Unified Communications Manager: Time−Of−Day Routing Configuration Example

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Contents

Introduction

This document provides a sample configuration for time−of−day routing on Cisco Unified Communications Manager 6.x. Time−of−day routing routes calls to different locations based on the time of day that a call is made.

Prerequisites

Requirements

Cisco recommends that you have knowledge of Cisco Unified CallManager administration.

Components Used

The information in this document is based on these software and hardware versions:

- Cisco Unified Communications Manager 6.x/7.x/8.x
- Cisco IP Phones 7900 series
- Cisco CallManager 6.x/7.x/8.x that runs on a MCS7800 Series
- Cisco 3600 Series Router on Cisco IOS® Software Release 12.4 or later

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Conventions

Refer to the Cisco Technical Tips Conventions for more information on document conventions.

Time−of−Day Routing

Time−of−day routing routes calls to different locations based on the time of day when a call is made. For example, during business hours, calls can route to an office, and after hours, calls can go directly to a voice−messaging system or to a home number or another location.

Time−of−day routing can be used to control the call routing path based on the current time, which can saves costs on calls. For example:

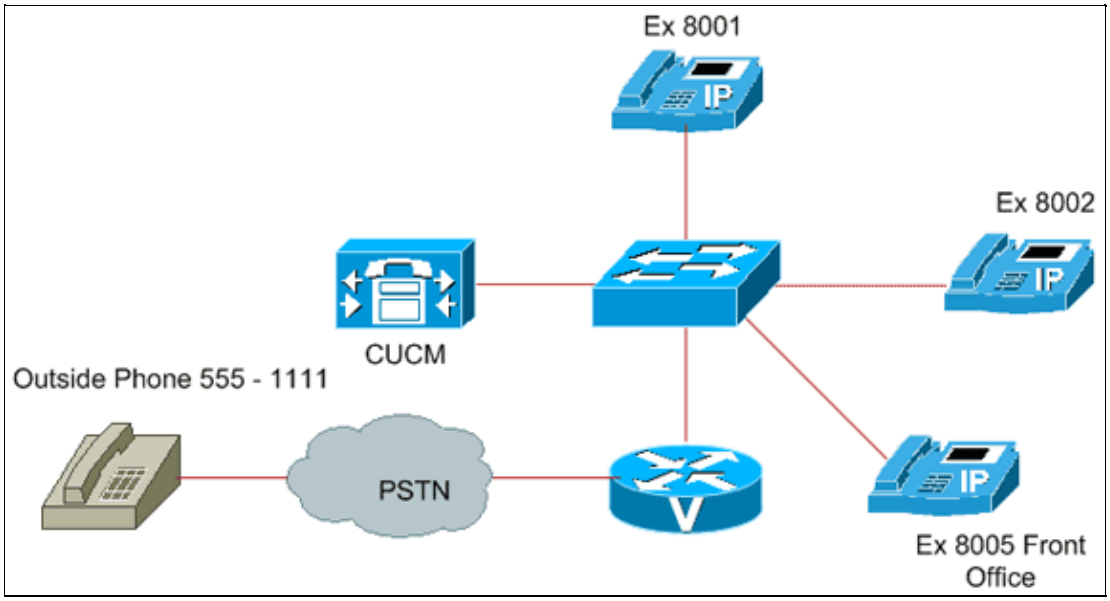
- Allow international calls only during office hours.
- Block international calls on holidays.
- Divert outside calls to a home phone or voice−messaging system during non−office hours.

Refer to the Time−of−Day Routing section of Cisco Unified Communications Manager System Guide for Cisco Unified Communications Manager Business Edition, Release 6.0(1) for more information.

Configuration

Network Diagram

This document uses this network setup:



Time−of−Day Routing Configuration

This configuration example shows how to configure a time−of−day routing on Cisco Unified Communications Manager. The Cisco Unified Communications Manager server extensions are in the *8000 − 8999* range.

In this example, all outside calls are diverted to *8005* front office extension during non−office hours, and the calls reach their respective extensions during office hours.

Here are the steps to implement time−of−day routing on Cisco Unified Communications Manager for this configuration:

1. Create time periods.
2. Create time schedules and associate them with time periods.
3. Assign time schedules to partitions.
4. Create a calling search space.
5. Configure translation pattern.

