Unified CCX Outbound Dialer Configuration

Outbound Feature for Unified CCX

The Outbound feature provides outbound dialing functionality in addition to existing Unified CCX inbound capabilities.

The Unified CCX Direct Preview Outbound feature is bundled along with the Unified CCX Premium license package. The Unified CCX IVR and Agent Progressive and Predictive Outbound feature is available with the Unified CCX Outbound license. When you upload the Premium license, the Outbound subsystem will automatically appear in the Subsystems menu. With this Outbound feature, you can maintain high agent productivity by configuring contact centers for automated Outbound activities to perform Outbound calls.

Outbound Characteristics

The Outbound feature has the following characteristics:

- An Outbound subsystem that can be monitored from the control center

- IVR and Agent Progressive and Predictive Outbound

- Dialing modes - Direct preview, Progressive and Predictive

- Unified CCX Administration web pages, REST API to configure the Outbound feature

- Outbound Historical reports

- Outbound Live Data reports (Unified Intelligence Center)

- Real-Time reports are part of the Unified CCX Administration GUI real-time reporting applet.

Note Calls made by the Outbound subsystem will not be displayed in the Contacts Summary Real-Time Report

- Access to real-time Outbound data from the GetReportingStatistics step for Direct Preview Outbound

Unified CCX Requirements

To use the Outbound feature, you must adhere to the following requirements:

Unified CCX Licensing Requirements

The licensing requirements for Outbound feature in Unified CCX will vary depending on the dialing modes.

- **For Unified CCX Outbound Direct Preview Dialer**—The Unified CCX Outbound Direct Preview Dialer feature is automatically available with Premium license package without any additional license. It is no longer available with Enhanced license.

- **For Unified CCX Outbound IVR Dialer**—You need to upload an Outbound license on top of the Unified CCX premium license with the required number of IVR ports that you would like to use for the Outbound feature.

- **For Unified CCX Outbound Agent Dialer**—You need to upload an Outbound license on top of the Unified CCX premium license with the required number of agent seats that you would like to use for the Outbound feature.

Note The sum of inbound and outbound IVR ports should be less than or equal to a maximum number of IVR ports supported for your hardware model.

Once you obtain the Outbound license for a specific number of ports, the IVR ports will be distributed between the inbound and outbound IVR calls using the following approach based on the different scenarios explained below.

You can view the licensed IVR ports for outbound and inbound and the dedicated ports for both outbound and inbound calls by navigating to **System** > **License Information** > **Display License(s)** submenu from the Unified CCX Administration menu bar.

Scenario 1:

If your Contact Center is already utilizing maximum licensed IVR ports supported for your hardware model, then:

- Inbound calls will take precedence over the configured Outbound IVR calls.

- If IVR ports are dedicated for a campaign, then the Outbound IVR ports available for the campaign will be gradually incremented as and when the inbound ports become free.

For example, if you have an UCS C220 hardware that supports maximum of 300 IVR ports and if you have 200 premium seats, then the current licensed IVR ports = 300 (Minimum of [seats*2, maximum supported for platform]).

In this case, if you upload an Outbound add-on license for 100 IVR ports and add 3 campaigns with 20 dedicated ports each running at the same time, then the 60 Outbound IVR ports will be available to the campaigns only when the number of inbound ports are freed up to support the Outbound IVR calls.

In other words, if the number of inbound ports that are used during the outbound IVR campaign time is 280, then only 20 Outbound IVR ports will be available to the campaigns. The number of Outbound IVR ports will be gradually incremented depending on the availability of free inbound ports.

Scenario 2:

If your Contact Center is close to utilizing the maximum IVR ports supported for your hardware model, then:

- Inbound calls will take precedence over the configured Outbound IVR calls.

- If IVR ports are dedicated for a campaign and if you reach the maximum inbound call limit, then the Outbound IVR ports available for the campaign will be gradually incremented as and when the inbound ports become free.

For example, if you have an UCS C220 hardware that supports a maximum of 300 IVR ports and if you have 130 premium seats, then the current licensed IVR ports = 260 (Minimum of [seats*2, max supported for platform]).

In this case, if you upload an Outbound add-on license for 50 IVR ports and add 2 campaigns with 25 dedicated ports each running at the same time and if you reach the inbound call limit of 260 during the outbound IVR campaign time, then only 40 ports (300-260) will be freed up initially for Outbound IVR calls. The number of Outbound IVR ports will be gradually incremented depending on the availability of free inbound ports.

Scenario 3:

If your Contact Center is using fewer ports than the maximum licensed ports supported for your hardware model, then the number of available IVR ports for inbound will continue to remain the same.

For example, if you have an UCS C220 hardware that supports maximum of 300 IVR ports and if you have 60 premium seats, then the current licensed IVR ports = 120 (Minimum of [seats*2, max supported for platform]).

In this case if you upload an Outbound add-on license for 50 IVR Outbound ports, and add 2 campaigns with 20 dedicated ports each running at the same time, then Unified CCX will support 40 IVR Outbound calls, and the inbound port limit will continue to be 120 as the sum of both inbound and outbound ports (160) are within the maximum licensed ports (300) for the platform.

Note The total number of dedicated IVR ports in all the IVR campaigns must be less than twice the number of Premium Seats that is equivalent to the Total Licensed Inbound IVR ports.

Unified CCX Subsystem Requirements

- The Outbound subsystem must be IN SERVICE.

- The RmCm subsystem must be IN SERVICE.

- The Unified CM Telephony subsystem must be IN SERVICE.

- The Unified CCX Database must be IN SERVICE.

Geographic Region Support

- The Outbound feature can be used in any geographic region supported by Unified CCX. The area codes and time zones mapping for North America are automatically prepopulated in the system. The system uses this information to determine the time zone of a customer's phone number.

- For regions outside North America, administrators must enter the mapping of the international area codes and their time zones using the Unified CCX Administration GUI or REST API.

- The national do_not_call list is not supported in this release. Be sure to abide by the national do_not_call list.

Outbound Components

This section provides details about the following Outbound feature components:

- Unified CCX Administration—Enables the Outbound subsystem configuration, creates campaigns, and imports contacts to generate the dialing list.

- Outbound subsystem—Is responsible for the following tasks:

  - Manages campaigns

  - Maintains Outbound system configurations

  - Manages the dialing list

  - Reserves agents

  - Makes Outbound calls

  - Updates the call data in the dialing list based on the outcome of the call

  - Decides which contact records to retrieve from a campaign

The Outbound subsystem views campaigns as logical entities that group a set of contacts together in a dialing list. Campaigns deliver outgoing calls to agents. Agents are assigned to campaigns using CSQs.

Supported Dialers and Dialing Modes for Outbound

In addition to the existing Direct Preview Outbound dialer option, Unified CCX supports IVR-based and agent-based dialing. If you select the IVR-based option for a campaign, the outbound calls are handled by IVR scripts. If you select the agent-based option for a campaign, the outbound calls are handled by agents. Typical applications include appointment and bill-payment reminders.

Unified CCX Outbound Dialing Modes

The Outbound feature in Unified CCX Release supports the following dialing modes:

- Direct preview dialing mode

- Progressive dialing mode

- Predictive dialing mode

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Tip For agent predictive and agent progressive outbound calls, disable the Call Waiting option on the agent's phone to allow agents to preview a customer call on Finesse Desktop before the call is placed. The Call Waiting option must be disabled (default) in Unified Communications Manager on each Outbound agent phone to ensure that every customer call successfully transfers to an available agent.

