Daylight Saving Time Configuration Guide for an IP Network

Please Read

Important

Please read this entire guide. If this guide provides installation or operation instructions, give particular attention to all safety statements included in this guide.

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About This Guide

Introduction

This guide provides instructions for using the Daylight Saving Time (DST) rules feature to configure the ISDS for DST changes. Starting in the spring of 2007, U.S. Daylight Saving Time (DST) started the second Sunday in March (March 11, 2007) and ended the first Sunday in November (November 4, 2007) in response to the decision by the U.S. Congress to extend DST by 4 weeks. Future changes may also be implemented.

We designed the DST Rules Feature to accommodate the new U.S. rules and to provide support for changing time on the dates that are appropriate in different parts of the world. We added parameters to system and client software to define the rules for the DST time extension.

The ISDS relies on Solaris for time keeping; therefore, the Solaris patches are critical to ensure a smooth transition to DST.

Audience

This document was written for ISDS operators. Field service engineers and Cisco Services engineers may also find the information in this document helpful.

Document Version

This is the second release of this document.

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DST Rules Feature

Introduction

The schedule for seasonal time changes, such as the start and stop of Daylight Saving Time (DST), varies in different parts of the world.

With the DST rules feature, you have the opportunity to configure the ISDS to adjust set-tops for time changes as they are observed in the region your network serves.

Note: The acronym DST is used throughout this document to refer to the seasonal time change. However, in your part of the world the time change may be identified differently.

The manner in which you configure the ISDS depends on the version of system software that is operating on your ISDS. This chapter provides you with the following information:

- A list of the software versions required to support the DST Rules feature
- A brief description of the DST features provided in specific versions of system software
- How to determine if your version of Solaris requires a patch before you make the ISDS DST changes

In This Chapter

- Site Requirements 2
- Site-Specific Configuration Overview 3
- Does Your Version of Solaris Require a Patch? 4

Site Requirements

Software That Supports the DST Rules Feature

System Releases

- All ISDS system releases are compatible with the DST rules.

Client Software

- All ISDS client software is compatible with the DST rules.

Application Software

- All ISDS application software is compatible with the DST rules.

Other Cisco Software Product Considerations

Disaster Recovery (DR), Auto Backup, Basic Backup, and the Service Automation Suite for Video (SASV) are not impacted by DST.

Site-Specific Configuration Overview

Regional support using the DST GUI—You can configure the DST rules to adjust set-tops for DST as it is observed in the different regions your network serves. You can also apply the DST rules to one or more hubs; the set-tops will use the DST rule of the hub to which they belong.

Does Your Version of Solaris Require a Patch?

Before you begin the procedures in this document, you need to verify that your version of Solaris is set up correctly for DST. The following procedure checks the dates and times associated with the Daylight Saving and Standard times for your time zone.

Note: UTC time in the following procedure refers to Universal Time Coordinated, also known as Greenwich Mean Time (GMT).

Checking Your Version of Solaris

1. Open an xterm window on the ISDS.
2. Type the following and press **Enter**:

   zdump -v [country/time zone] | grep [year]

   Example: To check the ISDS for the Eastern time zone in the US for 2008, you would type the following and press **Enter**:

   zdump -v US/Eastern | grep 2008

   Result: Solaris displays a list of dates and times that correspond to the current date and time, and the dates and times of the time changes in both UTC (Universal Time Coordinated, also known as Greenwich Mean Time [GMT]) time and local time, in the following order:

   - Current date and time (UTC, local)
   - Last date and time of the standard time for the time zone (UTC, local)
   - Date and time of the change from standard time to daylight saving time for the time zone (UTC, local)
   - Last date and time of the daylight saving time for the time zone (UTC, local)
   - Date and time of the change from daylight saving time to standard time for the time zone (UTC, local)

   Example:

```
oliveoil:/export/home/dncs$ zdump -v US/Eastern | grep 2008
US/Eastern  Tue Aug  5 15:34:30 2008 UTC = Tue Aug  5 11:34:30 2008 EDT isdst=1
US/Eastern  Sun Mar  9 06:59:59 2008 UTC = Sun Mar  9 01:59:59 2008 EST isdst=0
US/Eastern  Sun Mar  9 07:00:00 2008 UTC = Sun Mar  9 03:00:00 2008 EDT isdst=1
US/Eastern  Sun Nov  2 05:59:59 2008 UTC = Sun Nov  2 01:59:59 2008 EDT isdst=1
US/Eastern  Sun Nov  2 06:00:00 2008 UTC = Sun Nov  2 01:00:00 2008 EST isdst=0
oliveoil:/export/home/dncs$
```

3 Are the correct times and dates displayed?

- If **yes**, you do **not** need to update your version of Solaris. Continue with the procedures in this document.
- If **no**, you need to update your version of Solaris. Contact your Sun representative or visit the Sun website for more information.