Step 1. Create Time Periods

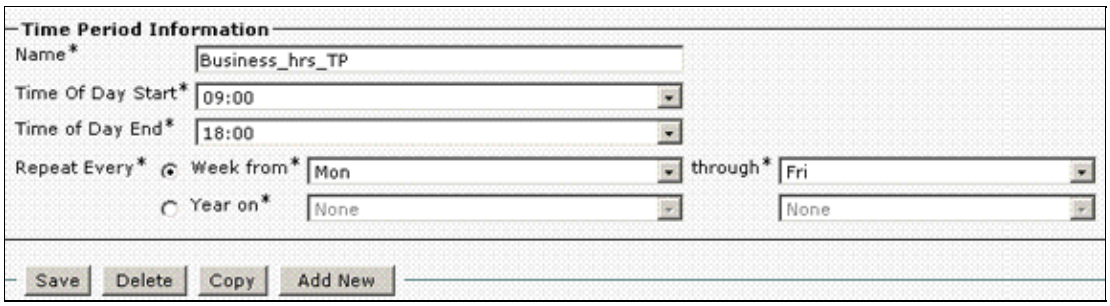
A time period specifies a time range defined by a start and end time and a repetition interval (days of the week or a specified calendar date). This example creates these three time periods for the entire week:

- *Business_hrs_TP* (9:00 to 18:00)
- *Non_Business_hrs_TP1* (18:00 to 24:00)
- *Non_Business_hrs_TP2* (24:00 to 9:00)

Complete these steps in order to create time periods:

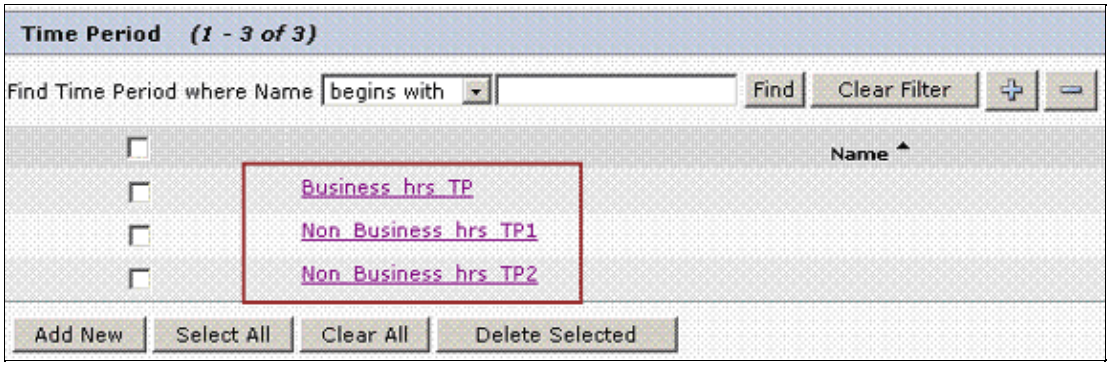
1. Choose **Call Routing > Class of Control > Time Period**.

   The Find and List Time Periods window appears.
2. Click **Add New** in order to add a new time period.
3. Enter the appropriate values in Time Period Information fields.



   For example, in order to configure the first time period (9:00 to 18:00), enter these values:

   a. Enter a name for the time period in the Name field. This example uses *Business_hrs_TP*.
   b. Choose **09:00** from the Time of Date Start drop−down list.
   c. Choose **18:00** from the Time of Day End drop−down list.
   d. Click the **Repeat Every** radio button.
   e. Choose **Mon** from the Week from drop−down list, and then choose **Fri** from the drop−down list.
   f. Click **Save** in order to save the time period.
4. Click **Add New**, and repeat the previous step for each time period you want to create.
5. Use the Find Time Period option in order to verify that your time periods were created successfully.



