VOS Applications and the June 30th, 2015 Leap Second

Contents

Introduction

This document covers how to proactively account for the 2015 Leap Second in the Cisco Collaboration Products. In order to ensure the correct alignment of astronomical and atomic time, the International Earth Rotation & Reference Systems Service has called for an extra second to be added to Coordinated Universal Time (UTC) at 23:59:59 on 30 June 2015. This will be the 26th

leap second adjustment since 1972, and represents an important consideration for providers of computer, network, and software solutions.

These Cisco Collaboration Products are covered in this document:

- Cisco Unified Communications Manager (CUCM)
- Cisco Unified IM & Presence Server (or Cisco Unified Presence (CUP))
- Cisco Unity Connection
- Cisco Emergency Responder (CER)
- Cisco Unified Contact Center Express (UCCX)
- Cisco Finesse
- Cisco Unified Intelligence Center (CUIC)
- Cisco SocialMiner
- Cisco MediaSense

CUCM

This section covers the impact and preventative measures for the CUCM product.

CUCM Versions 8.0 and Earlier

If CUCM runs Version 8.0 or earlier, it is susceptible to hang or crash when the leap second occurs on the upstream Network Time Protocol (NTP) server. See Cisco bug ID CSCut25356. In order to work around this issue, one of two workarounds can be applied. Both workarounds prevent the leap second insertion at 23:59:59 on June 30th, but require a manual a sync shortly afterward.

> **Note**: Both workarounds require NTP services to be nonfunctional. This is not recommended to be implemented for an extended period and might have adverse side effects on database replication and the time display on IP Phones.

Workaround 1 - Temporarily Use Invalid NTP Server

> **Warning**: This workaround invalidates licenses if the server runs on VMware. For this reason, this workaround is only preferable if the publisher server runs on a physical host.

Shortly prior to the leap second, add an NTP Reference to the Publisher OS Administration (Settings > NTP Servers) that points to a server that does not run NTP. Make sure to delete any valid NTP reference.

After the leap second is over, delete the invalid reference and add a valid NTP reference.

You need to restart the NTP service on all nodes in the cluster after this change is made with the *utils ntp restart* command.

Workaround 2 - Network Access Control List

Shortly prior to the leap second, implement a network Access Control List (ACL) in order to block NTP Requests on the destination UDP Port 123 that originates from the CUCM Publisher.

Shortly after the leap second, remove the ACL in order to allow the CUCM to sync time from the NTP server.

CUCM Versions 8.5 and Later

For CUCM servers that run Version 8.5 or later, enter the **utils ntp status** command in the Publisher CLI in order to verify that the server is properly synced to NTP.

Servers that run Version 8.5 or later will properly handle the leap second with the assumption that the NTP server upstream updates its time during the leap second.

If the server is not synchronized to an NTP server, it is recommended to add a valid NTP reference to the CUCM Publisher OS Administration (Settings > NTP Servers).

If the CUCM server is not synchronized to an NTP server, it will be one second ahead after the leap second occurs unless it is a version that contains the fix for Cisco bug ID CSCus88308. This fix is currently available in these versions:

- Version 9.1(2)SU3
- Version 8.6(2)26159-2 (you must contact Cisco TAC in order to obtain this version)

There are also expected to be Time Zone Update COP files posted to the "Unified Communications Manager / Cisco Unity Connection Time Zone Updates" updates for all versions of CUCM that are still under software maintenance in order to address Cisco bug ID CSCus88308.

Cisco Unity Connection

Since CUCM and Unity Connection share the same kernel version, refer to the instructions for CUCM. They are the same for Unity Connection.

Cisco Unified IM & Presence (and CUP)

CUP Versions 8.0 and Earlier

If CUP runs Version 8.0 or earlier, it is susceptible to hang or crash when the the leap second occurs on the upstream NTP server (Cisco bug ID CSCut25356). In order to work around this issue, one of two workarounds (in the CUCM section) can be applied. Both workarounds prevent the leap second insertion at 23:59:59 on June 30th, but require a manual a sync shortly afterward.

CUP/IM&P Versions 8.5 and Later

CUP and IM&P Versions 8.5 and later are not susceptible to Cisco bug ID CSCut25356. They will update per the leap second when notified by the upstream NTP server. If not synced to an NTP server, a fix for Cisco bug ID CSCus88308 is required either by a version update or Time Zone COP file.

CER

This section covers the impact and preventative measures for the CER product.

