



# Avi Pulse Guide

Avi Technical Reference (v18.2)

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# Avi Pulse Guide

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## Overview

This guide explains the Avi Vantage feature that allows the Controller to interact with Avi customer portal, Avi Pulse.

Avi Pulse is a centralised API gateway for the Controllers to consume different services from Avi Vantage/VMware. Avi Pulse provides advanced support, security and licensing services to the Avi deployments. These are optional services that customers can enable on their accounts and controllers.

## Avi Pulse Features

The following are the features of Avi Pulse:

- Supports creating cases and attaching tech support to cases from the Controller, from the UI or using REST API calls.
- Provides automated tech-support attachment to the customer cases.
- Supports WAF (CRS) notifications only.
- Allows all customer accounts to register the Controller.

Avi Pulse allows the following two roles for user accounts:

- Admin users (customer\_admin) ? Allows the admin users to create and approve new users, view licenses, manage SaaS etc.
- Application users (customer\_users) ? Allows the application users to perform CRUD on cases, software downloads, CRS etc.

To enable Avi deployments with Avi Pulse, you should use an admin account to register the Controller. Only the authorization tokens are securely shared to the Avi Controller for registering.

**Note:** You need to register only once per Controller cluster and it is preserved across upgrades, backup, restore etc.

## Advantages of using Avi Pulse

The following are the benefits of using Avi Pulse:

- Automated Case Creation
  - Automated case creation for service failures
  - Smart Case Analysis
  - Extensibility with alert-based case technical support
  - API driven operations
- Customer Benefit
  - Faster support time and resolution
  - Higher customer satisfaction
  - Lower operator error

## Prerequisites

The Controller cluster must be connected and registered to Avi Pulse.

This opt-in Avi Pulse feature requires authentication to connect, create and attach tech support to cases. When you login for the first time, you will see this opt-in message on Pulse > Settings page.

This connects a Controller cluster deployment to a set of Avi Pulse services to simplify the operations.

## Network and System Requirements

The following are the network and system requirements:

- Port 443 access to Avi portal from the Avi Controller.
- Port 443 access to Sales Force IDP (customer portal) from the customer browser/machine while registering the Avi Controller to Avi Pulse.
- If you initiate registration request via Avi Controller, then you need to have customer admin privileges on Avi Pulse.

## Getting Started with Pulse

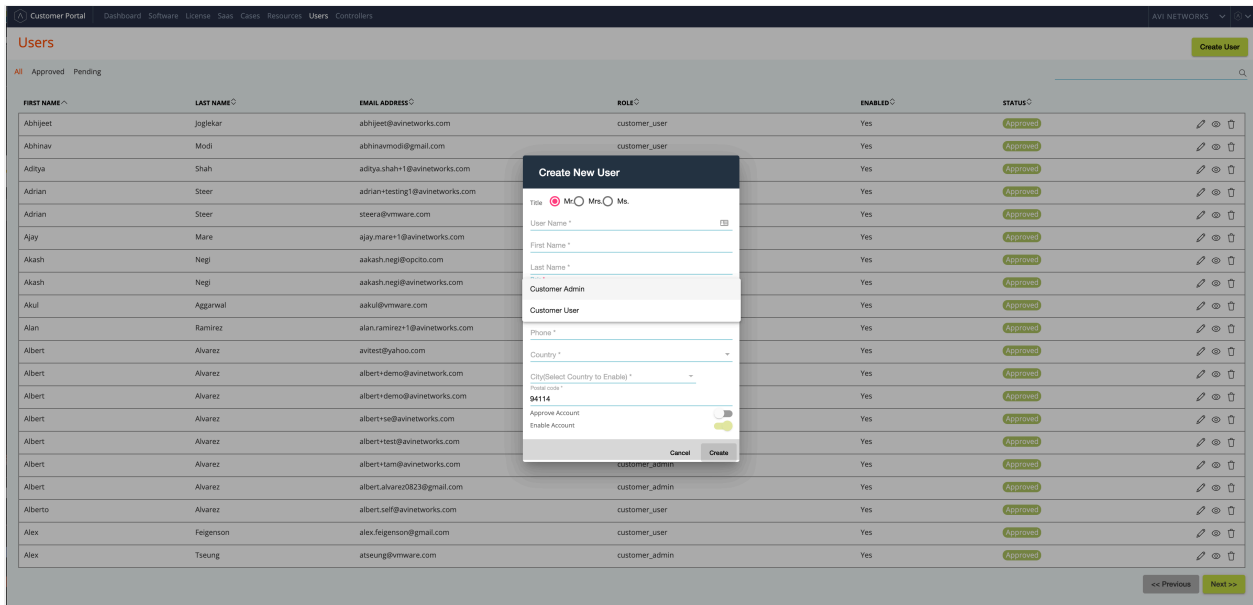
### Registering the Controller to Avi Pulse