Step 2. Create Time Schedule

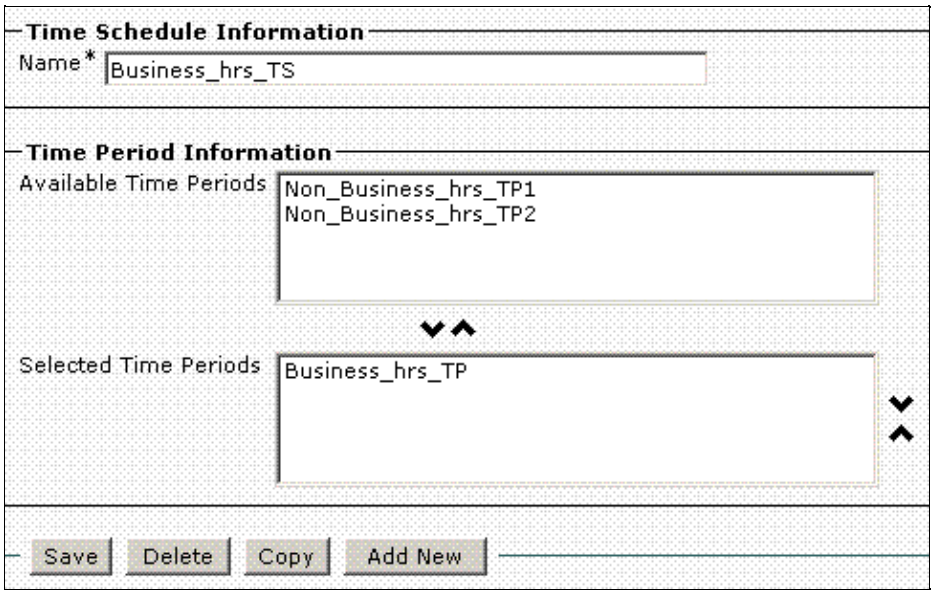
A time schedule is a group of defined time periods that are associated with time periods. Once they are configured, the time period displays in the Available Time Periods list box in the Time Schedule Configuration window. Now, you can can select a time period and add it to the Selected Time Periods list box.

This example creates two time schedules (*Business_hrs_TS* and *Non_business_hrs_TS*) and associates the *Business_hrs_TS* time schedule with the *Business_hrs_TP* (9:00 to 18:00) time period and the *Non_Business_hrs_TS* time schedule with the *Non_Business_hrs_TP1* (18:00 to 24:00) and *Non_Business_hrs_TP2* (24:00 to 9:00) time periods.

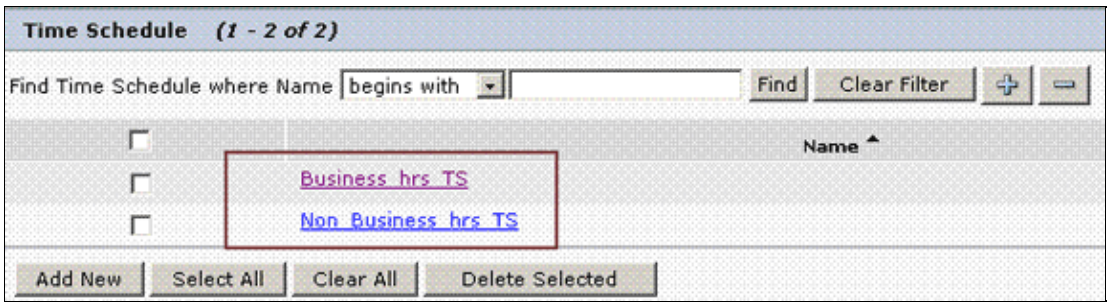
Complete these steps in order to create time schedules and assign them to the time periods:

1. Choose **Call Routing > Class of Control > Time Schedule**.

   The Find and List Time Schedules window appears.
2. Click the **Add New** button in order to add a new time schedule.



3. Enter a name for the time schedule in the Name field.
4. Use the down arrow to move the required time periods from the Available Time Periods list box to the Selected Time Periods list box.
5. Click **Save** in order to save the changes.
6. Repeat these steps in order to create the *Non_Business_hrs_TS* time schedules.
7. Use the Find Time Schedule option in order to verify that your time schedules were created successfully.



Step 3. Assign Time Schedules to Partitions

A time schedule is not activated until it is assigned to a partition. Assign time schedules to partitions that should be active only during the time specified in the time schedule. A partition contains a list of route patterns such as directory number, route patterns, and translation patterns.

