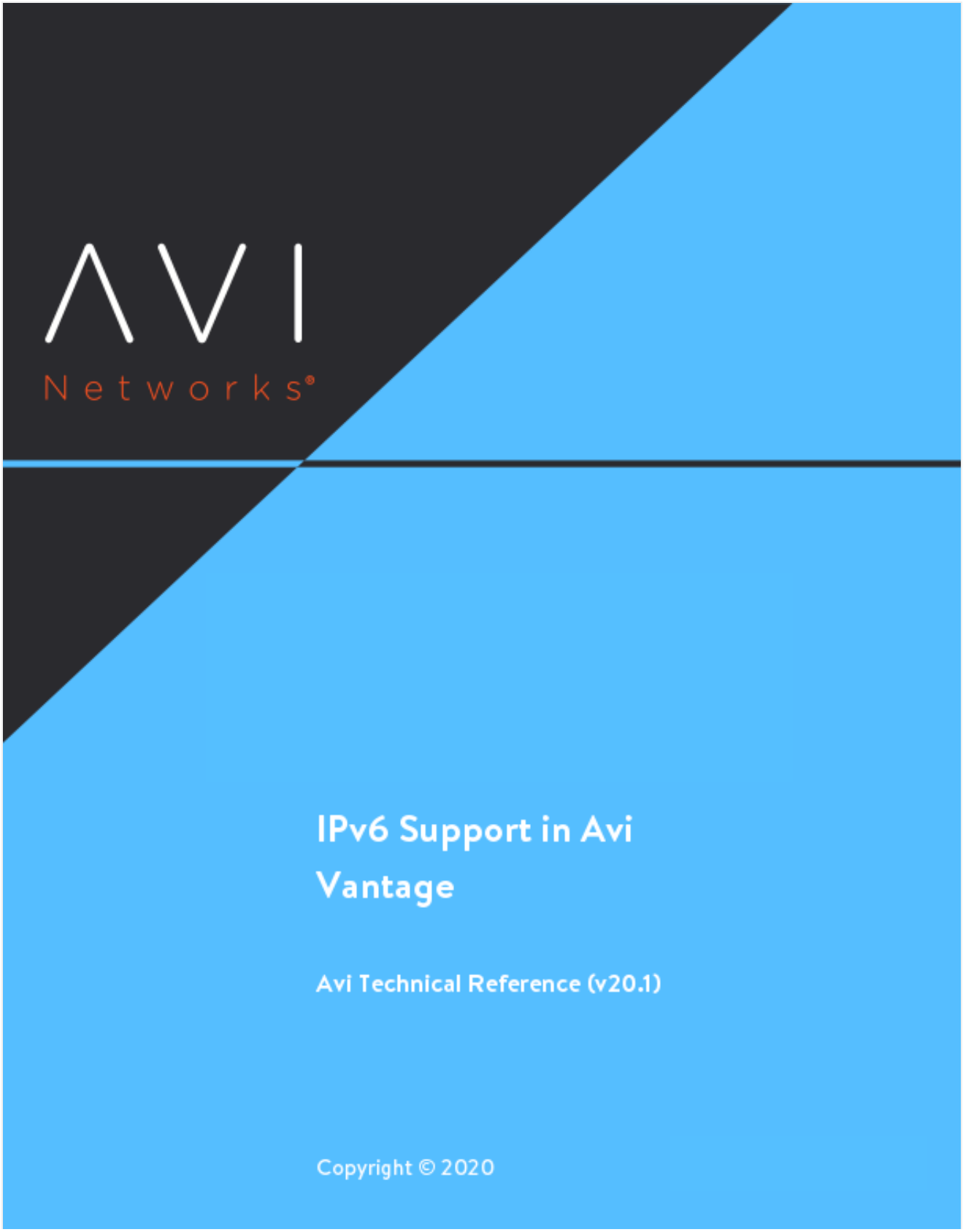

IPv6 Support in Avi Vantage

Avi Technical Reference (v20.1)

IPv6 Support in Avi Vantage

view online

With the emerging utility of IPv6 in traditional networks, web applications are adapting to support both IPv4 and IPv6 requests. The network infrastructure is expected to process client requests originating from IPv4 and/or IPv6 based devices. Server clustering along with server load balancing has emerged as a promising technique to build scalable web servers.

Starting with 18.1.1 release, Avi Vantage provides full IPv6, and dual-stack IPv4 and IPv6 connectivity to the load balancing network without relying on any tunnelling solutions. Figure 1 refers to generic use cases for IPv6 support.

