

Dell EMC VxRail RESTful API Cookbook

Abstract

This document provides sample VxRail RESTful API workflows.

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Revisions

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1 About this guide

This document provides examples of end-to-end VxRail™ RESTful API workflows (software versions 4.5.3x, 4.7.x, and 7.0.x).

2 Upgrade cluster

Description: Upgrade the VxRail system.

REST endpoint: POST /rest/vxm/v1/lcm/upgrade

Supported Versions: 4.5.300 or later

Step 1: Download the upgrade bundle from support website.

Go to the DELL EMC support website (https://support.emc.com/downloads/39970_VxRail-Appliance) and download the relevant upgrade package for your VxRail Manager version.

Step 2: Upload the bundle to VxRail Manager VM.

Upload the bundle to the /tmp directory of VxRail Manager. Ensure that the bundle has public read permissions.

Step 3: Call the LCM upgrade API.

CURL command (Windows):

```
curl -k --user "administrator@vsphere.local:<PASSWORD>" --request POST
"https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/lcm/upgrade" --header "Content-Type:
application/json" --data "{\"bundle_file_locator\": \"/tmp/VXRAIL_COMPOSITE-
4.7.for_4.x.x.zip \", \"vxrail\": {\"vxm_root_user\": {\"username\":
\"root\", \"password\": \"<PASSWORD>\"}}, \"vcenter\": {\"vc_admin_user\":
{\"username\": \"administrator@vsphere.local\", \"password\":
\"<PASSWORD>\"}, \"vcsa_root_user\": {\"username\": \"root\", \"password\":
\"<PASSWORD>\"}, \"psc_root_user\": {\"username\": \"root\", \"password\":
\"<PASSWORD>\"}}}"
```

CURL command (VxRail Manager):

```
curl -k --user "administrator@vsphere.local: <PASSWORD>" --request POST
"https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/lcm/upgrade" --header "Content-Type:
application/json" --data '{"bundle_file_locator": "/tmp/VXRAIL_COMPOSITE-
4.7.for_4.x.x.zip", "vxrail": {"vxm_root_user": {"username": "root", "password":
"<PASSWORD>"}, "vcenter": {"vc_admin_user": {"username":
"administrator@vsphere.local", "password": "<PASSWORD>"}, "vcsa_root_user":
{"username": "root", "password": "<PASSWORD>"}, "psc_root_user": {"username":
"root", "password": "<PASSWORD>"}}}'
```

PowerShell module command:

```
Start-LcmUpgrade -Server <VXRAIL_IP_ADDRESS> -Username
'administrator@vsphere.local' -Password '<PASSWORD>' -BundleFilePath
'/tmp/VXRAIL_COMPOSITE-4.7.for_4.x.x.zip' -VxmRootUsername 'root' -
VxmRootPassword '<PASSWORD>' -VcAdminUsername 'administrator@vsphere.local'-
VcAdminPassword '<PASSWORD>' -VcsaRootUsername 'root' -VcsaRootPassword
'<PASSWORD>' -PscRootUsername 'root' -PscRootPassword '<PASSWORD>'
```

Ansible playbook:

```

---
- name: Upgrade VxRail Playbook
  hosts: localhost
  tasks:
  - name: Upgrade VxRail
    uri:
      url: https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/lcm/upgrade
      user: "administrator@vsphere.local"
      password: "<PASSWORD>"
      method: POST
      force_basic_auth: yes
      status_code: 202
      validate_certs: false
      body_format: json
      body:
        bundle_file_locator: "/tmp/VXRAIL_COMPOSITE-4.7.for_4.x.x.zip"
        vxrail:
          vxm_root_user:
            username: "administrator@vsphere.local"
            password: "<PASSWORD>"
          vcenter:
            vc_admin_user:
              username: "administrator@vsphere.local"
              password: "<PASSWORD>"
            vcsa_root_user:
              username: "root"
              password: "<PASSWORD>"
            psc_root_user:
              username: "root"
              password: "<PASSWORD>"
        register: data
  - name: Print returned json dictionary
    debug:
      var: data.json

```

Response example:

```
{"request_id": "aa499749-022c-459c-b20c-5f3b7a37fff0"}
```

Step 4: Check the progress of the upgrade.

Using the request_id from Step 3, the status of the upgrade can be queried using the following API call.

Request by ID:

CURL command:

```
curl -k --user "administrator@vsphere.local:<PASSWORD>" --request GET
"https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/requests/<request_ID>" --header
"Content-Type: application/json"
```

PowerShell module command:

```
Get-Requests -Server '<VXRAIL_IP_ADDRESS>' -Password '<PASSWORD>' -Username
'administrator@vsphere.local' -Filter 'id eq aa499749-022c-459c-b20c-
5f3b7a37fff0'
```

Ansible playbook:

```
---
- name: Get VxRail Request Status Playbook
  hosts: localhost
  tasks:
  - name: Get VxRail Request Status
    uri:
      url: https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/requests/aa499749-022c-459c-
b20c-5f3b7a37fff0
      user: "administrator@vsphere.local"
      password: "<PASSWORD>"
      method: GET
      force_basic_auth: yes
      status_code: 200
      validate_certs: false
      register: data
  - name: Print returned json dictionary
    debug:
      var: data.json
```

Response example:

```
{
  "id": "aa499749-022c-459c-b20c-5f3b7a37fff0",
  "owner": "LCM",
  "state": "IN_PROGRESS",
  "progress": 0,
  "start_time": 1557497829735,
  "end_time": -1,
  "step": "Unpacking composite bundle",
  "detail": "Unzipped the entry vcmRuleset.xml from the composite bundle
package. ",
  "extension": {
    "details": [
      {
        "action": "Unpacking composite bundle",
```

```

    "message": "Unzipped the entry vcmRuleset.xml from the composite bundle
package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry manifest.xml from the composite bundle
package. "
  },
  .. <Text Removed> ..
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry bundles/VMware-vCenter-Server-Appliance-
6.7.0.30000-13010631-patch-FP.iso from the composite bundle package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry bundles/VXRAIL_Manager-4.7.200.00000-
13531218-updaterepo.zip from the composite bundle package. "
  }
],
"errors": [],
"components": [],
"current_version": "4.7.111-13048812",
"target_version": "-"
}
}

```

When the upgrade has successfully completed, you will get a response similar to the following:

```

{
  "id": "e98383b6-634f-4bf0-ab86-08195be5d684",
  "owner": "LCM",
  "state": "COMPLETED",
  "progress": 100,
  "start_time": 1557665811618,
  "end_time": -1,
  "step": "Upgrade is completed",
  "detail": "VxRail Composite Bundle upgrade completed successfully.",
  "extension": {
    "details": [
      {
        "action": "VxRail Composite Bundle upgrade completed successfully.",
        "message": "VxRail Composite Bundle upgrade completed successfully."
      },
      {
        "action": "Upgrading the Distributed Virtual Switch.",
        "message": "Distributed Virtual Switch is already up-to-date."
      },
      .. <Text Removed> ..
    ]
  }
}

```



```

        "action": "Unpacking composite bundle",
        "message": "Unzipped the entry bundles/VXRAIL_Manager-4.7.200.00000-13531218-updaterepo.zip from the composite bundle package. "
    }
],
"errors": [],
"components": [
    {
        "component_name": "VXRAIL_Manager",
        "status": "COMPLETED"
    },
    .. <Text Removed> ..
    {
        "component_name": "ESXi_VIB",
        "status": "COMPLETED"
    }
],
"current_version": "4.7.111-13048812",
"target_version": "4.7.200-13531219"
}
}

```

2.1 Troubleshooting

If for any reason the upgrade fails, the Request by ID call returns a state of “Failed” along with an error message specifying the cause. Following are two examples of responses after a failed upgrade:

```

{
  "id": "aa499749-022c-459c-b20c-5f3b7a37fff0",
  "owner": "LCM",
  "state": "FAILED",
  "error": "Failure occurred while running an upgrade for bundle:
VXRAIL_COMPOSITE-4.7.200-13531219_for_4.7.x.zip.",
  "progress": 20,
  "start_time": 1557497829735,
  "end_time": 1557502611875,
  "step": "Upgrading",
  "detail": "Failure occurred while running an upgrade for bundle:
VXRAIL_COMPOSITE-4.7.200-13531219_for_4.7.x.zip. The error message: General
unexpected error occurs during scheduling firmware upgrade process..",
  "extension": {
    "details": [
      {
        "action": "Firmware staging is in progress on ESXi host: vxr04-
esxi01.vlab.local.",
        "message": "Firmware staging is in progress on ESXi host: vxr04-
esxi01.vlab.local."
      },
    ]
  }
}

```

```

        "action": "M.2 for 14G and C6420 component upgrade skipped for target:
vxr04-esxi01.vlab.local",
        "message": "M.2 for 14G and C6420 component upgrade skipped for target:
vxr04-esxi01.vlab.local"
    },
    .. <Text Removed> ..
    {
        "action": "Unpacking composite bundle",
        "message": "Unzipped the entry bundles/VXRAIL_Manager-4.7.200.00000-
13531218-updaterepo.zip from the composite bundle package. "
    }
],
"errors": [
    {
        "action": "Failure occurred while running an upgrade for bundle:
VXRAIL_COMPOSITE-4.7.200-13531219_for_4.7.x.zip.",
        "message": "Failure occurred while running an upgrade for bundle:
VXRAIL_COMPOSITE-4.7.200-13531219_for_4.7.x.zip. The error message: General
unexpected error occurs during scheduling firmware upgrade process.."
    }
],
"components": [
    {
        "component_name": "VXRAIL_Manager",
        "status": "COMPLETED"
    },
    .. <Text Removed> ..
    {
        "component_name": "ESXi_VIB",
        "status": "NOT_STARTED"
    }
],
"current_version": "4.7.111-13048812",
"target_version": "4.7.200-13531219"
}
}

```

```

{
    "id": "13eeb9ae-0787-423a-bc77-9644274666fd",
    "owner": "LCM",
    "state": "FAILED",
    "error": "Failure occurred while running an upgrade for bundle:
VXRAIL_COMPOSITE-4.7.200-13531219_for_4.7.x.zip.",
    "progress": 52,
    "start_time": 1557525511006,
    "end_time": -1,
    "step": "Upgrading",

```

```

"detail": "Failure occurred while running an upgrade for bundle:
VXRAIL_COMPOSITE-4.7.200-13531219_for_4.7.x.zip. The error message: Failed to
enter maintenance mode in 3,600 seconds. Please check your environment. For
example, make sure all the guest VMs unmount the ISO image before upgrade..",
"extension": {
  "details": [
    {
      "action": "Entering maintenance mode before upgrade starts.",
      "message": "Putting the ESXi host vxr04-esxi03.vlab.local into
maintenance mode."
    },
    {
      "action": "Firmware staging is in progress on ESXi host: vxr04-
esxi03.vlab.local.",
      "message": "Firmware staging is in progress on ESXi host: vxr04-
esxi03.vlab.local."
    },
    .. <Text Removed> ..
    {
      "action": "Unpacking composite bundle",
      "message": "Unzipped the entry bundles/VXRAIL_Manager-4.7.200.00000-
13531218-updaterepo.zip from the composite bundle package. "
    }
  ],
  "errors": [
    {
      "action": "Failure occurred while running an upgrade for bundle:
VXRAIL_COMPOSITE-4.7.200-13531219_for_4.7.x.zip.",
      "message": "Failure occurred while running an upgrade for bundle:
VXRAIL_COMPOSITE-4.7.200-13531219_for_4.7.x.zip. The error message: Failed to
enter maintenance mode in 3,600 seconds. Please check your environment. For
example, make sure all the guest VMs unmount the ISO image before upgrade.."
    }
  ],
  "components": [
    {
      "component_name": "VXRAIL_Manager",
      "status": "COMPLETED"
    },
    .. <Text Removed> ..
    {
      "component_name": "ESXi_VIB",
      "status": "NOT_STARTED"
    }
  ],
  "current_version": "4.7.111-13048812",
  "target_version": "4.7.200-13531219"
}
}

```

If you need further information to diagnose the issue, see the [Collect Support Logs](#) section where a log bundle can be downloaded using the support logs API call.

Log files related to LCM include:

- `/var/log/mystic/web.log`
- `/var/log/mystic/lcm.log`
- `/var/log/mystic/vxrail-clm-cli.log`
- `/var/log/mystic/lcm_cli_console`

Attach these log files when opening an SR with support.

2.1.1 LCM upgrade failure due to insufficient disk capacity

When using VxRail REST API “POST `/v1/lcm/upgrade`”, the parameter `bundle_file_locator` in the JSON input indicates the path to the upgrade composite bundle file on VxRail Manager VM. If the disk partition specified in `bundle_file_locator` is not sufficient for extracting the composite bundle file, LCM upgrade fails.

When using “GET `/v1/requests/{request ID}`” to track the upgrade progress, the upgrade fails at 5%, reporting that the `VxRail_Manager` component FAILED. A sample response from of the API is in [Appendix B](#). Note that component “ESXi” is also in FAILED status, which is a known issue in the current version of API.

Following are possible reasons for the failure:

- Disk partition `/data/store2` on VxRail Manager is the recommended disk partition for LCM upgrade bundle file. If a different partition is used, the capacity might not be enough. Use `/data/store2` on VxRail Manager instead.
- If `/data/store2` contains files of an earlier upgrade, the available space might not be enough. Remove the old composite bundle files and try the LCM upgrade again.
- The upgrade from 4.5.x or 4.7.x release to 7.0.000 composite bundle file is large, and extra disk space is required. For VxRail Manager running 4.5.401 or later, or 4.7.301 or later, the disk expansion for `/data/store2` partition is done automatically. For versions earlier than 4.5.401 and 4.7.301, follow KB article [539899](#) to manually expand the `/data/store2` partition and retry the upgrade.

3 Day 1

3.1 Configure IP of VxRail Manager API

Description: Configure the management IP of the VxRail Manager to enable remote access. This API can only be used before Day 1 bring up. Therefore, the only available IP address is the default static IP (192.168.10.200).

REST endpoint: POST <https://192.168.10.200/rest/vxm/v1/network/vxrail-manager>

Supported Versions: 7.0.010 or later

Step 1: Configure the VxRail Manager IP address so that VxRail Manager can be accessed remotely.

Curl command (Windows):

```
curl -k --request POST "https://192.168.10.200/rest/vxm/v1/network/vxrail-
manager" --header "Content-Type: application/json" --data "{\"ip\":
\<NEW_VXRAIL_IP_ADDRESS>\", \"gateway\": \<NEW_VXRAIL_GATEWAY>\", \"netmask\":
\<NEW_VXRAIL_NETMASK>\", \"vlan_id\": \<NEW_VXRAIL_VLAN_ID>\"}"
```

Curl command (VxRail Manager):

```
curl -k --request POST "https://192.168.10.200/rest/vxm/v1/network/vxrail-
manager" --header "Content-Type: application/json" --data '{"ip":
"<NEW_VXRAIL_IP_ADDRESS>", "gateway": "<NEW_VXRAIL_GATEWAY>", "netmask":
"<NEW_VXRAIL_NETMASK>", "vlan_id": "<NEW_VXRAIL_VLAN_ID>"}'
```

PowerShell module command:

```
Set-VxmNetworkConfiguration -Server 192.168.10.200 -IP <NEW_VXRAIL_IP_ADDRESS> -
Gateway <NEW_VXRAIL_GATEWAY> -Netmask <NEW_VXRAIL_NETMASK> -VlanID
<NEW_VXRAIL_VLAN_ID>
```

Ansible playbook:

```
---
-
  hosts: localhost
  name: "Set VxRail Manager static IP"
  tasks:
  - name: "Set VxRail Manager static IP"
    uri:
      url: https://192.168.10.200/rest/vxm/v1/network/vxrail-manager
      method: POST
      validate_certs: false
```

```

status_code: 200
body_format: json
body:
  ip: '<NEW_VXRAIL_IP_ADDRESS>'
  gateway: '<GATEWAY>'
  netmask: '<NETMASK>'
  vlan_id: '<VLAN_ID>'
register: data
- name: Print returned json dictionary
debug:
  var: data.json

```

Response example:

```

{
  "state": "PENDING",
  "message": "The API is a RESTful API to change VxRail Manager IP address
,which is asynchronous with HTTP Status 200 returned indicates request has been
accepted for processing but the processing has not been completed."
}

```

3.2 Dry-run API

Description: Run the Day 1 bring up validation steps.

REST endpoint: POST /rest/vxm/v1/system/initialize?dryrun=true

Supported Versions: 7.0.010 or later

Step 2: Perform a dry run to validate the json configuration data provided. This will perform the first run validation steps and report any warnings or errors.

See Appendix A for a full list of the fields available for the JSON input of the Day 1 bring up.

