

# **NOC Report**

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# Network Design Principle

☆ **Simple but robust**

☆ **IPv6 wherever possible**

- IPv4 is still supported

☆ **Take over the hotel networks**

- Avoid the bottleneck -- NATs
- Provide IPv6 connectivity
- Take over them as a whole
  - Non-IETF guests use our network
- All IETF hotels accepted this unusual request
- They are very cooperative for us

# Some numbers

## ★ Our sponsors provided many network boxes

- 7+ Alaxala and 1+ Cisco L3 boxes
- 9+ Alaxala and 15+ Cisco L2 boxes
- 50 Dual-band Cisco wireless access points
- 7 server machines (2 are in Osaka)
- 2 Ricoh IPv6-capable printers

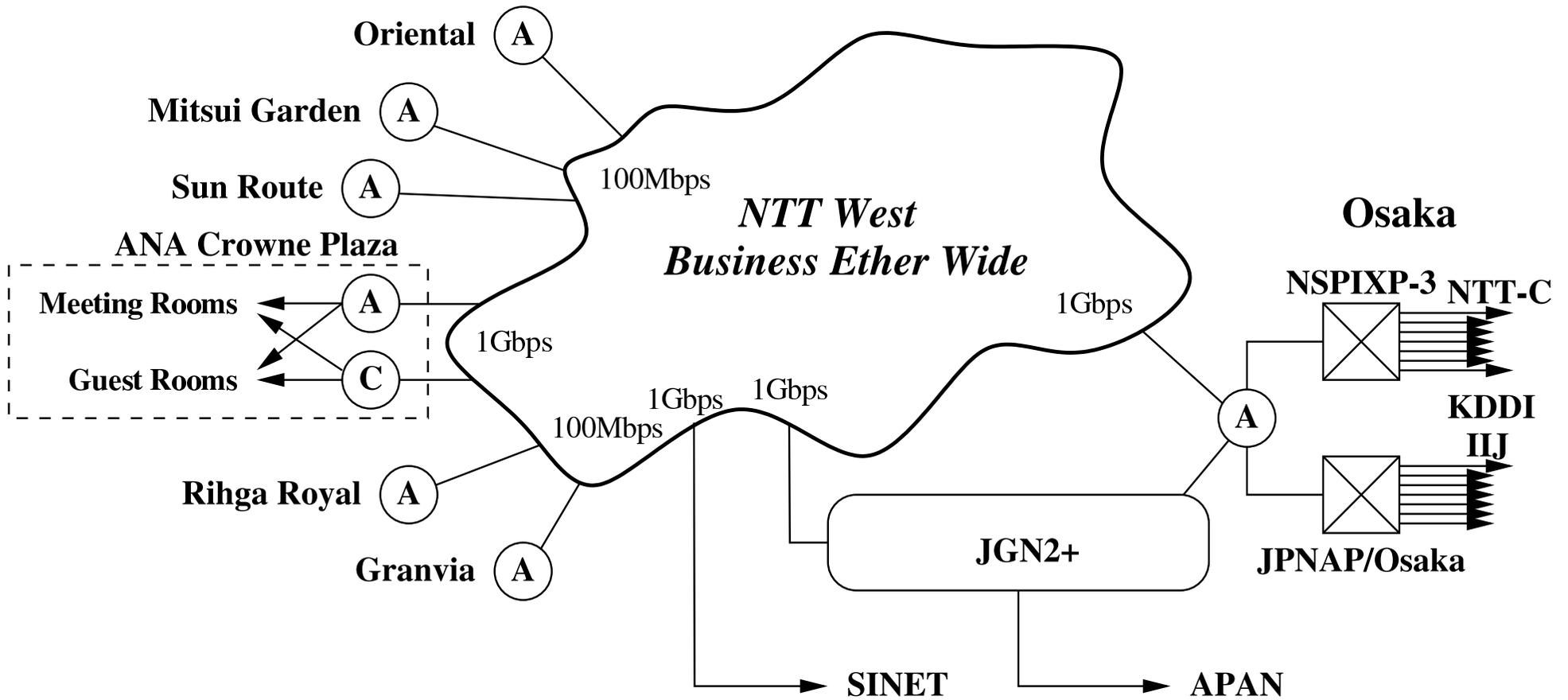
## ★ Wireless Network

- Covers all meeting rooms and 1F Lobby Lounge
- 1F / 22F restaurants coverage added since Mon-Tue
- First trouble-free IETF using Cisco Wireless Controller
  - We confirmed it supports IPv6
  - A drill had been performed to migrate back to the AS mode

