Modify IP Addresses for Servers Defined by Hostname/FQDN

November 30, 2012

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Caution Be aware that when you take a DRS backup from a server with a particular hostname, it cannot be restored on a server (either a publisher or subscriber node) with a different hostname, even after you reinstall that node.

Modify IP Address of Publisher Server Defined by Hostname/FQDN

Use this procedure to change the IP address of a publisher server if your servers are defined by hostname or FQDN. DNS servers comprise part of the network infrastructure. IM and Presence servers do not and cannot run DNS services.

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Note You cannot use this procedure to change a publisher server of the subscriber host to another publisher server.

Before you begin

Complete the Readiness Checklist, page 1-1.

Procedure

Step 1 Perform the following actions:

a. Change the DNS record of the publisher server to point to the new IP address.

b. Ensure that you correctly update both the forward (A) and reverse (PTR) records.

Step 2 Change the IP address of the publisher server on each subscriber server in the cluster by performing the following tasks in the CLI for each subscriber server:

    a. Enter the following command:

```
set network cluster publisher ip new_ip_address
```

    b. Enter **Yes** and press **Enter**.

Step 3 Change the IP address of the publisher server, and if necessary the default gateway, to the new address by performing the following tasks:

    a. If you are moving the server to a different subnet that requires a new default gateway address, enter the CLI command **set network gateway**

    The following output displays:

```
admin:set network gateway 10.53.56.1

WARNING: Changing this setting will invalidate software license
on this server. The license will have to be re-hosted.

Continue (y/n)?
```

    b. Enter **yes** and press **Enter**.

    c. To change the IP address of the publisher server, enter the CLI command **set network ip eth0** *ip_address netmask gateway*

    where *ip_address* specifies the new server IP address, *netmask* specifies the new server network mask and *gateway* specifies the gateway.

    The following output displays:

```
admin:set network ip eth0 10.53.57.101 255.255.255.224 10.53.57.1

WARNING: Changing this setting will invalidate software license
on this server. The license will have to be re-hosted.

Continue (y/n)?
```
    d. Enter **yes** and press **Enter**.

Step 4 After the publisher server restarts automatically, restart all subscriber servers to update the local name resolution files including database related configuration files, and services.

Step 5 Ensure that local resolution of the subscriber node also resolves to the new IP address by running the **utils network host** and **show tech network hosts** CLI commands:

```
admin:utils network host lg-sub-4
Hostname lg-sub-4 resolves to 14.86.13.11

admin:show tech network hosts
 ------------------- show platform network --------------------

 /etc/hosts File:
#This file was generated by the /etc/hosts cluster manager.
#It is automatically updated as nodes are added, changed, removed from the cluster.

127.0.0.1 localhost
14.87.10.10 lg-pub-1.lindermangroup.cisco.com lg-pub-1
14.87.10.11 lg-tftp-1.lindermangroup.cisco.com lg-tftp-1
14.87.10.12 lg-tftp-2.lindermangroup.cisco.com lg-tftp-2
14.87.11.10 lg-sub-1.lindermangroup.cisco.com lg-sub-1
14.87.11.11 lg-sub-3.lindermangroup.cisco.com lg-sub-3
14.86.13.10 lg-sub-2.lindermangroup.cisco.com lg-sub-2
14.86.13.11 lg-sub-4.lindermangroup.cisco.com lg-sub-4
```

■ **IP Address, Domain and Hostname for IM and Presence Service on Cisco Unified Communications Manager, Release 9.0(1)**

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```
14.87.11.12 lg-sub-5.lindermangroup.cisco.com lg-sub-5
14.87.11.13 lg-sub-7.lindermangroup.cisco.com lg-sub-7
14.86.13.12 lg-tftp-3.lindermangroup.cisco.com lg-tftp-3
14.87.20.20 lg-cups1.heroes.com lg-cups1
14.86.13.13 lg-sub-6.lindermangroup.cisco.com lg-sub-6
admin:
```

Note   If you changed switches in addition to changing the gateway and IP address for the IM and Presence server, complete the following steps while the server is automatically restarting. Otherwise, some of the IM and Presence scripts may fail network connectivity checks upon startup.

- watch the restart screen

- enter a *ping –t* on the old IP address

- when the pings are no longer successful, disconnect from the old switch and connect to the new switch

Step 6   After the publisher node has restarted, restart all subscriber nodes with the following CLI command:

utils system restart

Step 7   After all nodes have restarted successfully, run the following CLI command on the publisher node to check replication:

utils dbreplication runtimestate

Note   Depending on the size of the database, it may take several minutes to over an hour for replication to be re-established.

Sample output is as follows:

```
DDB and Replication Services: ALL RUNNING

DB CLI Status: No other dbreplication CLI is running...