Curl command (Windows):

```

curl -k --request POST
"https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/system/initialize?dryrun=true" --header
"Content-Type: application/json" --data
{"\"version\": \"7.0.010\", \"global\": {\"ntp_servers\": [\"<NTP_IP_1>\", \"<NTP_IP_2>\"], \"is_internal_dns\": false, \"dns_servers\": [\"<DNS_IP>\"], \"syslog_servers\": [\"<SYSLOG_IP>\"], \"top_level_domain\": \"test.local\", \"cluster_management_netmask\": \"255.255.255.0\", \"cluster_management_gateway\": \"<GATEWAY_IP>\", \"cluster_vsan_netmask\": \"255.255.255.0\", \"cluster_vmotion_netmask\": \"255.255.255.0\", \"cluster_witness_netmask\": \"\", \"cluster_witness_gateway\": \"\", \"robo_cluster\": false, \"cluster_type\": \"STANDARD\"}, \"hosts\": [{\"host_serial_number\": \"<HOST1_SERIAL_NO>\", \"hostname\": \"<HOST1_NAME>\", \"accounts\": {\"root\": {\"username\": \"root\", \"password\": \"<PASSWORD>\"}, \"management\": {\"username\": \"admin

```

```

istrator\", \"password\": \"<PASSWORD>\", \"network\": [{\"type\": \"MANAGEMENT\", \"ip\": \"<MANAGEMENT1_IP>\"}, {\"type\": \"VSAN\", \"ip\": \"<VSAN1_IP>\"}, {\"type\": \"VMOTION\", \"ip\": \"<VMOTION1_IP>\"}], \"geo_location\": {\"rack_name\": \"<RACK_NAME>\", \"position\": 1}}, {\"host_serial_number\": \"<HOST2_SERIAL_NO>\", \"hostname\": \"<HOST2_NAME>\", \"accounts\": {\"root\": {\"username\": \"root\", \"password\": \"<PASSWORD>\"}, \"management\": {\"username\": \"administrator\", \"password\": \"<PASSWORD>\"}}, \"geo_location\": {\"rack_name\": \"<RACK_NAME>\", \"position\": 2}, \"network\": [{\"type\": \"MANAGEMENT\", \"ip\": \"<MANAGEMENT2_IP>\"}, {\"type\": \"VSAN\", \"ip\": \"<VSAN2_IP>\"}, {\"type\": \"VMOTION\", \"ip\": \"<VMOTION2_IP>\"}], {\"host_serial_number\": \"<HOST3_SERIAL_NO>\", \"hostname\": \"<HOST3_NAME>\", \"accounts\": {\"root\": {\"username\": \"root\", \"password\": \"<PASSWORD>\"}, \"management\": {\"username\": \"administrator\", \"password\": \"<PASSWORD>\"}}, \"network\": [{\"type\": \"MANAGEMENT\", \"ip\": \"<MANAGEMENT3_IP>\"}, {\"type\": \"VSAN\", \"ip\": \"<VSAN3_IP>\"}, {\"type\": \"VMOTION\", \"ip\": \"<VMOTION3_IP>\"}], \"geo_location\": {\"rack_name\": \"<RACK_NAME>\", \"position\": 3}}, {\"host_serial_number\": \"<HOST4_SERIAL_NO>\", \"hostname\": \"<HOST4_NAME>\", \"accounts\": {\"root\": {\"username\": \"root\", \"password\": \"<PASSWORD>\"}, \"management\": {\"username\": \"administrator\", \"password\": \"<PASSWORD>\"}}, \"network\": [{\"type\": \"MANAGEMENT\", \"ip\": \"<MANAGEMENT4_IP>\"}, {\"type\": \"VSAN\", \"ip\": \"<VSAN4_IP>\"}, {\"type\": \"VMOTION\", \"ip\": \"<VMOTION4_IP>\"}], \"geo_location\": {\"rack_name\": \"<RACK_NAME>\", \"position\": 4}}, \"vcenter\": {\"customer_supplied\": false, \"accounts\": {\"root\": {\"username\": \"root\", \"password\": \"<PASSWORD>\"}, \"administrator\": {\"username\": \"administrator@vsphere.local\", \"password\": \"<PASSWORD>\"}, \"management\": {\"username\": \"management\", \"password\": \"<PASSWORD>\"}}, \"vxrail_supplied_vc_ip\": \"<VCENTER_IP>\", \"vxrail_supplied_vc_name\": \"<VCENTER_NAME>\", \"vxrail_manager\": {\"name\": \"<VXRAIL_NAME>\", \"ip\": \"<VXRAIL_IP>\", \"accounts\": {\"root\": {\"username\": \"root\", \"password\": \"<PASSWORD>\"}, \"service\": {\"username\": \"mystic\", \"password\": \"<PASSWORD>\"}}}, \"network\": {\"vds\": {\"nic_profile\": \"TWO_HIGH_SPEED\", \"systemvm_portgroup_binding_type\": \"EARLY_BINDING\", \"portgroups\": [{\"type\": \"VSAN\", \"vlan_id\": 0}, {\"type\": \"VMOTION\", \"vlan_id\": 0}, {\"type\": \"MANAGEMENT\", \"vlan_id\": 0}, {\"type\": \"CUSTOMERVM\", \"name\": \"Vmnet1-101\", \"vlan_id\": 0}]}}}\"

```

Curl command (VxRail Manager):

```

curl -k --request POST
"https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/system/initialize?dryrun=true" --header
"Content-Type: application/json" --data
'{"version": "7.0.010", "global": {"ntp_servers": ["<NTP_IP_1>", "<NTP_IP_2>"], "is_internal_dns": false, "dns_servers": ["<DNS_IP>"], "syslog_servers": ["<SYSLOG_IP>"], "top_level_domain": "test.local", "cluster_management_netmask": "255.255.255.0", "cluster_management_gateway": "<GATEWAY_IP>", "cluster_vsan_netmask": "255.255.255.0", "cluster_vmotion_netmask": "255.255.255.0", "cluster_witness_netmask": "", "cluster_witness_gateway": "", "robo_cluster": false, "cluster_type": "STANDARD"}, "hosts": [{"host_serial_number": "<HOST1_SERIAL_NO>", "hostname": "<HOST1_NAME>", "accounts": {"root": {"username": "root", "password": "<PASSWORD>"}, "management": {"username": "administrator", "password": "<PASSWORD>"}}, "network": [{"type": "MANAGEMENT", "ip": "<MANAGEMENT1_IP>"}, {"type": "VSAN", "ip": "<VSAN1_IP>"}, {"type": "VMOTION", "ip": "<VMOTION1_IP>"}], "geo_location": {"rack_name": "<RACK_NAME>", "position": 1}}, {"host_serial_number": "<HOST2_SERIAL_NO>", "hostname": "<HOST2_NAME>", "accounts": {"root": {"username": "root", "password": "<PASSWORD>"}, "management": {"username": "administrator", "password": "<PASSWORD>"}}, "geo_location": {"rack_name": "<RACK_NAME>", "position": 2}, "network": [{"type": "MANAGEMENT", "ip": "<MANAGEMENT2_IP>"}, {"type": "VSAN", "ip": "<VSAN2_IP>"}, {"type": "VMOTION", "ip": "<VMOTION2_IP>"}], "geo_location": {"rack_name": "<RACK_NAME>", "position": 3}}, {"host_serial_number": "<HOST3_SERIAL_NO>", "hostname": "<HOST3_NAME>", "accounts": {"root": {"username": "root", "password": "<PASSWORD>"}, "management": {"username": "administrator", "password": "<PASSWORD>"}}, "network": [{"type": "MANAGEMENT", "ip": "<MANAGEMENT3_IP>"}, {"type": "VSAN", "ip": "<VSAN3_IP>"}, {"type": "VMOTION", "ip": "<VMOTION3_IP>"}], "geo_location": {"rack_name": "<RACK_NAME>", "position": 4}}, {"host_serial_number": "<HOST4_SERIAL_NO>", "hostname": "<HOST4_NAME>", "accounts": {"root": {"username": "root", "password": "<PASSWORD>"}, "management": {"username": "administrator", "password": "<PASSWORD>"}}, "network": [{"type": "MANAGEMENT", "ip": "<MANAGEMENT4_IP>"}, {"type": "VSAN", "ip": "<VSAN4_IP>"}, {"type": "VMOTION", "ip": "<VMOTION4_IP>"}], "geo_location": {"rack_name": "<RACK_NAME>", "position": 4}}, "vcenter": {"customer_supplied": false, "accounts": {"root": {"username": "root", "password": "<PASSWORD>"}, "administrator": {"username": "administrator@vsphere.local", "password": "<PASSWORD>"}, "management": {"username": "management", "password": "<PASSWORD>"}}, "vxrail_supplied_vc_ip": "<VCENTER_IP>", "vxrail_supplied_vc_name": "<VCENTER_NAME>", "vxrail_manager": {"name": "<VXRAIL_NAME>", "ip": "<VXRAIL_IP>", "accounts": {"root": {"username": "root", "password": "<PASSWORD>"}, "service": {"username": "mystic", "password": "<PASSWORD>"}}, "network": {"vds": {"nic_profile": "TWO_HIGH_SPEED", "systemvm_portgroup_binding_type": "EARLY_BINDING", "portgroups": [{"type": "VSAN", "vlan_id": 0}, {"type": "VMOTION", "vlan_id": 0}, {"type": "MANAGEMENT", "vlan_id": 0}, {"type": "CUSTOMERVM", "name": "Vmnet1-101", "vlan_id": 0}]}}}'

```

```
er": "<HOST2_SERIAL_NO>", "hostname": "<HOST2_NAME>", "accounts": {"root": {"username": "root", "password": "<PASSWORD>"}, "management": {"username": "administrator", "password": "<PASSWORD>"}}, "geo_location": {"rack_name": "<RACK_NAME>", "position": 2}, "network": [{"type": "MANAGEMENT", "ip": "<MANAGEMENT2_IP>"}, {"type": "VSAN", "ip": "<VSAN2_IP>"}, {"type": "VMOTION", "ip": "<VMOTION2_IP>"}]}, {"host_serial_number": "<HOST3_SERIAL_NO>", "hostname": "<HOST3_NAME>", "accounts": {"root": {"username": "root", "password": "<PASSWORD>"}, "management": {"username": "administrator", "password": "<PASSWORD>"}}, "network": [{"type": "MANAGEMENT", "ip": "<MANAGEMENT3_IP>"}, {"type": "VSAN", "ip": "<VSAN3_IP>"}, {"type": "VMOTION", "ip": "<VMOTION3_IP>"}]}, {"geo_location": {"rack_name": "<RACK_NAME>", "position": 3}}, {"host_serial_number": "<HOST4_SERIAL_NO>", "hostname": "<HOST4_NAME>", "accounts": {"root": {"username": "root", "password": "<PASSWORD>"}, "management": {"username": "administrator", "password": "<PASSWORD>"}}, "network": [{"type": "MANAGEMENT", "ip": "<MANAGEMENT4_IP>"}, {"type": "VSAN", "ip": "<VSAN4_IP>"}, {"type": "VMOTION", "ip": "<VMOTION4_IP>"}]}, {"geo_location": {"rack_name": "<RACK_NAME>", "position": 4}}], "vcenter": {"customer_supplied": false, "accounts": {"root": {"username": "root", "password": "<PASSWORD>"}, "administrator": {"username": "administrator@vsphere.local", "password": "<PASSWORD>"}, "management": {"username": "management", "password": "<PASSWORD>"}}, "vxrail_supplied_vc_ip": "<VCENTER_IP>", "vxrail_supplied_vc_name": "<VCENTER_NAME>", "vxrail_manager": {"name": "<VXRAIL_NAME>", "ip": "<VXRAIL_IP>"}, "accounts": {"root": {"username": "root", "password": "<PASSWORD>"}, "service": {"username": "mystic", "password": "<PASSWORD>"}}, "network": {"vds": {"nic_profile": "TWO_HIGH_SPEED", "systemvm_portgroup_binding_type": "EARLY_BINDING", "portgroups": [{"type": "VSAN", "vlan_id": 0}, {"type": "VMOTION", "vlan_id": 0}, {"type": "MANAGEMENT", "vlan_id": 0}, {"type": "CUSTOMERVM", "name": "VMnet1-101", "vlan_id": 0}]}}}'
```

PowerShell module command:

```
Start-SystemBringup -Server <VXRAIL_IP> -Conf <PATH_TO_JsonFile> -Dryrun
```

Ansible playbook:

```
---
-
  hosts: localhost
  name: "Build a VxRail Cluster Dryrun"
  tasks:
  - name: "Build VxRail Cluster Dryrun"
    uri:
      url: https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/system/initialize?dryrun=true
      method: POST
      validate_certs: false
      status_code: 202
      body_format: json
      body:
        version: 7.0.010
        global:
          ntp_servers:
          - <NTP_IP_1>
          - <NTP_IP_2>
          is_internal_dns: false
```



```

dns_servers:
- <DNS_IP>
syslog_servers:
- <SYSLOG_IP>
top_level_domain: <DOMAIN>
cluster_management_netmask: <MANAGEMENT_NETMASK>
cluster_management_gateway: <MANAGEMENT_GATEWAY>
cluster_vsan_netmask: <VSAN_NETMASK>
cluster_vmotion_netmask: <VMOTION_NETMASK>
cluster_witness_netmask: ''
cluster_witness_gateway: ''
robo_cluster: false
cluster_type: STANDARD
hosts:
- host_serial_number: <HOST1_SERIAL_NO>
  hostname: <HOST1_NAME>
  accounts:
    root:
      username: root
      password: <PASSWORD>
    management:
      username: administrator
      password: <PASSWORD>
  network:
    - type: MANAGEMENT
      ip: <MANAGEMENT1_IP>
    - type: VSAN
      ip: <VSAN1_IP>
    - type: VMOTION
      ip: <VMOTION1_IP>
  geo_location:
    rack_name: <RACK_NAME>
    position: 1
- host_serial_number: <HOST2_SERIAL_NO>
  hostname: <HOST2_NAME>
  accounts:
    root:
      username: root
      password: <PASSWORD>
    management:
      username: administrator
      password: <PASSWORD>
  geo_location:
    rack_name: <RACK_NAME>
    position: 2
  network:
    - type: MANAGEMENT
      ip: <MANAGEMENT2_IP>
    - type: VSAN

```

```

    ip: <VSAN2_IP>
  - type: VMOTION
    ip: <VMOTION2_IP>
- host_serial_number: <HOST3_SERIAL_NO>
  hostname: <HOST3_NAME>
  accounts:
    root:
      username: root
      password: <PASSWORD>
    management:
      username: administrator
      password: <PASSWORD>
  network:
  - type: MANAGEMENT
    ip: <MANAGEMENT3_IP>
  - type: VSAN
    ip: <VSAN3_IP>
  - type: VMOTION
    ip: <VMOTION3_IP>
  geo_location:
    rack_name: <RACK_NAME>
    position: 3
- host_serial_number: <HOST4_SERIAL_NO>
  hostname: <HOST4_NAME>
  accounts:
    root:
      username: root
      password: <PASSWORD>
    management:
      username: administrator
      password: <PASSWORD>
  network:
  - type: MANAGEMENT
    ip: <MANAGEMENT4_IP>
  - type: VSAN
    ip: <VSAN4_IP>
  - type: VMOTION
    ip: <VMOTION4_IP>
  geo_location:
    rack_name: <RACK_NAME>
    position: 4
vcenter:
  customer_supplied: false
  accounts:
    root:
      username: root
      password: <PASSWORD>
    administrator:
      username: administrator@vsphere.local

```

```

    password: <PASSWORD>
    management:
      username: management
      password: <PASSWORD>
    vxrail_supplied_vc_ip: <VCENTER_IP>
    vxrail_supplied_vc_name: <VCENTER_NAME>
  vxrail_manager:
    name: <VXRAIL_MANAGER_NAME>
    ip: <VXRAIL_MANAGER_IP>
  accounts:
    root:
      username: root
      password: <PASSWORD>
    service:
      username: mystic
      password: <PASSWORD>
  network:
    vds:
      nic_profile: TWO_HIGH_SPEED
      systemvm_portgroup_binding_type: EARLY_BINDING
      portgroups:
        - type: VSAN
          vlan_id: <VSAN_VLAN_ID>
        - type: VMOTION
          vlan_id: <VMOTION_VLAN_ID>
        - type: MANAGEMENT
          vlan_id: <MANAGEMENT_VLAN_ID>
  register: data
- name: Print returned json dictionary
  debug:
    var: data.json

```

Response example:

```

{
  "request_id": "06330008-3582-48a8-adc8-73d6d286dee9"
}

```

3.3 Dry-run status API

Description: Get latest Day 1 bring-up workflow status.

REST endpoint: POST /rest/vxm/v1/system/initialize/status

Supported Versions: 7.0.010 or later

Step 3: When the dry run is in progress, check the status using the status API.

Curl command:

```
curl -k --request GET
"https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/system/initialize/status"
```

PowerShell module command:

```
Get-BringupProgressStatus -Server <VXRAIL_IP>
```

Ansible playbook:

```
---
- name: Ansible Playbook
  hosts: localhost
  tasks:
  - name: Get VxRail Day1 bring-up status
    uri:
      url: https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/system/initialize/status
      method: GET
      status_code: 200
      validate_certs: false
    register: data
  - name: Print returned json dictionary
    debug:
      var: data.json
```

Response example:

```
{
  "id": "06330008-3582-48a8-adc8-73d6d286dee9",
  "state": "FAILED",
  "owner": "Day1BringUp",
  "extension": {
    "stage": "INFRA_HARDWARE_DISCOVERING",
    "guidelines": [],
    "validation": {
      "cursory": {
        "errors": {
          "fields": [],
          "generals": []
        },
        "warnings": {
          "fields": [],
          "generals": []
        }
      }
    }
  },
}
```

```

        "thorough": {
            "errors": {
                "fields": [],
                "generals": []
            },
            "warnings": {
                "fields": [],
                "generals": []
            }
        },
        "steps": [
            {
                "id": "infra_hardware_discovering",
                "name": "Hardware Discovering",
                "path": "infra_hardware_discovering",
                "state": "STARTED",
                "error": {
                    "message": "Create workflow error:
wfengine.exception.WFException: ('res return error, need 200', 500, b'{}\\n
\\\"message\\\": \\\"Failed to prepare resource: \\\"NoneType\\\" object is not
subscriptable)\",
                    "code": ""
                }
            }
        ],
        "step": "Hardware discovering",
        "progress": 0,
        "detail": "",
        "error": "",
        "start_time": 1595344576000
    }
}

```

3.4 Day 1 bring up API

Description: Build VxRail cluster from scratch.

REST endpoint: POST /rest/vxm/v1/system/initialize

Supported Versions: 7.0.010 or later

Step 4: When the dry run reports no warnings or errors, the Day 1 bring up API can be performed.