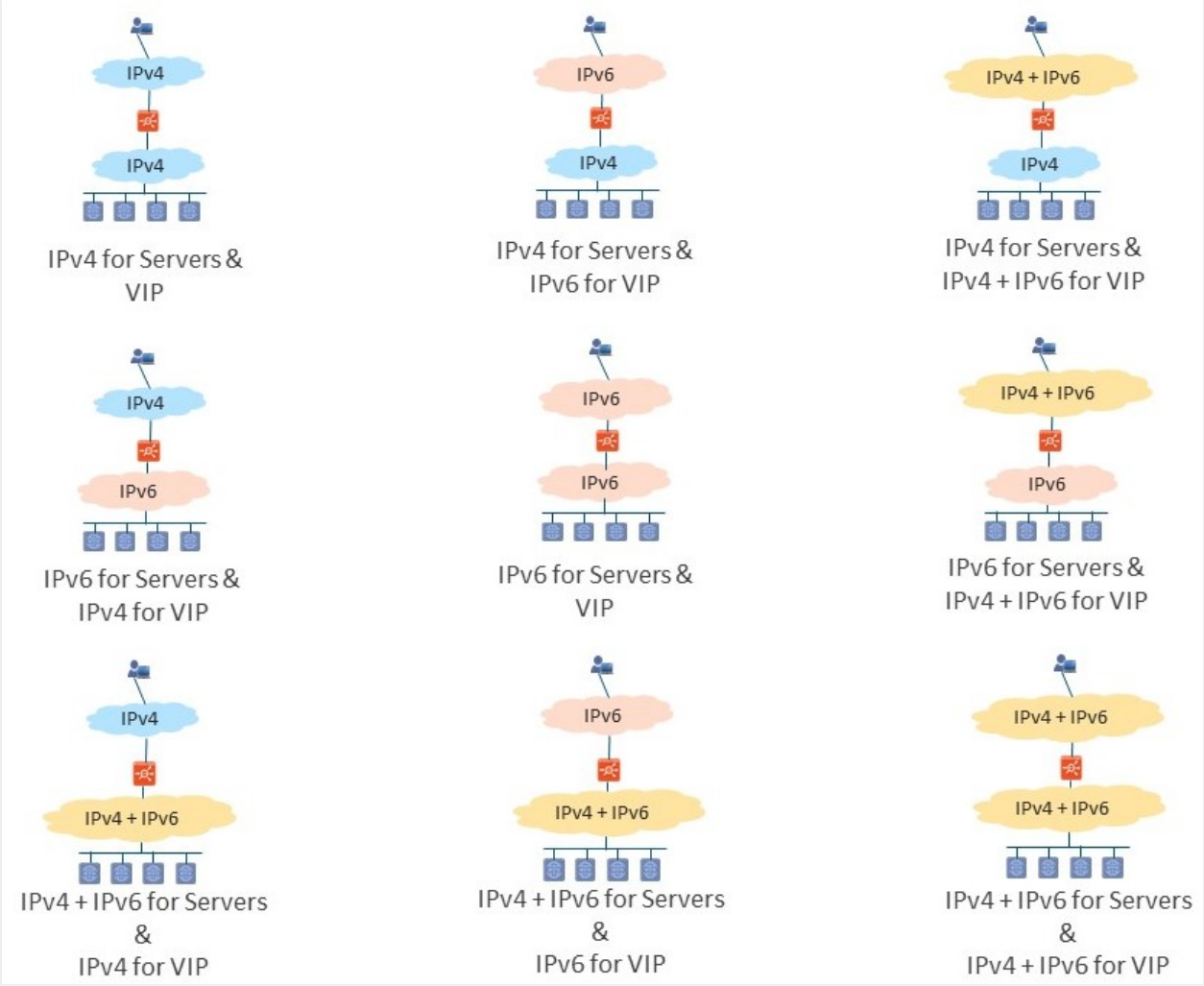

Figure 1. Use case scenarios

Ecosystem Integration

IPv6 is supported on baremetal, VMware vCenter, Linux server cloud, CSP, and OpenStack clouds.

Sl. No	Cloud	Documentation Reference
1	Baremetal VMware vCenter Linux server cloud	IPv6 in Avi Vantage for VMware/Linux Server Cloud
2	OpenStack	IPv6 in Avi Vantage for OpenStack
3	CSP	IPv6 in Avi Vantage for CSP
4	NSX-T	IPv6 in Avi Vantage for NSX-T

The support for Azure, AWS, OpenShift, GCP, and Kubernetes will be introduced soon.

Feature Documentation

Sl. No	Feature	Documentation Reference	Additional Comments
1	Auto Gateway	Create a Virtual Service	Auto Gateway is supported for IPv6 clients.
2	BGP	IPv6 BGP Peering in Avi Vantage	Currently, the following are supported: • Pure IPv6 and dual-stack BGP peering • Advertising IPv6 BGP virtual service ov • Advertising IPv6 BGP virtual service ov • Advertising dual-stack virtual service o
3	DHCP	Default Gateway (IP Routing on Avi SE)	Supported on baremetal and VMware no-acces DHCP, DHCPv6, and static addressing (SLAAC clouds.
4	DNS	Avi DNS Architecture and Features	Sending statically configured A or AAAA recor supported.
5	Health Monitor	Health Monitor Profile	ICMP, ICMPv6, TCP, TCPv6, UDP, UDPv6, HT monitors are supported.
6	Infra-IPAM-Internal-IPAM	IPAM Provider (Avi Vantage)	IPv6 IP allocation and VIP modification for dua VIP and pool server changes in IPv6 networks a IPv6 unified IPAM logic changes to call cloud c record are supported.
7	IPAM and DNS	IPAM and DNS Support	IPAM for the following VIP types are supporte • IPv4 only • IPv6 only • IPv4 + IPv6 (dual stack)

8	Layer 4 and Layer 7 VIP	Application Profile	The following network profiles are supported: • System-HTTP • System-HTTPS • System-L4-Application • System-DNS • System-L4-SSL Configuring pure IPv6 virtual service and dual- Configuring IPv6 servers and pools with a com supported. TCP-Fast-Path is not supported in System-L4-/
9	Layer 7 Policies	HTTP Request Policy	HTTP policy engine handles both IPv4 and IPv6
10	Network Security Policies	Virtual Service Policies	Layer 4 UDP, Layer 4 TCP, and Layer 7 virtual s policy.
11	Packet Capture	Packet Capture	Virtual service and Service Engine packet captu
12	Persistence	Persistence Profile	Client-IP based persistence for all application p persistence is supported as well.
13	Port Channel and VLAN	Port Channeling on Linux Server Hosts	Port channel and VLAN are supported on barer
14	Scale out	Virtual Service Scaling	Native Layer 2 scale out with MACinMAC and I Virtual service heartbeats and flow-probes are
15	XFF and Connection Multiplexing	X-Forwarded-For Header Insertion	X-Forwarded-For and connection multiplexing