

IPv6 Made Simple

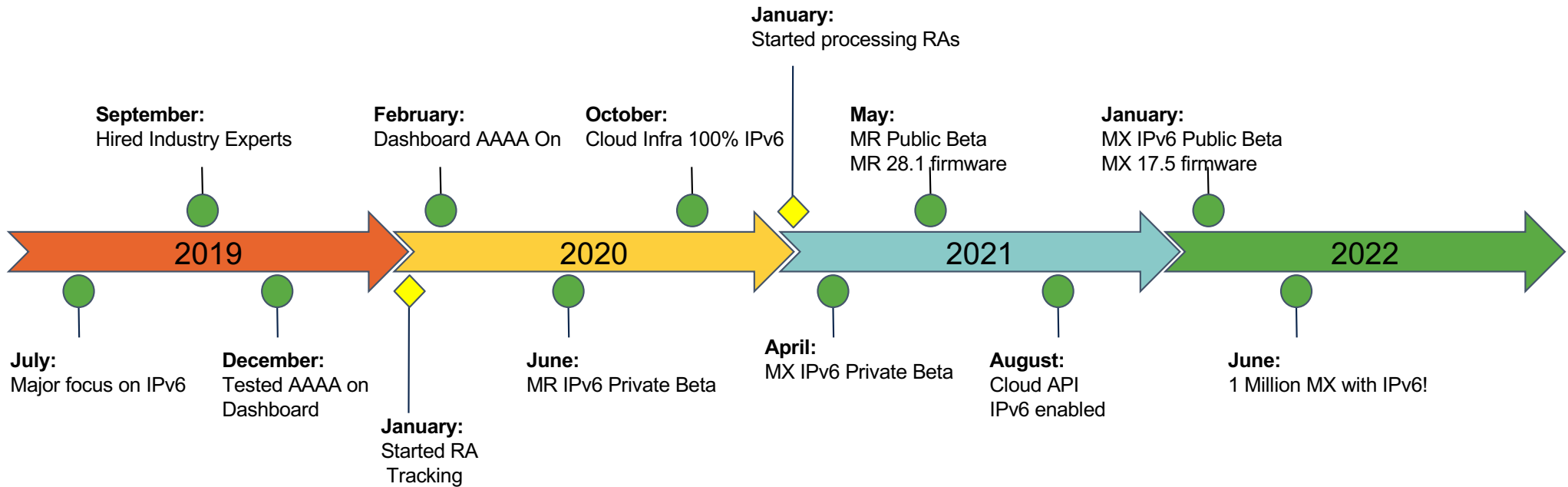


Mark Townsley

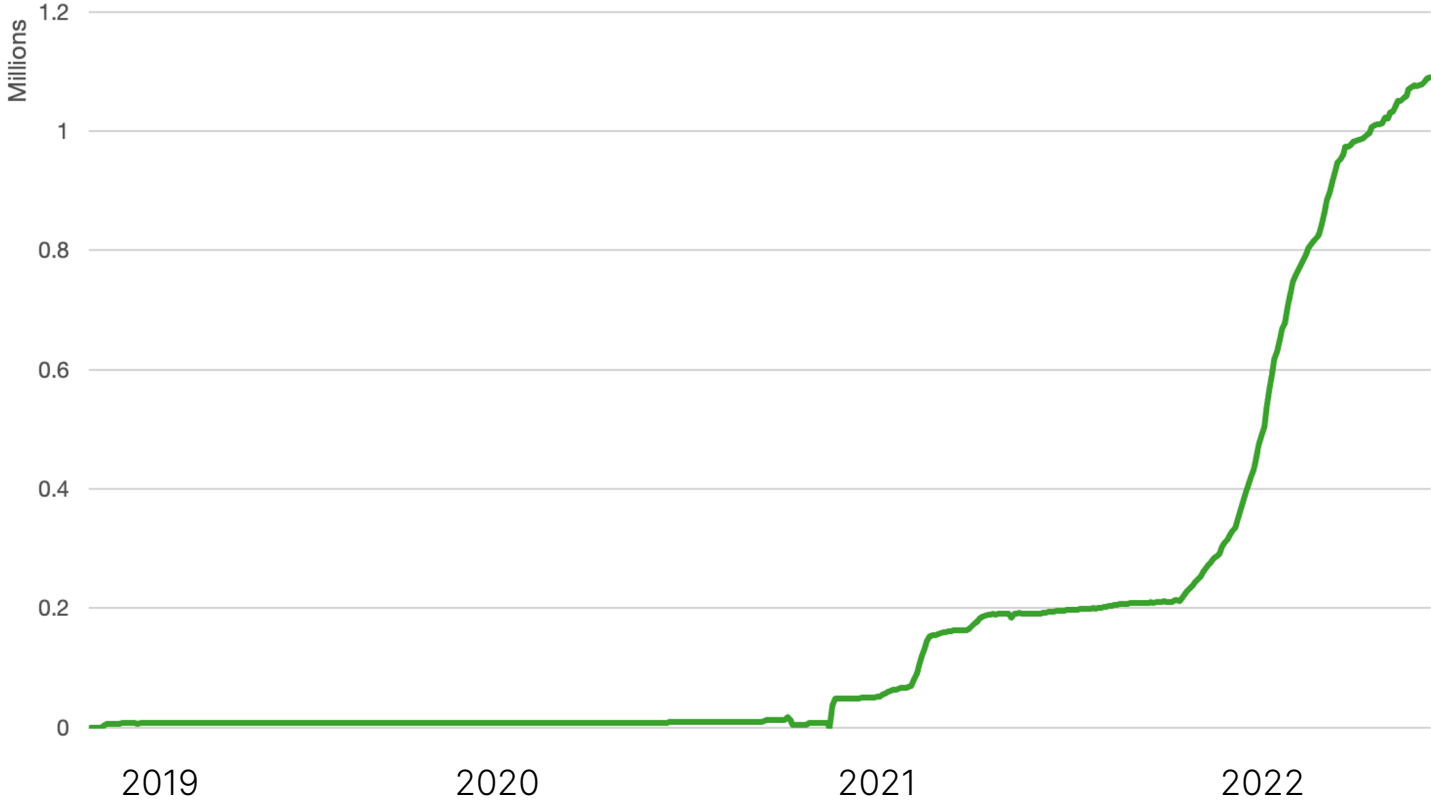
NANOG - June, 2022

Meraki IPv6 Journey

Timeline of events



Meraki MX with an IPv6 Uplink



Meraki IPv6

On By Default



New VLANs have IPv6 on by Default

IPv6 On by Default

1

The screenshot shows the 'Add VLAN' configuration window. It contains the following fields and options:

- VLAN name: IPv6 On
- VLAN ID: 3
- Group policy: None
- VPN mode: Enabled (selected), Disabled
