vRealize Suite Lifecycle Manager 1.1 Programming Guide

vRealize Suite 2017

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vRealize Suite Lifecycle Manager 1.1 Programming Guide

The *vRealize Suite Lifecycle Manager 1.1 Programming Guide* provides information about the vRealize Suite Lifecycle Manager REST APIs, including how to use the REST API services and resources, create HTTP bearer tokens for authentication and authorization, and construct REST API service calls.

Intended Audience

This information is intended for administrators and programmers who want to configure and manage vRealize Suite Lifecycle Manager programmatically using the vRealize Suite Lifecycle Manager REST API. The guide focuses on common use cases. For related information about all available REST API services, see the vRealize Suite Lifecycle Manager API reference documentation, which is installed with vRealize Suite Lifecycle Manager at the following URL:

```
https://vRSLCMhost/api
```

.

VMware Technical Publications Glossary

VMware Technical Publications provides a glossary of terms that might be unfamiliar to you. For definitions of terms as they are used in VMware technical documentation, go to http://www.vmware.com/support/pubs.

Overview of the vRealize Suite Lifecycle Manager REST API

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You can perform vRealize Suite Lifecycle Manager functions programmatically by using REST API service calls. The API follows the REST style and is available to all licensed users.

- Using the vRealize Suite Lifecycle Manager REST API

  To make vRealize Suite Lifecycle Manager REST API service calls, you can use a browser application or an HTTP client application to send requests and review responses.

- About the API Use Cases

  Although the vRealize Suite Lifecycle Manager API reference contains a menu that lists all REST API service calls, it does not document use cases. The *vRealize Suite Lifecycle Manager Programming Guide* provides frequently used use cases.

Using the vRealize Suite Lifecycle Manager REST API

To make vRealize Suite Lifecycle Manager REST API service calls, you can use a browser application or an HTTP client application to send requests and review responses.

REST Client Programs

Any client application that can send HTTPS requests is an appropriate tool for developing REST applications with the vRealize Suite Lifecycle Manager API. The following open-source applications are commonly used:

- cURL. http://curl.haxx.se

- Postman application. http://www.getpostman.com

About the API Reference

The vRealize Suite Lifecycle Manager API reference lists all REST API service calls. It is provided as a Swagger document that is installed with vRealize Suite Lifecycle Manager at the following URL:

```
https://vRSLCMhost/api
```

About the API Use Cases

Although the vRealize Suite Lifecycle Manager API reference contains a menu that lists all REST API service calls, it does not document use cases. The *vRealize Suite Lifecycle Manager Programming Guide* provides frequently used use cases.

The following REST API use cases provide the prerequisite, command-line options, and format to help you perform various vRealize Suite Lifecycle Managerfunctions, such as creating an environment.

- Request an Authentication Token

- Create a Data Center

- Add a vCenter

- Configuring vRealize Suite Lifecycle Manager Settings

- Working With Environments

- Working With Nodes

Request an Authentication Token

2

Request a token to authenticate a vRealize Suite Lifecycle Manager API request.

All vRealize Suite Lifecycle Manager API requests require a valid authentication token in the header `x-xenon-auth-token`.

Prerequisites

- Secure a channel between the web browser and the vRealize Suite Lifecycle Manager server. Open a browser and enter the URL such as:

  ```
  https://vRSLCM IP address/vrlcm
  ```

  The system warns that your connection is not private. Click through to confirm the security exception and establish an SSL handshake.

- Log in to vRealize Suite Lifecycle Manager using the applicable credentials.

Procedure

1 Enter the command to request the HTTP bearer token.

   ```
   curl 'http://localhost:8000/lcm/api/v1/login' \
     -H 'content-type: application/json' \
     -H 'accept: application/json' \
     --data-binary $'{\n  "username": "admin@localhost",\n  "password": "vmware"\n}'
   ```

2 Examine the response.

   A successful request returns an HTTP bearer token that you include in subsequent API requests.

   ```
   {
     "token":
   "eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJpc3MiOiJ4biIsInN1YiI6Ii9jb3JlL2F1dGh6L3VzZXJzL3ZMQ01BZG1pb
   iIsImV4cCI6MTUwNzE4ODQwM30.dAcsjxo3qNkZfLaxwsGKHul_5MqdEmJUfmNf6zQqpZ0"
   }
   ```

3 For convenience, store the token in a variable.

   ```
   export token="EXAMPLE-TOKEN-TEXT"
   ```

Create a Data Center

Create a data center to back vRealize Suite environments in vRealize Suite Lifecycle Manager.

Prerequisites

Verify that you have a valid authentication token that matches your login credentials. See Request an Authentication Token.

Procedure

1 Log in to vRealize Suite Lifecycle Manager.

```
curl POST "http://localhost:8000/lcm/api/v1/login" \
```

2 Submit a request for a new data center with parameters inline.

```
curl -X POST "http://localhost:8000/lcm/api/v1/action/create/datacenter" \
        -H "accept: application/json" \
        -H "x-xenon-auth-token: $token" \
        -H "content-type: application/json" \
        -d '{"datacenterName": "$name",
            "city": "$city",
            "country": "$country",
            "latitude": "$latitude",
            "longitude": "$longitude",
            "state": "$state"}'
```

3 Examine the response to verify that the request is successful.

4 (Optional) View data center details.

```
curl GET  "http://localhost:8000/lcm/api/v1/view/datacenter?datacenterId={datacenterId}"
```

Example: Create a Data Center Response

When the data center is successfully completed, vRealize Suite Lifecycle Manager returns a response similar to the following:

```
{
  "id": "$DataCenterID",
  "type": null,
  "state": null,
  "status": "SUCCESS",
  "isRetriable": null,
  "retryParameters": null
}
```

Add a vCenter

<div style="text-align: right">4</div>

Add a vCenter to a Data Center before using that vCenter to create a private cloud environment.

Prerequisites

- Verify that you have a valid authentication token that matches your login credentials.

- Verify that you have added a data center and the request has completed successfully. See Create a Data Center.

- Ensure that you have the vCenter fully qualified domain name, user name, and password.

Procedure

1 Log in to vRealize Suite Lifecycle Manager.

```
curl POST "http://localhost:8000/lcm/api/v1/login" \
```

2 Submit a request to add a vCenter to vRealize Suite Lifecycle Manager with parameters inline.

```
curl -X POST "http://localhost:8000/lcm/api/v1/action/add/vc" \
        -H "accept: application/json" \
        -H "x-xenon-auth-token: $token" \
        -H "content-type: application/json" \
        -d '{
           "datacenterName": "$DataCenterName",
           "vCenterName": "&vCenterFQDN",
           "userName": "admin@localhost",
           "password": "$adminPassword!",
           "type": 3}'
```

If the vCenter is successfully added, vRealize Suite Lifecycle Manager returns the following response:

```
200 Operation successful
```

View the vRealize Suite Lifecycle Manager Version Number

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`POST /lcm/api/v1/lcmversion` returns the vRealize Suite Lifecycle Manager version number and build number.

Prerequisites

Satisfy the following conditions before performing any tasks for this use case.

- Use `POST /lcm/api/v1/login` to log in to vRealize Suite Lifecycle Manager.

- Verify that you have a valid authentication token that matches your login credentials. See Request an Authentication Token.

curl Command

The following example requests the version number and build number for this instance of vRealize Suite Lifecycle Manager.

```
curl -X GET "http://localhost:8000/lcm/api/v1/lcmversion" \
      -H "accept: application/json" \
      -H "x-xenon-auth-token: $token" \
      -H "content-type: application/json" \
```

JSON Output

The following JSON output is returned with the vRealize Suite Lifecycle Manager version number and build number when the operation completes successfully.

```
200 Operation successful
```

Configuring vRealize Suite Lifecycle Manager Settings

<div style="text-align: right; font-size: 2em; color: #888;">6</div>

You can modify settings for vRealize Suite Lifecycle Manager, such as VMware Identity Manager and MyVMware settings.

- Manage vRealize Suite Lifecycle Manager Common Configuration Settings

  POST `/lcm/api/v1/settings` modifies vRealize Suite Lifecycle Manager common configuration settings.

- Add an Active Directory Server

  POST `/lcm/api/v1/settings/add/ad` adds an active directory server to vRealize Suite Lifecycle Manager.

- Remove an Active Directory Server

  DELETE `/lcm/api/v1/settings/add/ad` removes an active directory server from vRealize Suite Lifecycle Manager.

- Add a VMware Identity Manager

  `/lcm/api/v1/settings/add/vidm` adds a VMware Identity Manager (vIDM) to vRealize Suite Lifecycle Manager.

- Add a MyVMware Account

  POST `/lcm/api/v1/settings/add/myvmware` adds your MyVMware account to vRealize Suite Lifecycle Manager, which enables vRealize Suite Lifecycle Manager to download product OVAs through MyVMware.

Manage vRealize Suite Lifecycle Manager Common Configuration Settings

POST `/lcm/api/v1/settings` modifies vRealize Suite Lifecycle Manager common configuration settings.

Prerequisites

Satisfy the following conditions before performing any tasks for this use case.

- Use POST `/lcm/api/v1/login` to log in to vRealize Suite Lifecycle Manager.