The following are the steps to register the Controller to Avi Pulse:

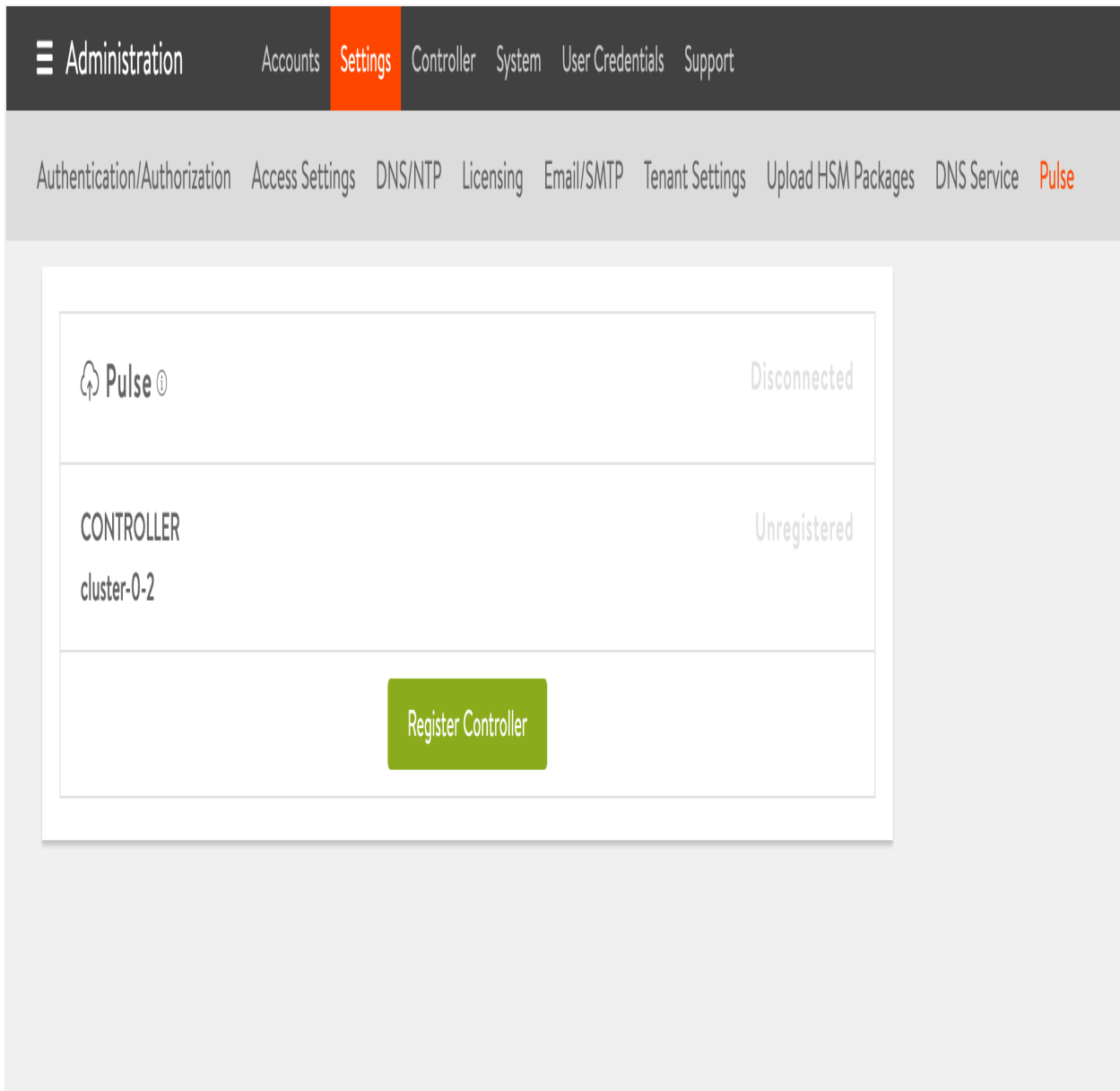
1. Choose a customer\_admin portal account with the admin privileges or create one if required.

