



Outbound API

Outbound API allows you to use REST APIs to create, modify, and delete Outbound Option campaigns.

Outbound API provides a streamlined mechanism for creating campaigns with a single associated query rule and import rule. As such, if you use the API to create a campaign, that campaign is not available in the Outbound Campaign tool. If a campaign was created with the API, you must use the API to view, edit, or delete it. If a campaign was created with the Outbound Campaign tool, you must use the Outbound Campaign tool to view, edit, or delete it.

Administrative scripts are not required for Outbound Option campaigns created with the Outbound API. If an administrative script is provided, the information in the script overrides the information defined in the API.

Outbound API consists of the following APIs:

- **Outbound Campaign API:** Use this API to define new Outbound Option campaigns, and to view, edit, or delete existing campaigns.
 - **Campaign Status API:** Use this API to get the real-time status of running Outbound Option campaigns.
 - **Do Not Call API:** Use this API to set the Do Not Call (DNC) import rule configuration for Outbound Option. This prevents the dialer from dialing numbers on the DNC list.
 - **Import API:** Use this API to import customer contact information for an Outbound Option campaign.
 - **Personal Callback API:** Use this API to configure your Outbound Option campaign to handle personal callbacks. You can create personal callback records individually or in bulk. You can also update or delete personal callback records.
 - **Time Zone API:** Use this API to list all available time zones and to get information about a specified time zone.
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- [Outbound Campaign API, on page 2](#)
 - [Campaign Status API, on page 9](#)
 - [Do Not Call API, on page 10](#)
 - [Import API, on page 12](#)
 - [Personal Callback API, on page 17](#)
 - [Time Zone API, on page 22](#)

Outbound Campaign API

An Outbound Campaign makes outgoing calls to customers for a specific purpose or task and delivers these calls to agents.

Use the Outbound Campaign API to define new outbound campaigns, and to view, edit, or delete existing outbound campaigns.



Note In the Role API, when you enable the CampaignStatus or CampaignContact subfeature in the accessList parameter for a custom role then the Outbound Campaign API is provided with Update Only Access instead of Full Access. With Update Only Access, you cannot create and delete a campaign using Outbound Campaign API.

URL

`https://<server>/unifiedconfig/config/campaign`

Operations

- **create**: Creates one campaign and stores it in the database.
- **delete**: Deletes one campaign from the database. The campaign is saved under **Configuration Manager > Miscellaneous Tools > Deleted Objects**.

You can only delete campaigns that were created using the API. You cannot use the API to delete campaigns that were created in the Outbound Option Campaign tool.

- **list**: Retrieves a list of campaigns from the database. Only campaigns that were created using the Outbound Option API are retrieved. Campaigns created using the Outbound Option Campaign tool do not appear in the list.
- **get**: Returns one campaign from the database using the URL
`https://<server>/unifiedconfig/config/campaign/<id>`.

You must specify the ID for a campaign that was created using the API. If you specify the ID for a campaign created using the Outbound Option Campaign tool, the request returns `CceDBDataNotFoundException`.

- **update**: Updates one campaign in the database using the URL
`https://<server>/unifiedconfig/config/campaign/<id>`.

You can only update campaigns that were created using the API. You cannot use the API to update campaigns that were created in the Outbound Option Campaign tool.

Parameters

- **name**: Required. The name of the campaign. See [Shared Parameters](#).
- **description**: Optional description for the campaign. See [Shared Parameters](#).
- **linesPerAgent**: The number of lines dedicated to each agent in the campaign. Range is 1 to 100. Default is 1.5. This parameter performs as follows in the Outbound Option dialing modes:

- Preview mode: Ignored (always 1).
 - Progressive mode: Used as defined.
 - Predictive mode: Used as an initial value.
- maximumLinesPerAgent: The upper bound for the number of customers the dialer dials for a reserved agent when a campaign is running in predictive mode. Range is 1 to 100. Default is 2.
 - abandonEnabled: True or false. Default is true.
 - abandonPercent: When enabled (abandonEnabled is set to true), you can set the abandoned calls limit for the percentage of abandoned calls in the campaign. When disabled (abandonEnabled is set to false), the campaign dials without regard to the abandon limit. Range is 1 to 100. The granularity is to one 10th of a percent. Default is 3.
 - predictiveCorrectionPace: A count of the number of live voice connections that must occur before the Dialer adjusts. Increasing this number results in less frequent adjustments based on larger sample size. Decreasing this number results in more frequent adjustments using a smaller sample size. Range is 10 to 5000. Default is 70.
 - predictiveGain: The size of the adjustment to lines per agent each time an adjustment is made. Increasing this number results in larger lines per agent adjustments. Decreasing this number results in smaller lines per agent adjustments. Range is 0.1 to 3.0. Default is 1.
 - noAnswerRingLimit: The number of times the software allows a dialed phone number to ring. Range is from 2 to 10. Default is 4.
 - maxAttempts: The maximum number of attempts, including callbacks and retries. Range is from 1 to 100. Default is 3.
 - minimumCallDuration: Minimum duration (in seconds) of an outbound call. If the outbound call is less than the specified value, Outbound Option considers the call to be customer abandoned and schedules the record for a retry. To disable this feature, set the parameter to 0. Range is 0 to 10. Default is 1.
 - noAnswerDelay: The time (in minutes) that the software waits before calling back a no-answer call. Range is 1 to 99999. Default is 60.
 - busySignalDelay: The time (in minutes) that the software waits before calling back a busy phone number. Range is 1 to 99999. Default is 60.
 - customerAbandonedDelay: If a customer abandons a call, the time (in minutes) that the Dialer waits before calling the customer back. Range is 1 to 99999. Default is 30.
 - dialerAbandonedDelay: If the Dialer abandons a call, the time (in minutes) that the Dialer waits before calling the customer back. Range is 1 to 99999. Default is 60.
 - answeringMachineDelay: If an answering machine answers a call, the time (in minutes) that the Dialer waits before calling the customer back. Range is 1 to 99999. Default is 60.
 - customerNotHomeDelay: If a customer is not home, the time (in minutes) that the Dialer waits before calling the customer back. Range is 1 to 99999. Default is 60.
 - personalizedCallbackEnabled: If enabled, this parameter allows an agent to schedule a callback to a customer for a specific date and time. A personal callback connects the same agent who initiated the callback to the customer. True or false. Default is false.