- Verify that you have a valid authentication token that matches your login credentials. See Request an Authentication Token.

curl Command

The following example sets new passwords for admin, root, and SSH user, enables SSH and telemetry, and sets the vRealize Suite Lifecycle Manager host name.

```
curl -X POST "http://localhost:8000/lcm/api/v1/settings" \
      -H "accept: application/json" \
      -H "x-xenon-auth-token: $token" \
      -H "content-type: application/json" \
      -d '{
          "adminPassword": "VMware1!",
          "rootPassword": "VMware1!",
          "sshuserPassword": "VMware1!",
          "sshEnabled": true,
          "telemetryEnabled": true
        }'
```

JSON Output

The following JSON output is returned when the operation completes successfully.

```
200 Operation successful
```

Add an Active Directory Server

POST /lcm/api/v1/settings/add/ad adds an active directory server to vRealize Suite Lifecycle Manager.

Prerequisites

Satisfy the following conditions before performing any tasks for this use case.

- Use POST /lcm/api/v1/login to log in to vRealize Suite Lifecycle Manager.

- Verify that you have a valid authentication token that matches your login credentials. See Request an Authentication Token.

curl Command

The following example adds an active directory server to vRealize Suite Lifecycle Manager.

```
curl -X POST "http://localhost:8000/lcm/api/v1/settings/add/ad" \
      -H "accept: application/json" \
      -H "x-xenon-auth-token: $token" \
      -H "content-type: application/json" \
      -d '{
          "adName": "domain.local",
          "baseDN": "OU=Admins,DC=sqa,DC=local",
          "bindDN": "CN=testuser,OU=Admins,DC=domain,DC=local",
```

```
            "groupDN": "DC=domain,DC=local",
            "bindPassword": "vmware",
            "uberAdmin": "testuser@domain.local"
          }'
```

JSON Output

The following JSON output is returned when the operation completes successfully.

```
200 Operation successful
```

Remove an Active Directory Server

DELETE `/lcm/api/v1/settings/add/ad` removes an active directory server from vRealize Suite Lifecycle Manager.

Prerequisites

Satisfy the following conditions before performing any tasks for this use case.

- Use POST `/lcm/api/v1/login` to log in to vRealize Suite Lifecycle Manager.

- Verify that you have a valid authentication token that matches your login credentials. See Request an Authentication Token.

- Verify that VMware Identity Manager is not registered with vRealize Suite Lifecycle Manager.

curl Command

The following example removes an active directory server from vRealize Suite Lifecycle Manager.

```
curl -X DELETE "http://localhost:8000/lcm/api/v1/settings/add/ad" \
      -H "accept: application/json" \
      -H "x-xenon-auth-token: $token" \
      -H "content-type: application/json" \
```

JSON Output

The following JSON output is returned when the operation completes successfully.

```
200 Operation successful
```

Add a VMware Identity Manager

`/lcm/api/v1/settings/add/vidm` adds a VMware Identity Manager (vIDM) to vRealize Suite Lifecycle Manager.

Prerequisites

Satisfy the following conditions before performing any tasks for this use case.

- Use POST /lcm/api/v1/login to log in to vRealize Suite Lifecycle Manager.

- Verify that you have a valid authentication token that matches your login credentials. See Request an Authentication Token.

- Verify that you have an existing VMware Identity Manager version 2.9.2.

- Verify that you have added an active directory server to vRealize Suite Lifecycle Manager. See Add an Active Directory Server.

curl Command

The following example adds and enables a vIDM for all users.

```
curl -X POST "http://localhost:8000/lcm/api/v1/settigs/add/vidm" \
      -H "accept: application/json" \
      -H "x-xenon-auth-token: $token" \
      -H "content-type: application/json" \
      -d '{
         "hostname": "$vIDMhostFQDN",
         "adminUserName": "$adminUserName",
         "adminPassword": "$adminPassword",
         "vidmCloudAdminGroup": "ALL_USERS",
         "enabled": true}'
```

JSON Output

The following JSON output is returned when the operation completes successfully.

```
200 Operation successful
```

Add a MyVMware Account

POST /lcm/api/v1/settings/add/myvmware adds your MyVMware account to vRealize Suite Lifecycle Manager, which enables vRealize Suite Lifecycle Manager to download product OVAs through MyVMware.

Prerequisites

Satisfy the following conditions before performing any tasks for this use case.

- Use POST /lcm/api/v1/login to log in to vRealize Suite Lifecycle Manager.

- Verify that you have a valid authentication token that matches your login credentials. See Request an Authentication Token.

■ Verify that you have valid MyVMware credentials.

curl Command

The following example adds a MyVMware account with the specified user name and password.

```
curl -X POST "http://localhost:8000/lcm/api/v1/settings/add/myvmware" \
      -H "accept: application/json" \
      -H "x-xenon-auth-token: $token" \
      -H "content-type: application/json" \
      -d '{
          "username": "$myVMwareUserName",
          "password": "$myVMwarePassword"}'
```

JSON Output

The following JSON output is returned when the operation completes successfully.

```
200 Operation successful
```

Working with Environments 7

You can use the REST API to create and monitor vRealize Suite environments.

Environments allow you to install, upgrade, and manage vRealize Suite products as unit. You can build your environment using either product-based or solution-based installation, or you can import an existing vRealize Suite environment to manage it with vRealize Suite Lifecycle Manager.

- Create an Environment

  `POST /lcm/api/v1/action/create/environment` creates a vRealize Suite environment.

- View an Environment

  `GET /lcm/api/v1/view/environment?environmentId={environmentid}` displays details for an existing environment.

- Add a Product to an Existing Environment

  `POST /lcm/api/v1/action/add/product?id={environmentId}` adds a vRealize Suite product to an existing environment.

- Collect Environment Logs

  `POST /lcm/api/v1/collectlogs/environment` collects log files for all vRealize Suite Lifecycle Manager environments that you can use for troubleshooting.

- Configuration Drift

  Configuration drift shows the changes in product configuration over time and allows you to revert a product to an earlier configuration state.

Create an Environment

`POST /lcm/api/v1/action/create/environment` creates a vRealize Suite environment.

Prerequisites

Satisfy the following conditions before performing any tasks for this use case.

- Use `POST /lcm/api/v1/login` to log in to vRealize Suite Lifecycle Manager.

- Verify that you have a valid authentication token that matches your login credentials. See Request an Authentication Token.

- Configure OVA settings for the vRealize Suite to install.

- Verify that you have added a data center and the request has completed successfully. See Create a Data Center.

- Verify that you have added a vCenter to the data center and the request has completed successfully. See Add a vCenter.