Curl command (Windows):

```
curl -k --request POST
"https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/system/initialize" --header "Content-
Type: application/json" --data
{"version": "7.0.010", "global": {"ntp_servers": [{"<NTP_IP_1>"}, {"<NTP_IP_
2>"}], "is_internal_dns": false, "dns_servers": [{"<DNS_IP>"}], "syslog_servers\
": [{"<SYSLOG_IP>"}], "top_level_domain": "test.local", "cluster_management_net
mask": "255.255.255.0", "cluster_management_gateway": {"<GATEWAY_IP>"}, "clust
er_vsan_netmask": "255.255.255.0", "cluster_vmotion_netmask": "255.255.255.0\
", "cluster_witness_netmask": "", "cluster_witness_gateway": "", "robo_clust
er": false, "cluster_type": "STANDARD"}, "hosts": [{"host_serial_number": {"<
HOST1_SERIAL_NO>"}, "hostname": {"<HOST1_NAME>"}, "accounts": {"root": {"usern
ame": "root", "password": {"<PASSWORD>"}}, "management": {"username": "admin
istrator", "password": {"<PASSWORD>"}}, "network": [{"type": "MANAGEMENT", \
"ip": {"<MANAGEMENT1_IP>"}}, {"type": "VSAN", "ip": {"<VSAN1_IP>"}}, {"type": \
"VMOTION", "ip": {"<VMOTION1_IP>"}}, {"geo_location": {"rack_name": {"<RACK_N
AME>"}, "position": 1}}, {"host_serial_number": {"<HOST2_SERIAL_NO>"}, "hostname
": {"<HOST2_NAME>"}, "accounts": {"root": {"username": "root", "password": \
"<PASSWORD>"}}, "management": {"username": "administrator", "password": {"<PA
SSWORD>"}}, "geo_location": {"rack_name": {"<RACK_NAME>"}, "position": 2}, {"ne
twork": [{"type": "MANAGEMENT", "ip": {"<MANAGEMENT2_IP>"}}, {"type": "VSAN\
", "ip": {"<VSAN2_IP>"}}, {"type": "VMOTION", "ip": {"<VMOTION2_IP>"}}, {"ho
st_serial_number": {"<HOST3_SERIAL_NO>"}, "hostname": {"<HOST3_NAME>"}, "account
s": {"root": {"username": "root", "password": {"<PASSWORD>"}}, "management\
": {"username": "administrator", "password": {"<PASSWORD>"}}, "network": [{"t
ype": "MANAGEMENT", "ip": {"<MANAGEMENT3_IP>"}}, {"type": "VSAN", "ip": {"<V
SAN3_IP>"}}, {"type": "VMOTION", "ip": {"<VMOTION3_IP>"}}, {"geo_location": {"\
"rack_name": {"<RACK_NAME>"}, "position": 3}}, {"host_serial_number": {"<HOST4_S
ERIAL_NO>"}, "hostname": {"<HOST4_NAME>"}, "accounts": {"root": {"username": \
"root", "password": {"<PASSWORD>"}}, "management": {"username": "administrato
r", "password": {"<PASSWORD>"}}, "network": [{"type": "MANAGEMENT", "ip": \
"<MANAGEMENT4_IP>"}}, {"type": "VSAN", "ip": {"<VSAN4_IP>"}}, {"type": "VMOTI
ON", "ip": {"<VMOTION4_IP>"}}, {"geo_location": {"rack_name": {"<RACK_NAME>"}, \
"position": 4}}], "vcenter": {"customer_supplied": false, "accounts": {"root\
": {"username": "root", "password": {"<PASSWORD>"}}, "administrator": {"usern
ame": "administrator@vsphere.local", "password": {"<PASSWORD>"}}, "management\
": {"username": "management", "password": {"<PASSWORD>"}}, "vxrail_supplied_v
c_ip": {"<VCENTER_IP>"}, "vxrail_supplied_vc_name": {"<VCENTER_NAME>"}, "vxrail
_manager": {"name": {"<VXRAIL_NAME>"}, "ip": {"<VXRAIL_IP>"}, "accounts": {"ro
ot": {"username": "root", "password": {"<PASSWORD>"}}, "service": {"username
": "mystic", "password": {"<PASSWORD>"}}, "network": {"vds": {"nic_profile
": "TWO_HIGH_SPEED", "systemvm_portgroup_binding_type": "EARLY_BINDING", "po
rtgroups": [{"type": "VSAN", "vlan_id": 0}, {"type": "VMOTION", "vlan_id": \
0}, {"type": "MANAGEMENT", "vlan_id": 0}, {"type": "CUSTOMERVM", "name": "V
Mnet1-101", "vlan_id": 0}]}}}
```

Curl command (VxRail Manager):

```

curl -k --request POST
"https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/system/initialize" --header "Content-
Type: application/json" --data
'{"version":"7.0.010","global":{"ntp_servers":["<NTP_IP_1>","<NTP_IP_2>"],"is_in
ternal_dns":false,"dns_servers":["<DNS_IP>"],"syslog_servers":["<SYSLOG_IP>"],"t
op_level_domain":"test.local","cluster_management_netmask":"255.255.255.0","clus
ter_management_gateway":"<GATEWAY_IP>","cluster_vsan_netmask":"255.255.255.0","c
luster_vmotion_netmask":"255.255.255.0","cluster_witness_netmask":"","cluster_wi
tness_gateway":"","robo_cluster":false,"cluster_type":"STANDARD"},"hosts":[{"hos
t_serial_number":"<HOST1_SERIAL_NO>","hostname":"<HOST1_NAME>","accounts":{"root
":{"username":"root","password":"<PASSWORD>"},"management":{"username":"administ
rator","password":"<PASSWORD>"},"network":[{"type":"MANAGEMENT","ip":"<MANAGEME
NT1_IP>"}, {"type":"VSAN","ip":"<VSAN1_IP>"}, {"type":"VMOTION","ip":"<VMOTION1_IP
>"}],"geo_location":{"rack_name":"<RACK_NAME>","position":1}}, {"host_serial_numb
er":"<HOST2_SERIAL_NO>","hostname":"<HOST2_NAME>","accounts":{"root":{"username
":"root","password":"<PASSWORD>"},"management":{"username":"administrator","passw
ord":"<PASSWORD>"},"geo_location":{"rack_name":"<RACK_NAME>","position":2},"net
work":[{"type":"MANAGEMENT","ip":"<MANAGEMENT2_IP>"}, {"type":"VSAN","ip":"<VSAN2
_IP>"}, {"type":"VMOTION","ip":"<VMOTION2_IP>"}]}}, {"host_serial_number":"<HOST3_S
ERIAL_NO>","hostname":"<HOST3_NAME>","accounts":{"root":{"username":"root","pass
word":"<PASSWORD>"},"management":{"username":"administrator","password":"<PASSWO
RD>"},"network":[{"type":"MANAGEMENT","ip":"<MANAGEMENT3_IP>"}, {"type":"VSAN","
ip":"<VSAN3_IP>"}, {"type":"VMOTION","ip":"<VMOTION3_IP>"}],"geo_location":{"rack
_name":"<RACK_NAME>","position":3}}, {"host_serial_number":"<HOST4_SERIAL_NO>","h
ostname":"<HOST4_NAME>","accounts":{"root":{"username":"root","password":"<PASSW
ORD>"},"management":{"username":"administrator","password":"<PASSWORD>"},"netwo
rk":[{"type":"MANAGEMENT","ip":"<MANAGEMENT4_IP>"}, {"type":"VSAN","ip":"<VSAN4_I
P>"}, {"type":"VMOTION","ip":"<VMOTION4_IP>"}],"geo_location":{"rack_name":"<RACK
_NAME>","position":4}}},"vcenter":{"customer_supplied":false,"accounts":{"root":
{"username":"root","password":"<PASSWORD>"},"administrator":{"username":"adminis
trator@vsphere.local","password":"<PASSWORD>"},"management":{"username":"managem
ent","password":"<PASSWORD>"},"vxrail_supplied_vc_ip":"<VCENTER_IP>","vxrail_su
pplied_vc_name":"<VCENTER_NAME>"},"vxrail_manager":{"name":"<VXRAIL_NAME>","ip":
"<VXRAIL_IP>","accounts":{"root":{"username":"root","password":"<PASSWORD>"},"se
rvice":{"username":"mystic","password":"<PASSWORD>"},"network":{"vds":{"nic_pr
ofile":"TWO_HIGH_SPEED","systemvm_portgroup_binding_type":"EARLY_BINDING","portg
roups":[{"type":"VSAN","vlan_id":0}, {"type":"VMOTION","vlan_id":0}, {"type":"MANA
GEMENT","vlan_id":0}, {"type":"CUSTOMERVM","name":"VMnet1-101","vlan_id":0}}}}}'

```

PowerShell module command:

```
Start-SystemBringup -Server <VXRAIL_IP> -Conf <PATH_TO_JsonFile>
```

Ansible playbook:

```

---
-
  hosts: localhost
  name: "Build a VxRail Cluster"
  tasks:

```

```

- name: "Build VxRail Cluster"
  uri:
    url: https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/system/initialize
    method: POST
    validate_certs: false
    status_code: 202
    body_format: json
    body:
      version: 7.0.010
      global:
        ntp_servers:
          - <NTP_IP_1>
          - <NTP_IP_2>
        is_internal_dns: false
        dns_servers:
          - <DNS_IP>
        syslog_servers:
          - <SYSLOG_IP>
        top_level_domain: <DOMAIN>
        cluster_management_netmask: <MANAGEMENT_NETMASK>
        cluster_management_gateway: <MANAGEMENT_GATEWAY>
        cluster_vsan_netmask: <VSAN_NETMASK>
        cluster_vmotion_netmask: <VMOTION_NETMASK>
        cluster_witness_netmask: ''
        cluster_witness_gateway: ''
        robo_cluster: false
        cluster_type: STANDARD
      hosts:
        - host_serial_number: <HOST1_SERIAL_NO>
          hostname: <HOST1_NAME>
          accounts:
            root:
              username: root
              password: <PASSWORD>
            management:
              username: administrator
              password: <PASSWORD>
          network:
            - type: MANAGEMENT
              ip: <MANAGEMENT1_IP>
            - type: VSAN
              ip: <VSAN1_IP>
            - type: VMOTION
              ip: <VMOTION1_IP>
          geo_location:
            rack_name: <RACK_NAME>
            position: 1
        - host_serial_number: <HOST2_SERIAL_NO>
          hostname: <HOST2_NAME>

```



```

accounts:
  root:
    username: root
    password: <PASSWORD>
  management:
    username: administrator
    password: <PASSWORD>
geo_location:
  rack_name: <RACK_NAME>
  position: 2
network:
- type: MANAGEMENT
  ip: <MANAGEMENT2_IP>
- type: VSAN
  ip: <VSAN2_IP>
- type: VMOTION
  ip: <VMOTION2_IP>
- host_serial_number: <HOST3_SERIAL_NO>
hostname: <HOST3_NAME>
accounts:
  root:
    username: root
    password: <PASSWORD>
  management:
    username: administrator
    password: <PASSWORD>
network:
- type: MANAGEMENT
  ip: <MANAGEMENT3_IP>
- type: VSAN
  ip: <VSAN3_IP>
- type: VMOTION
  ip: <VMOTION3_IP>
geo_location:
  rack_name: <RACK_NAME>
  position: 3
- host_serial_number: <HOST4_SERIAL_NO>
hostname: <HOST4_NAME>
accounts:
  root:
    username: root
    password: <PASSWORD>
  management:
    username: administrator
    password: <PASSWORD>
network:
- type: MANAGEMENT
  ip: <MANAGEMENT4_IP>
- type: VSAN

```

```

    ip: <VSAN4_IP>
  - type: VMOTION
    ip: <VMOTION4_IP>
  geo_location:
    rack_name: <RACK_NAME>
    position: 4
  vcenter:
    customer_supplied: false
  accounts:
    root:
      username: root
      password: <PASSWORD>
    administrator:
      username: administrator@vsphere.local
      password: <PASSWORD>
    management:
      username: management
      password: <PASSWORD>
  vxrail_supplied_vc_ip: <VCENTER_IP>
  vxrail_supplied_vc_name: <VCENTER_NAME>
  vxrail_manager:
    name: <VXRAIL_MANAGER_NAME>
    ip: <VXRAIL_MANAGER_IP>
  accounts:
    root:
      username: root
      password: <PASSWORD>
    service:
      username: mystic
      password: <PASSWORD>
  network:
    vds:
      nic_profile: TWO_HIGH_SPEED
      systemvm_portgroup_binding_type: EARLY_BINDING
      portgroups:
        - type: VSAN
          vlan_id: <VSAN_VLAN_ID>
        - type: VMOTION
          vlan_id: <VMOTION_VLAN_ID>
        - type: MANAGEMENT
          vlan_id: <MANAGEMENT_VLAN_ID>
  register: data
- name: Print returned json dictionary
  debug:
    var: data.json

```

Response example:

```
{
```

```
"request_id": "06330008-3582-48a8-adc8-73d6d286dee9"
}
```

3.5 Day 1 bring up status API

Description: Get the latest Day 1 bring-up workflow status.

REST endpoint: POST /rest/vxm/v1/system/initialize/status

Supported Versions: 7.0.010 or later

Step 5: When the first run is in progress the status can be checked using the status API.

Curl command:

```
curl -k --request GET
"https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/system/initialize/status"
```

PowerShell module command:

```
Get-BringupProgressStatus -Server <VXRAIL_IP>
```

Ansible playbook:

```
---
- name: Ansible Playbook
  hosts: localhost
  tasks:
  - name: Get VxRail Day1 bring-up status
    uri:
      url: https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/system/initialize/status
      method: GET
      status_code: 200
      validate_certs: false
      register: data
  - name: Print returned json dictionary
    debug:
      var: data.json
```

Response example:

See Appendix C for a successful Day 1 bring up response

4 System status

Description: Retrieve VxRail Manager system information.

REST endpoint: GET /rest/vxm/v1/system

Supported Versions: 4.5.300 or later

4.1 System status API

Curl command:

```
curl -k --user "administrator@vsphere.local:<PASSWORD>" --request GET  
"https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/system"
```

PowerShell module command:

```
Get-SystemInfo -Server <VxRail_IP> -Username <username> -Password <password>
```

Ansible playbook:

```
---  
- name: Ansible Playbook  
  hosts: localhost  
  tasks:  
    - name: Get VxRail System Status  
      uri:  
        url: https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/system  
        user: "administrator@vsphere.local"  
        password: "<PASSWORD>"  
        method: GET  
        force_basic_auth: yes  
        status_code: 200  
        validate_certs: false  
        register: data  
    - name: Print returned json dictionary  
      debug:  
        var: data.json
```

Response example:

```
{  
  "description": "A hyper-converged infrastructure appliance that combines VMware  
compute, networking and storage into one single system for ease of deployment  
and management.",  
  "version": "4.7.410-26153554",  
  "health": "Critical",  
  "installed_time": 1570539900345,  
}
```

```

"network_connected": true,
"vc_connected": true,
"upgrade_status": "LATEST",
"installed_components": [
  {
    "component": "DellPTAgent",
    "name": "Dell PTAgent",
    "description": "Dell PTAgent installed on ESXi",
    "supported": true,
    "baseline": "1.9.2-20",
    "current_version": "1.9.2-20",
    "upgrade_status": "LATEST",
    "baseline_drifted": false,
    "multiple_version": false,
    "installed_time": 1570539800620
  },
  {
    "component": "Esx",
    "name": "VMware ESXi",
    "description": "VMware ESXi is the industry-leading, purpose-built bare-metal hypervisor. ESXi installs directly onto your physical server enabling it to be partitioned into multiple logical servers referred to as virtual machines.",
    "supported": true,
    "baseline": "6.7.0-14320388",
    "current_version": "6.7.0-14320388",
    "upgrade_status": "LATEST",
    "baseline_drifted": false,
    "multiple_version": false,
    "installed_time": 1570539800612
  },
  {
    "component": "MysticManager",
    "name": "VxRail Manager",
    "description": "The management component that orchestrates the deployment and management of VxRail system.",
    "supported": true,
    "baseline": "4.7.410-14705224",
    "current_version": "4.7.410-14705224",
    "upgrade_status": "LATEST",
    "baseline_drifted": false,
    "multiple_version": false,
    "installed_time": 1570539800596
  },
  {
    "component": "Vcenter",
    "name": "VMware vCenter Server Appliance",
    "description": "Centralized visibility, proactive management and extensibility for VMware vSphere from a single console VMware vCenter Server

```

```
provides a centralized platform for managing your VMware vSphere environments,
so you can automate and deliver a virtual infrastructure with confidence.",
  "supported": true,
  "baseline": "6.7.0-14368073",
  "current_version": "6.7.0-14368073",
  "upgrade_status": "LATEST",
  "baseline_drifted": false,
  "multiple_version": false,
  "installed_time": 1570539800607
},
{
  "component": "VxRailVib",
  "name": "VxRail Manager VIB",
  "description": "VxRail Manager agent installed on ESXi.",
  "supported": true,
  "baseline": "4.7.410-14705224",
  "current_version": "4.7.410-14705224",
  "upgrade_status": "LATEST",
  "baseline_drifted": false,
  "multiple_version": false,
  "installed_time": 1570539800631
}
],
"number_of_host": 4,
"cluster_type": "NORMAL",
"is_external_vc": false,
"logical_view_status": false
}
```

5 Cluster information

Description: Retrieve VxRail cluster information.

REST endpoint: GET /rest/vxm/v1/cluster

Supported Versions: 4.7.300 or later

5.1 Cluster API

Curl command:

```
curl -k --user "administrator@vsphere.local:<PASSWORD>" --request GET  
"https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/cluster"
```

PowerShell module command:

```
Get-Hosts -Server '<VXRAIL_IP_ADDRESS>' -Password '<PASSWORD>' -Username  
'administrator@vsphere.local'
```

Ansible playbook:

```
---  
- name: Get VxRail Cluster Information Playbook  
  hosts: localhost  
  tasks:  
    - name: Get VxRail Cluster Information  
      uri:  
        url: https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/cluster  
        user: "administrator@vsphere.local"  
        password: "<PASSWORD>"  
        method: GET  
        force_basic_auth: yes  
        status_code: 200  
        validate_certs: false  
        register: data  
    - name: Print returned json dictionary  
      debug:  
        var: data.json
```

Response example:

```
{  
  "cluster_id": "52b14262-b064-b989-8a7a-893b1824d068",  
  "product_type": "VSPEXPLUS",  
  "device_type": "VSPEXBLUE",  
  "vc_connected": true,  
  "health": "Critical",
```

```
"operational_status": "ok",
"chassis": [
  {
    "id": "7TDCHK20000000",
    "psnt": "7TDCHK20000000",
    "model": "VxRail E560F",
    "render_category": "DELL_R640",
    "generation": 3,
    "health": "Critical",
    "missing": false
  },
  {
    "id": "7TCJHK20000000",
    "psnt": "7TCJHK20000000",
    "model": "VxRail E560F",
    "render_category": "DELL_R640",
    "generation": 3,
    "health": "Healthy",
    "missing": false
  },
  {
    "id": "D4LCHL20000000",
    "psnt": "D4LCHL20000000",
    "model": "VxRail E560F",
    "render_category": "DELL_R640",
    "generation": 3,
    "health": "Error",
    "missing": false
  },
  {
    "id": "D4LRXK20000000",
    "psnt": "D4LRXK20000000",
    "model": "VxRail E560F",
    "render_category": "DELL_R640",
    "generation": 3,
    "health": "Critical",
    "missing": true
  }
],
"suppressed": false,
"last_time": "2020-03-10T15:14:54.000Z"
}
```


6 Hosts Information

Description: Retrieve a list of all VxRail hosts and their associated subcomponent information.

