

Checking DS Server Failover Configuration

This list can be used to check the configuration files on the ds1 and ds2 servers to ensure that there is no loss of functionality due to an AWIPS ds failover. The following configurations should be checked on both the ds1 and ds2 servers:

1. Check The Informix Trigger Configuration
2. Check The LDAD Configuration
3. Check the MC/Service Guard Cron Configuration
4. Check The /data/fxa Purge Configuration
5. Check The Configuration Files In The /awips/fxa/data Directory
6. Check The Localization Configuration Files
7. Check An Important NWS File

1. Check The Informix Trigger Configuration

Executables invoked by Informix triggers should reside on both ds1 and ds2.

The executables delivered with the national baseline Informix triggers were copied to both ds1 and ds2 at the time of the AWIPS software installation. However, if your site added Informix triggers that were not part of the national baseline, the executables started by the locally added triggers may not be installed on both ds1 and ds2.

A quick check to verify that your site set up locally added triggers is to check the /data/fxa/siteConfig/textApps/siteTrigger.template file on the ds1 server. If the siteTrigger.template file exists, then your site added local triggers.

To see what executables are started for your site's local triggers, view the siteTrigger.template file. Each entry in the siteTrigger.template file contains a product name and the full path name of an executable that is run when the product is databased. Verify that the executables listed in the siteTrigger.template file reside on both the ds1 and ds2 servers.

For example, examine the following 2 lines in a siteTrigger.template file:

```
PITFLWPIT      /awips/fxa/ldad/bin/print.csh
WBCFWCZZV     /bin/csh /home/fwcwbc/fwcwbc.csh > /home/fwcwbc/log
```

The /awips/fxa/ldad/bin/print.csh executable should be on both the ds1 and ds2 servers.

The /home/fwcwbc/fwcwbc.csh executable is already on both the ds1 and ds2 servers. The /home directory is located on the shared ds1/ds2 drive and is therefore available to ds1 and ds2. The files and directories in the /home directory are available to the ds1 server when ds1 is the active data server. The files and directories in the /home directory are available to the ds2 server when ds2 is the active data server.

2. Check The LDAD Configuration

When products arrive into the active data server from the ls1 server, the /data/fxa/LDAD/data/LDADinfo.txt file is used to determine what executable is started to process the incoming product. You can check the LDADinfo.txt file to verify that all of the executables listed in the LDADinfo.txt file reside on both ds1 and ds2. However, since all of these executables are located in the /awips/fxa/ldad/bin directory, it is easiest just to copy the entire directory from ds1 to ds2. To copy the entire /awips/fxa/ldad/bin directory from ds1 to ds2, enter the following 2 commands as the root user on ds1:

```
cd /awips/fxa/ldad
rcp -rp bin ds2:/awips/fxa/ldad
remsh ds2 "chown -R ldad:fxalpha /awips/fxa/ldad/bin"
remsh ds2 "chmod 555 /awips/fxa/ldad/bin/*"
```

3. Check The MC/Service Guard Cron Configuration

When AWIPS performs a ds failover, the MC/Service Guard software loads the crontab files from the /etc/cmcluster/crons subdirectories. If your site has modified one of the baseline crontab on the ds1 server, you will need to update the appropriate crontab file for MC/Service Guard.

The following example describes how to update the MC/Service Guard crontab file for the fxa user.

The MC/Service Guard crontab files for the fxa user are stored in the /etc/cmcluster/crons/fxa directory. The 2 crontab files in the /etc/cmcluster/crons/fxa directory that are involved in a ds failover are ds1.dsswap and ds2.dsswap.

When a ds failover occurs and the ds2 server becomes the active data server, the /etc/cmcluster/crons/fxa/ds2.dsswap file on the ds2 server is loaded as the crontab file for the fxa user.

When a ds failover occurs and the ds1 server becomes the active data server, the /etc/cmcluster/crons/fxa/ds1.dsswap file on the ds1 server is loaded as the crontab file for the fxa user.