- **rescheduleCallbackMode:** Determines how Outbound Option handles a personal callback if the agent is not available. Default is `useCampaignDN`. Options are as follows:
 - Use campaign DN
 - Same time next business day
 - Abandon
- **campaignPurposeType:** The type of campaign. Default is `agentCampaign`. The options are as follows:
 - **Agent Campaign:** This type of campaign uses an outbound mode that causes the Dialer to transfer every customer call associated with a specific skill group to an agent.
 - **IVR Campaign:** This type of campaign uses an outbound mode that causes the Dialer to transfer every customer call associated with a specific skill group to a service control-based IVR instead of an agent. This option allows a contact center to run unassisted outbound campaigns using prerecorded messages in the IVR.
- **ipAmdEnabled:** When enabled, directs the Dialer to perform a specific action if it detects an answering machine. True or false. Default is true.
- **amdTreatmentMode:** If enabled (`ipAmdEnabled` is set to true), when the Dialer detects an answering machine, it does one of the following:
 - Abandon call (default)
 - Transfer to agent
 - Transfer to IVR route point
 - Terminate tone detect
- **ipTerminatingBeepDetect:** When this parameter is set to true, the Dialer transfers the call after detecting the answering machine beep. True or false. Default is false.
- **timeZone:** Required. The refURL and display name for the selected time zone. The default time zone is UTC (Universal Coordinated Time). The display name is the text that may be displayed in a user interface and can be localized.



Note If time zone information changed due to periodic updates and the campaign's configured time zone is no longer valid, the following information is returned:

```
<timeZone>
  <refURL>/unifiedconfig/config/timezone/INVALID</refURL>
  <displayName>INVALID Time Zone</displayName>
</timeZone>
```

- **startTime:** The time the campaign starts dialing customer numbers. The format for this parameter is hours:minutes. Range is from 00:00 to 23:59. The default value is taken from the `Blended_Agent_Options` table column values for `DialStartHours` and `DialStartMinutes`.

- **endTime**: The time the campaign stops dialing customer numbers. The format for this parameter is hours:minutes. Range is from 00:00 to 23:59. The default value is taken from the Blended_Agent_Options table column values for DialEndHours and DialEndMinutes.
- **enabled**: Whether the dialer is available to call contacts. True or false. Default is false.
- **startDate**: The date that the campaign starts. The format is YYYY-MM-DD.
- **endDate**: The date that the campaign ends. The format is YYYY-MM-DD.
- **campaignPrefix**: Digits to prefix to each customer number dialed from this campaign. Maximum length of 15 digits.
- **dialingMode**: The dialing mode to use for the campaign skill groups. Valid values are as follows:
 - INBOUND
 - PREDICTIVEONLY
 - PREVIEWONLY
 - PROGRESSIVEONLY
 - PREVIEWDIRECTONLY
- **reservationPercentage**: The percentage of agents to reserve within the skill groups associated with the campaign. Range is from 0 to 100. Default is 100.
- **callProgressAnalysis**: A collection of parameters for Call Progress Analysis (CPA). Any combination of parameters within this collection can be set. If none of the parameters are provided and CPA is enabled for the campaign by default, CPA recording is set to false and default parameter values are set from the Blended_Agent_Options table.
 - **enabled**: When set to false, CPA for all calls made from this Dialer is disabled on a campaign-by-campaign basis, including voice detection, fax/modem detection, and answering machine detection. True or false. Default is true.
 - **record**: If enabled is set to true, you can specify this parameter. If you set it to true, the gateway provides a media stream and the Dialer records .wav files. True or false. Default is false.
 - **minSilencePeriod**: The minimum silence period (in milliseconds) required to classify a call as voice detected. If many answering machine calls are being passed through to agents as voice, then increasing this value accounts for longer pauses in answering machine greetings. Range is from 100 to 1000. Default is 608.
 - **analysisPeriod**: The number of milliseconds spent analyzing this call. If there is a short agent greeting on an answering machine, then a longer value categorizes that answering machine call as voice. If the call is to a business where the operator has a longer scripted greeting, a shorter value categorizes the long, live greeting as an answering machine call. Range is from 1000 to 10000. Default is 2500.
 - **minimumValidSpeech**: Minimum number of milliseconds of voice required to classify a call as voice detected. Range is 50 to 500. Default is 112.
 - **maxTimeAnalysis**: The maximum number of milliseconds allowed for analysis before identifying a problem analysis as dead air/low volume. Range is 1000 to 10000. Default is 3000.
 - **maxTermToneAnalysis**: The maximum number of milliseconds the dialer analyzes an answering machine voice message looking for a termination tone. If the message has an odd tone and the

analysis does not recognize it, the call is not transferred or dropped until this timeout occurs. Range is 1000 to 60000. Default is 30000.