REST endpoint: GET /rest/vxm/v1/hosts

Supported Versions: 4.7.300 or later

6.1.1 Hosts API

Curl command:

```
curl -k --user "administrator@vsphere.local:<PASSWORD>" --request GET
"https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/hosts"
```

PowerShell module command:

```
Get-Hosts -Server '<VXRAIL_IP_ADDRESS>' -Username 'administrator@vsphere.local'
-Password '<PASSWORD>'
```

Ansible playbook:

```
---
- name: Get VxRail Hosts Playbook
  hosts: localhost
  tasks:
    - name: Get VxRail Hosts Information
      uri:
        url: https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/hosts
        user: "administrator@vsphere.local"
        password: "<PASSWORD>"
        method: GET
        force_basic_auth: yes
        status_code: 200
        validate_certs: false
      register: data
    - name: Print returned json dictionary
      debug:
        var: data.json
```

Response example:

```
[
  {
    "id": "D4LRXK2",
    "sn": "D4LRXK2",
    "slot": 1,
    "hostname": "13kk-app03-esx-03.row13.local",
    "name": "13kk-app03-esx-03",
```

```

"manufacturer": ".",
"psnt": "D4LRXK20000000",
"led_status": "",
"health": "Critical",
"missing": true,
"tpm_present": false,
"operational_status": "normal",
"power_status": "on",
"boot_devices": [
  {
    "id": "PHDW7300038V240E",
    "sn": "PHDW7300038V240E",
    "device_model": "SSDSCKJB240G7R",
    "sata_type": "SSD",
    "power_on_hours": 16243,
    "power_cycle_count": 205,
    "slot": 0,
    "capacity": "223.57GB",
    "health": "100%",
    "firmware_version": "N201DL42",
    "bootdevice_type": "BOSS"
  },
  {
    "id": "PHDW7301007B240E",
    "sn": "PHDW7301007B240E",
    "device_model": "SSDSCKJB240G7R",
    "sata_type": "SSD",
    "power_on_hours": 16243,
    "power_cycle_count": 205,
    "slot": 1,
    "capacity": "223.57GB",
    "health": "100%",
    "firmware_version": "N201DL42",
    "bootdevice_type": "BOSS"
  }
],
"nics": [
  {
    "id": "24:6E:96:7A:66:50",
    "mac": "24:6E:96:7A:66:50",
    "link_status": "Up",
    "link_speed": "10 Gbps",
    "slot": 1,
    "firmware_family_version": "19.0.12"
  },
  {
    "id": "24:6E:96:7A:66:52",
    "mac": "24:6E:96:7A:66:52",
    "link_status": "Up",

```

```

    "link_speed": "10 Gbps",
    "slot": 2,
    "firmware_family_version": "19.0.12"
  },
  {
    "id": "24:6E:96:7A:66:54",
    "mac": "24:6E:96:7A:66:54",
    "link_status": "Up",
    "link_speed": "10 Gbps",
    "slot": 3,
    "firmware_family_version": "19.0.12"
  },
  {
    "id": "24:6E:96:7A:66:56",
    "mac": "24:6E:96:7A:66:56",
    "link_status": "Up",
    "link_speed": "10 Gbps",
    "slot": 4,
    "firmware_family_version": "19.0.12"
  }
],
"disks": [
  {
    "id": "S3BENX0K101525",
    "sn": "S3BENX0K101525",
    "guid": "5002538a4811a870",
    "manufacturer": "SAMSUNG",
    "model": "MZILS1T9HEJH0D3",
    "disk_type": "SSD",
    "protocol": "SCSI",
    "max_capable_speed": "12 Gb/s",
    "enclosure": 0,
    "bay": 0,
    "slot": 2,
    "disk_state": "OK",
    "led_status": "Green:On",
    "missing": true,
    "capacity": "1.75TB",
    "write_endurance": "0",
    "write_endurance_status": "Healthy",
    "remaining_write_endurance_rate": "100%",
    "firmware_revision": "DSL7"
  },
  {
    "id": "S3BENX0K101700",
    "sn": "S3BENX0K101700",
    "guid": "5002538a4811b360",
    "manufacturer": "SAMSUNG",
    "model": "MZILS1T9HEJH0D3",

```

```

    "disk_type": "SSD",
    "protocol": "SCSI",
    "max_capable_speed": "12 Gb/s",
    "enclosure": 0,
    "bay": 0,
    "slot": 4,
    "disk_state": "OK",
    "led_status": "Green:On",
    "missing": true,
    "capacity": "1.75TB",
    "write_endurance": "0",
    "write_endurance_status": "Healthy",
    "remaining_write_endurance_rate": "100%",
    "firmware_revision": "DSL7"
  },
  {
    "id": "4730A03FTEVE",
    "sn": "4730A03FTEVE",
    "guid": "50000397bc8897cd",
    "manufacturer": "TOSHIBA",
    "model": "PX05SMB080Y",
    "disk_type": "SSD",
    "protocol": "SCSI",
    "max_capable_speed": "12 Gb/s",
    "enclosure": 0,
    "bay": 0,
    "slot": 8,
    "disk_state": "OK",
    "led_status": "Green:On",
    "missing": true,
    "capacity": "745.21GB",
    "write_endurance": "0",
    "write_endurance_status": "Healthy",
    "remaining_write_endurance_rate": "100%",
    "firmware_revision": "AS0E"
  },
  {
    "id": "S3BENX0K101738",
    "sn": "S3BENX0K101738",
    "guid": "5002538a4811b5c0",
    "manufacturer": "SAMSUNG",
    "model": "MZILS1T9HEJH0D3",
    "disk_type": "SSD",
    "protocol": "SCSI",
    "max_capable_speed": "12 Gb/s",
    "enclosure": 0,
    "bay": 0,
    "slot": 1,
    "disk_state": "OK",

```

```
"led_status": "Green:On",
"missing": true,
"capacity": "1.75TB",
"write_endurance": "0",
"write_endurance_status": "Healthy",
"remaining_write_endurance_rate": "100%",
"firmware_revision": "DSL7"
}
],
"firmwareInfo": {
  "bios_revision": "2.3.10",
  "bmc_revision": "3.36.36.36",
  "hba_version": "16.17.00.05",
  "expander_bpf_version": "2.46",
  "cpld_version": "1.0.1",
  "idsdm_version": "1.9"
}
}
]
```

7 Available Hosts

Description: Retrieve a list of hosts that are discovered by VxRail but have not been added into the VxRail cluster.

REST endpoint: GET /rest/vxm/v1/system/available-hosts

Supported Versions: 4.7.300 or later

7.1.1 Available Hosts API

Curl command:

```
curl -k --user "administrator@vsphere.local:<PASSWORD>" --request GET  
"https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/system/available-hosts"
```

PowerShell module command:

```
Get-SystemAvailableHosts -Server '<VXRAIL_IP_ADDRESS>' -Username  
'administrator@vsphere.local' -Password '<PASSWORD>'
```

Ansible playbook:

```
---  
- name: Get Available VxRail Hosts Playbook  
  hosts: localhost  
  tasks:  
    - name: Get Available VxRail Hosts  
      uri:  
        url: https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/system/available-hosts  
        user: "administrator@vsphere.local"  
        password: "<PASSWORD>"  
        method: GET  
        force_basic_auth: yes  
        status_code: 200  
        validate_certs: false  
        register: data  
    - name: Print returned json dictionary  
      debug:  
        var: data.json
```

Response example:

```
[  
  {  
    "appliance_id": "VXRAILVIP470F2",  
    "bios_uuid": "420e8b96-4602-9d96-35b9-906808c40985",  
    "cluster_affinity": true,  
    "discovered_date": 1533460206,
```

```
"health": "string",
"host_name": "string",
"id": "VXRAILVIP470F2-01-01",
"ip_set": {
  "management_ip": "string",
  "vmotion_ip": "string",
  "vsan_ip": "string"
},
"is_primary_node": false,
"led_status": "string",
"manufacturer": "string",
"missing": true,
"model": "VxRail P470F",
"operational_status": "string",
"power_status": "string",
"psnt": "string",
"serial_number": "string",
"slot": 1,
"tpm_present": true
}
]
```

8 Configured Hosts

Description: Retrieve a list of all the hosts configured in the VxRail cluster.

REST endpoint: GET /rest/vxm/v1/system/cluster-hosts

Supported Versions: 4.7.300 or later

8.1.1 Configured Hosts API

Curl command:

```
curl -k --user "administrator@vsphere.local:<PASSWORD>" --request GET
"https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/system/cluster-hosts"
```

PowerShell module command:

```
Get-SystemClusterHosts -Server '<VXRAIL_IP_ADDRESS>' -Username
'administrator@vsphere.local' -Password '<PASSWORD>'
```

Ansible playbook:

```
---
- name: Get Configured VxRail Hosts Playbook
  hosts: localhost
  tasks:
    - name: Get Configured VxRail Hosts
      uri:
        url: https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/system/cluster-hosts
        user: "administrator@vsphere.local"
        password: "<PASSWORD>"
        method: GET
        force_basic_auth: yes
        status_code: 200
        validate_certs: false
      register: data
    - name: Print returned json dictionary
      debug:
        var: data.json
```

Response example:

```
[
  {
    "id": "HJB3Z230000000-01-01",
    "psnt": "HJB3Z230000000",
    "slot": 1,
    "manufacturer": "Dell Inc.",
    "model": "VxRail D560F",
```



```

    "health": "Healthy",
    "serial_number": "HJB3Z23",
    "host_name": "34ff-app02-esxi-04.row34.local",
    "appliance_id": "HJB3Z230000000",
    "operational_status": "NORMAL",
    "power_status": "on",
    "tpm_present": true,
    "is_primary_node": false,
    "missing": false,
    "cluster_affinity": true,
    "ip_set": {
      "management_ip": "172.19.172.24",
      "vsan_ip": "192.168.2.24",
      "vmotion_ip": "192.168.1.24"
    },
    "discovered_date": 1589302180640,
    "bios_uuid": "4c4c4544-004a-4210-8033-c8c04f5a3233"
  },
  {
    "id": "HJB2Z230000000-01-01",
    "psnt": "HJB2Z230000000",
    "slot": 1,
    "manufacturer": "Dell Inc.",
    "model": "VxRail D560F",
    "health": "Healthy",
    "serial_number": "HJB2Z23",
    "host_name": "34ff-app02-esxi-03.row34.local",
    "appliance_id": "HJB2Z230000000",
    "operational_status": "NORMAL",
    "power_status": "on",
    "tpm_present": true,
    "is_primary_node": false,
    "missing": false,
    "cluster_affinity": true,
    "ip_set": {
      "management_ip": "172.19.172.23",
      "vsan_ip": "192.168.2.23",
      "vmotion_ip": "192.168.1.23"
    },
    "discovered_date": 1589302180641,
    "bios_uuid": "4c4c4544-004a-4210-8032-c8c04f5a3233"
  },
  {
    "id": "HJ93Z230000000-01-01",
    "psnt": "HJ93Z230000000",
    "slot": 1,
    "manufacturer": "Dell Inc.",
    "model": "VxRail D560F",
    "health": "Healthy",

```

```

    "serial_number": "HJ93Z23",
    "host_name": "34ff-app02-esxi-02.row34.local",
    "appliance_id": "HJ93Z230000000",
    "operational_status": "NORMAL",
    "power_status": "on",
    "tpm_present": true,
    "is_primary_node": false,
    "missing": false,
    "cluster_affinity": true,
    "ip_set": {
      "management_ip": "172.19.172.22",
      "vsan_ip": "192.168.2.22",
      "vmotion_ip": "192.168.1.22"
    },
    "discovered_date": 1589302180641,
    "bios_uuid": "4c4c4544-004a-3910-8033-c8c04f5a3233"
  },
  {
    "id": "HJ8ZY230000000-01-01",
    "psnt": "HJ8ZY230000000",
    "slot": 1,
    "manufacturer": "Dell Inc.",
    "model": "VxRail D560F",
    "health": "Healthy",
    "serial_number": "HJ8ZY23",
    "host_name": "34ff-app02-esxi-01.row34.local",
    "appliance_id": "HJ8ZY230000000",
    "operational_status": "NORMAL",
    "power_status": "on",
    "tpm_present": true,
    "is_primary_node": true,
    "missing": false,
    "cluster_affinity": true,
    "ip_set": {
      "management_ip": "172.19.172.21",
      "vsan_ip": "192.168.2.21",
      "vmotion_ip": "192.168.1.21"
    },
    "discovered_date": 1589302180641,
    "bios_uuid": "4c4c4544-004a-3810-805a-c8c04f593233"
  }
]

```

9 Remove host

Description: Removes a host from the cluster.

REST endpoint: POST /rest/vxm/v1/cluster/remove-host

Supported Versions: 4.5.300 or later

Step 1: Call the Hosts API.

See the [Hosts Information](#) section to call the hosts API. From the response, find the serial number that you want to remove and use it in the next step.

Step 2: Call the Remove Host API.

Curl command (Windows):

```
curl -k --user "administrator@vsphere.local:<PASSWORD>" --request POST
"https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/cluster/remove-host" --header "Content-
Type: application/json" --data "{\"serial_number\":
\\\"EMCVB150600030\\\", \\\"vc_admin_user\\\": {\\\"password\\\":
\\\"<PASSWORD>\\\", \\\"username\\\":
\\\"vc_admin_username\\\"}, \\\"vcsa_root_user\\\": {\\\"password\\\":
\\\"<PASSWORD>\\\", \\\"username\\\": \\\"vcsa_root_username\\\"}}"
```

Curl command (VxRail Manager):

```
curl -k --user "administrator@vsphere.local:<PASSWORD>" --request POST
"https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/cluster/remove-host" --header "Content-
Type: application/json" --data '{"serial_number":
"EMCVB150600030", "vc_admin_user": {"password": "<PASSWORD>", "username":
"VC_ADMIN_USERNAME"}, "vcsa_root_user": {"password": "<PASSWORD>", "username":
"VCSA_USERNAME"}}'
```

PowerShell module command:

```
Remove-ClusterHost -Server <VxRail_IP> -Username <VC_ADMIN_USERNAME> -Password
<PASSWORD> -VcAdminUserUsername <VC_ADMIN_USERNAME> -VcAdminUserPassword
<PASSWORD> -VcsaRootUserUsername <VCSA_USERNAME> -VcsaRootUserPassword
<PASSWORD> -SerialNumber 'EMCVB150600030'
```

Ansible playbook:

```
---
- name: Remove VxRail Host from Cluster Playbook
  hosts: localhost
  tasks:
  - name: Remove VxRail Host from Cluster
    uri:
      url: https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/cluster/remove-host
      user: "administrator@vsphere.local"
      password: "<PASSWORD>"
      method: POST
```

```

force_basic_auth: yes
status_code: 202
validate_certs: false
body_format: json
body:
  serial_number: "EMCVB150600030"
  vc_admin_user:
    password: "administrator@vsphere.local"
    username: "<PASSWORD>"
  vcsa_root_user:
    password: "root"
    username: "<PASSWORD>"
register: data
- name: Print returned json dictionary
debug:
  var: data.json

```

Response example:

```

{
  "request_id": "5ffe7062-a590-45b8-a172-8d2cf119562e"
}

```

Step 3: Get the status of the request.

Using the request_id from Step 2, the status of the remove host can be queried using the following API call.

Curl command:

```

curl -k --user "administrator@vsphere.local:<PASSWORD>" --request GET
"https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/requests/<request_ID>" --header
"Content-Type: application/json"

```

PowerShell module command:

```

Get-Requests -Server '<VXRAIL_IP_ADDRESS>' -Password '<PASSWORD>' -Username
'administrator@vsphere.local' -Filter 'id eq 036e06db-a120-4203-bab6-
42baalf3a663'

```

Ansible playbook:

```

---
- name: Get VxRail Request Status Playbook
  hosts: localhost
  tasks:
    - name: Get VxRail Request Status
      uri:

```

```
url: https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/requests/d0292c6e-01f3-4a2c-960e-dcf50875c6f1
user: "administrator@vsphere.local"
password: "<PASSWORD>"
method: GET
force_basic_auth: yes
status_code: 200
validate_certs: false
register: data
- name: Print returned json dictionary
debug:
  var: data.json
```

Response example:

```
{
  "id": "036e06db-a120-4203-bab6-42baa1f3a663",
  "owner": "HOST_REMOVAL",
  "state": "FAILED",
  "error": {
    "subErrorCode": 1000,
    "detail": "Inconsistent state: Node EMCVB000000000 not found in database"
  },
  "progress": 0,
  "start_time": 1583850203985,
  "end_time": 1583850204081
}
```

10 Cluster shutdown

Description: Shut down a cluster or perform a shutdown dry run.

REST endpoint: POST /rest/vxm/v1/cluster/shutdown

Supported Versions: 4.5.300 or later

10.1 Call the Cluster Shutdown API

Curl command (Windows):

```
curl -k --user "administrator@vsphere.local:<PASSWORD>" --request POST
"https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/cluster/shutdown" --header "Content-
Type: application/json" --data '{"dryrun": false}'
```

Curl command (VxRail Manager):

```
curl -k --user "administrator@vsphere.local:<PASSWORD>" --request POST
"https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/cluster/shutdown" --header "Content-
Type: application/json" --data '{"dryrun": false}'
```

PowerShell module command:

```
Start-ClusterShutdown -Server '<VXRAIL_IP_ADDRESS>' -Username
'administrator@vsphere.local' -Password '<PASSWORD>'
```

Ansible playbook:

```
---
- name: Shutdown VxRail Cluster Playbook
  hosts: localhost
  tasks:
  - name: Shutdown VxRail Cluster
    uri:
      url: https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/cluster/shutdown
      user: "administrator@vsphere.local"
      password: "<PASSWORD>"
      method: POST
      force_basic_auth: yes
      status_code: 202
      validate_certs: false
      body_format: json
      body:
        dryrun: false
    register: data
  - name: Print returned json dictionary
    debug:
      var: data.json
```

Response example:

```
{  
  "request_id": "5ffe7062-a590-45b8-a172-8d2cf119562e"  
}
```

11 Collect support logs

Description: Collect the logs with the specified types.

