

# Configure Unified Contact Center Express Calendar Management

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## Introduction

This document describes the configuration of Calendar in Unified Contact Center Express (Unified CCX) and its use case. This allows to change the schedule of Contact Center from the administration/Finesse Desktop page rather than from the script. Currently, the calendar functionality is integrated with Voice and Chat channels from UCCX release 12.0 and later.

## Prerequisites

### Requirements

Cisco recommends that you have knowledge of these topics:

- Script
- Bubble Chat
- UCCX 12.0 and later
- CCP 12.0 and later

### Components Used

The information in this document is based on UCCX version 12.0 and above.

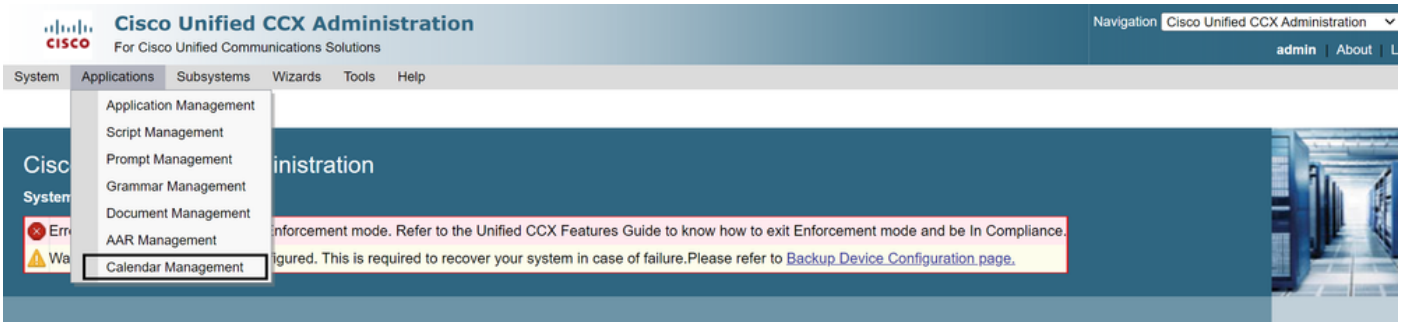
The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, ensure that you understand the potential impact of any command.

