

To: All ShoreTel Partners, Enterprise Support Customers and ShoreTel Sales Team Members

Subject: Product Alert – How will Daylight Savings time date change affect the ShoreTel products?

Date: February 26, 2007

Applies to:

- All ShoreTel Products, all releases unless otherwise specified

Symptoms:

Products not showing the correct time after changing to DST

Cause:

Changes to US Day Light Savings

Starting in the spring of 2007, daylight saving time (DST) the start and end dates for the United States will transition to comply with the Energy Policy Act of 2005. DST dates in the United States will start three weeks earlier (2:00 A.M. on the second Sunday in March) and will end one week later (2:00 A.M. on the first Sunday in November).

Note: Daylight Saving Time is NOT observed in Hawaii, American Samoa, Guam, Puerto Rico, the Virgin Islands, and Arizona. The Navajo Nation participates in the Daylight Saving Time policy, even in Arizona, due to its large size and location in three states.

Resolution:

How will this affect the ShoreTel Products?

ShoreTel 'system time' is derived from the customer's network time and an off set supplied by the Microsoft OS. As such, the changes being provided by Microsoft for the Windows operating systems that account for the new DST dates will also correct ShoreTel system time.

Core to the ShoreTel system is the ShoreWare Server and voice mail servers which get their 'core time' and DST off set from the Windows operating system on which they reside.

ShoreTel Switches in the system in turn get their 'core time' and site 'off set time' which includes DST from the from the ShoreWare server

ShoreTel IP phones in get their 'core time' from the network time source and DST off set from their site ShoreTel switches

When the customer implements the DST time change facility that Microsoft is incorporating into its' operating systems these ShoreTel system elements will also operate on, and display the new DST off set correctly.

The exceptions to this statement are Contact Center, IP 100 and Conference Bridge. A summary of the handling is contained in the table below

Product	How it gets 'core time'	How it gets its off set to correct for DST	Is it affected by changes to DST	Comments
ShoreWare Server	Time via PC hosting ShoreWare Server SW which points at network time server (for example set to Zulu time)	Via OS of the PC on which it resides	Will follow the OS solution from Microsoft and be corrected by the Microsoft operating system	
Switches	From ShoreWare Server	From ShoreWare Server, off set is per site. DST off set is included in the total 'site time off set' given to the switches by the ShoreWare server.	When ShoreWare Server has the correct time from Microsoft the switches will have correct off set per site as well	
IP phones	Via network time server (example Zulu time)	IP phones get DST off set from ShoreWare Server via ShoreTel switches. DST off set is included in the total site time off set given to the switches by the ShoreWare server.	When ShoreWare Server has the correct time from the hosting Microsoft OS the phones will also have the correct off set from the example 'Zulu' time.	
Polycom IP 100	Via network time server (example Zulu time)	Via config file that must be manually changed with the correct dates for any off set.	As today the customer has to correct the time off set that should include DST at that correct date	Config file can be edited to ensure that an off set changes from current setting on the new dates. See Polycom web site for details. Link in Annex at the end of this document
Analog ports	Time from switch	Off set controlled by switch	As per switch	
Voice Mail Server	Time via PC hosting voicemail application which points at network time server (for example set to Zulu time)	Via OS of the PC on which it resides	Will follow the OS solution from Microsoft	

PCM	Time via hosting PC which points at network time server (for example set to Zulu time)	Via OS of the PC on which it resides	Will follow the OS solution from Microsoft	
Contact Center	Time via hosting PC which points at network time server (for example set to Zulu time)	Program provides off set	As per statement	No automatic date change correction. Follow procedure from tech bulletin repeated in annex
ShoreWare System Monitor	Time via hosting PC which points at network time server (for example set to Zulu time)	Via OS of the PC on which it resides	Will follow the OS solution from Microsoft	
Conference Bridge	From network time server	Via OS of the server on which the conference bridge application resides	Will follow the OS solution from Linux	Patch available via GSS. ISO image for the OS, named timezoneupdate
SIP BRI	Via network time server (example Zulu time)	-	Not relevant in US. International only	

