

AUCX and G-RTC

What is it all about and where are we up to

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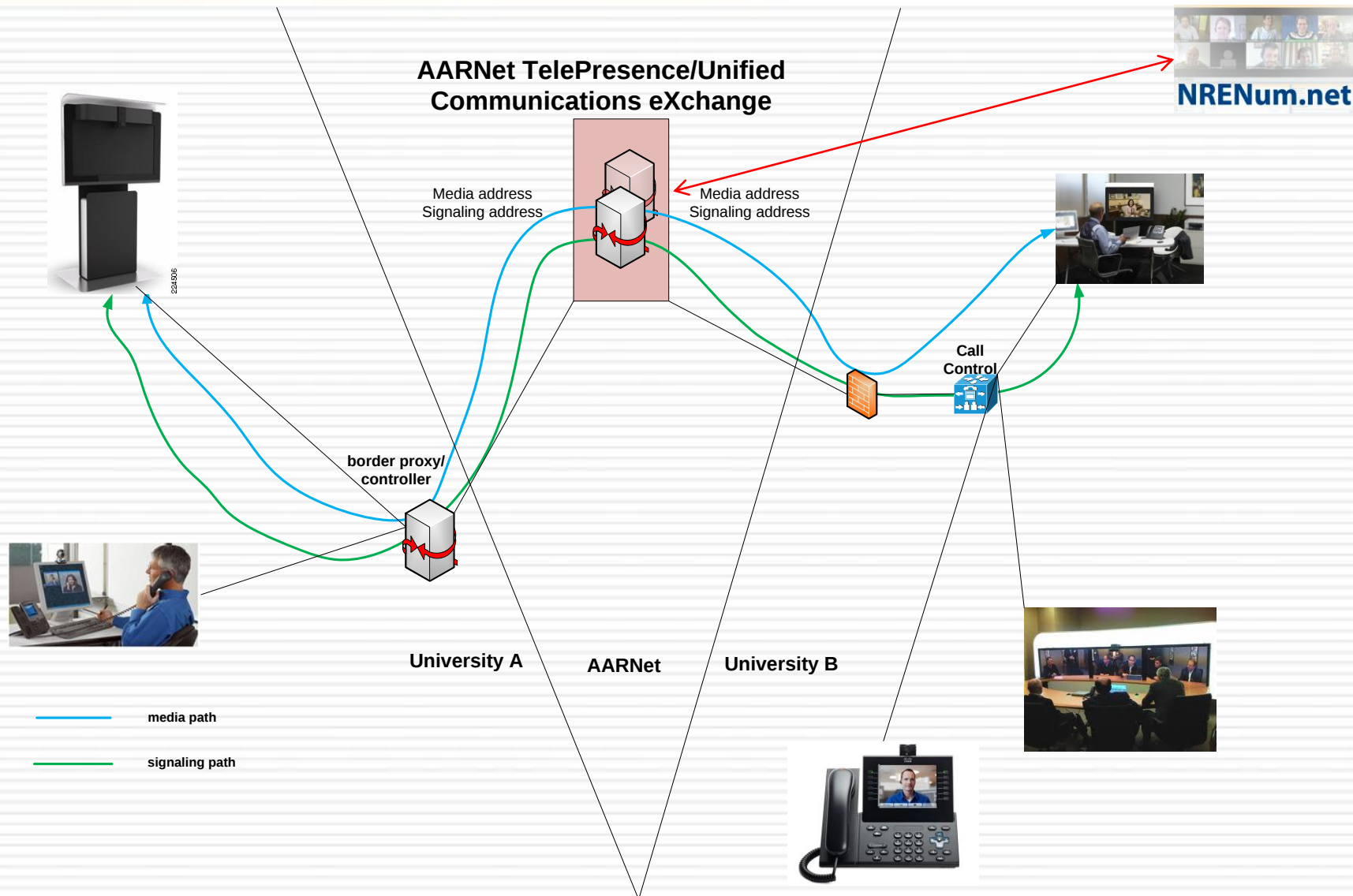
AUCX - What