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ISDS Sites

Introduction

This chapter describes setting the DST rules on systems running the ISDS.

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- Configure the ISDS for DST 8
- Displaying DST Rules 13
- Changing DST Rules 14
- Deleting DST Rules 15

Configure the ISDS for DST

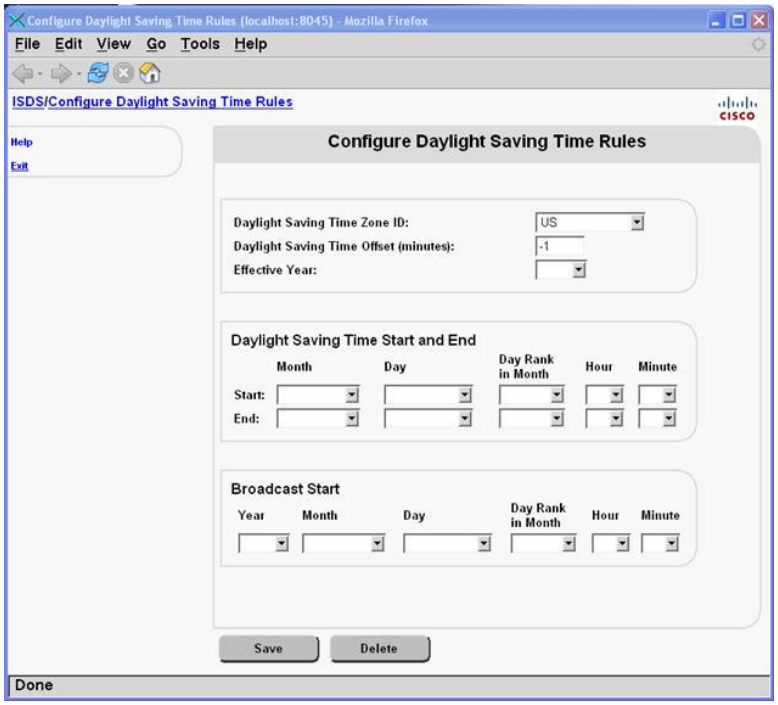
After you install the DST-supported software, you must configure the ISDS.

Important: We strongly recommend that you configure the DST rules more than 30 days prior to the time change. The ISDS will begin broadcasting the DST rules to the set-tops within 30 days of the DST start and end times you specify in the DST Rules window. However, DST rules can be added as necessary at any time. If DST rules are added within the 30-day window, the ISDS will begin broadcasting to the set-tops immediately.

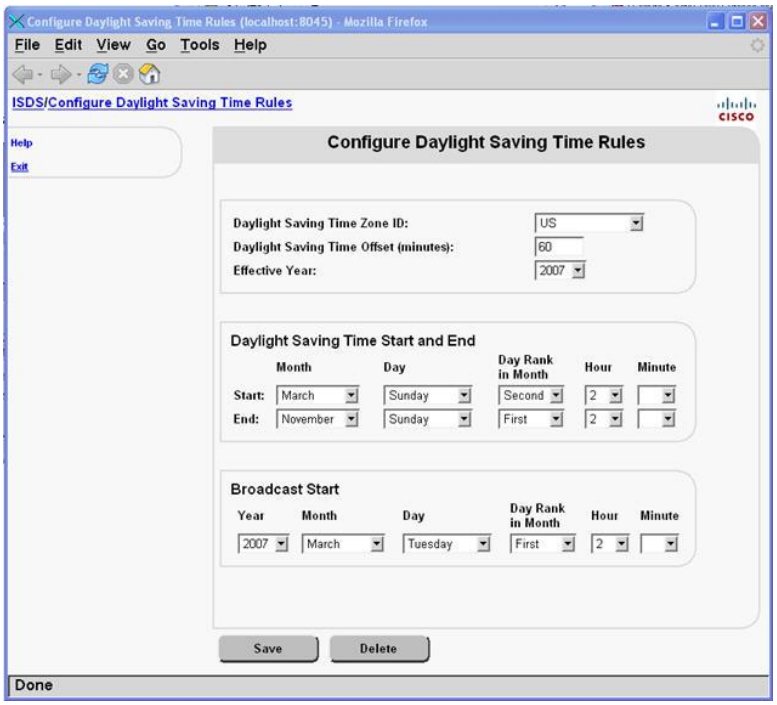
Note: Once you set up a DST rule, that rule remains in effect for each subsequent year; you should not need to adjust the rule unless you upgrade your system release (SR) software.