You can use any customer\_admin user account to enable Avi Pulse features on the Controller. However, if you want to use automation while deploying to enable/disable pulse features then it is recommended that you create a service account with customer\_admin privileges.

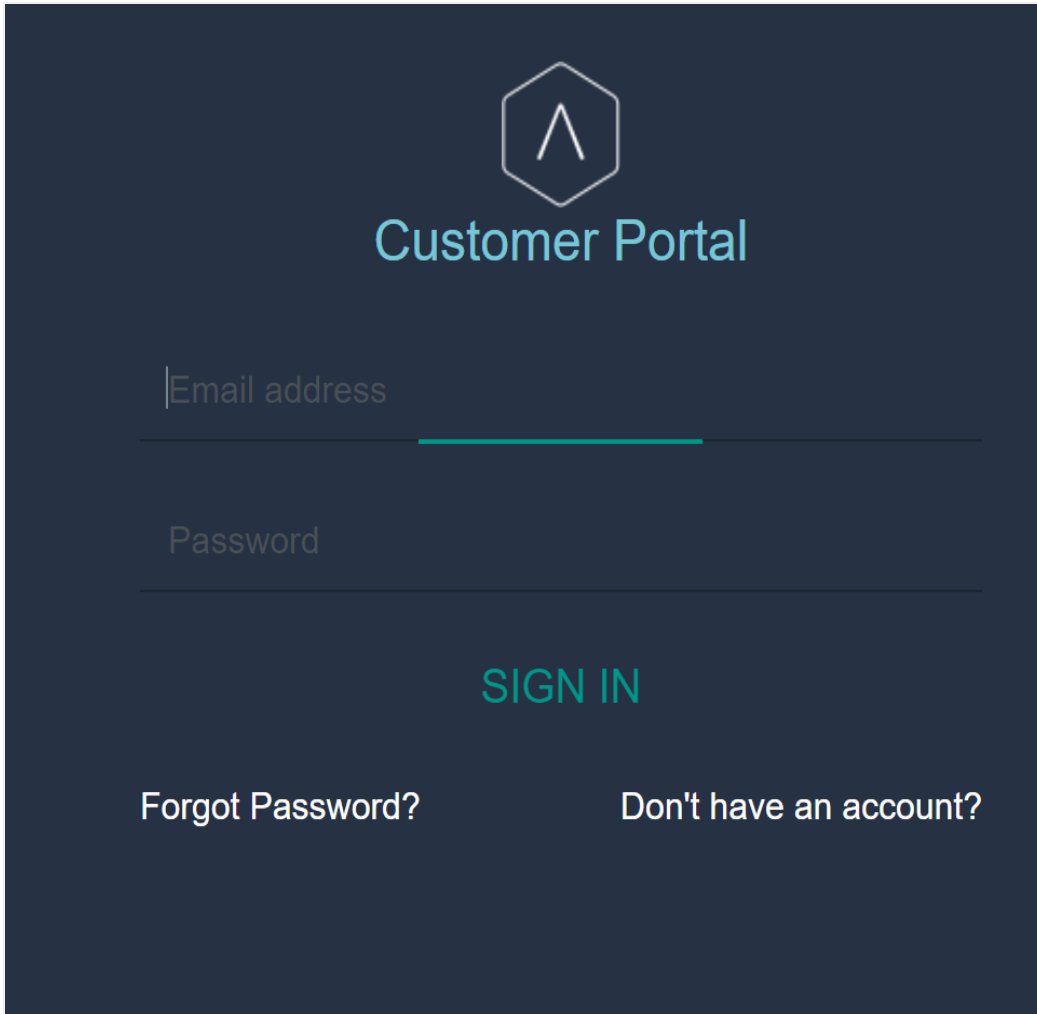
**Note:** You need to setup a mailing list so that you get notifications from the customer portal.