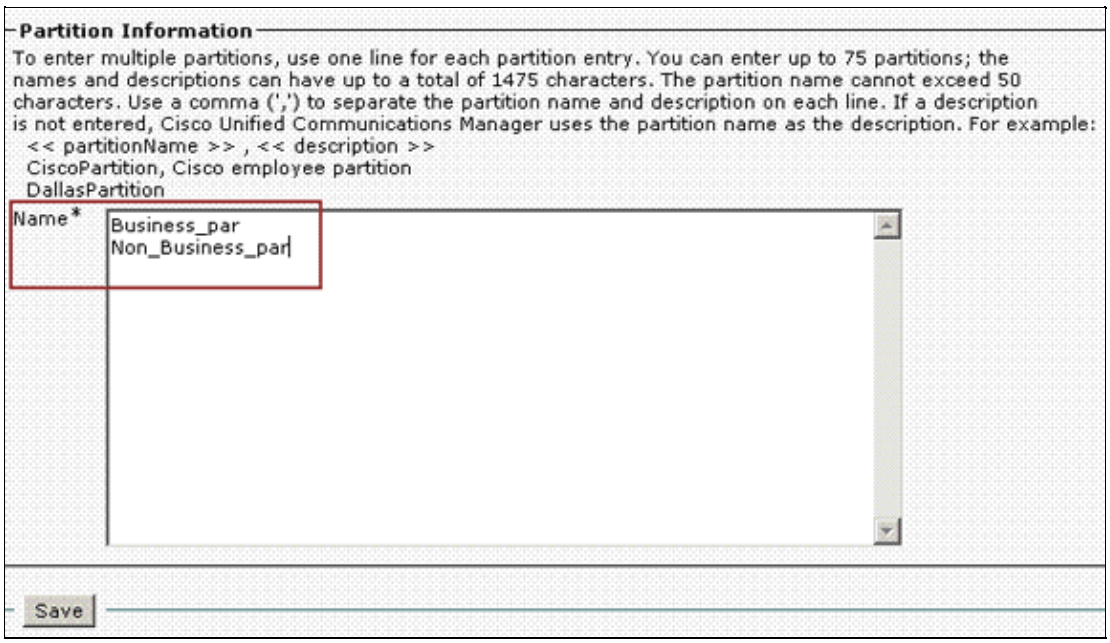
This example creates two partions: *Business_par* and *Non_Business_par*.

Partition *Business_par* (which is active during office hours) should be associated with the *Business_hrs_TS* time schedule, and partition *Non_Business_par* (which is active during non−office hours) should be associated with the *Non_Business_hrs_TS* time schedule.

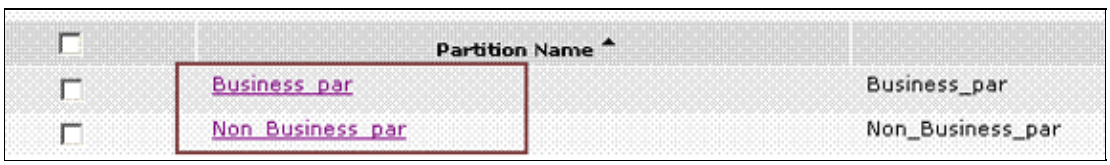
Complete these steps in order to create the partitions and assign the time schedules to these partitions:

1. Choose **Call Routing > Class of Control > Partition**.

   The Find and List Partitions window appears.
2. Click **Add New** in order to add a new time partition.
3. Enter *Business_par* and *Non_Business_par* in the Partition Information list box, and then click **Save**.



4. Use the Find option in order to locate the available partitions on your CallManager server.



5. Click the **Business_par** check box, and assign the *Business_hrs_TS* time schedule to this partition from the Time Schedule drop−down list.
6. Set the time zone, and click **Save** in order to save the changes.
7. Click the **Non_Business_par** check box, and assign the *Non_Business_hrs_TS* time schedule to this partition from the Time Schedule drop−down list.
8. Click the appropriate **Time Zone** radio button in order to associate a partition with that time zone.

    - ♦ If you choose Originating Device, the system checks the time zone of the calling device.
    - ♦ If you choose Specific Time Zone , the system checks that is specified in this time zone.
9. Click **Save** in order to save the changes.

