



# Avi Pulse Services

Avi Technical Reference (v20.1)

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## Other Services Offered

Avi Pulse provides following other services. The service are exposed as first class APIs.

### Authentication Service

All Avi Pulse services are protected by authentication service. This service is protected by OAuth 2.0 Authorization Code Flow.

For instance, \* Assume that you want to access /portal/cases service.

- Since you are not authenticated you are redirected to authentication service for /portal/login.
- /portal/login initiates the OAuth 2.0 Authorization Code Flow.
- You are redirected to the Avi Pulse login page.
- The identity provider(IdP) sends a callback to Avi Pulse with an authorization code.
- Avi Pulse authorization code is posted to token endpoint, requesting an access token.
- If authorization code is valid (not expired or replayed), an access token is issued with associated permissions in the form of scopes.
- Now the service is accessed with issued access token (adding access token into request header).
- Each service endpoint validates the access token with OAuth server.
- If access token is valid or not expired, the service can be accessed.

Note: The credentials are not stored on the Avi Pulse portal.

### User Management Service

The user management service manages the life cycle of the user.

- Only the customer admin can create your account with a valid email ID.
- The customer admin can assign you any of the following roles (customer admin/customer user):
  - Admin users (customer\_admin) ? Ability to create and approve new users, view licenses, manage SaaS etc.
  - Application users (customer\_users) ? Ability to perform CRUD on cases, software downloads, CRS etc.
- You can be part of multiple organization (base organization/alternate organization)
- A mail is sent to the registered mail, which will prompt you to reset your password.
- Until password is reset, the account will not be active.
- On activation, your account can be approved or rejected.

- The customer admin can disable your account any time.

### Software Download Service

Avi Vantage is released with controlled release management process. The artifacts are pushed to AWS S3 Buckets.

- Once the software is release, it is available to all the customers on Avi Pulse portal.
- Each release has set of package for release version, for instance, CTRL OVA/ SE OVA and images for public cloud (AWS/ Azure/ GCP/ and so on) and tools.
- The API is provided with the link to download the packages. The link is pre-signed URL with validity of 1 hour.

### Asset Registration Service

The Avi Controller can be registered with Avi Pulse portal as an asset. This automates many support task for the Controller, for instance, Proactive Tech support/ Auto update of CRS/ IP reputation DB sync and so on.

- The Avi Controller initiates the registration with Avi Pulse portal.
- `/portal/ctrlogin` initiates the OAuth 2.0 web server flow, SF OAuth server sends an authorization code request to the SF authorization endpoint.
- You are redirected to the Avi Pulse login page. The IdP sends a callback to Avi Pulse with an authorization code.
- Avi Pulse authorization code is posted to token endpoint, requesting an access token.
- The access token generates the JWT signed token for that Controller by requesting JWT token request to the IdP token endpoint.
- The JWT token/ access token is securely sent to the Controller.
- The Controller status is updated to Connected or Not Registered.
- The Controller initiates the registration workflow. Each Controller is registered with its unique UUID.
- An asset corresponding to the Controller is created on Pulse SF.
- The Controller keeps the registered asset ID for subsequent service from Avi Pulse.

### Pulse Health Check Service

- The registered Avi Controller tests the health of Avi Pulse service. The status can be polled or prompted.
- The Controller triggers an event regularly to poll for Controller's connectivity and registration status to the customer portal.
- The Controller can trigger On-demand status for immediate status update.
- `/portal/stat` with query param (specific service status) provides the status of service Availability with Extended Service Metadata.