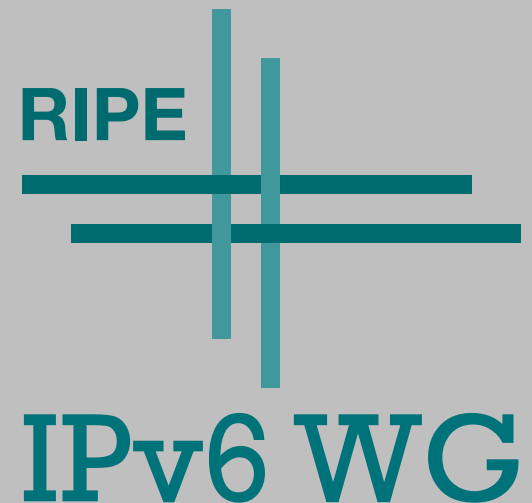


# IPv6 Only Network

Feedback

RIPE 67



# When Did We Start?

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- RIPE 36 - May 2000 in Budapest
  - “Participants had a chance to try IPv6 demo in terminal room”
- RIPE 37 - September 2000 in Amsterdam
  - Monica Cortes: “If you have IPv6 configured on your laptop, and are connected to LAN here, you can use IPv6”

# Time for the next step...

# IPv6 Only Network

An IPv6 Working Group Initiative

SSID

**IPV6ONLYEXP**

Password

**iknowbesteffort**

**Not supported by RIPE NCC Technical Team**

# IPv6 Only Network

An IPv6 Working Group Initiative

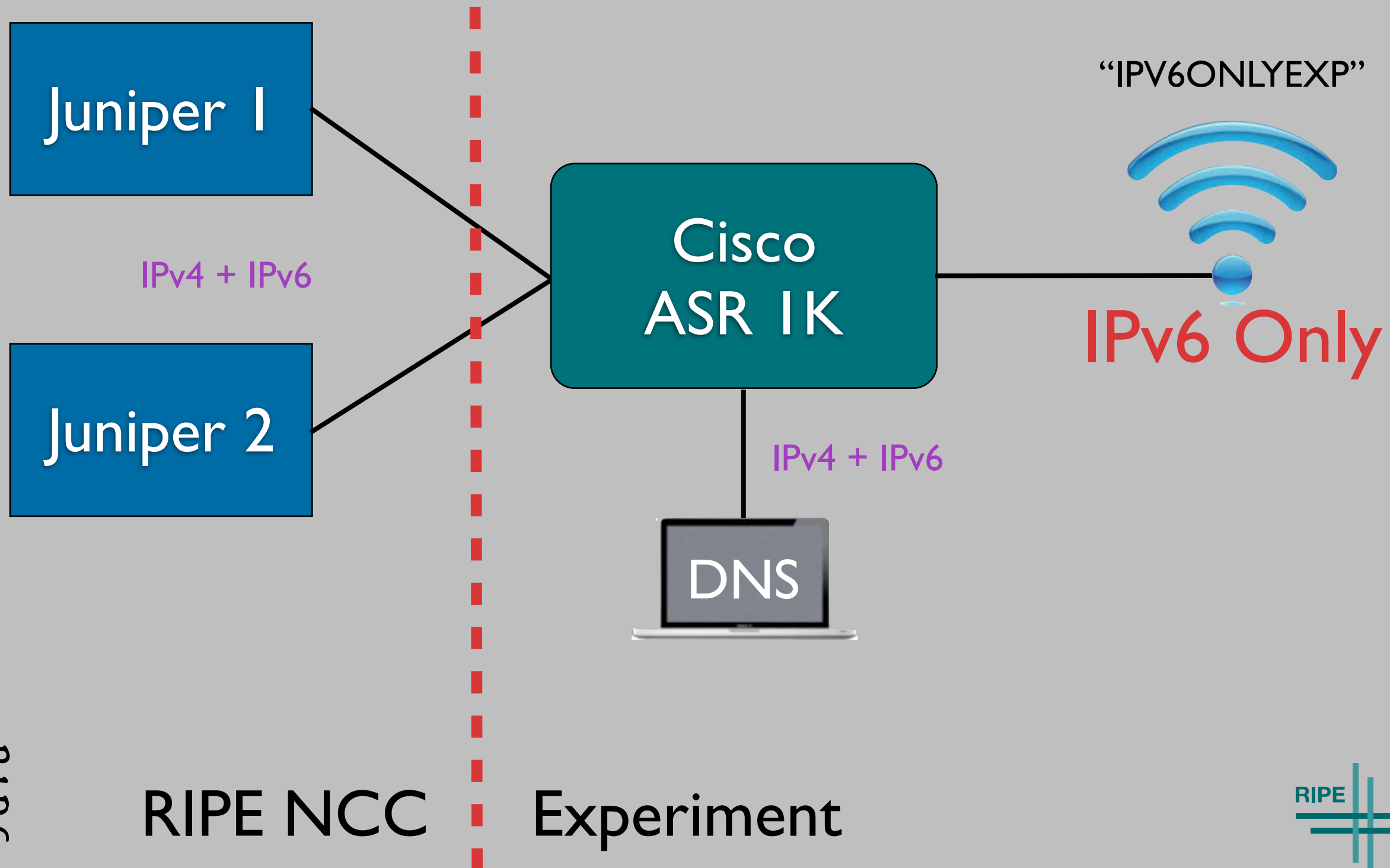
- Acknowledgements
  - Thanks to Cisco for their gear and manpower in making this work
  - RIPE NCC IT and Meeting Operations
    - They didn't support it, but it would not have been possible without them



