



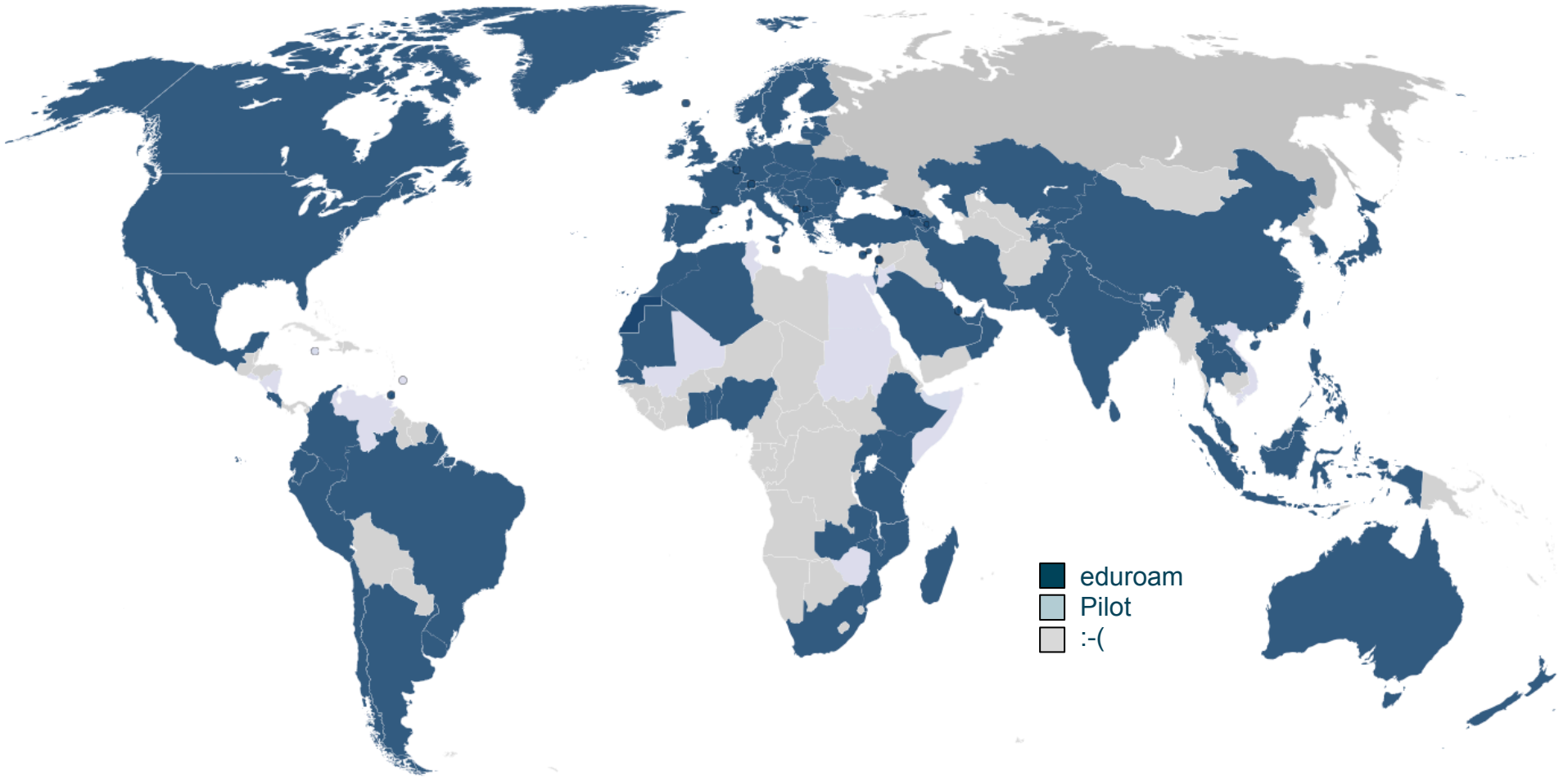
Establishing an eduroam Confederation to Empower the Pacific:
Connecting the Unconnected in Research and Education

AP* Retreat – Sunday 23rd February 2025

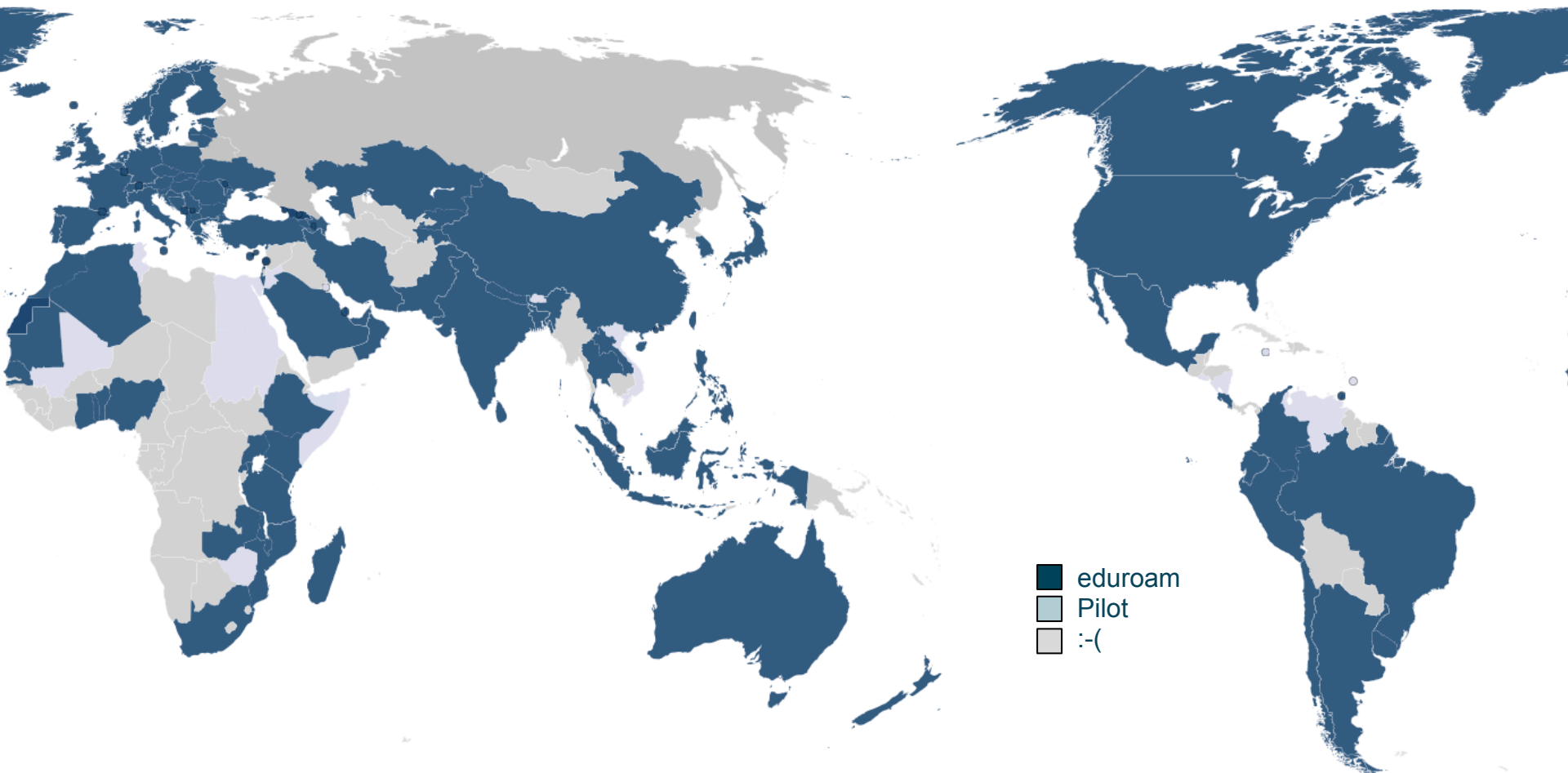
Brook Schofield

brook.schofield@gmail.com

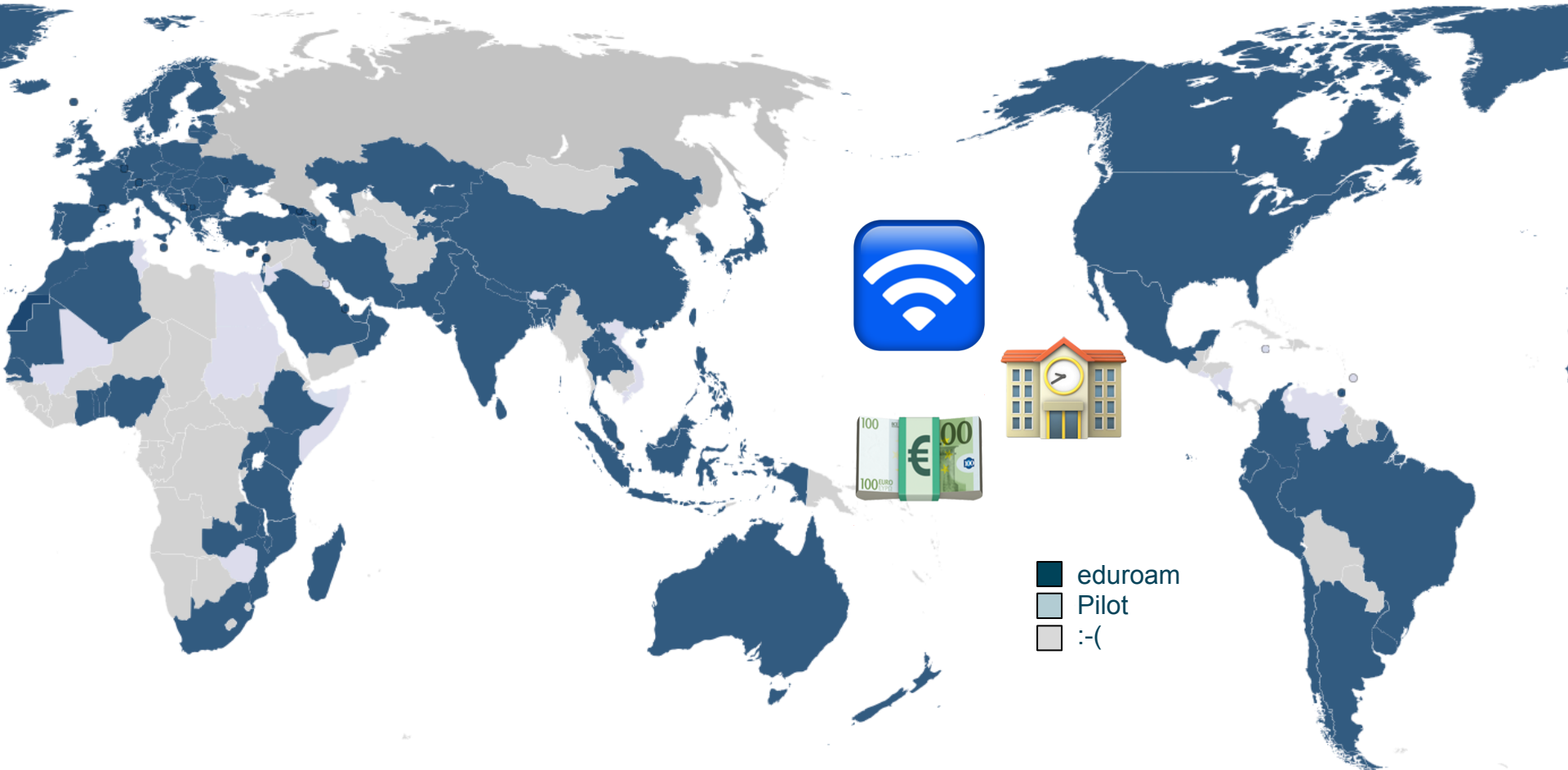
Where is eduroam?



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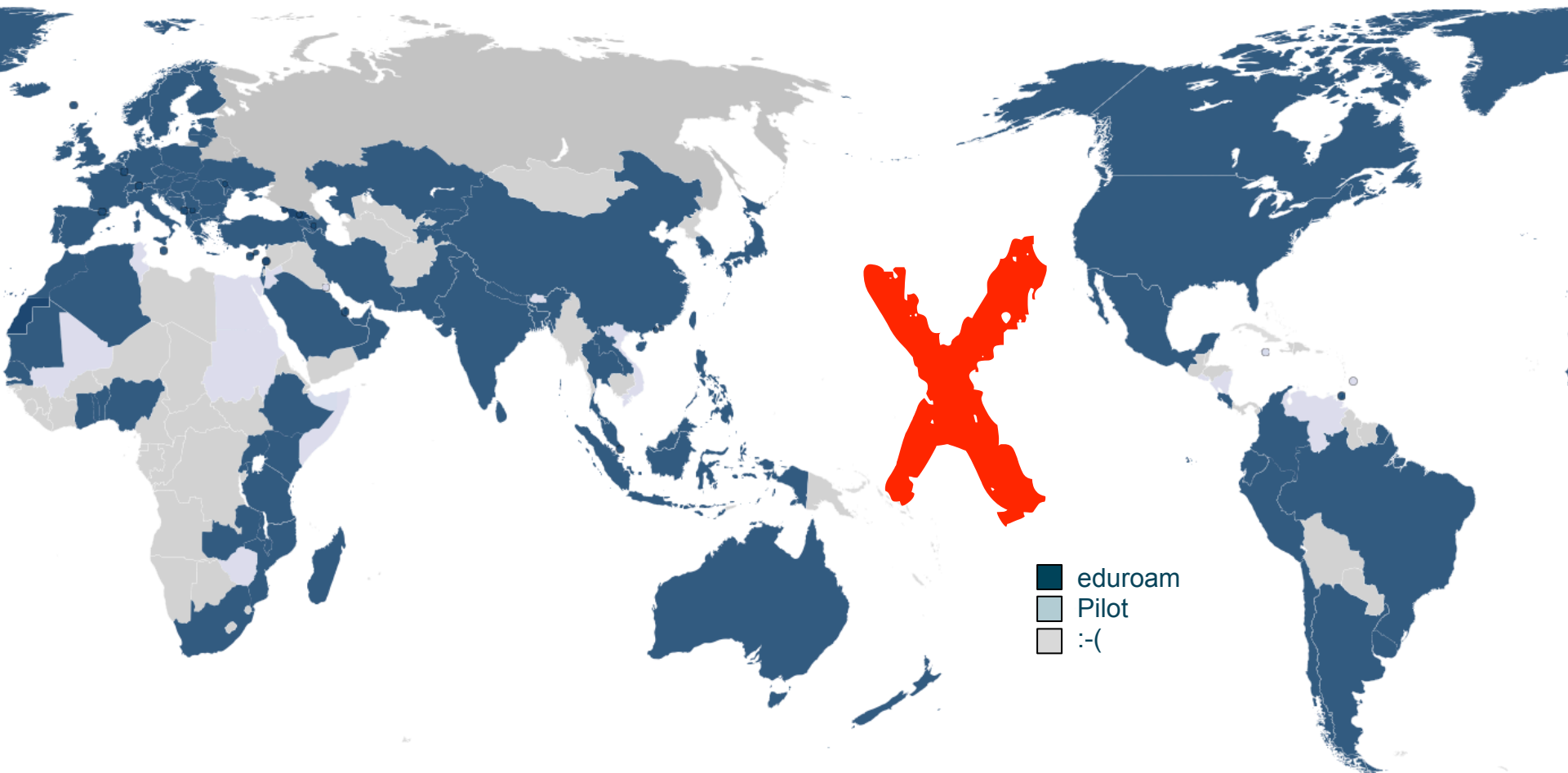


Where is eduroam?



- eduroam
- Pilot
- :-)

Where is eduroam?