- **skillGroupInfos**: A collection of information about the skill groups associated with the campaign.
 - **skillGroupInfo**: A collection of information about one skill group.
 - **skillGroup**: The name and the refURL of the skill group assigned to the campaign.
 - **overflowAgents**: This parameter ensures that at least one extra agent is reserved before the dialer begins dialing for a Progressive campaign. If the parameter is set to 1, at least two agents must be reserved before the dialer begins dialing. Range is 0 to 100. Default is 0.
 - **dialedNumber**: The digits that are dialed to reserve an agent in the configured skill group. This parameter can contain letters, numbers, periods (.), and underscores (_) and can be up to ten characters in length.
 - **recordsToCache**: The minimum number of dialing numbers that each dialer caches for each of the Outbound Option skill groups. Range is 1 to 400. Default is 1.
 - **ivrPorts**: The total number of IVR ports allocated for the skill group. This parameter indicates how many ports are available for the dialer to transfer customer calls. Because this value indicates the total number of ports supported by the IVR for the current skill group, multiple skill groups can make transfer to IVR calls. One IVR can also be used to play different messages based on the route point where the contact is transferred. If multiple dialers are associated with the skill group, each dialer dials a fraction of the total number of ports. Default is 0.
 - **ivrRoutePoint**: If the campaign is a Transfer to IVR campaign or is configured to transfer AMD calls to an IVR, this parameter indicates the route point required to run the transfer to IVR routing script. This parameter must coincide with a route point configured on Unified Communications Manager and be assigned to a PGUser. Contacts are transferred to the route point, which points to a routing script. The script transfers the call to an IVR. Maximum length of 32 characters.
 - **abandonedRoutePoint**: If the campaign is a Transfer to IVR campaign or is configured to transfer AMD calls to an IVR, this number allows the dialer to play a message to calls about to be disconnected because no agents are available. This number must coincide with a route point configured on Unified Communications Manager and be assigned to the agent PG's CTI application (for example, PGUser). Contacts are transferred to this route point, which points to a routing script. The script transfers the call to an IVR. Maximum length of ten characters.
- **skillGroupInfosAdded**: A collection of skill group references to be added to the campaign, including the skill group refURL. This parameter is update only. This parameter can be used with the **skillGroupInfosRemoved** parameter. See [References](#).
- **skillGroupInfosRemoved**: A collection of skill group references to be removed from the campaign, including the skill group refURL of each skill group. This parameter is update only. This parameter can be used with the **skillGroupInfosAdded** parameter. See [References](#).

Search and Sort Parameters

The following table shows the parameters that are searched and the parameters that are sortable.

Search parameters	Sort parameters
<ul style="list-style-type: none"> • name • description 	<ul style="list-style-type: none"> • name (default) • description

See [Search](#) and [Sort](#).

Disable All Campaigns (Emergency Stop)

The Outbound Campaign API provides a method to immediately disable all outbound campaigns that are currently enabled. To disable all of the campaigns, perform a PUT on the following URL:

`https://<server>/unifiedconfig/config/campaign/disable`

This request retrieves a list of all campaigns created using the Outbound Campaign API that are currently enabled and sets the enabled parameter to false. The Campaign Manager stops sending out records to the Dialer for these campaigns. All active records in the Dialer's memory are removed.

Example Get Response

```
<campaign>
  <changeStamp>48</changeStamp>
  <refURL>/unifiedconfig/config/campaign/5168</refURL>
  <import>
    <refURL>/unifiedconfig/config/import/5000</refURL>
  </import>
  <abandonEnabled>true</abandonEnabled>
  <abandonPercent>3.0</abandonPercent>
  <amdTreatmentMode>abandonCall</amdTreatmentMode>
  <campaignPrefix>978</campaignPrefix>
  <campaignPurposeType>agentCampaign</campaignPurposeType>
  <dialingMode>PREVIEWONLY</dialingMode>
  <enabled>true</enabled>
  <endDate>2016-01-15</endDate>
  <endTime>17:00</endTime>
  <ipAMDEnabled>true</ipAMDEnabled>
  <ipTerminatingBeepDetect>false</ipTerminatingBeepDetect>
  <linesPerAgent>1.5</linesPerAgent>
  <maxAttempts>3</maxAttempts>
  <maximumLinesPerAgent>100.0</maximumLinesPerAgent>
  <minimumCallDuration>1</minimumCallDuration>
  <name>APIoct1</name>
  <noAnswerRingLimit>4</noAnswerRingLimit>
  <personalizedCallbackEnabled>false</personalizedCallbackEnabled>
  <predictiveCorrectionPace>70</predictiveCorrectionPace>
  <predictiveGain>1.0</predictiveGain>
  <rescheduleCallbackMode>useCampaignDN</rescheduleCallbackMode>
  <reservationPercentage>100</reservationPercentage>
  <retries>
    <answeringMachineDelay>60</answeringMachineDelay>
    <busySignalDelay>60</busySignalDelay>
    <customerAbandonedDelay>30</customerAbandonedDelay>
    <customerNotHomeDelay></customerNotHomeDelay>
    <dialerAbandonedDelay>60</dialerAbandonedDelay>
    <noAnswerDelay>60</noAnswerDelay>
  </retries>
  <skillGroupInfos>
  <skillGroupInfo>
```

```

    <ivrPorts>0</ivrPorts>
    <overflowAgents>0</overflowAgents>
    <recordsToCache>1</recordsToCache>
    <abandonedRoutePoint>12345</abandonedRoutePoint>
    <dialedNumber>123</dialedNumber>
    <ivrRoutePoint>91234</ivrRoutePoint>
    <skillGroup>
      <refURL>/unifiedconfig/config/skillgroup/5004</refURL>
      <name>errorDetailsRouteScript</name>
    </skillGroup>
  </skillGroupInfo>
</skillGroupInfos>
<startDate>2016-01-14</startDate>
<startTime>09:00</startTime>
<timeZone>
  <displayName>(UTC-05:00) Eastern Time (US & Canada)</displayName>
  <refURL>/unifiedconfig/config/timezone/Eastern%20Standard%20Time</refURL>
</timeZone>
<callProgressAnalysis>
  <enabled>true</enabled>
  <record>false</record>
  <minSilencePeriod>608</minSilencePeriod>
  <analysisPeriod>2500</analysisPeriod>
  <minimumValidSpeech>112</minimumValidSpeech>
  <maxTimeAnalysis>3000</maxTimeAnalysis>
  <maxTermToneAnalysis>30000</maxTermToneAnalysis>
</callProgressAnalysis>
</campaign>