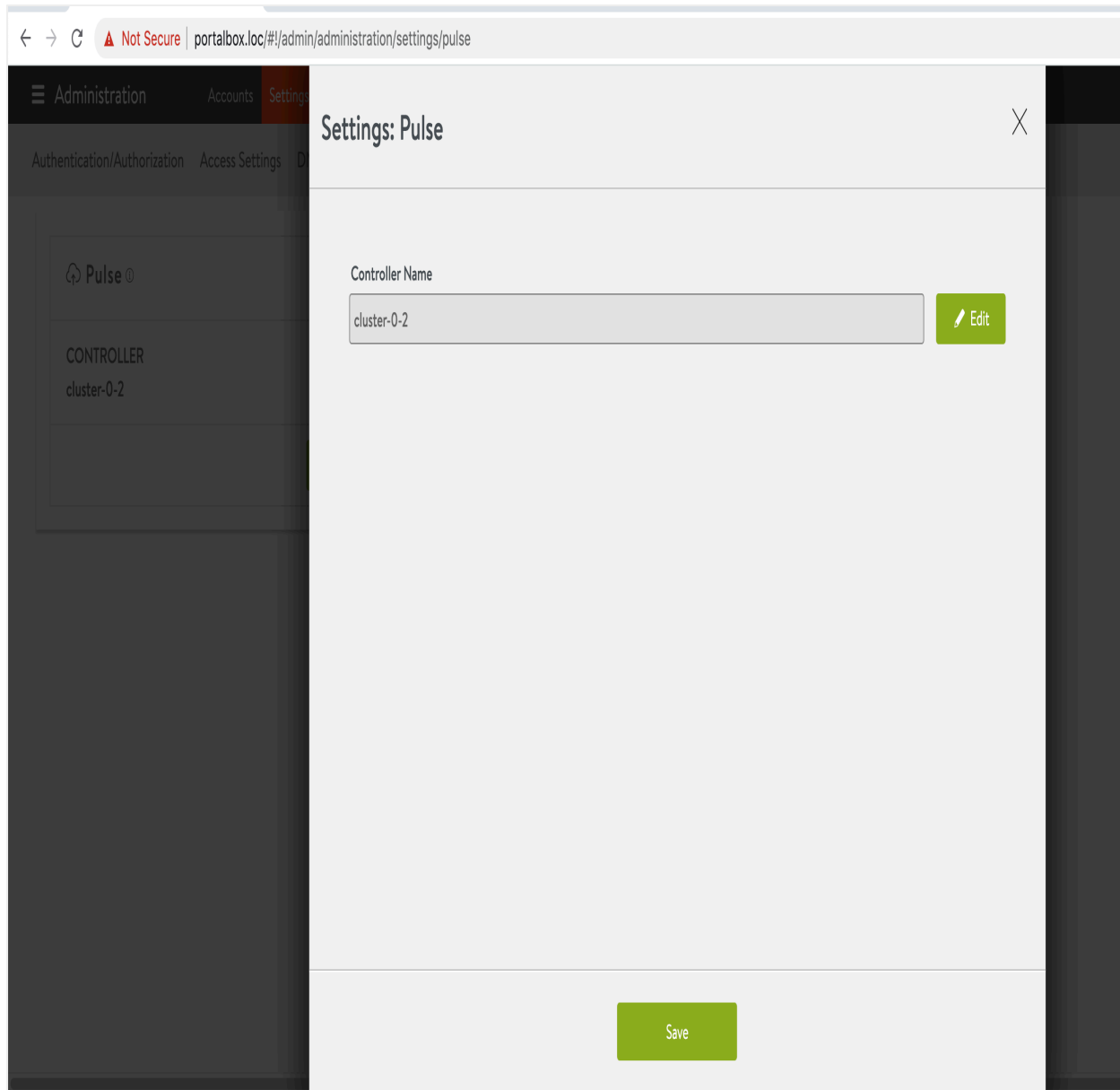
2. Register the Controller. You can register to the Controller by navigating to Administration > Settings > Pulse.



3. Select Avi Pulse and click on Register Controller button. The following window is displayed:



Specify the email ID and password to login. Click on Connected. The following window is displayed:



Change the name of the Controller cluster from the default name cluster-0-1 to desired name. and click on Save option.

