Joining the Global Internet Community

Experiences Gained

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Agenda

- Meetings attended
- Overview of meetings
- What I gained (Experiences) from attending these meetings
- Opportunities available for participation
- My contribution to TFL, Fiji and the Pacific Region
- Opportunities for Pacific Islanders to be a part of the Global Internet Community

Meetings Attended

Meetings attended

- **IETF94 - Yokohama, Japan (Fellowship)**
  1st - 6th November 2015

- **APRICOT 2016 / APNIC 41 - Auckland, New Zealand (Fellowship)**
  15th - 19th February 2016

- **ICANN 55 - Marrakesh, Morocco (Fellowship)**
  5th - 10th March 2016

- **ICANN 57 - Hyderabad, India (Fellowship)**
  3rd to 9th November 2016

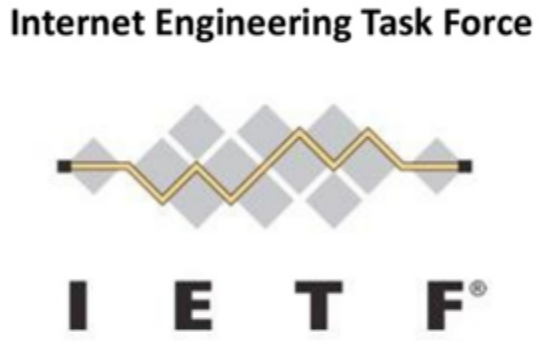
Meeting Overviews and Experience

Internet Engineering Task Force (IETF) 94

IETF 94
November 1–6, 2015
Yokohama, Japan

IETF

A global organization of volunteers collaborating to design standards that provide the infrastructure for innovation on the internet.



http://ietf.org

IETF's work is to make the Internet work better.

What does IETF do?

- Develop and maintain standards for technologies used to provide internet service or to provide services over the internet
- Ensure that the technology:
  - Can perform needed functions
  - Will support the proper deployment and will scale
  - Is secure and can be operated securely
  - Is manageable
- IETF produces standards and other documents

IETF Continued…

The actual technical work of the IETF is done in its working groups, which are organized by topic into several areas (e.g., routing, transport, security, etc.).

Much of the work is handled via mailing lists.

The IETF holds meetings three times per year.

Most participants in the IETF are engineers with knowledge of networking protocols and software.

- The IETF is really about the individuals its participants.
- There is no membership in the IETF – the IETF is made up of volunteers.
- Anyone may register for and attend any meeting.
- The closest thing to being an IETF member is being on the IETF or Working Group mailing lists.

Asia Pacific Regional Internet Conference on Operational Technologies (APRICOT) 2016

February 15–26, 2016
Auckland, New Zealand

Advanced BGP Workshop

APRICOT

The mission of the Asia Pacific Regional Internet Conference on Operational Technologies (APRICOT) is to provide a forum for those key Internet builders in the region to learn from their peers and other leaders in the Internet community from around the world.

The ten day long summit consists of seminars, workshops, tutorials, conference sessions, birds-of-a-feather (BOFs), and other forums all with the goal of spreading and sharing the knowledge required to operate the Internet within the Asia Pacific region.

APRICOT
Asia Pacific Regional Internet Conference on Operational Technologies

www.apricot.net

- By 2010 APRICOT had become the foremost Internet Summit in the Asia Pacific region, holding a conference seeing participation from around the world, and participation by many of the Asia Pacific region's Internet organisations. It also has a strong fellowship programme ensuring that participants from the least developed nations can participate in the summit.
- APRICOT attendees are the key builders of Asia's Internet. Many of the world's best Internet engineers attend APRICOT either to teach, present or do their own human networking.
- APRICOT's primary goal is to provide a vehicle for the transfer of technology and techniques to the Asia Pacific Region.
- APRICOT is an activity supported by various Asia Pacific Internet organisations as well as numerous individuals who give freely of their time and talent, and is not a commercial profit making venture. Any surplus funds are used to support outreach activities in the less developed areas of the Asia Pacific region.

APNIC

APNIC – Asia Pacific Network Information Centre

Regional Internet Registry that allocates IP and AS numbers in the Asia Pacific region.