```

Example Create Request

```

<campaign>
  <name>APIOct1</name>
  <description>APIOct1</description>
  <dialingMode>PREVIEWONLY</dialingMode>
  <skillGroupInfos>
    <skillGroupInfo>
      <ivrPorts>0</ivrPorts>
      <overflowAgents>0</overflowAgents>
      <recordsToCache>1</recordsToCache>
      <skillGroup>
        <refURL>/unifiedconfig/config/skillgroup/5001</refURL>
        <name>sgcampaign</name>
      </skillGroup>
    </skillGroupInfo>
  </skillGroupInfos>
  <timeZone>
    <refURL>/unifiedconfig/config/timezone/UTC</refURL>
  </timeZone>
  <callProgressAnalysis>
    <enabled>true</enabled>
    <record>false</record>
    <minSilencePeriod>608</minSilencePeriod>
    <analysisPeriod>2500</analysisPeriod>
    <minimumValidSpeech>112</minimumValidSpeech>
    <maxTimeAnalysis>3000</maxTimeAnalysis>
    <maxTermToneAnalysis>30000</maxTermToneAnalysis>
  </callProgressAnalysis>
</campaign>

```


Campaign Status API

Use the Campaign Status API to get the real-time status of running Outbound Option campaigns.

URL

```
https://<server>/unifiedconfig/config/campaign/<campaign-id>/runtimestats
```



Note You must specify the ID for a campaign that was created using the Outbound Campaign API (see [Outbound Campaign API, on page 2](#)). If you specify the ID for a campaign created using the Outbound Option Campaign tool, the request returns CceDBDataNotFoundException.

Operations

- **get**: Returns the runtime status of a campaign.

Response Parameters

- **abandonDetectCount**: The number of calls abandoned by the dialer.
- **abandonToIvrCount**: The number of calls that were abandoned by the dialer and transferred to IVR.
- **agentClosedCount**: The number of preview and callback calls that were closed by the agent.
- **agentRejectedCount**: The number of preview and callback calls that were rejected by the agent.
- **answeringMachineCount**: The number of calls that detected an answering machine.
- **attemptedCount**: Summary total of the number of calls attempted.
- **busyCount**: The number of calls that detected a busy signal.
- **callBackCount**: The number of callback contacts.
- **cancelledDetectCount**: The number of calls where the dialer canceled a ringing customer call.
- **closedCount**: The number of contacts closed for any reason other than reaching a live customer.
- **customerAbandonDetectCount**: The number of calls where the customer hung up immediately after picking up the phone.
- **customerNotHomeCount**: The number of contacts where the party who answered the phone was not the customer.
- **dateTime**: The date and time when this data was updated last. The format is yyyy-MM-ddTHH:mm:ss (for example, 2016-03-13T04:50:31).
- **faxDetectCount**: The number of calls that detected a fax machine.
- **networkAnsMachineCount**: The number of calls that detected a network answering machine.
- **noAnswerDetectCount**: The number of calls that were not answered.
- **noDialToneDetectCount**: The number of calls that did not detect a dial tone.

- `noRingBackDetectCount`: The number of calls that did not detect a ring back.
- `personalCallbackCount`: The number of callback contacts scheduled.
- `sitToneDetectCount`: The number of calls that detected a special information tone (SIT).
- `talkTimeCount`: The total number of seconds that agents spent talking on the phone since midnight.
- `totalCount`: The total number of records available to dial for the current campaign.
- `totalVoiceCount`: The number of live customers that have been reached for this campaign since the last time the imported dialing list was overwritten.
- `voiceCount`: The number of calls for the day that ended in successful customer contact.
- `wrapupTimeCount`: The number of seconds that agents spent in wrap-up mode since midnight.
- `wrongNumberCount`: The number of contacts where the party who answered the phone indicated that the customer did not live there.

Example Get Response

```
<runtimeStatus>
  <abandonDetectCount>0</abandonDetectCount>
  <abandonToIvrCount>0</abandonToIvrCount>
  <agentClosedCount>0</agentClosedCount>
  <agentRejectedCount>0</agentRejectedCount>
  <answeringMachineCount>0</answeringMachineCount>
  <attemptedCount>1</attemptedCount>
  <busyCount>0</busyCount>
  <callBackCount>0</callBackCount>
  <cancelledDetectCount>0</cancelledDetectCount>
  <closedCount>0</closedCount>
  <customerAbandonDetectCount>0</customerAbandonDetectCount>
  <customerNotHomeCount>0</customerNotHomeCount>
  <dateTime>2016-01-15T13:43:00</dateTime>
  <faxDetectCount>0</faxDetectCount>
  <networkAnsMachineCount>0</networkAnsMachineCount>
  <noAnswerDetectCount>0</noAnswerDetectCount>
  <noDialToneDetectCount>0</noDialToneDetectCount>
  <noRingBackDetectCount>0</noRingBackDetectCount>
  <personalCallbackCount>0</personalCallbackCount>
  <sitToneDetectCount>0</sitToneDetectCount>
  <talkTimeCount>1</talkTimeCount>
  <totalCount>0</totalCount>
  <totalVoiceCount>1</totalVoiceCount>
  <voiceCount>1</voiceCount>
  <wrapupTimeCount>0</wrapupTimeCount>
  <wrongNumberCount>0</wrongNumberCount>
</runtimeStatus>
```

Do Not Call API

Use the Do Not Call API to set the Do Not Call (DNC) import rule configuration for Outbound Option so that the campaign dialer doesn't dial the numbers in the DNC list.