- Research and Education centric
- Free National/International VoIP/Video Calls
- TelePresence eXchange
- No TDM. An IP only exchange.
- Transparent to the end caller/callee.
- **Driven by making easy video calling a reality.**

AUCX - How

- Trust Fabric established
 - Combination of commercial grade call control equipment spread across 3 PoPs
 - Coordinator/Broker of B2B Signaling and Media
 - Nationally
 - Internationally
 - Connects enterprise PABX, UC platforms & SBCs
- Coordinating best practice within the enterprise
 - Dial Plans, External access + security considerations, interoperability tests

AUCX Topology



AUCX – Dial Plan

- **E.164**
 - Well formed carrier pre-allocated numbers only.
 - Called Number: 10, 11 or 11 digits with leading plus.
 - Calling Number: we need to work as a community.
- **URI Dialing**

Who is connected?

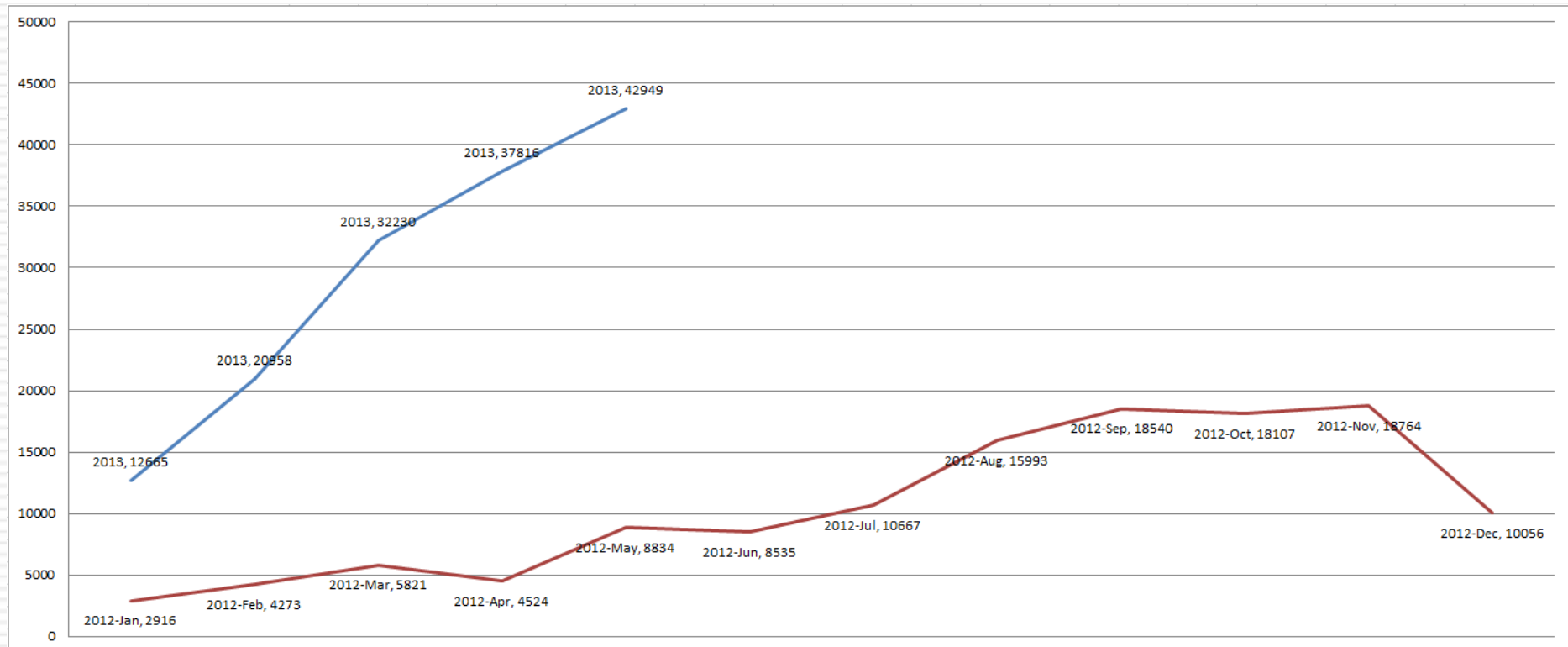
shareholder/ customer	Receiving calls	Placing Calls	Placing Calls by default
AARNet			
Australian Institute of Marine Science			
CSIRO			
Deakin University			
Australian National University			
Monash University (AU)			
Swinburne University			
La Trobe University			
The University of Ballarat			
Monash University Malaysia (MY)		limited, work in progress	
Monash University Italy (Prato campus)			
Curtin University		limited, work in progress	
University of Southern Queensland		limited, work in progress	
University of Adelaide - Unicare Ehealth		work in progress	
Charles Sturt University		work in progress	
Griffith University		work in progress	
The University of Canberra			
The University of New England	limited		
The University of Melbourne	work in progress		
Victoria University	limited		
Bond University	limited		
James Cook University	work in progress		
Charles Darwin University	work in progress		
Austalian Catholic University	work in progress		