When an Outbound call is transferred or conferenced to another agent, the second or subsequent agents are not counted towards the number of Outbound licenses. For example, if you have five seats licensed for Outbound and Agent1 gets an Outbound call, Agent1 accepts the call and conferences in Agent2 and Agent3. Now, three agents are on one Outbound call but only Agent1 is considered an Outbound agent and you are only using one licensed seat. Consequently, your system allows four more Outbound calls to agents.

Direct Preview Dialing Mode

The direct preview dialing mode allows agents to preview a customer call on Cisco Finesse before the call is placed. The advantage of this mode is that an agent is already on the call when the customer answers and can quickly begin talking with the customer immediately.

Progressive Dialing Mode

In the Progressive Dialing mode, you can specify a fixed number of lines that will always be dialed per available IVR port or per available agent. You can configure the progressive dialer settings for each campaign while creating the campaign through Unified CCX Application Administration web interface. You can also update the configuration at a later date.

Predictive Dialing Mode

The Predictive Dialing mode works similar to the Progressive Dialing mode in terms of dialing the Outbound calls. The difference remains in tuning the lines per port or per agent depending on the abandoned call-rate thus eliminating manual intervention as in the case of the Progressive Dialer.

In other words, in the Predictive Dialing mode, the Dialer adjusts the number of customers to dial per available IVR port or per available agent. The number of lines to dial is calculated by an algorithm and gets updated automatically.

Configure Outbound Subsystem in Unified CCX

Procedure

Step 1 Configure the general properties of the outbound subsystem. See **Configure General Outbound Properties**.

Step 2 (Optional) If the dialing list contains contacts outside of North America or if Unified CCX is installed outside of North America, manually add the area codes and their corresponding time zones. See **Add New Area Code**.

Step 3 Configure the SIP Gateway parameters to enable communication between Unified CCX and the SIP gateway for IVR and agent-based progressive and predictive campaigns. See **Configure SIP Gateway**.

Step 4 Configure the campaign. See **Add New Campaign**.

Related Topics

Add New Area Code
Configure SIP Gateway
Add New Campaigns

Configure General Outbound Properties

General Outbound properties refer to the settings that is common for all the campaigns.

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Caution Area code and long distance prefix configuration changes made to the Outbound subsystem do not take effect for the calls/contacts that are currently in the Outbound subsystem's memory. For example, if you change the long distance prefix or local area code, the contacts that are already in the Outbound subsystem's memory will continue to use the old long distance prefix and local area code.

To configure general Outbound properties, complete the following steps.

Procedure

Step 1 From the Unified CCX Administration menu bar, choose **Subsystems** > **Outbound** > **General**.

The General Configuration web page opens.

Step 2 Specify the following fields in the General Configuration section:

Field	Description
Customer Dialing Time Range (hh:mm) Start Time/End Time	The time range during which a customer can be called. This time range supersedes the time range of the individual campaigns and ensures that a customer is never called outside the legally allowed time range for that country. This is a mandatory field. For example, in the USA, the Federal Communications Commission (FCC) specifies the legal time range as 8 AM to 9 PM. This does not apply to callbacks, since the customer explicitly requested to be called at a certain time. This time range is always converted to the local time for each contact record. Default = 8:00 AM to 9:00 PM (USA FCC regulations)
Outbound Call Timeout (seconds)	If an agent does not respond to the Outbound preview call on Finesse Desktop within the timeout duration that is specified in this field, the system sets the agent to the Not Ready state. If an agent does not respond to the Outbound progressive or predictive call on Finesse Desktop within the timeout duration that is specified in this field, then the call is dropped. The system sets the agent to the Ready or Not Ready state depending on the option that is selected for Agent State after Ring No Answer field in the System Parameters Configuration Web Page. This is a mandatory field. Default = 60 seconds, Range = 5 to 3600 seconds. **Note** • If the Unified CCX Engine or Finesse Desktop restarts when an outbound campaign call is being presented to an agent, then the timeout value specified in the Outbound Call Timeout field will not be applicable for that call.
Dialing Prefix	The number that is prefixed to the phone number when the dialer dials an outgoing call (also referred to as switch prefix). This number can have a numeric value, including 0 or leading zeros. This is a user defined value. For example, if the dialing prefix is set as 9 and the phone number of the contact is 54321, then the dialer will dial out '954321'.
Long Distance Prefix	This is a user defined value that can have a numeric value, including 0 or leading zeros. When this value is set and an outgoing call is made, it helps to determine the long distance prefix in the phone number that is dialed by the dialer. It is first determined whether it is an international or domestic number by the presence of any matching International Prefix set in the **General** configurations page. When the phone number is a domestic number, based on the matching local area code set, it is determined if it is a local number or a long distance number. For example, if the long distance prefix is set as 044, the phone number of the contact is 54321, and if the **Include Long Distance Prefix** is enabled, then the dialer dials out '4454321'.

Field	Description
International Prefix	This is a user defined value that can have a numeric value, including 0 or leading zeros. When this value is set and an outgoing call is made, it helps to determine the international prefix in the phone number for that international number. If there is no International Prefix, then the number is considered to be a domestic number. If the imported number doesn't contain an international prefix but has a "+" sign prefixed to the phone number, then it is considered to be an international number.
Local Area Code	The area code of the location from where the PSTN call is made from. This number can have a numeric value, including 0 or leading zeros. The local area code when set in the **General** configurations page, helps to determine the prefix value in the domestic phone number which is included in the outgoing call if the **Do Not Remove Local Area Code When Dialing** is checked.
Do Not Remove Local Area Code When Dialing	If this box is checked, the local area code is included when dialing the phone numbers within this area code. If it is unchecked, then the local area code is stripped from the phone number before dialing the local numbers. It is expected that when contacts are imported into the system, the phone numbers include the area code. For international phone numbers, the country code must be included when importing contacts.
Include Long Distance Prefix	This field will be displayed only if you check the **Do Not Remove Local Area Code When Dialing** check box. For local numbers, the long distance prefix will be prefixed only if this check box is checked. The long distance prefix will be prefixed to the phone number for all non-local numbers (the numbers that do not start with local area code) irrespective of the status (checked/unchecked) of this check box.
Auto Answer	If this box is checked, any agent-based progressive or predictive campaign call that gets transferred to the agent is automatically answered by Unified CCX. A beep tone always notifies the agent that the call has been answered. This option is enabled by default. **Note** • If the Auto Answer option is not checked and Auto Answer under **Subsystems** > **RmCm** > **Teams** is set to either `Auto Answer with Zip tone` or `Auto Answer without Zip tone`, then the call presented to the agent is auto answered. • If the workflow is enabled, it will be executed irrespective of the status (Checked/unchecked) of the Auto Answer check box.