DST Rules Window

When you open the Configure Daylight Saving Time Rules window for the first time, it will be blank. If no data appears in the fields, a DST rule has not been created and set-tops use their default DST rules (the time moves forward 1 hour on the first Sunday in April, and back 1 hour on the last Sunday in October).



Refer to the following example of a completed Configure Daylight Saving Time Rules window as you configure your ISDS for DST.



Creating a DST Rule

Quick Path: ISDS Administrative Console > ISDS tab > System Provisioning tab > DST

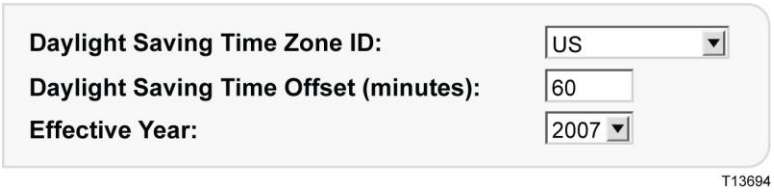
1 From the ISDS Administrative Console, click the **ISDS** tab.

2 Click the **System Provisioning** tab.

3 Select **DST**. The Configure Daylight Saving Time Rules window opens.

DST Zone ID Section

Use the following example as a guide when configuring the DST Zone ID section. In this example the DST Zone ID is the U.S., the offset (or, change from standard time to DST) is 60 minutes; the change to DST is effective 2007.



1 In the **Daylight Saving Time Zone ID** field, click the arrow and select the **Zone ID** for the rule that you want to create. The following options are available for sites operating :

- **US**—United States of America
- **Europe**—All countries of Europe except the United Kingdom of Great Britain and Northern Ireland
- **Australia**
- **UK**—United Kingdom of Great Britain and Northern Ireland
- **Local DST Zone**—Used for all other countries and territories, except as noted here:
  - *What if my country or territory isn't listed?* If an area you serve follows the same DST observance as a country or territory in the DST Zone ID list (US, Europe, Australia, and UK), select that territory from the DST Zone ID list. For example, if you serve a Canadian province that follows the same DST observance as the United States of America, select US to define a DST Zone ID rule for that province.
  - If an area you serve does not follow the DST observance of a territory in the DST Zone ID list, select Local DST Zone for the Zone ID.

2 In the **Daylight Saving Time Offset** field, enter the time shift (in minutes) relative to standard time. For example, if DST is 1 hour (60 minutes) ahead, enter 60 in this field.

3 In the **Effective Year** field, enter the year the DST rule becomes effective.

DST Start and End Section

Use the following example as a guide and enter the DST start and end information that applies to the zone ID. In this example, DST is scheduled to begin March 11 (which is the second Sunday in the month) at 2:00 a.m. (the hour is in 24-hour clock time). DST is scheduled to end November 4 (which is the first Sunday in the month) at 2:00 a.m.

1 In the **Start** Section, enter the following information:

- The **Month** that DST starts
- The **Day** that DST starts
- The **Day Rank in Month** that DST starts. For example, the first, second, third, fourth, or last Sunday of the month.
- The **Hour** that DST starts (use 24-hour clock time)
- The number of **Minutes** after the hour that DST starts

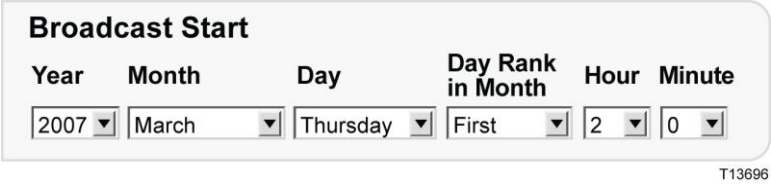
2 In the **End** Section, enter the following information:

- The **Month** that DST ends
- The **Day** that DST ends
- The **Day Rank in Month** that DST ends. For example, the first, second, third, fourth, or last Sunday of the month.
- The **Hour** that DST ends (use 24-hour clock time)
- The number of **Minutes** after the hour that DST ends

Broadcast Start

In the **Broadcast Start** section, define when the ISDS is to start broadcasting the DST rule to set-tops. Although the information can be entered at any time, ideally, you should configure the ISDS to begin broadcasting DST rules to the set-tops at least, but not more than, 30 days before the time change. Depending on circumstances, you may need to enter a date that is closer to the time change date.

In the following example, the ISDS is configured to start broadcasting the time change rules to the set-tops March 8 (the first Thursday in the month) at 2:00 a.m.



