



Troubleshooting Incorrect Time Stamp on IP Phones in Cisco Unified CME

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Certain Cisco Unified IP phones, such as the Cisco Unified IP Phone 7906, 7911, 7931, 7941, 7961, 7970, and 7971-GE, maintain their own internal calendar and clocks and base the displayed time on the Coordinated Universal Time (UTC)/Greenwich Mean Time (GMT) converted from the current time on the Cisco router and on the time-zone configuration for the phone in Cisco Unified CME. Without the correct phone firmware and configuration, these phones can fail to display the correct date and time, particularly immediately after Daylight Savings Time (DST) begins in March or before it ends in early November. Other Cisco Unified IP phones receive date and time stamp information from the Cisco Unified CME router to which they are registered. In this case, if the clock or time zone is incorrectly configured on the Cisco router, it is reflected on the phone display.

The following symptoms can indicate that the clock or time stamp parameters are incorrect or that the firmware version for certain phones must be upgraded.

Symptoms

Incorrect time stamp appears on a phone display.

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Prerequisites

- You have a valid Cisco.com account.
- You have access to a TFTP server for downloading files.
- The hardware and software to establish a physical console connection to the Cisco router using a terminal or PC running terminal emulation is available and operational.
- Cisco router is configured for Cisco Unified CME.
- IP phones, phone cables, and ports are operational.
- Phone is successfully registered and that the correct extension number appears on the phone display.

Begin Here



Note

For information about individual commands, see the [Cisco Unified CME Command Reference](#).

To modify or correct the configuration file on the Cisco Unified CME router, see the [Cisco Unified CME System Administrator Guide](#).

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- Step 1** Was the time stamp correctly displayed and then is offset by one hour beginning on the second Sunday in March or the last Sunday in October?
- Yes—See the “[Incorrect Time Stamp Appears During Extended DST](#)” section on page 2.
 - No or don’t know—See the “[Phones Display Incorrect Time Stamp](#)” section on page 4
- Step 2** Does the incorrect time stamp appear on all phones registered in Cisco Unified CME?
- Yes—See the “[Phones Display Incorrect Time Stamp](#)” section on page 4.
 - No—Go to next step.
- Step 3** Does the incorrect time stamp appear on Cisco IP Communicators only?
- Yes—Confirm installed firmware version and if necessary, upgrade to Cisco IP Communicator versions 2.0(2). For information, see the [Cisco IP Communicator documentation](#).
 - No or don’t know—See the “[Phones Display Incorrect Time Stamp](#)” section on page 4.
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Incorrect Time Stamp Appears During Extended DST

Daylight Savings Time (DST) changes in the U.S are mandated by U.S. Congress in the Energy Policy Act of 2005 (H.R.6.ENR), Section 110. The new U.S. DST standard is effective as of March 2007.

The operating systems of most Cisco products that support DST have built in mechanisms to automatically change the times. For Cisco Unified CME systems in the U.S. that have not been updated with the new U.S. DST policy changes, time stamps will exhibit a 1-hour time clock offset lasting three weeks beginning at 2 a.m. on the second Sunday in March and another 1-hour time clock offset lasting one week beginning at 2 a.m. on the last Sunday in October.

- Step 1** For SCCP Cisco Unified IP Phone 7902G, 7905G, 7912G, 7920, 7921, 7935, 7936, 7940, 7960, and 7985G, modify the current default settings on the Cisco Unified CME router for the new U.S. DST standard by using the **clock summer-time** command.
- Example:
- ```
Router# clock summer-time EDT recurring 2 Sun Mar 2:00 1 Sun Nov 2:00
```
- Step 2** For SIP Cisco Unified IP Phone 7905G or 7912G, phone user can manually adjust time zone parameter by using the **Settings>Network Configuration>Time Zone** menu on the phone. For information, see the user documentation at [http://www.cisco.com/en/US/products/hw/phones/ps379/products\\_user\\_guide\\_list.html](http://www.cisco.com/en/US/products/hw/phones/ps379/products_user_guide_list.html)
- Step 3** For SIP Cisco Unified IP Phone 7940G and 7960G, update the phone firmware to 8.7(0). For installation information, see [Installing and Upgrading Cisco Unified CME Software](#) in the *Cisco Unified CME Administration Guide*.
- Step 4** For Cisco Unified IP Phone 7906G, 7911G, 7941G/GE, 7961G/GE, 7970G, or 7971G/GE, update the phone firmware versions as follows. For installation information, see [Installing and Upgrading Cisco Unified CME Software](#) in the *Cisco Unified CME Administration Guide*.
- Cisco Unified CME 3.X, 4.0, and 4.0(X)—8.0(4)SR3 and 8.2(1) or higher versions.
  - Cisco Unified CME 4.1—8.2(2)SR1 or a higher version.
- Step 5** For Cisco Unified IP Phone 7931, update the phone firmware versions to 8.2(2)SR1 or a higher version. For installation information, see [Installing and Upgrading Cisco Unified CME Software](#) in the *Cisco Unified CME Administration Guide*.
- Step 6** For Cisco IP Communicator, upgrade to CIPC version 2.0(2):



