



Daylight Savings Time and 3Com® Products

TECHNICAL UPDATE

TECHNICAL GUIDE

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1.0 INTRODUCTION

1.1 BACKGROUND

Daylight Saving Time (DST) uses official changes to a region's time at specific points during the calendar year to maximize the daylight hours available during typical waking hours.

The timing of Daylight Saving Time, or whether DST is done at all, is a country-by-country decision. In the United States, which does observe DST, the dates have traditionally been the first Sunday in April and the last Sunday in October.

Beginning in 2007, the United States and possibly other countries will be changing its Daylight Savings Time observance. The Energy Policy Act of 2005 mandates that DST will start on the second Sunday in March and end on the first Sunday in November. In 2007, the start and stop dates will be March 11 and November 4, respectively. These dates are different from previous DST start and stop dates. Other countries are evaluating whether they will adopt the new rules for themselves.

2.0 IMPLICATIONS FOR 3COM® SWITCHES

Because many network switches have a real-time clock, and often support time synch protocols such as Network Time Protocol (NTP) and Simple Network Time Protocol (SNTP), network operators may wonder if this change to DST in the United States could impact network switch operation or require manual reconfiguration to properly adjust to the new time.

3Com has reviewed this situation, and believes there are no known issues with supporting the change to DST on any 3Com switch platform. 3Com has verified that the change to DST planned for 2007 will not impact the operation of the 3Com switch families 5500G, 5500, 4500G, 4500, 4400, 4200G, 4200, 4900, 40x0, 3900 and 3300. Configuration action may be required to ensure the automatic, timely adjustment of the resident time in the switch, depending on switch model type and their current settings.

This verification is valid only for those 3Com switches running the latest available software releases, with all applicable patches installed. Modifications, other than those provided by 3Com, to the switch software and hardware invalidate any assurances provided herein by 3Com.

Following is a family-by-family write-up that provides further information pursuant to the above statements.

2.1 ENTERPRISE MODULAR AND STACKABLE SWITCHES

Families 8800, 7700, 7750, 5500G, 5500, 4500G, 4500 and 4200G

Applicable for 3Com SKUs: 3CR17250-91, 3CR17251-91, 3CR17252-91, 3CR17253-91, 3CR17258-91, 3CR17151-91, 3CR17152-91, 3CR17161-91, 3CR17162-91, 3CR17171-91, 3CR17172-91, 3CR17181-91, 3CR17761-91, 3CR17762-91, 3CR17771-91, 3CR17772-91, 3CR17561-91, 3CR17562-91, 3CR17571-91, 3CR17572-91, 3CR17660-91, 3CR17661-91, 3R17662-91, 3C16850, 3C16852, 3C16857, 3C16857R, 3C16894, 3C16895, 3C17500, 3C17501 and 3C17502.

Daylight Savings Time is set using a CLI command. These 3Com switches have a "clock summer-time" option to allow the operator to specify a start and end date/time for DST.

Reconfiguration Instructions

Use the "clock summer-time" command to set the name, time range and offset of the daylight saving time.

EXAMPLE: clock summer-time 3com one-off 2:00 10/3/2007 2:00 3/11/2007 01:00:00

Use the "undo clock summer-time" command to cancel the setting.

Syntax

```
clock summer-time zone-name { one-off | repeating } start-time start-date end-time end-date add-time
undo clock summer-time
```

Parameters

zone-name: Name of the daylight saving time, consisting of a character string 1 to 32 characters long

one-off: Sets the daylight saving time for only one year (the specified year)

repeating: Sets the daylight saving time for every year starting from the specified year

start-time: Start time of the daylight saving time, in the format of HH:MM:SS

start-date: Start date of the daylight saving time, in the format of YYYY/MM/DD or MM/DD/YYYY

end-time: End time of the daylight saving time, in the format of HH:MM:SS

end-date: End date of the daylight saving time, in the format of YYYY/MM/DD or MM/DD/YYYY

add-time: Offset of the daylight saving time relative to (ahead of) the standard time, in the format of HH:MM:SS

The above command can be accessed in the "User" view. After setting, you can use the display clock command to check the result.

Note: Most of these switches also support NTP. The above command is used in conjunction with NTP to adjust the timezone to the local location.

Switch 4400 family

Applicable for 3Com skus 3C17203, 3C17204, 3C17205, 3C17206 and 3C17210.

These switches can receive time through SNTP. Your time server will provide "universal time." In order to translate universal time to one's specific timezone, the Switch 4400 software has a specific "dst" option to allow the user to specify a start and end date/time for DST. If the switch is set to Option 1, then DST will adjust according to the old now-incorrect schedule for DST. Instead, you must select Option 5 to enter the start and end dates and times for DST.

