



IPAM Provider (Avi Vantage)

Avi Technical Reference (v18.1)

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This article discusses Avi Vantage's native IPAM configuration. This is supported on the following clouds:

- Containers (Mesos, OpenShift, Docker UCP, Rancher)
- Linux server cloud (bare metal)
- VMware
- No access

Note: Starting with Avi Vantage release 18.1.2, this feature is supported for IPv6 for the clouds mentioned at [Ecosystem Integration](#).

See also: [Service Discovery Using IPAM and DNS](#)

IPAM Configuration

Avi Vantage allocates IP addresses from a pool of IP addresses within the subnet configured as listed below.

1. Navigate to Infrastructure > Networks.
2. For Select Cloud choose the cloud from the dropdown list and click on Create.
3. Enter the name of the network.
4. Under IP Address Management, click on the required option for *DHCP Enabled* and *IPv6 Auto Configuration*.
5. Add IPv4 and/or IPv6 networks for IP address allocation.
 1. Click on Add Subnet.
 2. Enter the subnet address under IP Subnet.
 3. Enable Add Static IP Address Pool to specify the pool of IP addresses. Enter the range of the pool under IP Address Pool.
 4. Click on Save.
 5. Repeat steps from 1 to 4 for each network that is to be used for IP address allocation.
6. Click on Save.

Note:

- Virtual service creation will fail if the static IP address pool is empty or exhausted.
- For east-west IPAM (applicable to container-based clouds, i.e., Mesos, OpenShift, Docker UCP, and Rancher) create another network with the appropriate link-local subnet and a separate IPAM/DNS profile.

The following is an instance of creating IPAM networks using both IPv4 and IPv6 subnets:

Edit Network Settings: IPv4v6_IPAM_Network

Name: IPv4v6_IPAM_Network

• IP Address Management •

DHCP Enabled IPv6 Auto Configuration

• Add/Modify Static IP Subnet •

IP Subnet: 10.140.116.0/24

Add Static IP Address Pool

IP Address Pool: 10.140.116.201-10.140.116.240

• Network IP Subnets •

Displaying 1 item(s)

IP Subnet	Type	IP Address Pool
fd00:0:0:116::/24	Configured	fd00:0:116::400-fd00:0:0:116::500

Cancel Save

Edit Network Settings: IPv4v6_IPAM_Network

Name: IPv4v6_IPAM_Network

• IP Address Management •

DHCP Enabled IPv6 Auto Configuration

+ Add Subnet

• Network IP Subnets •

Displaying 2 item(s)

IP Subnet	Type	IP Address Pool
fd00:0:0:116::/24	Configured	fd00:0:116::400-fd00:0:0:116::500
10.140.116.0/24	Configured	10.140.116.201-10.140.116.240

Cancel Save

Navigate to Templates > IPAM/DNS Profiles and create a placeholder for IPAM. Create a separate placeholder for east-west wherever it is relevant.

You can assign one or more of the created networks to be the default usable network, if no specific network and/or subnet are provided in the virtual service configuration.

Edit IPAM/DNS Profile: IPv4v6_Avi_Vantage_IPAM ✕

Name * ⓘ
IPv4v6_Avi_Vantage_IPAM

Type ⓘ
Avi Vantage IPAM ▾

Allocate IP in VRF ⓘ

Avi Vantage IPAM Configuration

Cloud for Usable Network ⓘ
Default-Cloud ▾

Usable Network * ⓘ
Select Network ▾ 🗑

Search 🔍

- IPv4v6_IPAM_Network - 10.140.116.0/24, fd00:0:0:116::/64
- ...
- ...

Save

VRF-aware IPAM

You can enable the Allocate IP in VRF checkbox for Avi Vantage to allocate IPs from networks in the virtual service's VRF. This option is applicable to only Avi Vantage IPAM.

New IPAM/DNS Profile: ✕

Name* ⓘ

Type ⓘ

Avi Vantage IPAM ▾

Allocate IP in VRF

Avi Vantage IPAM Configuration

[Add Usable Network](#)