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Digital Channels Private Edition Guide

[Setting up Integration for Inbound and Outbound SMS](#)

Contents

- 1 Option 1: Set up Digital Channels to use Kaleyra SMS
 - 1.1 Prerequisites
 - 1.2 Create Digital Channels services definitions
 - 1.3 Adding sender IDs to Kaleyra
 - 1.4 Manage and provision sender IDs
- 2 Option 2: Set up Digital Channels to use a Custom Gateway
 - 2.1 Prerequisites
 - 2.2 Create Digital Channels services definitions
 - 2.3 Manage and provision sender IDs
 - 2.4 Add custom HTTP headers
- 3 Option 3: Set up Digital Channels to use Genesys Cloud CX SMS Aggregation
 - 3.1 Prerequisites
 - 3.2 Request a Genesys Cloud CX organization
 - 3.3 Create the Digital Channels integration in Genesys Cloud CX
 - 3.4 Create a Digital Channels API key for Genesys Cloud CX
 - 3.5 Create Digital Channels services definitions
 - 3.6 Manage provision sender IDs
- 4 Provision sender IDs in Digital Channels

- Administrator
- Developer

Learn how to enable SMS connectivity for inbound conversations and outbound campaigns.

Related documentation:

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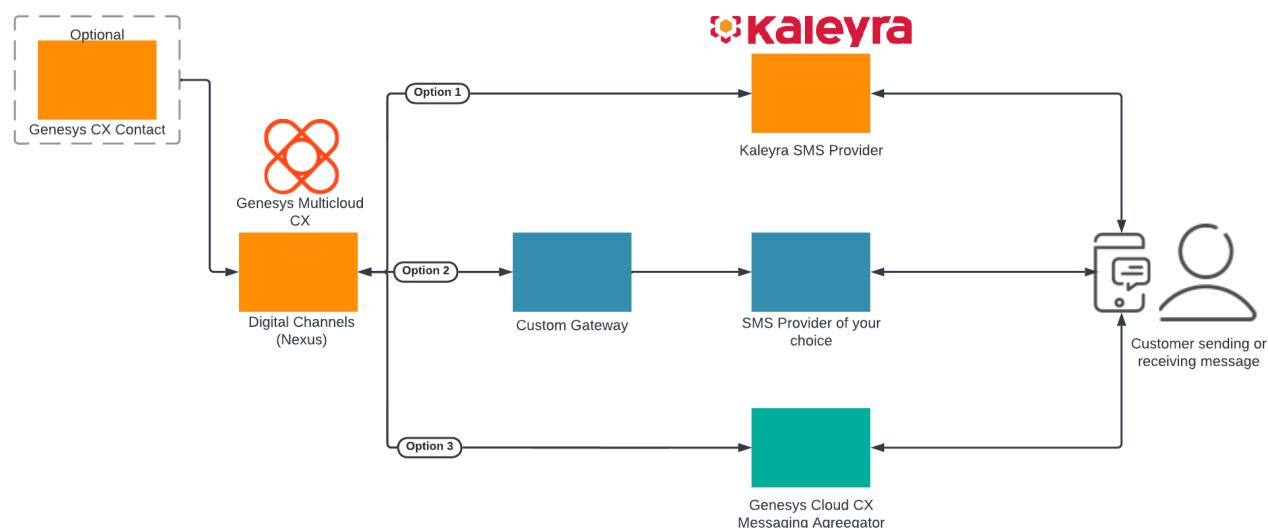
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- For private edition

Important

“Nexus” is the simplified name we use for the Digital Channels application and APIs, so you’ll see that name referenced in this document.

Genesys Multicloud CX supports SMS interactions using one of these three options: built-in connector to Kaleyra SMS text messaging service, a custom gateway built with a third-party messaging API, or a built-in connector to Genesys Cloud CX SMS aggregation service.



After completing the setup steps on this page, you will be able to:

- Receive SMS messages from your customers on your corporate short code or long code and allow a Designer application or agent to respond to them.

-
- Send SMS messages in your outbound campaigns through CX Contact.

To get started, complete the configuration steps for **one** of the following scenarios:

- Set up Digital Channels to use Kaleyra SMS OR
- Set up Digital Channels to use a Custom Gateway OR
- Set up Digital Channels to use Genesys Cloud CX SMS Aggregation

Option 1: Set up Digital Channels to use Kaleyra SMS

Complete the steps in this section to set up Digital Channels to use the built-in connector to Kaleyra.