The DNC import is automatically scheduled to start when the file is available. After the import is complete, the file is RENAMED or DELETED based on the boolean value for the `renameFileAfterImport` field.

URL

https://<server>/unifiedconfig/config/dnc

Operations

- **create**: Sets the configuration in the database. Returns the refURL if the configuration is set.
- **delete**: Deletes the specific DNC configuration using the URL `https://<server>/unifiedconfig/config/dnc/<id>`. This does not delete the DNC import file that is present at the location of the filePath.
- **list**: Retrieves a list available DNC import rules.
- **get**: Returns the DNC import configuration from the database using the URL `https://<server>/unifiedconfig/config/dnc/<id>`.
- **update**: Updates the specific DNC import configuration with the new values using the URL `https://<server>/unifiedconfig/config/dnc/<id>`.

Parameters

- **name**: Name of the DNC import. See [Shared Parameters](#).
- **filePath**: Path to Microsoft Windows Distributed File System (DFS) share on the logger or accessible from the logger. Maximum length of 255 characters.
- **overwrite**: Whether the new DNC import overwrites the phone numbers from the previous DNC import. True or false. Default is false.
- **renameFileAfterImport**: Whether to delete the DNC import file after the import is complete. True or false. Default is true. If the parameter is set to true, the DNC file is renamed. If the parameter is set to false, the DNC import file is deleted.

Search and Sort Parameters

The following table shows the parameters that are searched and the parameters that are sortable.

Search parameters	Sort parameters
<ul style="list-style-type: none"> • name 	<ul style="list-style-type: none"> • name

See [Search](#) and [Sort](#).

Example Get Response

```
<dnc>
  <refURL>/unifiedconfig/config/dnc/unifiedconfig/config/dnc/5001</refURL>
  <name>dnc1</name>
  <filePath>\\CCE-ROGGER-A\C$\Users\boston\Desktop\dnc.txt</filePath>
  <overwrite>>false</overwrite>
  <renameFileAfterImport>>true</renameFileAfterImport>
</dnc>
```

Create Do Not Call List

When creating a Do_Not_Call list file, format it correctly using the following instructions.

Procedure

-
- Step 1** Using a text editor, create a text file that contains all the do-not-call phone numbers.
- Step 2** Enter a phone number for each Do Not Call entry on a new line.
- Step 3** Observe the following characteristics for each Do Not Call entry:
- Each phone number can be a maximum of 20 characters long.
 - The Do Not Call table can support up to 60 million entries, but note that the information is also stored in memory in the Campaign Manager process. Unless you set the **Overwrite table** option, each import appends to the table. A single large import or several smaller ones can create a Do Not Call list in memory that consumes all the memory for the process.
 - Each Do Not Call entry uses 16 bytes of memory. So, 60 million entries requires approximately 1 GB of memory on the Logger Side A platform.
- Step 4** Save the text file to the local server.

The following is an example of a Do_Not_Call list:

2225554444

2225556666

2225559999

To add a customer to this list, import a Do Not Call list.

The Campaign Manager reads from the Do_Not_Call table. Dialing List entries are marked as Do Not Call entries only when the Campaign Manager fetches the Dialing List entry *and only when there is an exact, digit-for-digit match*. This allows Do Not Call imports to happen while a Campaign is running without rebuilding the Dialing List.



Note If the Dialing List includes a base number plus extension, this entry must match a Do Not Call entry for that same base number and same extension. The dialer will not dial the extension.



Note To clear the Do Not Call list, import a blank file with the Overwrite table option enabled.

Import API

Use the Import API to import customer contact information for an outbound campaign. You can import up to 10,000 records in one create request.

**Note**

- You can queue up to 30 requests. If the queue has 30 requests and you submit another request, the response is HTTP 503 Service Unavailable with the boundary error condition "Request processing queue is at capacity."

If you receive this error, wait until a few requests are processed and submit the next request when the queue has less than 30 requests.

If a particular integration is doing multiple small inserts per second for a campaign and this error appears, it is more efficient to batch up the records into larger imports.

- Avoid performing a bulk job transaction during a maintenance window.
- Only administrators can use the Import API. For this reason, Import API user roles are authorized with the Active Directory, and the local cache is updated every 30 minutes (the interval cannot be modified).

URL

```
https://<server>/unifiedconfig/config/campaign/<id>/import
```

**Note**

You must specify the ID for a campaign that was created using the Outbound Campaign API. If you specify the ID for a campaign created using the Outbound Option Campaign tool, the request returns `CceDBDataNotFoundException`.

Operations

- **create**: Imports customer contacts for a specific campaign.
- **delete**: Deletes the imported contacts for a specific campaign.

**Note**

The delete operation deletes all imported contacts for the campaign. You cannot delete an individual record.

- **get** (template): Returns a sample CSV template for contacts, which is provided by the API, using the URL `https://<server>/unifiedconfig/config/campaign/import/template`. The response contains the CSV template as a file attachment.
- **get**: Retrieves the details of a single import record using the URL `https://<server>/unifiedconfig/config/campaign/<campaignId>/import/<id>`. The `<id>` is the ID of the imported contact.
- **list**: Retrieves a list of all imported contacts for the campaign.
 - **Query parameters**
 - Summary list: See [list](#).