Field	Description
Assigned CSQs	Assigned CSQs are CSQs that are used by the Outbound subsystem. This is a mandatory field. To allocate CSQs for Outbound: **a.** Select a CSQ in the **Available CSQs** list. **b.** Select a value from the **% of Logged in Agents for Outbound** drop-down list to indicate what percentage of the CSQ is allocated for Outbound. **c.** Click the left arrow icon to move the CSQ to the **Assigned CSQs** list. The selected CSQ is removed from the **Available CSQs** box and appears in the **Assigned CSQs** box with the percentage allocation in parentheses next to the CSQ name.
Available CSQs	The Available CSQs pane displays all CSQs configured in the CSQ Configuration page under the RmCm subsystem configuration.
% of Logged in Agents for Outbound	The % of Logged in Agents for Outbound field indicates the percentage of logged in agents in each of the selected CSQs that are allocated for handling Outbound calls. **Note** The CSQ allocation percentage is defined at the global level and not at a campaign level. The number of agents allocated for OB is considered as the whole number of the **% of Logged in Agents for Outbound**. Any decimal value in the value is not considered. For example, If the percentage of allocation is 95% and 4 agents are logged in, then the number of agents allocated for OB are 3 [95% * 4 = 3.8 (decimal value is neglected)]. If the percentage of allocation is 80% and 4 agents were logged in, then the number of agents allocated for OB are 3 [(80% * 4 = 3.2 (decimal value is neglected)].

Step 3 Click **Update** icon that is displayed in the tool bar in the upper, left corner of the window or the **Update** button that is displayed at the bottom of the window.

The System Options components are now updated.

Callbacks

A customer can request a callback at a specific callback phone number and also specify the time/date of the callback. The Outbound subsystem stores this information (the callback phone number, date, time) in the dialing list table.

The Outbound subsystem handles the callback as follows:

- Convert to GMT—The callback date and time specified with respect to the customer's time zone is converted to GMT time zone and then stored in the database.

- Agent not Available—When the Outbound subsystem looks up the database for contacts, it first checks the callbacks. The default callback time limit is 15 minutes (can be changed) before and after the

customer-specified time. If an agent is available, then the Outbound subsystem places the callback. If an agent is not available, the Outbound subsystem retries agent availability (agent state) after 10 minutes.

- Missed Callbacks—If the Unified CCX system is unable to process a callback request in the specified time, you have three action options:

  - Reschedule it to the same time on the next business day.

  - Mark it as another retry (the callback phone number is removed and the callback date time is ignored). In this case, it moves out of the call back state and into the retry state.

  - Close the record (never dialed again).

Note The selected status for the Missed Callbacks is applied at midnight.

- Agent reclassifications—If calls were retrieved and presented to the agent and if the agent reclassifies it (for example, changed it to answering machine status), then the call status is updated to the answering machine.

Outbound Area Code Functionality

In the Outbound option, the area code determines the geographical location of the phone number you dial, which correspondingly provides the Greenwich Meridian Time (GMT) zone. The db_cra database contains a mapping of the area codes to the time zones.

The U.S. area code mappings are provided along with the product. International customers should provide their own data and add it to the database.

Configuration Updates

Whenever Outbound parameters are modified in the Unified CCX Administration GUI, the changes take effect immediately. If a new CSQ is added using the **Subsystems** > **RmCm** > **Contact Service Queues** menu option, it is instantly displayed in the list of available CSQs in the General configuration page in the Unified CCX Administration GUI, as this list is dynamically updated. If a CSQ is modified and if this impacts the allocation of agents, the Outbound subsystem is aware of this change as it refreshes the list of agents in each relevant CSQ periodically.

- If a configuration change affects the Outbound contacts dialing process (for example, if a campaign is disabled or a CSQ is removed from a campaign), the Outbound subsystem stops processing the Outbound contacts, recalls these contacts to the database, and resets the call status to Pending.

- If a campaign start time is changed, the Outbound subsystem checks if the campaign is enabled. If it is enabled, and if the new start time is after the current time, it performs the following actions:

  - Sends a recall contact message to the Outbound subsystem passing the campaign ID.

  - For all Outbound contacts for this campaign in the Outbound subsystem's memory that are waiting to be dialed out, it resets all Outbound contacts to the Pending state and clears them from memory.

If the campaign is disabled or if the new start time is before the current time, the Outbound subsystem ignores this change.

- If campaign end time is changed, the Outbound subsystem checks if the campaign is enabled. If it is enabled, and if the new end time is before the current time, it performs the following actions:

  - Sends a recall contact message to the Outbound subsystem passing the campaign ID.

  - For all the Outbound contacts for this campaign in Outbound subsystem's memory that are waiting to be dialed out, it resets all the Outbound contacts to the Pending state and clears them from memory.

  If the campaign is disabled or if the new end time is after the current time, the Outbound subsystem ignores this change.

- If a CSQ is deleted from a campaign or if the CSQ itself is deleted, the Outbound subsystem sends a recall contacts message with the csq ID of the deleted CSQ. It also reallocates any Outbound contacts in its memory that are currently allocated to this CSQ among the other existing CSQs for this campaign.

CSQ Agent Pool Allocation

You need to specify a percentage of total agents in the assigned CSQs to be allocated for Outbound calls. This pool of agents is shared by all Outbound campaigns.

Tip The CSQs for Outbound are the same as the CSQs for inbound. If you need more CSQs, you must first configure them in Unified CCX and assign the required CSQs for agents as required by your configuration, before allocating them.

Configure Application and Trigger for Outbound Campaign

For IVR campaigns, configure application and trigger before you create the campaign.

For an agent-based predictive campaign and an agent-based progressive campaign, configure the application and trigger if you configure the answering machine and the abandoned call treatment to transfer to IVR.

Procedure

Step 1 Create a Call Control Group for Outbound type with the required number of IVR ports to be used for outbound campaigns. See **Add New Call Control Group**.

Step 2 Create an application, which will be used for the outbound campaign. See **Cisco Applications Configuration**.

Step 3 Create a trigger and assign the newly created Outbound Call Control group to this trigger. See **Cisco Applications Configuration**.

Step 4 Create a new progressive or predictive outbound campaign. See **Add New Campaign**.

Step 5 Import contacts for the campaign. See **Import Contacts for Campaign**.

Related Topics

About Unified CCX Applications

Configure Script Applications

Add New Cisco Script Application

Add New Campaign

Use the Campaign component to configure properties for the campaign, including the campaign name and description, CSQ selection, and the time range when a campaign can call contacts.

Complete the following steps to define or modify the settings that apply to a campaign.

Procedure

Step 1　From the Unified CCX Administration menu bar, choose **Subsystems** > **Outbound** > **Campaigns**.

The Campaign web page opens, displaying the details of existing campaigns, if any. Click an existing campaign to view or update the configuration settings for the campaign.

Step 2　Click the**Add New** icon in the tool bar in the upper, left corner of the window or the **Add New** button at the bottom of the window.

Add a New Campaign web page opens up where you can specify the campaign type and the dialer type for the campaign using the following fields.

Note　You need to upload an Outbound license on top of the Premium license for Unified CCX to create a campaign for Outbound.

Field	Description
Select the type of the campaign	

Field	Description
Campaign Type	Type of the campaign to be used for outbound calls. You can specify any one of the following two campaign types: • Agent-based—If you select this, all the outbound calls in a campaign will be handled by the available agents. • IVR-based—If you select the IVR-based option, the outbound calls in a campaign will be handled by the IVR scripts.
Select the type of dialer for the campaign	

Description	The dialer type options available for a campaign will vary depending on the selected Campaign Type.
	
	• If you select Agent-based campaign type, then you can select any one of the following dialer types:
	
	  • Direct Preview (default)
	
	  • Progressive
	
	  • Predictive
	
	• If you select IVR-based campaign type, then you can select any one of the following dialer types:
	
	  • Progressive (default)
	
	  • Predictive

Note Once the campaign is created, you cannot change the Campaign Type and Dialer Type.

