Proactive: Netware cron and equivalent in Linux

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To:	DL-AMER Services EUC Midwest
Date:	Thursday - March 25, 2010 12:35 AM
Subject:	Proactive: Netware cron and equivalent in Linux
Attachments:	TEXT.htm; zTrustee_v2.02.03_20091001.zip; crontab_1.novell/groupwise/ddabreau/Engine/crontab_1_1

In case this comes in handy as a point of reference.

Objective:

A) Create a DIB set each day of the week at 2:00AM and store each in its own subdirectory for each day of the week and always overwrite the 7 days later

B) Run a Local dsrepair every Wednesday at 2:30AM

C) Backup trustees each day of the week at 1:00AM and store each in its own subdirectory for each day of the week and always overwrite the 7 days later

D) Create a config.txt equivalent set each day of the week at 3:00AM and store each in its own subdirectory for each day of the week and always overwrite the 7 days later

On NetWare this would be:

```
00 2 * * 1 load dsrepair -rc sys:system\backups\dibset\mon.dib
00 2 * * 2 load dsrepair -rc sys:system\backups\dibset\tue.dib
00 2 * * 3 load dsrepair -rc sys:system\backups\dibset\wed.dib
00 2 * * 4 load dsrepair -rc sys:system\backups\dibset\thu.dib
00 2 * * 5 load dsrepair -rc sys:system\backups\dibset\fri.dib
00 2 * * 6 load dsrepair -rc sys:system\backups\dibset\sat.dib
00 2 * * 0 load dsrepair -rc sys:system\backups\dibset\sun.dib
30 2 * * 3 load dsrepair -rd
00 1 * * 1 load trustee /et save all sys:system\backups\trustee\mon.txt
00 1 * * 2 load trustee /et save all sys:system\backups\trustee\tue.txt
00 1 * * 3 load trustee /et save all sys:system\backups\trustee\wed.txt
00 1 * * 4 load trustee /et save all sys:system\backups\trustee\thu.txt
00 1 * * 5 load trustee /et save all sys:system\backups\trustee\fri.txt
00 1 * * 6 load trustee /et save all sys:system\backups\trustee\sat.txt
00 1 * * 0 load trustee /et save all sys:system\backups\trustee\sun.txt
00 3 * * 1 load config /o=backups\config\mon.txt /all
00 3 * * 2 load config /o=backups\config\tue.txt /all
00 3 * * 3 load config /o=backups\config\wed.txt /all
00 3 * * 4 load config /o=backups\config\thu.txt /all
00 3 * * 5 load config /o=backups\config\fri.txt /all
00 3 * * 6 load config /o=backups\config\sat.txt /all
00 3 * * 0 load config /o=backups\config\sun.txt /all
```

A) Create a DIB set each day of the week at 2:00AM and store each in its own subdirectory for each day of the week and always overwrite the 7 days later

1. cat /etc/dsbk.conf should show a single line entry as /root/dsbk.temp

2. touch /root/dsbk.temp [this creates a temporary file as a placeholder]

3. mkdir /var/log/backups

mkdir /var/log/backups/dsbk   [this creates a subdirectory under /var/log/backups to store your backups]

4. This crontab entry performs a full backup including nici files (very important) every morning at 2:00 AM for each day of the week and stores the corresponding mandatory backup and log files in /var/log/backups/dsbk.

```
00 2 * * 1 root  dsbk backup -f/var/log/backups/dsbk/mon.dib -l/var/log/backups/dsbk/mon.log -e novell -t -b -w
00 2 * * 2 root  dsbk backup -f/var/log/backups/dsbk/tue.dib -l/var/log/backups/dsbk/tue.log -e novell -t -b -w
00 2 * * 3 root  dsbk backup -f/var/log/backups/dsbk/wed.dib -l/var/log/backups/dsbk/wed.log -e novell -t -b -w
00 2 * * 4 root  dsbk backup -f/var/log/backups/dsbk/thu.dib -l/var/log/backups/dsbk/thu.log -e novell -t -b -w
00 2 * * 5 root  dsbk backup -f/var/log/backups/dsbk/fri.dib -l/var/log/backups/dsbk/fri.log -e novell -t -b -w
00 2 * * 6 root  dsbk backup -f/var/log/backups/dsbk/sat.dib -l/var/log/backups/dsbk/sat.log -e novell -t -b -w
00 2 * * 0 root  dsbk backup -f/var/log/backups/dsbk/sun.dib -l/var/log/backups/dsbk/sun.log -e novell -t -b -w
```