# Configure

## Create a Calendar

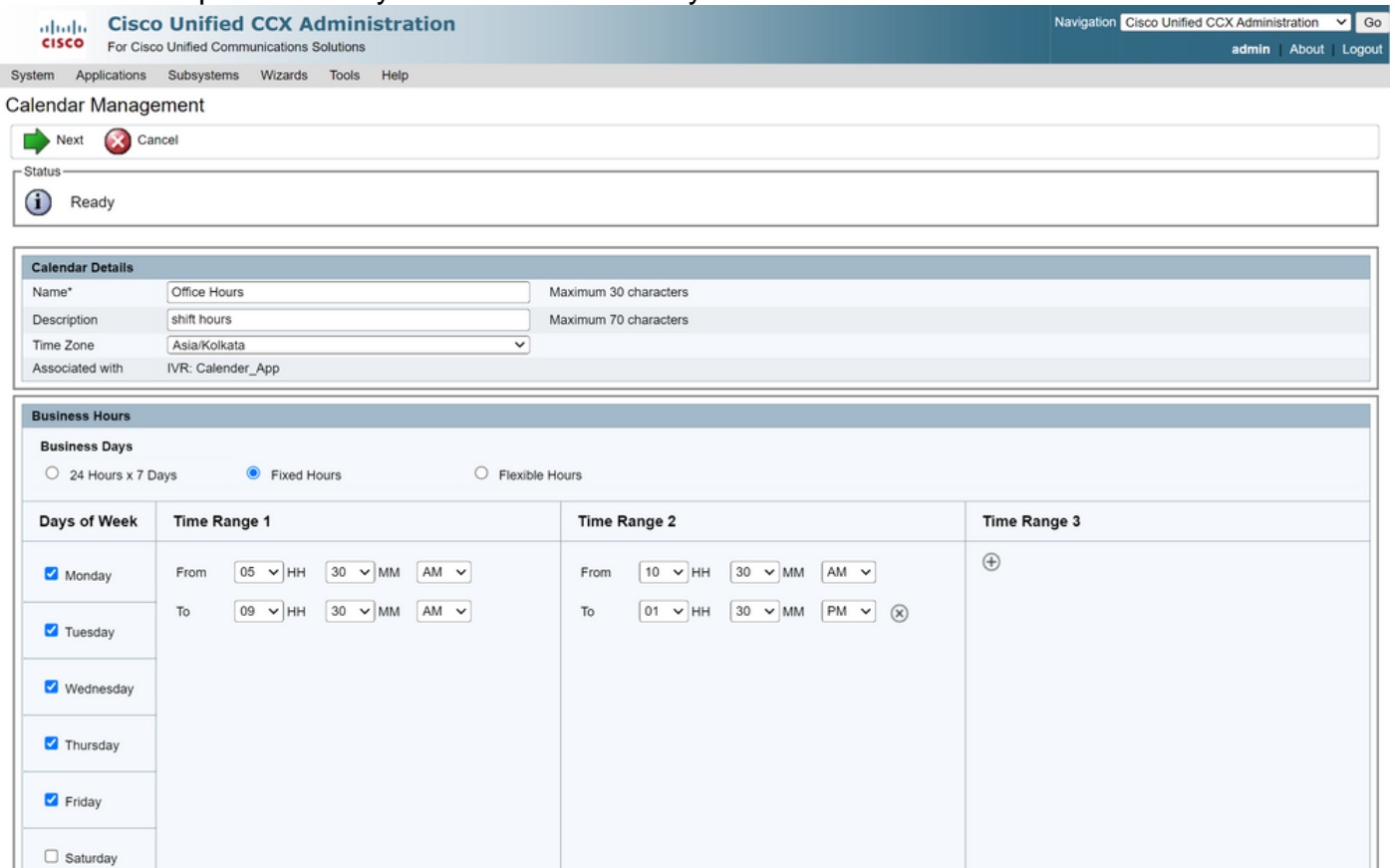
Sample calendar configuration:

Log in to **UCCX Administrator > Applications > Calendar Management > Add New** as shown in the image.



Here are the requirements for the sample Calendar:

- Business hours are from Monday to Friday from 5:30 am to 9:30 am and 10:30 am to 1:30 pm (Fixed hours are used for this)
- The first day of the month has shortened Business hours (Custom business days)
- Standard public holidays added to the holiday list



### Calendar Management

Back Next Cancel

JUNE Day 1 Maximum 50 characters	01-Jun-2022	From 05 HH 30 MM AM	To 09 HH 30 MM AM	+			
JULY Day 1 Maximum 50 characters	01-Jul-2022	From 05 HH 30 MM AM	To 09 HH 30 MM AM	+			
AUGUST Day 1 Maximum 50 characters	01-Aug-2022	From 05 HH 30 MM AM	To 09 HH 30 MM AM	+			
SEPTEMBER Day 1 Maximum 50 characters	01-Sep-2022	From 05 HH 30 MM AM	To 09 HH 30 MM AM	+			
OCTOBER Day 1 Maximum 50 characters	01-Oct-2022	From 05 HH 30 MM AM	To 09 HH 30 MM AM	+			

[Add More](#)

**i** Hours that are not in the time range are considered to be Off Business Hours.  
Maximum of 40 Custom Business Days can be configured.