CER Versions 8.0 and Earlier

If CER runs Version 8.0 or earlier, it is susceptible to hang or crash when the the leap second occurs on the upstream NTP server (Cisco bug ID CSCut25356). In order to work around this issue, one of two workarounds (in the CUCM section) can be applied. Both workarounds prevent the leap second insertion at 23:59:59 on June 30th, but require a manual a sync shortly afterward.

CER Versions 8.5 and Later

CER Versions 8.5 and later are not susceptible to Cisco bug ID CSCut25356. They will update per the leap second when notified by the upstream NTP server. If not synced to an NTP server, a fix for Cisco bug ID CSCut09811 is required by a version update.

UCCX

This section covers the impact and preventative measure for the Cisco UCCX product.

UCCX Versions 8.0 and Earlier

If UCCX runs Version 8.0 or earlier, it is susceptible to hang or crash when the the leap second occurs on the upstream NTP server (Cisco bug ID CSCut25356). In order to work around this issue, one of two workarounds (in the CUCM section) can be applied. Both workarounds prevent the leap second insertion at 23:59:59 on June 30th, but require a manual a sync shortly afterward.

UCCX Versions 8.5 and Later

UCCX Versions 8.5 and later are not susceptible to Cisco bug ID CSCut25356. They will update per the leap second when notified by the upstream NTP server. If not synced to an NTP server, a fix for Cisco bug ID CSCut16832 is required either by a version update or Time Zone COP file to account for the leap second.

Cisco Finesse

This section covers the impact and preventative measures for the Cisco Finesse product.

Finesse Versions 10.0 and Earlier

If Finesse runs Version 10.0 or earlier, it is susceptible to hang or crash when the the leap second occurs on the upstream NTP server (Cisco bug ID CSCut25356). In order to work around this issue, one of two workarounds (in the CUCM section) can be applied. Both workarounds prevent the leap second insertion at 23:59:59 on June 30th, but require a manual a sync shortly afterward.

Finesse Versions 10.5 and Later

Finesse Versions 10.5 and later are not susceptible to Cisco bug ID CSCut25356. They will update per the leap second when notified by the upstream NTP server. If not synced to an NTP server, a fix for Cisco bug ID CSCut59282 is required either by a version update or Time Zone COP file to account for the leap second.

CUIC

This section covers the impact and preventative measures for the CUIC product.

CUIC Versions 9.0 and Earlier

If CUIC runs Version 9.0 or earlier, it is susceptible to hang or crash when the the leap second occurs on the upstream NTP server (Cisco bug ID CSCut25356). In order to work around this issue, one of two workarounds (in the CUCM section) can be applied. Both workarounds prevent the leap second insertion at 23:59:59 on June 30th, but require a manual a sync shortly afterward.

CUIC Versions 9.1 and Later

CUIC Versions 9.1 and later are not susceptible to Cisco bug ID CSCut25356. They will update per the leap second when notified by the upstream NTP server. If not synced to an NTP server, a fix for Cisco bug ID CSCut57780 is required either by a version update or Time Zone COP file to account for the leap second.

Cisco SocialMiner

SocialMiner Versions 8.6 and Earlier

Social Miner that runs Version 8.6 or earlier is susceptible to hang or crash when the the leap second occurs on the upstream NTP server (Cisco bug Id CSCut25356). In order to work around this issue, one of two workarounds (in the CUCM section) can be applied. Both workarounds prevent the leap second insertion at 23:59:59 on June 30th, but require a manual a sync shortly afterward.

SocialMiner Versions 9.0 and Later

Cisco SocialMiner Versions 9.0 and later are not susceptible to Cisco bug ID CSCut25356. They will update per the leap second when notified by the upstream NTP server. If not synced to an NTP server, a fix for Cisco bug ID CSCut69264 is required either by a version update or Time Zone COP file in order to account for the leap second.

Cisco MediaSense

This section covers the impact and preventative measures for the Cisco MediaSense product.

MediaSense Versions 8.6 and Earlier

If MediaSense runs Version 8.6 or earlier, it is susceptible to hang or crash when the the leap second occurs on the upstream NTP server (CSCut25356). In order to work around this issue, one of two workarounds (in the CUCM section) can be applied. Both workarounds prevent the leap second insertion at 23:59:59 on June 30th, but require a manual a sync shortly afterward.

MediaSense Versions 9.0 and Later

MediaSense Versions 9.0 and later are not susceptible to Cisco bug ID CSCut25356. They will update per the leap second when notified by the upstream NTP server. If not synced to an NTP server, a fix for Cisco bug ID CSCut12363 is required either by a version update or Time Zone COP file in order to account for the leap second.