# Wholesale Model

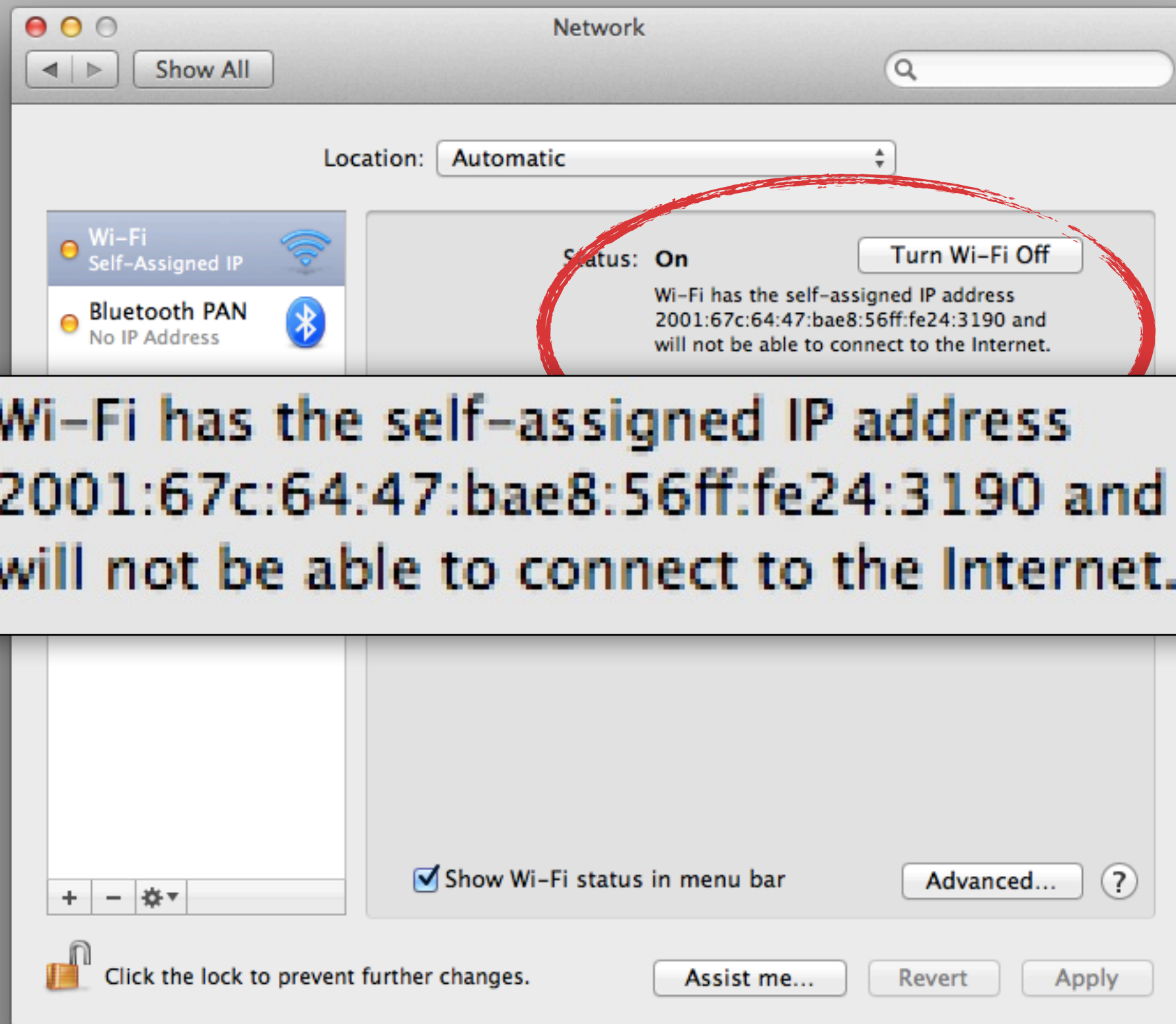
# IPv6 Only Network

An IPv6 Working Group Initiative



# IPv6 Only Network

An IPv6 Working Group Initiative

