Verify Software Installation

For supported software information, click here.

This article describes how to verify the software installation and operation of the Versa headend components. You can verify the operation of the headend components after you have installed the software and performed the initial software configuration, as described in Perform Initial Software Configuration.

Verify Analytics Installation and Operation

You verify the installation and operation of each Analytics node by running shell commands and accessing the node's Analytics application instance from a browser.

Verify Analytics Processes, Software Release, and Interfaces

To verify Analytics processes, software release, and interfaces, perform the following steps on each node in the cluster:

1. Log in to the shell on the Analytics node. The default username is admin, and the default password is versa123.
2. To verify that Versa Analytics services are running, issue the **vsh status** command. The command output should be similar to the example below, which shows that the following services are running. Note that some nodes may not run the log collector exporter or Analytics driver services.
   - versa-confd—Interface between the configuration database and processes interacting with the CLI.
   - versa-lced—Log collector exporter
   - versa-analytics-driver—Analytics driver
   - versa-analytics-app—Instance of the Analytics application running on the node.
   - versa-monit—Service and resource monitoring daemon. The monitor tool manages and monitors processes, programs, files, directories, and filesystems on Linux-based systems. The tool also performs automatic maintenance and repair.

```
admin@Analytics$ vsh status
[sudo] password for admin:
versa-confd           is Running
versa-lced            is Running
versa-analytics-driver is Running
versa-analytics-app    is Running
versa-monit           is Running
```

   If any services are stopped, issue the **vsh restart** command to restart all services:

```
admin@Analytics$ vsh restart
```

3. Check the software package version of the Analytics software:

```
admin@Analytics$ show system package-info
Package            Analytics Software
Release            20.2-R1
Build              GA
Release date       20170501
Package ID         2f33623
Package name       versa-analytics-20190809-071300-2f33623-20.2R1
Branch             20.2R1
Creator            shep
```

4. Check the interfaces that are configured:

```
admin@Analytics$ cat /etc/network/interfaces
# This file describes the network interfaces available on your system
# and how to activate them. For more information, see interfaces(5).

# The loopback network interface
auto lo
iface lo inet loopback

# The primary network interface
auto eth0
iface eth0 inet static
   address 10.192.80.3
   netmask 255.255.0.0
   gateway 10.192.0.1
   dns-nameservers 10.48.0.99

auto eth1
iface eth1 inet static
   address 192.9.25.3
   netmask 255.255.255.0
   post-up route add -net 10.0.0.0/8 gw 192.9.25.5
```

Verify the NoSQL Database

To verify the operation of the noSQL (Cassandra) database, issue the **vsh dbstatus** command from the shell on each analytics-type node in the cluster:

```
admin@Analytics$ vsh dbstatus
```

The following shows example output on an analytics node. In the Datacenter: Analytics section, "U" in the first column indicates that the analytics node is operational.

```
admin@Analytics$ vsh dbstatus
[sudo] password for versa:
Datacenter: Analytics
```

```
====================
Status=Up/Down
|/ State=Normal/Leaving/Joining/Moving
--  Address         Load       Tokens       Owns (effective)  Host ID                               Rack
UN  192.168.116.15  62.77 MB   256          100.0%            4b0e5cd5-84e8-4d6b-8a4d-bdbb573eefc6  RAC1
UN  192.168.116.5   65.01 MB   256          100.0%            8d343be1-afdd-4400-a3fd-34d6784f9537  RAC1

Zookeeper Status
====================
ZooKeeper JMX enabled by default
Using config: /opt/versa_van/apps/zookeeper-3.4.10/bin/../conf/zoo.cfg
Mode: follower
====================
Zookeeper version: 3.4.10-39d3a4f269333c922ed3db283be479f9deacaa0f, built on 03/23/2017 10:13 GMT
Clients:
/0:0:0:0:0:0:0:1:36628[0](queued=0,recved=1,sent=0)

Latency min/avg/max: 0/0/0
Received: 6
Sent: 5
Connections: 1
Outstanding: 0
Zxid: 0x10000007c
Mode: follower
Node count: 41
```