Benefits

- AUCX resides on the AARNet Network
- Our eXchange is **flexible**
 - Multivendor enterprise platforms (Cisco, Avaya, Microsoft, NEC, ININ, Asterisk, opensource).
 - Multiple services
 - IPv6, QoS services
 - Telephony
 - Video calling
 - Telepresence
 - International R&E reach
 - Security – fewer firewall ports/IP's open
- AUCX platform can add new services
 - Off.net calls
 - Domain based dialing

AUCX: status - growth

Year on year growth in minutes



AUCX: status – progress and roadmap

- Call accounting and reporting. V2 completed. V3 in planned.
- Display of calling numbers. Complete.
- Topology Hiding. Complete.
- MS Lync signaling interop. In progress.
- Managed SIP trunk/peering service. In progress.
- Legacy H.323 infrastructure integration. In progress.
- SIP Registrar. Planned.
- IPv6. Planned.
- Selected PSTN to/from USA. Planned but with potential caveats.
- ON-Net PSTN access via SIP trunking. Potential.

G-RTC - What

- Free International VoIP/Video Calls
- Transparent to the end caller/callee.

G-RTC - Background

- Global Dial Scheme (GDS)
- NRENum.net (ENUM), by Terena based out of Europe.
- 2012 Global NREN CEO Forum

G-RTC – How does it work

- SIP and/or H.323 signaling
- Ability to make and receive voice and video calls over our exiting standards based systems.
- By-pass the PSTN and re-route the calls over inter-NREN networks.
- NRENum.net (ENUM)
- Co-ordinated best practise