REST endpoint: POST /rest/vxm/v1/support/logs

Supported Versions: 4.5.300 or later

11.1 Call the Support Logs API

CURL command (Windows):

```
curl -k --user "administrator@vsphere.local:<PASSWORD>" --request POST
"https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/support/logs" --header "Content-Type:
application/json" --data
'{"types":["vxm","idrac"],"nodes":["42HDGK2","CRTBGK2"]}'
```

CURL command (VxRail Manager):

```
curl -k --user "administrator@vsphere.local:<PASSWORD>" --request POST
"https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/support/logs" --header "Content-Type:
application/json" --data
'{"types":["vxm","idrac"],"nodes":["42HDGK2","CRTBGK2"]}'
```

PowerShell module command:

```
Get-SupportLogs -Server '<VXRAIL_IP_ADDRESS>' -Password '<PASSWORD>' -Username
'administrator@vsphere.local' -Filter 'nodes eq 42HDGK2 and types eq vxm'
```

Ansible playbook:

```
---
- name: Download Log Bundle Playbook
  hosts: localhost
  tasks:
  - name: Download Log Bundle
    uri:
      url: https://<VXRAIL_IP_ADDRESS>/rest/vxm/v1/support/logs
      user: "administrator@vsphere.local"
      password: "<PASSWORD>"
      method: POST
      force_basic_auth: yes
      status_code: 202, 400
      validate_certs: false
      body_format: json
      body:
        types:
          - "vxm"
          - "idrac"
        nodes:
```

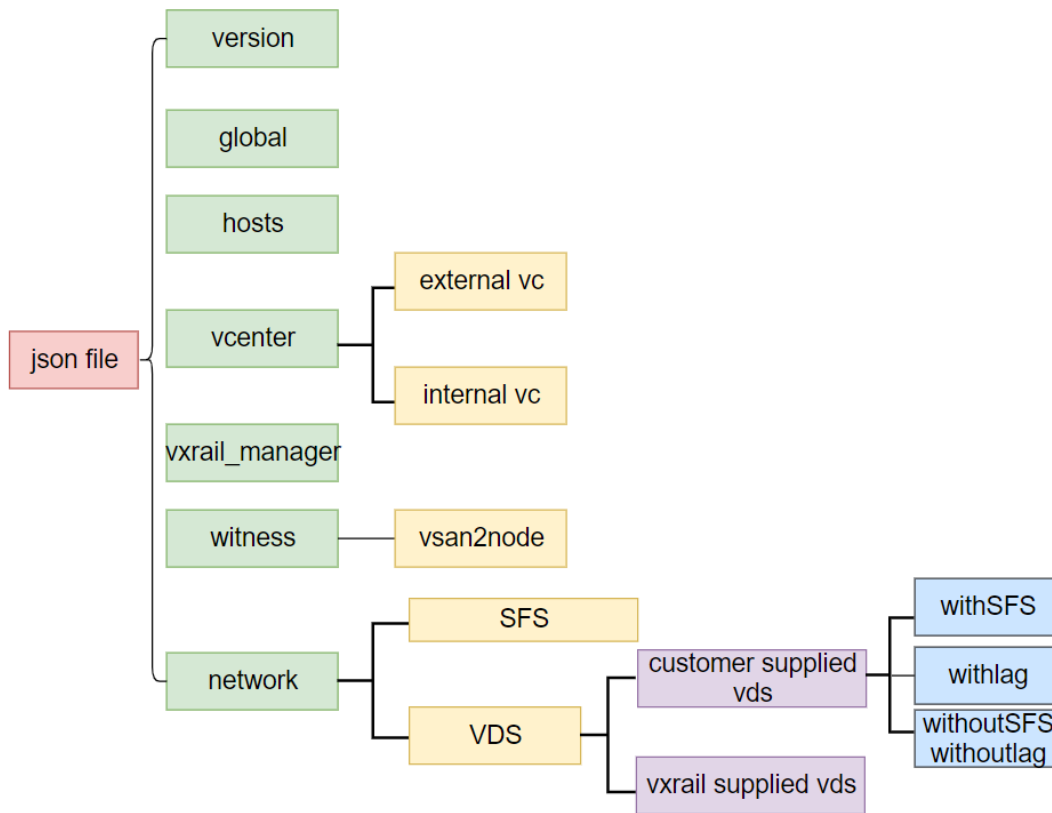


```
- "42HDGK2"  
- "CRTBGK2"  
register: data  
- name: Print returned json dictionary  
debug:  
  var: data.json
```

This call will create a log bundle on the VxRail Manager in the following directory: '/tmp/mystic/dc'.

12 Appendix A: Day 1 bring up JSON

12.1 Structure



12.2 Version

Parameters	Type	Required	Example	Description
version	string	Optional	"7.0.010"	If not filled, it will use API to get the VxRail version value.

12.3 Global

Parameters	type	Required	Example	Description
ntp_servers	list	Internal VC: Optional External VC: Optional	["172.18.1.166"]	If supplied will sync time with NTP, if not supplied will sync time with primary host.

is_internal_dns	boolean	Internal VC: Optional External VC: Ignored	true/false	false: it will use the external DNS true: it will use VxRail Manager IP as DNS server
syslog_servers	list	Optional	["172.23.1.189"]	
dns_servers	list	External VC: Mandatory Internal VC: Optional	["172.18.1.167"]	
top_level_domain	string	Mandatory	"localdomain.local"	DNS domain
cluster_management_netmask	string	Mandatory	"255.255.255.0"	Management portgroup netmask
cluster_management_gateway	string	Mandatory	"10.62.91.1"	Management portgroup gateway
cluster_vsan_netmask	string	Mandatory	"255.255.255.0"	vSAN portgroup netmask
cluster_vmotion_netmask	string	Mandatory	"255.255.255.0"	Vmotion portgroup netmask
cluster_witness_netmask	string	VSAN2Node: Mandatory Standard: Ignored	"255.255.255.0"	Witness portgroup netmask
cluster_witness_gateway	string	VSAN2Node: Mandatory Standard: Ignored	"10.62.91.1"	Witness portgroup gateway
cluster_type	string	Mandatory	"VSAN2NODE" or "STANDARD"	Cluster type can be "VSAN2NODE" or "STANDARD".

Example:

```
"global": {
  "ntp_servers": [],
  "is_internal_dns": false,
  "dns_servers": ["10.62.92.148"],
```

```

"syslog_servers": [],
"top_level_domain": "localdomain.local",
"cluster_management_netmask": "255.255.255.0",
"cluster_management_gateway": "10.62.91.1",
"cluster_vsan_netmask": "255.255.255.0",
"cluster_vmotion_netmask": "255.255.255.0",
"cluster_witness_netmask": "255.255.255.0",
"cluster_witness_gateway": "",
"robo_cluster": true,
"cluster_type": "STANDARD"
}

```

12.4 Hosts

Parameters	type	Required	Example	Description
host_serial_number	string	Optional	""	Host serial number
hostname	string	Mandatory	"dell356"	Host name. Do not include top-level domain.
accounts.root.username	string	Mandatory	"root"	Root username
accounts.root.password	string	Mandatory	"*****"	Root user's password
accounts.management.username	string	Mandatory	"management"	Management username
accounts.management.password	string	Mandatory	"*****"	Management user's password
network.type	string ("MANAGEMENT")	Mandatory	"MANAGEMENT"	MANAGEMENT portgroup
network.ip	string	Mandatory	"10.62.91.41"	MANAGEMENT IP address
network.type	string ("VSAN")	Mandatory	"VSAN"	VSAN portgroup
network.ip	string	Mandatory	"192.168.111.101"	VSAN IP address

network.type	string ("VMOTION")	Mandatory	"VMOTION"	VMOTION portgroup
network.ip	string	Mandatory	"192.168.112.101"	VMOTION IP address
network.type	string ("WITNESS")	VSAN2Node: Mandatory Standard: Ignored	"WITNESS"	WITNESS portgroup
network.ip	string	VSAN2Node: Mandatory Standard: Ignored	"192.168.113.101"	WITNESS IP address
geo_location.rack_name	string	Optional	"rk1"	Host in rack name
geo_location.position	int	Optional	1	Host in rack position

Example:

```

"hosts": [
  {
    "host_serial_number": "44CF0W20000000-01-01",
    "hostname": "dell1356-01",
    "accounts": {
      "root": {
        "username": "root",
        "password": "Passw0rd!"
      },
      "management": {
        "username": "dell1356",
        "password": "Testesx123!"
      }
    },
    "network": [
      {
        "type": "MANAGEMENT",
        "ip": "10.62.91.41"
      },
      {

```

```

        "type": "VSAN",
        "ip": "192.168.111.101"
    },
    {
        "type": "VMOTION",
        "ip": "192.168.112.101"
    },
    {
        "type": "WITNESS",
        "ip": "192.168.113.101"
    }
],
"geo_location": {
    "rack_name": "C02",
    "position": 1
}
},
{
    "host_serial_number": "426G0W20000000-01-01",
    "hostname": "dell356-02",
    "accounts": {
        "root": {
            "username": "root",
            "password": "Passw0rd!"
        },
        "management": {
            "username": "dell356",
            "password": "Testesx123!"
        }
    },
    "network": [
        {
            "type": "MANAGEMENT",
            "ip": "10.62.91.42"
        },
        {
            "type": "VSAN",
            "ip": "192.168.111.102"
        },
        {
            "type": "VMOTION",
            "ip": "192.168.112.102"
        },
        {
            "type": "WITNESS",
            "ip": "192.168.113.102"
        }
    ],
    "geo_location": {

```

```

    "rack_name": "C02",
    "position": 2
  }
}
]

```

12.5 vCenter

12.5.1 Internal vCenter

Parameters	type	Required	Example	Description
customer_supplied	boolean	Mandatory	false	False when deploying internal vCenter
vxrail_supplied_vc_ip	string	Mandatory	"172.18.10.201"	Internal vCenter IP address
vxrail_supplied_vc_name	string	Mandatory	"vcluster301-vcsa"	Internal vCenter name(prefix)
datacenter_name	string	Ignored	"VxRail-Datacenter"	Internal vCenter will use default settings: "VxRail-Datacenter"
customer_supplied_vc_name_or_ip	string	Ignored	""	
cluster_name	string	Ignored	""	
accounts.root.username	string	Mandatory	"root"	Internal vCenter root username
accounts.root.password	string	Mandatory	"*****"	Internal vCenter root password
accounts.administrator.username	string	Mandatory join sso: Ignored	"administrator@vsphere.local"	vCenter administrator username If joined SSO, it will be ignored.
accounts.administrator.password	string	Mandatory join sso: Ignored	"*****"	vCenter administrator password If joined SSO, it will be ignored.
accounts.management.username	string	Mandatory	"admin"	Internal vCenter will create this account. The username cannot include "@".

accounts.management.password	string	Mandatory	*****	Management password Internal vCenter will create this account.
existing_sso_domain.server	string	Joined SSO: Mandatory Not joined SSO: Ignored	"192.168.101.111"	SSO domain server IP address
existing_sso_domain.port	int	Joined SSO: Mandatory Not joined SSO: Ignored	443	SSO domain server port
existing_sso_domain.username	string	Joined SSO: Mandatory Not joined SSO: Ignored	"administrator@vsphere.local"	SSO domain server username
existing_sso_domain.password	string	Joined SSO: Mandatory Not joined SSO: Ignored	*****	SSO domain server password

Example:

```

"vcenter": {
  "customer_supplied": false,
  "vxrail_supplied_vc_ip": "172.18.10.201",
  "vxrail_supplied_vc_name": "vcluster301-vcsa",
  "customer_supplied_vc_name_or_ip": "",
  "datacenter_name": "",
  "cluster_name": "",
  "accounts": {
    "root": {
      "username": "root",
      "password": "Testvxrail123!"
    },
    "administrator": {
      "username": "administrator@vsphere.local",
      "password": ""
    },
    "management": {
      "username": "admin",

```



```

    "password": ""
  }
},
"existing_sso_domain": {
  "server": "192.168.101.111",
  "port": 443,
  "username": "administrator@vsphere.local",
  "password": ""
}
}

```

12.5.2 External vCenter

Parameters	type	Required	Example	Description
customer_supplied	boolean	Mandatory	true	True when using external vCenter
vxrail_supplied_vc_ip	string	Ignored	""	
vxrail_supplied_vc_name	string	Ignored	""	
datacenter_name	string	Mandatory	"VxRail-Datacenter"	External vCenter data center name
customer_supplied_vc_name_or_ip	string	Mandatory	"exvc245.externalvc.com" or "172.20.18.222"	
cluster_name	string	Mandatory	"Cluster-VxRail"	External vCenter cluster name
accounts.root.username	string	No	""	
accounts.root.password	string	No	""	
accounts.administrator.username	string	Mandatory	"administrator@vsphere.local"	vCenter administrator's username
accounts.administrator.password	string	Mandatory	*****	vCenter administrator's password

accounts.management.username	string	Mandatory	"admin" "admin@vsphere.local"	External vCenter management account It can include "@"
accounts.management.password	string	Mandatory	"*****"	External vCenter management password

Example:

```
"vcenter": {
  "customer_supplied": true,
  "vxrail_supplied_vc_ip": "",
  "vxrail_supplied_vc_name": "",
  "customer_supplied_vc_name_or_ip": "172.20.18.222/FQDN",
  "datacenter_name": "",
  "cluster_name": "",
  "accounts": {
    "administrator": {
      "username": "administrator@vsphere.local",
      "password": ""
    },
    "management": {
      "username": "",
      "password": ""
    }
  }
}
```

12.6 VxRail Manager

Parameters	type	Required	Example	Description
name	string	Mandatory	"vcluster301- vxm"	VxRail manager name (Unique for each cluster)
ip	string	Mandatory	"172.18.10.200"	VxRail manager IP address
accounts.root.username	string	Mandatory	"root"	VxRail manager root username

accounts.root.password	string	Mandatory	"*****"	VxRail manager root password
accounts.service.username	string	Mandatory	"mystic"	VxRail manager service username
accounts.service.password	service.password:string	Mandatory	"*****"	VxRail manager service user password

Example:

```

"vxrail_manager": {
  "name": "vcluster301-vxm",
  "ip": "172.18.10.200",
  "accounts": {
    "root": {
      "username": "root",
      "password": "Testvxrail123!"
    },
    "service": {
      "username": "mystic",
      "password": "Testesx123!"
    }
  }
}

```

12.7 Witness Node

Parameters	type	Required	Example	Description
management_ip	string	VSAN2Node: Mandatory Standard: Ignored	"172.18.10.240"	Witness node management IP address
witness_ip	string	VSAN2Node: Mandatory Standard: Ignored	"172.18.10.241"	Witness node traffic IP address
gateway	string	VSAN2Node: Mandatory	"172.18.1.167"	Witness node gateway

		Standard: Ignored		
netmask	string	VSAN2Node: Mandatory Standard: Ignored	"255.255.0.0"	Witness node netmask "
username	string	VSAN2Node: Mandatory Standard: Ignored	"root"	Witness node root user
password	string	VSAN2Node: Mand atory Standard: Ignored	"*****"	Witness node root user's password
management_ip	string	VSAN2Node: Mandatory Standard: Ignored	"172.18.10.240"	Witness node management IP address

Example:

```
"witness_node": {
  "management_ip": "10.62.91.220",
  "witness_ip": "192.168.113.105",
  "gateway": "",
  "netmask": "255.255.255.0",
  "username": "root",
  "password": "Password123!"
}
```

12.8 Network

12.8.1 VxRail Supplied VDS

Parameters	type	Required	Example	Description
vds.nic_profile	string	Mandatory	"FOUR_HIGH_SPE ED"	NIC Profile Options: - "FOUR_HIGH_SPEED" - "FOUR_LOW_SPEED" - "TWO_HIGH_SPEED" - "TWO_LOW_TWO_HIGH_SPEED"

vds.systemvm_portgroup_binding_type	string	Mandatory	"STATIC_BINDING"	vCenter Server Network portgroup binding type Options: - "STATIC_BINDING" - "DYNAMIC_BINDING" - "EPHEMERAL"
vds.portgroups	list	Mandatory	"VSAN"	VSAN portgroup
		Mandatory	0	VSAN network vlan id
		Mandatory	"VMOTION"	VMOTION portgroup
		Mandatory	0	VMOTION network vlan id
		Mandatory	"MANAGEMENT"	MANAGEMENT portgroup
		Mandatory	0	MANAGEMENT network vlan id
		Optional	"CUSTOMERVM"	CUSTOMERVM network
		Optional	"VMnet1-301"	CUSTOMERVM network name
		Optional	0	CUSTOMERVM network vlan id
		VSAN2No de: Manda tory Standard: I gnored	"WITNESS"	WITNESS portgroup
		VSAN2No de: Manda tory Standard: I gnored	0	WITNESS network vlan id

Example:

```
"network": {
  "vds": {
    "nic_profile": "FOUR_HIGH_SPEED",
    "systemvm_portgroup_binding_type": "STATIC_BINDING",
    "portgroups": [
```

```

    {
      "type": "VSAN",
      "vlan_id": 0
    },
    {
      "type": "VMOTION",
      "vlan_id": 0
    },
    {
      "type": "MANAGEMENT",
      "vlan_id": 0
    },
    {
      "type": "CUSTOMERVM",
      "name": "VMnet1-302",
      "vlan_id": 0
    },
    {
      "type": "CUSTOMERVM",
      "name": "VMnet2-302",
      "vlan_id": 0
    },
    {
      "type": "WITNESS",
      "vlan_id": 0
    }
  ]
}

```

12.8.2 Customer Supplied VDS without SFS

Parameters	type	Required	Example	Description
customer_supplied_vds.name	string	Mandatory	"VMware HCIA Distributed Switch-physical"	Customer supplied vds name
customer_supplied_vds.portgroups	list	Mandatory	"VSAN"	VSAN network portgroup
		Mandatory	"VSAN_PG"	VSAN network portgroup name
		Mandatory	"VMOTION"	VMOTION network portgroup

		Mandatory	"VMotion_PG"	VMOTION network portgroup name
		Mandatory	"VXRAILDISCOVERY"	VxRail Management network portgroup
		Mandatory	"VxRail_Management_PG"	VxRail Management network portgroup name
		Mandatory	"VXRAILSYSTEMVM"	vCenter Server Network portgroup
		Mandatory	"Vcenter_PG"	vCenter Server Network portgroup name
		Mandatory	"MANAGEMENT"	Management Network portgroup
		Mandatory	"Management_PG"	Management Network portgroup name
		VSAN2Node: Mandatory Standard: Ignored	"WITNESS"	WITNESS Management network
		VSAN2Node: Mandatory Standard: Ignored	"WITNESS_PG"	WITNESS Management network portgroup name
		Mandatory	"Management_PG"	Management Network portgroup name
customer_supplied_vds.nic_mappings.uplinks	.name: string	Mandatory	"Uplink 1"	Uplink 1 name
		Mandatory	"VMNIC0"	Uplink 1 mapping VMNIC0
	.physical_nic: string	Mandatory	"Uplink 2"	Uplink 2 name
		Mandatory	"VMNIC1"	Uplink 2 mapping VMNIC1
		Mandatory	"Uplink 3"	Uplink 3 name

		Mandatory	"VMNIC2"	Uplink 3 mapping VMNIC2
		Mandatory	"Uplink 4"	Uplink 4 name
		Mandatory	"VMNIC3"	Uplink 4 mapping VMNIC3

