


# Infrastructure developments to build on AARNet's VoIP and Video services

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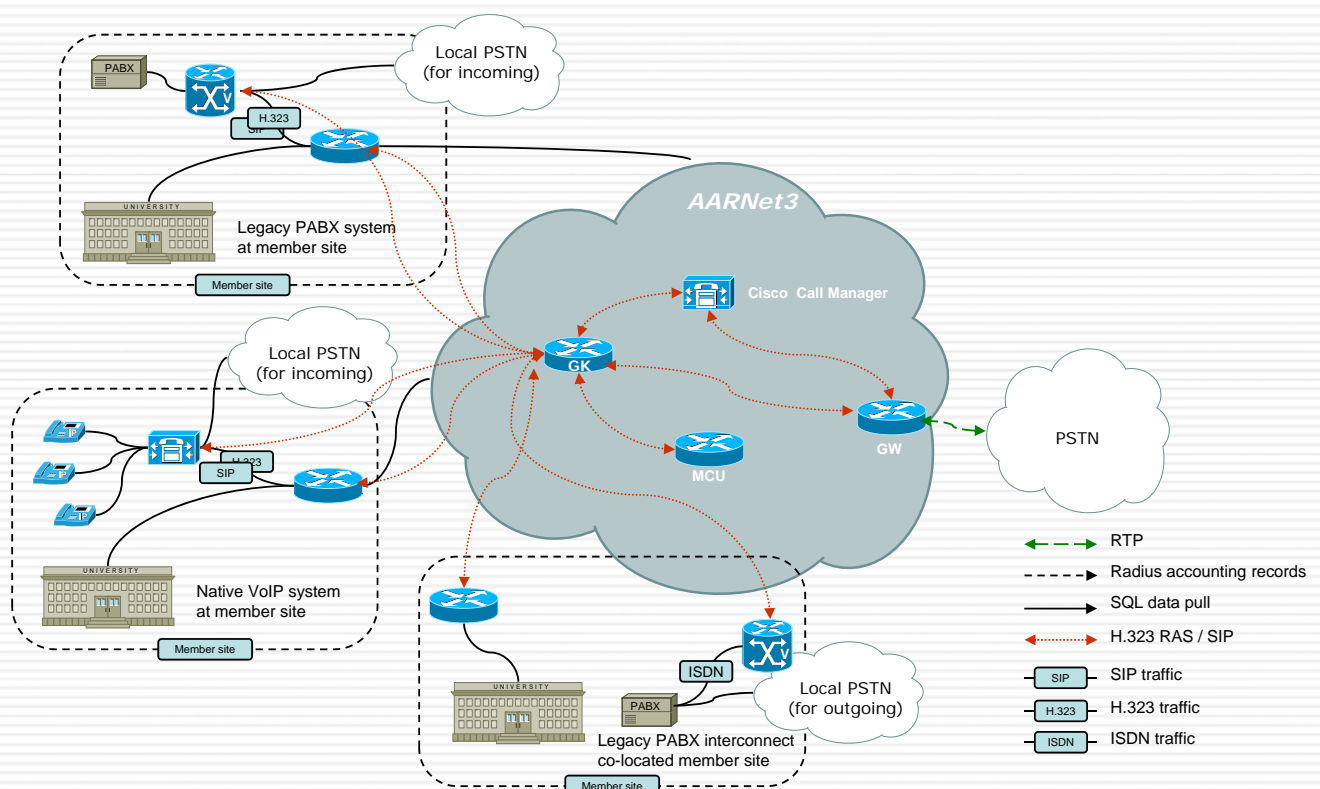


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- Overview
  - Enterprise UC Network
  - Demonstration
  - Beta program

# What we have today...

- H.323 gateways used for calls to PSTN
- H.323 gatekeeper provides call routing and call admission control
- All devices reside AARNet3
- Voice over IP (VoIP) service provides
  - on-net in-dial/out-dial calls between customers
  - Full VoIP and PSTN toll bypass for AARNet staff

# VoIP on.net network



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## Building our UC Infrastructure