After you select the campaign type and dialer type, click **Next** to continue. The Campaign Configuration web page opens, displaying the following three column headings:

• Parameter Name

• Parameter Value

• Suggested Value

You can specify values for a new campaign or modify values for an campaign using the fields listed in the Parameter Value column. See the table below for a list of fields along with their description.

The Suggested Value displays the default configuration value for each campaign. You can refer to these values if you want to revert any changes made to one or more parameters listed in the Campaign Configuration web page.

Field	Description
Campaign Name	Name of the campaign (must be a unique identifier). This is a mandatory field.

Field	Description
Enabled	Indicates the current state of the campaign to the Outbound subsystem. Yes = The campaign is currently active. No = The campaign is currently inactive (default).
Description	Description of the campaign.
Start Time/End Time (hh:mm) AM PM Time Zone	Indicate the time range during which the campaign runs. These are mandatory fields. The name of the primary time zone is also displayed adjacent to these two field values. Default = 8:00 AM - 9:00 PM Pacific Standard Time (USA FCC regulations).
Campaign Calling Number	The campaign calling number is the number that will be displayed to the contact. This number is used by the dialer. This is a mandatory field. **Note** This field is not available if you have selected the direct preview dialer type for an agent based campaign.
Maximum Attempts to Dial Contact	The maximum number of times the Outbound subsystem attempts to dial a contact beyond which the call status will be marked as closed. You can choose this value from the drop-down list box. Default = 3, Range = 1 to 3.
Callback Time Limit	The time period before and after the scheduled callback time during which the Outbound subsystem attempts to dial out a callback. For example, if a callback was scheduled for 9:30 am and if the Callback Time Limit is set to 15 minutes, then the Outbound subsystem calls the customer anytime between 9:15 am to 9:45 am. This field is also used to determine the dialing time range for the Retries settings in the Add New Campaign web page. Default = 15 minutes, Range = 1 to 60 minutes.
Fields displayed only if you have selected IVR-based campaign type	
Application Trigger	This is the JTAPI trigger associated with this campaign. There will one-to-one mapping between a campaign and an application trigger. Only those triggers that are not associated with any other campaigns are displayed in the trigger list.
Application Name	The name of the application associated with the above-mentioned JTAPI trigger. This field is auto-populated.
Fields displayed only if you have selected Agent-based campaign type	

Field	Description
Abandoned Call Treatment	If the agent is not available to handle the call, you can choose to abandon the call or transfer it to IVR by selecting the desired radio button in this field. If you choose to transfer the call to IVR, a trigger field and an application name field appears for selection.
	The trigger field is a drop-down list of JTAPI triggers associated with this campaign. There is one-to-one mapping between a campaign and a trigger. Only those triggers that are not associated with any other campaigns are displayed in the trigger list.
	The application name is associated with the above-mentioned JTAPI trigger. This field is auto-populated.
	Transfer to IVR radio button is enabled by default.
	Note • This field is not applicable if you have selected the Direct Preview dialer type for an agent-based campaign. • If the agent is available to handle the call and if Unified CCX fails to transfer the call to the agent, then the call is dropped and will not be transferred to the IVR port.
Assigned CSQs	The CSQs from which agents are selected for Outbound calls for this campaign. This is a mandatory field.
	Note • For agent selection, the CSQs are used in the order in which they are assigned to the campaign. • CSQs that are associated with agent-based progressive or predictive campaigns cannot be shared across any other campaigns. • CSQs that are associated with direct preview campaigns can be shared only across other direct preview campaigns and not with agent-based progressive and predictive campaigns.
Available CSQs	For direct preview campaigns—CSQs that are allocated for outbound but not assigned to any progressive or predictive agent-based campaign.
	For progressive and predictive agent-based campaigns—CSQs that are allocated for outbound and not assigned to any other campaign.
Fields displayed only if you have selected Direct Preview dialer type for an Agent-based campaign	

Field	Description
Contact Records Cache Size	The number of contact records the Outbound subsystem retrieves from the database in bulk for dialing. The allowed values are 1–100. This is a mandatory field. For example, if 50 records are retrieved in bulk for campaign1 and 10 for campaign2 and they are running at the same time, the Outbound subsystem attempts to place 50 Outbound calls for campaign1 and 10 Outbound calls for campaign2. The number of Outbound calls actually placed for each campaign depends upon the number of agents available for the respective campaigns. Once all the records retrieved for a campaign have been dialed, the Outbound subsystem retrieves another batch of records for that campaign. Over a period of time, it is likely that more contacts would have been called from campaign1 than from campaign2. If two campaigns run simultaneously and share CSQs or agents, the records in both campaigns may not be processed at the same rate even if their contact cache sizes are identical. It is possible that more records from one of these two campaigns is processed before the other. Default = 20, Range = 1 to 100
Answering Machine Retry	If you select Yes, then the Outbound subsystem retries the contact after all the callbacks and pending contacts for the campaign are dialed out. Default = No
The following fields in Dialing Options are displayed if you have selected IVR-based campaign type	

Field	Description
Number of Dedicated Ports	Number of dedicated IVR ports that you want to reserve for this campaign based on the number of CTI ports available in the outbound call control group for the campaign duration. That is, the total number of dedicated IVR ports for the selected campaign cannot exceed the maximum licensed ports for outbound IVR minus the sum total of IVR ports dedicated to other campaigns running at the same time.
	You can enter or update this value for a campaign only after associating a trigger with the campaign. Default value = 0, Range = 0 to number of available ports for the campaign duration.
	For example, if you have a medium or large profile VM, which supports maximum of 300 IVR ports with 50 licensed ports for outbound IVR and you have already dedicated:
	• 20 ports for Campaign1, which runs between 10–12 pm
	• 10 ports for Campaign2, which runs between 2–4 pm, then the number of dedicated IVR ports that you can enter in this field for a new campaign cannot exceed:
	• 30 ports if the new campaign runs between 10–12 pm and
	• 40 ports if the new campaign runs between 2–4 pm and
	• 50 ports if the new campaign runs during any time other than 10–12 pm and 2–4 pm
	If the number of configured ports for a campaign is greater than the available number of licensed ports at the specified campaign time, then an alert message stating the same will be shown while saving the campaign.
	Note Ensure that few IVR ports from the total number of licensed IVR ports are left free if you want to use the "Transfer to IVR" option available in the answering machine treatment and abandoned call treatment fields for agent-based progressive and predictive outbound campaigns.
	See Unified CCX Requirements, on page 2 to know how the licensed IVR ports are distributed between the inbound and outbound IVR calls in different scenarios.

