

IETF Hackathon: MUD and Onboarding

IETF 105
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Montreal



Hackathon Plan

- MUD - RFC 8520
 - MUD Reporter – develop a means to report config errors to network manager and manufacturer
 - MUD Maker – make code maintainable
 - Build out and validate SECOM MUD capability
 - DPP/MUD integration
 - Verification and MUD file generation: incorporate East/West and North/South filters for verification
- BRSKI – draft-ietf-anima-bootstrapping-keyinfra
 - Improve ANIMA ACP GRASP discovery
 - <What drafts/RFC's were involved?>
 - <Specific problems to solve>
- How you planned to solve it? Plan? I What plan?!

What got done

- MUD Maker php code can be deleted. Rewritten by CIRA Labs team in python. Now maintainable!!
- Lots of testing of WFA EasyConnect/DPP with MUD and Micronets Gateway
- A whole lot of thinking about what to report to network manager and manufacturers when things worked and didn't
 - NIST implementation already 80% complete
- SECOM mud validated against two or three separate MUD managers
 - <https://github.com/CiscoDevNet/MUD-Manager>
 - <https://github.com/usnistgov/MUDPI>
 - <https://github.com/usnistgov/nist-mud>

More of what got done

- Four separate MUD Manager implementations at the table:
 - 2 using OpenWRT
 - 1 using OpenFlow
 - 1 using Radius and DACLs
- All demonstrating consistent behavior (as far as we tested)
- East/West and North/South filters completed in verifier
 - Filtering between devices TBD

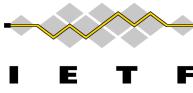
What we learned

- Core MUD RFC looks reasonably good so far
- MUD Reporter draft needs a lot of discussion
 - Organization of reporting elements
 - What do manufacturers want?
 - How to aggregate?
- Failing hard is good

Device Type	Controller	VLAN	Net Mask	Policies	Source	Description	Edit?
nist yikesmain	192.168.10.125			(mud file), (DACLs)	MUD state	test mud file for all classes (docs)	<input type="checkbox"/>
					config file		<input checked="" type="checkbox"/>
		3	192.168.13.0 0.0.0.255		VLAN DB	Unassigned VLAN	<input type="checkbox"/>
		4	192.168.14.0 0.0.0.255		VLAN DB	Unassigned VLAN	<input checked="" type="checkbox"/>
		5	192.168.15.0 0.0.0.255		VLAN DB	Unassigned VLAN	<input type="checkbox"/>



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Wrap Up

Team members:

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Michael Richardson, Cable
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