Parameters

Response Parameters for get:

- `accountNumber`: The customer's account number.
- `callsMade`: The number of calls made.
- `callStatus`: The call status of the last call placed for this record. Possible values include the following:
 - active (A)
 - callbackRequested (B)
 - closed (C)
 - dialed (D)
 - agentRejected (J)
 - maxAttemptsReached (M)
 - pending (P)
 - retry (R)
 - personalCallbackRequested (S)
 - unknown (U)

For more information about these values, see the `CallStatusZone Values` section of the *Outbound Option Guide for Unified Contact Center Enterprise* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-user-guide-list.html>.

- `callResultOverall`: The call result from the last call placed for this record.
- `firstName`: The customer's first name.
- `lastName`: The customer's last name.
- `importDate`: The date and time that the record was imported.
- `phone01` through `phone10`: A collection of information about the customer's phones. Each phone contains the following parameters:

- `number`: The phone number.
- `callResult`: The call result from the last call placed for this phone number.

For more information about possible `callResult` values, see the `CallResult Codes and Values` section of the *Outbound Option Guide for Unified Contact Center Enterprise* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-user-guide-list.html>.

- `dstObserved`: Whether DST is observed for this phone's location. True or false.
- `gmtOffset`: The number of minutes that the customer's time zone is offset from GMT. When you create import records, you can optionally provide a `TimeZoneBias`. The `TimeZoneBias` parameter represents the way information about time zones is stored in the Windows registry. You can use the following formula to convert `TimeZoneBias` to `gmtOffset`:

```
if timeZoneBias is positive:
```

```
gmtOffset = 1440 - timeZoneBias (where 1440 is the number of minutes in 24
hours)
else if timeZoneBias is negative:
    gmtOffset = -1 * timeZoneBias
else if timeZoneBias is 0
    gmtOffset = timeZoneBias
```

Parameters for create:

- **fileContent:** Required. Comma-separated or pipe-separated list of data embedded within a CDATA section.
- **overwriteData:** True or false. If set to true, the existing import data in the database is overwritten by the new import data. If set to false, the new import data is appended to the existing data. Default is false.



Note You cannot modify or remove existing fields or append a new field to existing data.

- **delimiter:** Comma (,) or pipe (|). Default is comma (,).
- **header fields:** The following header fields are allowed:
 - **AccountNumber:** Can contain any characters, including internationalized characters, except the delimiter specified in the input XML. Maximum length of 30 bytes.
 - **FirstName:** Can contain any characters, including internationalized characters, except the delimiter specified in the input XML. Maximum length of 50 characters.
 - **LastName:** Can contain any characters, including internationalized characters, except the delimiter specified in the input XML. Maximum length of 50 characters.
 - **Phone01 through Phone10:** Can contain digits 0-9, pound sign (#), and asterisk (*). Maximum length of 20 bytes. At least one Phone field is required.
 - **TimeZoneBias:** Specifies the offset of the customer's time zone from UTC in minutes. Integer. Range is from -780 to 720 (-13 to 12 hours from UTC).
 - **DstObserved:** Specifies whether DST is observed for the customer's location. True or false. Default is false.



Note If the TimeZoneBias parameter is provided but the DstObserved parameter is not, DstObserved is set to false. If the DstObserved parameter is provided but not TimeZoneBias, a validation error is returned.

If TimeZoneBias is not provided, time zone and Daylight Saving Time information is assigned by matching phone numbers to region prefix strings. If a phone number for a contact does not match a configured region prefix, the default time zone for the campaign is used.

If a customer record contains multiple phone numbers, the value for TimeZoneBias and DstObserved are applied to all of that customer's phone numbers.

You can use the Time Zone API to look up the values for TimeZoneBias and DstObserved for the target time zone. For more information, see [Time Zone API, on page 22](#).

Search and Sort

The following table shows the parameters that are searched and the parameters that are sortable.

Search parameters	Sort parameters
<ul style="list-style-type: none"> • accountNumber • firstName • lastName 	<ul style="list-style-type: none"> • accountNumber (default) • firstName • lastName

See [Search and Sort](#).

Example Get Response

```
<importContact>
  <refURL>/unifiedconfig/config/campaign/5000/import/1</refURL>
  <accountNumber>4019</accountNumber>
  <callsMade>1</callsMade>
  <callStatus>pending</callStatus>
  <callResultOverall>0</callResultOverall>
  <firstName>Mir</firstName>
  <lastName>Ali</lastName>
  <importDate>2016-03-28T01:09:40</importDate>
  <phone01>
    <callResult>0</callResult>
    <dstObserved>true</dstObserved>
    <gmtOffset>720</gmtOffset>
    <number>9789360001</number>
  </phone01>
  <phone02>
    <callResult>0</callResult>
    <dstObserved>true</dstObserved>
    <gmtOffset>720</gmtOffset>
    <number>9789360002</number>
  </phone02>
</importContact>
```



```

<phone03>...</phone03>
<phone04>...</phone04>
<phone05>...</phone05>
<phone06>...</phone06>
<phone07>...</phone07>
<phone08>...</phone08>
<phone09>...</phone09>
<phone10>
  <callResult>0</callResult>
  <dstObserved>true</dstObserved>
  <gmtOffset>330</gmtOffset>
  <number>9789360010</number>
</phone10>
</importContact>

```

Example Create Request

```

<import>
  <fileContent>
    <![CDATA[
      AccountNumber,FirstName,LastName,Phone01,Phone02,TimeZoneBias,DstObserved
      6782, Henry, Martin, 2225554444, 2225556262, 720, false
      3456, Michele, Smith, 2225559999, 2225551234, 540, true
      4569, Walker, Evans, 2225552000, 2225557890, -600, true
    ]]>
  </fileContent>
  <delimiter>,</delimiter>
</import>

```

Personal Callback API

Use the Personal Callback API to configure your Outbound Option campaign to handle personal callbacks. The Personal Callback feature allows an agent to schedule a callback to a customer for a specific date and time.