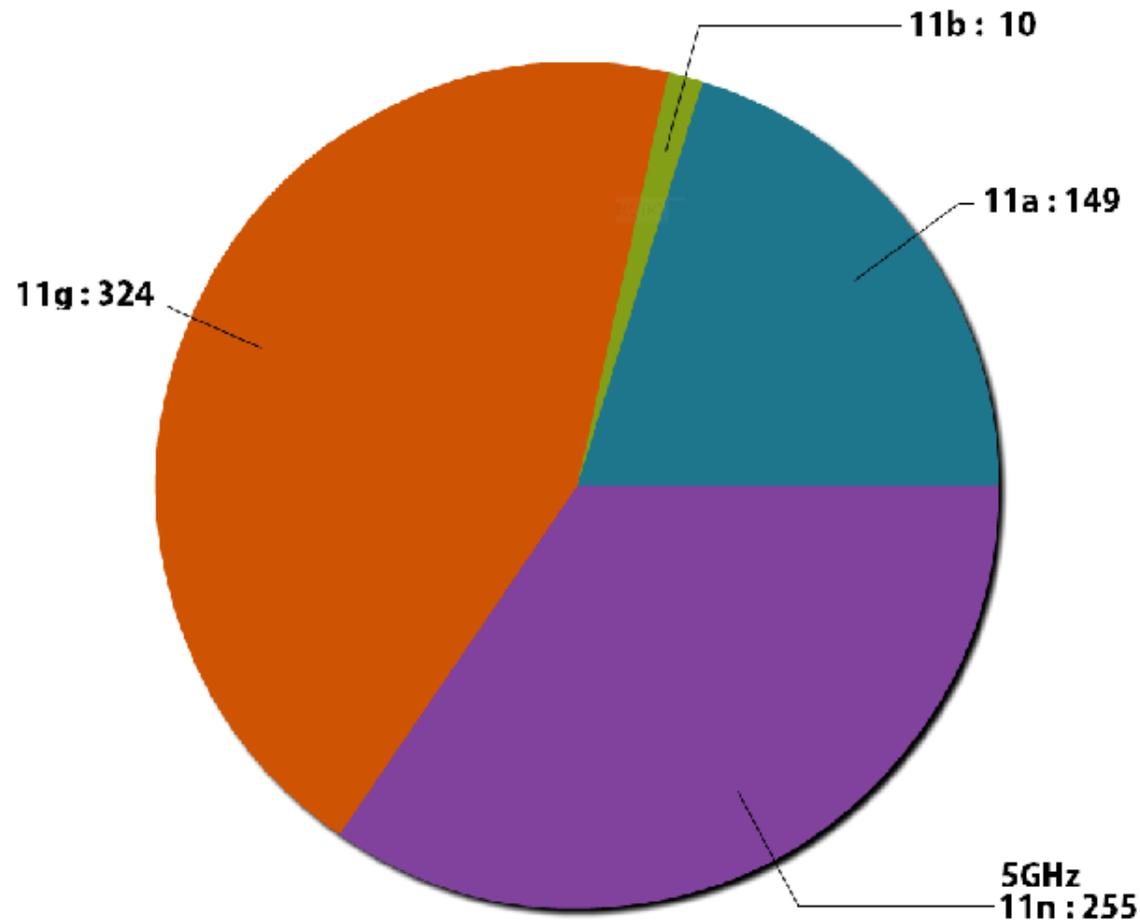
## ★ Overall network

- 133.93.0.0/16, 2001:dfb::/32 under AS17674
- Google DNS hack enabled

# The Configuration



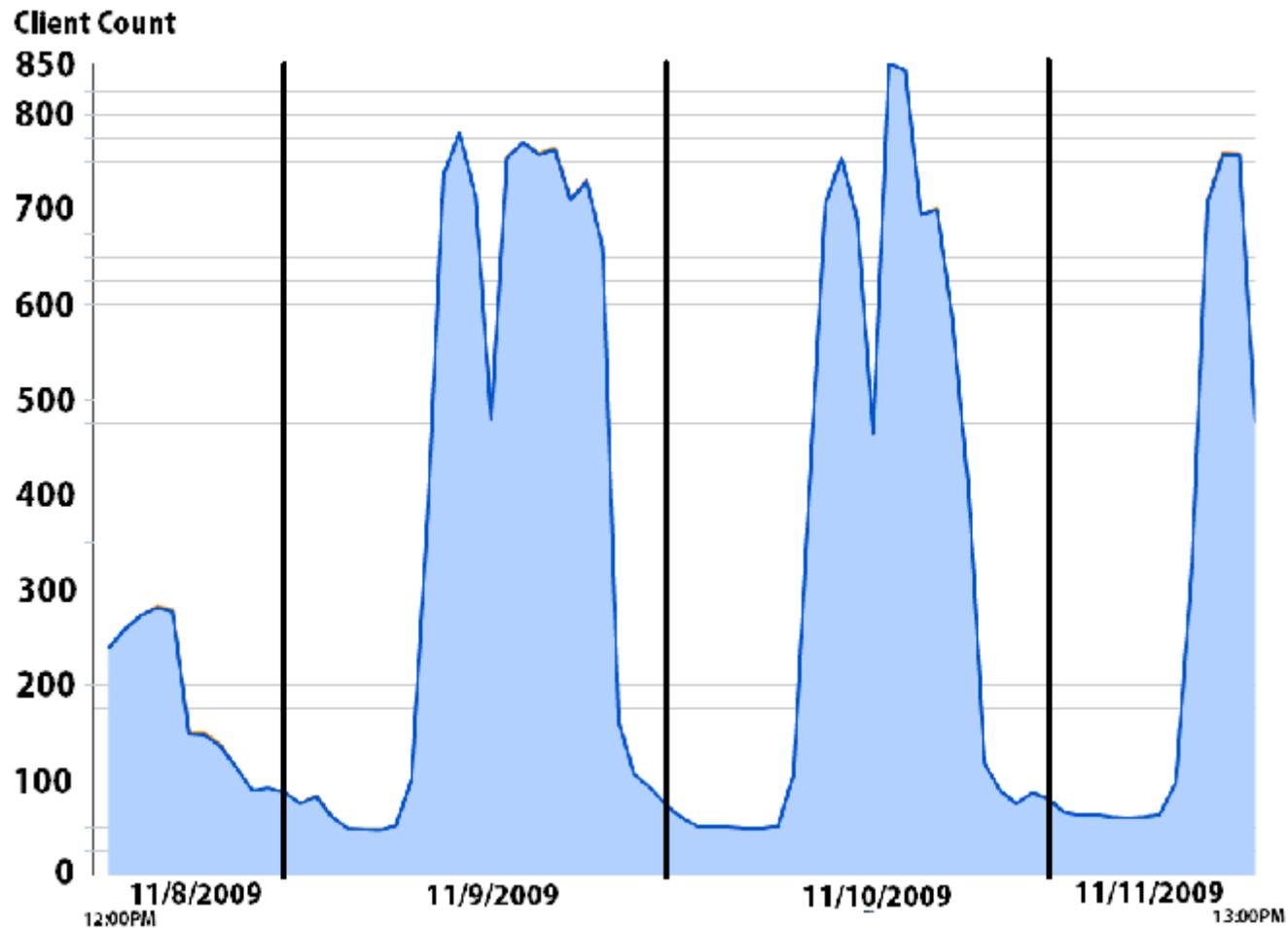
# Wireless Frequencies



☆ Measured at 14:00, Nov 11th

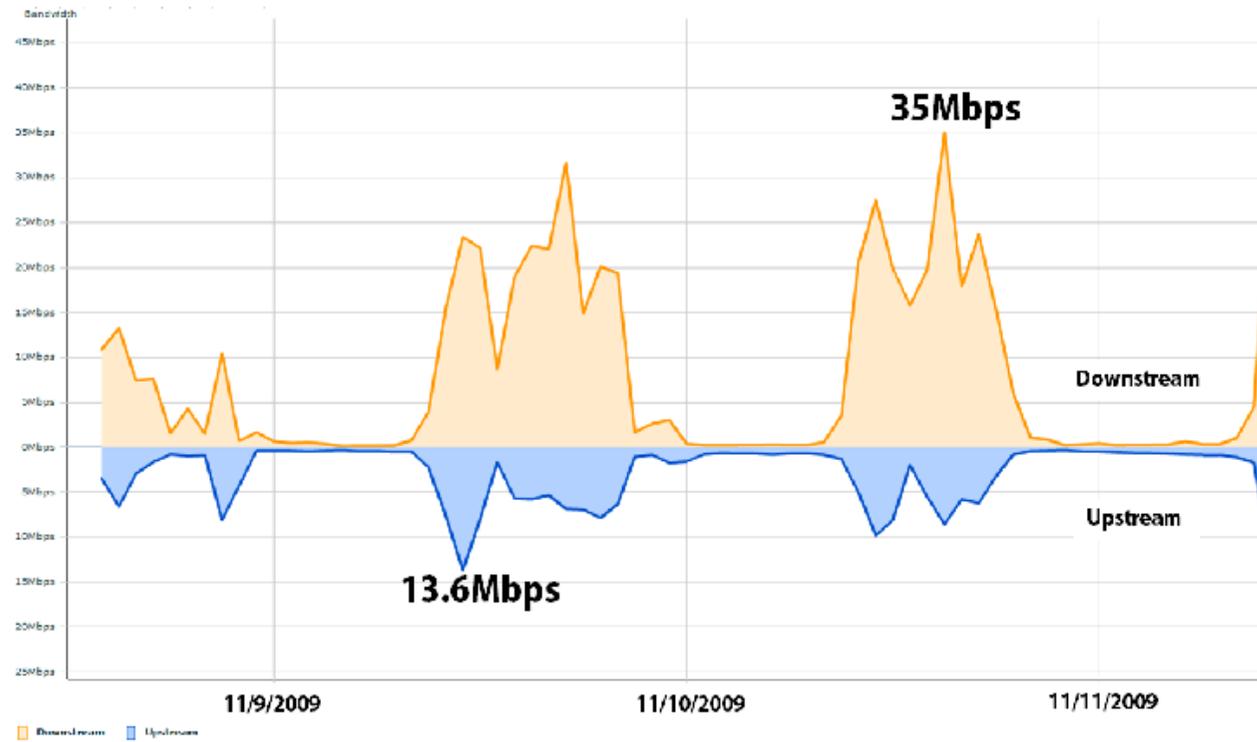
- More than half are on 5GHz

# Number of Wireless Clients

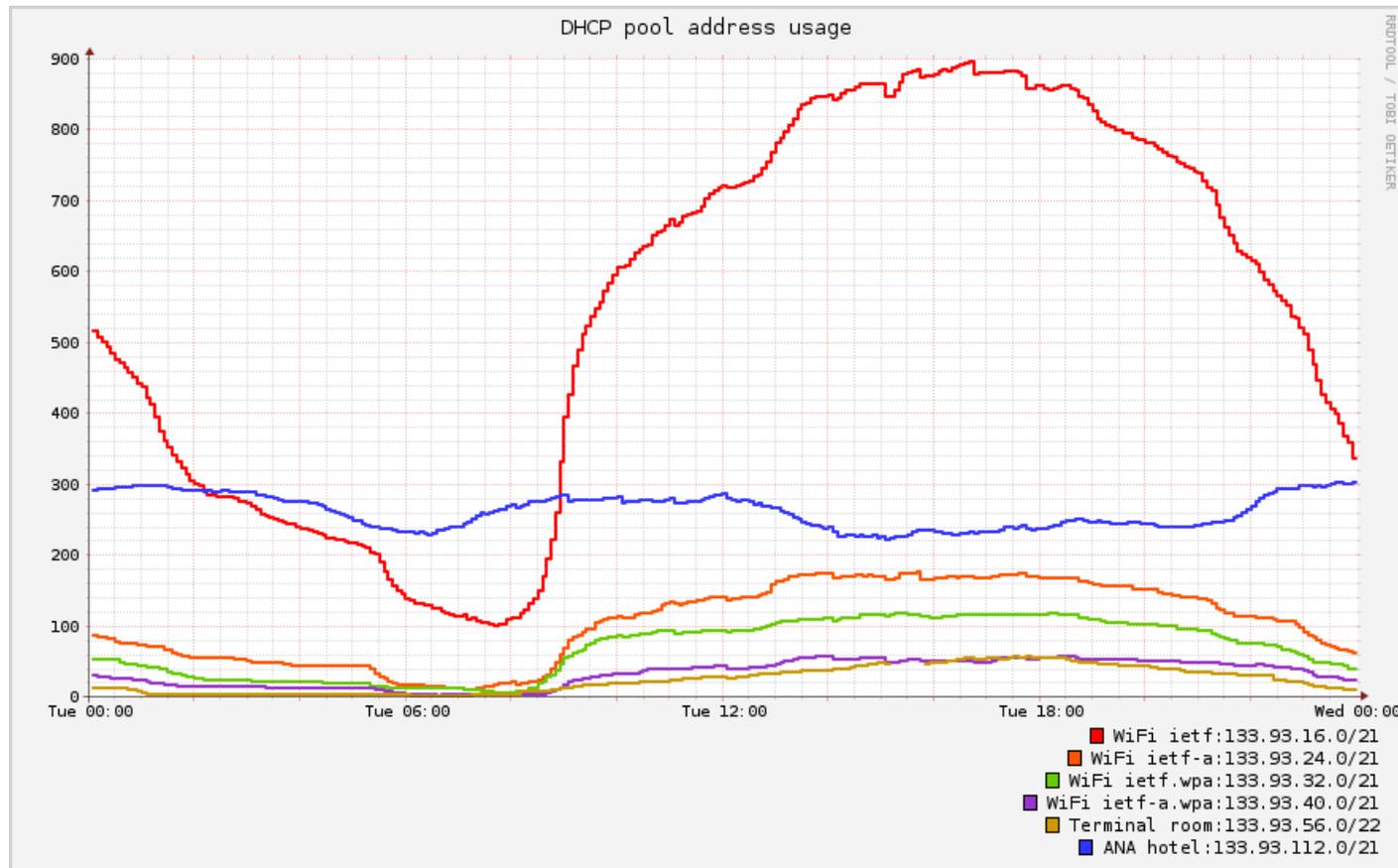


