



Avi Multi-Cloud Support for Multiple OpenShift/Kubernetes Clusters

Avi Technical Reference (v17.2)

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As of release 17.2.5, a single Avi Controller cluster can support multiple OpenShift/K8S clusters. [Here we've used the word "cluster" used in two different senses.] This is achieved by setting the case-sensitive `cluster_tag` parameter in the Avi cloud configuration for each OpenShift/Kubernetes cluster. This permits tenants and/or objects to be similarly named, but nonetheless are isolated to avoid any overlap in the configuration. This feature can only be accessed via the Avi REST API or Avi CLI as of the writing of this article.

CLI Example

In the below command-line sequence, three distinct OS/K8S clusters are tagged `SantaClara`, `SanJose`, and `PaloAlto` and associated with individual Avi cloud names (`avi-cloud-santaclara`, `avi-cloud-sanjose`, and `avi-cloud-paloalto`, respectively).

```
{% cli %} [controller]> configure cloud avi-cloud-santaclara [controller]: cloud> oshifk8s_configuration [controller]: cloud:
oshifk8s_configuration> cluster_tag SantaClara [controller]: cloud:oshifk8s_configuration> save [controller]: cloud> save
```

```
[controller]> configure cloud avi-cloud-sanjose [controller]: cloud> oshifk8s_configuration [controller]: cloud:
oshifk8s_configuration> cluster_tag SanJose [controller]: cloud:oshifk8s_configuration> save [controller]: cloud> save
```

```
[controller]> configure cloud avi-cloud-paloalto [controller]: cloud> oshifk8s_configuration [controller]: cloud:
oshifk8s_configuration> cluster_tag PaloAlto [controller]: cloud:oshifk8s_configuration> save [controller]: cloud> save {%
endcli %}
```

Qualifying Identically Named Tenants

Use of the `cluster_tag` parameter is essential when OS/K8S tenants are similarly named, as illustrated in figure 1. As for tenants in the first OpenShift/K8S cloud, no qualification is required when first defined, as they are the only OS/K8S tenants in the Avi configuration. Consequently, in the below screenshot of a two-cloud environment, you see unqualified tenant names such as `admin`, `default`, `kube-public`, `kube-system`, and `logging`. However, as soon as the *second* Avi cloud is created for a second Kubernetes cluster, the verbatim same tenant names don't work. They are formed by appending an at-sign (@) followed by the `cluster_tag` (`Santa Clara`) to the names with which they'd otherwise clash.

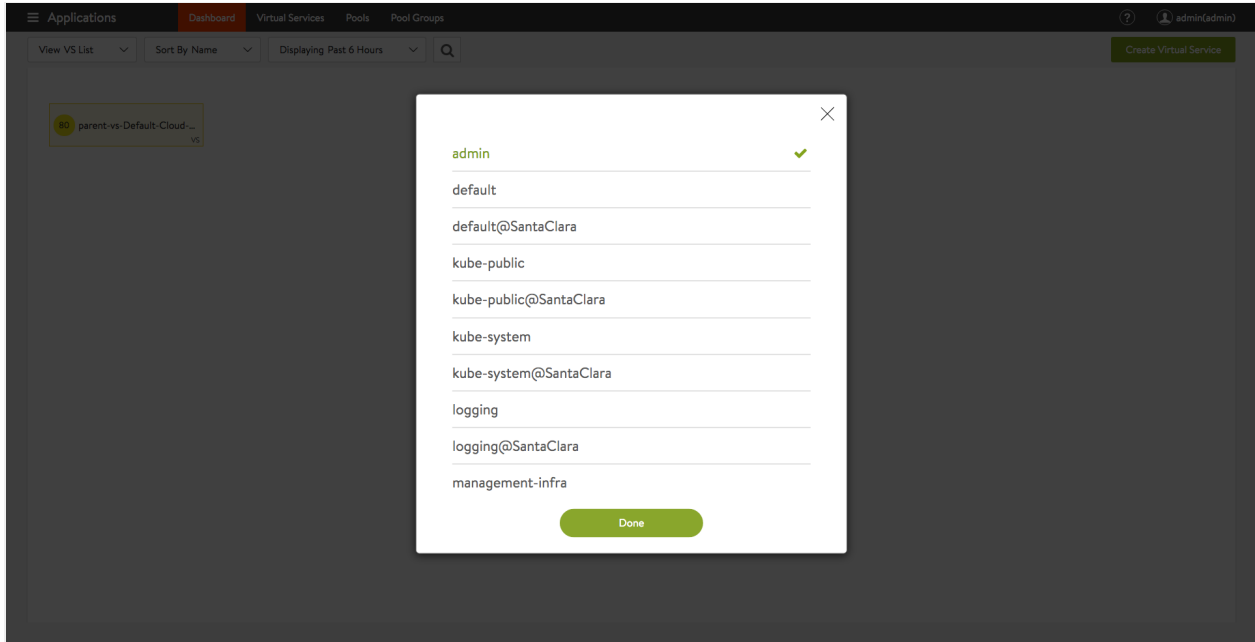


Figure 1. Tenant list

Note If multiple applications have the same name in identically named tenants, you can disable auto-assigning of FQDNs by the Avi Controller as illustrated below. In addition, ensure the FQDNs provided are unique.

```
{% cli %} [controller]> configure cloud avi-cloud-santaclara [controller]: cloud> oshiftk8s_configuration [controller]: cloud:
oshiftk8s_configuration> no auto_assign_fqdn [controller]: cloud:oshiftk8s_configuration> save [controller]: cloud> save {%
endcli %}
```