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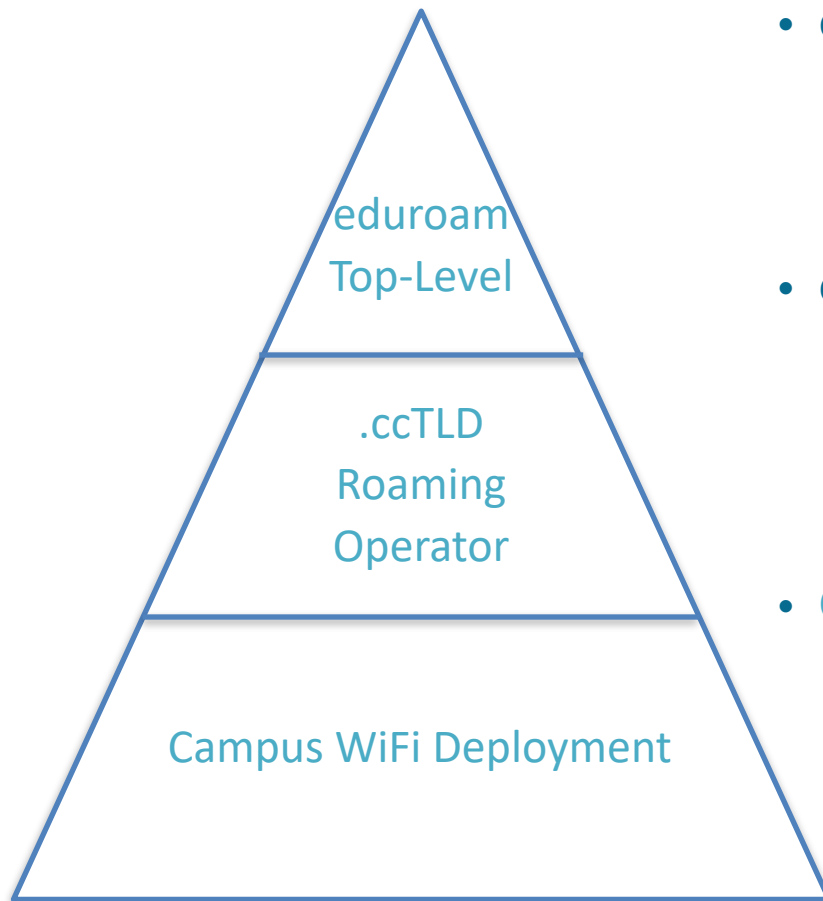


- **eduroam in the Asia/Pacific**

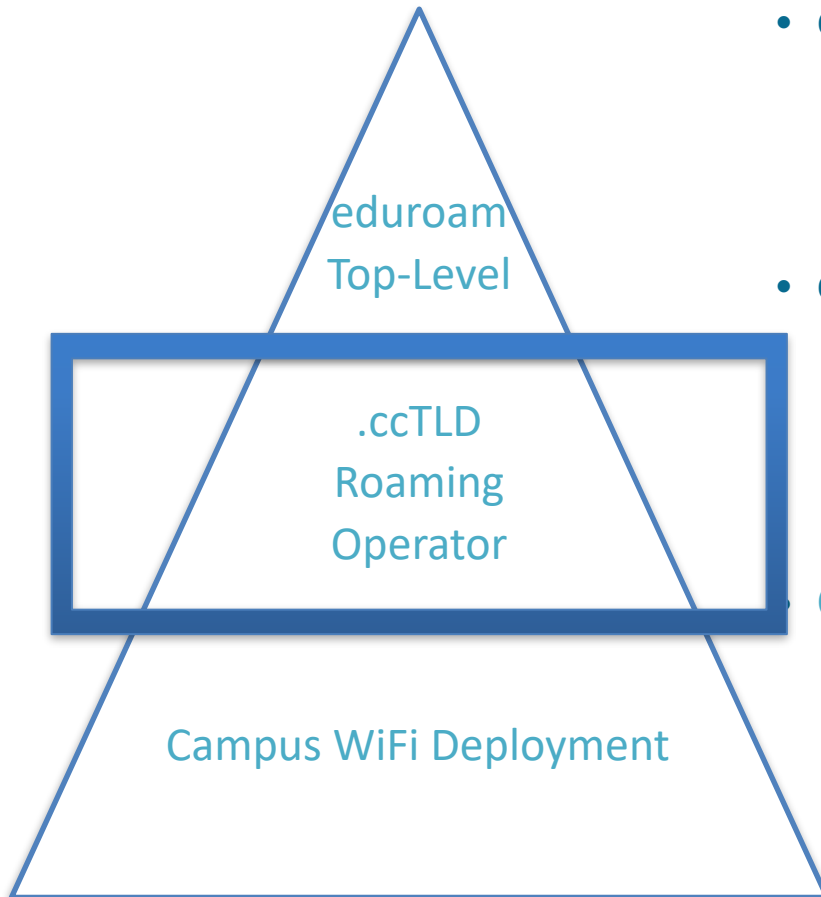
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- **Stats**

- 7 of 29 Oceania
- 3 of 5 Landlocked
- 5 of 22 Small Island Developing States
- 504 **missing** Research Institutions
 - Many more *Education Insts*



- **eduroam Top-Level**
 - Connects 100's of Countries
 - Monitoring for Country Roaming Operators
 - Increased Shared Services
- **ccTLD Roaming Operator (*usually an NREN*)**
 - Connects to the 2 top-level servers (or regional)
 - ...and all the universities, schools, libraries.
 - Helpdesk, WebSite, Management Agreements, TM & [®]
- **Campus WiFi Deployment**
 - Connects to ccTLD Roaming Operator
 - Manages Local WiFi
 - Manages User Accounts
 - Local User Helpdesk (and maybe visitors)



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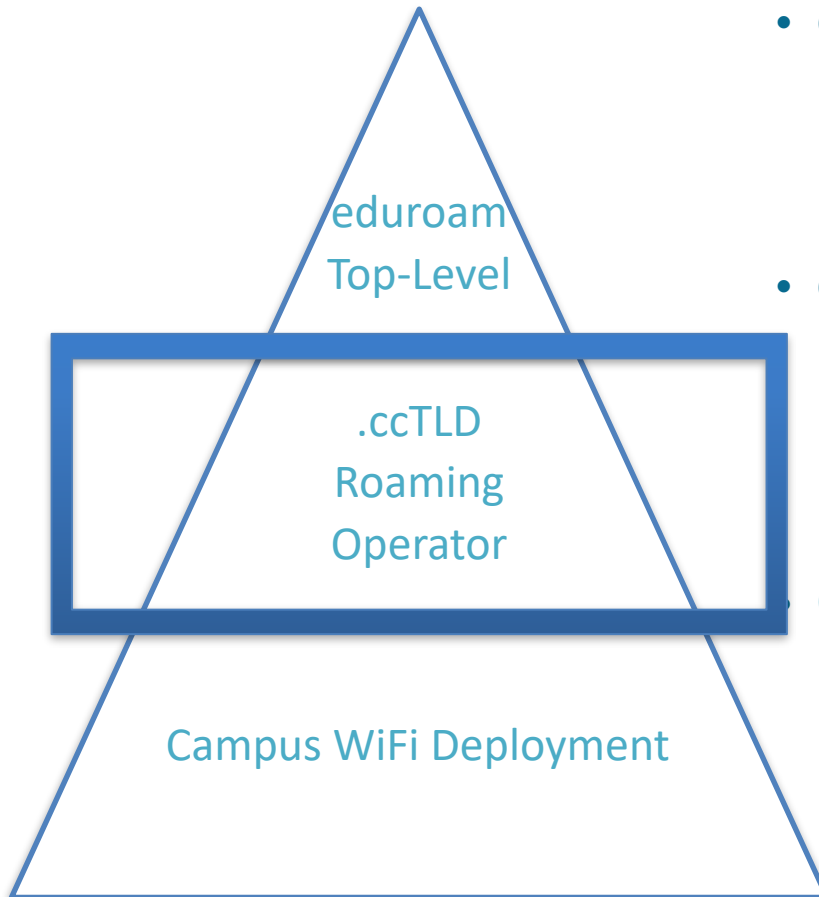
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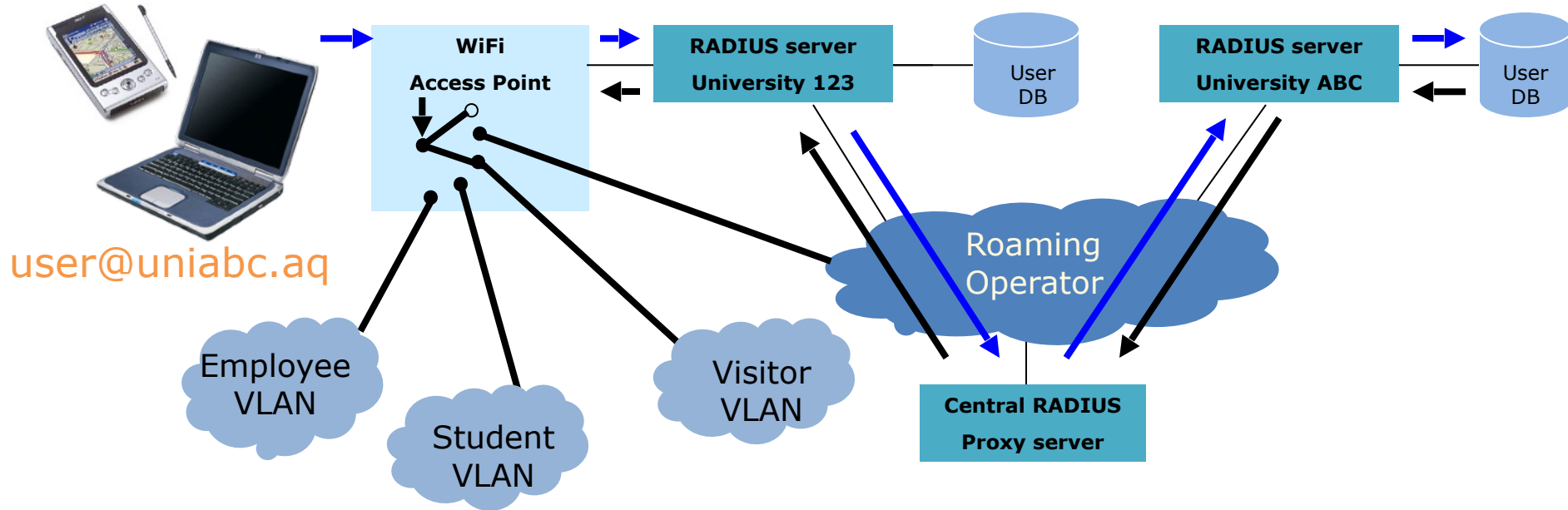
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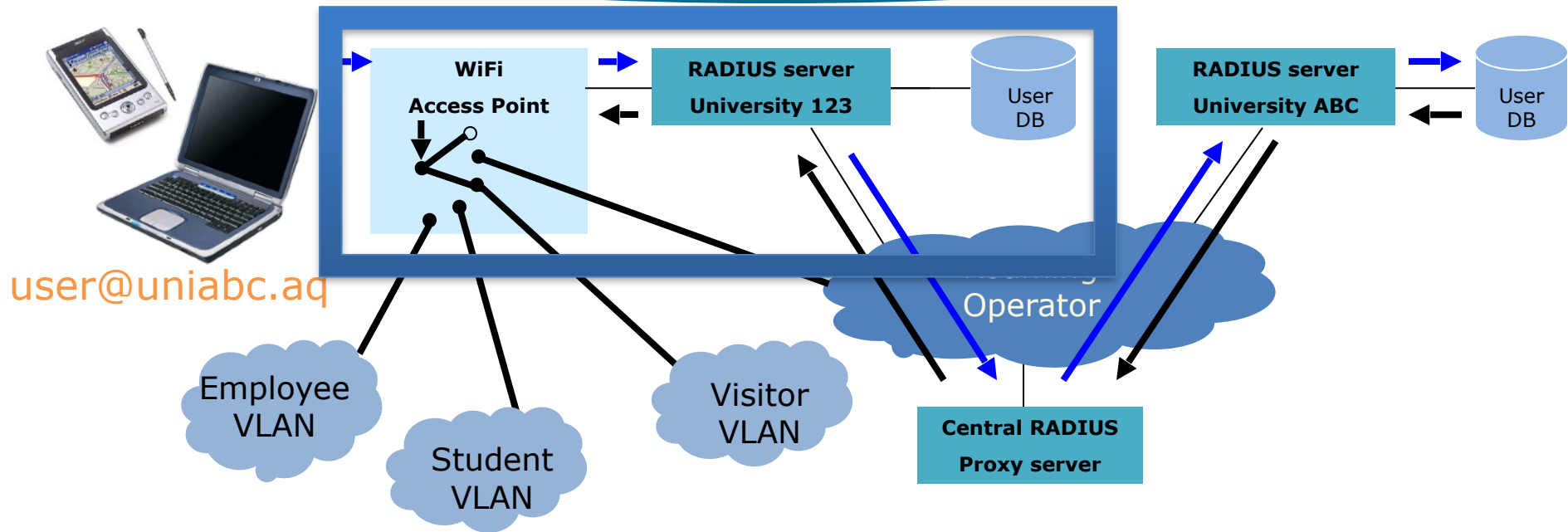
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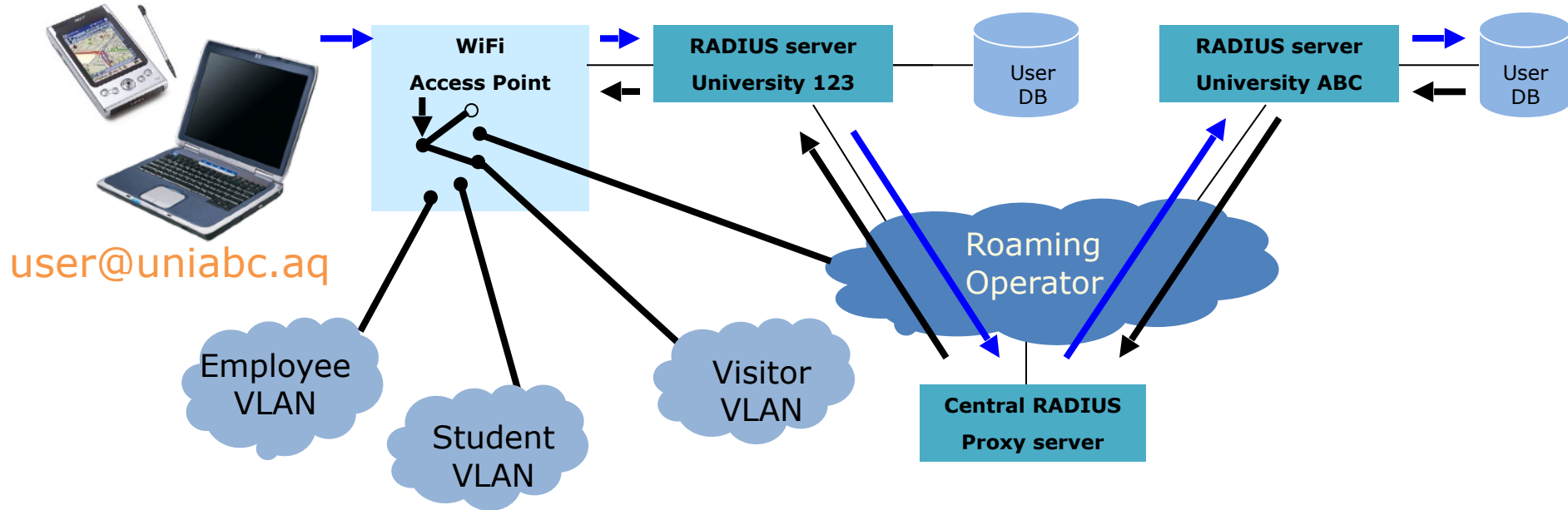
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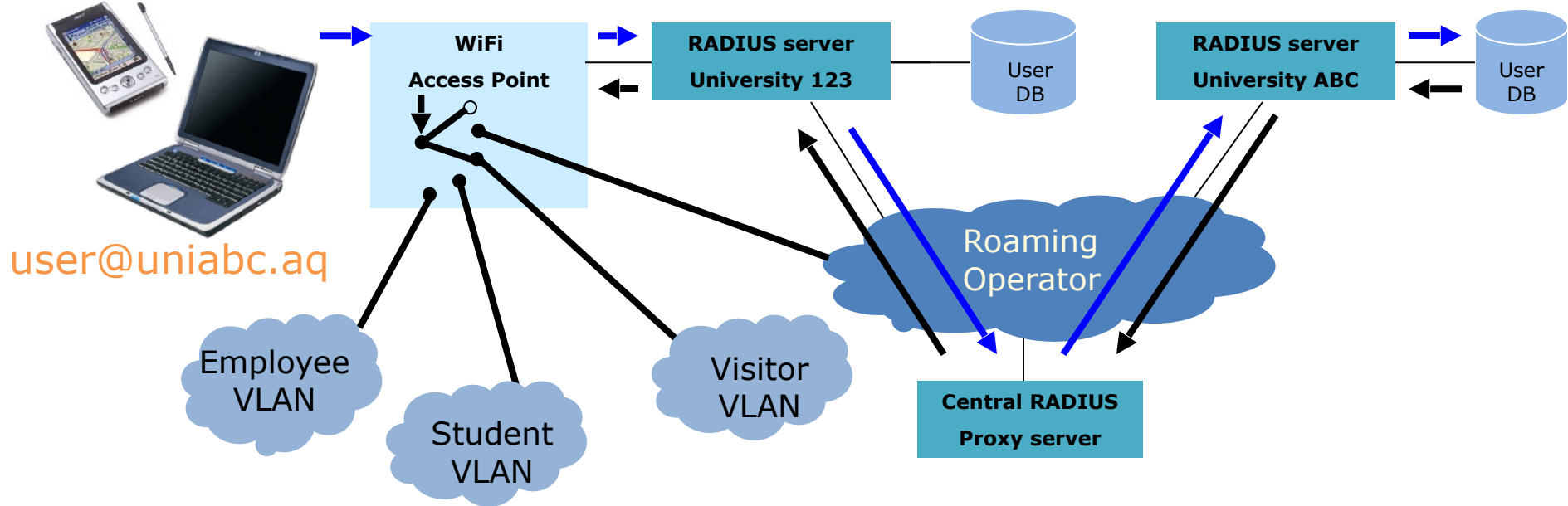
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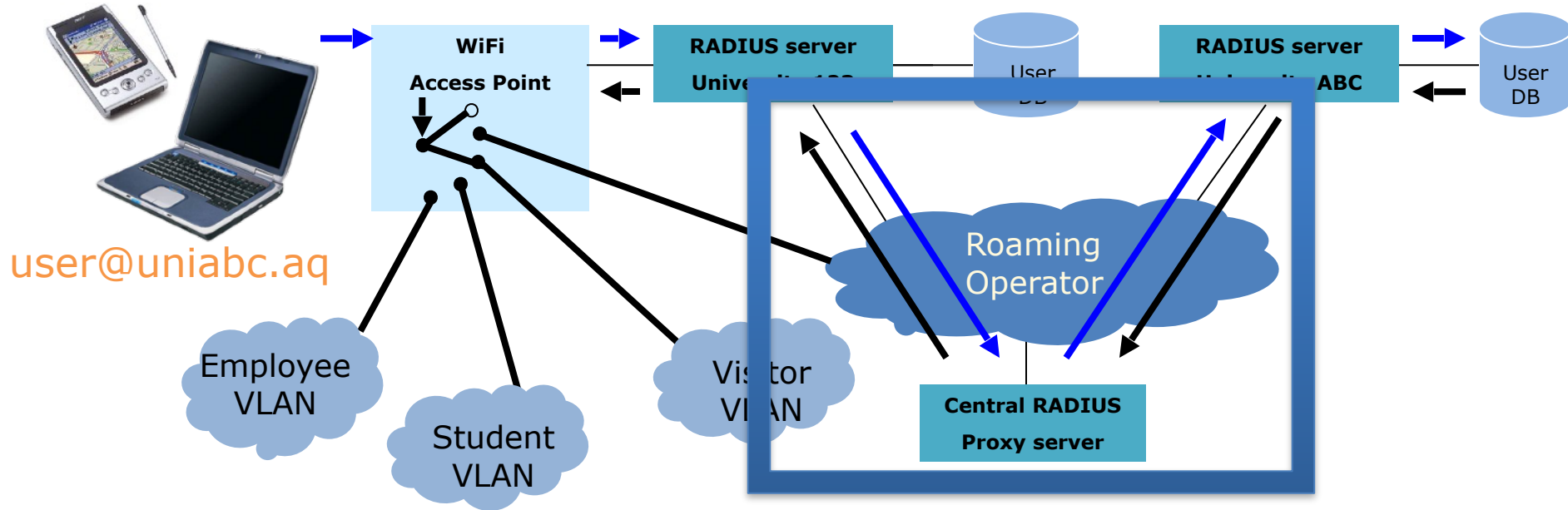
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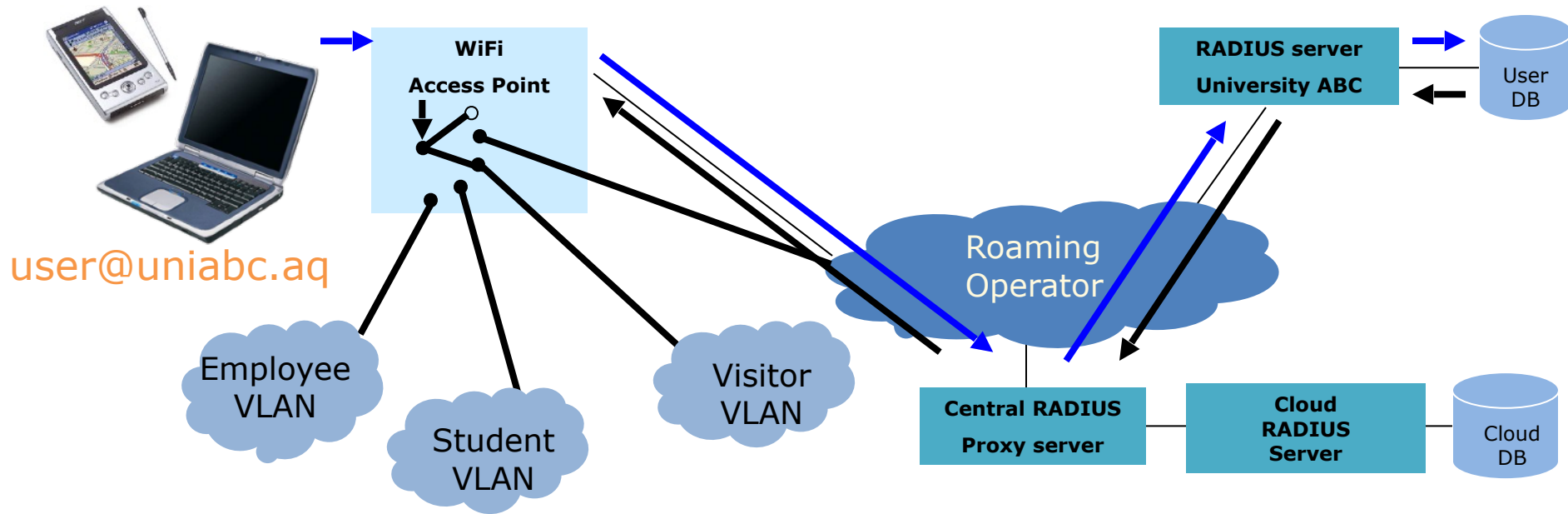