G-RTC – How does it work

- **Insert a diagram here**

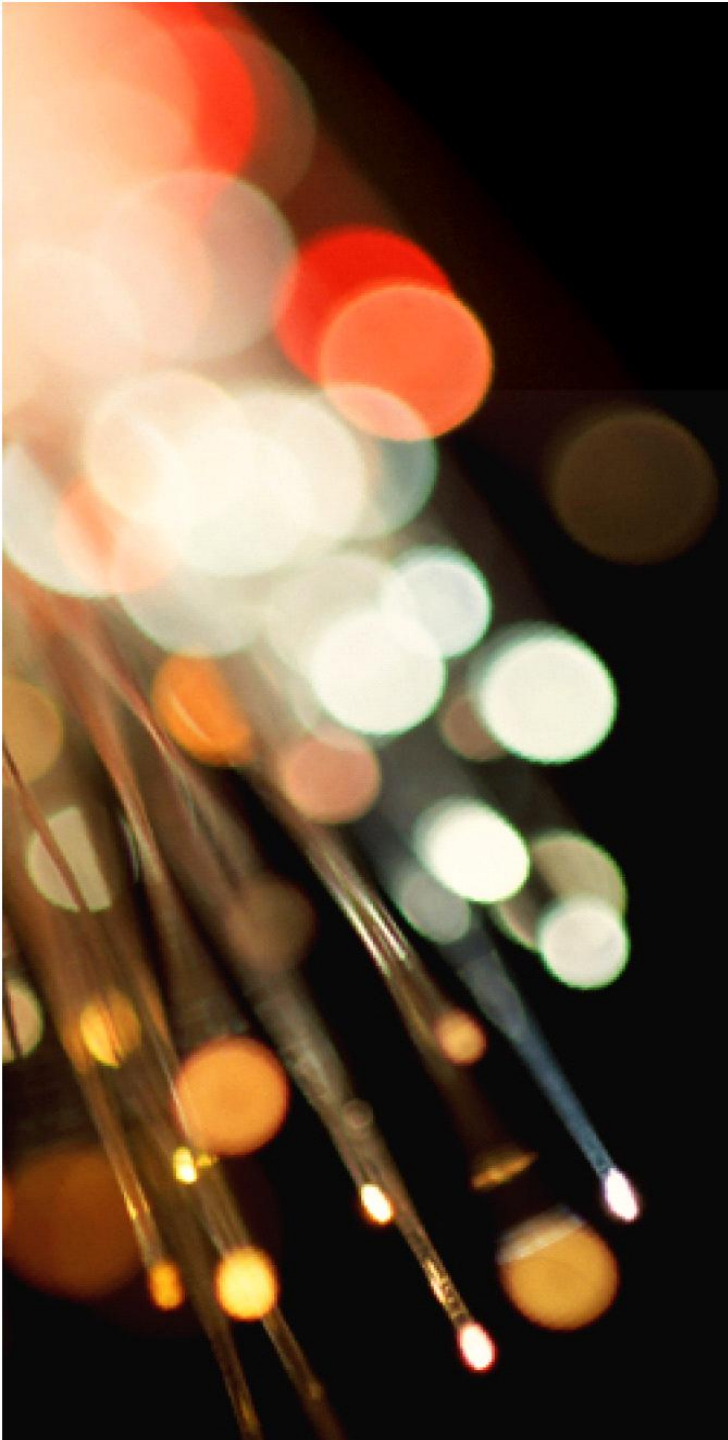
G-RTC – Progress

- Who is connected
- Actively working with
 - Internet2
 - CUHK
 - HKU
 - ERNET
 - REANNZ soon we hope

Country	NREN
Australia	AARNet
Argentina	INNOVA RED
Belgium	BELNET
Brazil	RNP
Czech Republic	CESNET
Croatia	CARNet
Denmark	NORDUNet
France	RENATER
Greece	GRNET
Hong Kong	HARNET
Hungary	NIIF
India	ERNET
Italy	GARR
Latvia	SigmaNet
Lithuania	LITNET
Netherlands	SURFNet
North America	Internet2
Norway	UNINETT
Poland	PSNC
Portugal	FCCN
Serbia	AMRES
Slovak Republic	SANET
Slovenia	ARNES
Spain	RedIRIS
Sweden	NORDUNet
Switzerland	SWITCH
United Kingdom	JANET

#	country name	E.164	ENUMs
1.)	 Hungary	+36	58049
2.)	 Portugal	+351	44857
3.)	 Switzerland	+41	31301
4.)	 Croatia	+385	25500
5.)	 Brazil	+55	10048
6.)	 Argentina	+54	3257
7.)	 Italy	+39	1792
8.)	 Australia	+61	1741
9.)	 Greece	+30	901
10.)	 Spain	+34	133
11.)	 North American Numbering Plan	+1	114
12.)	 United Kingdom	+44	49
13.)	 Netherlands	+31	27
14.)	 India	+91	22
15.)	 Latvia	+371	21
16.)	 Belgium	+32	11
17.)	 France	+33	8
18.)	 Hong Kong	+852	5
19.)	 Poland	+48	1

Source: www.nrenum.net

A decorative graphic on the left side of the slide featuring a bundle of fiber optic cables. The tips of the cables are illuminated, creating a series of out-of-focus, circular bokeh lights in warm colors like red, orange, and yellow, as well as some cooler tones like green and blue.

Thank You

Questions?

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