curl Command

The following example creates a vRealize Suite environment with all available products and nodes.

```
curl -X POST "http://localhost:8000/lcm/api/v1/action/create/environment" \
        -H "accept: application/json" \
        -H "x-xenon-auth-token: $token" \
        -H "content-type: application/json" \
        -d '{
            "requestId": "null",
            "environmentId": "",
            "infrastructure": {
              "sourceLink": "",
              "properties": {
                "bindPassword": "",
                "dataCenterName": "Datacenter-Name",
                "vcHostname": "vCenter Server Host name",
                "environmentId": "",
                "masterVidmAdminUserName": "",
                "netmask": "Network-Netmask",
                "environmentName": "vRealize Suite Large Advance",
                "clusterName": "VC-Datacenter-Name#VC-Cluster-Name",
                "enableTelemetry": "true",
                "dnsServers": "Network-DNS-Server-IPs",
                "diskFormat": "Thin",
                "baseDN": "",
                "vcPassword": "vCenter Server Password",
                "defaultPassword": "vRealize Suite Products password",
                "adminEmail": "cloud admin email address",
                "adName": "",
                "certificateChain": "-----BEGIN
CERTIFICATE-----\nMIIG3zC\nCZImiZPyLGQBGRYFbG9jYWwxEzARBgoJkiaJk/IsZAEZ\nFnNxYS1\n-----END
CERTIFICATE-----",
                "masterKeyPassphrase": "",
                "datastoreName": "VC Datastore Name",
                "masterVidmAdminPassword": "",
                "masterVidmEnabled": "",
                "uberAdmin": "",
                "license": "",
                "privateKey": "-----BEGIN RSA PRIVATE
KEY-----\nMIIEpQIBAAKCA\n4Hf/7hp59x\nGGlHmsQAidubXQdBXMGgxibGZz/6cEoUs3+EWTIg0pLt3a78yCkK9wLZ/U=\n-----
END RSA PRIVATE KEY-----",
                "bindDN": "",
                "vmNetwork": "Network-Portgroup",
                "masterPrivateKey": "-----BEGIN RSA PRIVATE
KEY-----\nMIIEpQIBAAKCA\n4Hf/7hp59x\nGGlHmsQAidubXQdBXMGgxibGZz/6cEoUs3+EWTIg0pLt3a78yCkK9wLZ/U=\n-----
```

```
    END RSA PRIVATE KEY-----",
                    "masterVidmHostName": "",
                    "groupDN": "",
                    "masterVidmCloudAdminGroup": "",
                    "vcUsername": "vCenter Server Username",
                    "domain": "",
                    "acceptEULA": "true",
                    "keyPassphrase": "",
                    "gateway": "Network-Gateway",
                    "searchpath": "",
                    "masterCertificateChain": "-----BEGIN
CERTIFICATE-----\nMIIG3zC\nCZImiZPyLGQBGRYFbG9jYWwxEzARBgoJkiaJk/IsZAEZ\nFnNxYS1\n-----END
CERTIFICATE-----"
                }
            },
            "encoded": false,
            "products": [
              {
                "id": "vrli",
                "version": "4.5.0",
                "clusterVIP": [],
                "properties": {
                  "vrliClusterVips": "vRLI-Cluster-IP#vRLI-Cluster-IP-Hostname"
                },
                "nodes": [
                  {
                    "sourceLink": "",
                    "type": "vrli-master",
                    "properties": {
                      "cluster": "VC-Datacenter-Name#VC-Cluster-Name",
                      "vrliLicenseKey": "",
                      "installerLocation": "/data/productlinks/vrli/4.5.0/install/vrli.ova",
                      "dns": "Network-DNS-Server-IPs",
                      "ipAddress": "vRLI-IP",
                      "vCenterHost": "vCenter Server Host name",
                      "storage": "VC Datastore Name",
                      "userName": "vCenter Server Username",
                      "masterVidmAdminPassword": "",
                      "uberAdmin": "",
                      "network": "Network-Portgroup",
                      "masterVidmEnabled": "",
                      "vrliAdminEmail": "",
                      "hostname": "vRLI-Hostname",
                      "password": "vCenter Server Password",
                      "masterVidmHostName": "",
                      "masterVidmAdminUserName": "",
                      "netmask": "Network-Netmask",
                      "domain": "",
                      "name": "S1-vrli-master",
                      "diskFormat": "Thin",
                      "vrliClusterVips": "vRLI-Cluster-IP#vRLI-Cluster-IP-Hostname",
                      "searchpath": "",
                      "gateway": "Network-Gateway"
                    }
                  },
```

```
                    {
                      "sourceLink": "",
                      "type": "vrli-worker",
                      "properties": {
                        "cluster": "VC-Datacenter-Name#VC-Cluster-Name",
                        "installerLocation": "/data/productlinks/vrli/4.5.0/install/vrli.ova",
                        "ipAddress": "",
                        "dns": "Network-DNS-Server-IPs",
                        "vCenterHost": "vCenter Server Host name",
                        "storage": "VC Datastore Name",
                        "userName": "vCenter Server Username",
                        "network": "Network-Portgroup",
                        "hostname": "",
                        "password": "vCenter Server Password",
                        "netmask": "Network-Netmask",
                        "domain": "",
                        "name": "S1-vrli-worker-01",
                        "diskFormat": "Thin",
                        "gateway": "Network-Gateway",
                        "searchpath": ""
                      }
                    },
                    {
                      "sourceLink": "",
                      "type": "vrli-worker",
                      "properties": {
                        "cluster": "VC-Datacenter-Name#VC-Cluster-Name",
                        "installerLocation": "/data/productlinks/vrli/4.5.0/install/vrli.ova",
                        "ipAddress": "",
                        "dns": "Network-DNS-Server-IPs",
                        "vCenterHost": "vCenter Server Host name",
                        "storage": "VC Datastore Name",
                        "userName": "vCenter Server Username",
                        "network": "Network-Portgroup",
                        "hostname": "",
                        "password": "vCenter Server Password",
                        "netmask": "Network-Netmask",
                        "domain": "",
                        "name": "S1-vrli-worker-02",
                        "diskFormat": "Thin",
                        "gateway": "Network-Gateway",
                        "searchpath": ""
                      }
                    }
                  ]
                },
                {
                  "id": "vra",
                  "version": "7.3.0",
                  "clusterVIP": [
                    {
                      "type": "vra",
                      "hostname": "vRA-LoadBalancer-Hostname",
                      "ipAddress": "vRA-LoadBalancer-IP"
                    },
```

```
            {
              "type": "iaas-web",
              "hostname": "IaaS-Web-LoadBalancer-Hostname",
              "ipAddress": "IaaS-Web-LoadBalancer-IP"
            },
            {
              "type": "iaas-manager",
              "hostname": "IaaS-Manager-Service-LoadBalancer-Hostname",
              "ipAddress": "IaaS-Manager-Service-LoadBalancer-IP"
            }
          ],
          "properties": {
            "windowsPassword": "",
            "windowsUsername": ""
          },
          "nodes": [
            {
              "sourceLink": "",
              "type": "vra-server-primary",
              "properties": {
                "vidmVraDisabledAdvanced": "",
                "cluster": "VC-Datacenter-Name#VC-Cluster-Name",
                "certificateChain": "",
                "installerLocation": "/data/productlinks/vra/7.3.0/install/vra.ova",
                "dns": "Network-DNS-Server-IPs",
                "ipAddress": "vRA-IP",
                "vCenterHost": "vCenter Server Host name",
                "storage": "VC Datastore Name",
                "userName": "vCenter Server Username",
                "network": "Network-Portgroup",
                "vidmPassword": "",
                "privateKey": "",
                "licenseKey": "",
                "hostname": "vRA-Hostname",
                "password": "vCenter Server Password",
                "netmask": "Network-Netmask",
                "domain": "",
                "name": "S1-vra-server-primary",
                "keyPassphrase": "",
                "gateway": "Network-Gateway",
                "searchpath": ""
              }
            },
            {
              "sourceLink": "",
              "type": "vra-server-secondary",
              "properties": {
                "cluster": "VC-Datacenter-Name#VC-Cluster-Name",
                "installerLocation": "/data/productlinks/vra/7.3.0/install/vra.ova",
                "certificateChain": "",
                "ipAddress": "",
                "dns": "Network-DNS-Server-IPs",
                "vCenterHost": "vCenter Server Host name",
                "storage": "VC Datastore Name",
                "userName": "vCenter Server Username",
```

```
          "network": "Network-Portgroup",
          "vidmPassword": "",
          "privateKey": "",
          "password": "vCenter Server Password",
          "hostname": "",
          "netmask": "Network-Netmask",
          "domain": "",
          "name": "S1-vra-server-secondary",
          "keyPassphrase": "",
          "searchpath": "",
          "gateway": "Network-Gateway"
        }
      },
      {
        "sourceLink": "",
        "type": "db",
        "properties": {
          "useWindowsAuthentication": "true",
          "useExistingDatabase": "false",
          "password": "vCenter Server Password",
          "hostname": "",
          "databaseName": "iaas",
          "name": "db",
          "databaseUserName": "",
          "databasePassword": "",
          "ipAddress": "",
          "vCenterHost": "vCenter Server Host name",
          "userName": "vCenter Server Username"
        }
      },
      {
        "sourceLink": "",
        "type": "iaas-web",
        "properties": {
          "webPassword": "",
          "vidmPassword": "",
          "hostname": "",
          "password": "vCenter Server Password",
          "ipAddress": "",
          "name": "iaas-web-01",
          "webUserName": "",
          "vCenterHost": "vCenter Server Host name",
          "userName": "vCenter Server Username"
        }
      },
      {
        "sourceLink": "",
        "type": "iaas-web",
        "properties": {
          "vidmPassword": "",
          "webPassword": "",
          "password": "vCenter Server Password",
          "hostname": "",
          "ipAddress": "",
          "name": "iaas-web-02",
```

```
              "vCenterHost": "vCenter Server Host name",
              "webUserName": "",
              "userName": "vCenter Server Username"
          }
       },
       {
          "sourceLink": "",
          "type": "iaas-manager-active",
          "properties": {
              "password": "vCenter Server Password",
              "hostname": "",
              "msUserName": "",
              "msPassword": "",
              "name": "iaas-manager-active",
              "ipAddress": "",
              "vCenterHost": "vCenter Server Host name",
              "userName": "vCenter Server Username"
          }
       },
       {
          "sourceLink": "",
          "type": "iaas-manager-passive",
          "properties": {
              "password": "vCenter Server Password",
              "hostname": "",
              "msUserName": "",
              "msPassword": "",
              "name": "iaas-manager-passive",
              "ipAddress": "",
              "vCenterHost": "vCenter Server Host name",
              "userName": "vCenter Server Username"
          }
       },
       {
          "sourceLink": "",
          "type": "iaas-dem-orchestrator",
          "properties": {
              "demPassword": "",
              "hostname": "",
              "password": "vCenter Server Password",
              "ipAddress": "",
              "name": "Demorchestrator-02",
              "demUserName": "",
