



Clustering Avi Controllers of Different Networks

Avi Technical Reference (v17.2)

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Overview

Avi Controller clusters provide high availability (HA) and redundancy, as well as increased analytic workload scale.

Avi Controllers communicate with each other over a single management IP address, the [cluster IP address](#). They also use this path to communicate with all Avi Service Engines (SE) within the fabric.

Avi Controllers are not required to exist within the same IP network, but here are a few generic limitations to be considered:

- Avi Controllers must be within the same region (ideally the same data center). This helps in quickly synchronizing the databases and perform actions such as, log indexing and data retrieval.
- Avi Controllers have the option of sharing a [cluster IP address](#). The cluster IP address is owned by the primary Avi Controller within the cluster. In order to share an IP address, all Avi Controllers must have a NIC in the same network.
- Each Avi Controller must have access to the IP addresses of other Avi Controllers through configured network routes.

Considerations

AWS

AWS Availability Zones (AZs) provide redundancy and separate fault domains. All AWS regions support a minimum of two AZs. To leverage high availability provided by AWS AZs, it is recommended to deploy different Avi Controller instance of a cluster in different AZs.

Azure

The Controller cluster should be running inside the Azure cloud. Additionally, consider the following information:

* Azure credentials (username/password or application ID) which have *contributor* privilege access over the Controller cluster VMs and *AviController* role access over the virtual network that is hosting the Controller cluster. * *Subscription_id* of the subscription where the Controller virtual machines are running.

OpenStack

OpenStack requires Avi Vantage to maintain a cluster IP address. So, Avi Vantage deployed into an OpenStack cloud does not support clustering of Avi Controllers present in different networks.

Additional Information

- [Cluster Configuration in AWS](#)
- [Azure Cluster IP Configuration](#)
- [Avi Vantage Deployment Guide for Azure](#)
- [OpenStack Network Configuration for Avi Controller Cluster](#)