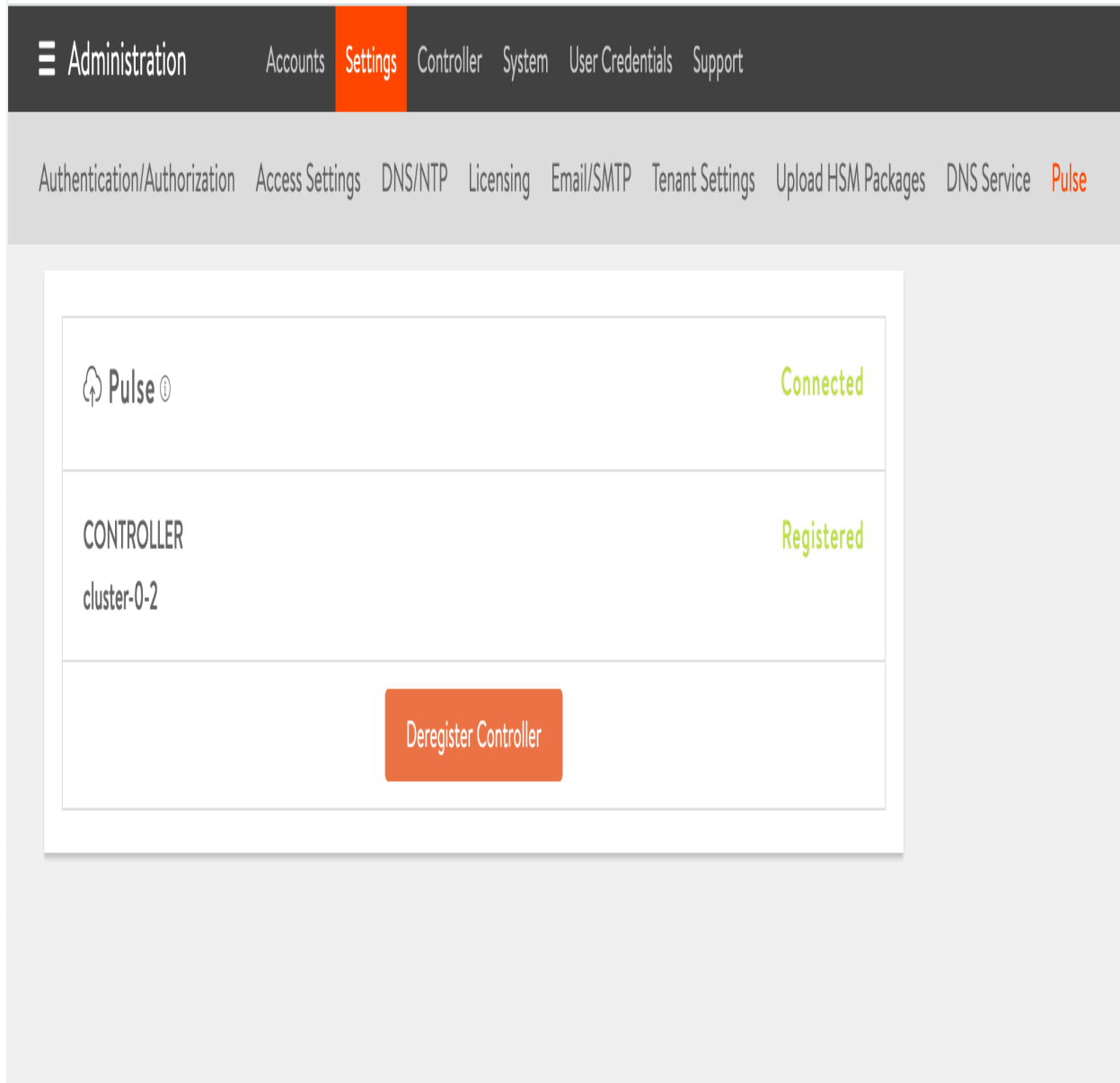
**Note:** You will not be able to access Avi Pulse resources until the Controller is registered.

A single account can register multiple Controller clusters. The Controller cluster identifies itself with the cluster\_uuid and Controller name. This registration is a one time process.


Once you have logged in, the Controller will be authenticated always, refreshing the session in the background.

### **Deregistering the Controller**

You can deregister the Controller from Avi Pulse under the same tab.



The screenshot shows the Avi Pulse administration interface. The top navigation bar includes 'Administration', 'Accounts', 'Settings' (highlighted), 'Controller', 'System', 'User Credentials', and 'Support'. Below this, a secondary navigation bar lists 'Authentication/Authorization', 'Access Settings', 'DNS/NTP', 'Licensing', 'Email/SMTP', 'Tenant Settings', 'Upload HSM Packages', 'DNS Service', and 'Pulse'. The main content area displays a table with the following information:

 Pulse ⓘ	Connected
CONTROLLER cluster-0-2	Registered

Below the table, there is a prominent orange button labeled 'Deregister Controller'.