Verify the Analytics Search Engine

To verify the operation of the search engine, issue the **vsh dbstatus** command from the shell of each search-type node in the cluster:

```
admin@Analytics$ vsh dbstatus
```

The following shows example output on a search-type node. In the Datacenter: Search section, the liveNodes field shows the number of search nodes available in the Analytics cluster, and a value of 1 in the Collections field indicates that the Analytics database has been initialized.

```
admin@Search$ vsh dbstatus
[sudo] password for versa:
Zookeeper Status
====================
ZooKeeper JMX enabled by default
Using config: /opt/versa_van/apps/zookeeper-3.4.10/bin/../conf/zoo.cfg
Mode: leader
====================
Zookeeper version: 3.4.10-39d3a4f269333c922ed3db283be479f9deacaa0f, built on 03/23/2017 10:13 GMT
Clients:
/192.168.116.25:51428[1](queued=0,recved=1208556,sent=1208591)
/0:0:0:0:0:0:0:1:41820[0](queued=0,recved=1,sent=0)
/192.168.116.26:56666[1](queued=0,recved=209227,sent=209234)
```

```
Latency min/avg/max: 0/0/1408
Received: 1417793
Sent: 1417834
Connections: 3
Outstanding: 0
Zxid: 0x10000007c
Mode: leader
Node count: 41

Datacenter: Search
==========

Found 1 Solr nodes:

Solr process 2912 running on port 8983

  solr_home: /var/lib/solr/data/data,
  version: 6.6.1 9aa465a89b64ff2dabe7b4d50c472de32c298683 - varunthacker - 2017-08-29 22:00:32,
  startTime: 2020-12-09T09:04:14.589Z,
  uptime: 27 days, 17 hours, 51 minutes, 25 seconds,
  memory: 72 MB (%14.7) of 490.7 MB,
  cloud:
    ZooKeeper: 192.168.116.5:2181,192.168.116.25:2181,192.168.116.15:2181,192.168.116.26:2181,
    liveNodes: 2,
    collections: 1
```

Verify Log Collectors

For nodes that collect logs, check that local collectors are configured. Note that you can configure analytics-type, search-type, and forwarder-type nodes to collect logs.

```
admin@Forwarder$ cli
admin@Forwarder> configure
admin@Forwarder% show log-collector-exporter local
```

The following example shows that the local collector named Collector1 is configured for port 1234 on interface 192.168.1.21:

```
admin@Forwarder% show log-collector-exporter local
collectors {
    Collector1 {
        address         192.168.1.21;
        port            1234;
        max-connections 100;
        protocol        ipfix;
        storage {
            directory               /var/tmp/log;
            format                  syslog;
            file-generation-interval 10;
            max-logs-per-file       100;
            category flow {
```