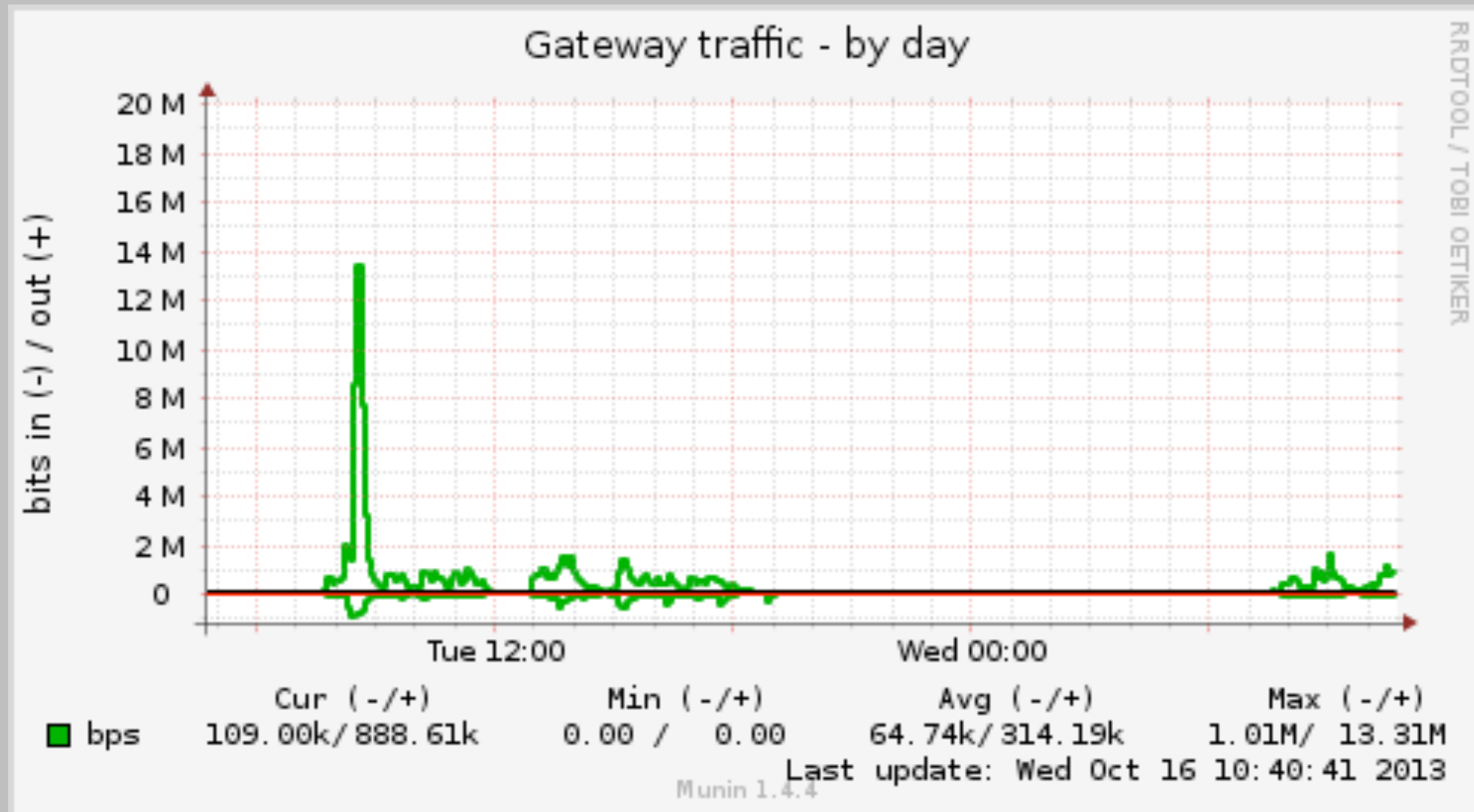


Wi-Fi has the self-assigned IP address  
2001:67c:64:47:bae8:56ff:fe24:3190 and  
will not be able to connect to the Internet.

