

APNIC Training and Technical Assistance

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APNIC Training Service

- Well structured event calendar
 - Allows international travel arrangements with enough lead time
- 99.7% confirmed events, across 56 AP economies
- Strong member support
 - Consistent mandate in every member survey
 - And 2015 training needs assessment



Main Training Topics

- APNIC in-house training materials
 - **Routing**
 - Four sub-courses (i.e. Basic/advance, BGP, IXP etc.)
 - 20+ modules (OSPF/IS-IS etc.), 500+ slides, 8 hands on modules (300+ pages)
 - **DNS**
 - Three sub courses (DNS/DNSSec, Rev-DNS etc.)
 - 14+ modules (DNS/TSIG etc.), 227+ slides, 15 hands on modules (65+ pages)
 - **IPv6**
 - Two sub courses (IPv6/IPv6 Security etc.)
 - 10+ modules (Basic/Protocol structure etc.), 244+ slides, 5 hands on modules (200+ pages)



Main Training Topics

- APNIC in-house training materials
 - **Network Security**
 - 9+ modules (IPSec/Cryptography etc.), 400+ slide, 4 hands on modules (50+ pages)
 - **MPLS**
 - 6+ modules (LDP/L3-L2 VPN etc.), 550+ slide, 11 hands on modules (200+ pages)
 - **Internet Resource Management**
 - 5+ modules (PDP, Whois DB, MyAPNIC etc.), 130++ slide and live demo



APNIC Training Delivery

- Face-to-Face Training
 - Conference track paper (20 to 30 minutes)
 - Tutorials (Part of conference program) (90 minutes to full day)
 - Technical workshop (Part of conference program) (4 to 5 Days)
 - APNIC independent training in member economy (3 to 5 days)



APNIC Training Delivery (2)

- E-Learning
 - Web-casted live presentation (60 minutes)
 - Recorded video published in YouTube (30 to 60 minutes)
 - Self-paced module with quiz
 - APNIC online training academy



How APNIC Training Benefits Members?

- Evolving Asia Pacific Internet infrastructure
- From a single service infrastructure
 - Internet only
- To multi-service
 - Internet, Intranet VPN, Voice, Video etc.
- To run this multi-service network
 - Large need for operational training
- APNIC training service
 - **Responds to this demand by providing Internet operational training for the community**



APNIC Training Service Profile

- Highly technical Internet operational training
 - Strong demand among Internet operational community
- Trainers are subject matter experts in Internet operational technology
 - Partnering with local/regional champion engineers
- Well resourced quality training
 - Well structured training materials
 - presentation slides
 - hands on instructions, case study, real ISP lab etc.
- Training delivered on open standard technology
 - IETF RFC compliant
- In a multi-vendor platform
 - Cisco, Juniper, Huawei, MikroTik etc.



Training Resource Development Plan

- Re-design Training Lab
 - Convert current training lab into a live ISP network in smaller scale
- New Technology Testing Environment
 - Build a prototype ISP to experiment with Internet operational technology
 - i.e. 464 XLAT, NAT64, DNS64 etc.
- Operational Research Papers
 - To provide technical papers for NOG, ARM, APRICOT and APNIC meetings
 - Regular lab exercises for conferences and workshops



Training Resource Development Plan (2)

- Engaging NOG Community
 - Training team will work with a group of volunteer NOG engineers to build regular training content for lab environment
 - Engage country champion engineers to build and update training content and deliver training with APNIC training team
 - Engage with country NOG program planning to supply more quality technical content from APNIC
- Train the Trainer Program
 - Through these workshops will focus on transferring required knowledge to use APNIC training resources, materials, training lab etc.



Training Resource Development Plan (3)

- Accreditation of Community Trainers
 - Subject matter experts become “Community Trainers” to be part of the APNIC training delivery team
- Social Media & Blog
 - Develop as information source for APNIC training resources
 - Develop as engagement platform to use training lab resources and interactive “how to” documents.



Technical Assistance Service (TAS)

- Small scale technology solution
 - For widespread operational issues for APNIC members
- Need to justify Business Case as commercial project
 - Either ISP or the vendor need to justify to make it as a viable commercial projects
- TAS team will sit together
 - To give momentum
 - Develop cost recovery strategy
 - Part of training delivery to reduce cost if needed