1. Review the prerequisites table.
2. Use the Digital Channels provisioning API to create Digital Channels services definition.
3. Manage and provision sender IDs.

Prerequisites

Review the **Prerequisites** table and make sure you have all the listed information before you get started. The values in this table are referenced later by the name in the Variable column.

Prerequisites				
Parameter	Variable	Type	Example	Notes
Company's sender id	\$tfn	string	1650466114	The sender id can be a short code (5 digits) or a long code (10 digits).
Contact Center Id	\$ccid	UUID string	45acae06-6b7c-4f97-9c76-471c15e215f2	This value comes from your M2M2 Services and Applications deployment.
Digital Channels URL	\$baseUrl	string	http://digital.example.com	Publicly available URL for Digital Channels API
Kaleyra API URL	\$kaleyraURL	string	http://directtext.mgage.com	URL for Kaleyra SMS API.
Kaleyra user name	\$kaleyraUserName	string	Secret	The username for an account with permission to send SMS.
Kaleyra password	\$kaleyraPassword	string	Secret	The password for an account with permission to send SMS.

Create Digital Channels services definitions

Enable Digital Channels to use the built-in connector to Kaleyra SMS services (Kaleyra was formerly known as mGage). You must configure the following services in Digital Channels within your tenant:

- SMS - Enables SMS media for the tenant and selects Kaleyra as the default provider.
- mGageSMS - Integrates your Genesys Multicloud CX tenant to Kaleyra for SMS communication.

Important

Use a REST client or curl utility to provision the following services in Digital Channels using the provisioning API. Make sure to substitute the variables - prefixed with '\$' - with their values. Note: You must create these services once per tenant.

Create the **SMS** service:

```
curl -X POST \
$nexusURL/nexus/v3/provisioning/services/$ccid/SMS \
-H 'Content-Type: application/json' \
-H 'x-api-key: $apiKey' \
-H 'x-ccid: $ccid' \
-d '{
  "url" : "N/A",
  "data" : { "provider": "mGage" },
  "secret": {}
}'
```

Create the **mGageSMS** service:

```
curl -X POST \
$nexusURL/nexus/v3/provisioning/services/$ccid/mGageSMS \
-H 'Content-Type: application/json' \
-H 'x-api-key: $apiKey' \
-H 'x-ccid: $ccid' \
-d '{
  "url": "$kaleyraURL"
  "data": { },
  "secret": {
    "username": "$kaleyraUserName",
    "password": "$kaleyraPassword"
  }
}'
```

Adding sender IDs to Kaleyra

If you need to add a new short code or text-enabled phone number, contact your Genesys representative to complete this step.

Manage and provision sender IDs

Provision sender IDs in Digital Channels.

Option 2: Set up Digital Channels to use a Custom Gateway

Complete the steps in this section to set up Digital Channels to use a custom SMS gateway provider.

1. Review the prerequisites table.
2. Use the Digital Channels provisioning API to create Digital Channels services definitions.
3. Manage and provision sender IDs..

Prerequisites

Review the **Prerequisites** table and make sure you have all the listed information before you get started. The values in this table are referenced later by the name in the Variable column.

Prerequisites				
Parameter	Variable	Type	Example	Notes
Company's sender id	\$asyncPhoneNumber	string	16504661149	
Third-party Messaging Webhook URL	\$asyncWebhookURL	string	https://genesys-webhook.company.com	The FQDN of the third-party service implementing the Third-Party Messaging Webhook.
Third-Party Messaging API secret key	\$asyncAPISignatureKey	string	Secret	The key used by the third-party service to calculate the signature for calls to the Third-Party Messaging API.
Third-Party Messaging Webhook secret key	\$asyncWebhookSignatureKey	string	Secret	The key used by Digital Channels to calculate the signature for calls to the third-party service through the webhook.

Create Digital Channels services definitions

In this step, you will enable Digital Channels to use a custom gateway for the SMS provider of your choice. You must configure the following services in Digital Channels within your tenant:

- **Async** - Integrates the Genesys Multicloud CX tenant to the custom gateway used to communicate with the SMS provider of your choice.
- **SMS** - Enables SMS media for the tenant and selects the **Async** provider.