**Note**

Cisco IP Communicator 2.0(2) does not take the 2007 change in the DST policy into account for users in the Atlantic or Newfoundland time zones. Please contact technical support at <http://www.cisco.com/techsupport> for a hotfix that addresses the change in DST policy for the Atlantic and Newfoundland time zones.

Mexico does not observe the new DST dates in the 2007 U.S. DST policy and continues to observe the DST dates dictated under the previous DST policy. After applying the fix for the 2007 DST adjustment on the Cisco Unified CME, there is no option to select for 'Pacific Standard Time (Mexico)' and 'Mountain Standard Time (Mexico)' for Date/Time Group Configuration. As a result, users with Mexico PST or Mexico MST setting will be one hour ahead for three weeks beginning at 2 a.m. on the second Sunday in March and one hour behind for one week beginning at 2 a.m. on the last Sunday in October.

- a. Upgrade the operating system on end user client PCs. For information on upgrading Windows PCs, please see the [Microsoft Daylight Saving Time Help and Support Center](#).
- b. Upgrade the firmware for the Cisco IP Communicator: For Cisco IP Communicator versions 2.0(1) and earlier (including Cisco IP Communicator versions 1.x), upgrade to version 2.0(2). Version 2.0(2) can be obtained on the Cisco IP Communicator Software Download site at Cisco Unified CME software download website at <http://www.cisco.com/cgi-bin/tablebuild.pl/ip-iostsp>. For information, see the [Cisco IP Communicator documentation](#).

# Phones Display Incorrect Time Stamp

The incorrect time stamp can appear on Cisco IP phones registered in Cisco Unified CME for one of the following reasons:

- Clock or time stamp parameters configured for the Cisco router are incorrect.
- The **time-zone** command which is required for certain Cisco Unified IP phones, such as the Cisco Unified IP Phone 7906G, 7911G, 7941G/GE, 7942, 7945, 7961G/GE, 7962, 7965, 7970G, and 7971G/GE, is incorrect or not configured.
- The firmware version for certain phones must be upgraded. To identify phone firmware filenames associated to specific Cisco Unified IP phone types and compatible with the Cisco IOS release on the Cisco Unified CME router, see the appropriate [Cisco Unified CME Supported Firmware, Platforms, Memory, and Voice Products](#).



## Note

If the incorrect time stamp is displayed only on Cisco IP Communicators, confirm the installed firmware version and if necessary, upgrade to Cisco IP Communicator versions 2.0(2). For information, see the [Cisco IP Communicator documentation](#)

**Step 1** Are all the phones with incorrect timestamps some model other than Cisco Unified IP Phone 7902G, 7905G, 7912G, 7920, 7921, 7935, 7936, 7940, 7960, or 7985G?

- Yes or don't know—Go to next step.
- No—Go to [Step 6](#).

**Step 2** **show running-config**

Use the **show running-config** command to display the contents of the running configuration file on this Cisco Unified CME router.

**Step 3** Confirm the configuration for Network Time Protocol (NTP) server and time zone. The following partial output defines the Pacific Standard Time (pst) time zone as 8 hours offset from UTC, specifies recurring daylight savings time (pdt), and synchronizes this router's clock with an NTP server at 10.1.2.3.

Example:

```
!
.
.
.
clock timezone pst -8
clock summer-time pdt recurring
ntp server 10.1.2.3
.
.
.
telephony-service
 load 7941 P00308000400
.
.
.
time-zone 8 !---<==== time-zone command required for certain phone types
```

**Step 4** For phone models other than Cisco Unified IP Phone 7902G, 7905G, 7912G, 7920, 7921, 7935, 7936, 7940, 7960, or 7985G, the time-zone command must be configured. Is the time-zone command correctly configured for your phone?

- Yes—Go to next step.

- No—Correct the configuration.

**Step 5** Is the correct NTP server and the time zone configured for your site?

- Yes—Go to next step.
- No—Correct the configuration.

**Step 6** Modify the current default settings on the Cisco Unified CME router for the new U.S. DST standard for your time zone by using the **clock summer-time** command.