Back Next Cancel

**i** \*\* - indicates mandatory items when Custom Business Days are configured.

### Calendar Management

Back Finish Cancel

Status

**i** Ready

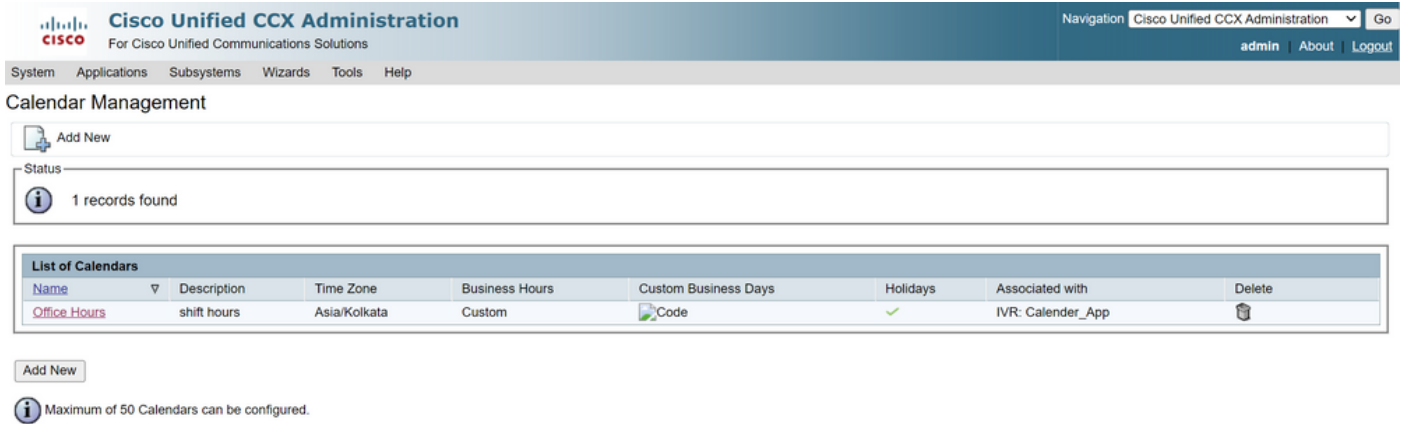
Schedule Holidays	
Name**	Date**
Good Friday Maximum 50 characters	15-Apr-2022
Indian Independence Day Maximum 50 characters	15-Aug-2022
Diwali Maximum 50 characters	26-Oct-2022
Christmas Day Maximum 50 characters	25-Dec-2022

[Add More](#)

**i** Maximum of 40 Holidays can be configured.

Back Finish Cancel

**i** \*\* - indicates mandatory items when Holidays are configured.



Cisco Unified CCX Administration  
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Navigation Cisco Unified CCX Administration Go  
admin About Logout

System Applications Subsystems Wizards Tools Help

### Calendar Management

Add New

Status  
1 records found

Name	Description	Time Zone	Business Hours	Custom Business Days	Holidays	Associated with	Delete
Office Hours	shift hours	Asia/Kolkata	Custom	Code	✓	IVR: Calender_App	

Add New

Maximum of 50 Calendars can be configured.

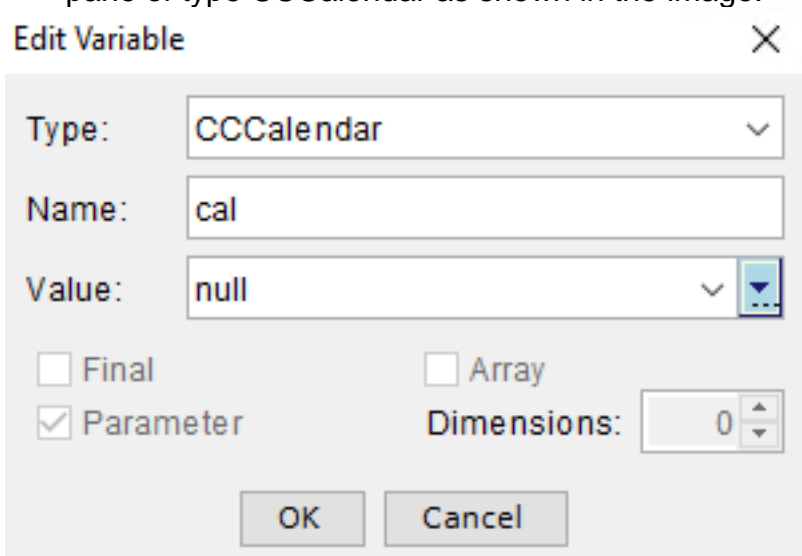
The calendar is now configured. Let us talk about how to use it in the next section.

