

Real Time Marketing – Custom Channel

Dynamics 365 FastTrack
Architecture Insights

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Agenda

-
- Show how to setup Custom Channel to use in Real Time Marketing
 - Demo – WhatsApp via GraphAPI

What is Custom Channel in Real Time Marketing

In addition to real-time marketing's built-in channels (email, text messages, and push notifications), you can now create custom channels to use in journeys. Custom communication channels provide additional extensibility and personalized targeting when reaching out to your customers.

There are two ways to install a custom channel app:

1. Manually create and install the package. Learn more: [Manually add a custom channel](#).
2. Install the package through AppSource if the app is listed by your service provider.

What we will see the today's session.

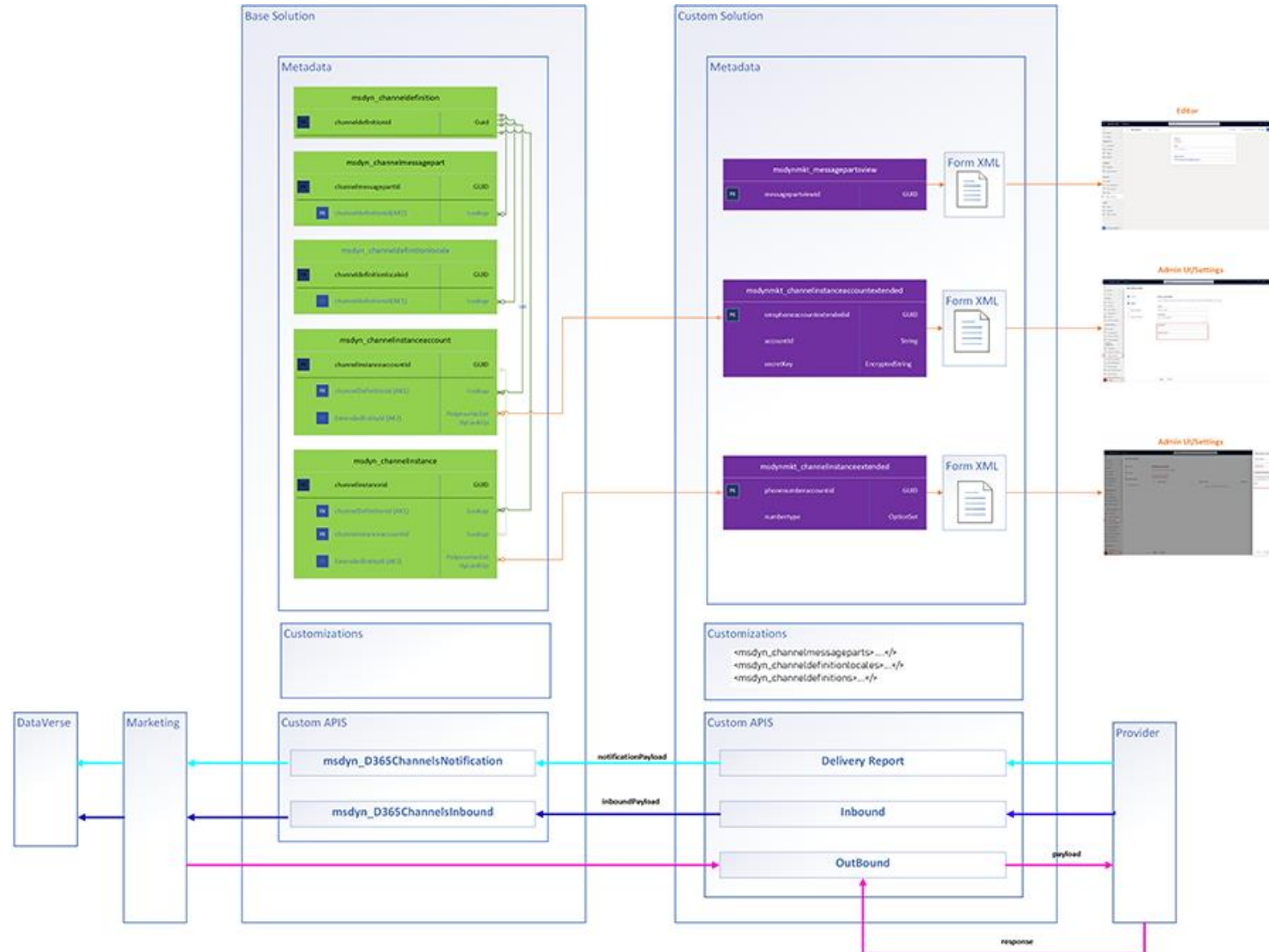
1. Configure prerequisites for WhatsApp
2. Update Code
3. Package and import solution
4. Test