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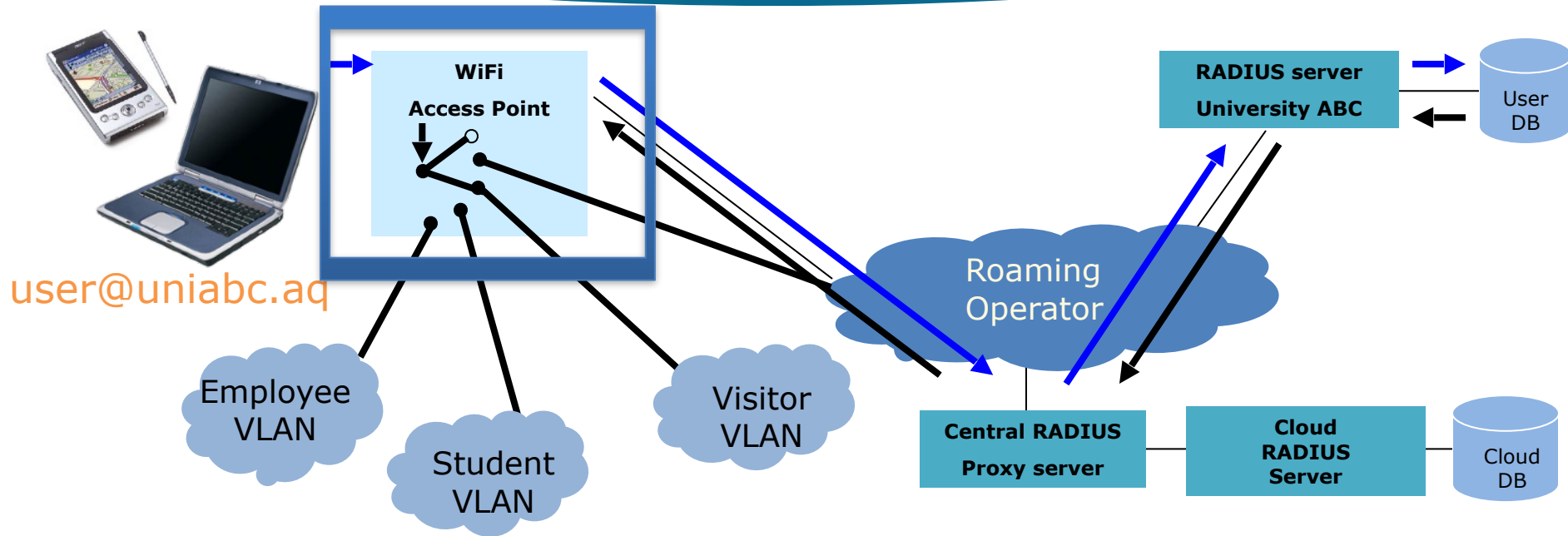
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A dedicated approach for the Pacific



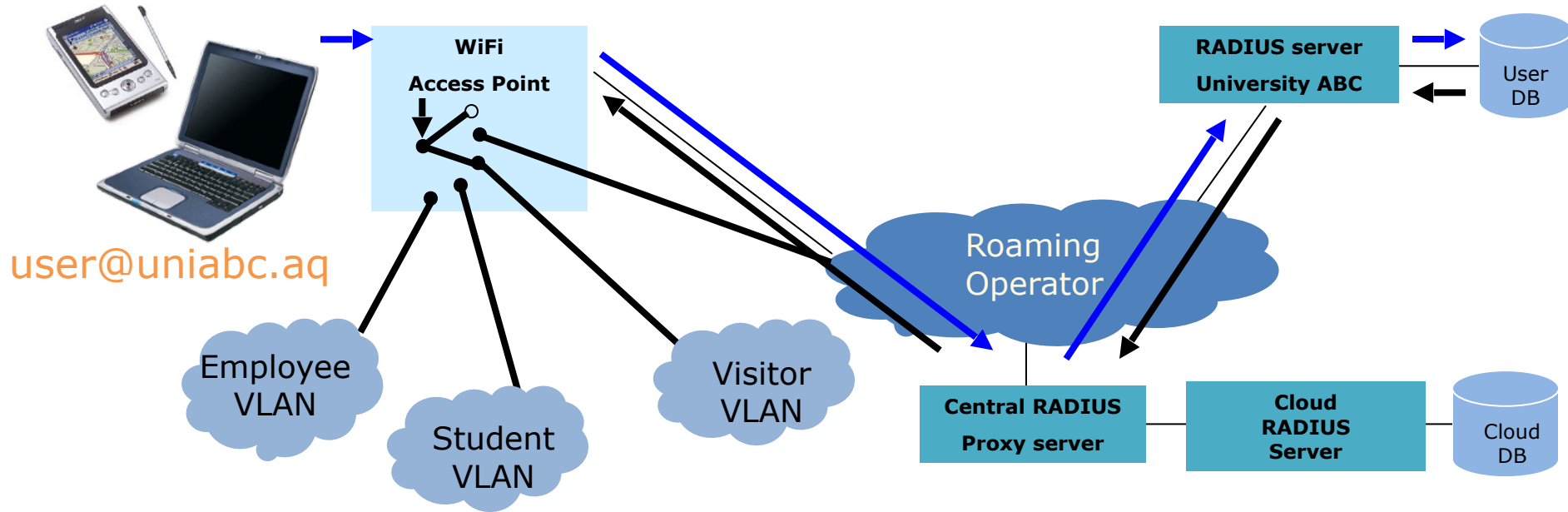
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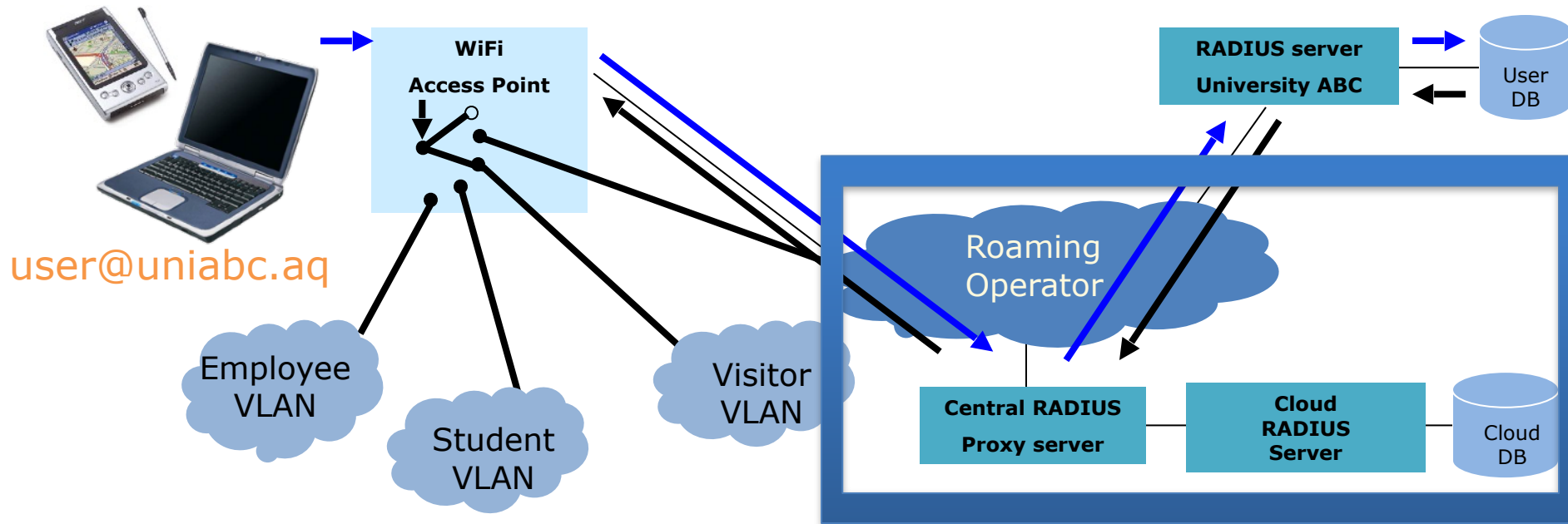
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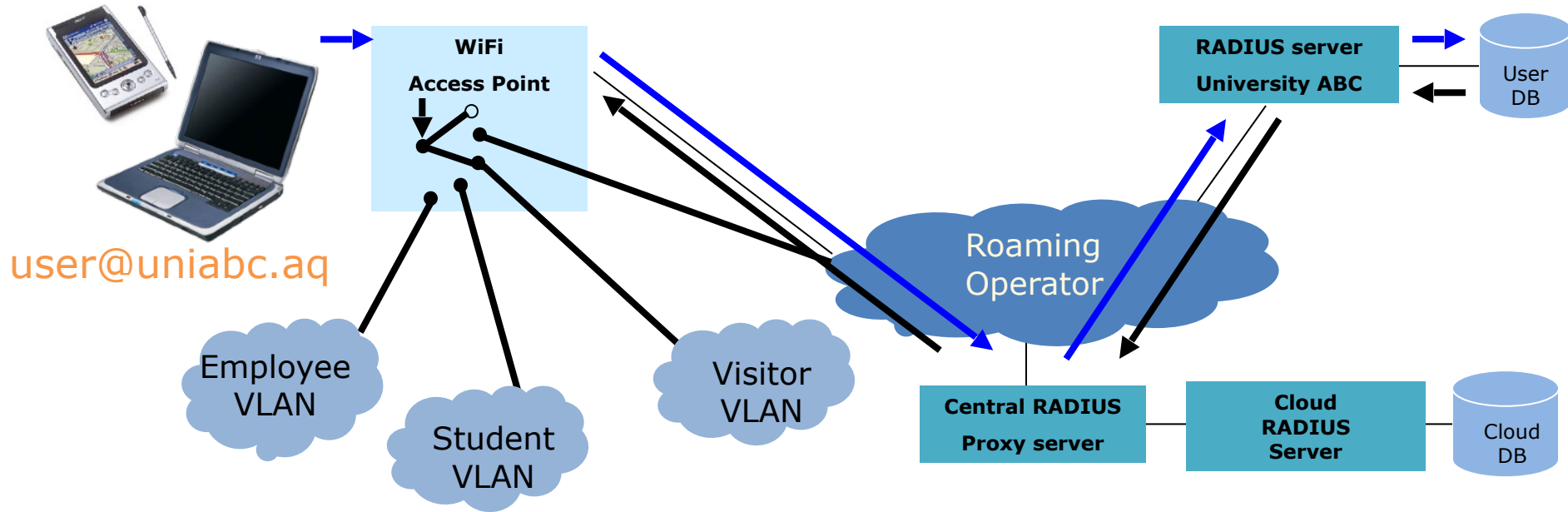
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A map of the Pacific region, including Asia, Australia, and Oceania, with the landmasses highlighted in dark blue against a light grey background.

- **Make eduroam Easier**

- Allow institutions to connect without a “National” Roaming Operator or Campus RADIUS
- Centralise admin & compliance
- Shared services
- Lower costs

- **Make eduroam Stricter**

- Quality Assurance of WiFi
 - Mapping
 - Periodic Testing
- Auditing

- **Make eduroam Sustainable**

- Pooled Funding \$€¥₹₪ + Costs
- Incentives (or Penalties)

Not just eduroaming...



- More roaming options...



- **Call to Action**

- Stakeholders & Governance:
 - AP* Retreat advice + guidance
- Funding:
 - APNIC.Foundation, ISOC

- **Deployment**

- National Champions
- Capable Institutions
- ...Develop Policy + Pricing (not per user)

- **Why me?**

- 18th year in eduroam
- Founding Secretary of the GeGC
- Grew eduroam from 45 to 110+ territories





Questions?