Click on Deregister Controller button.

## Configuring Avi Pulse

### Tenant Admin Account

You can use customer portal tenant admin account for registration. Only the authorization tokens are securely shared to the Avi Controller for Avi Cloud registration.

The Controller caches the user account authorization tokens and uses them to create a lower privilege asset account for login into the Avi Cloud. You can use new asset account for all further APIs calls to the Avi Cloud.

All the API calls made by the Controller inherit users permission. There is only one registration required per controller cluster and it is preserved across upgrades, backup, restore etc.

## Working with Avi Pulse

### Case Management

#### Creating or Managing Tech-Support Cases

Avi Controller automatically creates case for any critical event within the system, such as SE Crash event, Controller Service Failure event and so and attaches it to an existing support case.

Admins can create support cases right from the Controller. Any Controller user can create cases even if you are not portal user. The cases created by a local user can be transitioned to a portal user. The system automatically tags all the cases with the Controller information. It can be used as filters in the customer portal. The Controller also provides easy access to all the cases related to the cluster.

#### Proactive Case Creation

Avi Controller monitors for the following events/alerts:

- Calls Customer-Portal Case-Create REST API to create case.
- Attaches the core and other information based on event and tech support.
- If the event happens multiple times, you need to attach the additional cores/tech-support to the same case. Also, you need to update the case with number of times the issue happened, etc.
- Clean up all the old cores from the system, etc.

#### Controller based Case Creation

- Avi Controller exposes a REST API to create a case in customer portal.

When this API is called, the Customer Portal Service within the Controller takes tech-support and calls Customer Portal API to create a case.

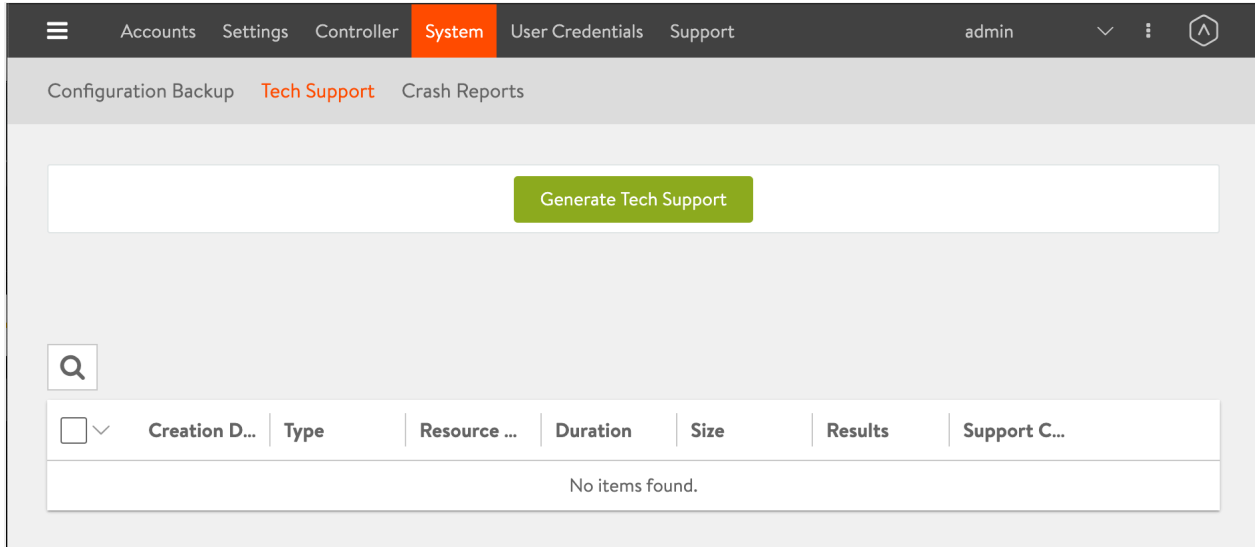
- Advanced capability

You can view all active cases, and all operations such as add comment, attachments, via Avi REST APIs.