Extra reading material

1. <https://learn.microsoft.com/en-us/dynamics365/marketing/real-time-marketing-extend-outreach-custom-channels?branch=pr-en-us-10926>
2. Download Sample Solution including plugin - <https://learn.microsoft.com/en-us/dynamics365/marketing/real-time-marketing-extend-outreach-custom-channels?branch=pr-en-us-10926#sample-solutions>

Overview of Custom Channel Solution

The overview diagram below shows main components of Marketing and custom channel solution, so as how they interact with each other:





Let start to create manual custom channel

Prerequisites Step 1

Create a WhatsApp Account using Graph API

1. Register as a Facebook Developer (<https://developers.facebook.com/docs/development/register>)
2. Open (<https://developers.facebook.com/async/registration/dialog>) Enable two-factor authentication for your account
3. <https://www.facebook.com/security/2fac/settings/>
4. Go to Security and login **settings**.
5. Scroll down to **Use two-factor authentication** and click **Edit**.

Prerequisites Step 2

Create a **Meta App**:

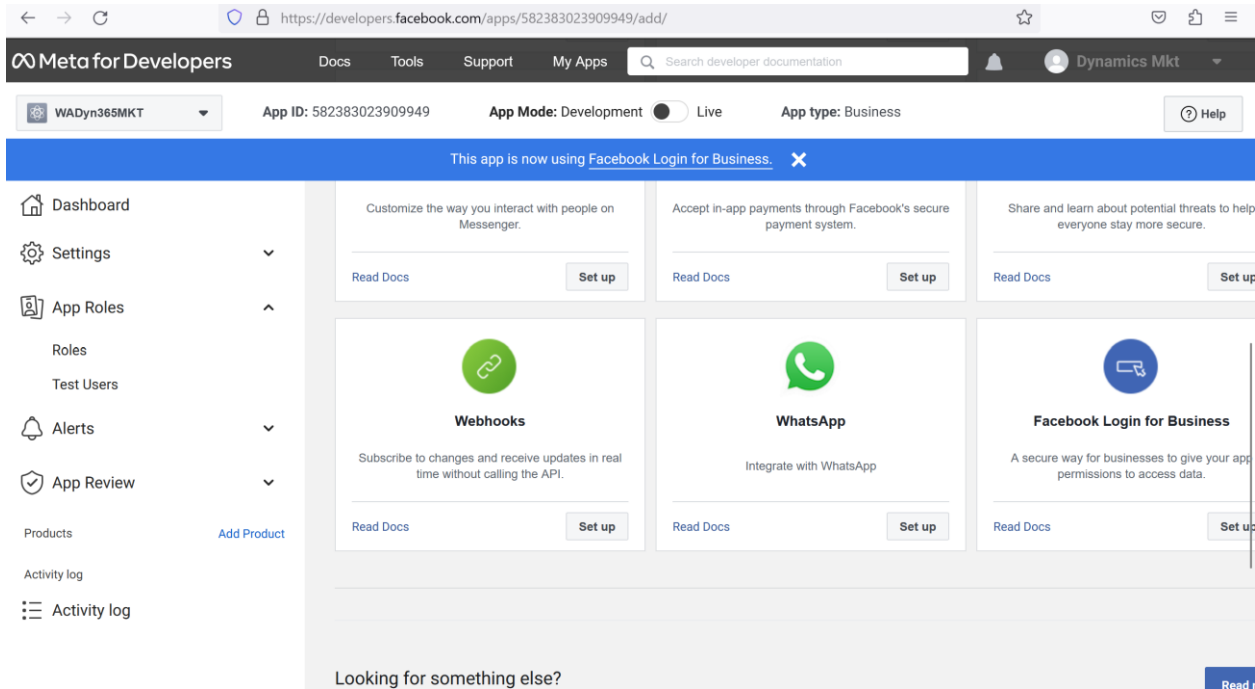
Try this:

1. Open **developers.facebook.com** > My Apps > Create App.
2. <https://developers.facebook.com/docs/development/create-an-app>
3. <https://developers.facebook.com/apps/>
4. Select the "**Business**" type and follow the prompts on your screen.