              "vCenterHost": "vCenter Server Host name",
              "userName": "vCenter Server Username"
          }
       },
       {
          "sourceLink": "",
          "type": "iaas-dem-orchestrator",
          "properties": {
              "demPassword": "",
              "password": "vCenter Server Password",
              "hostname": "",
              "name": "Demorchestrator-01",
```

```
            "ipAddress": "",
            "demUserName": "",
            "vCenterHost": "vCenter Server Host name",
            "userName": "vCenter Server Username"
          }
        },
        {
          "sourceLink": "",
          "type": "iaas-dem-worker",
          "properties": {
            "demPassword": "",
            "password": "vCenter Server Password",
            "hostname": "",
            "name": "Demworker-01-2",
            "ipAddress": "",
            "demUserName": "",
            "vCenterHost": "vCenter Server Host name",
            "userName": "vCenter Server Username"
          }
        },
        {
          "sourceLink": "",
          "type": "iaas-dem-worker",
          "properties": {
            "demPassword": "",
            "password": "vCenter Server Password",
            "hostname": "",
            "name": "Demworker-01-3",
            "ipAddress": "",
            "demUserName": "",
            "vCenterHost": "vCenter Server Host name",
            "userName": "vCenter Server Username"
          }
        },
        {
          "sourceLink": "",
          "type": "iaas-dem-worker",
          "properties": {
            "demPassword": "",
            "hostname": "",
            "password": "vCenter Server Password",
            "ipAddress": "",
            "name": "Demworker-02-2",
            "demUserName": "",
            "vCenterHost": "vCenter Server Host name",
            "userName": "vCenter Server Username"
          }
        },
        {
          "sourceLink": "",
          "type": "iaas-dem-worker",
          "properties": {
            "demPassword": "",
            "hostname": "",
            "password": "vCenter Server Password",
```

```
                                  "name": "Demworker-02-3",
                                  "ipAddress": "",
                                  "vCenterHost": "vCenter Server Host name",
                                  "demUserName": "",
                                  "userName": "vCenter Server Username"
                                }
                            },
                            {
                              "sourceLink": "",
                              "type": "iaas-dem-worker",
                              "properties": {
                                "demPassword": "",
                                "password": "vCenter Server Password",
                                "hostname": "",
                                "name": "Demworker-01-1",
                                "ipAddress": "",
                                "demUserName": "",
                                "vCenterHost": "vCenter Server Host name",
                                "userName": "vCenter Server Username"
                              }
                            },
                            {
                              "sourceLink": "",
                              "type": "iaas-dem-worker",
                              "properties": {
                                "demPassword": "",
                                "hostname": "",
                                "password": "vCenter Server Password",
                                "name": "Demworker-02-1",
                                "ipAddress": "",
                                "vCenterHost": "vCenter Server Host name",
                                "demUserName": "",
                                "userName": "vCenter Server Username"
                              }
                            },
                            {
                              "sourceLink": "",
                              "type": "proxy-agent-vsphere",
                              "properties": {
                                "password": "vCenter Server Password",
                                "hostname": "",
                                "agentUserName": "",
                                "name": "VCAgent-1",
                                "ipAddress": "",
                                "agentName": "VCAgent-1",
                                "vCenterHost": "vCenter Server Host name",
                                "userName": "vCenter Server Username",
                                "vsphereEndpointName": "VCEndpoint-1",
                                "agentPassword": ""
                              }
                            },
                            {
                              "sourceLink": "",
                              "type": "proxy-agent-vsphere",
                              "properties": {
```

```
                        "hostname": "",
                        "password": "vCenter Server Password",
                        "agentUserName": "",
                        "ipAddress": "",
                        "name": "VCAgent-2",
                        "agentName": "VCAgent-2",
                        "vCenterHost": "vCenter Server Host name",
                        "userName": "vCenter Server Username",
                        "vsphereEndpointName": "VCEndpoint-2",
                        "agentPassword": ""
                    }
                }
            ]
        },
        {
            "id": "vrbc",
            "version": "7.3.0",
            "clusterVIP": [],
            "properties": {
                "currency": "USD - US Dollar"
            },
            "nodes": [
                {
                    "sourceLink": "",
                    "type": "vrb-server",
                    "properties": {
                        "ssoPassword": "",
                        "cluster": "VC-Datacenter-Name#VC-Cluster-Name",
                        "vrbTelemetryEnabled": "true",
                        "installerLocation": "/data/productlinks/vrbc/7.3.0/install/vrbc.ova",
                        "tenantPassword": "",
                        "vCenterHost": "vCenter Server Host name",
                        "storage": "VC Datastore Name",
                        "network": "Network-Portgroup",
                        "password": "vCenter Server Password",
                        "hostname": "vRB-Hostname",
                        "masterVidmAdminUserName": "",
                        "netmask": "Network-Netmask",
                        "diskFormat": "Thin",
                        "vrbCurrency": "USD - US Dollar",
                        "certificateChain": "",
                        "ipAddress": "vRB-IP",
                        "dns": "Network-DNS-Server-IPs",
                        "vrbLicenseKey": "",
                        "userName": "vCenter Server Username",
                        "masterVidmAdminPassword": "",
                        "uberAdmin": "",
                        "masterVidmEnabled": "",
                        "isTelemetryEnable": "true",
                        "privateKey": "",
                        "masterVidmHostName": "",
                        "domain": "",
                        "name": "S1-vrb-server",
                        "searchpath": "",
                        "gateway": "Network-Gateway"
```

```
                }
              },
              {
                "sourceLink": "",
                "type": "vrb-collector",
                "properties": {
                  "ssoPassword": "",
                  "cluster": "LCM-DC#LCM-CLuster-02",
                  "vrbTelemetryEnabled": "true",
                  "installerLocation": "/data/productlinks/vrbc/7.3.0/install/vrbc.ova",
                  "tenantPassword": "",
                  "vCenterHost": "lcm-vc.",
                  "storage": "VC Datastore Name",
                  "network": "Network-Portgroup",
                  "hostname": "",
                  "password": "vCenter Server Password",
                  "masterVidmAdminUserName": "",
                  "netmask": "Network-Netmask",
                  "diskFormat": "Thin",
                  "vrbCurrency": "USD - US Dollar",
                  "sshEnabled": "True",
                  "ipAddress": "",
                  "dns": "Network-DNS-Server-IPs",
                  "vrbLicenseKey": "",
                  "userName": "vCenter Server Username",
                  "masterVidmAdminPassword": "",
                  "isTelemetryEnable": "true",
                  "masterVidmEnabled": "true",
                  "uberAdmin": "",
                  "masterVidmHostName": "",
                  "domain": "",
                  "name": "S1-vrb-collector",
                  "searchpath": "",
                  "gateway": "Network-Gateway"
                }
              }
            ]
          },
          {
            "id": "vrops",
            "version": "6.6.1",
            "clusterVIP": [],
            "properties": {
              "ntpServerIP": "NTP Server IP"
            },
            "nodes": [
              {
                "sourceLink": "",
                "type": "master",
                "properties": {
                  "cluster": "VC-Datacenter-Name#VC-Cluster-Name",
                  "installerLocation": "/data/productlinks/vrops/6.6.1/install/vrops.ova",
                  "vCenterHost": "vCenter Server Host name",
                  "storage": "VC Datastore Name",
                  "network": "Network-Portgroup",
```

```
                          "password": "vCenter Server Password",
                          "hostname": "vROPS-Hostname",
                          "masterVidmAdminUserName": "",
                          "netmask": "Network-Netmask",
                          "diskFormat": "Thin",
                          "ntpServer": "NTP Server IP",
                          "address": "vROPS-IP",
                          "certificateChain": "",
                          "dns": "Network-DNS-Server-IPs",
                          "ipAddress": "vROPS-IP",
                          "userName": "vCenter Server Username",
                          "masterVidmAdminPassword": "",
                          "masterVidmEnabled": "false",
                          "license": "",
                          "privateKey": "",
                          "masterVidmHostName": "",
                          "domain": "",
                          "name": "S1-master",
                          "keyPassphrase": "",
                          "gateway": "Network-Gateway",
                          "searchpath": ""
                        }
                      },
                      {
                        "sourceLink": "",
                        "type": "replica",
                        "properties": {
                          "cluster": "VC-Datacenter-Name#VC-Cluster-Name",
                          "address": "",
                          "ipAddress": "",
                          "dns": "Network-DNS-Server-IPs",
                          "vCenterHost": "vCenter Server Host name",
                          "storage": "VC Datastore Name",
                          "userName": "vCenter Server Username",
                          "network": "Network-Portgroup",
                          "hostname": "",
                          "password": "vCenter Server Password",
                          "netmask": "Network-Netmask",
                          "domain": "",
                          "name": "S1-replica",
                          "diskFormat": "Thin",
                          "searchpath": "",
                          "gateway": "Network-Gateway"
                        }
                      },
                      {
                        "sourceLink": "",
                        "type": "data",
                        "properties": {
                          "cluster": "VC-Datacenter-Name#VC-Cluster-Name",
                          "address": "",
                          "dns": "Network-DNS-Server-IPs",
                          "ipAddress": "",
                          "vCenterHost": "vCenter Server Host name",
                          "storage": "VC Datastore Name",
```

```
              "userName": "vCenter Server Username",
