

CLI "show" Commands

cvpi status <component>/all [-v=3]

-shows running, disabled, and failed components. It will show components that are failing. -v=3 adds verbosity.

cvpi resources [-v=3]

-shows memory, storage, disk throughput (>20MBps min for healthy disk, >40MBps recommended), CPUs, and NTP sync (mandatory for multi-node, at least ntpd UP for single-node)

cvpi deps <component> <start/stop>

gives the dependencies for the component to be able to start/stop

cvpi debug

-collects logs for all components for troubleshooting; collect on the primary node.

cvpi logs <component>

-to find where logs are located for a particular component. i.e. 'cvpi logs aeris' shows you `/cvpi/apps/aeris/logs/`. Also good for finding which node a component and subsequent logs can be found. i.e. 'cvpi logs turbine-rate-intf-counters' shows it resides on the tertiary node and its path.

cvpi info <component>

-great command to learn about a component; includes actions that can be taken, ports used, config, logging, etc.

cvpi status all -v=3 | grep disabled

-to see which processes are disabled

history

-shows list of all commands run

cvpi version

-shows version of CVP

cvpi env or cat /etc/cvpi/env

-shows environmental variables and if they are correctly set

cvpi check all

-checks that everything is set up correctly; confirms nodes are talking to each other and have same configs/env/etc.

dmesg -T

CLI "show" Commands (cont)

-shows kernel message buffer for checking disk/storage issues

CLI "Config" Commands

cvpi start/stop <component>/all

-starts/stops all available/specified components

cvpi -v=3 start/stop <component>/all

-starts/stops all available/specified components with verbosity (detail regarding failures if subcomponents fail to start)

cvpi start/stop cvpi

-starts/stops cvpi stack

cvpi reset all

-resets the CVP app to its initial state via deleting all HBASE and Hadoop data

cvpi reset aeris

-deletes all Telemetry data; can be used for expedited upgrades from 2018.2.X to 2019.1.X

cvpReinstall

-case-sensitive; in the event of an install failure, execute on primary node to set all 3 nodes back to default.

cvpi config <component>/all

-configures the components

cvpi backup cvp

-new backup procedure in 2018.2.X and on

cvpi restore cvp cvp..tgz cvp.eosimages..tgz

-new restore procedure in 2018.2.X and on; can't restore across major releases due to data formatting changes (i.e. can't restore from 2018.X to 2019.X)

cvpi enable cvpi

-enables components of CVP to be automatically restarted if they stop

cvpi init

-gets rid of corrupted data folders; recreates directory structure; repairs any damage by removing whole directories

hdfs dfsadmin -safemode get

-checks to see if hadoop/hbase in safe mode



CLI "Config" Commands (cont)

hdfs dfsadmin -safemode leave

-try to get primary/secondary to leave **safe** mode; then try to start it again

hdfs hbck

-checks for inconsistencies/corruptions; prints OK or gives Errors; run several times as some inconsistencies are transient

hdfs hbck -repair

-repair inconsistencies; run 5-10 times if necessary

/cvpi/zookeeper/bin/zkServer.sh start/stop

-if seeing zookeeper issues; zookeeper won't be stopped via 'cvpi stop all'

systemctl stop cvpi-watchdog.timer

In a cluster, will need to stop the watchdog timer when stopping zookeeper on all three nodes otherwise it will spawn a new zookeeper process.

MINIMUM Requirements

Lab (<25 devices)	Production (<=500 devices)
CPU: 16 cores	CPU: 16 cores
RAM: 16GB	RAM: 22GB
Disk: 125GB	Disk: 1 TB
Disk Throughput: 20MB/s	Disk Throughput: 40++MB/s

More might be needed based on feature sets in use. For example:

For CloudVision Wifi:

+4 CPU

+8 GB RAM

+100GB Disk storage

+10 charisma

For Elasticsearch (MAC/IP search feature):

+4 CPU

Also for Production, 16 Cores could be 8 CPU x 2 Core or 16 CPU x1 Core.