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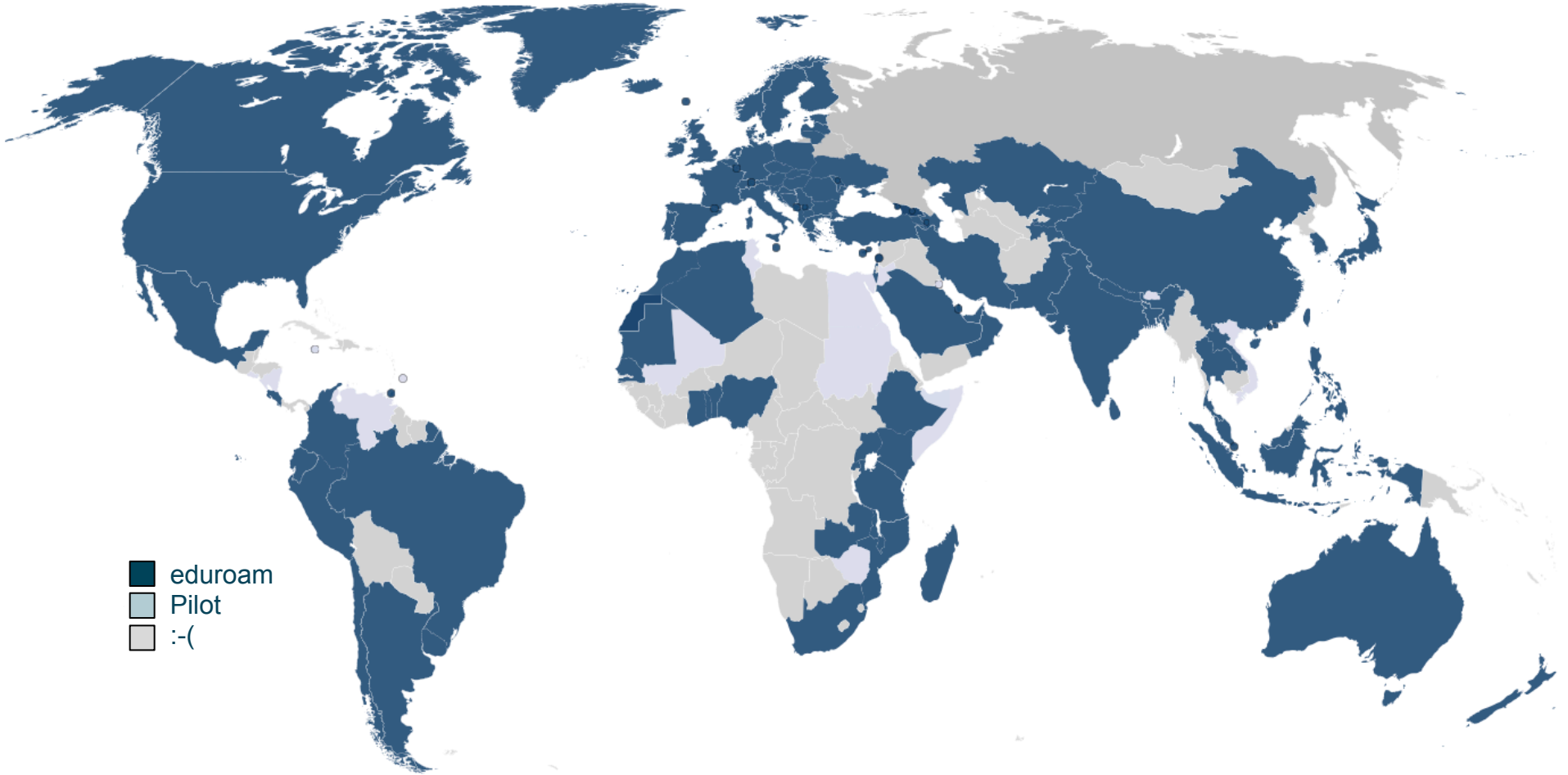
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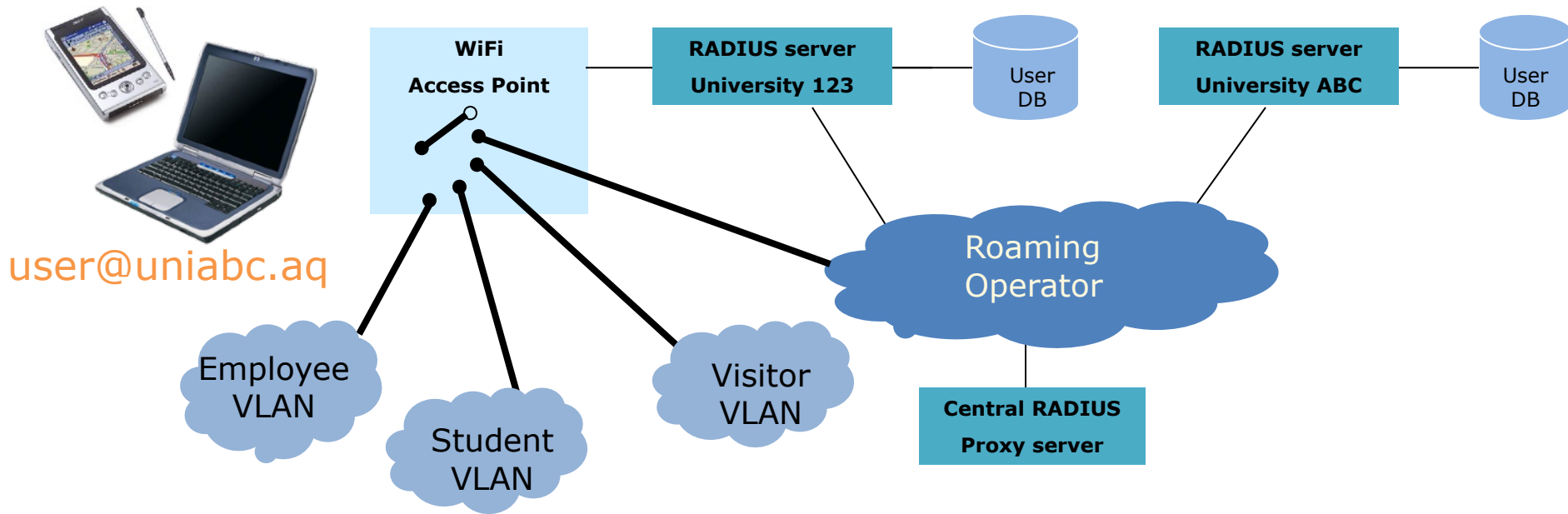
- **eduroam is a global wireless roaming network, based on:**
 - WPA2/Enterprise & 802.1X (network access control)
 - RADIUS (infrastructure to transport credentials)
 - Trust fabric (RADIUS hierarchy and policy)
 - No web splash screen portal or shared passwords
- **Started in the *TERENA* Task Force “Mobility”**
- **eduroam = education roaming**
- **Free for roaming users**

What is NOT eduroam?



- **eduroam is NOT free internet**
 - It's free *access* to internet (for research & education)
- **eduroam is NOT free infrastructure**
 - Universities still need to build wifi networks
- **eduroam is NOT free of cost/admin**
 - A high quality campus network is the entrance fee
 - Roaming Operator has admin costs

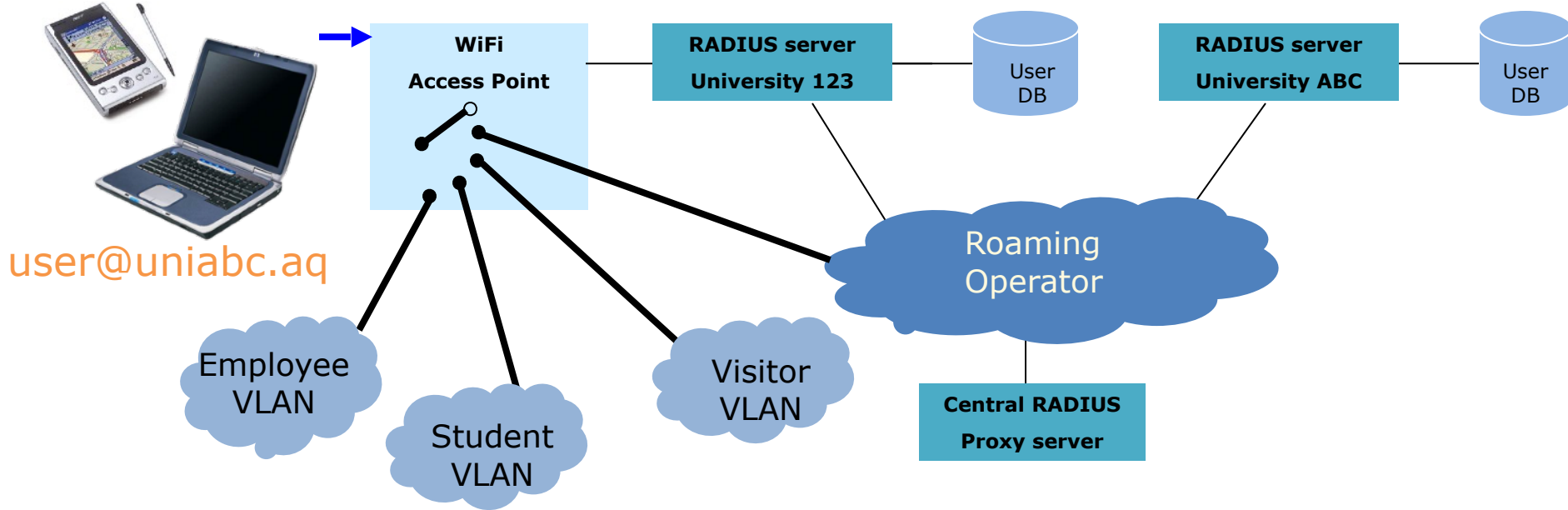
How eduroam *typically* works



→ signaling
= data

- Trust based on national policy
- Security based on 802.1X/RADIUS
- VLAN assignment to separate users

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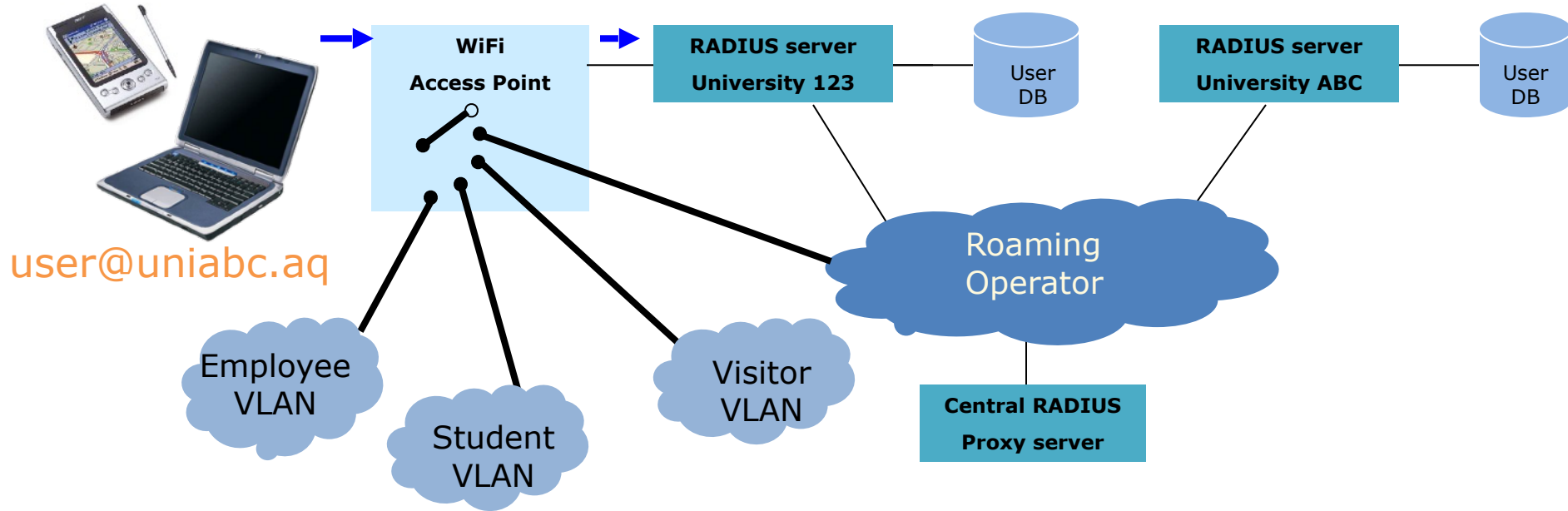