## Use the Calendar

The calendar can be used with Script (Voice path) and Bubble Chat (multi-channel path).

### 1. With Script Application

- Open CCX Editor version 12.0 and above
- Open an script or a pre-configured calendar script via (**File > New > Queuing > Sample\_Queueing\_WithCalendar**)
- If you use the pre-configured calendar script, the configuration is already applied in the script
- To add calendar functionality to the existing script, create a new variable from the variable pane of type CCCalendar as shown in the image.



Edit Variable

Type: CCCalendar

Name: cal

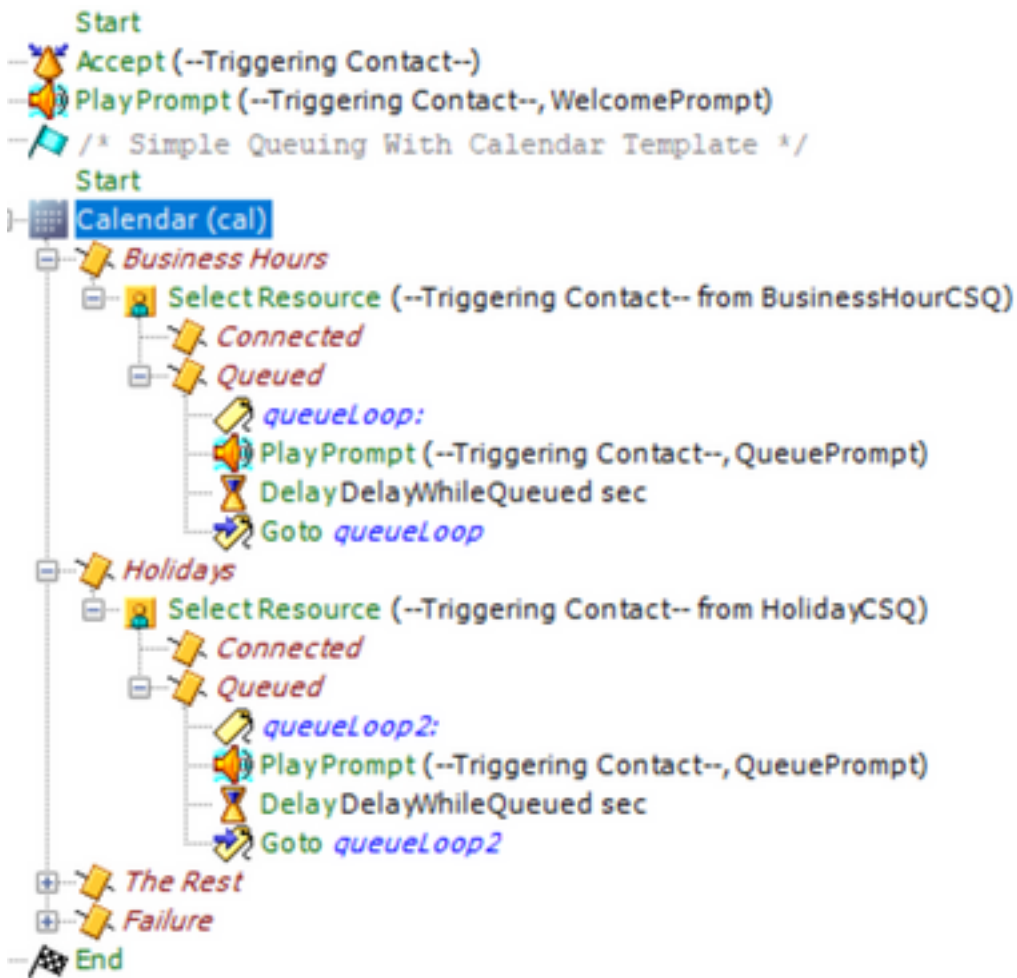
Value: null

Final  Array

Parameter Dimensions: 0

OK Cancel

- Add the Calendar Step in your script
- Right-click the Calendar step and assign the calendar variable created earlier to it
- Assign the right logic to each branch of the calendar step
- The Business Hours and Holidays step are derived from the Calendar configuration from the CCX Administration page



- Save the script and upload it to Script Management in CCX Administration
- Create an Application and assign it the uploaded script along with the trigger
- Under the calendar variable, we see a dropdown along with a calendar symbol
- Select the configured Calendar (Office Hours) in our case and save the application

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### Cisco Script Application

Update Delete Cancel Back to Application List

Status: Ready

**Trigger**

[Unified\\_CM\\_Telephony\\_Trigger\\_4440](#)  
[Add new trigger](#)

**Basic Configuration**

Name: Calender\_App  
ID\*: 1  
Maximum Number of Sessions\*: 10  
Script\*: SCRIPT[Script\_Calender.aef] Edit

BusinessHourCSQ: "Business\_hr\_CSQ"  
 DelayWhileQueued: 30  
 WelcomePrompt: prompts/1101.wav Select Prompt  
 QueuePrompt: ICD\ICDQueue.wav Select Prompt  
 cal: Office Hours  
 NonBusinessHourPrompt: Select Prompt  
 FailurePrompt: prompts/9904.wav Select Prompt  
 HolidayCSQ: "Holiday\_hr\_CSQ"

Description: Calender\_App  
Enabled:  Yes  No  
Default Script: - System Default - Edit

**Advanced Configuration**

Enable Cisco Webex Experience Management post-call survey

IVR: - No Selection -  
 SMS/Email: - No Selection -