Important

Use a REST client or curl utility to provision the following services in Digital Channels using the provisioning API. Make sure to substitute the variables - prefixed with '\$' - with their values. You must create these services once per tenant.

Create the **Async** service:

```
curl -X POST \
$nexusURL/nexus/v3/provisioning/services/$ccid/Async \
-H 'Content-Type: application/json' \
-H 'x-api-key: $apiKey' \
-H 'x-ccid: $ccid' \
-d '{
  "data": {
    "channels": [
      {
        "channelId": "$asyncPhoneNumber",
        "webhook": { "url": "$asyncWebhookURL" }
      },
      {
        "channelId": "$asyncEmailDomain",
        "webhook": { "url": "$asyncWebhookURL" }
      }
    ],
    "secret": {
      "channels": [
        {
          "channelId": "$asyncPhoneNumber",
          "webhook": { "secret": "$asyncWebhookSignatureKey" },
          "api": { "secret": "$asyncAPISignatureKey" }
        },
        {
          "channelId": "$asyncEmailDomain",
          "webhook": { "secret": "$asyncWebhookSignatureKey" },
          "api": { "secret": "$asyncAPISignatureKey" }
        }
      ]
    }
  }
}'
```

Create the **SMS** service:

```
curl -X POST \
```

```
$nexusURL/nexus/v3/provisioning/services/$ccid/SMS \
-H 'Content-Type: application/json' \
-H 'x-api-key: $apiKey' \
-H 'x-ccid: $ccid' \
-d '{
  "url" : "N/A",
  "data" : { "provider": "Async" },
  "secret": {}
}'
```

Manage and provision sender IDs

If you need to register a new or an existing short code or a text-enabled phone number, contact your Genesys representative to complete this step.

Provision sender IDs in Digital Channels.

Important

An SMS must have a "provider" property equal to "Async" to use the Third-Party Messaging API implementation.

Add custom HTTP headers

You can add custom HTTP headers with static values to the webhooks sent by Digital Channels to the third-party messaging aggregator. On the transaction **NexusServices > [your async provider]**, add a property that starts with the "header:" prefix and set it to your static value. For example, header:custom-header-for-async-1 = 12345. The webhook from Digital Channels will include this property name and value in the header:

```
HTTP
custom-header-for-async-1: 12345
X-Hub-Signature:
X-B3-TraceId:
Content-Type: application/json

{
  "messages": [
    {
      ... RichMedia message ...
    }
  ]
}
```

Option 3: Set up Digital Channels to use Genesys Cloud CX SMS

Aggregation

Complete the steps in this section to set up Digital Channels to use Genesys Cloud CX SMS Aggregation as the SMS gateway.

1. Review the prerequisites table.
2. Contact your Genesys representative to create a Genesys Cloud CX organization and get administrator user credentials. Your Genesys representative also must add the Genesys SMS Aggregation product to your organization.
3. Create the Digital Channels integration in Genesys Cloud CX. This will give you a clientId and clientSecret to authenticate API calls with the Digital Channels provisioning API.
4. Create a Digital Channels API key for Genesys Cloud CX.
5. Use the Digital Channels provisioning API to create Digital Channels services definition.
6. Manage and provision sender IDs.

Prerequisites

Review the **Prerequisites** table and make sure you have all the listed information before you get started. The values in this table are referenced later by the name in the Variable column.

Prerequisites				
Parameter	Variable	Type	Example	Notes
GWS tenant Contact Center ID	\$ccid	UUID string	45acae06-6b7c-4f97-9c76-471c1f223b7f	This value comes from your Web Services and Applications deployment .
Nexus Provider	\$nexusProvider	string	Portico	<p>This option depends on the provider's value of the service.</p> <p>Supported values:</p> <ul style="list-style-type: none">- Portico- Async- mGage

Request a Genesys Cloud CX organization

Contact your Genesys representative to create a Genesys Cloud CX organization and get administrator user credentials. Your Genesys representative also must add the Genesys SMS Aggregation product to your organization.

Make sure your Genesys representative provides you with the details in the **Genesys Cloud CX information** table.

Genesys Cloud CX information				
Parameter	Variable	Type	Example	Notes
Genesys Cloud CX Organization ID	\$orgId	UUID string	47d8329d-1c28-4c86-9374-5596bddfe15	Your Genesys Cloud CX organization ID.