URL

`https://<server>/unifiedconfig/config/personalcallback`

Operations

- **create**: Creates a single PersonalCallback record and stores it in the BA database.
- **create (bulk)**: Creates PersonalCallback records in bulk and stores them in the BA database using the URL `https://<server>/unifiedconfig/config/personalcallback/import`.
- **delete**: Deletes one or more PersonalCallback records from the PersonalCallback list using the URL `https://<server>/unifiedconfig/config/personalcallback/<id>`.
- **get (template)**: Retrieves a sample CSV template for contacts, which is provided by the API, using the URL `https://<server>/unifiedconfig/config/personalcallback/template`.
- **get (record)**: Retrieves one PersonalCallback record from the database using the URL `https://<server>/unifiedconfig/config/personalcallback/<id>`.
- **list**: Retrieves a list of PersonalCallback records from the database.

- **Query parameters:**

- agentId
- accountNumber
- firstName
- lastName

- **update:** Updates one PersonalCallback record in the database using the URL `https://<server>/unifiedconfig/config/personalcallback/<id>`.

Parameters

Parameters for create (single record), get, and update operations:

- **campaign:** A reference to a specific campaign, including the refURL and campaign ID.
- **agent:** A reference to a specific agent, including the refURL and agent ID.
- **campaignId:** Read only. The ID for the campaign.
- **peripheralId:** Read only. ID for the peripheral on which the agent would be available.
- **agentId:** Read only. ID of the agent to whom to connect the call.
- **campaignDn:** The Dialed Number (DN) to use if the original agent is not available.
- **phone:** Required. The phone number to call back. Can contain digits 0 to 9, pound sign (3), and asterisk (*). Maximum length of 20 bytes.
- **accountNumber:** The customer's account number. Internationalized characters are allowed. Maximum length of 30 bytes.
- **maxAttempts:** Required. The maximum number of times to attempt a call (decrements at each attempt). An attempt is the Dialer's attempt to reserve the agent and call the customer. Because the Dialer places multiple customer call attempts (such as busy, no answer), individual call attempts are not tracked here; only the result at the end of the callback time range. After this parameter is set to 0, no more attempts are made. Must be a positive integer value.
- **callbackDateTime:** Required. The time to attempt the customer callback is normalized to the logger GMT zone. For example, the Campaign Manager is in Boston and the customer is in California. The customer wants to be called back at 3 p.m. The time in this column is 6 p.m. The format for this parameter is yyyy-MM-ddTHH:mm:ss (for example, 2016-03-13T04:50:31).

The following rules apply to the callbackDateTime parameter:

- The callbackDateTime that is used is local to the time zone of the Logger. You need to consider this if the client machine on which you are using this API is in a different time zone than the Logger machine.
- The setting of the callbackDateTime by this API reads the CallbackDateTimeLimit in the registry. For more information, see the Registry Settings section of the *Outbound Option Guide for Unified Contact Center Enterprise* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-user-guide-list.html>.

- The Campaign Manager uses the `CallbackDateTimeLimit` registry value to select Personal Callback records to queue to the Dialer.
 - The default `CallbackDateTimeLimit` in the registry is 15 minutes. For create and update operations, you cannot set the `callbackDateTime` to 15 minutes or more before the current time. For example, if it is currently 4:00, you cannot set the `callbackDateTime` to 3:30.
 - For update operations, the new `callbackDateTime` value can only be set if the current `callbackDateTime` is 15 minutes or more after the current Logger time. For example, if the current Logger time is 4:00 and the current `callbackDateTime` is 4:30, the new `callbackDateTime` can be set to 4:10. However, if the current `callbackDateTime` is 4:10, it cannot be set to 4:00.
- `callStatus`: The status of the personal callback. Possible values include the following:
- active (A)
 - callbackRequested (B)
 - closed (C)
 - dialed (D)
 - agentRejected (J)
 - maxAttemptsReached (M)
 - pending (P)
 - retry (R)
 - personalCallbackRequested (S)
 - unknown (U)
 - agentNotAvailable (X)

For more information about these values, see the `CallStatusZone Values` section of the *Outbound Option Guide for Unified Contact Center Enterprise* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-user-guide-list.html>.

- `callResult`: Read only. Corresponds to the `CallResult` value in the `Dialer_Detail` table.
For more information about possible `callResult` values, see the `CallResult Codes and Values` section of the *Outbound Option Guide for Unified Contact Center Enterprise* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-user-guide-list.html>.
- `lastName`: The customer's last name. Internationalized characters are allowed. Maximum length of 50 characters.
- `firstName`: The customer's first name. Internationalized characters are allowed. Maximum length of 50 characters.

Bulk parameters:

- `fileContent`: Comma-separated or pipe-separated list of data embedded within a CDATA section.
- `overwriteData`: True or false. If set to true, the existing personal callback data in the database is overwritten by the new personal callback data. If set to false, the new personal callback data is appended to the existing data. Default is false.



Note You cannot modify or remove existing fields or append a new field to existing data.

If overwriteData is set to true, any agent scheduled personal callback records are also overwritten.



Note Avoid performing a bulk job transaction during a maintenance window.

- delimiter: Comma (,) or pipe (|). Default is comma (,).

Bulk fileContent parameters:



Note The descriptions for these parameters are the same as the descriptions for the parameters for create (single record), get, and update operations. Only the case is different.