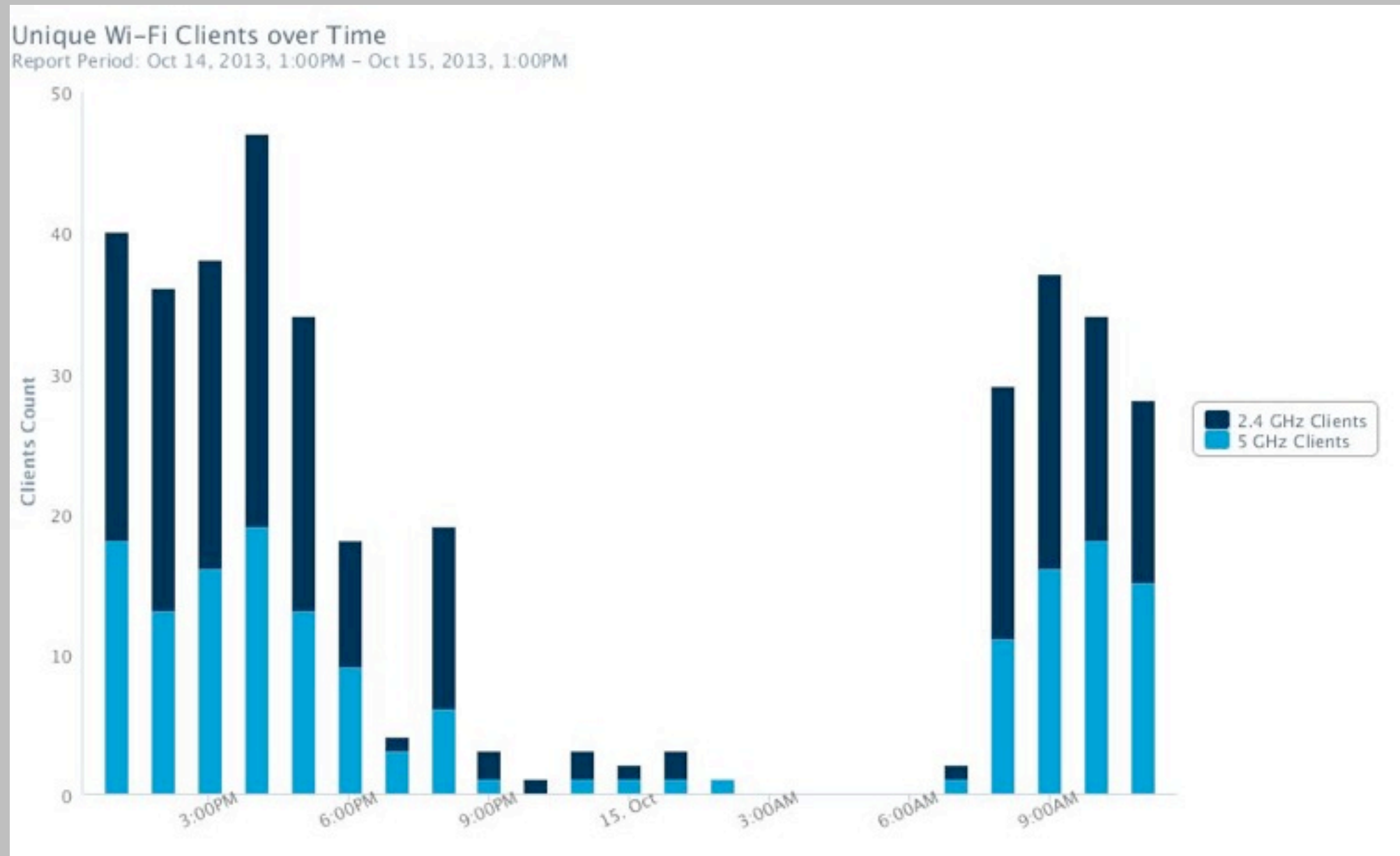


# Statistics

# Traffic



# Clients



# Incidents

- Failure Monday afternoon caused by a patch cable falling out of our ~~laptop~~server

# Imprecise Network Monitoring

# Twitter feed

(using NAT64)

Twitter feed snippets showing various users discussing IPv6-only network experiences and issues:

- Lee Howard** @WLeeCoyote: @bortzmeyer Post your #IPV6ONLYEXP results! Oh wait, @twitter won't be reachable.
- Scott Leibrand** @scottleibrand: Anyone know if the #IPv6 #iMessage bug has been reported to Apple yet? #IPv6OnlyE
- Stéphane Bortzmeyer** @bortzmeyer: @marcohv20 @kolkman I had no problem with pure client/server apps (Web, SSH...) I still have to test more 2P2 stuff. #IPV6ONLYEXP
- Mohsen Souissi** @Mc: I'm now experimenting the #IPv6-only network at #RIPE67. "Eating my own
- Bruno STEVANT** @bstevant: #IPv6 only WiFi network should be the norm for net tech conference. C tickets flood gates ! #IPV6ONLY
- Stéphane Bortzmeyer** @bortzmeyer: Watching Miley Cyrus over #IPV6ONLYEXP. The content is exactly the same.
- Lee Howard** @WLeeCoyote: @Skype Sitting on an #IPv6-only (+NAT64) network at a mee Skype. Community, Heartb fail. #IPV6ONLYEXP
- Scott L** @ayourl: iTunes Store started working again on #IPV6ONLYEXP network with their
- Stéphane Bortzmeyer** @bortzmeyer: Tested #IPV6ONLYEXP with IRC: works. Some IRC (freenode, geekno (eversible) but wo
- Dmitry Kohmanyuk** @dk379: Connected my #iOS7 iPod touch to #IPV6ONLYEXP SSID at #RIPE67 - some Internet works but #Facebook app cannot post status update #ipv6
- Ondřej** @oskar: Looks lil #IPV6ONLYEXP on #ripe67 caused my Wi-Fi driver to overflow the scan result table :(
- Andrew Yourtchenko** @ayourtch: @dk379 @scottleibrand iMessage: wait for 5 minutes. Patience is a virtue! :-) It's the same bug with IPv4 link-local timeout #IPV6ONLYEXP?
- Scott Leibrand** @scottleibrand: @ayourtch After disconnecting and reconnecting to #IPV6ONLYEXP, iMessage breaks again, even after it shows a 169.254/16 address. A timeout?