The screenshot shows the Meta for Developers dashboard for an app named WADyn365MKT. The top navigation bar includes the Meta logo, 'Meta for Developers', and links to 'App Dashboard', 'Docs', 'Tools', 'Support', and 'My Apps'. A search bar for developer documentation is also present. Below the navigation bar, the app's details are shown: 'WADyn365MKT', 'App ID: 582383023909949', 'App Mode: Development', 'Live' toggle, and 'App type: Business'. A blue banner indicates 'This app is now using Facebook Login for Business.' The left sidebar contains a 'Dashboard' link and a list of navigation items: 'Settings', 'App Roles', 'Alerts' (with a red notification badge), 'App Review', 'Products' (with an 'Add Product' link), 'Webhooks', 'WhatsApp', 'Activity log', and 'Activity log'. The main content area is titled 'Required actions' and contains a message: 'You don't have any required action items to display. If any of your apps need immediate attention in the future, an item will show here.' Below this, there are two panels: 'Application Rate Limit' and 'User Rate Limit'. The 'Application Rate Limit' panel shows the app's icon, name, and ID, along with a progress bar indicating '0% of limit used' and '100% Remaining'. The 'User Rate Limit' panel shows '0 Users throttled'. At the bottom, there is a section titled 'Add products to your app' with a message: 'We've streamlined the app creation process by surfacing the products and permissions needed to build the app type you selected.'