              "extendedStorage": "VC Datastore Name",
              "network": "Network-Portgroup",
              "hostname": "",
              "password": "vCenter Server Password",
              "netmask": "Network-Netmask",
              "domain": "",
              "name": "S1-data-01",
              "diskFormat": "Thin",
              "gateway": "Network-Gateway",
              "searchpath": ""
          }
        },
        {
          "sourceLink": "",
          "type": "data",
          "properties": {
            "cluster": "VC-Datacenter-Name#VC-Cluster-Name",
            "address": "",
            "dns": "Network-DNS-Server-IPs",
            "ipAddress": "",
            "vCenterHost": "vCenter Server Host name",
            "storage": "VC Datastore Name",
            "userName": "vCenter Server Username",
            "extendedStorage": "VC Datastore Name",
            "network": "Network-Portgroup",
            "hostname": "",
            "password": "vCenter Server Password",
            "netmask": "Network-Netmask",
            "domain": "",
            "name": "S1-data-02",
            "diskFormat": "Thin",
            "gateway": "Network-Gateway",
            "searchpath": ""
          }
        },
        {
          "sourceLink": "",
          "type": "data",
          "properties": {
            "cluster": "VC-Datacenter-Name#VC-Cluster-Name",
            "address": "",
            "dns": "Network-DNS-Server-IPs",
            "ipAddress": "",
            "vCenterHost": "vCenter Server Host name",
            "storage": "VC Datastore Name",
            "userName": "vCenter Server Username",
            "extendedStorage": "VC Datastore Name",
            "network": "Network-Portgroup",
            "hostname": "",
            "password": "vCenter Server Password",
            "netmask": "Network-Netmask",
            "domain": "",
            "name": "S1-data-03",
            "diskFormat": "Thin",
```

```
                "gateway": "Network-Gateway",
                "searchpath": ""
              }
            },
            {
              "sourceLink": "",
              "type": "data",
              "properties": {
                "cluster": "VC-Datacenter-Name#VC-Cluster-Name",
                "address": "",
                "dns": "Network-DNS-Server-IPs",
                "ipAddress": "",
                "vCenterHost": "vCenter Server Host name",
                "storage": "VC Datastore Name",
                "userName": "vCenter Server Username",
                "extendedStorage": "VC Datastore Name",
                "network": "Network-Portgroup",
                "hostname": "",
                "password": "vCenter Server Password",
                "netmask": "Network-Netmask",
                "domain": "",
                "name": "S1-data-04",
                "diskFormat": "Thin",
                            "gateway": "Network-Gateway",
"searchpath": ""
              }
            },
            {
              "sourceLink": "",
              "type": "data",
              "properties": {
                "cluster": "VC-Datacenter-Name#VC-Cluster-Name",
                "address": "",
                "dns": "Network-DNS-Server-IPs",
                "ipAddress": "",
                "vCenterHost": "vCenter Server Host name",
                "storage": "VC Datastore Name",
                "userName": "vCenter Server Username",
                "extendedStorage": "VC Datastore Name",
                "network": "Network-Portgroup",
                "hostname": "",
                "password": "vCenter Server Password",
                "netmask": "Network-Netmask",
                "domain": "",
                "name": "S1-data-05",
                "diskFormat": "Thin",
                "gateway": "Network-Gateway",
                "searchpath": ""
              }
            },
            {
              "sourceLink": "",
              "type": "data",
              "properties": {
                "cluster": "VC-Datacenter-Name#VC-Cluster-Name",
```

```
            "address": "",
            "dns": "Network-DNS-Server-IPs",
            "ipAddress": "",
            "vCenterHost": "vCenter Server Host name",
            "storage": "VC Datastore Name",
            "userName": "vCenter Server Username",
            "extendedStorage": "VC Datastore Name",
            "network": "Network-Portgroup",
            "hostname": "",
            "password": "vCenter Server Password",
            "netmask": "Network-Netmask",
            "domain": "",
            "name": "S1-data-06",
            "diskFormat": "Thin",
            "gateway": "Network-Gateway",
            "searchpath": ""
          }
        },
        {
          "sourceLink": "",
          "type": "data",
          "properties": {
            "cluster": "VC-Datacenter-Name#VC-Cluster-Name",
            "address": "",
            "dns": "Network-DNS-Server-IPs",
            "ipAddress": "",
            "vCenterHost": "vCenter Server Host name",
            "storage": "VC Datastore Name",
            "userName": "vCenter Server Username",
            "extendedStorage": "VC Datastore Name",
            "network": "Network-Portgroup",
            "hostname": "",
            "password": "vCenter Server Password",
            "netmask": "Network-Netmask",
            "domain": "",
            "name": "S1-data-07",
            "diskFormat": "Thin",
            "gateway": "Network-Gateway",
            "searchpath": ""
          }
        },
        {
          "sourceLink": "",
          "type": "data",
          "properties": {
            "cluster": "VC-Datacenter-Name#VC-Cluster-Name",
            "address": "",
            "dns": "Network-DNS-Server-IPs",
            "ipAddress": "",
            "vCenterHost": "vCenter Server Host name",
            "storage": "VC Datastore Name",
            "userName": "vCenter Server Username",
            "extendedStorage": "VC Datastore Name",
            "network": "Network-Portgroup",
            "hostname": "",
```

```
          "password": "vCenter Server Password",
          "netmask": "Network—Netmask",
          "domain": "",
          "name": "S1—data—08",
          "diskFormat": "Thin",
          "gateway": "Network—Gateway",
          "searchpath": ""
        }
    },
    {
      "sourceLink": "",
      "type": "data",
      "properties": {
        "cluster": "VC—Datacenter—Name#VC—Cluster—Name",
        "address": "",
        "dns": "Network—DNS—Server—IPs",
        "ipAddress": "",
        "vCenterHost": "vCenter Server Host name",
        "storage": "VC Datastore Name",
        "userName": "vCenter Server Username",
        "extendedStorage": "VC Datastore Name",
        "network": "Network—Portgroup",
        "hostname": "",
        "password": "vCenter Server Password",
        "netmask": "Network—Netmask",
        "domain": "",
        "name": "S1—data—09",
        "diskFormat": "Thin",
        "gateway": "Network—Gateway",
        "searchpath": ""
      }
    },
    {
      "sourceLink": "",
      "type": "data",
      "properties": {
        "cluster": "VC—Datacenter—Name#VC—Cluster—Name",
        "address": "",
        "dns": "Network—DNS—Server—IPs",
        "ipAddress": "",
        "vCenterHost": "vCenter Server Host name",
        "storage": "VC Datastore Name",
        "userName": "vCenter Server Username",
        "extendedStorage": "VC Datastore Name",
        "network": "Network—Portgroup",
        "hostname": "",
        "password": "vCenter Server Password",
        "netmask": "Network—Netmask",
        "domain": "",
        "name": "S1—data—10",
        "diskFormat": "Thin",
        "gateway": "Network—Gateway",
        "searchpath": ""
      }
    },
```

```
                        {
                          "sourceLink": "",
                          "type": "data",
                          "properties": {
                            "cluster": "VC-Datacenter-Name#VC-Cluster-Name",
                            "address": "",
                            "dns": "Network-DNS-Server-IPs",
                            "ipAddress": "",
                            "vCenterHost": "vCenter Server Host name",
                            "storage": "VC Datastore Name",
                            "userName": "vCenter Server Username",
                            "extendedStorage": "VC Datastore Name",
                            "network": "Network-Portgroup",
                            "hostname": "",
                            "password": "vCenter Server Password",
                            "netmask": "Network-Netmask",
                            "domain": "",
                            "name": "S1-data-11",
                            "diskFormat": "Thin",
                            "gateway": "Network-Gateway",
                            "searchpath": ""
                          }
                        },
                        {
                          "sourceLink": "",
                          "type": "data",
                          "properties": {
                            "cluster": "VC-Datacenter-Name#VC-Cluster-Name",
                            "address": "",
                            "dns": "Network-DNS-Server-IPs",
                            "ipAddress": "",
                            "vCenterHost": "vCenter Server Host name",
                            "storage": "VC Datastore Name",
                            "userName": "vCenter Server Username",
                            "extendedStorage": "VC Datastore Name",
                            "network": "Network-Portgroup",
                            "hostname": "",
                            "password": "vCenter Server Password",
                            "netmask": "Network-Netmask",
                            "domain": "",
                            "name": "S1-data-12",
                            "diskFormat": "Thin",
                            "gateway": "Network-Gateway",
                            "searchpath": ""
                          }
                        },
                        {
                          "sourceLink": "",
                          "type": "remotecollector",
                          "properties": {
                            "cluster": "VC-Datacenter-Name#VC-Cluster-Name",
                            "address": "",
                            "dns": "Network-DNS-Server-IPs",
                            "ipAddress": "",
                            "vCenterHost": "vCenter Server Host name",
```

```
                        "storage": "VC Datastore Name",
                        "userName": "vCenter Server Username",
                        "network": "Network-Portgroup",
                        "password": "vCenter Server Password",
                        "hostname": "",
                        "netmask": "Network-Netmask",
                        "domain": "",
                        "name": "S1-remotecollector-01",
                        "ntpServer": "NTP Server IP",
                        "diskFormat": "Thin",
                        "searchpath": "",
                        "gateway": "Network-Gateway"
                      }
                    },
                    {
                      "sourceLink": "",
                      "type": "remotecollector",
                      "properties": {
                        "cluster": "LCM-DC#LCM-CLuster-02",
                        "address": "",
                        "dns": "Network-DNS-Server-IPs",
                        "ipAddress": "",
                        "vCenterHost": "vCenter Server Host name",
                        "storage": "VC Datastore Name",
                        "userName": "vCenter Server Username",
                        "network": "Network-Portgroup",
                        "password": "vCenter Server Password",
                        "hostname": "",
                        "netmask": "Network-Netmask",
                        "domain": "",
                        "name": "S1-vrops-remotecollector-02",
                        "ntpServer": "NTP Server IP",
                        "diskFormat": "Thin",
                        "searchpath": "",
                        "gateway": "Network-Gateway"
                      }
                    }
                  ]
                }
              ]
            }'
```