RIPE 67

## #IPV6ONLYEXP

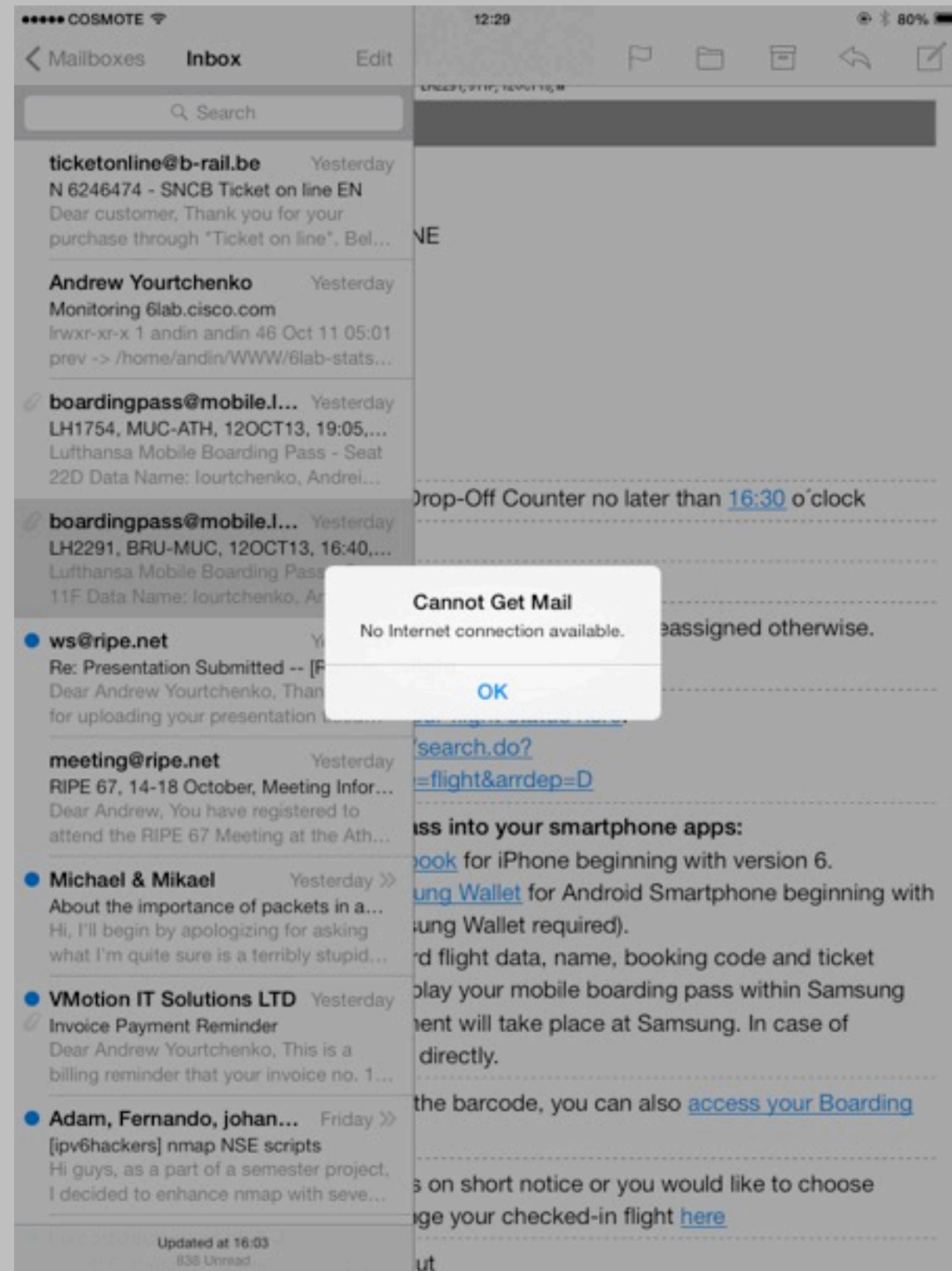


# Facebook

(They ~~do~~ IPv6)



# Mailing List





# Observations

# Cisco Password Reset

← → ↻ 🏠 [https://tools.cisco.com/RPFA/passwordreset.do?exit\\_url=http://www.cisco.com/](https://tools.cisco.com/RPFA/passwordreset.do?exit_url=http://www.cisco.com/)

Apps nebua Junos OS 12.1 Release direct

## Cisco.com Profile Manager

很抱歉, 对您的 Internet Protocol (IP) 地址的分析结果不允许我们完成您当前的思科注册。

我们收到的您的 IP 地址格式无效。请重试。如果此错误消息持续出现, 请联系 [web-help@cisco.com](mailto:web-help@cisco.com), 并向他们提供交易号码和错误代码:

交易号码: **506523005**  
错误代码: **IP101**

---

Litujeme, ale analýza adresy vašeho protokolu IP (IP) nám momentálně neumožňuje dokončit registraci u společnosti Cisco.

Vaše adresa IP se k nám přenáší v neplatném formátu. Opakujte akci. Pokud se toto hlášení o chybě opakuje, obraťte se na adresu [web-help@cisco.com](mailto:web-help@cisco.com) a zadejte číslo transakce a kód chyby:

Číslo transakce: **506523005**  
Kód chyby: **IP101**

---

We are sorry but analysis of your internet protocol (IP) address does not permit us to complete your Cisco registration at this time.

Your IP address is coming across to us in an invalid format. Please try again. If this error message continues please contact [web-help@cisco.com](mailto:web-help@cisco.com) and provide them with this transaction number and error code:

Transaction Number: **506523005**  
Error Code: **IP101**

# Cisco Knows

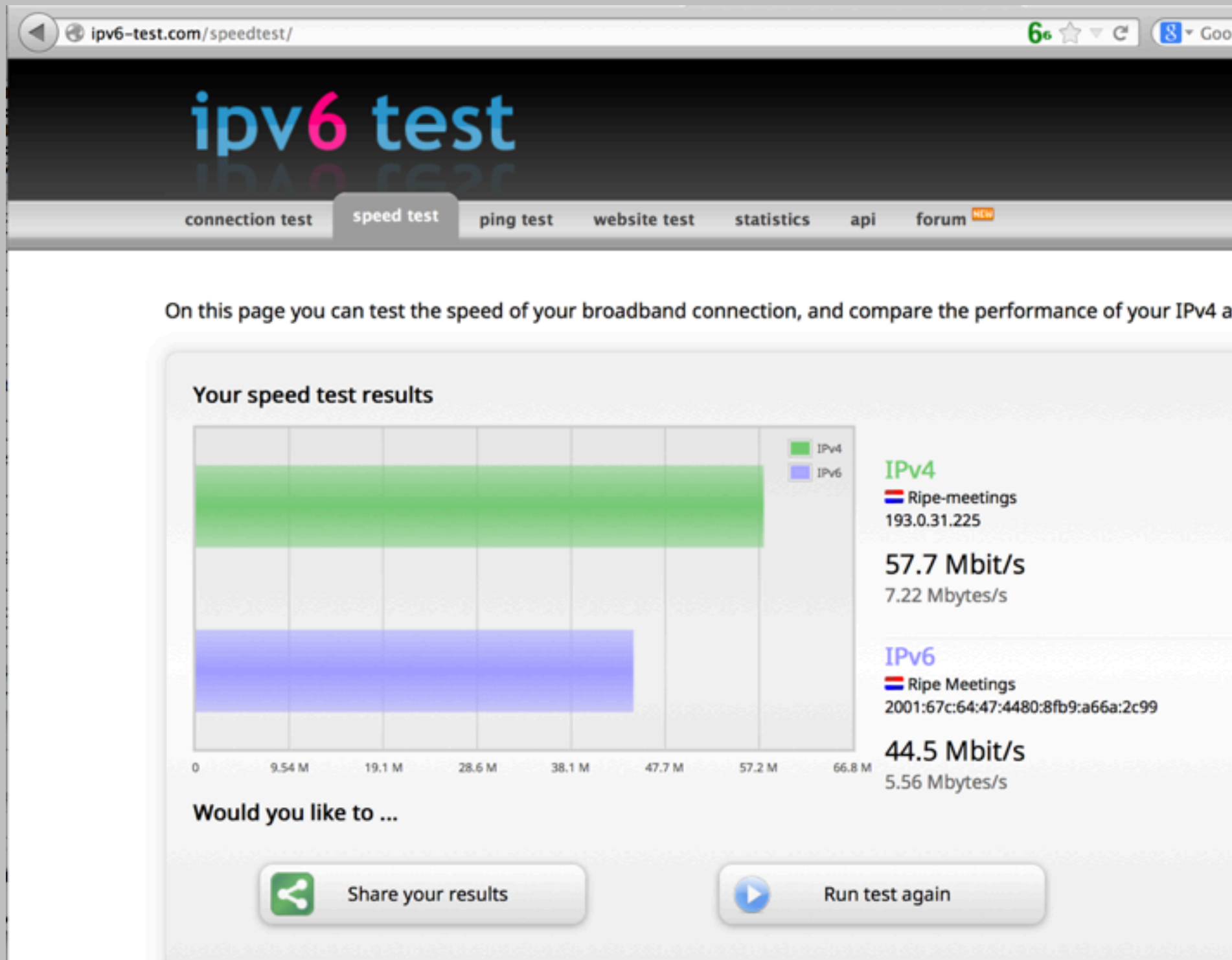
"[Cisco.com](https://www.cisco.com) error code IP101 occurs whenever connecting to [Cisco.com](https://www.cisco.com) using an IPV6 address while resetting a password or registering on [Cisco.com](https://www.cisco.com). Cisco is aware of this issue and a development team is working on a permanent fix.

