

IPv4-IPv6 Transition Technology Interop

IETF100 Hackathon

Lee Howard, presenting

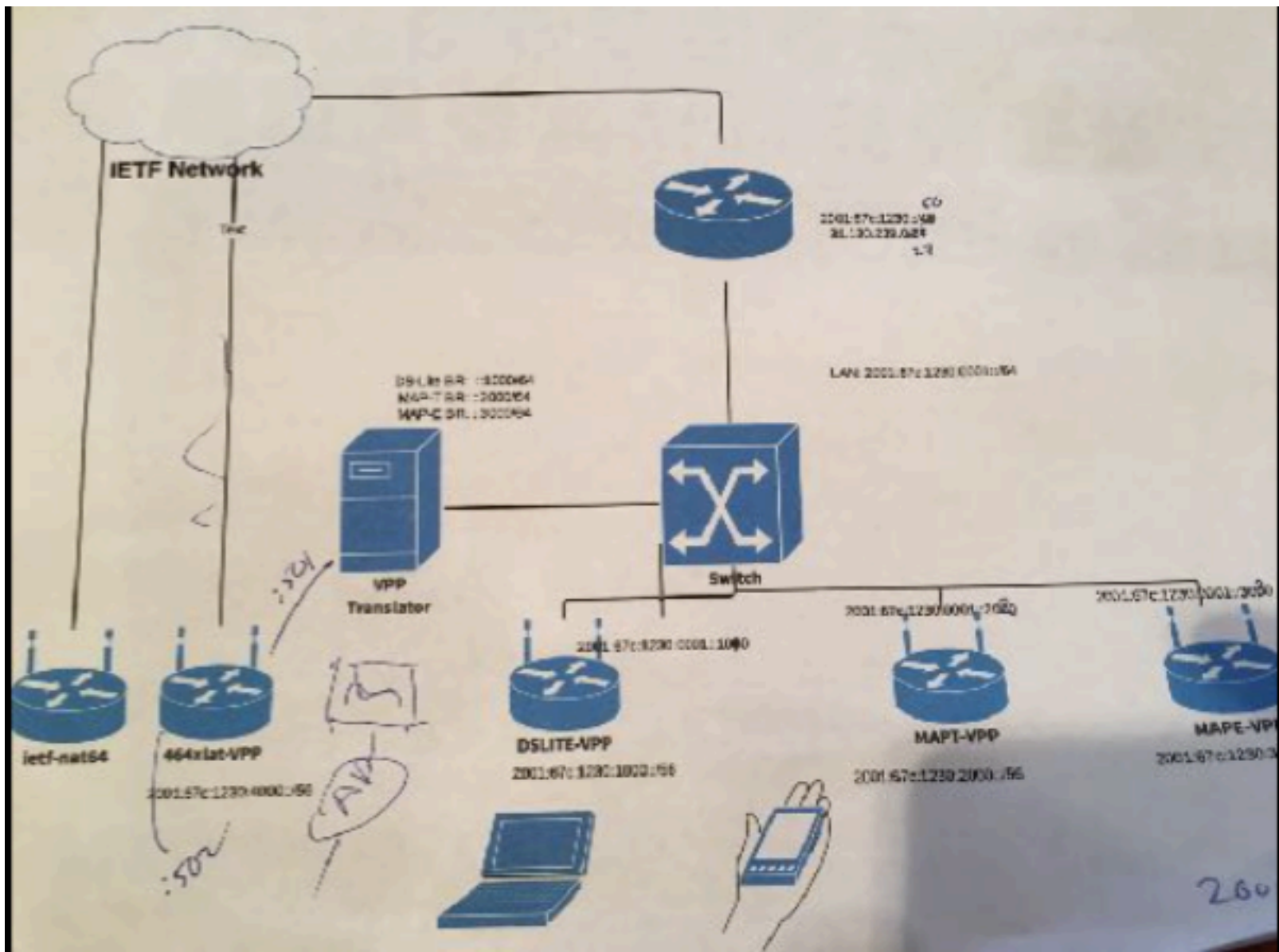
Ole Troan

Goals

1. Inform the discussion of IETF SSIDs
2. Compare transition mechanisms

How we did it:





CPE: LEDE

BR/AFTR: VPP

Who Did IT

- Lee Howard (first Hackathon)
- Ole Trøan
- Pierre Pfister
- Matus Fabian (first Hackathon, first IETF)
- Hermin Anggawijaya (first Hackathon)
- Pål-Erik Martinsen
- Chris Tuska
- Jordi Palet
- Jen Linkova/Randy Bush (separate but related)

- NAT64
- 464xlat
- Dual-stack Lite
- LW4over6

- Meetecho
- Etherpad
- Jabber
- Skype
- WhatsApp
- Telegram
- Dropbox
- MS Outlook
- Air Display2
- Slack
- Spotify
- Signal

Everything worked except

- Steam (NAT64)
- Unable to reach CRL (NAT64)
- Didn't get to MAP-T, MAP-E, but should work the same as LW4o6, etc.
- VPNs: don't work if they're configured not to work.

NAT64

	MacOS	iOS	Android	Web	Windows
Meetecho	Green	Green	Green	Green	Light Blue
Jabber (Adium)	Green	Green	Green	Green	Light Blue
Etherpad	Green	Green	Green	Green	Green
Skype	Green	Green	Green	Green	Light Blue
Telegram	Red	Light Blue	Light Blue	Light Blue	Light Blue
Spotify	Red	Green	Green	Green	Green
Signal	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
Outlook	Green	Light Blue	Green	Light Blue	Light Blue
Dropbox	Green	Light Blue	Green	Green	Green
Airdisplay	Green	Green	Red	Light Blue	Light Blue

Dual-stack Lite

	MacOS	iOS	Android	Web	Windows
Meetecho	Green	Light Blue	Light Blue	Light Blue	Light Blue
Jabber (Adium)	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
Etherpad	Green	Light Blue	Light Blue	Light Blue	Light Blue
Skype	Green	Green	Green	Light Blue	Light Blue
Telegram	Green	Green	Light Blue	Light Blue	Light Blue
Spotify	Red	Green	Green	Green	Green
Signal	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
Outlook	Green	Light Blue	Light Blue	Light Blue	Light Blue
Dropbox	Green	Green	Green	Light Blue	Light Blue
Airdisplay	Green	Green	Red	Light Blue	Light Blue

464xlat

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Etherpad	Green	Light Blue	Light Blue	Light Blue	Light Blue
Skype	Green	Green	Light Blue	Light Blue	Light Blue
Telegram	Green	Green	Light Blue	Light Blue	Light Blue
Spotify	Red	Green	Green	Green	Green
Signal	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
Outlook	Green	Light Blue	Light Blue	Light Blue	Light Blue
Dropbox	Green	Green	Light Blue	Light Blue	Light Blue
Airdisplay	Green	Green	Red	Light Blue	Light Blue

Additional Notes

- Unable to test most VPNs
- Additional testing that worked:
 - Slack
 - RDP

Next Time

- First day was setup: harder than expected
- Need to assign test cases to testers before event
 - Ensure coverage
 - Ensure apps are pre-installed
- Add Iw4over6, MAP-T, MAP-E
- Future work:
 - documenting LEDE,
 - VPN best practices,
 - Potential host requirements changes,
 - testing home electronics

NAT64 Testing

IETF100 Hackathon

Jen Linkova, *Randy Bush & IETF NOC*

The Goal

- Test various applications on NAT64
 - Widely used applications
 - Based on previously reported bugs
- Testing/troubleshooting environment

	Meetecho	Jabber	Etherpad	Skype	Signal	Spotify	Outlook	Dropbox	Air Display
MacOS	Adium								
iOS							TBT	TBT	
Android									
Windows		TBT		TBT	TBT		TBT		
Web based									

VPNs

- OpenVPN: OK
- Cisco corporate VPN: OK
- Some corporate VPNs have issues:
 - Not up-to-date versions
 - Not configured for v6 support
- Split tunnel considered harmful

Other Positive Results

- Telegram IM (ex. for web key generation)
- Appear.in

Other Issues Discovered

- Steam does not work
- Check your ssh configs for "host * family inet" ;)

Millions Other Things Yet to Test

- Other VPNs
- Millions of IMs
- Your favorite application