Example:

```
Router# clock summer-time PDT recurring 2 Sun Mar 2:00 1 Sun Nov 2:00
```

**Step 7** **show flash**

Use the **show flash** command to display a list of files in flash memory. The following partial sample output shows SCCP and SIP phone firmware filenames in the list of files.

```
Router# show flash
System flash Directory
.
.
.
24 333822 P00308000400.loads
25 398244 SIP11.8-2-1S.loads
26 59222 SCCP11.8-2-2SR1S.loads
27 461 SCCP31.8-2-2SR1S.loads
```

**Step 8** For the Cisco Unified IP Phone 7906G, 79X1, 797X, verify that the following phone firmware versions are installed in flash memory.

- Cisco Unified CME 3.X, 4.0, and 4.0(X)—8.0(4)SR3 and 8.2(1) or later versions.
- Cisco Unified CME 4.1—8.2(2)SR1 or a later version.

**Step 9** For SIP Cisco Unified IP Phone 7940G and 7960G, verify that phone firmware version 8.7(0) or a later version is installed in flash memory.

**Step 10** For all other Cisco Unified IP phones, verify that the correct phone firmware version, as listed on the appropriate [Cisco Unified CME Supported Firmware, Platforms, Memory, and Voice Products](#), is installed in flash memory.

**Step 11** Is the correct firmware versions installed for your phone?

- Yes—Go to next step.
- No—Install the appropriate phone firmware files in flash memory. For installation information, see [Installing and Upgrading Cisco Unified CME Software](#) in the *Cisco Unified CME Administration Guide*.

**Step 12** **show running-config**

Use the **show running-config** command to display the contents of the running configuration file on this Cisco Unified CME router. The following partial output includes the configuration for the load command.

```
.
.
.
!
telephony-service
Load 7941 P00308000400 !---<==== configuration for load command
...
ip dhcp pool voice
network 190.0.2.0 255.255.255.0
```

Additional References

```

option 150 ip 190.0.2.12 !
default-router 190.0.2.12
.
.
!
voice register global
mode cme
ip source-address 190.0.2.12 port 2000 !
max-dn
max-pool
Load 7961 SIP41.8-2-1S---<==== configuration for load command

```

**Step 13** Examine the output for the **load** command. Is the phone type correctly identified? Is the firmware filename correctly configured?



**Note** The firmware filename must not include the .sbin or .loads suffix for all phones except Cisco ATA and Cisco Unified IP Phone 7905 and 7912.

- Yes—Go to next step.
- No—Correct the configuration file.

**Step 14** Is the appropriate phone firmware filename, including version and protocol, specified for this phone type?

- Yes—Go to next step.
- No—Correct the configuration file.

**Step 15** Reset phones. If the problem persists, contact technical support at <http://www.cisco.com/techsupport>.

## Additional References

The following sections provide references related to Cisco Unified CME.

## Related Documents

| Related Topic                             | Document Title                                                                                                                                                                                                                                     |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cisco Unified CME                         | <ul style="list-style-type: none"> <li>• <a href="#">Cisco Unified CME System Administrator Guide</a></li> <li>• <a href="#">Cisco Unified CME Command Reference</a></li> <li>• <a href="#">Cisco Unified CME Documentation</a></li> </ul>         |
| Cisco IOS commands                        | <ul style="list-style-type: none"> <li>• <a href="#">Cisco IOS Voice Command Reference</a></li> <li>• <a href="#">Cisco IOS Software Releases 12.4T Command References</a></li> <li>• <a href="#">Cisco IOS Debug Command Reference</a></li> </ul> |
| Cisco IOS configuration                   | <ul style="list-style-type: none"> <li>• <a href="#">Cisco IOS Voice Configuration Library</a></li> <li>• <a href="#">Cisco IOS Software Releases 12.4T Configuration Guides</a></li> </ul>                                                        |
| Phone Documentation for Cisco Unified CME | <ul style="list-style-type: none"> <li>• <a href="#">Phone Documentation for All Cisco Unified CME</a></li> </ul>                                                                                                                                  |

## Technical Assistance

| Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Link                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <p>The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies.</p> <p>To receive security and technical information about your products, you can subscribe to various services, such as the Product Alert Tool (accessed from Field Notices), the Cisco Technical Services Newsletter, and Really Simple Syndication (RSS) Feeds.</p> <p>Access to most tools on the Cisco Support website requires a Cisco.com user ID and password.</p> | <p><a href="http://www.cisco.com/techsupport">http://www.cisco.com/techsupport</a></p> |

## Obtaining Documentation, Obtaining Support, and Security Guidelines

For information on obtaining documentation, obtaining support, providing documentation feedback, security guidelines, and also recommended aliases and general Cisco documents, see the monthly What's New in Cisco Product Documentation, which also lists all new and revised Cisco technical documentation, at: <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

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