Field	Description
Lines Per Port (1-3)	Number of lines to be dialed for each port. The dialer will try to connect as many live voices to the available port(s) where IVR script is playing and it will disconnect the remaining calls. The probability of abandoned calls increases geometrically as the lines per port increases.
	In an IVR based progressive campaign, you can configure the number of lines to dial per port at a time. The dialer will determine the number of calls to dial based on the following calculation - Lines per port * Available number of ports.
	In an IVR based predictive campaign, this is the seed value that is passed to the predictive algorithm. Initially the dialer starts dialing with this value.
	Note Predictive algorithm will pick up the LPP value, when the value is updated only while the campaign is running. The updated value will be picked when the next set of contacts are fetched for dialing.
	This is a mandatory field.
	Default value = 1.5; Range = 1 to 3.
The following fields in Dialing Options are displayed if you have selected Agent-based campaign type	
Lines Per Agent (1-3)	Number of lines to be dialed for each agent. The dialer will try to connect as many live voices to the available agent(s) and it will disconnect the remaining calls. The probability of abandoned calls increases geometrically as the lines per agent increases.
	In an agent-based progressive campaign, you can configure the number of lines to dial per agent at a time. The dialer will determine the number of calls to dial based on the following calculation - Lines per agent * Available number of agents.
	In an agent-based predictive campaign, this is the seed value that is passed to the predictive algorithm. Initially the dialer starts dialing with this value.
	Note Predictive algorithm will pick up the LPP value, when the value is updated only while the campaign is running. The updated value will be picked when the next set of contacts are fetched for dialing.
	This is a mandatory field.
	Default value = 1.5; Range = 1 to 3.
	Note This field is not applicable if you have selected the Direct Preview dialer type for an agent-based campaign.
Callback Missed	Determines the action that should be taken on the contacts that were not called back. The three options for this field are:
	• Reschedule for same time next business day (default)
	• Mark it for a retry
	• Close the record.
The following fields in Dialing Options are common if you have selected Progressive or Predictive dialer type for IVR-based and Agent-based campaigns	

Field	Description
Handle Low Volume as Voice	Determines whether a low volume call should be treated as voice or disconnected. Select **Yes** or **No** radio button accordingly. Default is Yes, which means low volume calls are handled as voice and they are connected to an IVR port or an agent.
Answering Machine Treatment	If the outbound call detects an answering machine, you can choose to end the call or transfer it to IVR by selecting the desired radio button in this field. For agent-based campaigns, if you choose to transfer the call to IVR, a trigger field and an application name field appears for selection. The trigger field is a drop down list of JTAPI triggers associated with this campaign. There is one-to-one mapping between a campaign and a trigger. Only those triggers that are not associated with any other campaigns are displayed in the trigger list. The application name is associated with the above-mentioned JTAPI trigger. This field is auto-populated. Transfer to IVR radio button is enabled by default.
The following fields in Dialing Options are common if you have selected Predictive dialer type for IVR-based and Agent-based campaigns	
Predictive Correction Pace (10-1000)	The number of calls that were answered by live voice that the predictive algorithm should consider for each iteration. This is directly proportional with the correction frequency made in the Lines Per Port or Lines Per Agent parameter. This is a mandatory field. Default value = 100, Range = 10 to 1000. **Note** It is advisable not to change this value.
Predictive Gain	The Gain parameter controls the size of the lines per port or lines per agent corrections. This is directly proportional to the size of the lines per port or lines per agent correction. This is a mandatory field. Default value = 1.0, Range = Greater than 0 to 1.0. **Note** It is advisable not to change this value.
Call Abandon Limit (0-100)	Call abandon percentage, which should be within the limit specified by Federal Trade Commission (FTC). This is a mandatory field. Default value - 3%, Range 0-100%. This means that no more than three percent of calls that are answered by a person are abandoned, measured per day per calling campaign.
The following field in Dialing Options is displayed only if you have selected Predictive dialer type for an IVR-based campaign	
Maximum Lines Per Port (1-3)	Maximum number of lines to be dialed for each port. You can configure the maximum number of lines that can be dialed per port and the predictive algorithm ensures that it does not exceed this number. This is a mandatory field. Default value = 3.0, Range = 1 to 3.

Field	Description
The following field in Dialing Options is displayed only if you have selected Predictive dialer type for an Agent-based campaign	
Maximum Lines Per Agent (1-3)	Maximum number of lines to be dialed for each agent. You can configure the maximum number of lines that can be dialed per agent and the predictive algorithm ensures that it does not exceed this number.
	This is a mandatory field. Default value = 3.0, Range = 1 to 3.
Dial Settings (displayed if you have selected IVR-based or Agent-based campaign types)	
No Answer Ring Limit	The duration for which the progressive/predictive dialer should allow the customer phone to ring before disconnecting an unanswered call.
	The duration is calculated from the time the dialer receives the ringing message from the gateway. If the dialer does not receive any ringing message from the gateway within the time duration entered for this field, then the dialer waits for the same time duration one more time before disconnecting the call.
	For example, if you have configured the value for No Answer Ring Limit as 30 seconds, then the dialer will wait for 60 seconds before disconnecting the call.
	Default = 15 seconds, Range = 1 to 60 seconds.
	Note This field is also used to determine the reservation timeout for agent-based progressive or predictive campaigns. If the agent does not receive any outbound calls, then the agent continues to remains in the reserved state up to maximum time duration of twice the value configured in the No Answer Ring Limit field.
	For example, if you have configured the value for No Answer Ring Limit as 30 seconds, then the range for reservation timeout is calculated as 30 to 60 (30 * 2) seconds.
Abandoned Call Wait Time	For IVR-based progressive and predictive outbound campaigns, if the customer disconnects the call within the time set here, then the call is classified as customer abandoned.
	For agent-based progressive and predictive outbound campaigns, if the customer or the agent disconnects the call within the time set here, then the call is classified as customer abandoned.
	This is a mandatory field.
	Default value = 2 seconds, Range = 1 to 10 seconds.
Retries (displayed if you have selected IVR-based or Agent-based campaign types): Set the value for the following four fields as "0" if you want to disable retry option for an existing IVR or agent based outbound campaign.	
Note The time duration for the below fields is calculated as the value entered for each field, plus or minus the value entered for the Callback Time Limit field in the Add New Campaign web page.	

Field	Description
No Answer Delay	The time duration (in minutes) for which the dialer waits before calling back a no-answer call. Default value = 60 minutes. Though the default value is 60 minutes, the retry attempt will not be made after 60 minutes. This is based on the value set for the Callback Time Limit configured in the subsystem. For example, if a callback was scheduled for 9:30 am and if the Callback Time Limit is set to 15 minutes, then the Outbound subsystem calls the customer anytime between 9:15 am to 9:45 am. **Note** The value set for the No Answer Delay should always be more that the value set for the Callback Time Limit.
Busy Signal Delay	The time duration (in minutes) for which the dialer waits before calling back a busy telephone number. Default value = 60 minutes. This parameter is also based on the value set for the Callback Time Limit as described above in the No Answer Delay.
Customer Abandoned Delay	• For IVR-based progressive and predictive outbound campaigns, if a customer abandons a call, the time duration (in minutes) after which the dialer should call the customer back. • For agent-based progressive and predictive outbound campaigns, if a customer or an agent abandons a call, the time duration (in minutes) after which the dialer should call the customer back. Default value = 0
Dialer Abandoned Delay	If the dialer abandons a call, the time duration (in minutes) after which the dialer should call back the customer. Default value = 0

Step 3   Click **Add** or **Save** to save the configuration changes. While saving a new or updated campaign, the Outbound subsystem validates the Session values in the application and trigger pages based on following criteria, and it might display an alert message to increase Session value in application and trigger pages:

- In case of a Progressive campaign, the outbound subsystem checks whether the Lines Per Port * Dedicated Port for IVR-based campaigns and Lines Per Agent * Dedicated Agent for agent-based campaigns is greater than the minimum of the Session value in application and trigger.