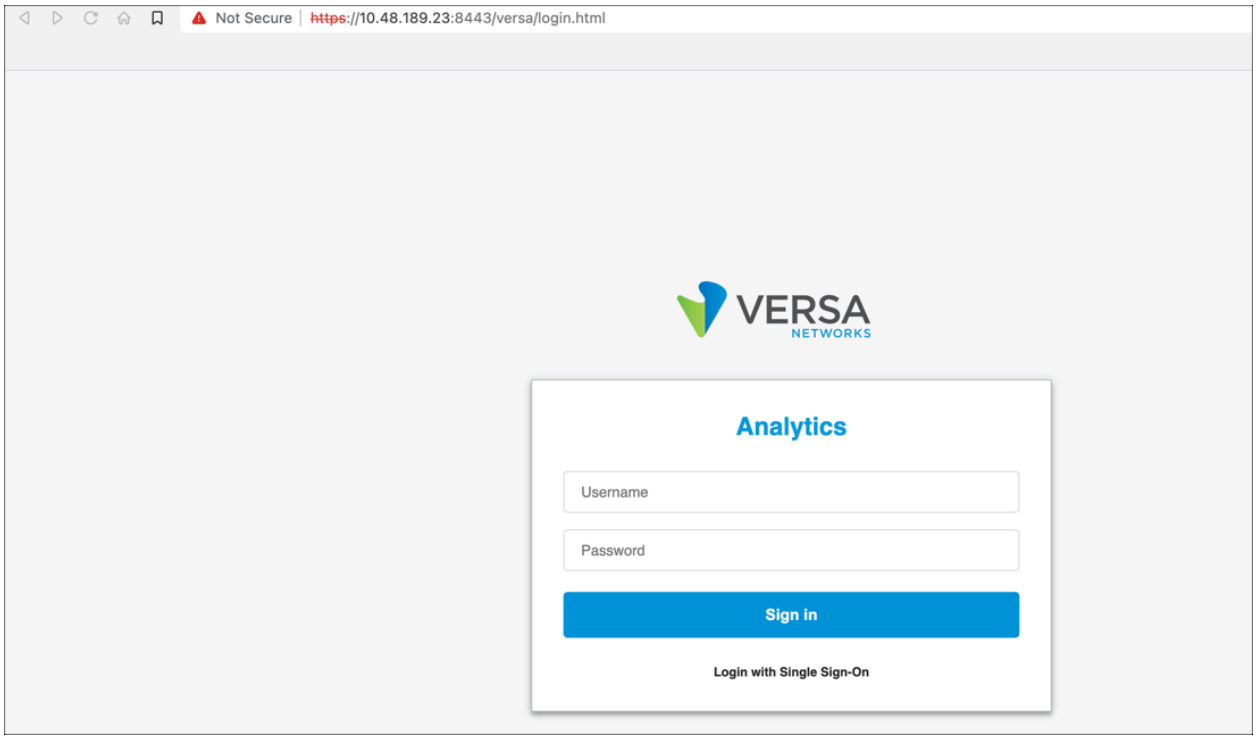
```
            throttle 10000;
        }
    }
```

Verify the Analytics Application

To check connectivity to the Analytics application:

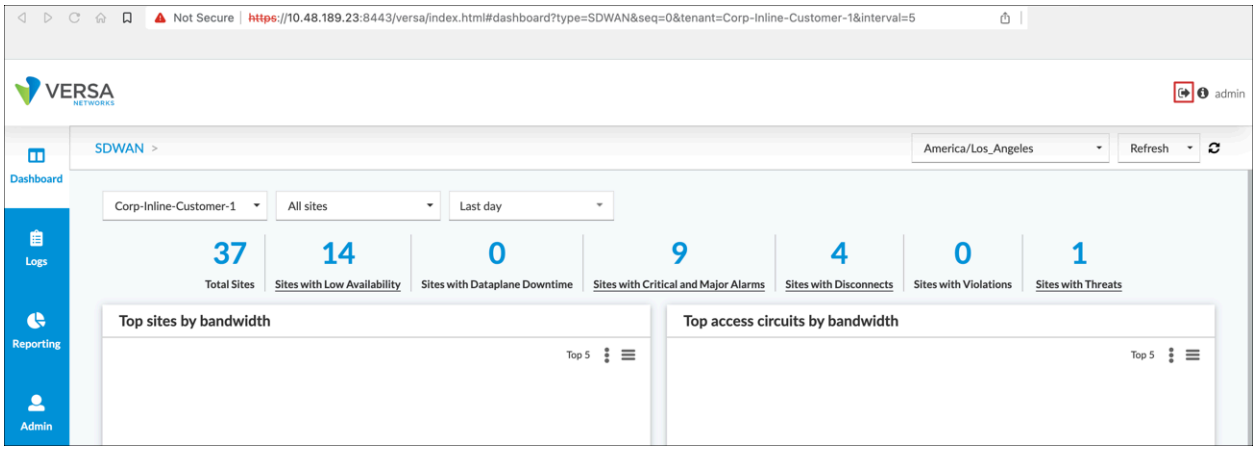
1. Enter the URL https://*analytics-node-ip-address:port-number*/versa/login.html in the browser URL field. By default, only secure ports 443 and 8443 are enabled on the Analytics application. For Releases 21.1.1 and later, you cannot access the Analytics application using port 8080, to avoid any security vulnerabilities.

   For example, for the Analytics node at 10.48.189.23 and port 8443, enter https://10.48.189.23:8443/versa/login.html. Then, log in with the username admin and the password versa123.



