

Recreating the HPOS 4.0 Environment from a tar Backup of a Different System

PROBLEM:

How to move HPOS 4.0 from one system to a different one and change the Hostname or IP Address.

There used to be a document for HPOS 3.5 on how to change the IP address for an Output Server server. It involved removing binding entries from the dazel.ns file. We used that process, along with editing the HostConfig.sgml file as a way to implement new versions (build them on a different server, tar them up and move them to the target server) as well as to move an Output Server instance to another server for failover/backup. How would that change now that the dazel.ns file isn't the home of the binding entries?

ANALYZE:

First of all we do not have any document for HPOS 4.0 posted which would explain the procedure as we did with HPOS 3.5.

The dazel.ns file no longer needs to be changed as it is no longer present, but the setup_env,* and HostConfig.*sgml* files still need to be changed. However, you also need to go in the Database (Oracle or MySQL) and do some changes or use HPOS commands to do this. We do not have this information posted and available as we never officially supported such changes in the past and now we want to discourage customers to use that approach.

The majority of installs using HPOS 4.0 are now using the Operating System features of a floating IP and in such a setup you really never have to change the Hostname but rather change at the OS and DNS level the name resolution of the floating IP.

However, we also now provide an updated version of the scripts used by our Professional Service group to do Failover and Change of the Hostname during Failover or to start HPOS via the init process. Take a look to the script `$DAZEL_HOME/examples/maint/scripts/init_hpom.pl` and to the configuration file `$DAZEL_HOME/examples/maint/etc/init_hpom.pl` and this should allow you to implement a solution to have a Failover Install for HPOS 4.0 and or to change the hostname.

Please note that these scripts are under the `$DAZEL_HOME/example` directory so they are not officially supported for HPOS; because they do only represent examples, but they are fully functional. In case you need assistance to use these scripts you will have to work together with our Professional Services group. However, I believe they are straight forward in the way they need to be used and actually will reduce the possibility to have a typo compared to the way this was done in HPOS 3.5.

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Further down are the manual steps required to move a HPOS 4.0 install from one system to another system when NOT using the `$DAZEL_HOME/examples/maint/scripts/init_hpom.pl` script

Pre-requisite:

Install HPOS 4.0 (HPOS+ integrated MySQL, or HPOS + external MySQL)
Apply Service Pack 09.2 or higher

NOTE:

1. For both the above steps please refer to the Install and Configuration Guide for HPOS 4.0 and Release Notes for SP09.2. The SP 09.2 patch is required as there is a fix in some of the HPOS components like OMWC, Web Services, etc... that may cause failover setup not to work.
2. The System "tar" utility present in all the operating systems are having issue with the length of the path which we are tarring, to address this issue we are shipping the tar file along with HPOS installation under `$DAZEL_HOME/bin` directory. For all the tar related activity you need to use this "tar"

Taking a backup of the installation:

1. Source the environment by running following command.

```
sh-3.00# . /opt/hpom/etc/setup_env.sh
sh-3.00#
```

2. Copy the tar utility shipped with HPOS 4.0 to a temporary directory as given below.

```
sh-3.00# cp /opt/hpom/bin/tar /home/dump
sh-3.00#
```

3. Please check the permission of the copied tar utility and make sure it has execute permission set.

```
sh-3.00# ls -la /home/dump/tar
-rwxr-xr-x 1 hposadm hposadm 149388 Jul 23 05:01 /home/dump/tar
sh-3.00#
```

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4. Stop all the HPOS servers by running `stop_server -t all` command. (This is only possible in the case of a port change, during a failover the process must work with the servers up and running.)

```
sh-3.00# stop_server -t all
Stopping jboss-manager 'jboss' ...
Stopping destination-manager 'dsm' ...
Stopping delivery-manager 'dlm' ...
Stopping job-and-queue-manager 'jqm' ...
Stopping configuration-manager 'cm' ...
Stopping event-manager 'em' ...
Stopping accounting-and-inventory-manager 'aim' ...
Stopping privilege-manager 'pm' ...
Stopping name-space-manager 'nm' ...
Stopping mysql-manager 'mysql' ...
sh-3.00#
```

5. Take the backup of the HPOS installation by running the following commands. Also make sure you use the tar utility copied into the temporary path

```
sh-3.00# cd /opt
sh-3.00# /home/dump/tar -zcvf /home/dump/hpos40.tar.gz hpos
```

6. After taking the backup, copy both `hpos40.tar.gz` and the tar file to the remote machine.

```
-rw-r--r-- 1 hposadm hposadm 407222210 Jul 23 05:08 hpos40.tar.gz
-rwxr-xr-x 1 hposadm hposadm 149388 Jul 23 05:01 tar
```

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Restoring the backup on other machine:

1. Extract the compressed HPOS 4.0 installation on the other machine by using the following command.

```
sh-3.00# cd /opt
sh-3.00# /home/dump/tar -zxvf hpos40.tar.gz
```

2. We need to make sure we replace all the host and domain information that were present in the old machine. The three important attributes that you generally would be changing are "dazel-domain", "dazel-nm-host" and "host-name". Open the *HostConfig.sgml* file present in the `$DAZEL_HOME/etc/HostConfig.sgml` file in the "vi" editor and replace the HPOS attributes given below with the new system information.

- a) search for `<DAZEL-HOST NAME="Old Host Name">` and replace the "Old Host Name" with "New Host Name".

- b) Search for

```
<DAZEL-AVPAIR NAME="dazel-domain">
<DAZEL-VALUE STRING-VALUE="Old Domain Name">
</DAZEL-AVPAIR>
```

and replace "Old Domain Name" with "New Domain Name".

- c) Search for

```
<DAZEL-AVPAIR NAME="host-name">
<DAZEL-VALUE STRING-VALUE="New Host Name">
</DAZEL-AVPAIR>
```

and replace the "Old Host Name" with "New Host Name".

- d) Search for

```
<DAZEL-AVPAIR NAME="dazel-nm-host">
<DAZEL-VALUE STRING-VALUE="Old HostName[Old Port No]">
</DAZEL-AVPAIR>
```

and replace "Old HostName[Old Port No]" with "Old HostName[New Port No]"

3. Change the DAZELNS value in `setup_env.sh`, `setup_env.csh`, and `setup_env.pl`, and replace DAZELNS with value given below.

```
DAZELNS=DAZEL:<New Domain Name>,<New Host Name>[New Port No]
```

4. Source the new environment configuration by running the command `./setup_env.sh`. To check it worked run the `list_host` command and the command should display the updated values.

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5. There may be residual binding entries in the NM, especially if this is a true failover or the instance was copied while it was running, therefore all of the servers (except for MySQL and JBOSS) need to be started with the

`start-server -f`

command. This will clear any existing binding entries and allow the servers to start on the new host.

6. The HPOMWC configuration (based on the installed JBoss setup) also need to be adjusted to point to the new server. Query the configuration using the command:

`DomainManager.sh -o list`

If the configuration is empty nothing needs to be done. If there is an entry for the original host it needs to be removed with the command:

`DomainManager.sh -o delete -D <domain name> -H <old host name> -P <Port>`

The configuration can then be updated with the new hostname information with the command:

`DomainManager.sh -o add -D <domain name> -H <new host name> -P <Port>`

7. According the source code review, there are no server side configuration changes that need to be made to the UPD integration, the Output Server Manager, or Web Services. The clients simply need to point to the floating DNS name that represents the HPOS server.