Example:

```

"network": {
  "customer_supplied_vds": {
    "name": "vSAN 2Node HCIA Distributed Switch",
    "portgroups": [
      {
        "type": "VSAN",
        "name": "VSAN_PG",
        "vlan_id": 0
      },
      {
        "type": "VMOTION",
        "name": "VMotion_PG",
        "vlan_id": 0
      },
      {
        "type": "VXRAILDISCOVERY",
        "name": "VxRail_Management_PG",
        "vlan_id": 0
      },
      {
        "type": "VXRAILSYSTEMVM",
        "name": "Vcenter_PG",
        "vlan_id": 0
      },
      {
        "type": "MANAGEMENT",
        "name": "Management_PG",
        "vlan_id": 0
      },
      {
        "type": "WITNESS",
        "name": "Witness_PG",
        "vlan_id": 0
      }
    ],
    "nic_mappings": [
      {
        "uplinks": [

```



```

    {
      "name": "Uplink 1",
      "physical_nic": "VMNIC0"
    },
    {
      "name": "Uplink 2",
      "physical_nic": "VMNIC1"
    },
    {
      "name": "Uplink 3",
      "physical_nic": "VMNIC2"
    },
    {
      "name": "Uplink 4",
      "physical_nic": "VMNIC3"
    }
  ]
}
]
}
}

```

12.8.3 Customer Supplied VDS with SFS

Parameters	type	Required	Example	Description
sfs.REST_USER_password	string	Mandatory	"*****"	REST_USER default password
customer_supplied_vds.name	string	Mandatory	"VMware HCIA Distributed Switch-physical"	Customer supplied vds name
customer_supplied_vds.portgroups	list	Mandatory	"VSAN"	VSAN network portgroup
		Mandatory	"VSAN_PG"	VSAN network portgroup name
		Mandatory	["uplink2", "uplink1"]	All portgroup uplinks
		Mandatory	100	Portgroup vlan id

		Mandatory	"VMOTION"	VMOTION network portgroup
		Mandatory	"VMotion_PG"	VMOTION network portgroup name
		Mandatory	"VXRAILDISCOVERY"	VxRail Management network portgroup
		Mandatory	"VxRail_Management_PG"	VxRail Management network portgroup name
		Mandatory	"VXRAILSYSTEMVM"	vCenter Server Network portgroup
		Mandatory	"Vcenter_PG"	vCenter Server Network portgroup name
		Mandatory	"MANAGEMENT"	Management Network portgroup
		Mandatory	"Management_PG"	Management Network portgroup name
		VSAN2Node: Mandatory Standard: Ignored	"WITNESS"	WITNESS Management network portgroup
customer_supplied_vds.nic_mappings.uplinks	.name: string	Mandatory	"Uplink 1"	Uplink 1 name
		Mandatory	"VMNIC0"	Uplink 1 mapping VMNIC0
	.physical_nic: string	Mandatory	"Uplink 2"	Uplink 2 name
		Mandatory	"VMNIC4"	Uplink 2 mapping VMNIC4

Example:

```
"network": {
  "sfs": {
    "REST_USER_password": ""
```

```

},
"customer_supplied_vds": {
  "name": "abc",
  "portgroups": [
    {
      "type": "VSAN",
      "name": "VSAN_PG",
      "uplinks": [
        "uplink2",
        "uplink1"
      ],
      "vlan_id": 100
    },
    {
      "type": "VMOTION",
      "name": "VMotion_PG",
      "uplinks": [
        "uplink1",
        "uplink2"
      ],
      "vlan_id": 100
    },
    {
      "type": "MANAGEMENT",
      "name": "Management_PG",
      "uplinks": [
        "uplink1",
        "uplink2"
      ],
      "vlan_id": 100
    },
    {
      "type": "VXRAILDISCOVERY",
      "name": "VxRail_Management_PG",
      "uplinks": [
        "uplink1",
        "uplink2"
      ],
      "vlan_id": 100
    },
    {
      "type": "VXRAILSYSTEMVM",
      "name": "Vcenter_PG",
      "uplinks": [
        "uplink1",
        "uplink2"
      ],
      "vlan_id": 100
    }
  ],
}

```

```
{
  "type": "WITNESS",
  "name": "WITNESS_PG",
  "uplinks": [
    "uplink1",
    "uplink2"
  ],
  "vlan_id": 100
},
"nic_mappings": [
  {
    "uplinks": [
      {
        "name": "uplink1",
        "physical_nic": "VMNIC0"
      },
      {
        "name": "uplink2",
        "physical_nic": "VMNIC4"
      }
    ]
  }
]
}
```

13 Appendix B: Sample response after LCM upgrade failure

Following is an example of a response after an LCM upgrade failure due to insufficient disk capacity:

```
{
  "id": "LcmBundleDeployAndUpgrade-9808f99f-11e0-4ea5-9794-d5e183154a3b",
  "owner": "LcmBundleDeployAndUpgrade",
  "state": "FAILED",
  "error": "Unexpected failure during upgrade, please check web.log or lcm.log",
  "progress": 5,
  "start_time": 1584058589540,
  "end_time": 1584059429164,
  "step": "Upgrading",
  "detail": "Failure running upgrade script.",
  "extension": {
    "lcm_state": "UPGRADE_ERROR",
    "alerts": [],
    "remaining_minutes": 314,
    "components": [
      {
        "component_name": "VXRail_Manager",
        "status": "FAILED"
      },
      {
        "component_name": "vCenter-Server-Appliance",
        "status": "NOT_STARTED"
      },
      {
        "component_name": "ESXi",
        "status": "FAILED"
      },
      {
        "component_name": "ESXi_VIB",
        "status": "NOT_STARTED"
      },
      {
        "component_name": "ESXi_VIB",
        "status": "NOT_STARTED"
      },
      {
        "component_name": "BMC",
        "status": "NOT_STARTED"
      },
      {
        "component_name": "BMC",
        "status": "NOT_STARTED"
      },
      {
        "component_name": "BMC",

```

```

    "status": "NOT_STARTED"
  },
  {
    "component_name": "NIC_Firmware",
    "status": "NOT_STARTED"
  },
  {
    "component_name": "BIOS",
    "status": "NOT_STARTED"
  },
  {
    "component_name": "BIOS",
    "status": "NOT_STARTED"
  },
  {
    "component_name": "BIOS",
    "status": "NOT_STARTED"
  },
  {
    "component_name": "BIOS",
    "status": "NOT_STARTED"
  },
  {
    "component_name": "NIC_Firmware",
    "status": "NOT_STARTED"
  },
  {
    "component_name": "NIC_Firmware",
    "status": "NOT_STARTED"
  },
  {
    "component_name": "NIC_Firmware",
    "status": "NOT_STARTED"
  },
  {
    "component_name": "NIC_Firmware",
    "status": "NOT_STARTED"
  },
  {
    "component_name": "DISK_CTLR_Firmware",
    "status": "NOT_STARTED"
  },
  {
    "component_name": "DISK_CTLR_Firmware",
    "status": "NOT_STARTED"
  },
  {
    "component_name": "Disk_Firmware",
    "status": "NOT_STARTED"
  }

```



```
{
  "component_name": "Disk_Firmware",
  "status": "NOT_STARTED"
},
{
  "component_name": "Disk_Firmware",
  "status": "NOT_STARTED"
},
{
  "component_name": "Disk_Firmware",
  "status": "NOT_STARTED"
},
{
  "component_name": "M2_SATA_Firmware",
  "status": "NOT_STARTED"
},
{
  "component_name": "M2_SATA_Firmware",
  "status": "NOT_STARTED"
},
{
  "component_name": "Backplane_Firmware",
  "status": "NOT_STARTED"
},
{
  "component_name": "Backplane_Firmware",
  "status": "NOT_STARTED"
},
{
  "component_name": "BOSS_Firmware",
  "status": "NOT_STARTED"
},
{
  "component_name": "M2_SATA_Firmware",
  "status": "NOT_STARTED"
},
{
  "component_name": "IDSDM_Firmware",
  "status": "NOT_STARTED"
},
{
  "component_name": "ESXi_VIB",
  "status": "NOT_STARTED"
},
{
  "component_name": "VXRAIL_",
  "status": "NOT_STARTED"
},
{
```



```

    "component_name": "ESXi_VIB",
    "status": "NOT_STARTED"
  },
  {
    "component_name": "ESXi_VIB",
    "status": "NOT_STARTED"
  },
  {
    "component_name": "ESXi_VIB",
    "status": "NOT_STARTED"
  },
  {
    "component_name": "ESXi_VIB",
    "status": "NOT_STARTED"
  },
  {
    "component_name": "ESXi_VIB",
    "status": "NOT_STARTED"
  },
  {
    "component_name": "ESXi_VIB",
    "status": "NOT_STARTED"
  },
  {
    "component_name": "ESXi_VIB",
    "status": "NOT_STARTED"
  },
  {
    "component_name": "ESXi_VIB",
    "status": "NOT_STARTED"
  },
  {
    "component_name": "ESXi_VIB",
    "status": "NOT_STARTED"
  },
  {
    "component_name": "ESXi_VIB",
    "status": "NOT_STARTED"
  },
  {
    "component_name": "ESXi_VIB",
    "status": "NOT_STARTED"
  },
  {
    "component_name": "ESXi_VIB",
    "status": "NOT_STARTED"
  },
  {
    "component_name": "ESXi_VIB",
    "status": "NOT_STARTED"
  },
  {
    "component_name": "ESXi_VIB",
    "status": "NOT_STARTED"
  },
  {
    "component_name": "ESXi_VIB",
    "status": "NOT_STARTED"
  },
  }
],
"total_minutes": 317,
"current_version": "4.7.410-26262335",
"details": [
  {
    "action": "VxRail Manager upgrade completed successfully.",

```

```

    "message": "VxRail Manager upgrade completed successfully."
  },
  {
    "action": "VxRail Manager upgrade is in progress. Temporary
disconnection during this process is expected. You may be prompted to log in
again after this step is complete.",
    "message": "VxRail Manager upgrade is in progress. Temporary
disconnection during this process is expected. You may be prompted to log in
again after this step is complete."
  },
  {
    "action": "Backup config files.",
    "message": "Backup config files."
  },
  {
    "action": "Pre-upgrade Python hook.",
    "message": "A Python script that is run before the upgrade operation
takes place."
  },
  {
    "action": "Pre-upgrade hook: Detecting cluster shutdown file.",
    "message": "Pre-upgrade hook: Detecting the presence of cluster shutdown
file residing on all nodes' local SATADOM datastores..."
  },
  {
    "action": "Upgrade prechecking",
    "message": "Pre-checking that the VxRail Manager upgrade bundle is
suitable for the appliance's existing VxRail Manager via dry run."
  },
  {
    "action": "Upgrade prechecking",
    "message": "Pre-checking that the postgresql database version is
upgradable."
  },
  {
    "action": "Check the vSAN disk balance state",
    "message": "vSAN disk balance check in progress"
  },
  {
    "action": "Upgrade prechecking",
    "message": "Pre-checking that ESXi is in a healthy state for upgrade."
  },
  {
    "action": "Pre-checking that the minimum number of ESXi nodes are
configured and running for cluster VxRail-Virtual-SAN-Cluster-326f8466-c4f8-
4241-80a4-cbe1073ed8e1.",
    "message": "Cluster VxRail-Virtual-SAN-Cluster-326f8466-c4f8-4241-80a4-
cbe1073ed8e1 has the minimum number of ESXi nodes configured and running
needed to run the upgrade."
  }

```

```

    },
    {
      "action": "Upgrade prechecking",
      "message": "Pre-checking that the vCenter Server Appliance is in a
healthy state for upgrade."
    },
    {
      "action": "Verifying credentials for VMware vCenter Server Platform
Services Controller root account",
      "message": "Verifying credentials for VMware vCenter Server Platform
Services Controller root account"
    },
    {
      "action": "Verifying credentials for VMware vCenter Server Appliance
root account",
      "message": "Verifying credentials for VMware vCenter Server Appliance
root account"
    },
    {
      "action": "Verifying credentials for VMware vCenter Server Appliance
administrator account",
      "message": "Verifying credentials for VMware vCenter Server Appliance
administrator account"
    },
    {
      "action": "Verifying credentials for VxRail Manager root account",
      "message": "Verifying credentials for VxRail Manager root account"
    },
    {
      "action": "Uploading bundle: VXRAIL_COMPOSITE-7.0.000-
26399974_for_4.7.x.zip completed successfully.",
      "message": "Uploading bundle: VXRAIL_COMPOSITE-7.0.000-
26399974_for_4.7.x.zip completed successfully."
    },
    {
      "action": "Uploading bundle: DellPTAgent-Bundle_2.0.0.113-
DEL.7.0.0.1.0.15525992-signed_component-15721866.zip.",
      "message": "Uploading bundle: DellPTAgent-Bundle_2.0.0.113-
DEL.7.0.0.1.0.15525992-signed_component-15721866.zip with total size: 8 MB."
    },
    {
      "action": "Uploading bundle: dcism-3.5.1.1883-offline_bundle-
15342352.zip.",
      "message": "Uploading bundle: dcism-3.5.1.1883-offline_bundle-
15342352.zip with total size: 1 MB."
    },
    {
      "action": "Uploading bundle: MRVL-E4-CNA-Driver-Bundle_5.0.187-
10EM.700.1.0.15525992.zip.",

```

```

    "message": "Uploading bundle: MRVL-E4-CNA-Driver-Bundle_5.0.187-
1OEM.700.1.0.15525992.zip with total size: 4 MB."
  },
  {
    "action": "Uploading bundle: MLNX-NATIVE-ESX-ConnectX-4-
5_BETA_4.19.17.5-1OEM.700.0.0.14828939.zip.",
    "message": "Uploading bundle: MLNX-NATIVE-ESX-ConnectX-4-
5_BETA_4.19.17.5-1OEM.700.0.0.14828939.zip with total size: 1 MB."
  },
  {
    "action": "Uploading bundle: VMW-ESX-7.0.0-bnxt-216.0.406.0-offline-
bundle-14828939.zip.",
    "message": "Uploading bundle: VMW-ESX-7.0.0-bnxt-216.0.406.0-offline-
bundle-14828939.zip with total size: 1 MB."
  },
  {
    "action": "Uploading bundle: i40en-700-19.12.13.0-14828939-offline-
bundle.zip.",
    "message": "Uploading bundle: i40en-700-19.12.13.0-14828939-offline-
bundle.zip with total size: 1 MB."
  },
  {
    "action": "Uploading bundle: ixgben-700-19.12.13.0-14828939-offline-
bundle.zip.",
    "message": "Uploading bundle: ixgben-700-19.12.13.0-14828939-offline-
bundle.zip with total size: 1 MB."
  },
  {
    "action": "Uploading bundle: igbn-700-19.12.13.0-14828939-offline-
bundle.zip.",
    "message": "Uploading bundle: igbn-700-19.12.13.0-14828939-offline-
bundle.zip with total size: 1 MB."
  },
  {
    "action": "Uploading bundle: VXRAIL_7.0.000-15814390.zip.",
    "message": "Uploading bundle: VXRAIL_7.0.000-15814390.zip with total
size: 1 MB."
  },
  {
    "action": "Uploading bundle: ISM-Dell-Web-3.5.0-1862.VIB-ESX6i-
Live_A00.zip.",
    "message": "Uploading bundle: ISM-Dell-Web-3.5.0-1862.VIB-ESX6i-
Live_A00.zip with total size: 1 MB."
  },
  {
    "action": "Uploading bundle: Firmware_3N5TF_WN64_1.9_A03.EXE.",
    "message": "Uploading bundle: Firmware_3N5TF_WN64_1.9_A03.EXE with total
size: 4 MB."
  },
  },

```

```

    {
      "action": "Uploading bundle: Serial-
ATA_Firmware_CHJGV_WN64_DL43_A00_01.EXE.",
      "message": "Uploading bundle: Serial-
ATA_Firmware_CHJGV_WN64_DL43_A00_01.EXE with total size: 9 MB."
    },
    {
      "action": "Uploading bundle: SAS-
RAID_Firmware_MTPW6_WN64_2.5.13.3022_A06.EXE.",
      "message": "Uploading bundle: SAS-
RAID_Firmware_MTPW6_WN64_2.5.13.3022_A06.EXE with total size: 5 MB."
    },
    {
      "action": "Uploading bundle: Firmware_VV85D_WN64_4.35_A00_03.EXE.",
      "message": "Uploading bundle: Firmware_VV85D_WN64_4.35_A00_03.EXE with
total size: 7 MB."
    },
    {
      "action": "Uploading bundle: Firmware_2F90T_WN64_2.46_A00_03.EXE.",
      "message": "Uploading bundle: Firmware_2F90T_WN64_2.46_A00_03.EXE with
total size: 6 MB."
    },
    {
      "action": "Uploading bundle: Serial-
ATA_Firmware_WK5MH_WN64_DL6P_A00_02.EXE.",
      "message": "Uploading bundle: Serial-
ATA_Firmware_WK5MH_WN64_DL6P_A00_02.EXE with total size: 10 MB."
    },
    {
      "action": "Uploading bundle: Serial-
ATA_Firmware_YXR1X_WN64_E008_A00_02.EXE.",
      "message": "Uploading bundle: Serial-
ATA_Firmware_YXR1X_WN64_E008_A00_02.EXE with total size: 9 MB."
    },
    {
      "action": "Uploading bundle: Express-Flash-PCIe-
SSD_Firmware_Y16DX_WN64_1.1.1_A01.EXE.",
      "message": "Uploading bundle: Express-Flash-PCIe-
SSD_Firmware_Y16DX_WN64_1.1.1_A01.EXE with total size: 14 MB."
    },
    {
      "action": "Uploading bundle: Express-Flash-PCIe-
SSD_Firmware_90R8R_WN64_VDV1DP21_A00.EXE.",
      "message": "Uploading bundle: Express-Flash-PCIe-
SSD_Firmware_90R8R_WN64_VDV1DP21_A00.EXE with total size: 14 MB."
    },
    {
      "action": "Uploading bundle: Serial-
ATA_Firmware_512NH_WN64_F000_A00.EXE.",