Here's how to update the system crontab to include the above:
cp /etc/crontab /etc/crontab.backup   [make a backup]

 - Modify /etc/crontab using vi to include /opt/novell/eDirectory/bin with the PATH as follows:
    PATH=/usr/bin:/usr/sbin:/sbin:/bin:/usr/lib/news/bin:/opt/novell/eDirectory/bin

- Copy paste the crontab entries at the end of the existing /etc/crontab file and save it.

Tip 1: When using the dsbk utility interactively, have a second terminal window open with tail -f /var/opt/novell/eDirectory/log/ndsd.log running so that the output to entered commands is immediately readable for example:
Command line backup -f/var/log/backups/dsbk/sun.dib -l/var/log/backups/dsbk/sun.log -e XXXXXX -t -b -w
Processing command line
Backup type: Full
Log file name: /var/log/backups/dsbk/sun.log
Backup started: 2010-3-25'T2:29:3
Backup file name: /var/log/backups/dsbk/sun.dib
Server name: \T=CLUSTER_TREE\O=corp\CN=linux-fe5b
Current Roll Forward Log: 00000001.log
DS Version: 2050315
Backup ID: 4BAB02AF
NICI BACKUP: "NICI Files has been backed up Successfully"
Starting database backup...
Database backup finished
Completion time 00:00:02
Backup completed successfully

Tip 2: tail -f /var/log/messages will show the results of the cron commands when they run for example:
Mar 25 05:42:01 linux-fe5b /usr/sbin/cron[12450]: (root) CMD (ndsrepair -R -c yes)

B) Run a Local dsrepair every Wednesday at 2:30AM
The following crontab entry will perform a local dsrepair every Wednesday at 2:30AM and will also check local references (recommended):

30 2 * * 3 root ndsrepair -R -c yes

Results will get updated in /var/opt/novell/eDirectory/log/ndsrepair.log
Update the /etc/crontab file as in A)

C) Backup trustees each day of the week at 1:00AM and store each in its own subdirectory for each day of the week and always overwrite the 7 days later

1. From the attached "zTrustee_v2.02.03_20091001.zip" file,
   - save the attached "OES2Linux/zTrustee" file to "/bin"
   - and "chmod 755 /bin/zTrustee"

2. mkdir var/log/backups/trustee

Since there is no overwrite available, delete the old file if it exists.

59 0 * * 1 root rm /var/log/backups/trustee/mon.txt
00 1 * * 1 root zTrustee /ET SAVE ALL /var/log/backups/trustee/mon.txt
59 0 * * 2 root rm /var/log/backups/trustee/tue.txt
00 1 * * 2 root zTrustee /ET SAVE ALL /var/log/backups/trustee/tue.txt
59 0 * * 3 root rm /var/log/backups/trustee/wed.txt
00 1 * * 3 root zTrustee /ET SAVE ALL /var/log/backups/trustee/wed.txt
59 0 * * 4 root rm /var/log/backups/trustee/thu.txt
00 1 * * 4 root zTrustee /ET SAVE ALL /var/log/backups/trustee/thu.txt
59 0 * * 5 root rm /var/log/backups/trustee/fri.txt
00 1 * * 5 root zTrustee /ET SAVE ALL /var/log/backups/trustee/fri.txt
59 0 * * 6 root rm /var/log/backups/trustee/sat.txt
00 1 * * 6 root zTrustee /ET SAVE ALL /var/log/backups/trustee/sat.txt
59 0 * * 0 root rm /var/log/backups/trustee/sun.txt
00 1 * * 0 root zTrustee /ET SAVE ALL /var/log/backups/trustee/sun.txt