Where are the debug files?

```

[sh-arista@cvp-cvp-73 ~]$ ls -la /var/log/cvp
total 127772
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190826
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190827
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190828
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190829
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190830
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190831
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190901
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190902
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190903
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190904
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190905
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190906
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190907
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190908
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190909
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190910
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190911
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190912
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190913
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190914
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190915
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190916
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190917
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190918
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190919
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190920
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190921
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190922
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190923
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190924
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190925
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190926
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190927
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190928
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190929
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20190930
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191001
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191002
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191003
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191004
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191005
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191006
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191007
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191008
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191009
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191010
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191011
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191012
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191013
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191014
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191015
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191016
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191017
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191018
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191019
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191020
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191021
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191022
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191023
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191024
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191025
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191026
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191027
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191028
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191029
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191030
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191031
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191101
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191102
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191103
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191104
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191105
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191106
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191107
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191108
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191109
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191110
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191111
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191112
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drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191117
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191118
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191119
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191120
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191121
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191122
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191123
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191124
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191125
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191126
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191127
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191128
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191129
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191130
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191201
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191202
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191203
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191204
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191205
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191206
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191207
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191208
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191209
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191210
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191211
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drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191227
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191228
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191229
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191230
drwxr-xr-x 2 root root 4096 Aug 26 18:25 cvp-20191231

```

Device/Interface Scale (multi-node cluster)

	Supported Scale Target	Datacenter (80 infs/device)	Campus POE (50 infs/device)	vEOS (8 infs/device)
Foster/2018.2.3 (SHIPPED)	500 devices + 20K infs	250	400	500
Grant/2018.1.0 (Sept. EFT)	500 devices + 20K infs Updated	250	400	500
2019.1.x (Q4, TESTING)	1000 devices + 40K infs	500	800	1000

As customers close in on these numbers, expect give and take with additional beta features, latency, etc. as resources reach capacity.

Where is it?

From root ==> **su cvp** ==> **/cvpi**

| all scripts, packages, config files, logs

Logs

| /cvpi/logs; /cvpi/hbase/logs; /cvpi/hadoop/logs; /cvpi/tomcat/logs

Shortcut to logs

| Also just run **\$ cvpi logs <component>** which shows path to logs.

Config Files

| /cvpi/conf/components; /cvpi/apps/turbine/configs; /cvpi/apps/aries/conf; /cvpi/apps/cvp/conf; /cvpi/apps/geiger/conf; /cvpi/apps/wifimanager/conf

Backups

| **/data/cvpbackup/** on the **primary**; backups are run nightly at 2am UTC by default; check via **crontab -l** as root user; 5 backups stored

Minimum Configuration on EOS Device

Confirm the daemon is correctly installed.

```

!
daemon TerminAttr
    exec /usr/bin/TerminAttr -ingestgrpcurl=10.8-
1.110.104:9910 -cvcompression=gzip -ingestauth=
key,cvp -smashecludes=ale,flexCounter,hardw-
are,kni,pulse,strata -ingestexclude=/Sysdb/cell/-
1/agent,/Sysdb/cell/2/agent -ingestvrf=default -
taillogs
    no shutdown
!
ntp server 10.81.111.240 prefer iburst
ntp server 10.81.111.241 iburst
!

```

ntpd needs to be enabled for single node; NTP sync essential for multi-node.



Minimum Configuration on EOS Device (cont)

Turn up api for http for EAPI to work; turn up unix-socket so TerminAttr can talk to ConfigAgent (nginx method).

```
management api http-commands
  protocol http
  protocol unix-socket
  no shutdown
!
```

TerminAttr has 2 mechanisms to talk to ConfigAgent:
Default VRF - via unix socket directly, no additional config required
Non-default VRF - cannot talk directly (ConfigAgent only listens in the Default VRF) so the connection has to go via nginx; protocol unix-socket required under management api http-commands.

Enabling LANZ on EOS CLI

```
queue-monitor length
!
queue-monitor streaming ⇒ TerminAttr runs in
default VRF so this has to be in default as well!
no shutdown
!
```

Can confirm in bash via **curl localhost:6060/rest/LANZ/congestion**



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