1. In the **Broadcast Start** section, enter the following information:
   - The **Year** that the ISDS is to begin broadcasting the rule to set-tops
   - The **Month** that the ISDS is to begin broadcasting the rule to set-tops
   - The **Day** that the ISDS is to begin broadcasting the rule to set-tops
   - The **Day Rank in Month** that the ISDS is to begin broadcasting the rule to set-tops. For example, the first, second, third, fourth, or last Sunday in the month.
   - The **Hour** that the ISDS is to begin broadcasting the rule to set-tops (in 24-hour clock time)
   - The number of **Minutes** after the hour that the ISDS is to begin broadcasting the rule to set-tops
2. After completing all sections of the Configure Daylight Savings Time Rules window, click **Save**. A window opens and displays the message **DST data update submitted**.
3. Click **OK**. The message window closes and the ISDS database is updated with your changes.
4. If you have not already done so, display the **Hub** window and confirm that the correct settings are selected for the **Timezone** and **DST Zone ID** fields. If necessary, change these settings. (Refer to the *ISDS Online Help* for information about modifying hub timezone settings.)
5. To create a DST rule for another DST Zone ID, repeat the steps in the **DST Zone ID**, **DST Start and End**, and **Broadcast Start** sections of these instructions.
6. To close the Configure Daylight Saving Time Rules window, click **Exit**.

Displaying DST Rules

Quick Path: ISDS Administrative Console > ISDS tab > System Provisioning tab > DST > [Select DST Zone ID]

By displaying a DST rule in the Configure Daylight Saving Time Rules window, you can quickly verify if the settings are correct.

1. From the ISDS Administrative Console, click the **ISDS** tab.
2. Click the **System Provisioning** tab.
3. Click **DST**. The Configure Daylight Saving Time Rules window opens.
4. Click the **DST Zone ID** arrow and select the ID of the zone whose settings you want to view. The window updates and displays the settings of the DST Zone ID that you selected.

   Note: If no data appears in the fields, a rule has not been created and set-tops use their default DST rules (the hour moves forward one hour on the first Sunday of April, and back one hour on the last Sunday of October).
5. To view the settings of another DST rule, repeat step 4.
6. To close the Configure Daylight Saving Time Rules window, click **Exit**.

Changing DST Rules

Quick Path: ISDS Administrative Console > ISDS tab > System Provisioning tab > DST > [Select DST Zone ID] > [Change Desired Fields] > Save

As your system changes or is upgraded, you may need to change a DST rule.

Notes:

- Once you set up a DST rule, that rule remains in effect for each subsequent year; you should not need to adjust the rule unless you upgrade your system release (SR) software.
- Always verify that the correct DST rule is used by the appropriate hubs. Verify that the Timezone and DST Zone ID settings are set correctly in the Hub window. These settings must be correct because the ISDS uses them to broadcast DST data to set-tops in the hubs.

1. From the ISDS Administrative Console, click the **ISDS** tab.
2. Click the **System Provisioning** tab.
3. Click **DST**. The Configure Daylight Saving Time Rules window opens.
4. Edit the settings as you need.

   Remember: The Broadcast Start Time can begin no more than 30 days before the start of the DST.
5. After entering information into all sections of the Configure Daylight Saving Time Rules window, click **Save**. A window opens and displays the **DST data update submitted** message.
6. Click **OK**. The message window closes and the ISDS database is updated with your changes.
7. If you have not already done so, display the **Hub** window and confirm that the correct settings are selected for the **Timezone** and **DST Zone ID** fields. If necessary, change these settings. (Refer to the *ISDS Online Help* for your system for information about modifying hub timezone settings.)
8. To change a DST rule for another DST Zone ID, repeat steps 4 to 7.
9. To close the Configure Daylight Saving Time Rules window, click **Exit**.

Deleting DST Rules

Quick Path: ISDS Administrative Console > ISDS tab > System Provisioning tab > DST > [Select DST Zone ID] > Delete

As your system changes, you may need to delete a DST rule.

1. From the ISDS Administrative Console, click the **ISDS** tab.
2. Click the **System Provisioning** tab
3. Click **DST**. The Configure Daylight Saving Time Rules window opens.
4. Is the rule that you want to delete shown in the Configure Daylight Saving Time Rules window?
   - If **yes**, click **Delete.**
   - If **no,** display the DST rule that you want to delete and then click **Delete.**

   Result: A message window opens and asks you to confirm that you want to delete the rule.
5. Click **OK**. The ISDS removes the rule from the database and removes all settings from the fields in the window.
6. To delete another DST rule, repeat steps 4 and 5.
7. To close the Configure Daylight Saving Time Rules window, click **Exit.**

3

Customer Information

If You Have Questions

If you have technical questions, call Cisco Services for assistance. Follow the menu options to speak with a service engineer.

Access your company's extranet site to view or order additional technical publications. For accessing instructions, contact the representative who handles your account. Check your extranet site often as the information is updated frequently.

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