As a workaround, please use an IPV4 address and refer to your internal IT for questions on how to enable an IPV4."

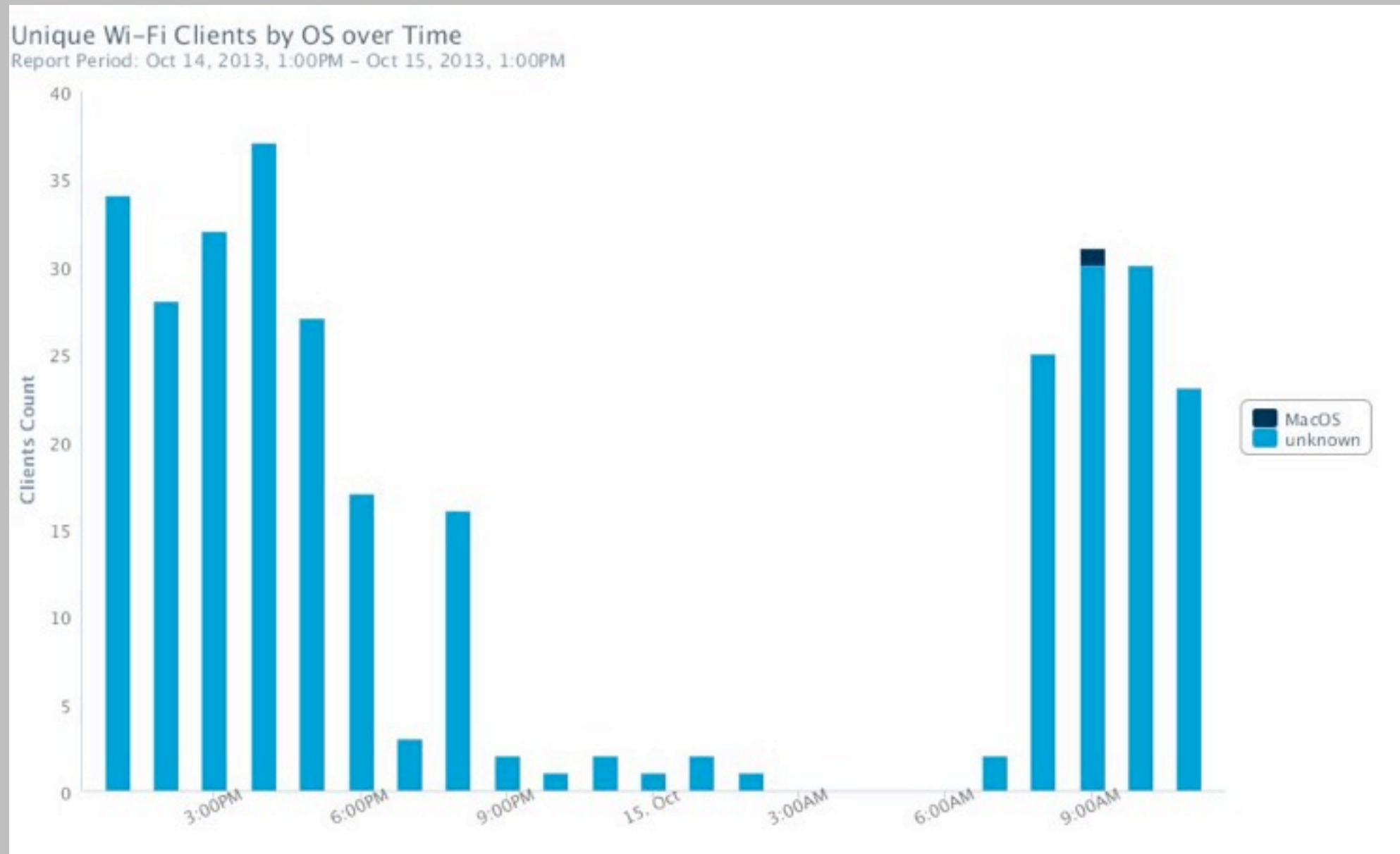
# DNS Issues

- You need a resolver to make things work
  - For NAT64 you needed `_our_` resolver
- DNS resolver address offered on
  - DHCPv6
  - RFC 6106 compatible RA options
- Older clients didn't support either option
- Manual configured resolvers overriding the one we supplied

# Speed Test

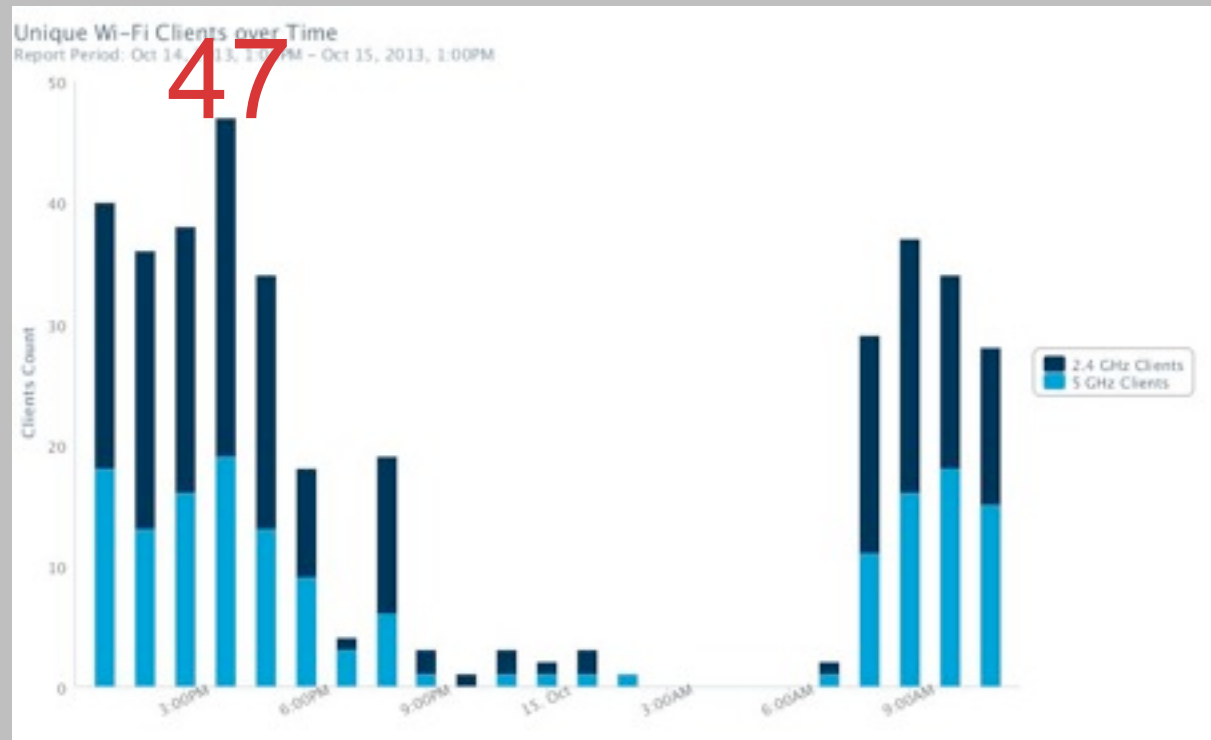


# Aerohive Manager



“Unknown”

# Aerohive Manager



Number of clients



Number of IPv4 clients?

RIPE 67

RIPE  
IPv6 WG

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# Feedback?

## Should we do this again?

## Would you try this in your own network?