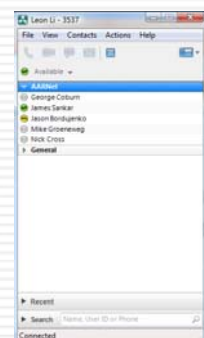
- **Cisco Unified Communication Manager 6.1** – newly upgraded from CCM 5, provide central call control and management
  - Benefit
    - Supports dual-mode devices
    - Supports more phone models, 7965G, 7975G etc
    - Enhanced support on SIP
  - Challenge
    - Remote upgrading for publish in Canberra
- **Cisco Unity** – provide voicemail
  - Offered to each employee
  - Access voicemail anywhere, via IP phone, PSTN phone or email
  - Need improve: different domain other than main AD domain and inconsistent username and password

## Building our UC Infrastructure (cont'd)

- **Cisco Unified Presence 6.0 (NEW)** – built in May 2009, provide presence for staff to increase productivity
  - Integrated with CUCM, LDAP, Unity, Outlook Calendar (in process)
  - Challenge
    - Need to consider access/Firewall to all integrated servers
    - Security concern about Exchange account access to Calendar information
    - A bit more configuration on CUCM end
- **End user devices and applications**
  - IP phone, mainly 7960/7961

## Building our UC Infrastructure (cont'd)

- Cisco Unified Video Advantage
  - Video call capability
  - Rely on cable connection to IP phone and CDP
  - Windows version only, no MAC support
  - Interoperability cross different institutions
- Cisco Unified Personal Communicator (NEW)
  - Benefit: integrated IM/phone/video/presence/voicemail/LDAP
  - Benefit: click-to-dial from outlook
  - Benefit: Windows and MAC version
  - Weak: can't set call forwarding



# Building our UC Infrastructure (cont'd)

- Weak: interoperation with other SIP product
- SIP client on mobile devices – SIPPHONE on iPhone
  - SIP client on iPhone
  - Configured to register with CUCM
  - Make/receive phone calls as from desktop phone on WIFI
  - Issues:
    - authentication failure caused by CUCM user settings
    - One way audio behind NAT: solved with STUN server
    - Not a free application

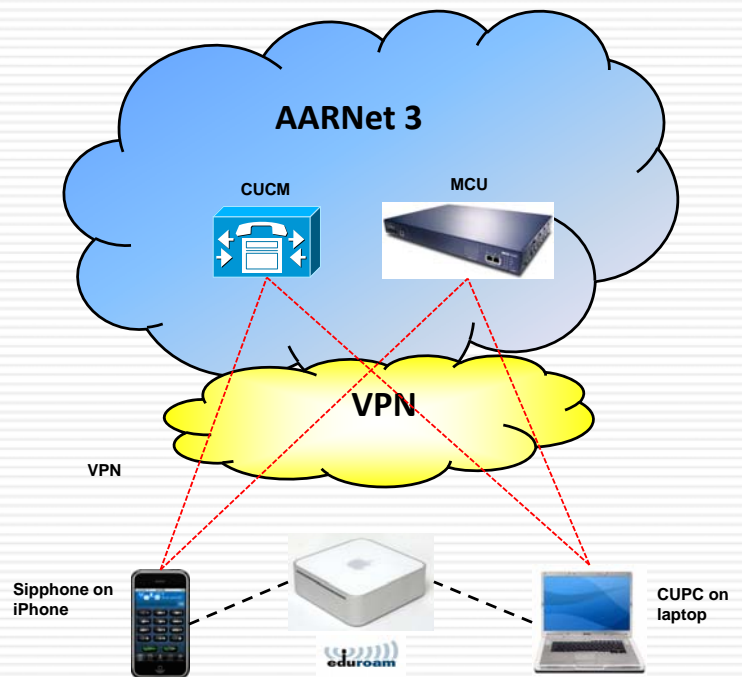


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# Demo

## Scenario

1. CUPC and iPhone are connecting to Eduroam, then VPN to AARNet 3 network;
2. Both of them register with CUCM;
3. Calls initial from CUPC and iPhone to conference on MCU.



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➔ • Beta program



## What services do you want to see across a SIP platform?

- Skype-SIP?
- End to End video?
- Mobile eduroam+wifi+VoIP
- Others?



## Contact

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