**Enable Cisco Webex Experience Management post-call survey**

1. Enable Cisco Webex Experience Management to capture the customer experience with the Cisco Contact Center. You can use the customer experience to build analytics that improves agents performance, business goals, and anticipate customer needs.
2. Follow the procedure as mentioned in the Unified CCX Features guide.

Update Delete Cancel Back to Application List

**i** - indicates required item

Place a Call to the trigger, the call is routed based on hours configured under the calendar.

- As a prerequisite, CCX needs has to be integrated with CCP
- Create chat CSQ so that it elects the agents
- Create a chat widget and go to the last section to Select Calendar
- Select the calendar previously created (Office Hours)
- On the right is the preview shown for holiday and non-business hours
- Save the chat widget and deploy the code.

With Bubble Chat:

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System Applications Subsystems Wizards Tools Help

### Bubble Chat Configuration

Back Finish Cancel

Status: Ready

**Service Hours**

Default (24 hours x 7 days)  Select Calendar **i** A calendar must already be configured to be selected

tt View

**Messages \***

Holiday: Sorry, We are closed today for a business holiday. Maximum 120 characters

Off Hours: Sorry, We are currently offline, try again during the business hours or drop a email to support. Maximum 120 characters

Label: Business Hours characters Maximum 30 characters

**Label for Days of Week \***

Monday Tuesday Wednesday Thursday Friday

**Preview**

Not Applicable

**Edit the Calendar**

You can edit the calendar configuration in these ways:

## CCX Administration

- Log in to **CCX Administration > Applications > Calendar Management**
- Edit the calendar from this pane

## Advanced Supervisor Capability Gadget

- Supervisors can also edit the calendar from the finesse page
- Login to **CCX Administration > Tools > User Management > Supervisor Capability View**
- Select any supervisor from the list
- Check the box and associate the Calendar (Office Hours) and Application (CalendarApp), with the supervisor. Save the settings.