user@uniabc.aq

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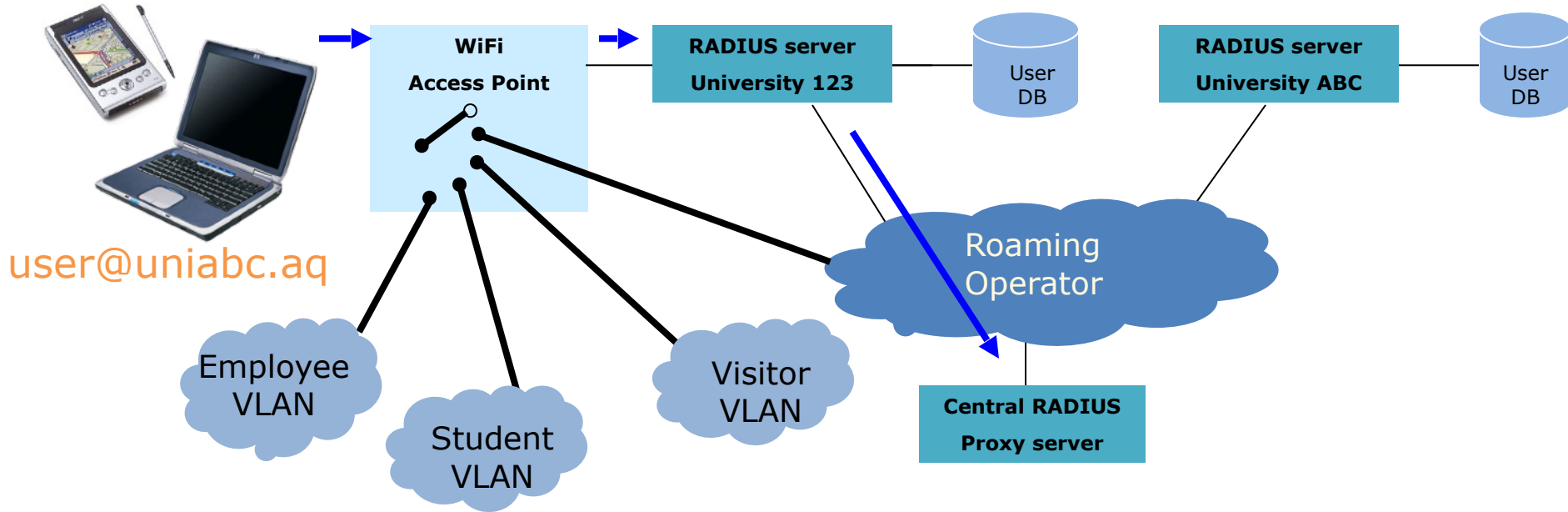
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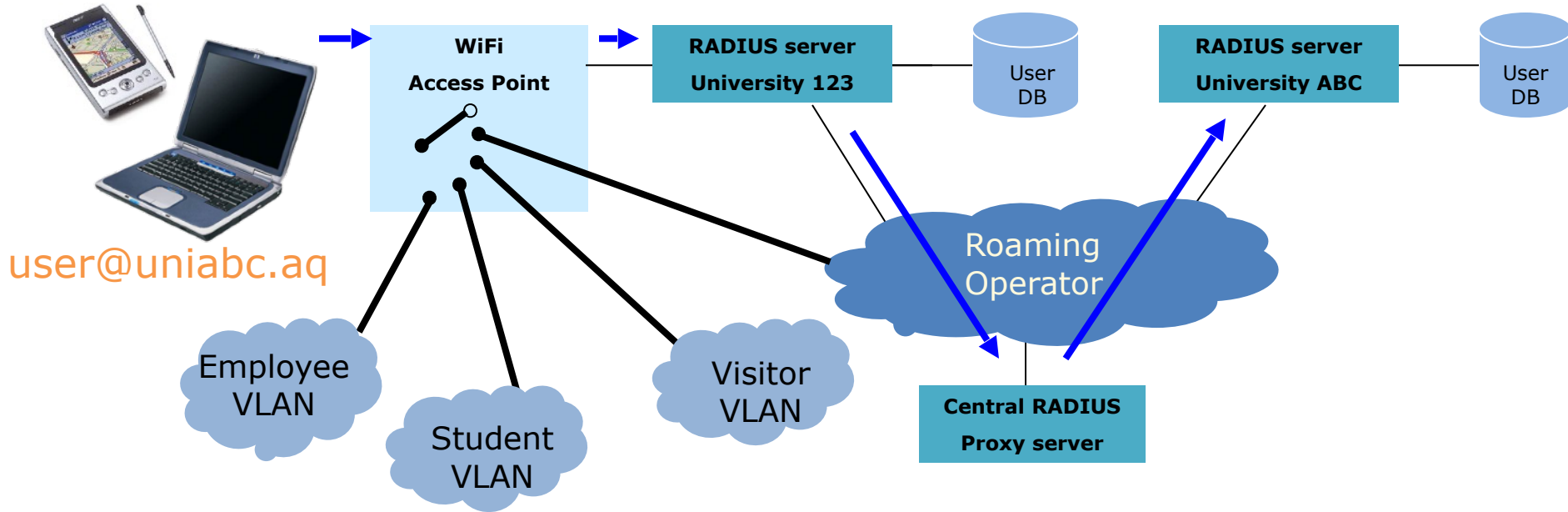
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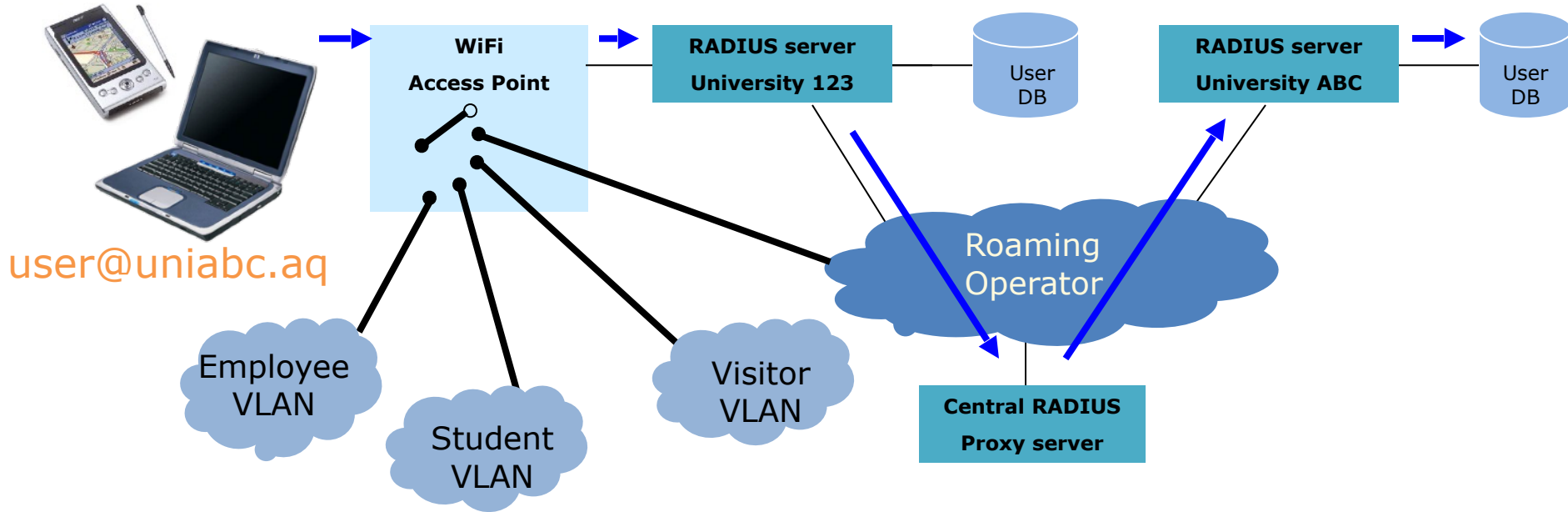
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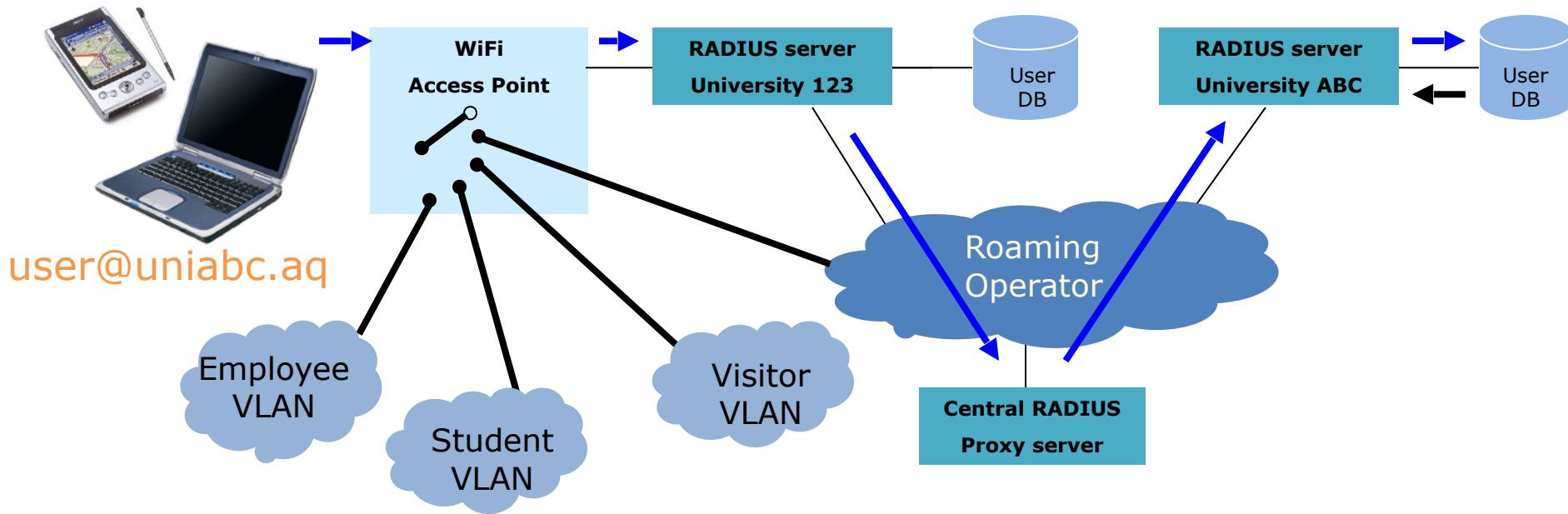
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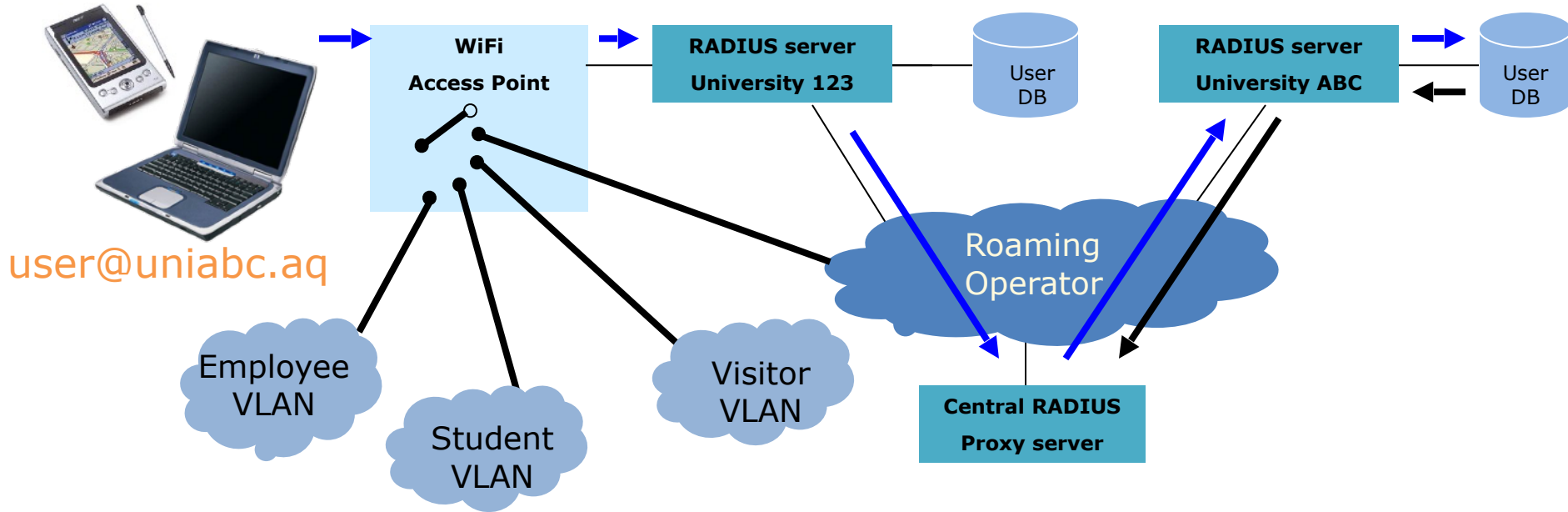
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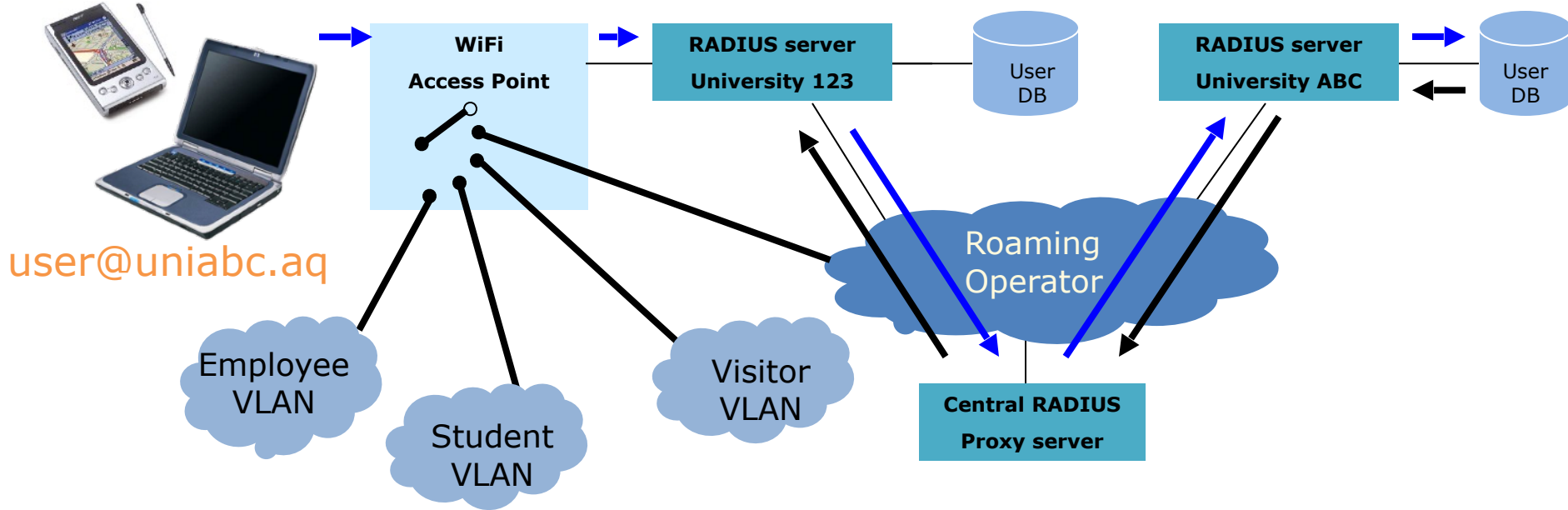
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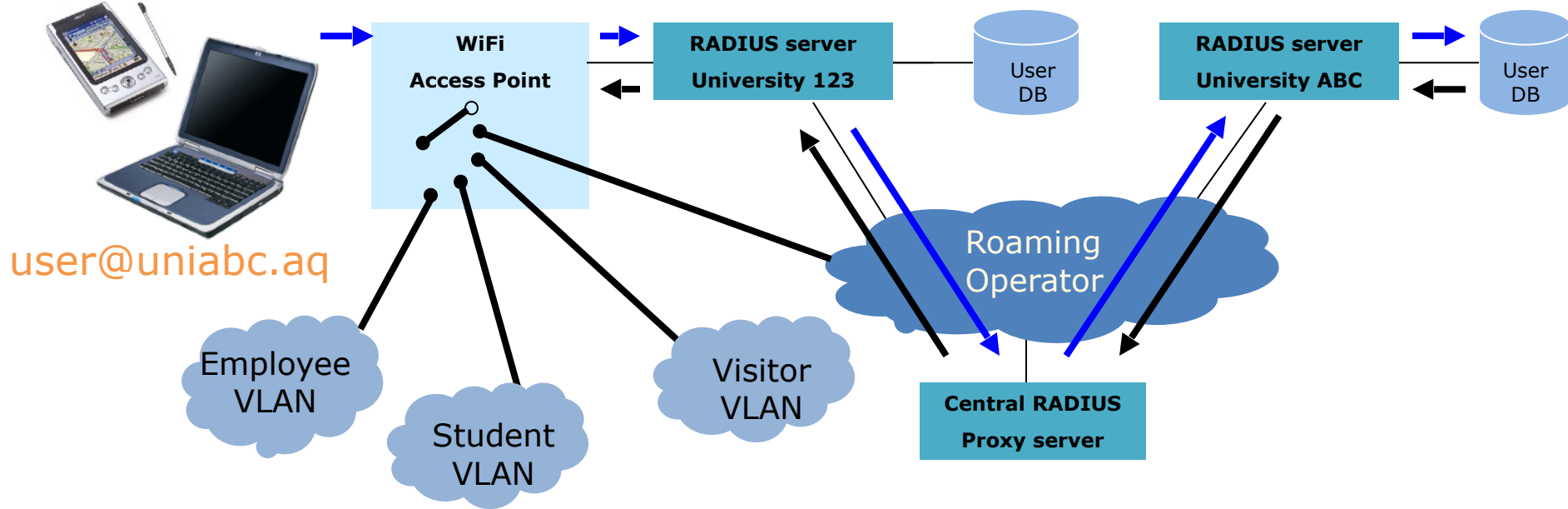
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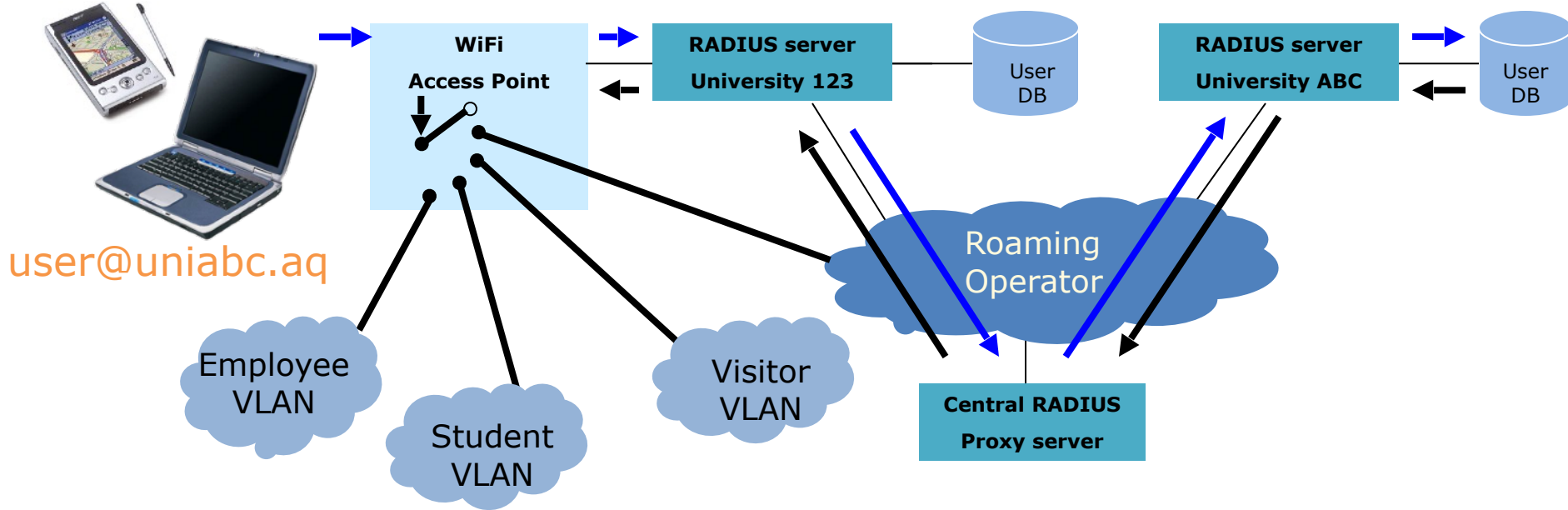
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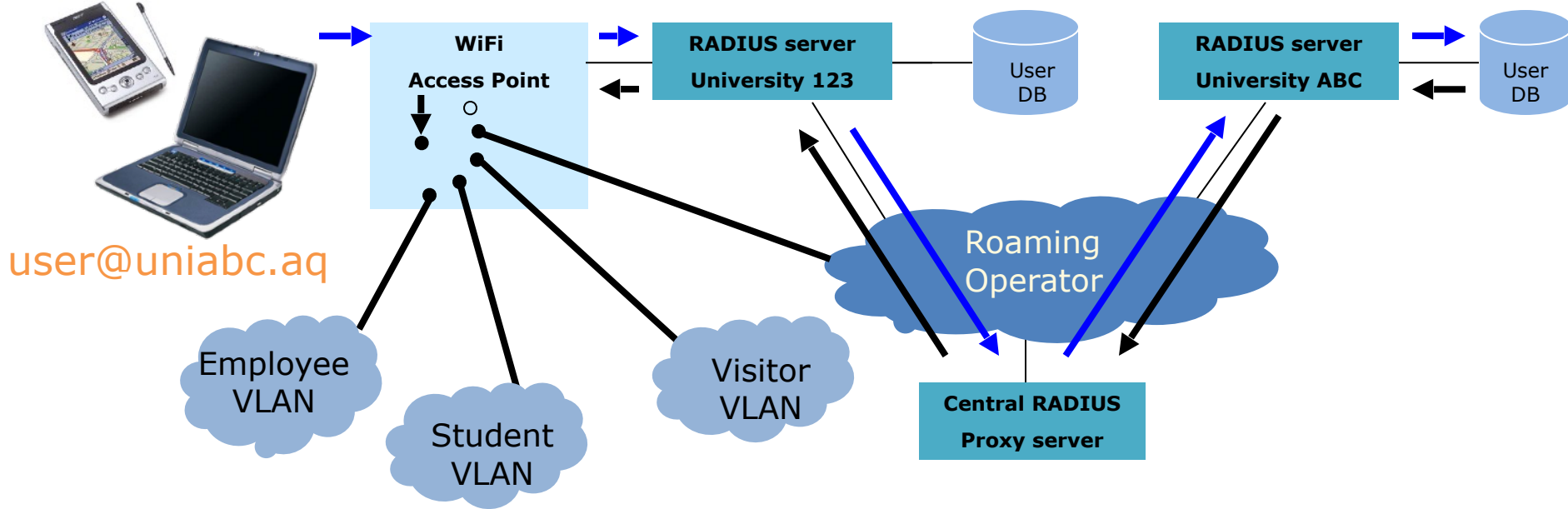
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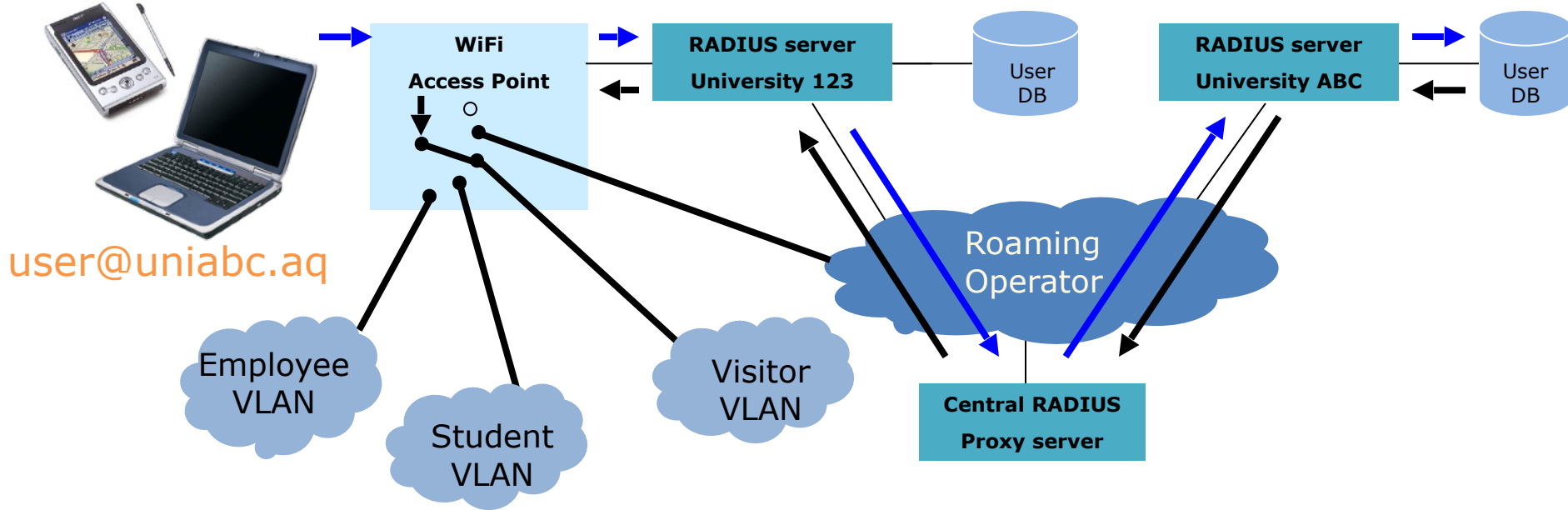
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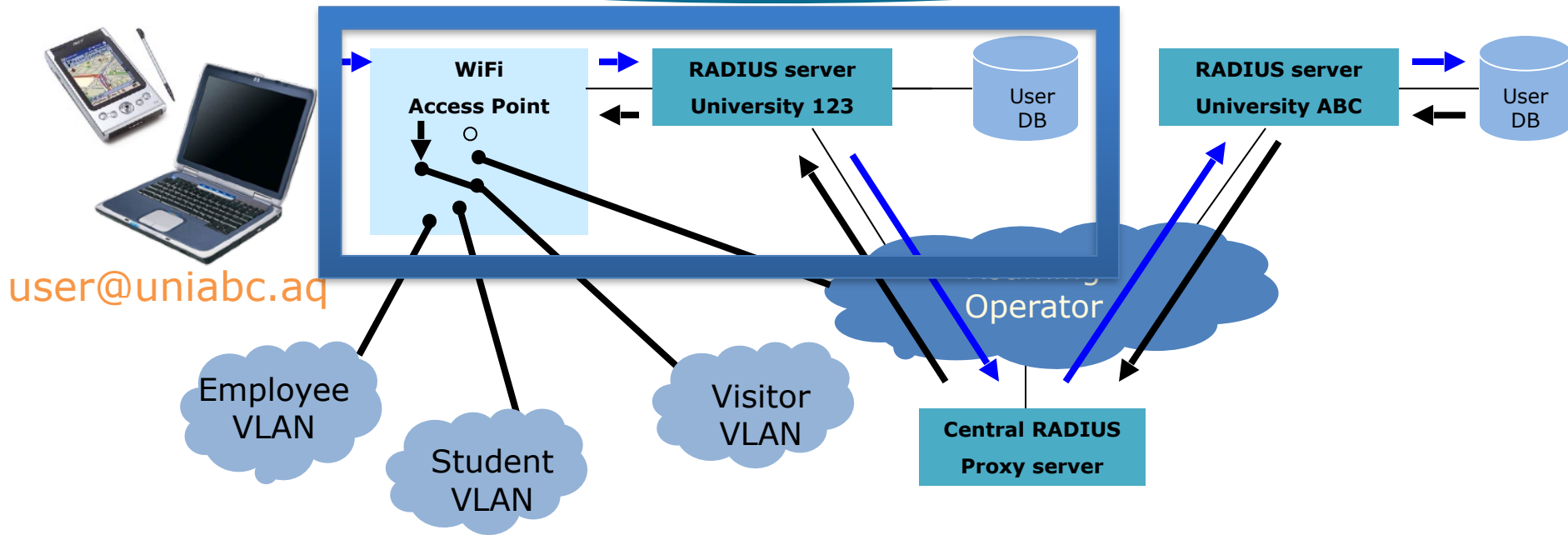
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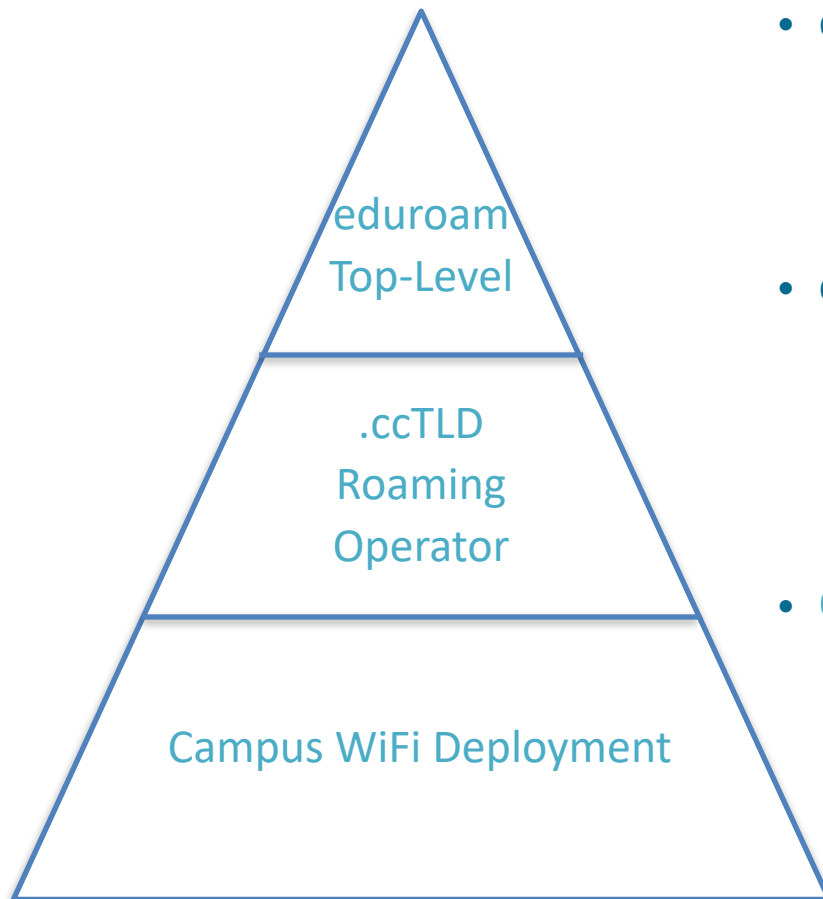
- Australia, New Zealand, China, Philippines, Bangladesh, India, Pakistan, Korea, Hong Kong, Macau, Japan, Indonesia, Malaysia, Thailand, Laos, Sri Lanka, Taiwan, Iran, Central Asia