Reconfiguration Instructions

Menu options: -----3Com SuperStack 3 Switch 4400-----

dst - Configure daylight saving time

timeZone - Configure the local time zone

Type "quit" to return to the previous menu or ? for help

-----Sustaining Lab 4400 (1)-----

Select menu option (system/time/localization): dst

Do you want to enable daylight saving time? (no,yes)[no]: y

Select one of the following:

1 First Sunday in April to last Sunday in October (North America)

2 Last Sunday in March to last Sunday in October (Europe, parts of Asia)

3 Last Sunday in October to last Sunday in March (Parts of Australia)

4 First Sunday in October to the third Sunday in March (New Zealand)

5 Enter start and end dates and times

Select daylight saving time option (1-5,?)[1]: 5

Enter DST start (?)[2007-03-14T02:00:00]:

Switch 4900 and 40x0 families

Applicable for 3Com skus 3C17700, 3C17701, 3C17702, 3C17706, 3C17707, 3C17708, 3C17709

This switch family has no real time clock and so is not impacted by DST changes.

Switch 4200 family

Applicable for 3Com skus 3C17300, 3C17302, 3C17304, 3C17300A, 3C17302A, 3C17304A.

This switch family has no real time clock and so is not impacted by DST changes.

Switch 3900 family

Applicable for 3Com sku 3C39024.

This switch family has no real time clock and so is not impacted by DST changes.

Switch 3870/3800 family

Applicable for 3Com skus 3C17400, 3C17401, 3CR17402-91, 3CR17450-91, 3CR17451-91

This switch family in most installations will be operating without a locally set clock and calendar and therefore will not be impacted by DST changes. A late release for 3CR17402-91, 3CR17450-91, 3CR17451-91 added the support for SNTP to be set via SNMP, but these commands were not provided in CLI or in the embedded web interface, and they were not fully documented. Also, this limited set of time-based capabilities did not support DST and were not persistent after a power cycling of the device. In those installations that did make use of these limited SNMP-based capabilities to implement SNTP, SNTP will continue to provide a universal time setting. The DST time change will need to be changed manually at the proper time to keep the devices at the right local time

Switch 3300 family

Applicable for 3Com skus 3C16980, 3C16980A and 3C16988A.

This switch family has no real time clock and so is not impacted by DST changes.

3.0 IMPLICATIONS FOR 3COM® ROUTERS

3Com has verified that the change to DST planned for 2007 will not impact the operation of the 3Com® Router 3000, Router 5000 or Router 6000 Families. Configuration action may however be required to ensure the automatic and timely adjustment of the resident time in the router, depending on their current settings.

This verification is valid only for those 3Com routers running the latest available software releases, with all applicable patches installed. Modifications, other than those provided by 3Com, to the router software and hardware invalidate any assurances provided herein by 3Com.

Following is a family-by-family write-up that provides further information pursuant to the above statements.

3.1 ENTERPRISE ROUTERS

Families: Router 3000, Router 5000 and Router 6000

Applicable for 3Com SKUs: 3C13630, 3C13631, 3C13632, 3C13633A, 3C13634A, 3C13635, 3C13636, 3C13640, 3C13641, 3C13701, 3C13751, 3C13755, 3C13759, 3C13804, 3C13805

Daylight Savings Time is set using a CLI command. These 3Com routers have a "clock summer-time" command to allow the operator to specify a start and end date/time for DST.

Reconfiguration Instructions

Use the "clock summer-time" command to set the name, time range and offset of the daylight saving time.

Examples

```
clock summer-time 3Com one-off 02:00:00 03/11/2007 02:00:00 11/04/2007 01:00:00
```

```
clock summer-time 3Com repeating 02:00:00 2007 March second Sunday 02:00:00 2007 November first Sunday 01:00:00
```

Use the "undo clock summer-time" command to cancel the setting.