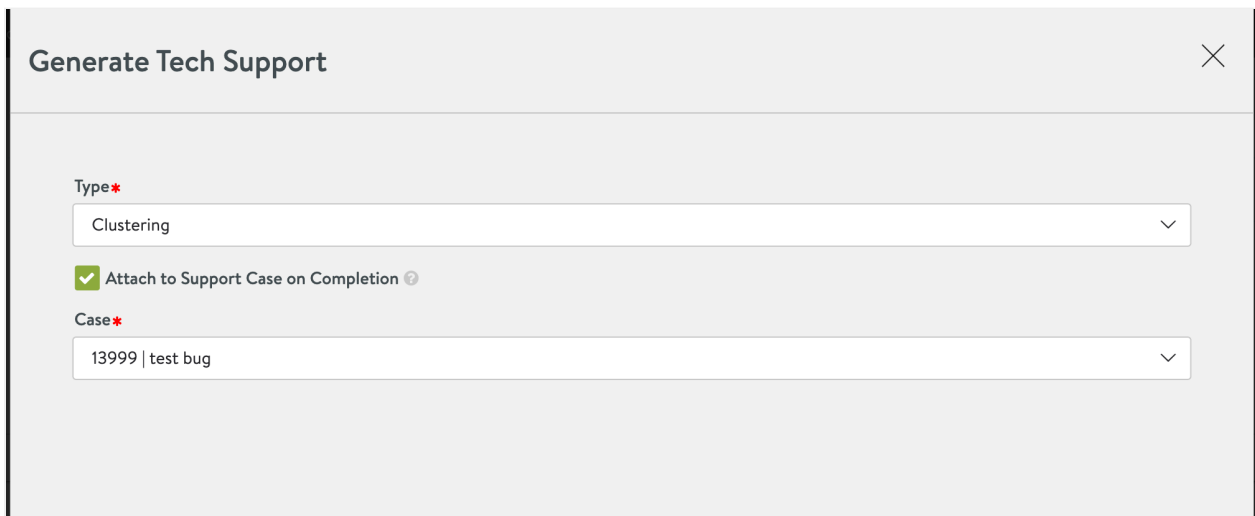
Avi Controller UI will have full case management support similar to customer portal.

You can create a sample tech-support by navigating to Administration > System > Tech Support





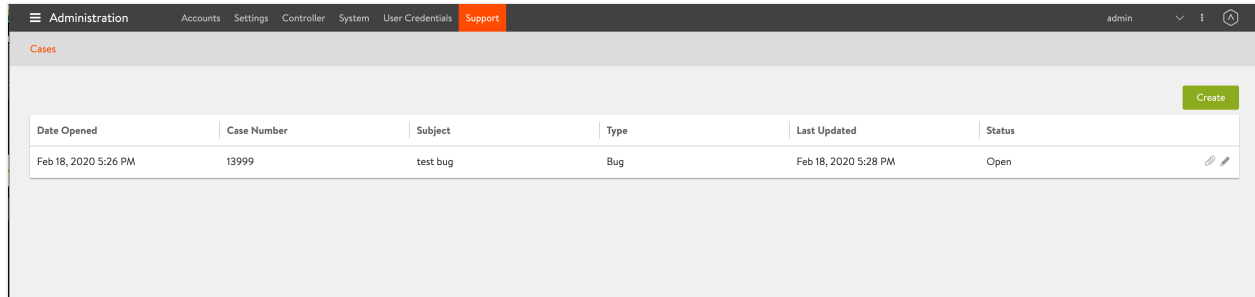
Click on **Generate Tech Support** button to create a case and attach the tech support to it. The following window is displayed:





Specify the following details:

- **Type ?** Select the type of tech support from the drop-down list. The following are the options in the drop-down list.
  - Clustering
  - Debug Logs
  - GSLB
  - Metric Logs
  - Placement
  - Pool
  - Portal
  - Service Engine
  - Upgrade
  - Virtual Service
- **Attach to Support Case on Completion ?** Check this box to attach the support case to the generated file.

You can view the existing cases by navigating to Administration > Support. The following window is displayed:



Date Opened	Case Number	Subject	Type	Last Updated	Status	
Feb 18, 2020 5:26 PM	13999	test bug	Bug	Feb 18, 2020 5:28 PM	Open	 

## License Management

Avi Pulse simplifies the license purchase and management. You can use a single license to be consumed across multiple clusters.

The administrators can determine how they want to distribute the licensed cores across different clusters by setting quotas across deployments. Every deployment has its own maximum license limit.

If a cluster runs out of the license it checks out a chunk from cloud. Local license server transparently does checkout and checkin. You can simplify the consumption models with new licensing models like pay-as-you-go and so on.