

Tweaking your Routers and Servers for Daylight Saving Time (DST) in Bangladesh

Introduction

Bangladesh government is going to adopt the concept of Daylight Saving Time (DST) which is going to start from 19th Jun 2009 11pm. During DST, Bangladesh time will be 1 hour faster than current UTC offset (+0600 hrs), UTC time offset will be +0700 hrs (25200 seconds).

Ref: [Bangladesh Starts Daylight Saving Time on June 19, 2009](#)

This document describes the possible measures to take by an organization who owns computing and network elements like routers, switches, windows or linux servers, so that its operation is not affected by the newly introduced DST.

To Do for Network Elements (Routers)

All recent network devices by default have the option to configure DST settings. The switches, routers are configurable for DST. As long as DST is configured with required time information, the clocks of these devices will switch time as per settings definition.

Example configuration for a Cisco router to switch time automatically as per DST is given below:

- To manually read the hardware clock use following command:

```
router# configure terminal
router(config)# clock read-calender
```

Note: if it is already set, you do not need to execute this command.

- To configure a system as an authoritative time source for a network based on its hardware clock

```
router# configure terminal
router(config)# clock calendar-valid
```

Note: If it is already set, you do not need to execute this command.

- To configure the system to automatically switch to summer time (daylight saving time)

```
router# configure terminal
router(config)# clock summer-time BDST date Jun 19 2009 23:00 Sep 30
2009 23:59 60
```

To Do for GNU/Linux servers

Install the updates released by the distribution vendors as soon as they are released.
The updated timezone data will make the system clock switch automatically get updated with the DST.

Red Hat has already published fix through RHN errata notice on 16-06-2009 and released a patch for the DST start.

Ref: [tzdata Enhancement Update](#)

Note that all NTP clients (workstations, servers) must be updated with up-to-date timezone data so that after switching to new DST time these clients will continue to get time from NTP servers and correctly set system time, no further changes are needed.

DST Update Process

This section describes the DST update process of various platforms. Before updating, first check if zone information of Asia/Dhaka updated for DST:

```
# zdump -v /usr/share/zoneinfo/Asia/Dhaka | grep 2009
/usr/share/zoneinfo/Asia/Dhaka Fri Jun 19 16:59:59 2009 UTC = Fri Jun 19
22:59:59 2009 BDT isdst=0 gmtoff=21600
/usr/share/zoneinfo/Asia/Dhaka Fri Jun 19 17:00:00 2009 UTC = Sat Jun 20
00:00:00 2009 BDST isdst=1 gmtoff=25200
```

If you find no output, then you can run tzdata update. you may need to run these commands with 'sudo' if you do not have root privilege.

RHEL/ CentOS/ Fedora

- Update tzdata by using yum command:

```
# yum update tzdata
```

Related information: [Bangladesh introduces DST 20th Jun](#)

Ubuntu

- Update tzdata by using apt-get command

```
# apt-get update
# apt-get install tzdata
```

If you see that tzdata is not updated and it says "tzdata is already the newest version" or no update is found, Ubuntu may not have yet published the required patch in the official update channel. But still proposed update can be installed from the related proposed update repository (e.g. hardy-proposed, intrepid-proposed, jaunty-proposed) of Ubuntu. Check out your distribution name like below:

```
$ grep DISTRIB_CODENAME /etc/lsb-release
DISTRIB_CODENAME=hardy
```

And see [Testing/Enable Proposed](#) for documentation on how to enable and use -proposed.
Now install proposed tzdata package like this:

```
sudo apt-get -t hardy-proposed update
sudo apt-get -t hardy-proposed install tzdata
```

Check Timezone

```
# zdump -v /etc/localtime
```

You should see something like this (minimum):

```
Fri Jun 19 16:59:59 2009 UTC = Fri Jun 19 22:59:59 2009 BDT isdst=0
gmtoff=21600
Fri Jun 19 17:00:00 2009 UTC = Sat Jun 20 00:00:00 2009 BDST isdst=1
gmtoff=25200
```

Related information: [Timezone change for Bangladesh](#)

Windows OS Fix

All windows workstation and servers OS (XP, Vista, Server 2003, Server 2008) needs to be updated for DST.

- Download the patch MicrosoftFixit50280.msi from <http://support.microsoft.com/kb/972423>
- Install MicrosoftFixit50280.msi
- From Control Panel > Date and Time > Time Zone select "(GMT+6:00) Dhaka" instead of "(GMT+6:00) Astana/Dhaka"

Java Application Fix

Java JRE uses its own timezone data. So, timezone data needs to be fixed.

- Download the updated java-tzdata file and save it (for example in /tmp directory)

```
# wget http://www.mango.com.bd/downloads/tzdata-java-2009i-2.tar.gz
```

- Extract files into timezone data folder of your JAVA/JRE runtime (e.g /usr/lib/jvm/java-1.5.0-sun-1.5.0.16/jre/). Note: For CM and Zimbra the folder owners are not ROOT user, please log in as appropriate user

```
# cd /usr/lib/jvm/java-1.5.0-sun-1.5.0.16/jre/lib/zi/
# tar zxf /tmp/tzdata-java-2009i-2.tar.gz
```