Procedure to Manage /ETC/HOSTS Entries in CPS

Contents

[Introduction](#)
[Prerequisites](#)
[Requirements](#)
[Components Used](#)
[Background Information](#)
[Problem](#)
[Procedure to Add, Delete, or Modify /ETC/HOSTS Entries](#)

Introduction

This document describes the procedure to add, delete, or modify /ETC/HOSTS entries in a Cisco Policy Suite (CPS).

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

- Linux
- CPS

Note: Cisco recommends that you must have privilege Root access to CPS CLI.

Components Used

The information in this document is based on these software and hardware versions:

- CPS 20.2
- MongoDB v3.6.17
- Unified Computing System (UCS)-B

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, ensure that you understand the potential impact of any command.

Background Information

In order to send network traffic to a host, the numeric IP address for that host must be known. The IP address is traditionally written as xxx.xxx.xxx.xxx, where each xxx represents a value from 0 to

255, for an IPv4 network address. Computers require these addresses, but humans find it difficult to remember the numeric values. On a Linux system, these readable names are converted to their numeric IP equivalents by the Resolver Library, contained in the **libresolve.so** files that are provided as part of the glibc RPM package. The programs that need to look up the numeric IP address for a name issue call to this library.

Host names and their IP addresses can be found in a variety of places. One of them is **/ETC/HOSTS** file.

The **/ETC/HOSTS** file contains the IP host names and addresses for the local host and other hosts in the Internet network. This file is used to resolve a name into an address (that is, to translate a host name into its Internet address).

```
[root@installer ~]# cat /etc/hosts
127.0.0.1 localhost
#BEGIN_QPS_LOCAL_HOSTS
xxx.xxx.xxx.xxx lb01 dc1-lb01
xxx.xxx.xxx.xxx lb02 dc1-lb02
xxx.xxx.xxx.xxx sessionmgr01 dc1-sessionmgr01
xxx.xxx.xxx.xxx sessionmgr02 dc1-sessionmgr02
xxx.xxx.xxx.xxx qns01 dc1-qns01
xxx.xxx.xxx.xxx qns02 dc1-qns02
xxx.xxx.xxx.xxx pcrfclient01 dc1-pcrfclient01
xxx.xxx.xxx.xxx pcrfclient02 dc1-pcrfclient02
#END_QPS_LOCAL_HOSTS
#BEGIN_QPS_OTHER_HOSTS
xxx.xxx.xxx.xxx ntp-primary ntp
xxx.xxx.xxx.xxx ntp-secondary btp
xxx.xxx.xxx.xxx lbvip01 lbvip01
xxx.xxx.xxx.xxx lbvip02 lbvip02
xxx.xxx.xxx.xxx arbitervip arbitervip
#END_QPS_OTHER_HOSTS
xxx.xxx.xxx.xxx installer
[root@installer ~]#
```

Problem

Whenever there is a requirement to add, delete, or update local hosts or peers' information to CPS, their host details must be added, deleted, or modified into **/ETC/HOSTS**.

Procedure to Add, Delete, or Modify /ETC/HOSTS Entries

1. Approach for CPS hosted in OpenStack.

Step 1. Back up of **/ETC/HOSTS** and other files.

Run these commands from the Cluster Manager:

```
# cp /etc/hosts /var/tmp/hosts_bkp_$(date +%Y-%m-%d)
# cp /var/qps/config/deploy/json/AdditionalHosts.js /var/tmp/AdditionalHosts.js_bkp
# cp /qsb_config/features/system/system.json /var/tmp/system.json_bkp
```

Step 2. Verify the system status.
Run this command from the Cluster Manager:

```
#curl -s http://installer:8458/api/system
Expected Output:
{"state":"deployed"}
```

Step 3. Backup of current additional hosts configuration.

Run this command from the Cluster Manager:

```
$ curl -k -X GET http://installer:8458/api/system/config/additional-hosts >
/var/tmp/additional_hosts_$(date +%Y-%m-%d).yaml
```

Step 4. Preparation of **yaml** file with required additional hosts details.

Run this command from the Cluster Manager:

```
# cp /var/tmp/additional_hosts_$(date +%Y-%m-%d).yaml /var/tmp/additional_hosts_new.yaml
```

Add, delete, or modify entry in **additional_hosts_new.yaml**.

For example:

```
$ vi /var/tmp/additional_hosts_new.yaml
---
- name: "ntp-primary"
ipAddress: "xxx.xxx.xxx.xxx"
alias: "ntp-primary"
- name: "ntp-secondary"
ipAddress: "xxx.xxx.xxx.xxx"
alias: "ntp-secondary"
- name: "corporate_nms_ip"
ipAddress: "xxx.xxx.xxx.xxx"
alias: "corporate_nms_ip"
- name: "corporate_syslog_ip"
ipAddress: "xxx.xxx.xxx.xxx"
alias: "corporate_syslog_ip"
```

Step 5. Run **PUT API** call command from the Cluster Manager to add required hosts details in **/ETC/HOSTS**.

```
curl -i -X PUT http://installer:8458/api/system/config/additional-hosts -H "Content-Type:
application/yaml" --data-binary "@additional_hosts_new.yaml"
```

> **Note**: This command must be executed from the same directory where **additional_hosts_new.yaml** file is placed.

Step 6. Verification of host details in glibc **/ETC/HOSTS**.

Run this command from both Load Balancer (LB) Virtual Machines (VMs) and verify host details.

```
#cat /etc/hosts
```

Step 7. Restart all the Qns processes on both LBs.

Run this command to restart the LB Qns process.

```
Command Syntax:
#monit stop {Process Name}
#monit start {Process name}

Command example:
#monit stop qns-1
#monit start qns-1
```

2. Approach for CPS hosted in VMware.

Step 1. Log in to the Cluster Manager and add, delete, or modify local host details in **/var/qps/config/deploy/csv/Hosts.csv** and peer details in **/var/qps/config/deploy/csv/AdditionalHosts.csv** respectively as per the requirement.

Run this command to add, delete, or modify local host details in the **Hosts.csv** file.

```
#vi /var/qps/config/deploy/csv/Hosts.csv.
```

Run this command to add, delete, or modify peer details in the **AdditionalHosts.csv** file.

```
#vi /var/qps/config/deploy/csv/AdditionalHosts.csv.
```

Step 2. Run this command to import the new configuration to the Cluster Manager.

```
#/var/qps/install/current/scripts/import/import_deploy.sh
```

Step 3. Run this command to verify the change in the Cluster Manager **/ETC/HOSTS**.

```
#cat /etc/hosts
```

Step 4. Run this command from the Cluster Manager to rebuild the CPS package.

```
[root@installer ~]# /var/qps/install/current/scripts/build_all.sh
```

Step 5. Run this command to download all the Puppet scripts, CPS software, **/ETC/HOSTS** files and update each VM with the new software from the Cluster Manager.

```
[root@installer ~]# /var/qps/install/current/scripts/upgrade/reinit.sh
```

Step 6. Run this command to verify the change in both LB **/ETC/HOSTS**.

```
#cat /etc/hosts
```

Step 7. Restart all the Qns processes on both LBs.

Run this command to restart the LB Qns process.

```
Command Syntax:

#monit stop {Process Name}
#monit start {Process name}

Command exampls:
#monit stop qns-1
```

```
#monit start qns-1
```