- IPv4
- IPv6
- AS

What does APNIC do?

- Distribute and manage the Internet Number resources in the Asia Pacific regions 56 economies
- Maintains the Public APNIC Whois Database
- Manages Reverse DNS Zone delegations
- Provides forums for internet policy development
- Helps build essential technical skills across the region

Internet Corporation for Assigned Names and Numbers (ICANN) 55

ICANN 55
March 5–10, 2016
Marrakech, Morocco

Internet Corporation for Assigned Names and Numbers (ICANN) 57

ICANN 57
November 3–9, 2016
Hyderabad, India

ICANN

What Does ICANN Do?

To reach another person on the Internet you have to type an address into your computer - a name or a number. That address has to be unique so computers know where to find each other. ICANN coordinates these unique identifiers across the world. Without that coordination we wouldn't have one global Internet.

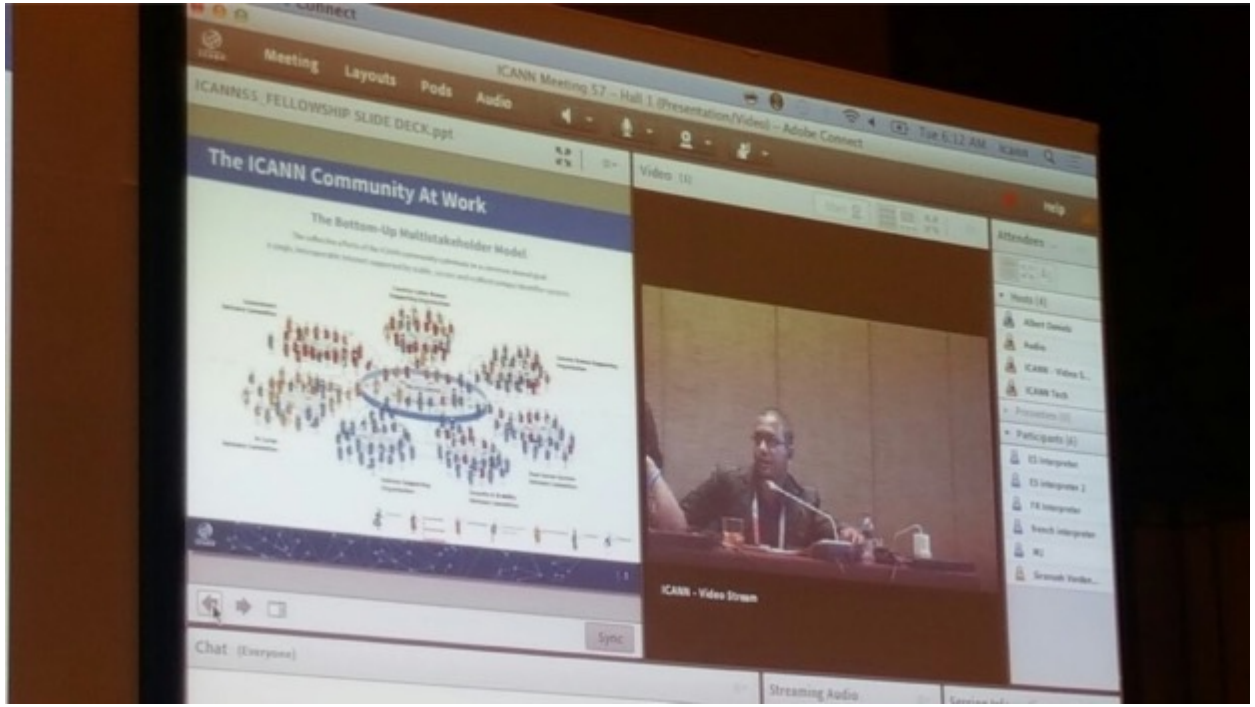
ICANN was formed in 1998. It is a not-for-profit partnership of people from all over the world dedicated to keeping the Internet secure, stable and interoperable. It promotes competition and develops policy on the Internet's unique identifiers.

ICANN doesn't control content on the Internet. It cannot stop spam and it doesn't deal with access to the Internet. But through its coordination role of the Internet's naming system, it does have an important impact on the expansion and evolution of the Internet.