The screenshot shows the Cisco Unified CCX Administration interface for Supervisor: testing1. The top navigation bar includes 'System', 'Applications', 'Subsystems', 'Wizards', 'Tools', and 'Help'. The main content area is divided into several sections:

- Assigned Teams:** A table with columns: Team Name, Role, Contact Service Queues (CSQ), and Change Agent State to Not Ready when Agent Busy on Non ACD Line. The table contains one row: FirstTeam, Primary Supervisor, Subject, Disabled.
- Advanced Supervisor Capabilities:**
  - Queue Management:** A section with a checkbox 'Enable Queue Management' and a note: 'To enable this capability, at least one Team and a CSQ must be assigned to this Supervisor.'
  - Calendar Management:** A section with a table for calendar entries. The table has columns: Calendar Name, Supervisor(s), and a checkbox. One entry is shown: Office Hours, testing1, checked.
  - Outbound Campaign Management:** A section with a table for campaign entries. The table has columns: Campaign Name, Supervisor(s), and Campaign Type. One entry is shown: -, -, -.
- Application Management:** A section at the bottom of the configuration pane.

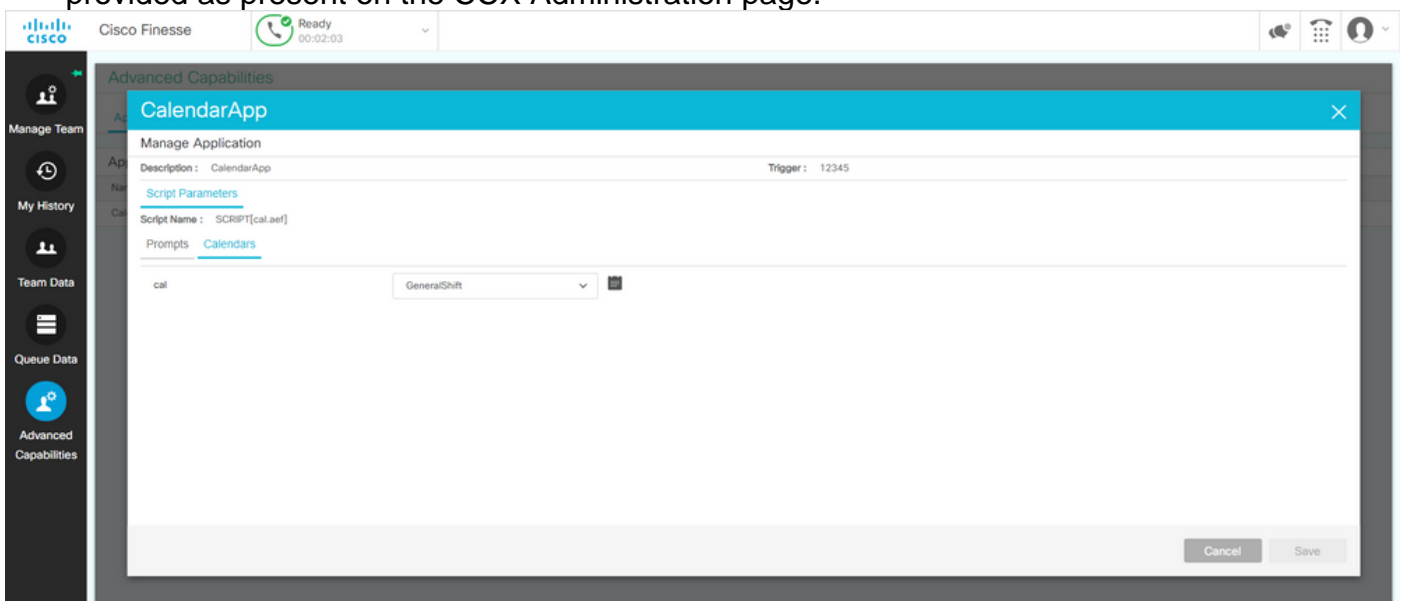
- After you assign the data to the supervisor, you need to edit the finesse layout to show the Calendar management settings.
- Login to Finesse Administration. The desktop layout can be edited per Team basis (**Team Resources > Select Team > Desktop Layout Configuration > Override System Default**) or Globally via Desktop Layout settings.
- Navigate to **XML Layout > Supervisor section > ASC Gadget section** and comment out the code snippet and **Save**.

```

<tab>
  <id>manageNonVoiceMedia</id>
  <icon>settings</icon>
  <label>finesse.container.tabs.supervisor.manageNonVoiceMediaLabel</label>
  <columns>
    <column>
      <gadgets>
        <gadget>https://my-ccp-server/multisession/ui/gadgets/multisession-reply-gadget.xml?gadgetHeight=590</gadget>
      </gadgets>
    </column>
  </columns>
</tab>
-->
<!--
The following gadget provides Supervisor with advanced capabilities.
Using this gadget, supervisors can manage Queues, Prompts, Calendars, and so on.
Before including this gadget in Desktop Layout,
ensure that the advanced capability is enabled in Unified CCX Administration.
-->
<tab>
  <id>ASCGadget</id>
  <icon>admin</icon>
  <label>finesse.container.tabs.supervisor.advancedcapabilities</label>
  <columns>
    <column>
      <gadgets>
        <gadget>https://localhost:8445/ascgadget/gadgets/ascgadget.xml</gadget>
      </gadgets>
    </column>
  </columns>
</tab>
</tabs>
</layout>
</finesseLayout>