To determine if your site has modified the crontab file for the fxa user, enter the following 2 commands as the root user on ds1:

```
cd /etc/cmcluster/crons/fxa
diff ds1.dsswap /var/spool/cron/crontabs/fxa
```

If the diff command reports a difference between the /etc/cmcluster/crons/fxa/ds1.dsswap crontab file and the /var/spool/cron/crontabs/fxa crontab file, you need to update the ds1.dsswap crontab file and the ds2.dsswap crontab file on both the ds1 and ds2 servers. To update the ds1.dsswap and ds2.dsswap files on both ds1 and ds2, enter the commands as the root user on ds1:

```
cd /etc/cmcluster/crons/fxa
cp -p ds1.dsswap ds1.dsswap.baseline
cp -p ds2.dsswap ds2.dsswap.baseline
cp /var/spool/cron/crontabs/fxa ds1.dsswap
cp /var/spool/cron/crontabs/fxa ds2.dsswap
chown root:sys ds*.dsswap
chmod 555 ds*.dsswap
rcp -p ds*.dsswap ds2:/etc/cmcluster/crons/fxa
remsh ds2 "chown root:sys /etc/cmcluster/crons/fxa/ds*.dsswap"
remsh ds2 "chmod 555 /etc/cmcluster/crons/fxa/ds*.dsswap"
```

There is also a need to save to a safe place the files with site specific changes (i.e., the ds*dsswap files from etc/cmcluster/crons/fxa subdirectory) which you copied above. An example of a place to save these files is /data/fxa/customFiles. You want to save these files because they are controlled by the national baseline. If in the future, you do an upgrade which changes/replaces these baseline files you will run into a problem unless you saved them somewhere. A command to save these files to a site specific directory of your choice (x_directory_x) is:

```
cp -p /etc/cmcluster/crons/fxa/ds*.dsswap /x_directory_x
```

NOTE: RFCs, if they changed their oper crons, will need to follow a similar procedure to what was done above. The commands will be as follows:

```
cd /etc/cmcluster/crons/oper
cp -p ds1.dsswap ds1.dsswap.baseline
cp -p ds2.dsswap ds2.dsswap.baseline
cp /var/spool/cron/crontabs/oper ds1.dsswap
cp /var/spool/cron/crontabs/oper ds2.dsswap
chown root:sys ds*.dsswap
chmod 555 ds*.dsswap
rcp -p ds*.dsswap ds2:/etc/cmcluster/crons/oper
remsh ds2 "chown root:sys /etc/cmcluster/crons/oper/ds*.dsswap"
remsh ds2 "chmod 555 /etc/cmcluster/crons/oper/ds*.dsswap"
```

4. Check The /data/fxa Purge Configuration

On a scheduled basis, the fxa cron on the active data server starts purge scripts to remove old data from the /data/fxa directory structure. Based upon your site's data ingest requirements, the system administrator may have modified one of the purge scripts in order to delete site specific data. If the ds1 server is properly purging data from the /data/fxa directory, then the easiest solution is to copy the purge scripts from ds1 to ds2.

To copy the purge scripts from ds1 to ds2, enter the following commands as the root user on ds1:

```
cd /awips/fxa/bin
rcp -p fxa-radar.purge ds2:/awips/fxa/bin
rcp -p fxa-data.purge ds2:/awips/fxa/bin
remsh ds2 "chown fxa:fxalpha /awips/fxa/bin/fxa*purge"
remsh ds2 "chmod 555 /awips/fxa/bin/fxa*purge"
cd awips/fxa/data
rcp -p scour.* ds2:/awips/fxa/data
remsh ds2 "chown fxa:fxalpha /awips/fxa/data/scour.*"
remsh ds2 "chmod 555 /awips/fxa/data/scour.*"
```

5. Check The Configuration Files In The /awips/fxa/data Directory

Copy the following files from ds1 to ds2 by entering the following as the root user on ds1:

```
cd /awips/fxa/data
rcp -p acq_patterns.txt ds2:/awips/fxa/data
rcp -p afos2awips.txt ds2:/awips/fxa/data
```

6. Check The Localization Configuration Files

Copy the localization data files from ds1 to ds2 by entering the following commands as the root user on ds1. In the following commands, substitute your AWIPS site identifier for XXX:

```
cd /awips/fxa/data/localizationDataSets
rcp -rp XXX ds2:/awips/fxa/data/localizationDataSets
remsh ds2 "chown -R fxa:fxalpha /awips/fxa/data/localizationDataSets/XXX"
remsh ds2 "chmod -R 775 /awips/fxa/data/localizationDataSets/XXX"
```

7. Check An Important NWS File

Check the list of primary and backup NWS sites (/awips/ops/data/mhs/nwwsup_dlist.data) on ds1 and ds2 to ensure they are the same. If they are not, copy the file from ds1 to ds2 by entering the following commands as the root user on ds1.

```
cd /awips/ops/data/mhs
rcp -p nwwsup_dlist.data ds2:/awips/ops/data/mhs
```