



IPAM Provider (Avi Vantage)

Avi Technical Reference (v17.1)

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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 Create.
3. Enter a name for the network.
4. Add networks for IP address allocation:
 1. Click Add Subnet.
 2. Enter the subnet address, in the following format: 10.160.160.0/24
 3. Click 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 •

Q

Displaying 0 item(s)

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

Cancel Save

East-west IPAM network configuration:

Edit Network Settings: ew-ipam-nw

Name*
ew-ipam-nw

• IP Address Management •

Network IP Address Management ⓘ
 DHCP Static

• Add/Modify Static IP Subnet •

IP Subnet* ⓘ
172.100.0.0/16

Add Static IP Address Pool ⓘ

172.100.0.10-172.100.1.100

• Network IP Subnets •

Displaying 0 item(s)

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

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 ⓘ

Avi Vantage IPAM ▾

Vantage IPAM Configuration

Usable Network* ⓘ

ipam-nw ▾ 🗑️

Search 🔍

- ipam-nw
- ew-ipam-nw

Save