   If the login screen does not display, see Troubleshoot Analytics Access and Certificate Issues.

2. Select the Logout icon to log out of the application.



Verify Versa Director Installation

To verify that Versa Director services are running, log in to the shell on the Director node, and then issue the **vsh status** command:

```
admin@Director$ vsh status
NCS[4.7.10]                 [Running]
POSTGRE[15.3]               [Running]
NETBOX-IPAM                 [Running]
SPRING-BOOT                 [Running]
REDIS[6.2.6]                [Running]
APACHE TOMCAT/9.0.75        [Running]
NODE-EXPORTER               [Running]
```

If any services are stopped, issue the **vsh restart** command to restart all services:

```
admin@Director$ vsh restart
```

Verify Controller Installation

To verify that Controller services are running:

1. Log in to the shell on the Controller node, and then issue the **vsh status** command. To access the shell on a Controller node from the Director GUI, see Access the CLI on a VOS Device.

```
admin@Controller$ vsh status
[sudo] password for Administrator:
versa-service        is Running,       [*] process 13723
versa-infmgr         is Running,       [-] process 13679
versa-rfd            is Running,       [-] process 13919
versa-vmod           is Running,       [-] process 13917
versa-ip2user        is Running,       [-] process 13924
versa-imgr           is Running,       [-] process 13930
```

```
versa-acctmgrd          is Running,          [-] process 13912
versa-fltrmgr          is Running,          [-] process 13696
versa-vstated          is Running,          [-] process 13682
versa-spack            is Running,          [-] process 14111
versa-addrmgrd         is Running,          [-] process 13926
versa-rt-cli-xfm       is Running,          [-] process 13870
versa-rtd             is Running,          [-] process 13897
versa-dhcpd            is Running,          [-] process 13684
versa-eventd           is Running,          [-] process 13913
versa-vrrpd            is Running,          [-] process 13690
versa-dnsd             is Running,          [-] process 13692
versa-ppmd             is Running,          [-] process 13865
versa-snmp-xform       is Running,          [-] process 13876
versa-certd            is Running,          [-] process 13928
versa-ntpd             is Running,          [*] process 13668
versa-dhclient6        is Running,          [-] process 13880
versa-redis            is Running,          [-] process 14740
versa-av-redis         is Running,          [-] process 13500
versa-spackmgr         is Running,          [-] process 13900
versa-monit            is Running,          [*] process 13910
versa-confd            is Running,          [*] process 13466
versa-fail2ban         is Running,          [*] process 14068
versa-auditd           is Running,          [*] process 14136
versa-nodejs           is Running,          [-] process 13774
```

If any services are stopped, issue the **vsh restart** command to restart all services:

```
admin@Controller$ vsh restart
```

2. Verify the system software and hardware:

```
admin@Controller$ cli
admin@Controller> show system detail

 Software Details
   Software Release    20.2.0
   Package name        versa-flexvnf-20190809-220223-7f58f33-20.2.0

 Hardware Details
   Hypervisor Type     kvm
   Manufacturer        QEMU
   SKU Number          Not Specified
   Model               Standard PC (i440FX + PIIX, 1996)
   Serial number       Not Specified
   CPU model           Not Specified
   Number of CPUs      2
   Number of NICs      4
   Memory              3.86GiB
   Disk size           76G
   Free NICs           0
   Free memory         1.18GiB
   Free disk           66G
   SSD present         no
```

```
uCPE Platform       no
```

3. Verify the software package:

```
admin@Controller> show system package-info

  Package           Versa FlexVNF software
  Release           20.2.0
  Release Type      FRS
  Release date      20190809
  Package id        7f58f33
  Package name      versa-flexvnf-20190809-220223-7f58f33-20.2.0
  Branch            20.2
  Creator           shep
```

Supported Software Information

Releases 20.2 and later support all content described in this article, except:

- Release 21.1.1 adds support for port 8443 to access the Analytics application.

Additional Information

Access the CLI on a VOS Device
Headend Installation
Headend Overview
Perform Initial Software Configuration
Troubleshoot Analytics Access and Certificate Issues