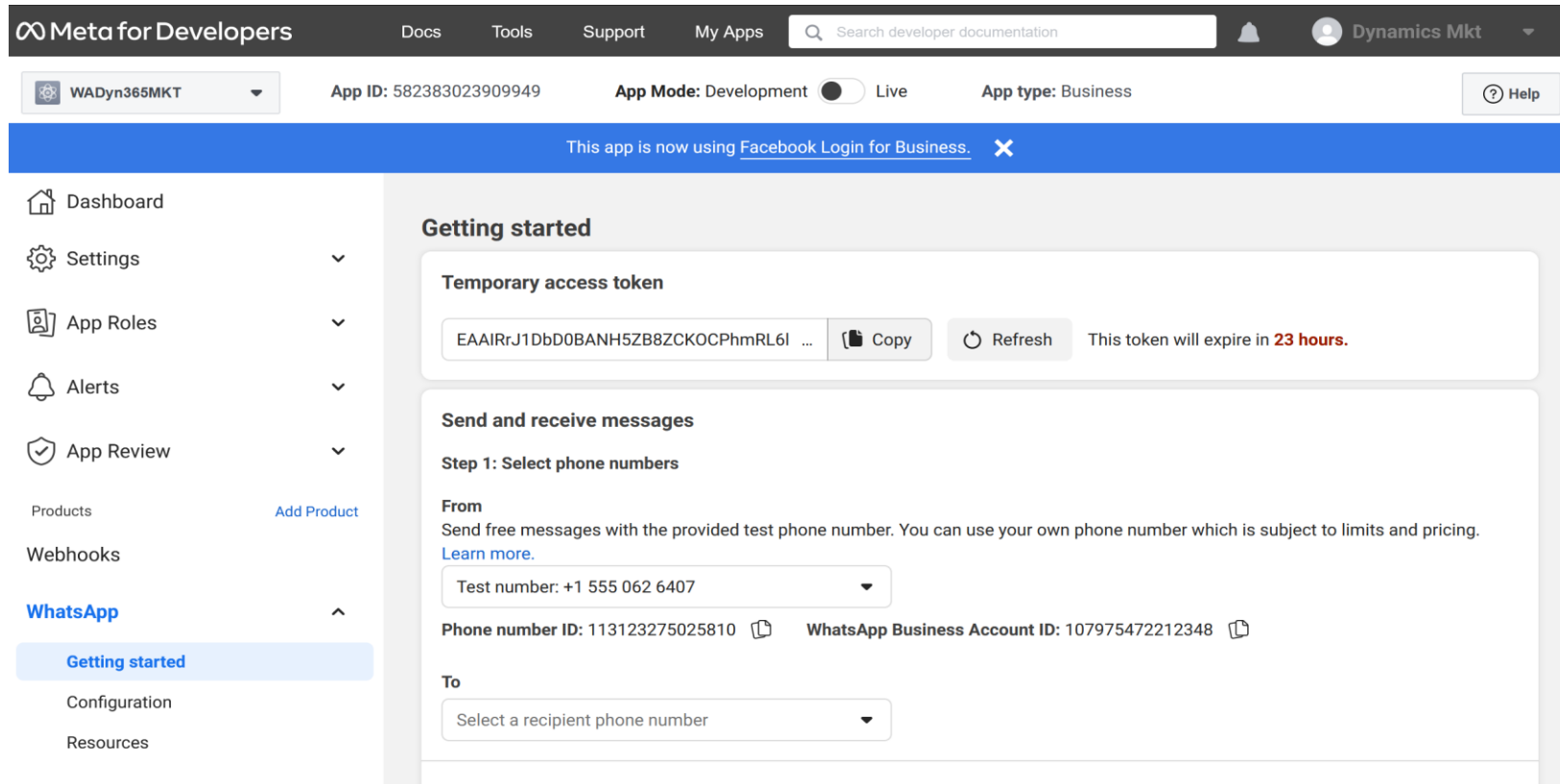
Prerequisites Step 3

Select “Integrate with WhatsApp”



Prerequisites Step 4

Select Getting Started and Check the Access token and phone number ID as Account ID



The screenshot displays the Meta for Developers dashboard for an application named 'WADyn365MKT'. The top navigation bar includes links for Docs, Tools, Support, and My Apps, along with a search bar and a user profile for 'Dynamics Mkt'. Below the navigation bar, the app's details are shown: App ID: 582383023909949, App Mode: Development (with a toggle to Live), and App type: Business. A blue banner indicates that the app is now using Facebook Login for Business. The left sidebar contains a menu with options like Dashboard, Settings, App Roles, Alerts, App Review, Products, Webhooks, and WhatsApp. The main content area is titled 'Getting started' and contains two sections. The first section, 'Temporary access token', shows a token 'EAAIRrJ1DbD0BANH5ZB8ZCKOCPhmRL6I ...' with buttons to Copy and Refresh, and a note that the token will expire in 23 hours. The second section, 'Send and receive messages', includes a step 'Step 1: Select phone numbers'. Under the 'From' section, it instructs to send free messages with a provided test phone number and provides a link to learn more. The test number is '+1 555 062 6407'. Below this, the 'Phone number ID' is '113123275025810' and the 'WhatsApp Business Account ID' is '107975472212348'. The 'To' section has a dropdown menu to select a recipient phone number.

Meta for Developers Docs Tools Support My Apps Search developer documentation Dynamics Mkt

WADyn365MKT App ID: 582383023909949 App Mode: Development Live App type: Business Help

This app is now using Facebook Login for Business.

Dashboard Settings App Roles Alerts App Review Products Add Product Webhooks WhatsApp Getting started Configuration Resources

Getting started

Temporary access token

EAAIRrJ1DbD0BANH5ZB8ZCKOCPhmRL6I ... Copy Refresh This token will expire in 23 hours.

Send and receive messages

Step 1: Select phone numbers

From
Send free messages with the provided test phone number. You can use your own phone number which is subject to limits and pricing. [Learn more.](#)

Test number: +1 555 062 6407

Phone number ID: 113123275025810 WhatsApp Business Account ID: 107975472212348

To
Select a recipient phone number



Steps 1- Code Update

Download Sample Solution from

[Manually add a custom channel \(Dynamics 365 Marketing\) | Microsoft Learn](#)

Sample solutions


The samples below include unpacked solutions for Dataverse and plugins projects. To pack and import these solutions, first build the plugin project. The project will then copy the assembly to the solution project. Then, pack the solution using the [Solution Packager tool](#).


- [SampleSmsChannel.zip](#) 
- [SampleCustomChannel.zip](#) 

Steps 2- Code Update

Extract SampleCustomChannel.zip post that will get below folder structure.

\SampleCustomChannel-2022.12\SampleCustomChannel

 SampleCustomChannel.Plugins

 SampleCustomChannel.Solution

Open Plugin solution.

