in bulk.
- Issuing Guest IDs is possible.




# Delegate Authentication System – Type III



ID federation using Shibboleth/SAML

- End user can request for *personal accounts* only.



# Web-based eduroam IdP / SP management system development under way

## Features:

- Application for eduroam IdP / SP connection via eduroam JP website
  - Online sign-up for institutional administrator(s)  
( require approval by the national admin. )
  - Online registration of institution data
- Management console for institutions
  - RADIUS server address and secret setting
  - Enable or disable Self-IdP / DEAS / SP(AP)
- Remote authentication self-testing (planned)





## eduroam / ISP collaboration

Coming soon!

- Negotiation is at the final stage with a commercial Wi-Fi Service Provider
  - We will have hundreds of eduroam APs in the central Tokyo !

---

Outsourcing campus Wi-Fi system would be a key to success of large-scale deployment.



## eduroam / ISP collaboration contd.

- Service level ?
  - experimental (for more than a year)
- Cost ?
  - Free! (as on an experimental basis)
  - contribution to the society by the W-SP
- Any technical considerations?
  - Non-standard SSID: `eduroam-<operator_name>`
    - avoid *connection flapping* between different operators
    - make AP's owner clearer
    - commercial purposes!