- In case of a Predictive campaign, the outbound subsystem checks whether the maximum Lines Per Port * Dedicated Port for IVR-based campaigns and maximum Lines Per Agent * Dedicated Agent for agent-based campaigns is greater than minimum of the Session value in application and trigger.

You should increase the Session values in the application and trigger to the suggested value in the alert message to reduce the number of abandoned calls in an Outbound campaign.

Once you create a campaign, you need to import contacts for the campaign.

Import Contacts for Campaign

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Caution You must verify all the contacts against the national do_not_call list before importing them.

✎

Note
- When you import contacts that have agent extension numbers, ensure that the agents are not logged in when the campaigns are executed.

- When you import contacts for campaign, the order of field names is as per the last selected order for that campaign.

- When **Allow Duplicate Contacts** option is not selected in both Manual and Automatic import, there could be a difference between the number of contacts imported and the number of remaining contacts. This is because many of the contacts imported could be duplicates in the database and are overwritten.

- When Phone 1 of a contact is dialed and the CPA marks it as Busy or Unanswered the same number is retried based on the retry count and delay configured in the campaign. When the retry count reaches the maximum value, the contact is marked as closed. The other phone number for a given contact is dialed only when the called number is classified as Modem, Fax or Invalid.

- Each time contacts are imported, they are appended to the existing list of contacts for the selected campaign. If the new list contains a contact with the same Phone 1 value as the Phone 1, Phone 2, or Phone 3 value, or the same Phone 2 value as the Phone 1, Phone 2, or Phone 3 value, or the same Phone 3 value as the Phone 1, Phone 2, or Phone 3 value, of an existing contact, the existing contact is overwritten with the new contact information. The call history for the contact (if any) is retained.

- For supervisors to **Schedule Import** of contacts for a campaign, you must configure the campaign to use SFTP or HTTPS.

For a manual import of contacts:

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Attention

- The contacts file should be ASCII-encoded or UTF-8 encoded if it contains special characters (for example, if the contact names are in Chinese, Russian, Japanese, and so on).

- When you want to import multiple dialing lists, ensure that you select one dialing list at a time.

- The maximum limit of contacts in the contacts file is 100 thousand.

- The maximum limit of contacts that can be imported per campaign is determined by:

    - Number of contacts that are already imported and yet to be dialed out.

    - The number of contacts present in the contacts file being imported.

- You must not initiate the manual import of contacts and automatic import of contacts using SFTP or HTTPS at the same time. If a manual import is attempted when an automatic import is in progress, it would fail.

For a scheduled import of contacts:

⚠️

Attention

- The contacts file should be ASCII-encoded or UTF-8 encoded if it contains special characters (for example, if the contact names are in Chinese, Russian, Japanese, and so on).

- The maximum limit of contacts in the contacts file is 100 thousand.

- The automatic import process would stop importing contacts for a campaign after the campaign has 20,000 contacts remaining (yet to be dialed out). After the contacts are dialed out, then the next scheduled import would import additional contacts.

- The maximum limit of contacts that can be imported per campaign is determined by:

  - Number of contacts that are already imported and yet to be dialed out.

  - The number of contacts present in the contacts file being imported.

    For example: Assume a new campaign and a contacts file has 100 thousand contacts that are scheduled for import. When the import is attempted for the first time, the first 20,000 (from 1 to 20,000 contact) contacts are fetched and imported for the campaign.

    Before the next scheduled import, assume system has successfully dialed out 5000 contacts and 15000 contacts are remaining. In this, case, when next import is attempted as per the schedule, the system would import 5000 contacts for the remaining capacity of the campaign (20000-15000=5000 contacts). Thus, assuming that the contacts file has not changed across the imports, the system would import the contacts from 20001 to 25000 in the contacts file.

- You must not initiate the manual import of contacts and automatic import of contacts using SFTP or HTTPS at the same time. If a manual import is attempted when an automatic import is in progress, it would fail.

- If there are multiple imports scheduled at the same time, the import of contacts happen one at a time.

- When an automatic import of contacts is in progress and if there is a Unified CCX Engine fail over, the import will be terminated and its status is not available on the **Automatic Import Contacts** page.

Manual Import of Contacts for Campaign

To import contacts manually for a selected campaign, complete the following steps.

Procedure

Step 1 From the Unified CCX Administration menu bar, choose **Subsystems** > **Outbound** > **Campaigns**.

The Campaigns web page opens, displaying the details of existing campaigns.

Step 2 Click the hyperlink below the Name column for the campaign for which you want to import the contacts.

The Campaign Configuration web page opens for the selected campaign.

Step 3 Click **Import Contacts**. The Import Contacts web page opens.

Step 4   To import contacts from a CSV or a TXT file, click the **Manual Import Contacts** tab.

Step 5   Navigate to the directory that contains the imported fields in the *same order* as they appear in the text file. Specify a filename to import the contacts from the fields being imported.

A contact list can contain up to 7 fields:

- Account Number - The account number of a contact. The account number can be a maximum length of 25 characters.

- First Name - The first name of a contact. The first name can be a maximum length of 50 characters.

- Last Name - The last name of a contact. The last name can be a maximum length of 50 characters.

- Phone1 - The phone number for the contact. This field can be 28 characters long and must be a valid phone number. Phone1 is mandatory and must be specified.

- Phone2 - The phone number for the contact. This field can be 28 characters long and must be a valid phone number.

- Phone3 - The phone number for the contact. This field can be 28 characters long and must be a valid phone number.

- Dial Time - The time to dial a number for individual contacts on the current date. The format to be used for this field is HH:MM. For example, to specify the dialing time as 08:25 am, the dial time field value should be 08:25 and for 03:45 pm, the dial time field value should be 15:45. This field is applicable only for Direct Preview Outbound campaigns.

Step 6   Check the **Allow Duplicate Contacts** option, if required.

Allow Duplicate Contacts

A record is considered duplicate when the phone number in any of the three phone fields (Phone 1, Phone 2, and Phone 3) of the records being imported:

- Exists in any of the three phone fields of the other contacts being imported.

- Exists in any of the three phone fields of the contacts previously imported for the campaign that are dialed out since last midnight or yet to be dialed out.

If this option is not selected:

- The contacts identified as duplicates are not imported for the campaign.

If this option is selected:

- The check for duplicate contacts is not performed and all contacts are imported as is.

Note   By default this option is not selected.

Step 7   Click **Import**.

What to do next

While uploading outbound contacts in a HA over WAN deployment of Unified CCX, if all the contacts that are being uploaded exist in the database and are being modified, follow these guidelines to avoid long delays:

- Upload the contacts during non-peak hours.

- Upload in batches of 500 contacts or less.

Schedule Import of Contacts Using SFTP or HTTPS

Procedure

Step 1   From the Unified CCX Administration menu bar, choose **Subsystems** > **Outbound** > **Campaigns**.

The Campaigns web page opens, displaying the details of existing campaigns.

Step 2   Click the hyperlink below the Name column for the campaign for which you want to import the contacts.

The Campaign Configuration web page opens for the selected campaign.

Step 3   Click **Import Contacts**. The Import Contacts web page opens.

Step 4   To automatically import contacts from a remote server using SFTP or HTTPS, click the **Automatic Import Contacts** tab. SFTP is the default option.

Step 5   Select the server type as **SFTP** or **HTTPS**. Enter the SFTP or the HTTPS remote server details to import contacts from a remote server using SFTP or HTTPS respectively.