☆ Maximum of 854 client observed at 2pm, Nov. 10th

# Wireless Traffic



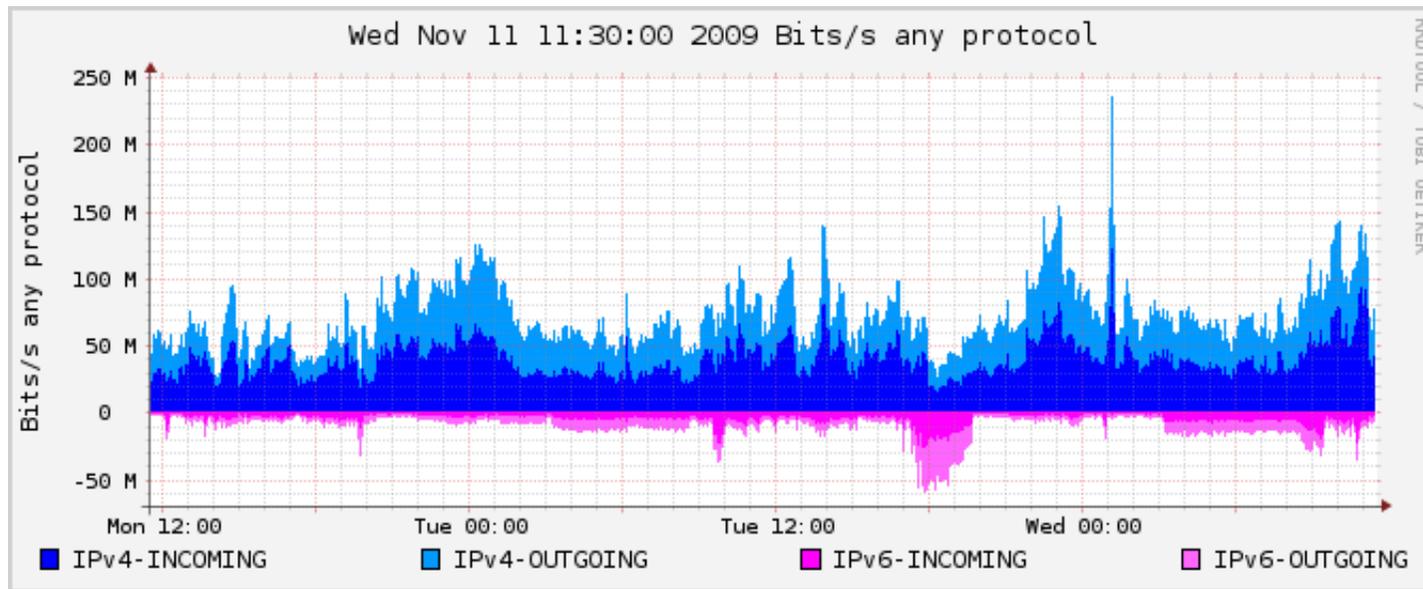
# The DHCP lease



895 active lease maximum for SSID "ietf"  
307 active lease maximum for ANA Hotel

# The Traffic

## ☆ Total traffic (IETF + all IETF hotels)



About 7% of traffic was IPv6  
This is not negligible small any more  
Google DNS hack (returns AAAA record) contributed