- CampaignId (must be a valid campaign ID in the database)
- AgentSkillTargetId (must be a valid SkillTargetID in the database)
- CampaignDn
- Phone
- AccountNumber
- MaxAttempts
- CallbackDateTime
- LastName
- FirstName

Search and Sort Values

The following table shows the parameters that are searched and the parameters that are sortable.

Search parameters	Sort parameters
<ul style="list-style-type: none"> • agentId • accountNumber • firstName • lastName 	<ul style="list-style-type: none"> • agentId • accountNumber • firstName • lastName

See [Search](#) and [Sort](#).

Advanced search parameters

There are several advanced searches you can perform on the Personal Callback API, including agentId, accountNumber, firstName, and lastName. All search terms are case-insensitive.

- **agentId:<ID>** finds all personal callback records where the agent ID contains a specified ID. For example, **agentId:123** returns all records where the agent ID contains the string "123".
- **lastName:<name>** finds all personal callback records where the last name contains the specified name. For example, **lastName:smith** returns all records where the last name includes "smith".
- **firstName:<name>** finds all personal callback records where the firstName contains the specified name. For example, **firstName:John** returns all records where the first name includes "john".
- **accountNumber:<number>** finds all personal callback records where the accountNumber contains the specified number. For example, **accountNumber:456** returns all records where the account number includes "456".

Example Create Request (Single Record)

```
<personalCallback>
  <campaign>
    <refURL>/unifiedconfig/config/campaign/5000</refURL>
  </campaign>
  <agent>
    <refURL>/unifiedconfig/config/agent/5050</refURL>
  </agent>
  <campaignDn>222222</campaignDn>
  <phone>999333</phone>
  <accountNumber>23334343334</accountNumber>
  <maxAttempts>1</maxAttempts>
  <callbackDateTime>2016-01-15T11:37:00</callbackDateTime>
  <callStatus>pending</callStatus>
  <lastName>Kumar</lastName>
  <firstName>Akshaya</firstName>
</personalCallback>
```

Example Create Request (Bulk)

```
<personalCallback>
  <fileContent>
    <![CDATA[
      AccountNumber,FirstName,LastName,Phone,AgentSkillTargetId,CampaignId,CampaignDn,
      CallbackDateTime,MaxAttempts
      6782,Henry,Martin,2225554444,1004,5000,222222221,2016-01-25T05:12:00,1
      3444,Thomas,Edison,2225554555,1004,5000,222222222,2016-01-25T05:23:00,1
      5444,Tom,Hilfiger,2225554666,1004,5000,222222223,2016-01-25T05:37:00,1
    ]]>
  </fileContent>
</personalCallback>
```

Example Get (Record) Response

```
<personalCallback>
  <changeStamp>48</changeStamp>
  <refURL>/unifiedconfig/config/campaign/personalcallback/2</refURL>
  <campaign>
    <refURL>/unifiedconfig/config/campaign/5000</refURL>
  </campaign>
  <agent>
```

```

    <refURL>/unifiedconfig/config/agent/5050</refURL>
  </agent>
  <campaignId>5000</campaignId>
  <peripheralId>5000</peripheralId>
  <agentId>1001</agentId>
  <campaignDn>222222</campaignDn>
  <phone>999333</phone>
  <accountNumber>23334343334</accountNumber>
  <maxAttempts>1</maxAttempts>
  <callbackDateTime>2016-01-15T11:37:00</callbackDateTime>
  <callStatus>pending</callStatus>
  <callResult>0</callResult>
  <lastName>Kumar</lastName>
  <firstName>Akshaya</firstName>
</personalCallback>

```

Time Zone API

Use the Time Zone API to list all available time zones and to get time zone information for a specified zone. Time zone information is stored in the registry of the Windows operating system.



Important Microsoft periodically releases cumulative time zone updates. These updates include worldwide changes to time zone names, bias (the amount of time in minutes that a time zone is offset from Coordinated Universal Time (UTC)), and observance of daylight saving time. These patches update the information in the Windows registry. When these updates are available, apply them to all virtual machines in the deployment that are running a Microsoft Windows operating system.

Use this API with the Outbound Campaign API to set the default time zone for an Outbound Option campaign. An Outbound Option campaign uses the time zone when the location of the customer number being dialed is unknown.

This API is read-only.

URL

`https://<server>/unifiedconfig/config/timezone`

Operations

- **list**: Retrieves a list of available time zones. The list is sorted by UTC offset from the International Date Line from west to east.
- **get**: Returns information for a specific time zone using the URL `https://<server>/unifiedconfig/config/timezone/<id>`, where `<id>` is the URL-encoded version of the name parameter.

Response Parameters

- **name**: The name of the time zone.
- **displayName**: Specific bias and location information about the time zone, such as the offset from UTC and one or more places located within the time zone.

Example: “(UTC+5:30) Chennai, Kolkata, Mumbai, New Delhi”

- stdName: The time zone name during standard time.

Example: Malay Peninsula Standard Time

- dstName: The time zone name during daylight saving time.

Example: Malay Peninsula Daylight Time

- dstObserved: Indicates whether daylight saving time is observed for the time zone. True or false.
- bias: The current bias for local time translation on the server (in minutes). That is, the number of minutes to add to the local time to yield UTC.

Example Get Response

```
<timeZone>
  <refURL>
    /unifiedconfig/config/timezone/Pacific%20Standard%20Time%20%28Mexico%29
  </refURL>
  <name>Pacific Standard Time (Mexico)</name>
  <displayName>(UTC-08:00) Baja California</displayName>
  <stdName>Pacific Standard Time (Mexico)</stdName>
  <dstName>Pacific Daylight Time (Mexico)</dstName>
  <dstObserved>true</dstObserved>
  <bias>480</bias>
</timeZone>
```