If you select SFTP, enter the following details for the Remote SFTP Server:

- IP Address /FQDN—The IP address or the Fully Qualified Domain Name of the remote SFTP server.

- RSA Key—The RSA public key of the remote SFTP server. This is optional and is used for trust verification of the SFTP server by the Unified CCX server.

- User Name—The username that is required to log in to the remote SFTP server.

- Password—The password that is required to log in to the remote SFTP server.

- CSV File Path—The CSV file path (.csv or .txt file path) to import contacts from the remote SFTP server. This is the fully qualified file name. For example:

If you select HTTPS, enter the following details for the Remote HTTPS Server:

- URL—The URL to access the contacts over the remote HTTPS Server.

- User Name—The username that is required to log in to the remote HTTPS server.

- Password—The password that is required to log in to the remote HTTPS server.

- HTTPS Certificate—The check box to confirm that:

    - You have uploaded the HTTPS Certificate in the Unified OS Administration web interface at, **Security** > **Certificate Management**.

      Note   This is required for trust verification of the HTTPS server by the Unified CCX server.

    - Restarted the Cisco Tomcat and Cisco Unified CCX Engine on both the node.

Step 6   Check the **Allow Duplicate Contacts** option, if required.

Allow Duplicate Contacts

A record is considered duplicate when the phone number in any of the three phone fields (Phone 1, Phone 2, and Phone 3) of the records being imported:

- Exists in any of the three phone fields of the other contacts being imported.

- Exists in any of the three phone fields of the contacts previously imported for the campaign that are dialed out since last midnight or yet to be dialed out.

If this option is not selected:

- The contacts identified as duplicates are not imported for the campaign.

If this option is selected:

- The check for duplicate contacts is not performed and all contacts are imported as is.

Note   By default this option is not selected.

Step 7   Click **Test Connection** to check the connectivity with the remote SFTP or HTTPS server.

Step 8   Set the order of field names and a schedule to automatically import contacts in regular intervals.

A contact list can contain up to 7 fields:

- Account Number - The account number of a contact. The account number can be a maximum length of 25 characters.

- First Name - The first name of a contact. The first name can be a maximum length of 50 characters.

- Last Name - The last name of a contact. The last name can be a maximum length of 50 characters.

- Phone1 - The phone number for the contact. This field can be 28 characters long and must be a valid phone number. Phone1 is mandatory and must be specified.

- Phone2 - The phone number for the contact. This field can be 28 characters long and must be a valid phone number.

- Phone3 - The phone number for the contact. This field can be 28 characters long and must be a valid phone number.

- Dial Time - The time to dial a number for individual contacts on the current date. The format to be used for this field is HH: MM. For example, to specify the dialing time as 08:25 am, the dial time field value should be 08:25 and for 03:45 pm, the dial time field value should be 15:45. This field is applicable only for Direct Preview Outbound campaigns.

Step 9   Set the Schedule for the automatic import of contacts.
a)   Select the date.
b)   Set the **Start Time**.
c)   Check the **Repeat Every** checkbox and set the reoccurrence of the automatic schedule.

Note   - The Outbound schedule time is based on the Unified CCX server time zone.

- Avoid scheduling the import of contacts during peak hours.

Step 10   Select **Enable** or **Disable** option for automatic schedule of import of contacts.

Step 11   Click **Save** to save the configurations done for **Automatic Import Contacts**.

Enable Campaigns

You must verify that the configured campaigns are active and that the start and end times for the enabled campaigns are specified as required.

To verify the state of the required campaign, complete the following steps.

Procedure

Step 1   From the Unified CCX Administration menu bar, choose **Subsystems** > **Outbound** > **Campaigns**.

The Campaigns web page opens, displaying following information for the existing campaigns:

Field	Description
Name	Name of the campaign.
Start Time/End Time (hh:mm) AM PM	Start Time and End Time fields indicate the time range during which the campaign runs.
Remaining Contacts	The Remaining Contacts field indicates the number of contacts that are yet to be dialed for each campaign. In addition to the contacts that have not been dialed, this number also includes contacts that have requested a callback and contacts that will be tried again because of unsuccessful prior attempt(s) (for example, the contact was busy or unavailable). A detailed breakdown of the pending contacts is provided in the Printable Reports page for each campaign.
Enabled	The Enabled field indicates to the Outbound subsystem whether this campaign is currently active.
Campaign Type	Denotes whether a specific campaign is IVR-based or Agent-based. The existing campaigns will be marked as Agent-based after an upgrade.
Delete	Click **Delete** icon next to the name of the campaign that you want to delete.

Step 2   Verify that the Enabled field is set to **TRUE** and that the start and end times are specified as required.

Outbound Subsystem and Time Detection

The Outbound subsystem uses the area code of a contact's phone number to determine the time zone of the contact's calling area. The contact's phone number can also be in E.164 format.

The subsystem provides the mapping for North American area codes to their corresponding time zones. The default North American area codes are used to determine the time zone for phone numbers that are not in the E.164 format (for example, 234-567-8900). The Area Codes web page allows you to add, modify, and delete

any area-code-to-time-zone mapping. Some area codes extend across multiple time zones. For such area codes, you can edit the default time zone for that area code and specify a different one, if required.

Changes to area codes take affect the next time you import contacts. For example, if the time zone of area code 603 is changed from 16 to 17, contacts already present in the system that have an area code of 603 continue to have the GMT Offset of 16. Any contacts with area code 603 that are imported after the area code change have 17 for the GMT Offset.

When Outbound contacts are imported into the database, all contacts are assigned a GMT time zone for the three phone numbers provided. The Outbound subsystem determines this GMT time zone by extracting the area code of each phone number and checking it against the Area Codes table to obtain the corresponding time zone. If the area code cannot be matched, the Outbound subsystem uses the local time zone and Daylight Savings Time (DST) setting of the server. The Outbound subsystem also considers the DST to determine if an Outbound contact can be called at a given time.

The Outbound subsystem ensures that the contacts are dialed at valid times. For Outbound contacts which have been scheduled for callback, the scheduled callback time is converted to GMT time zone and stored in the callbackDateTime field in the database.

For pending records, the Outbound subsystem ensures that Outbound contacts are called only within the Customer Dialing Time Range (hh:mm) detected by the MinCustomerDialTime and MaxCustomerDialTime, as per federal regulations. You can configure this time in the Unified CCX Administration GUI.

Add Area Codes

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Caution   Area code and long distance prefix configuration changes made to the Outbound subsystem do not take effect for calls/contacts currently in the Outbound subsystem's memory. For example, if you change the long distance prefix or local area code, the contacts already in the Outbound subsystem's memory will continue to use the old long distance prefix and local area code.

The Outbound subsystem provides all of the mappings from North American area codes to their corresponding time zones at the time of product release. The Area Codes page allows the administrator to add, modify, and delete any area-code-to-time-zone mappings.

Some area codes extend across multiple time zones. For such area codes, an administrator can edit the default time zone for that area code and specify a different one, if required.

The Area Codes Management page allows users to find, add, delete, and modify the mapping of area codes and time zones. The Outbound subsystem uses the area code of a contact's phone number to determine the time zone of the contact's calling area. This page can also be used for adding international area codes. International area codes must include the country code and the city code.

To add an area code, complete the following steps.

Procedure

Step 1   From the Unified CCX Administration menu bar, choose **Subsystems** > **Outbound** > **Area Codes**.

The Area Codes Management web page opens.