- Next button

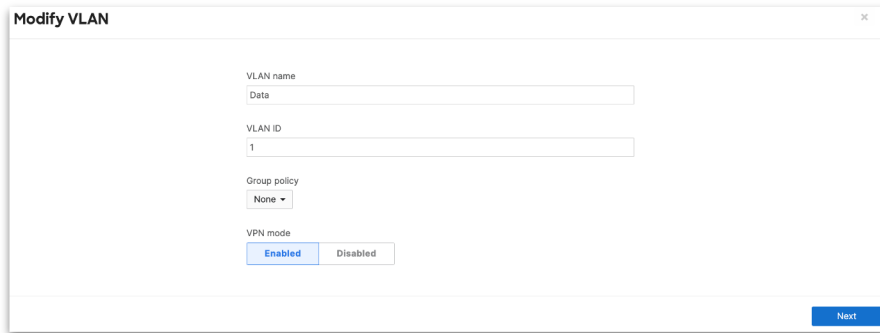
2

The screenshot shows the 'Add VLAN' configuration window with the IPv6 configuration section expanded. It contains the following fields and options:

- IPv4 Config:
 - MX IP: Ex: 10.24.2.11
 - Subnet: Ex: 10.24.2.0/24
- IPv6 Config: Enabled (selected), Disabled
- WAN 1: Auto (selected), Manual, Disabled
- WAN 2: Auto (selected), Manual, Disabled
- Independent: Auto, Manual, Disabled (selected)
- Back button
- Next button