ICANN Continued…

ICANN's Multistakeholder Model:

- Civil Society and Internet Users
- The Private Sector
- National/International Organisations
- Governments
- Research
- Academic and Technical



Which functions does ICANN Coordinate?

- The Domain Name System – DNS
- Internet Protocol Address Allocation
- The Protocol Parameter Registry
- Root Server Systems
- Generic Top Level Domain Name System Management
- Country Code Top Level Domain Name DNS
- Time Zone Database Management

Security & Stability

- ICANN supports DNS Security - DNSSEC

What I gained (experiences) from these meetings

My Learnings

- Made contacts with innovative, intelligent and talented people
- Learnt from the experts
- Got opportunity to exchange my ideas and thoughts
- Exposure to attend such high level workshops and meetings
- Share my experience working for an ISP in Fiji
- Opportunity to create my ICANN Wiki page and be a part of it
- Understand and have the entire view the work of ICANN and IETF
- Knowing where I belong in the ICANN's Multistakeholder model
- I am also part of the At-Large community – APRALO
- Valuable learning experience and career path opener
- Chance to learn, to connect, to find my place in the Internet Community as a representative from a developing country
- I have started to participate in Asia Pacific discussions and conferences calls

Opportunities available for participation

Opportunities for the Pacific Islanders

- **Apply for fellowships available**
  - If you want to learn about Internet and you are from a developing country.
  - If you are open for learning and willing to contribute towards ICANN's multistakeholder model.

- **Join the PICISOC and contribute to discussions**

- **Participate in regional meetings and workshops**

- **Join mailing lists and follow what is happening in the Internet community**

My contribution to TFL, Fiji and the Pacific Region

Telecom Fiji Limited

Hosting an instance of the Root Server in Telecom Fiji

What is a Root Server?

- 13 Root Servers
- a-m root servers'
- serve the root zone
- 12 different Engineering groups
- Root servers make response faster
- more than 500 root server instances around the world
- These servers all store a copy of the same file which acts as the main index to the Internet's address books.
- Root servers remain vital for the Internet's smooth functioning.
- The operators of the root servers work with ICANN to make sure the system stays up-to-date with the Internet's advances and changes.

Telecom Fiji continued…

IPv6 deployment

- IPv6 address planning
- Review deployment options
- IPv6 enabled devices
- Additional overhead and management
- Prepare billing platform to support IPv6

DNSSEC deployment

- DNSSEC uses **digital signatures** to assure that information is correct and came from the right place.
- The keys and signatures to verify the information, is stored in the DNS as well
- Since DNS is a lookup system, keys can simply be looked up, like any data.

Fiji

- **Setup an Internet Exchange (IXP) in Fiji**
  - Neutral meeting point of the ISPs in Fiji.
  - Facilitate exchange of domestic Internet traffic between the peering ISP members.
  - Efficient use of international bandwidth, saving foreign exchange.
  - Improves the Quality of Services for the customers of member ISPs, by avoiding multiple international hops and thus reducing latency.

- **Form an ISP Committee or Association in Fiji**
  - Promote Internet for the benefit of all
  - Collective voice of the ISP fraternity and the entire Internet community.
  - Influence, shape and mould the telecom policies.
  - ISPs can setup and grow their services in an environment that is supportive and enabling

- **CERT – Computer Emergency Response Team (CERT-Fj)**
  - Preventing cyber attacks in Fiji
  - Responding to cyber attacks
  - Enhancing security awareness among common Fiji citizens

Pacific Island Region

- Participate in the APAC Space.
- Organize regional capacity-building meetings and webinars that give the community a chance to learn and get involved.
- Participate and contribute to the work of APRALO to ensure the voices of the Pacific Island nations are heard in the process of developing internet policies.
- Lift the work of PICISOC which is currently in a very low profile.
- Setup a Pacific Islands IGF
- Encourage more Pacific Island people to contribute to the region by attending workshops and meetings.
- Attend and contribute to the PICISOC's annual conference called PacINET
- Apply for PICISOC Board Member election so there can be a Technical member in the board.
- Share my current projects (Root Server and DNSSEC) to the other Pacific Island nations.
- Help small island countries with the issues of getting Internet connectivity.

Pacific Participation in ICANN

Thank you