JSON Output

The following JSON output is returned when the operation completes successfully.

```
200 Operation successful
```

View an Environment

GET `/lcm/api/v1/view/environment?environmentId={environmentid}` displays details for an existing environment.

Prerequisites

Satisfy the following conditions before performing any tasks for this use case.

- Use `POST /lcm/api/v1/login` to log in to vRealize Suite Lifecycle Manager.

- Verify that you have a valid authentication token that matches your login credentials. See Request an Authentication Token.

- Verify that you have the environment ID for the environment to view.

curl Command

The following example requests full environment details for the specified environment.

```
curl -X GET "http://localhost:8000/lcm/api/v1/view/environment?
environmentId=78b45f299cbdc2755585cc2bb88f8" \
        -H "accept: application/json" \
        -H "x-xenon-auth-token: $token" \
```

JSON Output

The following JSON output is returned based on the command output.

```
[
  {
    "name": "vra",
    "id": "$environmentID",
    "version": "7.2.0"
  }
]
```

Add a Product to an Existing Environment

`POST /lcm/api/v1/action/add/product?id={environmentId}` adds a vRealize Suite product to an existing environment.

Prerequisites

Satisfy the following conditions before performing any tasks for this use case.

- Use `POST /lcm/api/v1/login` to log in to vRealize Suite Lifecycle Manager.

- Verify that you have a valid authentication token that matches your login credentials. See Request an Authentication Token.

curl Command

The following example adds vRealize Business for Cloud to the specified environment.

```
curl -X POST "http://localhost:8000/lcm/api/v1/action/add/product?id=78b45f299cbdc2755585cc2bb88f8" \
        -H "accept: application/json" \
        -H "x-xenon-auth-token: $token" \
        -H "content-type: application/json" \
        -d '{
            "id": "vrbc",
            "version": "7.3.0",
            "clusterVIP": [],
            "properties": {
              "currency": "USD - US Dollar"
            },
            "nodes": [
              {
                "sourceLink": "",
                "type": "vrb-server",
                "properties": {
                  "esxHost": "$esxHostFQDN",
                  "guestFullName": "SUSE Linux Enterprise 12 (64-bit)",
                  "ipAddress": "$ipAddress",
                  "cpu": "4",
                  "vCenterHost": "$vCenterHostFQDN",
                  "ssoTenant": "vsphere.local",
                  "storage": "FC-LUN-15 TB",
                  "userName": "Administrator@vsphere.local",
                  "productName": "vRealize Business for Cloud",
                  "network": "infra-traffic-1006",
                  "isTelemetryEnable": "true",
                  "hostname": "$hostname",
                  "password": "$password",
                  "productVersion": "7.2.1.10029 Build 5101870",
                  "powerState": "poweredOn",
                  "cafeHost": "$cafeHost",
                  "memoryInMb": "8192",
                  "name": "S2-vrb-server",
                  "vrbRootPassword": "$vrbRootPassword"
                }
              }
            ]
        }'
```

JSON Output

The following JSON output is returned when the operation completes successfully.

```
200 Operation successful
```

Collect Environment Logs

`POST /lcm/api/v1/collectlogs/environment` collects log files for all
vRealize Suite Lifecycle Manager environments that you can use for troubleshooting.

Prerequisites

Satisfy the following conditions before performing any tasks for this use case.

- Use `POST /lcm/api/v1/login` to log in to vRealize Suite Lifecycle Manager.

- Verify that you have a valid authentication token that matches your login credentials. See Request an Authentication Token.

curl Command

The following example collects a support bundle of logs for the environment.

```
curl -X POST "http://localhost:8000/lcm/api/v1/collectlogs/environment" \
        -H "accept: application/json" \
        -H "x-xenon-auth-token: $token" \
```

JSON Output

The following JSON output is returned based on the command input.

```
{
   "requestId": "78b45f299cbdc2755589c4ee37bf8"
}
```

Configuration Drift

Configuration drift shows the changes in product configuration over time and allows you to revert a product to an earlier configuration state.

Create a Configuration Drift Baseline

`POST /lcm/api/v1/drift/lcmtemplate` captures a product's configuration parameters at a given time as a baseline for configuration drift reports.

Prerequisites

Satisfy the following conditions before performing any tasks for this use case.

- Use `POST /lcm/api/v1/login` to log in to vRealize Suite Lifecycle Manager.

- Verify that you have a valid authentication token that matches your login credentials. See Request an Authentication Token.

curl Command

The following example saves the current vRealize Operations Manager product configuration as the vRealize Operations Manager configuration drift baseline.

```
curl -X POST "http://localhost:8000/lcm/api/v1/drift/lcmtemplate" \
      -H "accept: application/json" \
      -H "x-xenon-auth-token: $token" \
      -d '{
            "environment": "Sample Environment Name",
            "product": "vrops"
          }'
```

JSON Output

The following JSON output is returned when the product baseline is successfully saved.

```
200      Operation successful
```

Retrieve a Configuration Drift Baseline

GET `/lcm/api/v1/drift/lcmtemplate` retrieves the configuration drift baseline for a product.

Prerequisites

Satisfy the following conditions before performing any tasks for this use case.

- Use POST `/lcm/api/v1/login` to log in to vRealize Suite Lifecycle Manager.

- Verify that you have a valid authentication token that matches your login credentials. See Request an Authentication Token.

curl Command

The following example retrieves the vRealize Operations Manager configuration drift baseline.

```
curl -X GET "http://localhost:8000/lcm/api/v1/drift/lcmtemplate" \
      -H "accept: application/json" \
      -H "x-xenon-auth-token: $token" \
      -d '{
            "environment": "Sample Environment Name",
            "product": "vrops"
          }'
```

JSON Output

The following JSON output is returned when the product baseline is successfully retrieved.

```
200      Operation successful
```

Retrieve a Configuration Drift Report

`GET /lcm/api/v1/drift/report` retrieves a configuration drift report that shows the changes in a product's current configuration compared to the product's configuration drift baseline.

Prerequisites

Satisfy the following conditions before performing any tasks for this use case.

- Use `POST /lcm/api/v1/login` to log in to vRealize Suite Lifecycle Manager.

- Verify that you have a valid authentication token that matches your login credentials. See Request an Authentication Token.

curl Command

The following example retrieves the configuration drift report for vRealize Operations Manager.

```
curl -X GET "http://localhost:8000/lcm/api/v1/drift/report" \
        -H "accept: application/json" \
        -H "x-xenon-auth-token: $token" \
        -d '{
              "environment": "Sample Environment Name",
              "product": "vrops"
            }'
```

JSON Output

The following JSON output is returned with the configuration drift report when the product baseline is successfully retrieved.

```
200      Operation successful
```

Working with Nodes

8

You can add nodes to vRealize Suite products to scale out your environment.

Each vRealize Suite product managed by vRealize Suite Lifecycle Manager includes nodes, or components, that provide functionality for the products. When you install vRealize Suite products using vRealize Suite Lifecycle Manager, you select which nodes to install with each product. As the size or needs of your environment grow, you can scale out the environment by adding additional nodes.

- **Add a Node**

  `POST /lcm/api/v1/action/addNode` scales out the environment by adding a single node to a product in the environment. To add multiple nodes, make a separate request for each node.

- **View All Nodes and Node IDs**

  `GET /lcm/api/v1/view/node` displays the nodes and node IDs managed by vRealize Suite Lifecycle Manager.

- **View Details for a Node**

  `GET /lcm/api/v1/view/node?nodeID=$nodeID` displays details for the specified node.

- **View Node Types for a Product**

  `GET /lcm/api/v1/productinfo?productId=$product&version=$productVersionNumber $queryFor=listOfComponents` displays the node types for the specified product and product version.

- **Node Types and Parameters**

  vRealize Suite Lifecycle Manager supports the following node types and parameters.

Add a Node

`POST /lcm/api/v1/action/addNode` scales out the environment by adding a single node to a product in the environment. To add multiple nodes, make a separate request for each node.

Prerequisites

Satisfy the following conditions before performing any tasks for this use case.

- Use `POST /lcm/api/v1/login` to log in to vRealize Suite Lifecycle Manager.

- Verify that you have a valid authentication token that matches your login credentials. See Request an Authentication Token.

Each node request requires the following parameters:

- `name`

- `ipAddress`

- `hostname`

See Node Types and Parameters for a full list of parameters for each node type.

The following node types cannot be scaled:

- `vra-server-primary`

- `db`

- `vrli-master`

- `iaas-manager-active`

- `master`

- `managementagent`

- `replica`

curl Command

The following example adds a `vrli-worker` node to the environment.

```
curl -X POST "http://localhost:8000/lcm/api/v1/action/addNode" \
        -H "accept: application/json" \
        -H "x-xenon-auth-token: $token" \
        -H "content-type: application/json" \
        -d '{
            "environmentId": "8c7e3ea7e945f475558855d497c68",
            "dataCenterId": "Data Center Name",
            "productId": "vrli",
            "version": "4.3.0",
            "node": {
              "type": "vrli-worker",
              "sourceLink": "",
              "properties": {
                "name": "VM Name",
                "cluster": "",
                "ipAddress": "1.1.1.1",
                "dns": "",
                "vCenterHost": "hostname",
                "storage": "",
                "network": "",
                "hostname": "hostname",
                "netmask": "",
                "domain": "",
                "diskFormat": "",
                "searchpath": "",
                "gateway": "",
                "deployOption": "",
                "userName": "vCenter Username",
```

```
            "password": "password"
         }
      }
   }'
```

JSON Output

The following JSON output is returned when the operation completes successfully.

```
200 Operation successful
```

View All Nodes and Node IDs

GET `/lcm/api/v1/view/node` displays the nodes and node IDs managed by
vRealize Suite Lifecycle Manager.

Prerequisites

Satisfy the following conditions before performing any tasks for this use case.

■ Use POST `/lcm/api/v1/login` to log in to vRealize Suite Lifecycle Manager.