Annex

Polycom IP 100

The configuration file (ip100.cfg) needs to be updated on the IP 100

The new string is:

```
<SNTP tcplpApp.snntp.daylightSavings.gmtOffset="-28800"
tcplpApp.snntp.daylightSavings.enable="1" tcplpApp.snntp.daylightSavings.fixedDayEnable="0"
tcplpApp.snntp.daylightSavings.start.month="3" tcplpApp.snntp.daylightSavings.start.date="8"
tcplpApp.snntp.daylightSavings.start.time="2" tcplpApp.snntp.daylightSavings.start.dayOfWeek="1"
tcplpApp.snntp.daylightSavings.start.dayOfWeek.lastInMonth="0"
tcplpApp.snntp.daylightSavings.stop.month="11" tcplpApp.snntp.daylightSavings.stop.date="1"
tcplpApp.snntp.daylightSavings.stop.time="2" tcplpApp.snntp.daylightSavings.stop.dayOfWeek="1"
tcplpApp.snntp.daylightSavings.stop.dayOfWeek.lastInMonth="0"/>
```

Where -28800 is for the Pacific timezone. The customer should retain whatever value they currently use for their own timezone. This represents the number of seconds offset from GMT.

For more information please copy and paste the full link below to your browser

http://knowledgebase.polycom.com/kb/search.do?cmd=displayKC&docType=kc&externalId=10627&sliceId=SAL_PUBLIC_1_2&dialogID=1880701&stateId=1%200%201878545

Contact Center

Applies to:

- All ShoreTel Contact Center 4.35.X and 4.6X Releases

Symptoms:

Daylight savings time will cause Historical reporting to record negative values for only active calls that exist during the change of hour.

Shift hours, which start prior to the hour change, and end after the hour change, will be off by one hour.

Cause:

Daylight Savings time requires a manual update for handling local region time zones.

Resolution:

1. Deselect the "Automatically adjust clock for daylight saving changes" on the contact Center.
2. Stop "Windows Time" Service, and set Startup type parameter to "Disabled".
3. Plan for outage of ShoreTel Contact Center after the time change has occurred.
4. Stop the ShoreTel Contact Center Service.
5. Re-activate Windows Time, or perform a manual clock update.
6. Confirm that Server time reflects current region time.
7. Restart ShoreTel Contact Center service.
8. Confirm that Contact Center is up and running.
9. Confirm call routing has been restored.

Conference Bridge

The procedure to update the ShoreWare Conference servers for the new DST changes consists of uploading a new ISO image to the server and rebooting them. QA has validated this procedure and it works properly on both 5.6.2 and 4.2.4 servers. A separate Product Alert is published on the support site covering the patching procedure. For completeness the steps it outlines are repeated here:

1. Download timezoneUpdate.iso file from:
http://download.shoretel.com/converged_conferencing/converged_conferencing_dst_patch.iso
2. Copy the timezoneUpdate.iso file (to a location on the workstation or server that you plan on using to access the Conference Server.
3. Log into the ShoreWare Conference Server.
4. Select the Configuration parameters, then click on the Upgrade Server Software option.
5. Select the "Install Patch from CD image (.iso file) option, then click on the Browse button, then locate the file, timezoneUpdate.iso, you copied in step 2 and open the file.
6. Click on the Install button, the progress bar will begin incrementing.
7. After a short period you'll be provided status that the ISO upgrade was successful, you'll now need to reboot the server by selecting the Shutdown option.
8. Once the Shutdown page updates, select the Restart option.
9. You will be prompted for confirmation of the restart, select OK.

10. The page will update with the following, you have now completed the patch update successfully. There are no additional configuration parameters to implement this patch.
11. After the server reboot, you can verify a successful patch installation by selecting the Reporting parameters, then select "Install History Log" option. When the page updates, make sure the Start and End dates cover the current month and change the Package Type to "All", then click the View button.
12. The History Log page will provide you with all the patches that have been installed; the time zone patch should be listed.