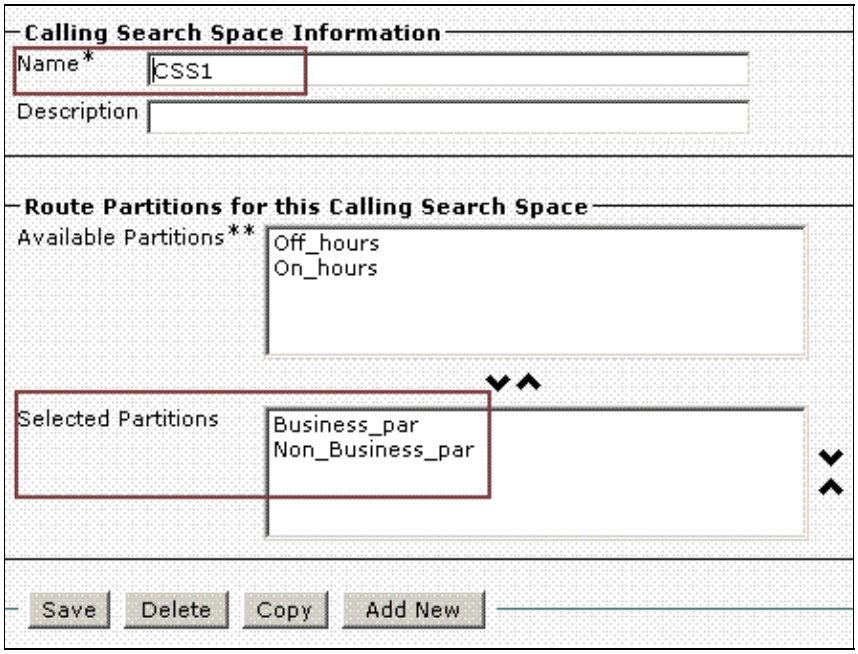
Step 4. Create a Calling Search Space

A calling search space is an ordered list of route partitions that are typically assigned to devices in order to restrict call privileges. Calling search spaces determine the partitions that calling devices (including IP phones, softphones, gateways, and any other source of a call−routing request) can search when attempting to complete a call.

This example creates a calling search space named *CSS1*.

Complete these steps in order to create the calling search space:

1. Choose **Call Routing > Class of Control > Calling Search Space**.
2. Click **Add New**, and enter **CSS1** in the Name field.
3. Use the down arrow to move the required partition from the Available Partitions list box to the Selected Partitions list box.



4. Click **Save** in order to save the calling search space.
5. Use the Find option in order to verify that the calling search space was successfully created.

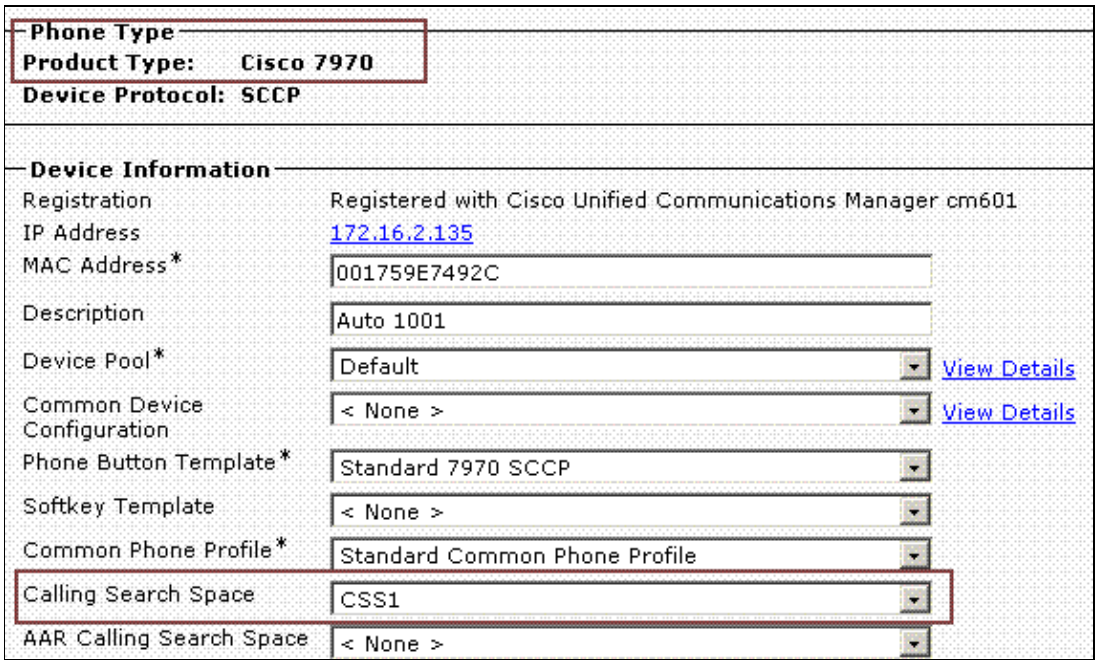
6. Assign the *CSS1* calling search space to all available IP phones in your configuration.

    a. Choose **Device > Phone**.