```

```

        "message": "Uploading bundle: Serial-
ATA_Firmware_512NH_WN64_F000_A00.EXE with total size: 10 MB."
    },
    {
        "action": "Uploading bundle: SAS-
Drive_Firmware_D55M2_WN64_DWF8_A00.EXE.",
        "message": "Uploading bundle: SAS-Drive_Firmware_D55M2_WN64_DWF8_A00.EXE
with total size: 10 MB."
    },
    {
        "action": "Uploading bundle: Express-Flash-PCIe-
SSD_Firmware_06CD3_WN64_1.0.0_A00.EXE.",
        "message": "Uploading bundle: Express-Flash-PCIe-
SSD_Firmware_06CD3_WN64_1.0.0_A00.EXE with total size: 16 MB."
    },
    {
        "action": "Uploading bundle: Express-Flash-PCIe-
SSD_Firmware_VFX88_WN64_E201DP31_A00_03.EXE.",
        "message": "Uploading bundle: Express-Flash-PCIe-
SSD_Firmware_VFX88_WN64_E201DP31_A00_03.EXE with total size: 13 MB."
    },
    {
        "action": "Uploading bundle: Express-Flash-PCIe-
SSD_Firmware_90R8R_WN64_VDV1DP21_A00.EXE.",
        "message": "Uploading bundle: Express-Flash-PCIe-
SSD_Firmware_90R8R_WN64_VDV1DP21_A00.EXE with total size: 14 MB."
    },
    {
        "action": "Uploading bundle: Serial-
ATA_Firmware_4DN2V_WN64_HE57_A00.EXE.",
        "message": "Uploading bundle: Serial-
ATA_Firmware_4DN2V_WN64_HE57_A00.EXE with total size: 11 MB."
    },
    {
        "action": "Uploading bundle: SAS-
Drive_Firmware_J5RD9_WN64_B01C_A00.EXE.",
        "message": "Uploading bundle: SAS-Drive_Firmware_J5RD9_WN64_B01C_A00.EXE
with total size: 10 MB."
    },
    {
        "action": "Uploading bundle: Serial-
ATA_Firmware_4RM7F_WN64_DL67_A00.EXE.",
        "message": "Uploading bundle: Serial-
ATA_Firmware_4RM7F_WN64_DL67_A00.EXE with total size: 10 MB."
    },
    {
        "action": "Uploading bundle: SAS-
Drive_Firmware_0G2TK_WN64_AS0E_A00_02.EXE.",

```

```

        "message": "Uploading bundle: SAS-
Drive_Firmware_0G2TK_WN64_AS0E_A00_02.EXE with total size: 10 MB."
    },
    {
        "action": "Uploading bundle: Express-Flash-PCIe-
SSD_Firmware_NMDM2_WN64_1.1.2_A03.EXE.",
        "message": "Uploading bundle: Express-Flash-PCIe-
SSD_Firmware_NMDM2_WN64_1.1.2_A03.EXE with total size: 16 MB."
    },
    {
        "action": "Uploading bundle: Serial-
ATA_Firmware_YMFT2_WN64_DL5A_A00.EXE.",
        "message": "Uploading bundle: Serial-
ATA_Firmware_YMFT2_WN64_DL5A_A00.EXE with total size: 10 MB."
    },
    {
        "action": "Uploading bundle: Serial-
ATA_Firmware_P2YRJ_WN64_GC5B_A00.EXE.",
        "message": "Uploading bundle: Serial-
ATA_Firmware_P2YRJ_WN64_GC5B_A00.EXE with total size: 9 MB."
    },
    {
        "action": "Uploading bundle: SAS-
Drive_Firmware_0G2TK_WN64_AS0E_A00_02.EXE.",
        "message": "Uploading bundle: SAS-
Drive_Firmware_0G2TK_WN64_AS0E_A00_02.EXE with total size: 10 MB."
    },
    {
        "action": "Uploading bundle: SAS-Non-
RAID_Firmware_YXWY1_WN64_16.17.00.05_A07_01.EXE.",
        "message": "Uploading bundle: SAS-Non-
RAID_Firmware_YXWY1_WN64_16.17.00.05_A07_01.EXE with total size: 6 MB."
    },
    {
        "action": "Uploading bundle: SAS-Non-
RAID_Firmware_TF1M6_WN64_16.17.00.05_A07.EXE.",
        "message": "Uploading bundle: SAS-Non-
RAID_Firmware_TF1M6_WN64_16.17.00.05_A07.EXE with total size: 6 MB."
    },
    {
        "action": "Uploading bundle: Network_Firmware_GD5FW_WN64_15.05.14_A00-
00.EXE.",
        "message": "Uploading bundle: Network_Firmware_GD5FW_WN64_15.05.14_A00-
00.EXE with total size: 7 MB."
    },
    {
        "action": "Uploading bundle:
Network_Firmware_22Y05_WN64_14.26.60.00.EXE.",

```

```

    "message": "Uploading bundle:
Network_Firmware_22Y05_WN64_14.26.60.00.EXE with total size: 20 MB."
  },
  {
    "action": "Uploading bundle:
Network_Firmware_YP4R0_WN64_19.5.12_A00.EXE.",
    "message": "Uploading bundle:
Network_Firmware_YP4R0_WN64_19.5.12_A00.EXE with total size: 34 MB."
  },
  {
    "action": "Uploading bundle:
Network_Firmware_40NTK_WN64_19.5.12_A00.EXE.",
    "message": "Uploading bundle:
Network_Firmware_40NTK_WN64_19.5.12_A00.EXE with total size: 15 MB."
  },
  {
    "action": "Uploading bundle: BIOS_XF4D3_WN64_2.6.3.EXE.",
    "message": "Uploading bundle: BIOS_XF4D3_WN64_2.6.3.EXE with total size:
27 MB."
  },
  {
    "action": "Uploading bundle: BIOS_P1TP2_WN64_2.6.3.EXE.",
    "message": "Uploading bundle: BIOS_P1TP2_WN64_2.6.3.EXE with total size:
27 MB."
  },
  {
    "action": "Uploading bundle: BIOS_81TGT_WN64_2.6.3.EXE.",
    "message": "Uploading bundle: BIOS_81TGT_WN64_2.6.3.EXE with total size:
27 MB."
  },
  {
    "action": "Uploading bundle: BIOS_7YNRC_WN64_2.11.0.EXE.",
    "message": "Uploading bundle: BIOS_7YNRC_WN64_2.11.0.EXE with total
size: 17 MB."
  },
  {
    "action": "Uploading bundle:
Network_Firmware_YK81Y_WN64_21.60.22.11.EXE.",
    "message": "Uploading bundle:
Network_Firmware_YK81Y_WN64_21.60.22.11.EXE with total size: 19 MB."
  },
  {
    "action": "Uploading bundle: iDRAC-with-Lifecycle-
Controller_Firmware_KTC95_WN64_4.10.10.10_A00.EXE.",
    "message": "Uploading bundle: iDRAC-with-Lifecycle-
Controller_Firmware_KTC95_WN64_4.10.10.10_A00.EXE with total size: 160 MB."
  },
  {

```



```

    "action": "Uploading bundle: iDRAC-with-Lifecycle-
Controller_Firmware_3HT97_WN64_3.34.34.34_A00.EXE.",
    "message": "Uploading bundle: iDRAC-with-Lifecycle-
Controller_Firmware_3HT97_WN64_3.34.34.34_A00.EXE with total size: 143 MB."
  },
  {
    "action": "Uploading bundle: iDRAC-with-Lifecycle-
Controller_Firmware_DNH17_WN64_2.70.70.70_A00.EXE.",
    "message": "Uploading bundle: iDRAC-with-Lifecycle-
Controller_Firmware_DNH17_WN64_2.70.70.70_A00.EXE with total size: 112 MB."
  },
  {
    "action": "Uploading bundle: Platform-Service_7.0.000-15814390.zip.",
    "message": "Uploading bundle: Platform-Service_7.0.000-15814390.zip with
total size: 1 MB."
  },
  {
    "action": "Uploading bundle: DellPTAgent-1.9.4-41-offline-bundle.zip.",
    "message": "Uploading bundle: DellPTAgent-1.9.4-41-offline-bundle.zip
with total size: 17 MB."
  },
  {
    "action": "Uploading bundle: ESXi-7.0.0_15774451-b18e4ccc-
standard.zip.",
    "message": "Uploading bundle: ESXi-7.0.0_15774451-b18e4ccc-standard.zip
with total size: 339 MB."
  },
  {
    "action": "Profile prechecking",
    "message": "ESXi host platform pre-check succeeded: The platform defined
in the upgrade bundle matches the hardware platform of all appliance hosts."
  },
  {
    "action": "Profile prechecking",
    "message": "Pre-checking that the vCenter upgrade bundle is the correct
type."
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry node-upgrade.py from the composite bundle
package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry nodeManifestFile.xml from the composite
bundle package. "
  },
  {
    "action": "Unpacking composite bundle",

```

```

    "message": "Unzipped the entry bundles/surrogate.war from the composite
bundle package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry surrogate_mystic_delta_revert.sql from
the composite bundle package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry surrogate_marvin_delta_revert.sql from
the composite bundle package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry surrogate_mystic_delta.sql from the
composite bundle package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry surrogate_marvin_delta.sql from the
composite bundle package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry bootstrap_background.sh from the
composite bundle package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry bootstrap.sh from the composite bundle
package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry vcmRuleset.xml from the composite bundle
package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry manifest.xml from the composite bundle
package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry bundles/Platform-Service_7.0.000-
15814390.zip from the composite bundle package. "
  },
  {

```

```

    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry bundles/DellPTAgent-1.9.4-41-offline-
bundle.zip from the composite bundle package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry bundles/DellPTAgent-Bundle_2.0.0.113-
DEL.7.0.0.1.0.15525992-signed_component-15721866.zip from the composite bundle
package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry bundles/Firmware_3N5TF_WN64_1.9_A03.EXE
from the composite bundle package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry bundles/Serial-
ATA_Firmware_CHJGV_WN64_DL43_A00_01.EXE from the composite bundle package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry bundles/SAS-
RAID_Firmware_MTPW6_WN64_2.5.13.3022_A06.EXE from the composite bundle package.
"
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry
bundles/Firmware_VV85D_WN64_4.35_A00_03.EXE from the composite bundle package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry
bundles/Firmware_2F90T_WN64_2.46_A00_03.EXE from the composite bundle package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry bundles/Serial-
ATA_Firmware_WK5MH_WN64_DL6P_A00_02.EXE from the composite bundle package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry bundles/Serial-
ATA_Firmware_YXR1X_WN64_E008_A00_02.EXE from the composite bundle package. "
  },
  {
    "action": "Unpacking composite bundle",

```

```

    "message": "Unzipped the entry bundles/Express-Flash-PCIe-
SSD_Firmware_Y16DX_WN64_1.1.1_A01.EXE from the composite bundle package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry bundles/Serial-
ATA_Firmware_512NH_WN64_F000_A00.EXE from the composite bundle package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry bundles/SAS-
Drive_Firmware_D55M2_WN64_DWF8_A00.EXE from the composite bundle package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry bundles/Express-Flash-PCIe-
SSD_Firmware_06CD3_WN64_1.0.0_A00.EXE from the composite bundle package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry bundles/Express-Flash-PCIe-
SSD_Firmware_VFX88_WN64_E201DP31_A00_03.EXE from the composite bundle package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry bundles/Express-Flash-PCIe-
SSD_Firmware_90R8R_WN64_VDV1DP21_A00.EXE from the composite bundle package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry bundles/Serial-
ATA_Firmware_4DN2V_WN64_HE57_A00.EXE from the composite bundle package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry bundles/SAS-
Drive_Firmware_J5RD9_WN64_B01C_A00.EXE from the composite bundle package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry bundles/Serial-
ATA_Firmware_4RM7F_WN64_DL67_A00.EXE from the composite bundle package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry bundles/Express-Flash-PCIe-
SSD_Firmware_NMDM2_WN64_1.1.2_A03.EXE from the composite bundle package. "
  },
  {

```

```

    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry bundles/Serial-
ATA_Firmware_YMFT2_WN64_DL5A_A00.EXE from the composite bundle package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry bundles/Serial-
ATA_Firmware_P2YRJ_WN64_GC5B_A00.EXE from the composite bundle package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry bundles/SAS-
Drive_Firmware_0G2TK_WN64_AS0E_A00_02.EXE from the composite bundle package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry bundles/SAS-Non-
RAID_Firmware_YXWY1_WN64_16.17.00.05_A07_01.EXE from the composite bundle
package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry bundles/SAS-Non-
RAID_Firmware_TF1M6_WN64_16.17.00.05_A07.EXE from the composite bundle package.
"
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry
bundles/Network_Firmware_GD5FW_WN64_15.05.14_A00-00.EXE from the composite
bundle package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry
bundles/Network_Firmware_22Y05_WN64_14.26.60.00.EXE from the composite bundle
package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry
bundles/Network_Firmware_YP4R0_WN64_19.5.12_A00.EXE from the composite bundle
package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry
bundles/Network_Firmware_40NTK_WN64_19.5.12_A00.EXE from the composite bundle
package. "

```

```

    },
    {
      "action": "Unpacking composite bundle",
      "message": "Unzipped the entry bundles/BIOS_XF4D3_WN64_2.6.3.EXE from
the composite bundle package. "
    },
    {
      "action": "Unpacking composite bundle",
      "message": "Unzipped the entry bundles/BIOS_P1TP2_WN64_2.6.3.EXE from
the composite bundle package. "
    },
    {
      "action": "Unpacking composite bundle",
      "message": "Unzipped the entry bundles/BIOS_81TGT_WN64_2.6.3.EXE from
the composite bundle package. "
    },
    {
      "action": "Unpacking composite bundle",
      "message": "Unzipped the entry bundles/BIOS_7YNRC_WN64_2.11.0.EXE from
the composite bundle package. "
    },
    {
      "action": "Unpacking composite bundle",
      "message": "Unzipped the entry
bundles/Network_Firmware_YK81Y_WN64_21.60.22.11.EXE from the composite bundle
package. "
    },
    {
      "action": "Unpacking composite bundle",
      "message": "Unzipped the entry bundles/iDRAC-with-Lifecycle-
Controller_Firmware_KTC95_WN64_4.10.10.10_A00.EXE from the composite bundle
package. "
    },
    {
      "action": "Unpacking composite bundle",
      "message": "Unzipped the entry bundles/iDRAC-with-Lifecycle-
Controller_Firmware_3HT97_WN64_3.34.34.34_A00.EXE from the composite bundle
package. "
    },
    {
      "action": "Unpacking composite bundle",
      "message": "Unzipped the entry bundles/iDRAC-with-Lifecycle-
Controller_Firmware_DNH17_WN64_2.70.70.70_A00.EXE from the composite bundle
package. "
    },
    {
      "action": "Unpacking composite bundle",
      "message": "Unzipped the entry bundles/MRVL-E4-CNA-Driver-
Bundle_5.0.187-10EM.700.1.0.15525992.zip from the composite bundle package. "
    }
  ],
  "status": "Success"
}

```

```

    },
    {
      "action": "Unpacking composite bundle",
      "message": "Unzipped the entry bundles/MLNX-NATIVE-ESX-ConnectX-4-5_BETA_4.19.17.5-1OEM.700.0.0.14828939.zip from the composite bundle package. "
    },
    {
      "action": "Unpacking composite bundle",
      "message": "Unzipped the entry bundles/VMW-ESX-7.0.0-bnxt-216.0.406.0-offline-bundle-14828939.zip from the composite bundle package. "
    },
    {
      "action": "Unpacking composite bundle",
      "message": "Unzipped the entry bundles/i40en-700-19.12.13.0-14828939-offline-bundle.zip from the composite bundle package. "
    },
    {
      "action": "Unpacking composite bundle",
      "message": "Unzipped the entry bundles/ixgben-700-19.12.13.0-14828939-offline-bundle.zip from the composite bundle package. "
    },
    {
      "action": "Unpacking composite bundle",
      "message": "Unzipped the entry bundles/igbn-700-19.12.13.0-14828939-offline-bundle.zip from the composite bundle package. "
    },
    {
      "action": "Unpacking composite bundle",
      "message": "Unzipped the entry bundles/VXRAIL_7.0.000-15814390.zip from the composite bundle package. "
    },
    {
      "action": "Unpacking composite bundle",
      "message": "Unzipped the entry bundles/ISM-Dell-Web-3.5.0-1862.VIB-ESX6i-Live_A00.zip from the composite bundle package. "
    },
    {
      "action": "Unpacking composite bundle",
      "message": "Unzipped the entry bundles/dcism-3.5.1.1883-offline_bundle-15342352.zip from the composite bundle package. "
    },
    {
      "action": "Unpacking composite bundle",
      "message": "Unzipped the entry bundles/ESXi-7.0.0_15774451-b18e4ccc-standard.zip from the composite bundle package. "
    },
    {
      "action": "Unpacking composite bundle",

```

```

    "message": "Unzipped the entry bundles/VMware-vCenter-Server-Appliance-
7.0.0.10000-15777620_OVF10.ova from the composite bundle package. "
  },
  {
    "action": "Unpacking composite bundle",
    "message": "Unzipped the entry bundles/VXRAIL_Manager-7.0.000.00000-
15814390-updaterepo.zip from the composite bundle package. "
  }
],
"errors": [
  {
    "action": "VxRail Manager upgrade failed on target: VxRail Manager due
to Failure running upgrade script.. Failure occurred in the middle of upgrading.
If you want to resume, make sure the failed component has recovered to its pre-
upgrade state and then click Resume.",
    "message": "Failure running upgrade script."
  },
  {
    "action": "Unexpected failure during upgrade, please check web.log or
lcm.log",
    "message": "Upgrade failed. Unexpected failure during upgrade, please
check web.log or lcm.log"
  }
],
"target_version": "7.0.000-26399974"
}
}

```


14 Appendix C: Sample response after successful Day 1 bring up

Following is an example of a status response after a successful first run:

```
{
  "id": "92ee6c72-0e54-4de5-8fa8-8ba6d9c20372",
  "state": "COMPLETED",
  "owner": "Day1BringUp",
  "extension": {
    "stage": "",
    "guidelines": [],
    "validation": {
      "cursory": {
        "errors": {
          "fields": [],
          "generals": []
        },
        "warnings": {
          "fields": [],
          "generals": []
        }
      },
      "thorough": {
        "errors": {
          "fields": [],
          "generals": []
        },
        "warnings": {
          "fields": [],
          "generals": []
        }
      }
    }
  },
  "steps": [
    {
      "id": "vxm_system_services_stop",
      "name": "VxM stop services",
      "path": "vxm_system_services_stop",
      "state": "COMPLETED",
      "start_time": 1588777989194,
      "end_time": 1588777990309
    },
    {
      "id": "cursory_validator",
      "name": "Cursory validate",
      "path":
"cursor_validation.cursory_validator.cursory_validator",