■ Verify that you have a valid authentication token that matches your login credentials. See Request an
  Authentication Token.

curl Command

The following example requests details for all nodes.

```
curl -X GET "http://localhost:8000/lcm/api/v1/view/node" \
      -H "accept: application/json" \
      -H "x-xenon-auth-token: $token" \
```

JSON Output

The following JSON output is returned based on the command input.

```
[

  {
    "name": "vra-server-primary",
    "id": "78b45f299cbdc2755585ce13babc8"
  },
  {
    "name": "managementagent",
    "id": "78b45f299cbdc2755585ce13babd9"
  },
  {
    "name": "iaas-web",
    "id": "78b45f299cbdc2755585ce13babd7"
```

```
    },
    {
      "name": "iaas-dem-worker",
      "id": "78b45f299cbdc2755585ce13bb3ae"
    },
    {
      "name": "proxy-agent-vsphere",
      "id": "78b45f299cbdc2755585ce13bb3a8"
    }

  ]
```

View Details for a Node

GET `/lcm/api/v1/view/node?nodeID=$nodeID` displays details for the specified node.

Prerequisites

Satisfy the following conditions before performing any tasks for this use case.

- Use POST `/lcm/api/v1/login` to log in to vRealize Suite Lifecycle Manager.

- Verify that you have a valid authentication token that matches your login credentials. See Request an Authentication Token.

- Verify that you have the node ID for the node. See View All Nodes and Node IDs.

curl Command

The following example requests details for a `data` node.

```
curl -X GET "http://localhost:8000/lcm/api/v1/view/node?nodeID=a3b2e69ac10ad27555e68c9cc89ab" \
      -H "accept: application/json" \
      -H "x-xenon-auth-token: $token" \
```

JSON Output

The following JSON output is returned based on the command input.

```
{
  "name": "data",
  "id": "a3b2e69ac10ad27555e68c9cc89ab",
  "properties": [
    {
      "name": "ipAddress",
      "value": "10.000.000.000"
    },
    {
      "name": "dns",
      "value": "10.000.000.001,10.000.000.002"
    },
    {
```

```
    "name": "hostname",
    "value": "host.example.local"
  },
  {
    "name": "domain",
    "value": "example.local"
  },
  {
    "name": "netmask",
    "value": "255.255.255.0"
  },
  {
    "name": "diskFormat",
    "value": "Thin"
  },
  {
    "name": "name",
    "value": "data-host"
  },
  {
    "name": "storage",
    "value": "FC_LUN_1TB_1"
  },
  {
    "name": "cluster",
    "value": "CLUSTER#SS_MGMT_Cluster_TB1"
  },
  {
    "name": "vCenterHost",
    "value": "vcenter.example.local"
  },
  {
    "name": "network",
    "value": "NTWK_121"
  },
  {
    "name": "userName",
    "value": "Administrator@vsphere.local"
  },
  {
    "name": "searchpath",
    "value": "example.local"
  },
  {
    "name": "gateway",
    "value": "10.000.000.003"
  },
  {
    "name": "address",
    "value": "10.000.000.000"
  },
  {
    "name": "password",
    "value": "password"
  },
```

```
    {
      "name": "rootPassword",
      "value": "password"
    }
  ]
}
```

View Node Types for a Product

GET /lcm/api/v1/productinfo?productId=*$product*&version=*$productVersionNumber*
$queryFor=listOfComponents displays the node types for the specified product and product version.

Prerequisites

Satisfy the following conditions before performing any tasks for this use case.

- Use POST /lcm/api/v1/login to log in to vRealize Suite Lifecycle Manager.

- Verify that you have a valid authentication token that matches your login credentials. See Request an Authentication Token.

curl Command

The following example requests node types for vRealize Automation 7.2.

```
curl -X GET "http://localhost:8000/lcm/api/v1/productinfo?
productId=vra&version=7.2$queryFor=listOfComponents"
        -H "accept: application/json" \
        -H "x-xenon-auth-token: $token" \
```

JSON Output

The following JSON output is returned based on the command input.

```
["db","iaas-dem-orchestrator","iaas-dem-worker","iaas-manager-active","iaas-manager-passive","iaas-
web","managementagent","proxy-agent-vsphere","vra-server-primary","vra-server-secondary"]
```

Node Types and Parameters

vRealize Suite Lifecycle Manager supports the following node types and parameters.

vrli-worker

Parameter	Description
name	Specifies the virtual machine name
cluster	Specifies the cluster name in vCenter in the following format: *data_center_name#vcenter_cluster_name*

Parameter	Description
ipAddress	Specifies the IP address for the virtual machine.
dns	Specifies the DNS IP address. Use a comma to separate multiple addresses.
vCenterHost	Specifies the vCenter host name.
storage	Specifies the datastore name.
network	Specifies the network name.
hostname	Specifies the host name for the node.
netmask	Specifies the netmask IP address.
domain	Specifies the domain name.
vrliRootPassword	Specifies the root password for the vRealize Log Insight appliance.
diskFormat	Specifies whether the disk format is `thick` or `thin`.
searchpath	Specifies the DNS search path.
gateway	Specifies the gateway IP address.
deployOption	Specifies the deployment option: `small`, `medium`, or `large`.
userName	Specifies the vCenter administrator user name.
password	Specifies the vCenter administrator password.

vrli-master

Parameter	Description
cluster	Specifies the cluster name in vCenter in the following format: `data_center_name#vcenter_cluster_name`
vrliLicenseKey	Specifies the vRealize Log Insight license key.
installerLocation	Specifies the file path location where the OVA is stored.
dns	Specifies the DNS IP address. Use a comma to separate multiple addresses.
ipAddress	Specifies the virtual machine IP address.
vCenterHost	Specifies the vCenter host name.
storage	Specifies the vCenter datastore name.
userName	Specifies the vCenter user name.
uberAdmin	Specifies the vIDM user to be assigned the product administrator role post-deployment.
network	Specifies the network name.
masterVidmEnabled	Specifies whether to configure vRealize Log Insight with vRealize Suite Lifecycle Manager vIDM. Set to `true` or `false`.
vrliAdminEmail	Specifies the vRealize Log Insight administrator email address.

Parameter	Description
hostname	Specifies the host name for the virtual machine.
password	Specifies the vCenter password.
netmask	Specifies the netmask IP.
domain	Specifies the domain name.
name	Specifies the virtual machine name.
diskFormat	Specifies whether the disk format is `thick` or `thin`.
vrliClusterVips	Specifies the vRealize Log Insight cluster vIPS in the format `vRLI-Cluster-IP#vRLI-Cluster-IP-Hostname`.
searchpath	Specifies the DNS search path.
gateway	Specifies the gateway IP address.

vrb-collector

Parameter	Description
name	Specifies the virtual machine name.
cluster	Specifies the cluster name in vCenter in the following format: `data_center_name#vcenter_cluster_name`
vrbTelemetryEnabled	Flag to enable telemetry in vRealize Business for Cloud.
vCenterHost	Specifies the vCenter host name.
storage	Specifies the datastore name.
network	Specifies the network name.
hostname	Specifies the host name for the node.
netmask	Specifies the netmask IP address.
diskFormat	Specifies whether the disk format is `thick` or `thin`.
vrbCurrency	Specifies the vRealize Business for Cloud currency format.
sshEnabled	Specifies whether SSH is enabled in sshEnabled. Set to `true` or `false`.
ipAddress	Specifies the IP address for the virtual machine.
dns	Specifies the DNS IP address. Use a comma to separate multiple addresses.
vrbLicenseKey	Specifies the vRealize Business for Cloud license key.
isTelemetryEnable	Specifies whether telemetry is enabled in vRealize Business for Cloud. Set to `true` or `false`.
domain	Specifies the domain name.
vrbRootPassword	Specifies the root password for the vRealize Business for Cloud appliance.
uberAdmin	Specifies the vIDM user to be assigned the product administrator role post-deployment.

Parameter	Description
searchpath	Specifies the DNS search path.
gateway	Specifies the gateway IP address.
userName	Specifies the vCenter administrator user name.
password	Specifies the vCenter administrator password.

vrb-server

Parameter	Description
name	Specifies the virtual machine name.
cluster	Specifies the cluster name in vCenter in the following format: *data_center_name#vcenter_cluster_name*
vrbTelemetryEnabled	Flag to enable telemetry in vRealize Business for Cloud.
tenantPassword	Specifies the password for the tenant user who has the business management administrator role in vRealize Automation. Used for vRB-vRA registration.
vCenterHost	Specifies the vCenter host name.
storage	Specifies the datastore name.
network	Specifies the network name.
tenantUser	Specifies the user name for the tenant user who has the business management administrator role in vRealize Automation. Used for vRB-vRA registration.
hostname	Specifies the host name for the node.
netmask	Specifies the netmask IP address.
diskFormat	Specifies whether the disk format is `thick` or `thin`.
vrbCurrency	Specifies the vRealize Business for Cloud currency format.
sshEnabled	Specifies whether SSH is enabled in sshEnabled. Set to `true` or `false`.
ipAddress	Specifies the IP address for the virtual machine.
dns	Specifies the DNS IP address. Use a comma to separate multiple addresses.
vrbLicenseKey	Specifies the vRealize Business for Cloud license key.
isTelemetryEnable	Specifies whether telemetry is enabled in vRealize Business for Cloud. Set to `true` or `false`.
domain	Specifies the domain name.
vrbRootPassword	Specifies the root password for the vRealize Business for Cloud appliance.
searchpath	Specifies the DNS search path.
gateway	Specifies the gateway IP address.