# Troubles Experienced

## ☆ A switch bridges ANA Hotel and IETF hung up

- Nov 8th 23:57 -- Nov 9th 00:33
- No clear reason found
- Some IGMP packets observed then suspected...

## ☆ Rogue DHCP

- Wrong connection to Linksys wireless box

## ☆ Rogue RAs

- 13 different MACs observed by now

# Some Notes

## ☆ Hotel Network

- The original configuration will be restored
  - Nov. 13th (Fri) 11am -- 2pm
  - Outage will be 20-30min each

## ☆ Measuring cups of Sake in Social



- Wash it before pack to your luggage
  - Wash the plastic bag also
- Otherwise it may be moldy, your bag may be smelly

# NOC Members

## ☆ Japanese Team

Akira Kato, Takashi Tomine : Keio University

Katsuyuki Hasebe : NTT Communications

Masafumi Oe : National Astronomical Observatory  
of Japan

Yuji Sekiya : University of Tokyo

Tohru Kondo : Hiroshima University

Satoshi Uda : JAIST

Yuichiro Tahara : KDDI

Kohei Hayawaka, Akiko Hattori, Koichi Shibakawa,

Kazuki Tsutsumi, Takeru Nomura : Cisco

Tomoaki Kozu, Dai Kobayashi, Yuko Sawai,

Masato Himeno : Alaxala/Hitachi

Masami Tokunaga, Yuko Okamoto : NTT West (remote)

## ☆ Regular NOC Volunteers (advisors)

Jim Martin, Joel Jaeggli, Bill Jensen, Chris Elliott

**Enjoy your stay in Hiroshima!**