Enabling IPv6 for Existing VLANs Easy as 1, 2, 3

1



Modify VLAN

VLAN name
Data

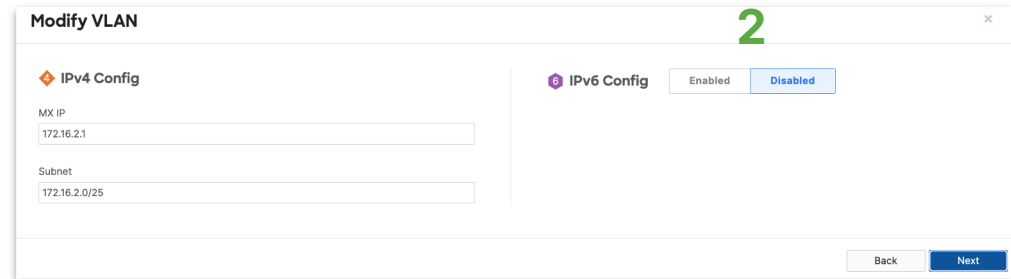
VLAN ID
1

Group policy
None

VPN mode
 Enabled Disabled

[Next](#)

2



Modify VLAN

IPv4 Config

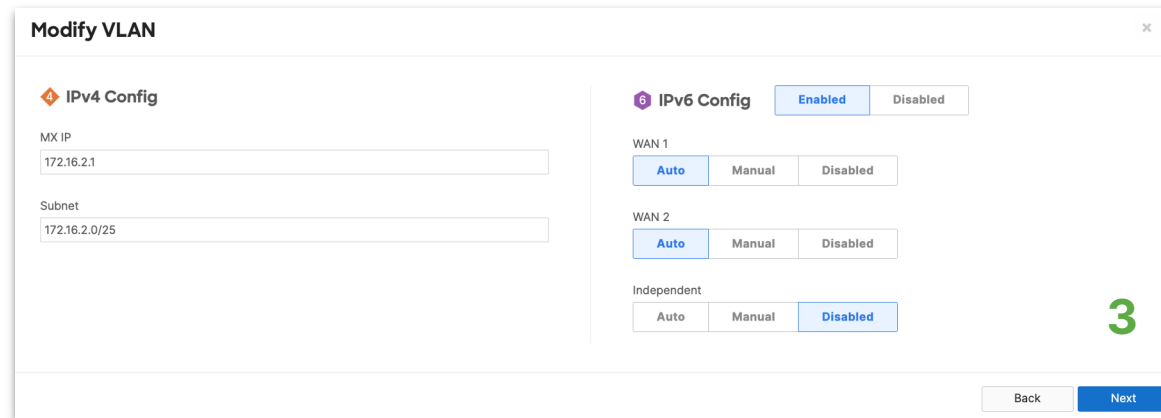
MX IP
172.16.2.1

Subnet
172.16.2.0/25

IPv6 Config Enabled Disabled

[Back](#) [Next](#)

3



Modify VLAN

IPv4 Config

MX IP
172.16.2.1

Subnet
172.16.2.0/25

IPv6 Config Enabled Disabled

WAN 1
 Auto Manual Disabled

WAN 2
 Auto Manual Disabled

Independent
 Auto Manual Disabled

[Back](#) [Next](#)

Built-in Prefix Delegation

With DHCPv6-PD and Manual IPv6 Prefix Pool

MX Prefix Delegation for LAN

- DHCPv6-PD (Auto)
- Manual Prefix Pool

Powerful Automation & visibility

The screenshot displays the Meraki dashboard interface for IPv6 Prefixes and VLAN Assignments. The top navigation bar includes tabs for Summary, Uplink, DHCP, IPv6 Prefixes (selected), Location, and Tools. The main content is divided into two sections: Delegated Prefixes and VLAN Assignments.