Cluster Replication State: BROADCAST SYNC Completed on 1 servers at: 2012-09-26-15-18
Last Sync Result: SYNC COMPLETED 257 tables sync'ed out of 257
Sync Errors: NO ERRORS

DB Version: ccm9_0_1_10000_9000
Number of replicated tables: 257
Repltimeout set to: 300s

Cluster Detailed View from gwydlvm020105 (2 Servers):

                            PING              REPLICATION    REPL.   DBver&  REPL.   REPLICATION SETUP
SERVER-NAME    IP ADDRESS   (msec)  RPC?     STATUS          QUEUE   TABLES  LOOP?   (RTMT) & details
-----------    -----------  ------  ----     -----------     -----   ------- -----   ----------------
gwydlvm020105  192.168.20.244 0.038 Yes      Connected       0       match   Yes     (2) PUB Setup Completed
gwydlvm020106  192.168.10.201 0.248 Yes      Connected       128     match   Yes     (2) Setup Completed
```

Note   It is important to verify that `REPLICATION SETUP (RTMT) & details` all report a state of 2. Anything other than 2 means that there is a problem with database replication and that you need to reset replication. Refer to for more information.

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Note   When changing the IP address of more than one server in a cluster, perform the following tasks:

- Change the IP address for one server.
- Reboot the cluster.
- Check the replication status.

If the changed IP address reflects properly, follow the same procedure on the next server. Otherwise, do not change the IP address of the other servers.

What To Do Next

Complete the .

Reset Replication

If replication does not complete successfully, complete the following procedure.

Procedure

Step 1   Run the following CLI command on the publisher node to reset replication:

```
utils dbreplication reset all
```

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Note   This command may take up to 15 minutes to complete.

Step 2   After the `utils dbreplication reset all` command is complete, restart the publisher node with the following CLI command:

```
utils system restart
```

Step 3   After the publisher node has restarted, restart all the subscriber nodes in the cluster with the following CLI command:

```
utils system restart
```

Modify IP Address of Subscriber Server Defined by Hostname/FQDN

Use this procedure to change the IP address of a subscriber server if your servers are defined by hostname or FQDN. DNS servers comprise part of the network infrastructure. IM and Presence servers do not and cannot run DNS services.

When changing IP address of more than one subscriber server, we recommend that you:

a.   Change the IP address for one server at a time.

b.   Restart all other servers in the cluster (including the publisher server) to update local name resolution files including database related configuration files.

> ⚠ **Caution**   Do not change the IP address of more than one server at the same time because it can cause local name resolution files to be out of sync in the cluster.

Before you begin

Complete the Readiness Checklist, page 1-1.

Procedure

Step 1   Perform the following actions:

    a.   Change the DNS record of the subscriber server to point to the new IP address.

    b.   Ensure that you correctly update both the forward (A) and reverse (PTR) records.

    c.   Refresh your DNS cache to ensure that the records are correctly updated.

Step 2   Change the IP address of the subscriber server, and if necessary the default gateway, to the new address by performing the following tasks:

    a.   If you are moving the server to a different subnet that requires a new default gateway address, enter the CLI command `set network gateway`

    The following output displays:

```
admin:set network gateway 10.3.90.2
          ***   W A R N I N G   ***
This will cause the system to temporarily lose network connectivity


          Do you want to continue ?

Enter "yes" to continue or any other key to abort
```

    b.   Enter `yes` and press **Enter**.

    c.   To change the IP address of the subscriber server, enter the CLI command `set network ip eth0` *ip_address netmask gateway*

    where *ip_address* specifies the new server IP address and *netmask* specifies the new server network mask.

    The following output displays:

```
admin: set network ip eth0 10.53.57.101 255.255.255.224 10.53.57.1
***   W A R N I N G   ***
If there are IP addresses (not hostnames) configured in CallManager Administration
under System -> Servers then you must change the IP address there BEFORE changing it
here or call processing will fail. This will cause the system to restart
=========================================
 Note: To recognize the new IP address all nodes within the cluster will have to be
manually rebooted.
=========================================
Do you want to continue?
Enter "yes" to continue and restart or any other key to abort
```

    d.   Enter `yes` and press **Enter**.

Step 3   Verify that the DNS change propagates to other nodes by using the `utils network host` and `show tech network hosts` CLI commands on all the cluster nodes:

```
admin:utils network host lg-sub-4
Hostname lg-sub-4 resolves to 14.86.13.11

admin:show tech network hosts
```

```
------------------ show platform network -------------------

 /etc/hosts File:
#This file was generated by the /etc/hosts cluster manager.
#It is automatically updated as nodes are added, changed, removed from the cluster.

127.0.0.1 localhost
14.87.10.10 lg-pub-1.lindermangroup.cisco.com lg-pub-1
14.87.10.11 lg-tftp-1.lindermangroup.cisco.com lg-tftp-1
14.87.10.12 lg-tftp-2.lindermangroup.cisco.com lg-tftp-2
14.87.11.10 lg-sub-1.lindermangroup.cisco.com lg-sub-1
14.87.11.11 lg-sub-3.lindermangroup.cisco.com lg-sub-3
14.86.13.10 lg-sub-2.lindermangroup.cisco.com lg-sub-2
14.86.13.11 lg-sub-4.lindermangroup.cisco.com lg-sub-4
14.87.11.12 lg-sub-5.lindermangroup.cisco.com lg-sub-5
14.87.11.13 lg-sub-7.lindermangroup.cisco.com lg-sub-7
14.86.13.12 lg-tftp-3.lindermangroup.cisco.com lg-tftp-3
14.87.20.20 lg-cups1.heroes.com lg-cups1
14.86.13.13 lg-sub-6.lindermangroup.cisco.com lg-sub-6
admin:
```

Step 4   Restart all other servers in the cluster (including the publisher server) to update the local name resolution files including database related configuration files.

Troubleshooting Tip

If you changed switches in addition to changing the gateway and IP address for the IM and Presence server, complete these steps while the server is automatically restarting. Otherwise, some of the IM and Presence scripts may fail network connectivity checks upon startup.

- watch the restart screen
- enter a *ping –t* on the old IP address
- when the pings are no longer successful, disconnect from the old switch and connect to the new switch

What To Do Next

Complete the .