Parameter	Description
isStandalone	Specifies whether vRealize Business for Cloud is provisioned as a standalone deployment. Set to `true` or `false`.
userName	Specifies the vCenter administrator user name.
password	Specifies the vCenter administrator password.
uberAdmin	Specifies the vIDM user to be assigned the product administrator role post-deployment.

iass-dem-orchestrator

Parameter	Description
name	Specifies the virtual machine name
ipAddress	Specifies the IP address for the virtual machine.
vCenterHost	Specifies the vCenter host name.
demUserName	Specifies the DEM user name in $domain¥username$ format. If not provided, the default Windows user name given at the product level is used.
demPassword	Specifies the DEM password. If not provided, the default Windows password set at the product level is used.
hostname	Specifies the host name for the node.
installationPath	Specifies the Windows file path location where this component is installed.
userName	Specifies the vCenter administrator user name.
password	Specifies the vCenter administrator password.

iaas-manager-passive

Parameter	Description
name	Specifies the virtual machine name
msUserName	Specifies the IaaS service user name in $domain¥username$ format. If not provided, the default Windows user name given at the product level is used.
msPassword	Specifies the IaaS service user password. If not provided, the default Windows password set at the product level is used.
ipAddress	Specifies the IP address for the virtual machine.
hostname	Specifies the host name for the node.
installationPath	Specifies the Windows file path location where this component is installed.
vCenterHost	Specifies the vCenter host name.

Parameter	Description
userName	Specifies the vCenter administrator user name.
password	Specifies the vCenter administrator password.

iaas-web

Parameter	Description
name	Specifies the virtual machine name
webUserName	Specifies the IaaS service user name in $domain¥username$ format. If not provided, the default Windows user name given at the product level is used.
webPassword	Specifies the IaaS service user password. If not provided, the default Windows password set at the product level is used.
ipAddress	Specifies the IP address for the virtual machine.
hostname	Specifies the host name for the node.
installationPath	Specifies the Windows file path location where this component is installed.
vCenterHost	Specifies the vCenter host name.
userName	Specifies the vCenter administrator user name.
password	Specifies the vCenter administrator password.

proxy-agent-vsphere

Parameter	Details
name	Specifies the virtual machine name
agentUserName	Specifies the IaaS service user name in $domain¥username$ format. If not provided, the default Windows user name given at the product level is used.
ipAddress	Specifies the IP address for the virtual machine.
vCenterHost	Specifies the vCenter host name.
agentPassword	Specifies the IaaS service user password. If not provided, the default Windows password set at the product level is used.
hostname	Specifies the host name for the node.
installationPath	Specifies the Windows file path location where this component is installed.
vsphereEndpointName	Specifies the vCenter endpoint name.
userName	Specifies the vCenter administrator user name.
password	Specifies the vCenter administrator password.

vra-server-secondary

Parameter	Description
name	Specifies the virtual machine name
cluster	Specifies the cluster name in vCenter in the following format: *data_center_name#vcenter_cluster_name*
vCenterHost	Specifies the vCenter host name.
storage	Specifies the datastore name.
network	Specifies the network name.
hostname	Specifies the host name for the node.
netmask	Specifies the netmask IP address.
sshEnabled	Specifies whether SSH is enabled on the appliance. Set to `true` or `false`.
ipAddress	Specifies the IP address for the virtual machine.
dns	Specifies the DNS IP address. Use a comma to separate multiple addresses.
domain	Specifies the domain name.
searchpath	Specifies the DNS search path.
gateway	Specifies the gateway IP address.
userName	Specifies the vCenter administrator user name.
password	Specifies the vCenter administrator password.

vra-server-primary

Parameter	Description
vidmVraDisabledAdvanced	Federates vRealize Automation internal vIDM with vRealize Suite Lifecycle Manager vIDM. Set `true` to disable or `false` to enable.
cluster	Specifies the cluster name in vCenter in the following format: *data_center_name#vcenter_cluster_name*
installerLocation	Specifies the file path location where the OVA is stored.
ipAddress	Specifies the IP address for the virtual machine.
dns	Specifies the DNS IP address. Use a comma to separate multiple addresses.
vCenterHost	Specifies the vCenter host name.
storage	Specifies the datastore name.
userName	Specifies the vCenter administrator user name.
network	Specifies the network name.

Parameter	Description
vidmPassword	Specifies the vRealize Automation default SSO administrator password.
licenseKey	Specifies the vRealize Automation license key.
hostname	Specifies the host name for the node.
netmask	Specifies the netmask IP address.
password	Specifies the vCenter administrator password.
name	Specifies the virtual machine name
domain	Specifies the domain name.
searchpath	Specifies the DNS search path.
gateway	Specifies the gateway IP address.

db

Parameter	Description
useWindowsAuthentication	Specifies whether to use Windows authentication for IaaS DB. Set to `true` or `false`.
databaseUserName	Specifies the SA user name. Used in case Windows authentication is set to `false`.
databasePassword	Specifies the SA password. Used in case Windows authentication is set to `false`.
useExistingDatabase	Specifies whether to use an existing database within the machine. Set to `true` or `false`.
password	Specifies the vCenter administrator password.
hostname	Specifies the host name for the node.
databaseName	Specifies the IaaS database name.
name	Specifies the virtual machine name
ipAddress	Specifies the IP address for the virtual machine.
vCenterHost	Specifies the vCenter host name.
userName	Specifies the vCenter administrator user name.

iaas-manager-active

Parameter	Description
password	Specifies the vCenter administrator password.
hostname	Specifies the host name for the node.
msUserName	Specifies the IaaS service user name in $domain¥username$ format. If not provided, the default Windows user name given at the product level is used.

Parameter	Description
msPassword	Specifies the IaaS service user password. If not provided, the default Windows password set at the product level is used.
name	Specifies the virtual machine name
ipAddress	Specifies the IP address for the virtual machine.
vCenterHost	Specifies the vCenter host name.
userName	Specifies the vCenter administrator user name.

master

Parameter	Description
cluster	Specifies the cluster name in vCenter in the following format: `data_center_name#vcenter_cluster_name`
installerLocation	Specifies the file path location where the OVA is stored.
vCenterHost	Specifies the vCenter host name.
storage	Specifies the datastore name.
network	Specifies the network name.
password	Specifies the vCenter administrator password.
hostname	Specifies the host name for the node.
netmask	Specifies the netmask IP address.
diskFormat	Specifies whether the disk format is `thick` or `thin`.
ntpServer	Specifies the NTP server IP address.
ipAddress	Specifies the IP address for the virtual machine.
dns	Specifies the DNS IP address. Use a comma to separate multiple addresses.
userName	Specifies the vCenter administrator user name.
masterVidmEnabled	Specifies whether to register with vRealize Suite Lifecycle Manager vIDM. Set `true` or `false`.
license	Specifies the license key.
name	Specifies the virtual machine name
domain	Specifies the domain name.
searchpath	Specifies the DNS search path.
gateway	Specifies the gateway IP address.

replica

Parameter	Description
cluster	Specifies the cluster name in vCenter in the following format: *data_center_name#vcenter_cluster_name*
ipAddress	Specifies the IP address for the virtual machine.
dns	Specifies the DNS IP address. Use a comma to separate multiple addresses.
vCenterHost	Specifies the vCenter host name.
storage	Specifies the datastore name.
network	Specifies the network name.
userName	Specifies the vCenter administrator user name.
password	Specifies the vCenter administrator password.
hostname	Specifies the host name for the node.
netmask	Specifies the netmask IP address.
name	Specifies the virtual machine name
domain	Specifies the domain name.
diskFormat	Specifies whether the disk format is `thick` or `thin`.
searchpath	Specifies the DNS search path.
gateway	Specifies the gateway IP address.

data

Parameter	Description
cluster	Specifies the cluster name in vCenter in the following format: *data_center_name#vcenter_cluster_name*
ipAddress	Specifies the IP address for the virtual machine.
dns	Specifies the DNS IP address. Use a comma to separate multiple addresses.
vCenterHost	Specifies the vCenter host name.
storage	Specifies the datastore name.
network	Specifies the network name.
userName	Specifies the vCenter administrator user name.
extendedStorage	Specifies the vCenter datastore name for extended storage.
password	Specifies the vCenter administrator password.
hostname	Specifies the host name for the node.
netmask	Specifies the netmask IP address.
name	Specifies the virtual machine name

Parameter	Description
domain	Specifies the domain name.
diskFormat	Specifies whether the disk format is `thick` or `thin`.
searchpath	Specifies the DNS search path.
gateway	Specifies the gateway IP address.

remotecollector

Parameter	Description
cluster	Specifies the cluster name in vCenter in the following format: `data_center_name#vcenter_cluster_name`
ipAddress	Specifies the IP address for the virtual machine.
dns	Specifies the DNS IP address. Use a comma to separate multiple addresses.
vCenterHost	Specifies the vCenter host name.
storage	Specifies the datastore name.
network	Specifies the network name.
userName	Specifies the vCenter administrator user name.
password	Specifies the vCenter administrator password.
hostname	Specifies the host name for the node.
netmask	Specifies the netmask IP address.
name	Specifies the virtual machine name
domain	Specifies the domain name.
diskFormat	Specifies whether the disk format is `thick` or `thin`.
ntpServer	Specifies the NTP server IP address.
searchpath	Specifies the DNS search path.
gateway	Specifies the gateway IP address.