- **Pilot Deployments**

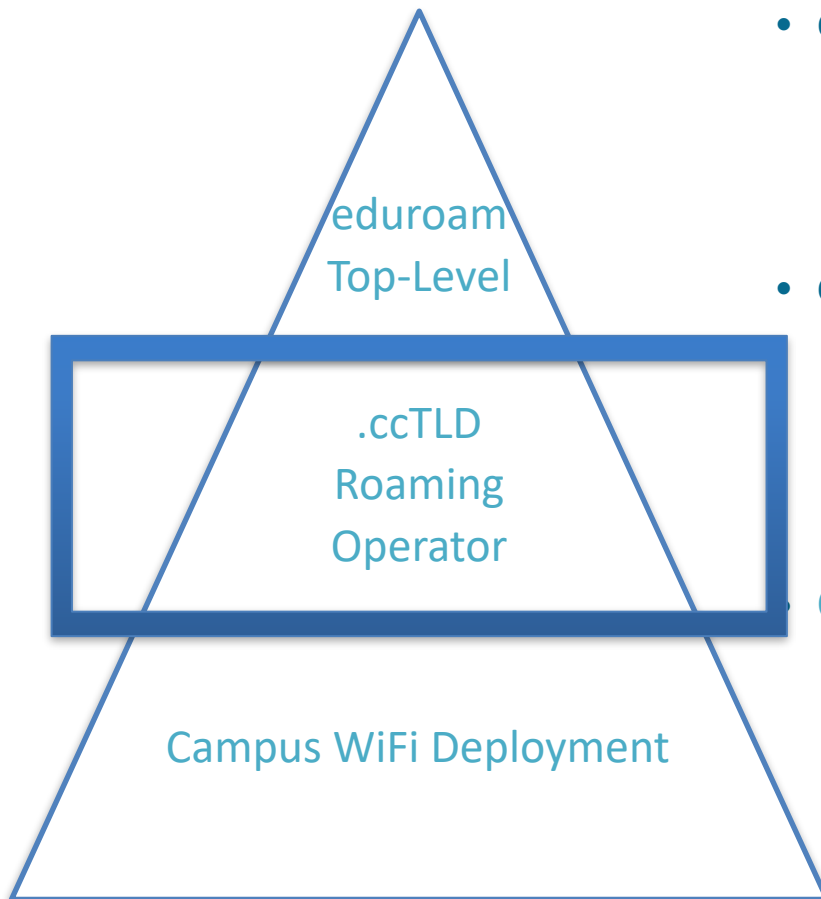
- Cambodia, Bhutan, Afghanistan

- **Potential**

- Timor-Leste, PNG, Vietnam, Brunei, Mongolia, Tonga, Samoa + Pacific



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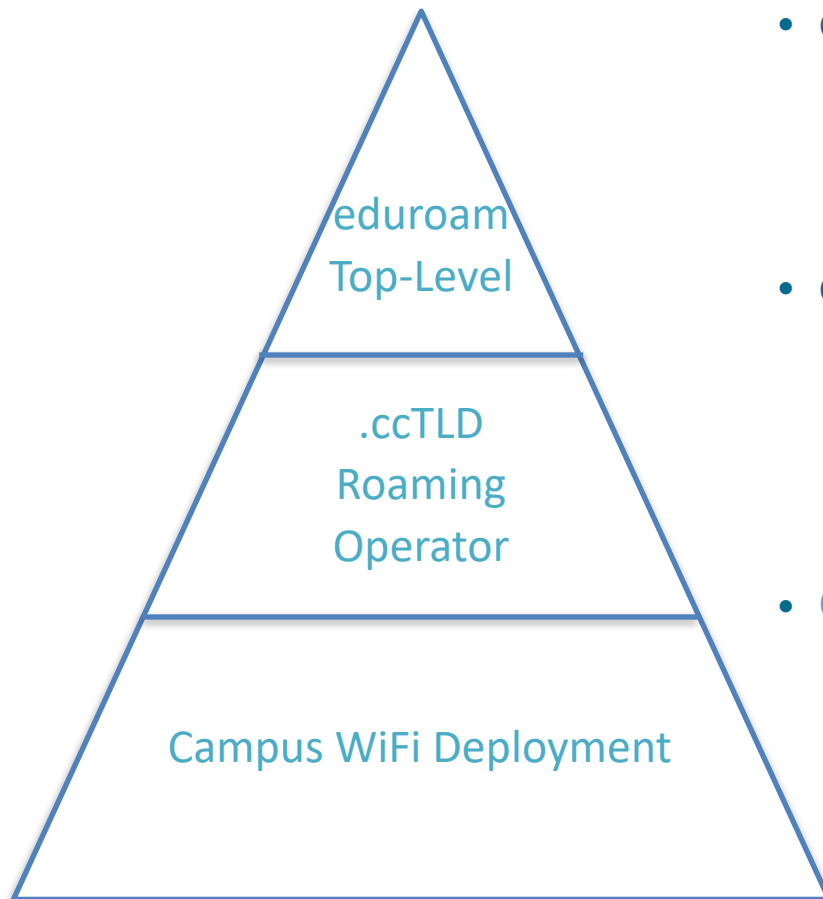
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What about the Pacific?

- **Get eduroam by asking your NREN**

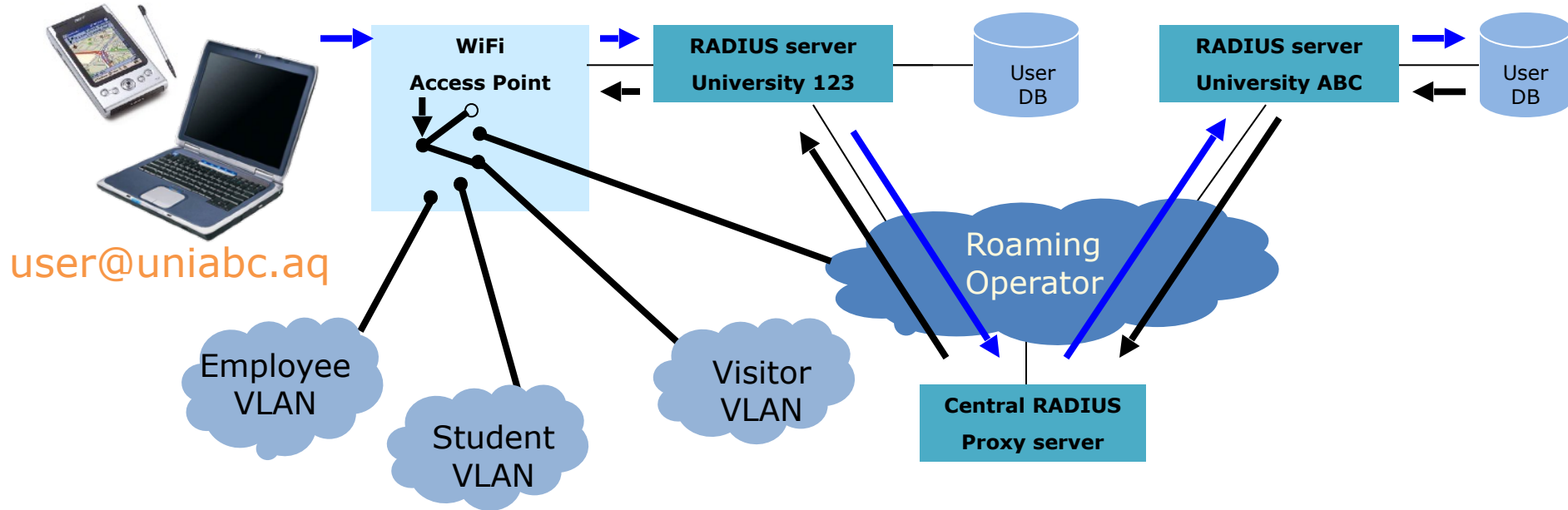
- French Territories supported by  **RENATER**
CONNECTEUR DE SAVOIRS
- Everyone else???