Parameter	Variable	Type	Example	Notes
Genesys Cloud CX Organization admin user credentials	\$orgUsername \$orgPassword	string	admin-user / admin-password	The username and password for an account with administrative permissions for this organization.
Genesys Cloud CX Login URL	\$gcLoginURL	HTTPS URL string	https://login.mypurecloud.com	Your Genesys Cloud CX login URL (depends on your organization region).
Genesys Cloud CX API URL	\$gcAPIURL	HTTPS URL string	https://api.mypurecloud.com	Your Genesys Cloud CX login URL (depends on your organization region).

Create the Digital Channels integration in Genesys Cloud CX

Complete the steps in this section as an administrator user in Genesys Cloud CX to create the integration client credentials that will be used by Digital Channels to access Genesys Cloud CX APIs to send and receive messages. You're going to create a new role, assign it to your admin user, and create the access credentials.

First, create the new role:

1. Navigate to \$gcLoginURL (for example, <https://login.mypurecloud.com>) and log in to Genesys Cloud CX with your \$orgUsername/\$orgPassword.
2. Go to **Admin**.
3. Under **People and Permissions**, click **Roles/Permissions**.
4. Click **Add Role** and give it a name. For example, Nexus Messaging.
5. Under **Permissions**, search for **messaging** and select **messaging > All Permissions** and **messagingProvisioning > All Permissions**. Save your changes.

Next, assign the role to your administrator user:

1. Click **Admin**.
2. Under **People and Permissions**, click **People**.
3. Search for your admin user.
4. Under **Roles**, switch the view to **All** and search for the name of your new role (Nexus Messaging). Click to enable the role and then save your changes.
5. Log out and log in again to enable the permissions.

Now create access credentials for the Digital Channels integration.

1. Click **Admin**.
2. Under **Integrations**, click **OAuth**.
3. Click **Add Client**.
4. Under **Client Details**, set **App Name** to Nexus Messaging Integration and select the Client Credentials **Grant Type**.
5. Click **Roles** and assign the Nexus Messaging role. Save your changes.
6. Go back to **Client Details** and copy the values for **clientId** and **clientSecret**.

As the output of this step, you will have the access credentials:

Parameter	Variable	Type	Example
Nexus Integration client ID	\$clientId	UUID string	4da40a9de-b113-4024-8ba9-c9dd89c91f67
Nexus Integration client secret	\$clientSecret	string	aKSXEgLO57cm6FqxD4hrjkcW-iuWiXhd0uF0WOcZUm2

Create a Digital Channels API key for Genesys Cloud CX

To create an API key that will be used by Genesys Cloud CX to send requests to Digital Channels, follow the steps in Provision API keys. Make sure to use the following parameters:

```
"tenant": "*"  
"name": "Portico Cluster API Key"  
"permissions" : ["nexus:cluster:"]
```

As an output of this step, you will have the API key:

Parameter	Variable	Type	Example
Messaging Cluster API Key	\$apikey	UUID string	9b7682b7-cbce-422f-9bbb-ecda85e61695

Create Digital Channels services definitions

Enable Digital Channels to use Genesys Cloud CX SMS Aggregation as the SMS provider. You must configure the following services in Digital Channels within your tenant:

- PurecloudIDP - Integrates the Genesys Multicloud CX tenant to the Genesys Cloud CX organization.
- SMS - Enables SMS media for the tenant and selects the provider.
- PorticoSMS - Enables the SMS service through Genesys Cloud CX.

Important

Use a REST client or curl utility to provision the following services in Digital Channels using the provisioning API. Make sure to substitute the variables - prefixed with '\$' - with their values. Note: You must create these services once per tenant.

Create the **PurecloudIDP** service:

```
curl -X POST \  
$nexusURL/nexus/v3/provisioning/services/$ccid/PurecloudIDP \  
-H 'Content-Type: application/json' \  
-H 'x-api-key: $apiKey' \  
-H 'x-ccid: $ccid' \  
-d '{  
  "url" : "$gcLoginURL",  
  "secret": {"clientId": "$clientId", "clientSecret": "$clientSecret"},  
  "data" : {}  
}'
```

Create the **SMS** service:

```
curl -X POST \  
$nexusURL/nexus/v3/provisioning/services/$ccid/SMS \  
-H 'Content-Type: application/json' \  
-H 'x-api-key: $apiKey' \  
-
```

```
-H 'x-ccid: $ccid' \
-d '{
  "url" : "N/A",
  "secret": {},
  "data" : {"tokenProvider": "Purecloud"}
}'
```

Create the **PorticoSMS** service:

```
curl -X POST \
$nexusURL/nexus/v3/provisioning/services/$ccid/PorticoSMS \
-H 'Content-Type: application/json' \
-H 'x-api-key: $apiKey' \
-H 'x-ccid: $ccid' \
-d '{
  "url" : "$gcAPIURL",
  "secret": {},
  "data": {}
}'
```

Manage provision sender IDs

You can purchase new SMS numbers or re-use your existing text-enabled numbers.