```

```

        "state": "COMPLETED",
        "start_time": 1588777990407,
        "end_time": 1588777990483
    },
    {
        "id": "cursory_validation_report",
        "name": "steps.cursory_validation_report",
        "path": "cursory_validation_report",
        "state": "COMPLETED",
        "start_time": 1588777990586,
        "end_time": 1588777990649
    },
    {
        "id": "hardware_model_validator",
        "name": "Hardware model validate",
        "path":
"general_thorough_validation.thorough_group_validator.hardware_model_validator",
        "state": "COMPLETED",
        "start_time": 1588777990926,
        "end_time": 1588777990992
    },
    {
        "id": "standalone_discovered_host_configuration_validator",
        "name": "Standalone discovered host configuration validate",
        "path":
"general_thorough_validation.thorough_group_validator.standalone_discovered_host
_configuration_validator",
        "state": "COMPLETED",
        "start_time": 1588777991044,
        "end_time": 1588777991111
    },
    {
        "id": "cluster_disk_type_configuration_validator",
        "name": "Cluster disk type configuration validate",
        "path":
"general_thorough_validation.thorough_group_validator.cluster_disk_type_configur
ation_validator",
        "state": "COMPLETED",
        "start_time": 1588777991175,
        "end_time": 1588777992967
    },
    {
        "id": "esxi_host_account_validator",
        "name": "ESXi host account validate",
        "path":
"general_thorough_validation.thorough_group_validator.esxi_host_account_validato
r",
        "state": "COMPLETED",
        "start_time": 1588777993037,

```

```

        "end_time": 1588778010370
    },
    {
        "id": "vxm_service_account_validator",
        "name": "VxM service account validate",
        "path":
"general_thorough_validation.thorough_group_validator.vxm_service_account_valida
tor",
        "state": "COMPLETED",
        "start_time": 1588778010453,
        "end_time": 1588778023795
    },
    {
        "id": "vxm_root_account_validator",
        "name": "VxM root account validate",
        "path":
"general_thorough_validation.thorough_group_validator.vxm_root_account_validator
",
        "state": "COMPLETED",
        "start_time": 1588778023866,
        "end_time": 1588778037177
    },
    {
        "id": "multi_disk_group_configuration_validator",
        "name": "Multiple disk group configuration validate",
        "path":
"general_thorough_validation.thorough_group_validator.multi_disk_group_configura
tion_validator",
        "state": "COMPLETED",
        "start_time": 1588778037249,
        "end_time": 1588778044209
    },
    {
        "id": "vlan_live_validator",
        "name": "vLAN live validate",
        "path":
"general_thorough_validation.thorough_group_validator.vlan_live_validator.vxrail
_supplied.vlan_live_validator",
        "state": "COMPLETED",
        "start_time": 1588778044493,
        "end_time": 1588778168486
    },
    {
        "id": "twonode_network_compatibility_live_validator",
        "name": "Two node network compatibility live validate",
        "path":
"general_thorough_validation.thorough_group_validator.twonode_network_compatibil
ity_live_validator",
        "state": "SKIPPED",

```

```

        "start_time": 1588778168660,
        "end_time": 1588778168756
    },
    {
        "id": "network_compatibility_live_validator",
        "name": "Network compatibility live validate",
        "path":
"general_thorough_validation.thorough_group_validator.network_compatibility_live_validator",
        "state": "COMPLETED",
        "start_time": 1588778168844,
        "end_time": 1588778169984
    },
    {
        "id": "physical_link_validator",
        "name": "steps.physical_link_validator",
        "path":
"general_thorough_validation.thorough_validator.3.physical_link_validator",
        "state": "COMPLETED",
        "start_time": 1588778172498,
        "end_time": 1588778172977
    },
    {
        "id": "physical_link_live_validator",
        "name": "Physical link live validate",
        "path":
"general_thorough_validation.thorough_validator.3.physical_link_live_validator",
        "state": "COMPLETED",
        "start_time": 1588778173070,
        "end_time": 1588778173167
    },
    {
        "id": "two_node_robo_minnics_on_host_validator",
        "name": "TWO NODE ROBO minnics on host validate",
        "path":
"general_thorough_validation.thorough_validator.3.two_node_robo_minnics_on_host_validator",
        "state": "SKIPPED",
        "start_time": 1588778173253,
        "end_time": 1588778173350
    },
    {
        "id": "physical_link_validator",
        "name": "steps.physical_link_validator",
        "path":
"general_thorough_validation.thorough_validator.2.physical_link_validator",
        "state": "SKIPPED",
        "start_time": 1588778171773,
        "end_time": 1588778171866
    }

```

```

    },
    {
      "id": "physical_link_live_validator",
      "name": "Physical link live validate",
      "path":
"general_thorough_validation.thorough_validator.2.physical_link_live_validator",
      "state": "COMPLETED",
      "start_time": 1588778171961,
      "end_time": 1588778172058
    },
    {
      "id": "two_node_robo_minnics_on_host_validator",
      "name": "TWO NODE ROBO minnics on host validate",
      "path":
"general_thorough_validation.thorough_validator.2.two_node_robo_minnics_on_host_
validator",
      "state": "SKIPPED",
      "start_time": 1588778172147,
      "end_time": 1588778172249
    },
    {
      "id": "physical_link_validator",
      "name": "steps.physical_link_validator",
      "path":
"general_thorough_validation.thorough_validator.1.physical_link_validator",
      "state": "SKIPPED",
      "start_time": 1588778171050,
      "end_time": 1588778171141
    },
    {
      "id": "physical_link_live_validator",
      "name": "Physical link live validate",
      "path":
"general_thorough_validation.thorough_validator.1.physical_link_live_validator",
      "state": "COMPLETED",
      "start_time": 1588778171230,
      "end_time": 1588778171325
    },
    {
      "id": "two_node_robo_minnics_on_host_validator",
      "name": "TWO NODE ROBO minnics on host validate",
      "path":
"general_thorough_validation.thorough_validator.1.two_node_robo_minnics_on_host_
validator",
      "state": "SKIPPED",
      "start_time": 1588778171409,
      "end_time": 1588778171503
    },
    {

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```

        "id": "physical_link_validator",
        "name": "steps.physical_link_validator",
        "path":
"general_thorough_validation.thorough_validator.0.physical_link_validator",
        "state": "SKIPPED",
        "start_time": 1588778170317,
        "end_time": 1588778170413
    },
    {
        "id": "physical_link_live_validator",
        "name": "Physical link live validate",
        "path":
"general_thorough_validation.thorough_validator.0.physical_link_live_validator",
        "state": "COMPLETED",
        "start_time": 1588778170500,
        "end_time": 1588778170602
    },
    {
        "id": "two_node_robo_minnics_on_host_validator",
        "name": "TWO NODE ROBO minnics on host validate",
        "path":
"general_thorough_validation.thorough_validator.0.two_node_robo_minnics_on_host_
validator",
        "state": "SKIPPED",
        "start_time": 1588778170694,
        "end_time": 1588778170791
    },
    {
        "id": "time_sync_configuration_validator",
        "name": "Time synchronize configuration validate",
        "path":
"general_thorough_validation.network_prepare_awaited_foreach_validator.3.time_syn
c_configuration_validator",
        "state": "COMPLETED",
        "start_time": 1588778996840,
        "end_time": 1588779021406
    },
    {
        "id": "time_configuration_live_validator",
        "name": "Time configuration live validate",
        "path":
"general_thorough_validation.network_prepare_awaited_foreach_validator.3.time_con
figuration_live_validator",
        "state": "COMPLETED",
        "start_time": 1588779021510,
        "end_time": 1588779024110
    },
    {
        "id": "dns_hostnames_live_validator",

```

```

        "name": "DNS hostnames live validate",
        "path":
"general_thorough_validation.network_prepare_aware_foreach_validator.3.dns_host
names_live_validator",
        "state": "COMPLETED",
        "start_time": 1588779024208,
        "end_time": 1588779026541
    },
    {
        "id": "witness_host_validator",
        "name": "Witness host validate",
        "path":
"general_thorough_validation.network_prepare_aware_foreach_validator.3.witness_
host_validator",
        "state": "SKIPPED",
        "start_time": 1588779026646,
        "end_time": 1588779026762
    },
    {
        "id": "time_sync_configuration_validator",
        "name": "Time synchronize configuration validate",
        "path":
"general_thorough_validation.network_prepare_aware_foreach_validator.2.time_syn
c_configuration_validator",
        "state": "COMPLETED",
        "start_time": 1588778969928,
        "end_time": 1588778991127
    },
    {
        "id": "time_configuration_live_validator",
        "name": "Time configuration live validate",
        "path":
"general_thorough_validation.network_prepare_aware_foreach_validator.2.time_con
figuration_live_validator",
        "state": "COMPLETED",
        "start_time": 1588778991243,
        "end_time": 1588778993856
    },
    {
        "id": "dns_hostnames_live_validator",
        "name": "DNS hostnames live validate",
        "path":
"general_thorough_validation.network_prepare_aware_foreach_validator.2.dns_host
names_live_validator",
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        "path":
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c_configuration_validator",
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      "name": "Witness host validate",
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      "end_time": 1588778941287
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      "name": "DNS servers configuration validate",
      "path":
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      "path":
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      "name": "External VC access live validate",
      "path":
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      "name": "External VC entities live validator",
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tibility_live_validator",
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ty_limit_live_validator",
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        "end_time": 1588779044873
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        "id": "external_vc_license_validator",
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e_validator",
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        "end_time": 1588779047229
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        "name": "steps.vc_user_permission_live_validator",
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        "path":
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t_dns",
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        "end_time": 1588779059477
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        "name": "VxM synchronize time",
        "path":
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        "end_time": 1588779074314
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        "id": "vxm_auto_start_enable",
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        "path":
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        "id": "vc_auto_start_enable",
        "name": "VC enable auto start",
        "path":
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        "start_time": 1588779750429,
        "end_time": 1588779752671
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        "name": "VC create management account",
        "path":
"internal_vc_prepare.internal.internal_vc_boot_up.internal_vc_prepare.vc_mgmt_a
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      "name": "Cluster create",
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      "end_time": 1588779770132
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      "name": "VxM register VC plugin",
      "path":
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      "state": "COMPLETED",
      "start_time": 1588779770323,
      "end_time": 1588779771582
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      "id": "cluster_mgmt_account_permission_grant",
      "name": "Cluster grant management account permission ",
      "path":
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      "end_time": 1588779775282
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        "end_time": 1588779816877
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        "end_time": 1588779826309
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        "path":
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        "start_time": 1588779835432,
        "end_time": 1588779837039
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        "path":
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        "start_time": 1588779837188,
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        "end_time": 1588779849944
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        "path":
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        "end_time": 1588779853322
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"node_one_bootstrap_with_cns_ready.primary_node_network.host_add_to_vds",
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        "id": "host_assign_standby_pnic_to_vds",
        "name": "Host assign standby pnic to vds",
        "path":
"node_one_bootstrap_with_cns_ready.primary_node_network.host_assign_standby_pnic
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        "start_time": 1588779954472,
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        "end_time": 1588779988227
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        "name": "Host configure geo location",
        "path":
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uration",
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        "id": "host_election_service_disable",
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        "name": "Host change hostname",
        "path":
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        "end_time": 1588780710069
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        "id": "host_platform_service_ip_update",
        "name": "Host update platform service ip",
        "path":
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        "name": "Host set DNS Server",
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        "id": "host_time_sync",
        "name": "Host synchronize time",
        "path":
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        "name": "Host assign standby pnic to vds",
        "path":
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        "name": "Host configure geo location",
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        "name": "Host disable election service",
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an_change",
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        "name": "Host update platform service ip",
        "path":
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        "state": "COMPLETED",
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        "end_time": 1588780352559
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        "id": "host_platform_service_restart",
        "name": "Host restart platform service",
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        "end_time": 1588780353267
    },
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        "path":
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        "end_time": 1588780365101
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        "path":
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        "name": "Host remove storage vSAN disk",
        "path":
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        "end_time": 1588780516329
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        "name": "Host storage leave vSAN",
        "path":
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        "name": "Host add into cluster",
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        "path":
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        "end_time": 1588780624630
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        "end_time": 1588780001760
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        "name": "Host restart platform service",
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        "end_time": 1588780002081
    },
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        "name": "Host change PTAgent ip",
        "path":
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        "end_time": 1588780004524
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    {
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        "name": "Host set DNS Server",
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        "end_time": 1588780006252
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        "name": "Host synchronize time",
        "path":
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ove",
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      "start_time": 1588780243272,
      "end_time": 1588780249816
    },
    {
      "id": "host_assign_vmk_to_vds",
      "name": "Host assign vmk to vds",
      "path":
"node_addtion_with_cns_ready.node_addition.0.node_cns.host_assign_vmk_to_vds",
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      "start_time": 1588780249969,
      "end_time": 1588780257456
    },
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      "name": "VxM add vnic to vds",
      "path":
"node_addtion_with_cns_ready.node_addition.0.node_cns.vxm_network_vnic_add_to_vd
s",
      "state": "COMPLETED",
      "start_time": 1588780257643,
      "end_time": 1588780259019
    },
    {
      "id": "host_assign_active_pnic_to_vds",
      "name": "Host assign active pnic to vds",
      "path":
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      "start_time": 1588780259178,
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    },
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        "id": "host_geo_location_configuration",
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ation",
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        "id": "host_storage_add_to_vsan",
        "name": "Host storage add to vSAN",
        "path":
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        "start_time": 1588780268524,
        "end_time": 1588780269029
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        "name": "Host create vSAN diskgroups",
        "path":
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e",
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        "end_time": 1588780337217
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        "name": "Host vSAN storage policy configuration",
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        "end_time": 1588781072453
    },
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        "id": "vc_guest_ops_alias",
        "name": "VC create guest operation alias",
        "path":
"specific_internal_vc_cluster_finalization.internal.internal_vc_boot_up.internal
_vc_cluster_finalization.vc_guest_ops_alias",
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        "start_time": 1588781072640,
        "end_time": 1588781074086
    },
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        "name": "VC disable password expiration",
        "path":
"specific_internal_vc_cluster_finalization.internal.internal_vc_boot_up.internal
_vc_cluster_finalization.vc_password_expiration_disable",
        "state": "COMPLETED",
        "start_time": 1588781074260,
        "end_time": 1588781076585
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        "id": "cluster_storage_policy_create",
        "name": "Cluster create storage policy",
        "path":
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y_create",
        "state": "COMPLETED",
        "start_time": 1588781077245,
        "end_time": 1588781078757
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        "id": "cluster_etc_enable",
        "name": "Cluster enable EVC",
        "path":
"vsphere_cluster_finalization.vsphere_cluster_finalization.cluster_etc_enable",
        "state": "COMPLETED",
        "start_time": 1588781078923,
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    },
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        "id": "cluster_system_vm_storage_policy_apply",
        "name": "Cluster apply system VM storage policy",
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rage_policy_apply",
        "state": "COMPLETED",
        "start_time": 1588781083790,
        "end_time": 1588781092207
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        "name": "Cluster enable DRS",
        "path":
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        "start_time": 1588781092380,
        "end_time": 1588781097735
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        "id": "cluster_high_availability_enable",
        "name": "Cluster enable high availability",
        "path":
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        "state": "COMPLETED",
        "start_time": 1588781097903,
        "end_time": 1588781153115
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        "name": "Cluster config DAS",
        "path":
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        "end_time": 1588781156664
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        "id": "host_logging_system_configure",
        "name": "Host configure logging system",
        "path":
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re.3.host_logging_system_configure",
        "state": "COMPLETED",
        "start_time": 1588781189095,
        "end_time": 1588781191635
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    {
        "id": "host_security_service_disable",

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        "name": "Host disable security service",
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        "id": "host_proxy_service_disable",
        "name": "Host disable proxy service",
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        "name": "Host configure logging system",
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        "end_time": 1588781181353
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        "path":
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        "name": "Host disable security service",
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        "name": "Host disable proxy service",
        "path":
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        "state": "COMPLETED",
        "start_time": 1588781173733,
        "end_time": 1588781177480
    },
    {
        "id": "host_logging_system_configure",
        "name": "Host configure logging system",
        "path":
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      "path":
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      "start_time": 1588781199964,
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      "name": "VxM set hostname",
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      "state": "COMPLETED",
      "start_time": 1588781201463,
      "end_time": 1588781202846
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    {
      "id": "vxm_evo_password",
      "name": "VxM change password",
      "path":
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      "state": "COMPLETED",
      "start_time": 1588781203018,
      "end_time": 1588781205398
    },
    {
      "id": "vxm_configuration_data_populate",
      "name": "VxM populate configuration data",
      "path":
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      "state": "COMPLETED",
      "start_time": 1588781205581,
      "end_time": 1588781211775
    },
    {
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        "name": "Reset VSphere alarm status",
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        "id": "ome_integration",
        "name": "steps.ome_integration",
        "path":
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        "state": "COMPLETED",
        "start_time": 1588781212759,
        "end_time": 1588781220187
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        "id": "vxm_network_vnic_remove",
        "name": "VxM remove network vnic",
        "path":
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        "state": "COMPLETED",
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        "end_time": 1588781223736
    },
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        "id": "host_vss_remove",
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        "path":
"vxrail_cluster_finalization.vxrail_cluster_finalization.cluster_hosts_vss_remov
e.3.host_vss_remove",
        "state": "COMPLETED",
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        "end_time": 1588781234196
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    {
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        "name": "Host remove vss",
        "path":
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e.2.host_vss_remove",
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        "end_time": 1588781232377
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        "path":
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ve.1.host_vss_remove",
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        "name": "Host remove vss",
        "path":
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ve.0.host_vss_remove",
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        "start_time": 1588781224277,
        "end_time": 1588781226640
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        "id": "host_root_account_password_change",
        "name": "Host change root account password",
        "path":
"vxrail_cluster_finalization.vxrail_cluster_finalization.cluster_hosts_root_pass
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        "state": "COMPLETED",
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        "end_time": 1588781241980
    },
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        "name": "Host change root account password",
        "path":
"vxrail_cluster_finalization.vxrail_cluster_finalization.cluster_hosts_root_pass
word_change.2.host_root_account_password_change",
        "state": "COMPLETED",
        "start_time": 1588781238846,
        "end_time": 1588781240129
    },
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        "name": "Host change root account password",
        "path":
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word_change.1.host_root_account_password_change",
        "state": "COMPLETED",
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        "end_time": 1588781238290
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        "id": "host_root_account_password_change",

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        "end_time": 1588781236351
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        "name": "VxM restart services",
        "path": "vxm_system_services_restart",
        "state": "COMPLETED",
        "start_time": 1588781242707,
        "end_time": 1588781247343
    }
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"progress": 100,
"detail": "",
"error": "",
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"end_time": 1588781247671
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