```

- Login to Finesse Desktop with supervisor credentials. Navigate to the New pane for Advanced Capabilities that is shown on the left
- Navigate to **Application Management > Manage Application > Calendars**. Here, you can change the calendar from the dropdown or preview the calendar from the calendar icon.
- Navigate to **Calendar Management > Manage Calendar**. The same editing functionality is provided as present on the CCX Administration page.





Cisco Finesse Ready 00:02:12

Advanced Capabilities

CalendarApp

< Preview: GeneralShift Time Zone: Asia/Kolkata

Description: Schedule for general shift

Business Hours Custom Business Days Holidays

Custom Business Hours: Fixed

Day of Week	Time Range
Monday	09:00 AM - 05:00 PM
Tuesday	
Wednesday	
Thursday	
Friday	

Name	Date	Time Range
First day September	01-Sep-2021	09:00 AM - 12:00 PM
First day October	01-Oct-2021	09:00 AM - 12:00 PM
First Day November	01-Nov-2021	09:00 AM - 12:00 PM
First Day December	01-Dec-2021	09:00 AM - 12:00 PM

Name	Date
Independence Day	15-Aug-2021
Christmas Eve	24-Dec-2021
Christmas	25-Dec-2021

Back

Cisco Finesse Ready 00:04:52

Advanced Capabilities

GeneralShift

Manage Calendar

Associated with: (IVR: CalendarApp), (Chat: SampleChat)

Description: Schedule for general shift

Business Hours Custom Business Days Holidays

Name of the Day	Date	Time Range 1	Time Range 2	Time Range 3	Delete
First day September	01 Sep 2021	From 09:00 AM To 12:00 PM	+		🗑️
First day October	01 Oct 2021	From 09:00 AM To 12:00 PM	+		🗑️
First Day November	01 Nov 2021	From 09:00 AM To 12:00 PM	+		🗑️
First Day December	01 Dec 2021	From 09:00 AM To 12:00 PM	+		🗑️

Maximum of 40 Custom Business Days can be configured.