If you need to register an existing phone number or new short code, contact your Genesys representative to complete this step. Otherwise, follow the steps below to use the Genesys SMS Aggregation API from Genesys Cloud CX to purchase and register toll-free numbers from the pool of available numbers. **Note:** Each purchased number will incur additional costs to your account.

Retrieve the Genesys Cloud CX token

Any Genesys Cloud CX operation has to include a security token that remains valid for a configured amount of time. When the token expires, you must retrieve it again in order to send new requests.

To retrieve your token, use Basic Authentication where the username is **\$clientId** and the password is **\$clientSecret**.

```
curl -X POST \
$gcLoginURL/oauth/token \
-H 'Authorization: Basic YOUR_BASIC_AUTHENTICATION_SECRETS' \
-H 'Content-Type: application/x-www-form-urlencoded' \
-d 'grant_type=client_credentials'
```

The response contains:

- **access_token** - You must include this in all subsequent requests.
- **expires_in** - Indicates how long the token is valid.
- **token_type** - Indicates how this token needs to be included in subsequent requests (bearer token).

List purchased and registered numbers

Run the following command to list your purchased and registered numbers:

```
curl -X GET \
$gCAPIURL/api/v2/messaging/sms/provisioning/tollfreenumbers/ \
-H 'Authorization: Bearer $access_token'
```

Search for available toll free-number

To order a new number, first search for available numbers and then select one of the options.

```
curl -X GET \
$gCAPIURL/api/v2/messaging/sms/provisioning/tollfreenumbers/available \
-H 'Authorization: Bearer $access_token'
```

The response contains a few currently available numbers - choose the one you like. We'll use the variable **\$tfn** to represent this number.

Order a toll-free number number

When you send this request, use the **comment** and **emailAddress** fields to help Genesys Customer Care quickly identify the best contact person if there's an issue with the SMS service. For example, you can include your organization name in the **comment** field.

```
curl -X POST \
$gCAPIURL/api/v2/messaging/sms/provisioning/tollfreenumbers/ \
-H 'Authorization: Bearer $access_token' \
-H 'Content-Type: application/json' \
-d '[
{
  "tollfreeNumber": "$tfn",
  "comment": "Nexus Premise ACME Corp",
  "moUrl": "$nexusURL/nexus/v3/sms/message",
  "drUrl": "$nexusURL/nexus/v3/sms/receipt",
  "webhookUsername": "$ccid",
  "webhookPassword": "$GMAKey",
  "emailAddress": "sms.admin@acme.test.com"
}]'
```

Finally, provision your new numbers in Digital Channels.

Provision sender IDs in Digital Channels

Complete the following steps for each short code or text enabled toll-free number you want to use to send and receive SMS messages.

1. Log in to Designer and create an application to route SMS interactions. Create a chat endpoint and assign it to your application, making note of the name you use. We'll use the variable **\$designerEndpointName** to represent this value.
2. Log in to Platform Administration and go to **Environment > Transactions > NexusServices > Options**.
3. Create a section that starts with 'chat.' and includes some text that represents the purpose of number.

For example, `chat.SMS_Main_Corporate` or `chat.SMS_CustomerSupport`. Note: The 'chat.' prefix is required and the rest of the value can be made up of letters and underscore or dashes, but not spaces.

4. In this new section, create the following options:

- `channelId = $tfn`
- `channelType = sms`
- `endpoint = chat.$designerEndpointName`
- `interactionSubtype = SMS`
- `interactionType = Inbound`
- `media = chat`
- `cxcOnly = false`
Note: Set `cxcOnly` to **true** for CX Contact integrations. If **true**, incoming SMS messages are not processed as chat messages and are not delivered to an agent. The default value is **false**.
- `provider = $nexusProvider` (Default: Portico, if the value is missing)