Delegated Prefixes

Origin	Method	Source name	Prefix	Used /64s	Free /64s	Expires	
<input type="checkbox"/>	Independent	Manual	Test	fd21:ae91:3879::/48	1	65535	N/A
<input type="checkbox"/>	WAN 1	Auto	2607:■■■■:d0::/64	0	1	in 8 hours	
<input type="checkbox"/>	WAN 1	Auto	2607:■■■■:2::/64	1	0	in 8 hours	
<input type="checkbox"/>	WAN 1	Auto	2607:f■■■:d1::/64	1	0	in 8 hours	

4 results

VLAN Assignments

VLAN ID	VLAN name	Subnet prefix	Origin	Delegated prefix	Prefix status
1	Data	2607:■■■■:1d1::/64	WAN 1	2607:■■■■:d1::/64	Active
2	Voice	fd21:aeC1:3879::/64	Independent	fd21:■■■■:79::/48	Active
2	Voice	2607:■■■■:1d2::/64	WAN 1	2607:■■■■:d2::/64	Active

3 results



IPv4 and IPv6 in a single view

LAN Assigned Prefixes

Routing

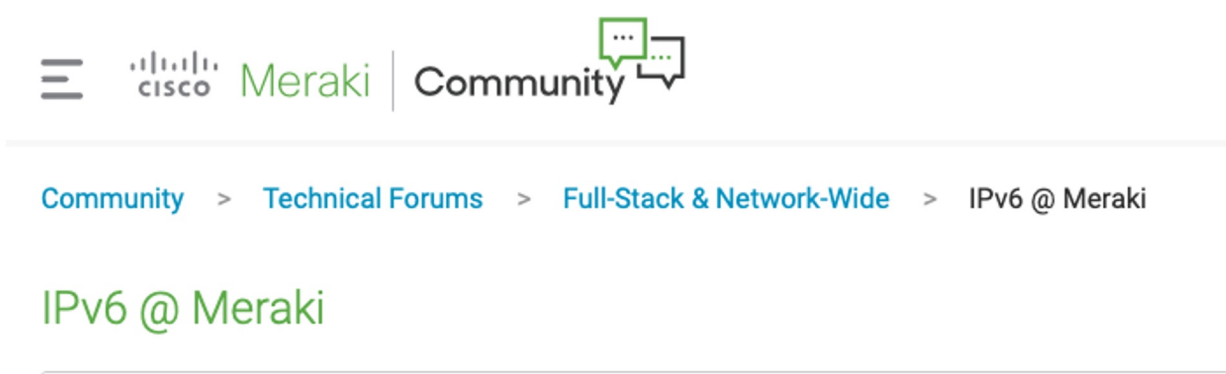
LAN setting: **VLANs** | Single LAN

Subnets: Search by VLAN name, MX IP Delete Add VLAN

ID	VLAN name	Version	Config	MX IP	Uplink	Group policy	VPN mode
1	Data	4	Manual	172.16.2.1/25	Any	None	Enabled
		6	Auto	2607:f598: [redacted] :5ab0/64	WAN 1		
		6	Auto	--	WAN 2		
		6	Auto	fe80:: [redacted] :5ab0 (Link-local)	--		
		6	Auto	ff02:: [redacted] :ab0 (Solicited node multicast)	--		
		6	Auto	--	--		
2	Voice	4	Manual	172.16.2.129/25	Any	None	Enabled
		6	Auto	2607:f598: [redacted] :fec8:5ab0/64	WAN 1		
		6	Auto	--	WAN 2		
		6	Auto	fd21:ae91: [redacted] :c8:5ab0/64	Independent		
		6	Auto	fe80::8a15: [redacted] :ab0 (Link-local)	--		
		6	Auto	ff02:: [redacted] :b0 (Solicited node multicast)	--		

2 results

Stay up to date on our progress...