    The Find and List Phones window appears.

    b. Click **Find** in order to locate all the registered IP phones in Cisco Unified Communications Manager.

    c. For each phone, select the phone, and choose **CSS1** from the Calling Search Space drop−down list.



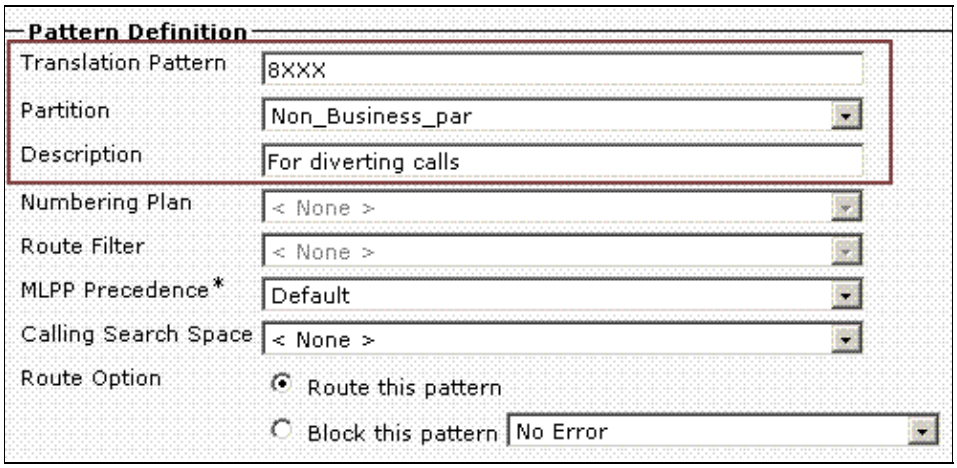
Step 5. Configure Translation Pattern

Cisco Unified Communications Manager uses translation patterns in order to manipulate dialed digits before it routes a call.

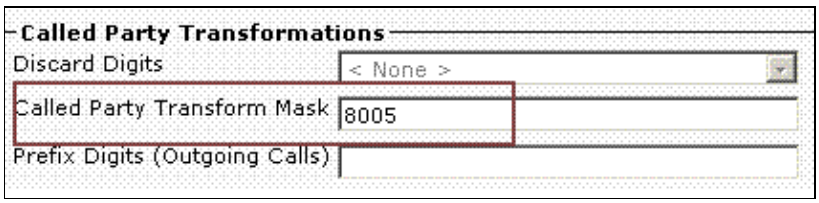
You must create the translation pattern for all outside calls are diverted to **8005** front office extension during the non−office hours otherwise calls reaches respective desk during office hours.

1. Choose **Call Routing > Translation Patterns**.

   The Find and List Translation Patterns window appears.
2. Click the **Add New** to create a translation pattern (*8XXX*) for routing calls during non−business hours, and assign the *Non_business_par* partition to this translation pattern.

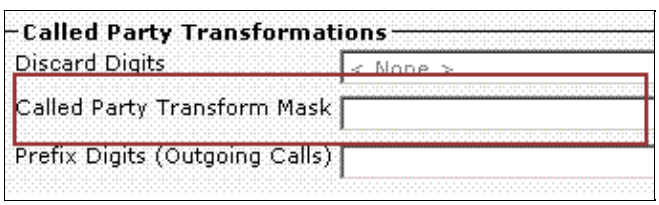


3. Enter the extension number **8005** in Called Party Transformation Mask field.



4. Click **Save** in order to save this translation pattern.
5. Click **Add New** to create another translation pattern (**8XXX**) for routing calls during business hours, and assign the partition *Business_par* to this translation pattern.

Note: You can leave the Called Party Transformation Mask field blank for this step.



6. Click **Save** in order to save this translation pattern.

Verify

In order to verify that this configuration works correctly, complete these procedures.

- During business hours, make a call from the external phone to any of the internal extension. For example, 8001. The call should reach the exact extension.
- During non−business hours, make a call from the external phone to any of the internal extension. For example, 8001. The call should be diverted to the front office extension 8005.

Related Information

- **Voice Technology Support**
- **Voice and Unified Communications Product Support**
- **Technical Support & Documentation − Cisco Systems**

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