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D) Create a config.txt equivalent (supportconfig tarball) set each day of the week at 3:00AM and store each in its own subdirectory for each day of the week and always overwrite the 7 days later

1. mkdir /var/log/backups/supportconfig
   mkdir /var/log/backups/supportconfig/mon
   mkdir /var/log/backups/supportconfig/tue
   mkdir /var/log/backups/supportconfig/wed
   mkdir /var/log/backups/supportconfig/thu
   mkdir /var/log/backups/supportconfig/fri
   mkdir /var/log/backups/supportconfig/sat
   mkdir /var/log/backups/supportconfig/sun

Since there is no overwrite available, delete the old file if it exists.

59 2 * * 1 root rm /var/log/backups/supportconfig/mon/*

```
00 3 * * 1 root  supportconfig -R /var/log/backups/supportconfig/mon
59 2 * * 2 root  rm /var/log/backups/supportconfig/tue/*
00 3 * * 2 root  supportconfig -R /var/log/backups/supportconfig/tue
59 2 * * 3 root  rm /var/log/supportconfig/wed/*
00 3 * * 3 root  supportconfig -R /var/log/backups/supportconfig/wed
59 2 * * 4 root  rm /var/log/backups/supportconfig/thu/*
00 3 * * 4 root  supportconfig -R /var/log/backups/supportconfig/thu
59 2 * * 5 root  rm /var/log/backups/supportconfig/fri/*
00 3 * * 5 root  supportconfig -R /var/log/backups/supportconfig/fri
59 2 * * 6 root  rm /var/log/backups/supportconfig/sat/*
00 3 * * 6 root  supportconfig -R /var/log/backups/supportconfig/sat
59 2 * * 0 root  rm /var/log/backups/supportconfig/sun/*
00 3 * * 0 root  supportconfig -R /var/log/backups/supportconfig/sun
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```

When completed editing the /etc/crontab file issue *"rccron restart"* to ensure the changes take effect.
Note. I have attached the /etc/crontab file from my lab server for your reference.

Reference:

What's the recommended backup utility for eDirectory 8.7.3 and 8.8?
http://support.novell.com/docs/Tids/Solutions/10100027.html

Using dsbk on Linux and Unix
http://www.novell.com/coolsolutions/feature/16107.html

Backup and Restore Command Line Options.
http://www.novell.com/documentation/edir88/edir88/data/bsl7jmp.html#agcgkmr

How to schedule scripts or commands with cron on SuSE Linux
http://www.novell.com/support/viewContent.do?externalId=3842311&sliceId=1

Newbie: Intro to cron
http://www.unixgeeks.org/security/newbie/unix/cron-1.html

man ndsrepair
-R Repair the Local Database Repairs the local eDirectory database. Use this operation to resolve inconsistencies in the local database so that it can be opened and accessed by eDirectory. This option has suboptions that facilitate repair operations on the database.

The function modifiers used with the -R option are described below:

-l Locks the eDirectory database during the repair operation.
-u   Uses a temporary eDirectory database during the repair operation.
    It prompts the user to save or discard changes and view the log file.
-m   Maintains the original unrepaired database.
-f   Reclaims the free space in the database.

-d   Rebuilds the entire database.

-t   Performs a tree structure check.

-i   Checks the eDirectory database structure and the index.

-o   Rebuilds the operational schema.

-r   Repairs all the local replicas.

-v   Validates the stream files.

-c   Checks local references.

-h   Specifies the interface and port on which the server is listening.

--config-file Specifies the location of the nds.conf configuration file.

By default, the -i, -d, -t, -r, and -v options are set.

man crontab

Regards,
Dex