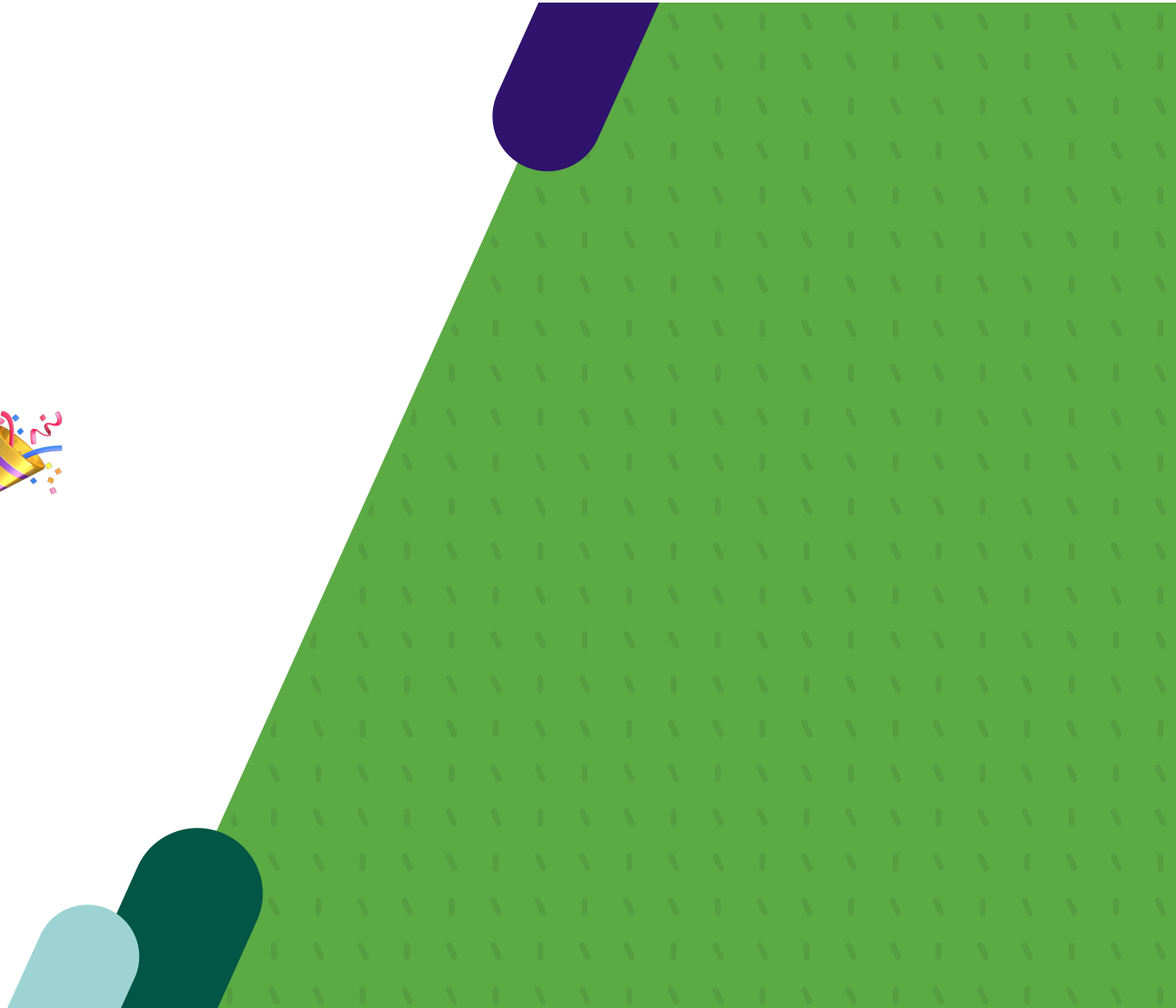


<http://go2.cisco.com/meraki-ipv6>

Get updates, ask questions, sign up for our private beta IPv6 releases



Thank you! 🎉



Public Release

Available Now MX 17.6+ RC firmware

- **WAN**

- Auto (DHCP6)**
- Auto (Stateless)**
- PPPoE (Stateless)**
- PPPoE (Static)**
- Manual (Static)**
- Cellular (Stateless)**

- **LAN**

- Auto (DHCPv6-PD)**
- Manual Prefixes (Auto delegation)**
- Manual Prefixes (VLAN override)**
- Cellular***

- **Routing**

- Uplink Selection**
- Static Routes**

- **VPN**

- AutoVPN**

- **Security**

- Firewall Rules**

- **Monitoring**

- IPv6 Prefix table**
- Ping**
- Traceroute**
- DNS Lookup**
- Route Table***
- AutoVPN participants table**
- Client Tracking**
- Event Log**

- **LSP**

and more...