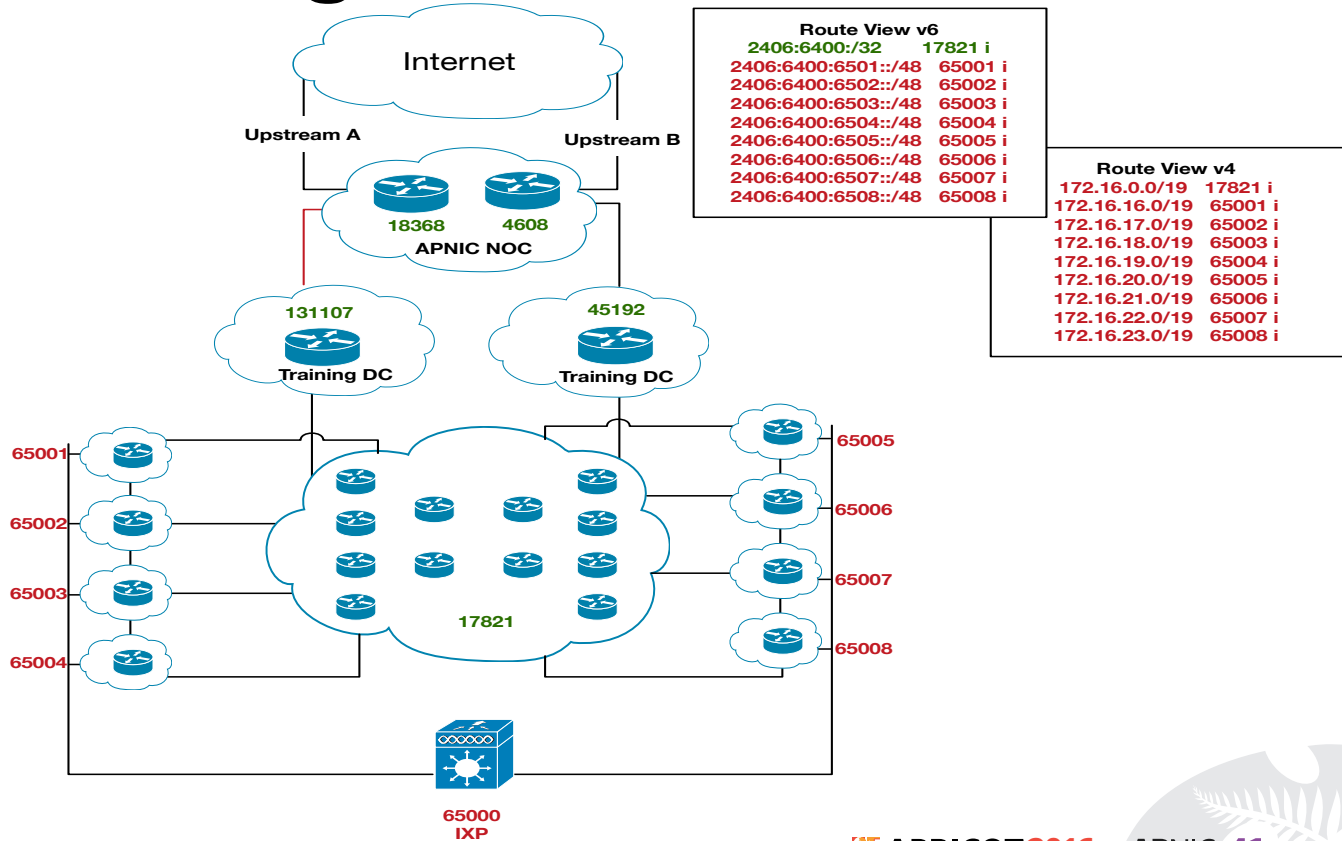


TAS Services in 2016

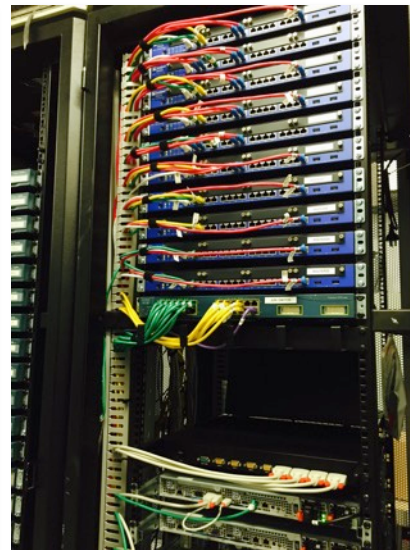
- Routing Registry Function Automation
 - For widespread operational issues for APNIC members
- IPv6 Deployment Planning
 - Work with the member to develop address plan,
- Prefix De-aggregation Analysis & Action Plan
 - Analyse CIDR report and develop better options. Respond to member requests.
- IXP Operation and System Support
 - Looking Glass / Route Server
 - Open source IXP Manager etc.



TAS & Training Lab



TAS & Training Lab





APRICOT 2016

APNIC 41

**AUCKLAND
NEW ZEALAND**

15 – 26 February 2016



#apricot2016