



IPAM Provider (Avi Vantage)

Avi Technical Reference (v17.2)

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This article walks through the configuration of Avi Vantage's native IPAM solution, which is available for the following clouds:

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

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 > Clouds, and click on the cloud name.
2. Select Network and click on Create.
3. Enter a name for the network.
4. Add networks for IP address allocation:
 1. Click on Add Subnet.
 2. Enter the subnet address, in the following format: 10.160.160.0/24
 3. Click on Add Static IP address pool. Avi Vantage will allocate IP addresses from this pool. For example, 10.160.160.100-10.160.160.200.
 4. Click Save.
 5. Repeat 1-4 for each network to be used for IP address allocation.
5. Click 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.

North-south IPAM network creation after following steps above:

Edit Network Settings: ipam-nw

Name*
ipam-nw

• IP Address Management •

Network IP Address Management ⓘ
 DHCP Static

• Add/Modify Static IP Subnet •

IP Subnet* ⓘ
10.160.160.0/24

Add Static IP Address Pool ⓘ

10.160.160.100-10.160.160.200

• Network IP Subnets •

Displaying 0 item(s)

<input type="checkbox"/> <input type="text" value="v"/> IP Subnet	Type	IP Address Pool
No items found.		

East-west IPAM network configuration:

Edit Network Settings: ew-ipam-nw
✕

Name*

• IP Address Management •

Network IP Address Management ⓘ

DHCP
 Static

• Add/Modify Static IP Subnet •

IP Subnet* ⓘ

Add Static IP Address Pool ⓘ

• Network IP Subnets •

Displaying 0 item(s)

<input type="checkbox"/>	IP Subnet	Type	IP Address Pool
No items found.			

Cancel
Save

IPAM networks are now created. Navigate to Templates > IPAM/DNS Profile and create a placeholder for IPAM (separate one for east-west wherever it's relevant). You can assign one or more of the networks created above to be default usable networks if no specific network and/or subnet are provided in the virtual service configuration. The administrator can configure these networks, thus eliminating the need for developers to provide specific network/subnets while creating their applications.

New IPAM/DNS Profile: ns-ipam ✕

Name* ⓘ

Type ⓘ

Vantage IPAM Configuration

Usable Network* ⓘ

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🔍

- ipam-nw
- ew-ipam-nw

VRF-aware IPAM

Starting with Avi Vantage 17.2.4, the IPAM/DNS profile editor includes a checkbox the setting of which causes Avi Vantage to only allocate IPs from networks in the virtual service's VRF. This option is application to Avi Vantage IPAM only.

New IPAM/DNS Profile: ✕

Name * ⓘ

Type ⓘ

Avi Vantage IPAM ▼

Allocate IP in VRF

Avi Vantage IPAM Configuration

[Add Usable Network](#)