Add Day

Time Zone: Asia/Kolkata

Cancel Save

## REST API

1. There is also the functionality to edit calendar settings via REST API provided with CCX.
2. The structure and format of APIs can be checked here: <https://developer.cisco.com/docs/contact-center-express/#!calendar>.
3. A sample query via POSTMAN to create a calendar looks like this.

POST https://uccx-glob... No Environment

https://uccx-global-125su1.cisco.local/adminapi/calendar Save

POST https://uccx-global-125su1.cisco.local/adminapi/calendar Send

Params Authorization Headers (10) Body Pre-request Script Tests Settings Cookies

Type Basic Auth

The authorization header will be automatically generated when you send the request. [Learn more about authorization](#)

Username admin

Password c1sc0@321  Show Password

Body Cookies (1) Headers (11) Test Results Status: 201 Created Time: 82 ms Size: 654 B Save Response

POST https://uccx-glob... No Environment

https://uccx-global-125su1.cisco.local/adminapi/calendar Save

POST https://uccx-global-125su1.cisco.local/adminapi/calendar Send

Params Authorization Headers (10) Body Pre-request Script Tests Settings Cookies

none form-data x-www-form-urlencoded raw binary GraphQL XML

```

1 <?xml version="1.0" encoding="UTF-8" standalone="yes"?>
2 <calendar>
3   <name>TestCalendar3</name>
4   <timeZone>Asia/Kolkata</timeZone>
5   <description>Calendar via API</description>
6   <calendarType>FIXEDHOURS</calendarType>
7   <businessDays>
8     <businessDay>
9       <dayOfWeek>MON</dayOfWeek>
10      <intervals>
11        <interval>
12          <name>Morning</name>
13          <startTime>09:00</startTime>
14          <endTime>17:00</endTime>
15        </interval>
16      </intervals>
17    </businessDay>
18  </businessDays>

```

Body Cookies (1) Headers (12) Test Results Status: 201 Created Time: 275 ms Size: 745 B Save Response

Pretty Raw Preview Visualize XML

1 <https://uccx-global-125su1.cisco.local/adminapi/calendar/6>

Activate Windows  
Go to Settings to activate Windows.

### Calendar Management

Add New

Status  
2 records found

Name	Description	Time Zone	Business Hours	Custom Business Days	Holidays	Associated with	Delete
GeneralShift	Schedule for general shift	Asia/Kolkata	Custom	✓	✓	(IVR, CalendarApp), (Chat, Sampl...	
TestCalendar3	Calendar via API	Asia/Kolkata	Custom	-	✓	-	

Add New

Maximum of 50 Calendars can be configured.

## Sample XML body to create a calendar for FIXED HOURS.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?> <calendar> <name>TestCalendar3</name>
<timeZone>Asia/Kolkata</timeZone> <description>Calendar via API</description>
```

```
<calendarType>FIXEDHOURS</calendarType> <businessDays> <businessDay> <dayOfWeek>MON</dayOfWeek>
<intervals> <interval> <name>Morning</name> <startTime>09:00</startTime>
<endTime>17:00</endTime> </interval> </intervals> </businessDay> <businessDay>
<dayOfWeek>TUE</dayOfWeek> <intervals> <interval> <name>Morning</name>
<startTime>09:00</startTime> <endTime>17:00</endTime> </interval> </intervals> </businessDay>
</businessDays> <holidays> <holiday> <name>NewYear</name> <date>2022-01-01</date> </holiday>
<holiday> <name>Christmas</name> <date>2021-12-25</date> </holiday> </holidays> </calendar>
```

## Verify

Use this section in order to confirm that your configuration works properly.

Make a Test call and based to the time range configured, Agents get the call.

## Troubleshoot

This section provides information you can use in order to troubleshoot your configuration.

1. Collect CCX Engine logs for further troubleshooting
2. Mark SS\_RM, SS\_CM, SS\_TEL, SS\_RMCM to debugging level for CCX engine.
3. CCX Engine service under the Serviceability page must be INSERVICE