- **eduroam in the Pacific**

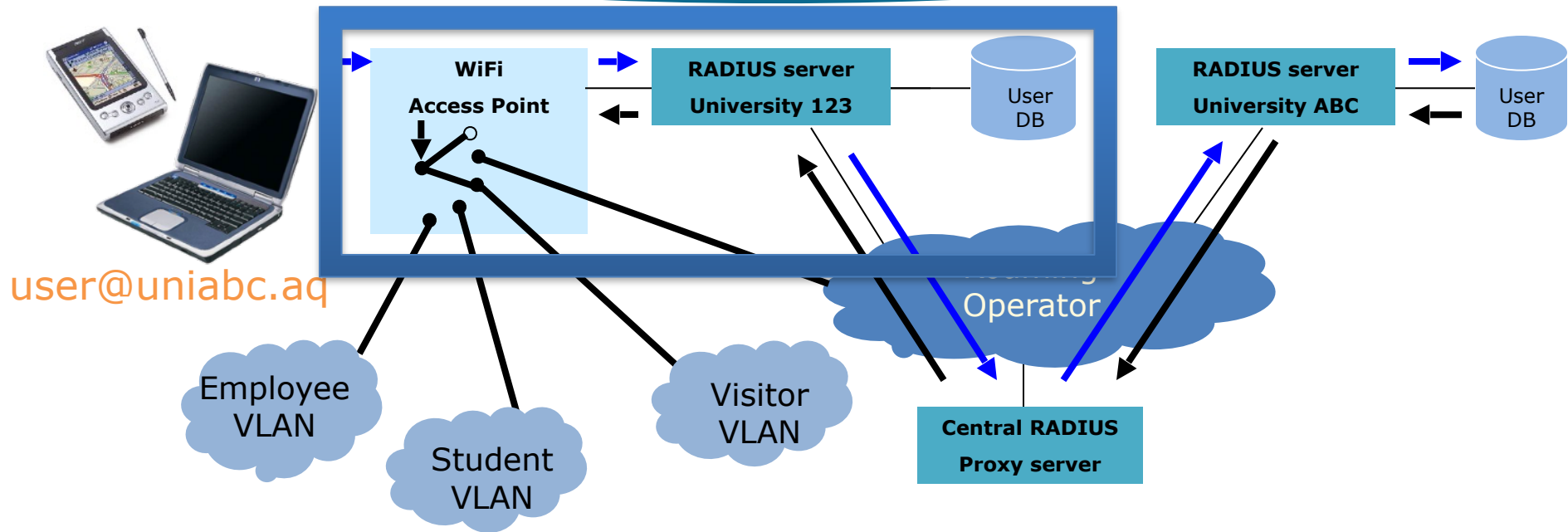
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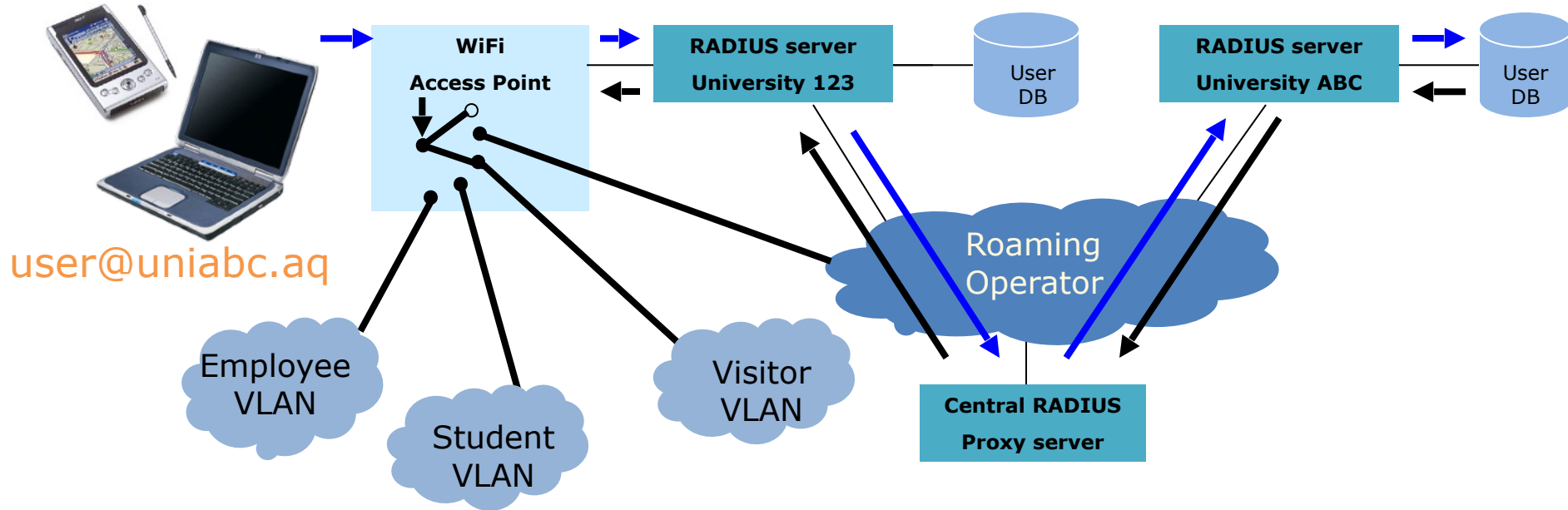
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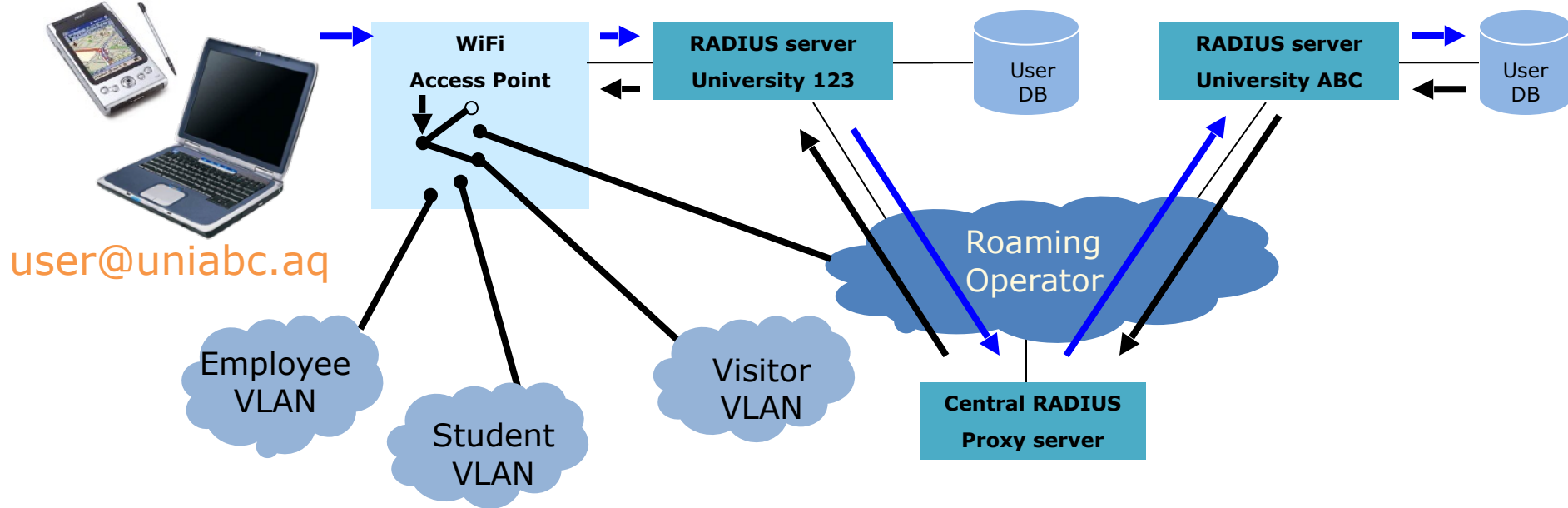
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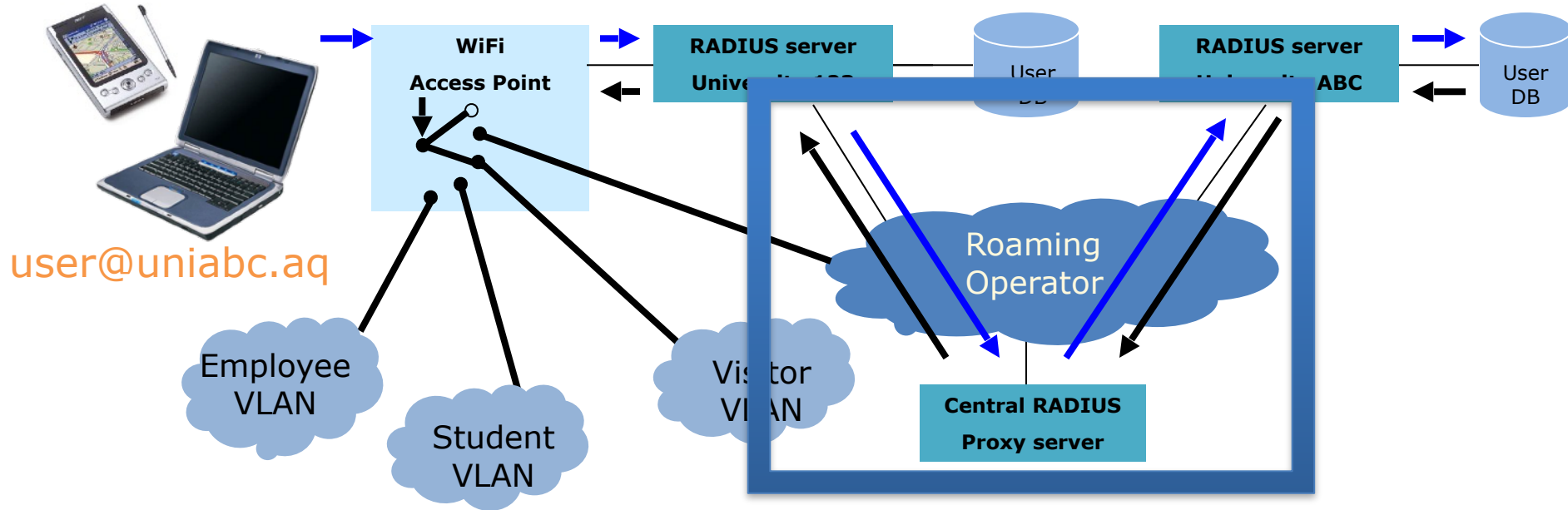
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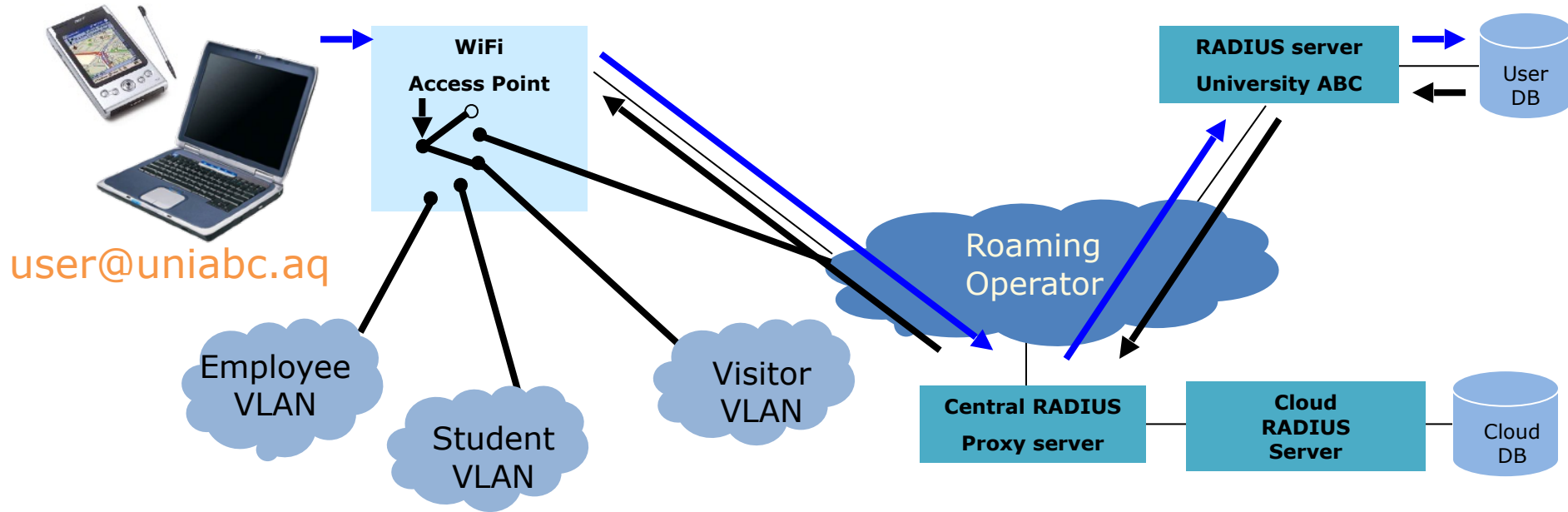


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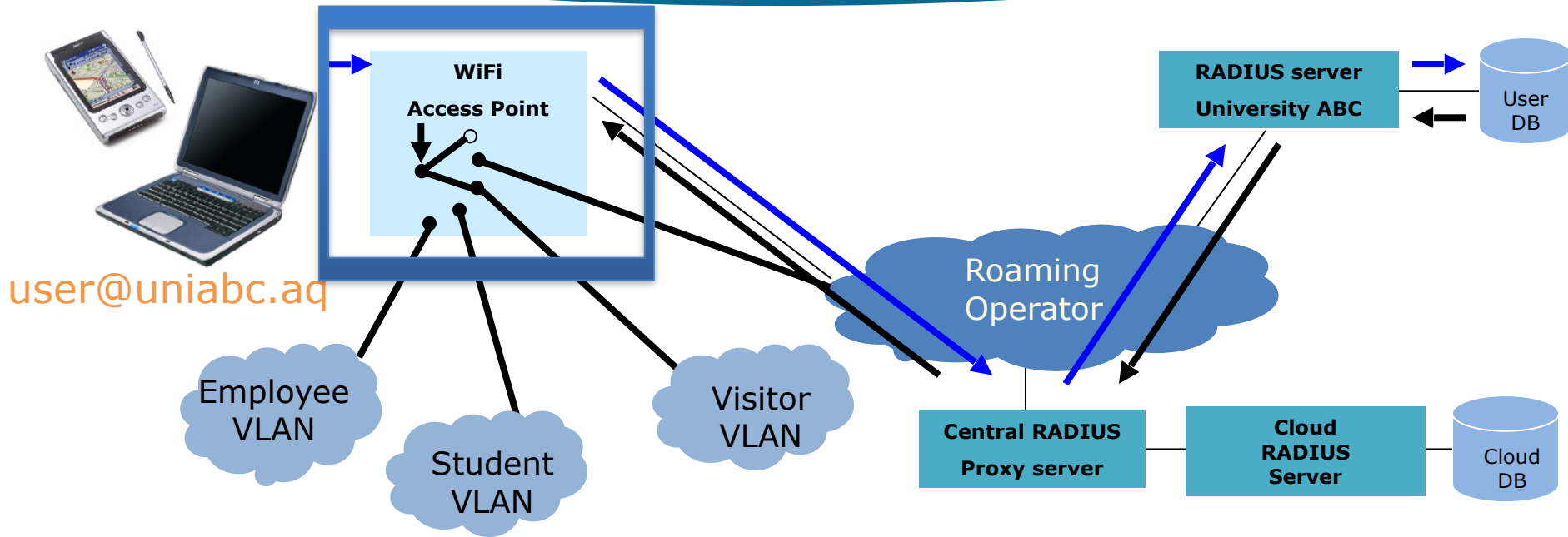
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A dedicated approach for the Pacific