Syntax

```
clock summer-time zone-name { one-off | repeating } start-time start-date end-time end-date add-time
undo clock summer-time
```

Parameters

zone-name: Name of the daylight saving time, consisting of a character string 1 to 32 characters long

one-off: Sets the daylight saving time for only one year (the specified year)

repeating: Sets the daylight saving time for every year starting from the specified year

start-time: Start time of the daylight saving time, in the format of HH:MM:SS

start-date: Start date of the daylight saving time, in the format of YYYY/MM/DD or MM/DD/YYYY. Alternatively, this can be a specific day in the format:

```
YYYY Month First/Second/Third/Forth/Fifth/Last Day-of-Week
```

end-time: End time of the daylight saving time, in the format of HH:MM:SS

end-date: Start date of the daylight saving time, in the format of YYYY/MM/DD or MM/DD/YYYY. Alternatively, this can be a specific day in the format:

```
YYYY Month First/Second/Third/Forth/Fifth/Last Day-of-Week
```

add-time: Offset of the daylight saving time relative to (ahead of) the standard time, in the format of HH:MM:SS

The above command can be accessed in the "System" view. After setting, you can use the "display clock" command to check the result.

Note: It is strongly recommended that NTP is configured on these routers to ensure that the correct time is maintained.

Families: Router 3000 and Router 5000

Applicable for 3Com SKUs: 3C13612, 3C13613, 3C13615, 3C13616, 3C13618, 3C13700, 3C13750, 3C13754, 3C13758

Daylight Savings Time is set using a CLI command. These 3Com routers have a "clock daylight-saving" command to allow the operator to specify a start and end date/time for DST.

Reconfiguration Instructions

Use the "clock daylight-saving" command to set the name, time range and offset of the daylight saving time.

Examples

```
clock daylight-saving 3Com absolute 02:00:00 2007/03/11 02:00:00 2007/11/04 01:00:00
```

```
clock daylight-saving 3Com recurring 02:00:00 2007/03/11 02:00:00 2007/11/04 01:00:00
```

Use the "undo clock daylight-saving" command to cancel the setting.

Syntax

```
clock daylight-saving zone-name { absolute | recurring } start time start date end time end date add time
```

```
undo clock summer time
```

Parameters

zone-name: Name of the daylight saving time, consisting of a character string 1 to 32 characters long

absolute: Sets the daylight saving time for only one year (the specified year)

recurring: Sets the daylight saving time for every year starting from the specified year

start-time: Start time of the daylight saving time, in the format of HH:MM:SS

start-date: Start date of the daylight saving time, in the format of YYYY/MM/DD.

end-time: End time of the daylight saving time, in the format of HH:MM:SS

end-date: Start date of the daylight saving time, in the format of YYYY/MM/DD.

add-time: Offset of the daylight saving time relative to (ahead of) the standard time, in the format of HH:MM:SS

After setting, you can use the "display clock" command to check the result.

Note: It is strongly recommended that NTP is configured on these routers to ensure that the correct time is maintained.

4.0 IMPLICATIONS FOR 3COM VCX™ AND NBX® NETWORK CALL PROCESSORS

4.1 VCX NETWORK CALL PROCESSORS

The changes to accommodate U.S. DST for 2007 are included in VCX Linux versions 4.3.0 and newer, which covers all released versions 7.0 or greater of VCX software.

VCX software releases 6.x or older can be upgraded to release 7.0 or greater with a software upgrade. There will be no support for fixes to VCX software releases 6.x or older so as to reflect the new DST dates.

Please note: It is **not** recommended to change the timezone by manually editing the link and other files in VCX. The correct approach is to run `vcx-config-network` and do "setup timezone", as it is much easier and less error prone. Also, do not set "zone" in the clock file as it is not necessary.

4.1 NBX NETWORK CALL PROCESSORS

The changes to accommodate U.S. DST for 2007 are included in NBX software release versions 6.0 and newer, which covers all released versions 6.0 or greater of the NBX software.

NBX software releases 1.x to 5.x can be upgraded to release 6.0 or greater with a software upgrade. There will be no support for fixes to NBX software releases 1.x to 5.x so as to reflect the new DST dates.

A workaround for NBX software releases 1.x to 5.x is to manually change the time in the NBX Netset™ utility to reflect the correct time, adjusting it on March 11th and November 4th.

5.0 IMPLICATIONS FOR 3COM® WIRELESS SWITCHES AND CONTROLLERS

3Com Wireless LAN Controllers WX4400 and WX2200, Wireless LAN Switch WX1200 and WXR100 Remote Office Wireless LAN Switch

Applicable for 3Com SKUs: 3CRWX440095A, 3CRWX220095A , 3CRWX120695A, 3CRWXR10095A

3Com Wireless Switches and Controllers will need adjustment for the DST time change as the current default settings for DST are no longer valid.

Reconfiguration Instructions

The following commands are implemented in the Mobility System Software:

1. Log into the wireless controller and/or switch with your administrator's username and password
2. Enter your password to access enable mode
3. Type "set summertime DST start second sun mar 2 0 end first sun nov 2 0"
4. Save the configuration



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