Step 2   In the Area Code field, specify a unique identifier for the area code. This field can have any numeric value, including 0 or leading zeros. This is a mandatory field.

Step 3   Click the **Add New** icon that is displayed in the tool bar in the upper, left corner of the window or the **Add New** button that is displayed at the bottom of the window.

The new Area Code information is updated.

Call Status Values

For each contact, the call statuses and their corresponding values are recorded in the database and described in the following table:

Call Status	Value (stored in database)	Description
Pending	1	The call is pending. This is the initial state for all records.
Active	2	The record was retrieved by the Outbound subsystem for dialing.
Closed	3	The record is closed (not dialed).
Callback	4	The record is marked for a callback.
Max Calls	5	Maximum attempts have been reached for this record (considered closed).
Retry	6	The record is redialed immediately whenever there is any miss in the callbacks for Retries with Delay.
Unknown	7	If the Outbound subsystem was restarted with records in the Active (2) state, they are moved to this state.
Retries with Delay	8	The record is redialed as it was either busy, no answer, customer abandoned or system abandoned. Retry time is set as per the corresponding configuration in Unified CCX Application Administration web interface.

Contact States Reset at Midnight

The Outbound subsystem performs the following actions at midnight:

- The DialingListConfig records with a call status of Unknown are reset to Pending.

Note Outbound contacts with a call status of Unknown indicate that the these contacts were retrieved from the database but the system went down before they could be dialed out.

- Missed callback records (dialingListConfig records that have call status callback and a callBackDateTime smaller than the current time) are updated depending on the missed callback action configured in the Unified CCX Administration GUI.

  - MissedCallbackAction: Reschedule (for the same time on the next business day)

  - MissedCallbackAction: Retry (sets the call status to Retry and retries at the start of next business day)

  - MissedCallbackAction: Close (sets the call status to Closed)

  - Dialing list records with a call status of Closed or Max_Calls are moved to a separate historical data table

Note The records marked as closed today will be moved the next day at midnight. For example, the records closed on 4th June will be moved on 5th June at midnight.

- The DialingListConfig records with a call status of "Retries with delay" and which could not be retried due to lapsed time are marked for immediate retry at midnight.

- When the Unified CCX engine goes from offline to online (for example, the standby server becomes active [online] if the active [first] server fails), the dialing list records with a status of Unknown are reset to Pending.

Call Result Values

For each contact, the call results (as marked by the agent on Finesse or automatically deleted by the system) and their corresponding values are recorded in the database and described in the following table:

Call Result	Value (stored in database)	Description
Voice	1	Customer answered and was connected to agent.
Fax	2	Fax machine or modem detected.
Answering machine	3	Answering machine detected.
Invalid	4	Number reported as invalid by the network.

Call Result	Value (stored in database)	Description
Callback	8	Customer requested callback.
Agent Rejected	9	Agent rejected the preview call.
Agent Closed	10	Agent rejected the preview call with the close option (not dialed).
Busy	11	Busy tone detected.
Ring No Answer	12	Agent did not respond to the preview call within the time out duration. **Note** You can configure the time out duration using the Preview Call Timeout field detailed in the **Configure General Outbound Properties**.
Callback Failed	13	This value should not be written to the database; this is for internal use only.
Callback Missed	14	Callback missed and marked for Retry.
Timeout	15	Customer phone timed out either due to Ring No Answer (RNA) or Gateway failure.
Call Abandoned	16	Call was abandoned because IVR port was unavailable or Unified CCX failed due to transfer the call to the IVR port.

Call Result	Value (stored in database)	Description
Call Failed	17	Call failed due any one of the following reasons: • Dialer asked the Gateway to cancel a call that has not yet been placed • Gateway has declined the call • Gateway is down or Gateway has timed out while placing the call • Gateway failure or configuration issues at the Gateway .
Customer Abandoned	18	Customer abandoned as customer disconnected the call within the time limit as configured in "Abandoned Call Wait Time" in Unified CCX Application Administration web interface.

Related Topics

Reclassification Status Behavior

When the Outbound contacts are imported into the database from the Unified CCX Administration GUI, the Call Status column in the Dialing List table is assigned the default value of 1 (Pending), indicating that these Outbound contacts are yet to be dialed. When the Outbound subsystem retrieves a batch of contacts from the database, the **Call Status** is set to 2 (Active). After a call is placed to the Outbound contact, the **Call Status** is set to 3 (Closed) and the **Call Result** is set to 1 (Voice), as all Outbound calls are classified by the agent desktop as Voice by default. If the agent clicks the reclassification button on the agent desktop and reclassifies the call as Answering Machine/Fax/Busy/Invalid or selects the Callback button and schedules a call back, the Outbound subsystem updates the **Call Result** field accordingly and, based on the call result, it also updates the **Call Status**.

The following table describes the relationship between **Call Status** and **Call Result** values and the resulting behavior of the system. The values in brackets are the actual values stored in the database.

The following information is applicable only for Preview Dialer.

Call Result	Call Status	Behavior
Voice (1)	Closed (3)	This contact is not dialed again.

Call Result	Call Status	Behavior
Fax (2)	Retry (6)	This contact is retried, using a different phone number provided for this contact. If alternate phone numbers are not available, the call status is closed.
Answering machine (3)	Retry (6)	This contact is retried, with the same phone number as before.
Invalid Number(4)	Retry (6)	This contact is retried, using a different phone number provided for this contact. If alternate phone numbers are not available, the call status is closed.
Busy	Retry (6)	This contact is retried, with the same phone number as before.

The **Call Status** is set to 3 (Closed) when the Outbound contact is no longer dialed for this campaign. This also happens automatically if the system reaches the maximum attempts limit for an Outbound contact, which means that the system tried dialing the Outbound contact the maximum number of times configured in the Unified CCX Administration GUI.

Call Retrieval Priority

While retrieving Outbound contacts from the database, records that have scheduled callbacks have priority as the callback time must be adhered to. Outbound contacts are retrieved in the following order of priority:

- Priority 1—Outbound contacts with a scheduled callback (call status = 4) and the current time is within the CallbackTimeLimit configured on the Campaigns page (default value is15 minutes) of the scheduled callback time.

- Priority 2—Outbound contacts to be retried after a specific delay. This is not applicable for direct preview campaigns (call status = 8).

- Priority 3—Outbound contacts in the Pending state (call status = 1).

- Priority 4—Outbound contacts in the Retry state (call status = 6).

Note The Call Retrieval Priority is on a per campaign basis. If an agent is part of multiple CSQs that are part of different campaigns, priority of callbacks may be overridden by different queues. For example, Priority 4 in a particular queue may take precedence over Priority 1 of another queue.

Failover and System Restarts

Outbound contacts with an Active call status during a failover indicate that these contacts were retrieved from the database but the system went down either before they could be dialed or after they were dialed but before the call status and call result columns were updated. When the system restarts, the call status for all such Outbound contacts is changed to 7 (Unknown). All Outbound contacts in the Unknown state will be reset to the Pending state (should be retrieved for dialing again) at midnight every night.

If there is an Outbound call in progress during a failover, they cannot be dialed again, as the call status is set to Closed as soon as an Outbound call is placed and these records will not be retrieved for dialing again when the system comes back. However, if the failover happened before the system could update the call status to Closed, these records remain in the Active state and are marked Unknown so they transition to Pending state after midnight. Once they are in the Pending state, they will be dialed again.