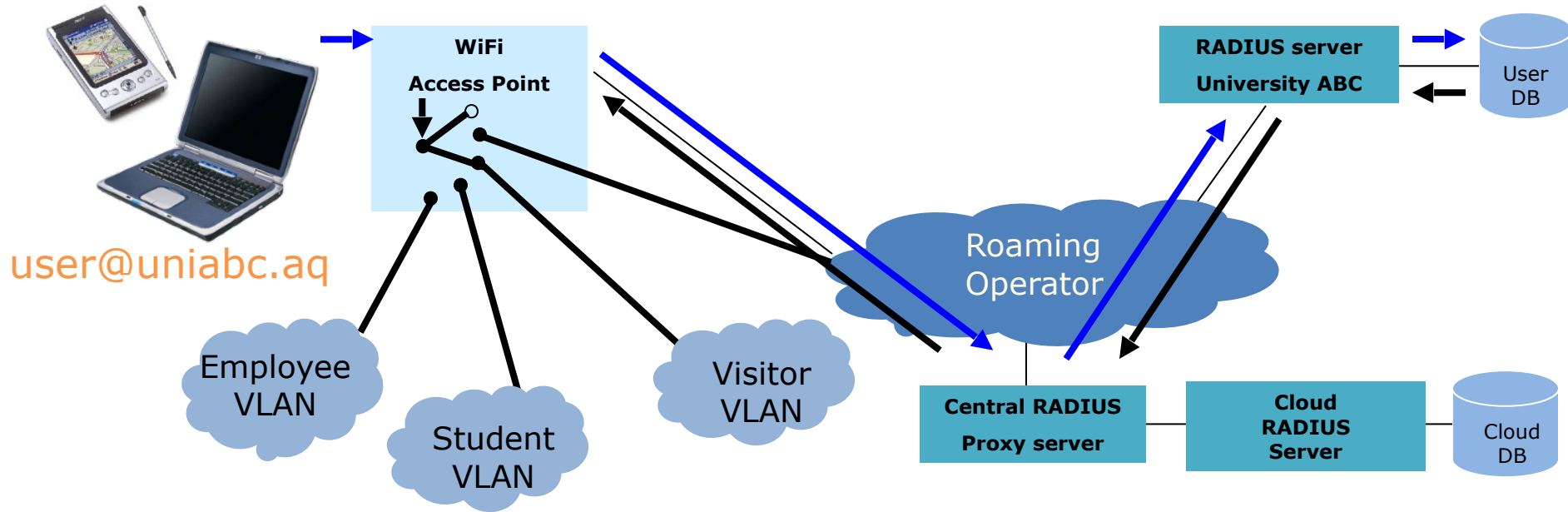
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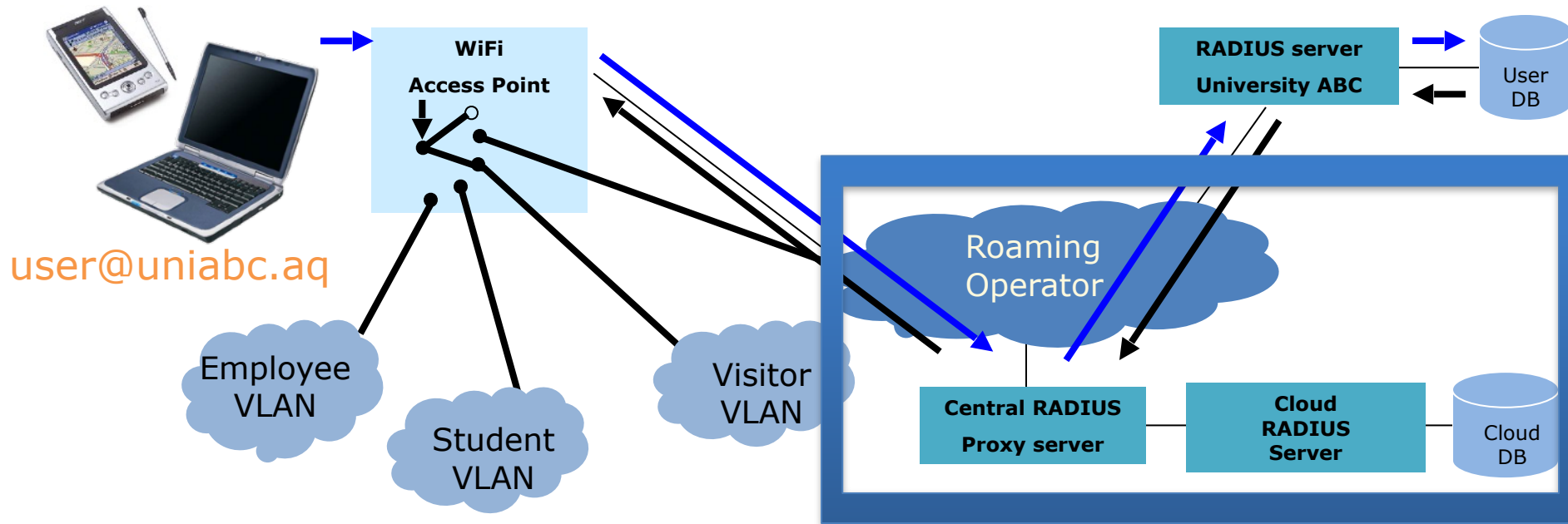
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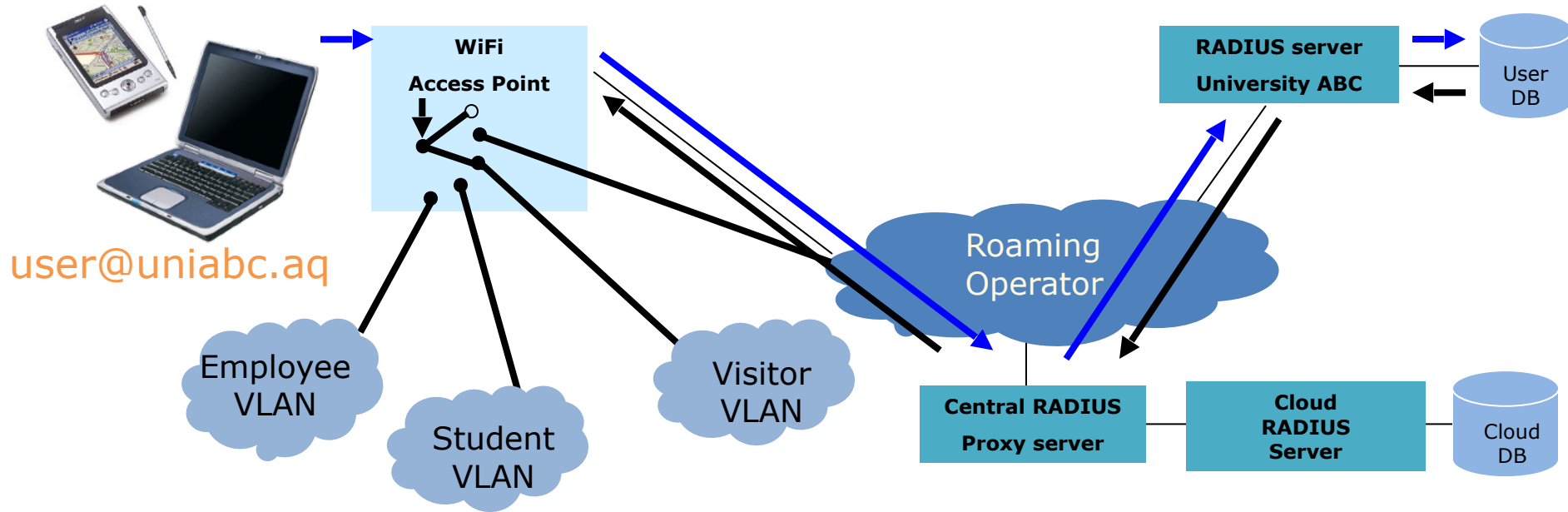
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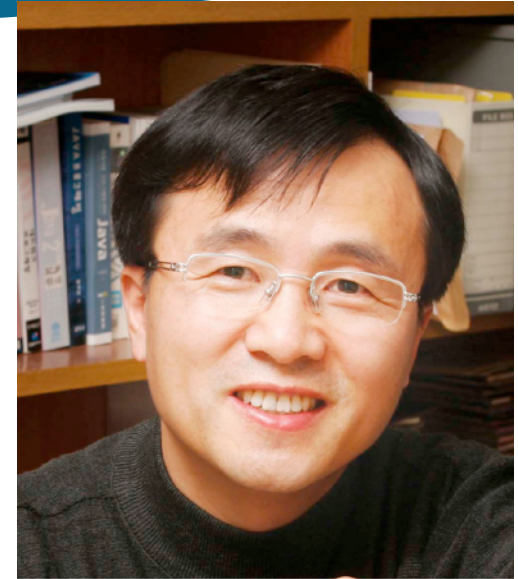
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 - Mapping
 - Periodic Testing
- Auditing
- \$\$\$ Penalties (or incentives)



- **Three Reps from Asia/Pacific**

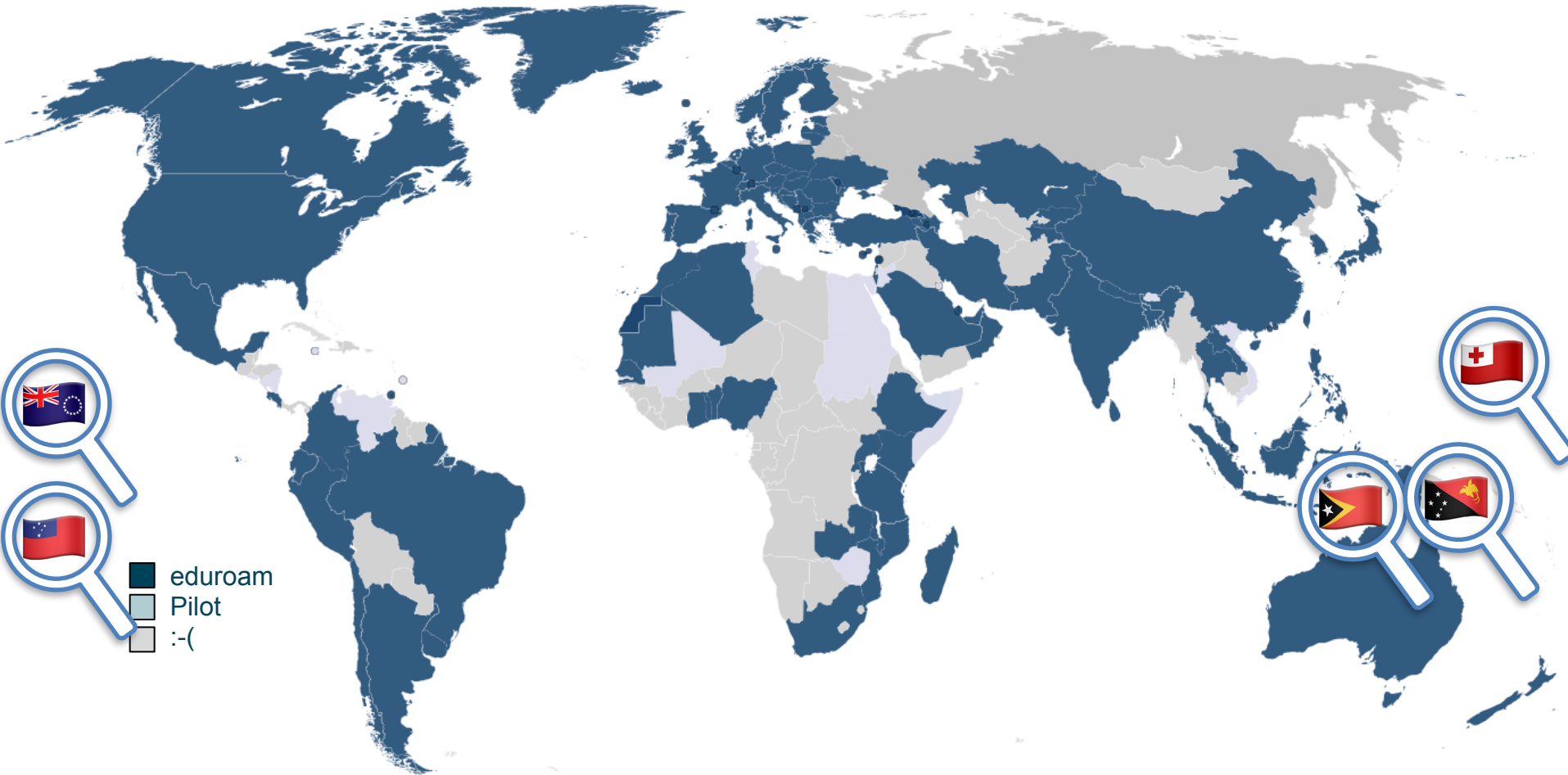
- Paul Hii (AARNet, Australia)
- Hideaki Goto (Tohoku University, Japan + CityRoam)
- Deok-Jai Choi (Chonnam National Uni, Korea)

- **Global eduroam Governance Committee**
 - Created in 2011 to provide a “voice” for all regions
- **World-wide representation**
 - Europe (3), Asia (3), North America (3), Latin America (3), Africa (3)
 - Created the “Compliance Statement”
 - Renewed + updated in 2023

- **European eduroam Confederation**
 - Supported by EU + GÉANT funding programmes
- **Other Confederations?**
 - Latin America effort from 2011-2019 - failed.
- **Why an Asia-Pacific Confederation?**
 - Support Campus/Uni deployment
 - Support Regional Coordination
 - Quality Assurance + Monitoring via Resource Sharing
 - Focus Funding
 - ...but what governance model + structure?

- **Stakeholders?**
 - AP* advice + guidance
- **Funding?**
 - Target the ISIF.Asia/APNIC.Foundation grants in 2025
- **Timeline?**
 - Now! March funding window is 1st deadline
- **National Champions + Partners?**
 - Regional + National Coordination
 - Existing groups to partner with?
 - ...that have WiFi/Identity/Campus focus

Where next for eduroam?

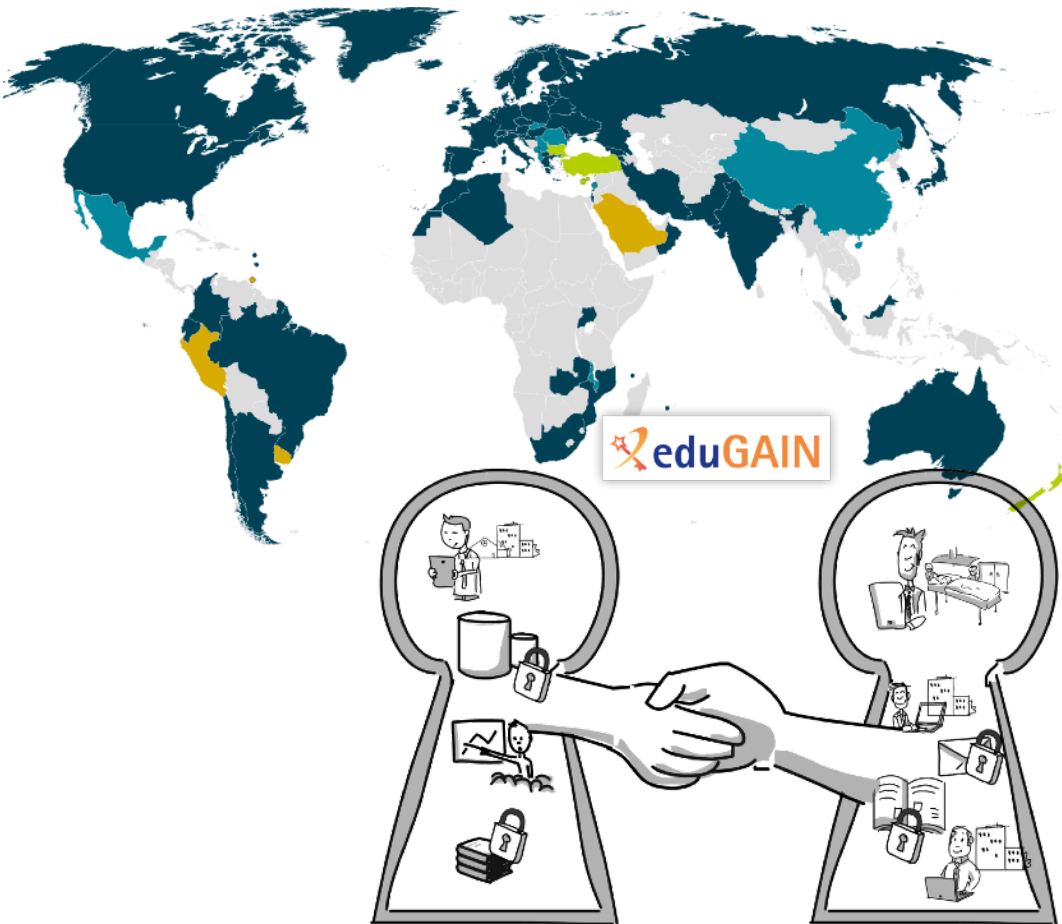


Not just eduroaming...



- More roaming options...





- **Journal Access + Login**
 - Federated SAML WebSSO
 - eduGAIN has 75+ R&E federations
 - 1,000s of services for free
- **Help is available**
 - Identity Management Training
 - Time + \$\$\$ / €€€ Req'd
 - This is my ultimate goal!



Questions?

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