- Update the OutboundPlugin.cs
- Update or replace function - SendTwilioRequest

Steps 3- Code Update

In demo code replace function SendTwilioRequest with SendWhatsAppRequest for send template message

```
private string SendWhatsappRequest(string accountid, string whatAppsToken, Payload payloadObject, ITracingService tracingService)
{
    //using Graph API
    HttpClient client = new HttpClient();
    client.BaseAddress = new Uri("https://graph.facebook.com/v16.0/" + accountid + "/messages");
    tracingService.Trace("client.BaseAddress....." + client.BaseAddress.ToString());
    client.DefaultRequestHeaders.Accept.Add(new MediaTypeWithQualityHeaderValue("application/json"));
    HttpRequestMessage request = new HttpRequestMessage();
    try
    {
        client.DefaultRequestHeaders.Authorization = new AuthenticationHeaderValue("Bearer", whatAppsToken);
        request.Headers.Add("Authorization", "Bearer " + whatAppsToken + "");
        if (payloadObject.To.ToString().StartsWith("+"))
        {
            payloadObject.To = payloadObject.To.ToString().Substring(1);
        }

        //Formating for request object, using template
        request.Content = new StringContent("{ \"messaging_product\": \"whatsapp\", \"to\": \"\" + payloadObject.To + \"\", \"type\": \"template\", \"template\": { \"name\": \"hello_world\", \"language\": { \"code\": \"en_US\" } } }", Encoding.UTF8, "application/json");

        //Formating for request object From RTM message
        request.Content = new StringContent("{ \"messaging_product\": \"whatsapp\", \"recipient_type\": \"individual\", \"to\": \"\"+payloadObject.To+\"\", \"type\": \"text\", \"text\": { \"preview_url\": false, \"body\": \"\"+payloadObject.Message[\"text\"]+\"\" } }", Encoding.UTF8, "application/json");
        HttpContent httpContent = request.Content;
        httpContent.Headers.ContentType = new MediaTypeHeaderValue("application/json");





        var response = client.PostAsync("", httpContent);
        tracingService.Trace("response....." + response.Status.ToString());
        // Status should always use hardcoded as Sent for all successful call for any custom channel, else it will give error on UI.
        return "Sent";
    }
    catch (Exception exception)
    {
        tracingService.Trace(exception.Message);
        return "Exception.." + exception.Message;
    }
}
```

Steps 4- Create Solution

Install Power Platform CLI

<https://learn.microsoft.com/en-us/power-platform/developer/cli/introduction#install-power-platform-cli-for-windows>

1. Download Microsoft Power Platform CLI- <https://aka.ms/PowerAppsCLI>
2. Open Windows power shell ISE
3. Go to **SampleCustomChannelfolder**
4. Run command "**pac solution pack --zipfile SampleCustomChannelSolution.zip -f SampleCustomChannel.Solution\unmanaged --packagetype Both**"
5. get **SampleCustomChannelSolution_managed** solution





<input type="checkbox"/>	Name	
	SampleCustomChannel.Plugins	
	SampleCustomChannel.Solution	
	SampleCustomChannelSolution	
	SampleCustomChannelSolution_managed	

Steps 5- Explain Solution Components

Install Power Platform CLI

<https://learn.microsoft.com/en-us/power-platform/developer/cli/introduction#install-power-platform-cli-for-windows>

1. Download Microsoft Power Platform CLI- <https://aka.ms/PowerAppsCLI>
2. Open Windows power shell ISE
3. Go to **SampleCustomChannelfolder**
4. Run command "**pac solution pack --zipfile SampleCustomChannelSolution.zip -f SampleCustomChannel.Solution\unmanaged --packagetype Both**"
5. get **SampleCustomChannelSolution_managed** solution

<input type="checkbox"/>	Name	
	SampleCustomChannel.Plugins	
	SampleCustomChannel.Solution	
	SampleCustomChannelSolution	
	SampleCustomChannelSolution_managed	

Test

In RTM

Steps for Test

What we will see the today's session as part of test

1. Create consent point (noted as a testing prerequisite).
2. Setup channel in settings.
3. Add channel in Real Time Marketing Custom channel.
4. Test send in RTM
5. Check the delivery report of test send.

Steps 6- Add Consent

Go to real-time marketing

Steps:

1. Go to Consent Center
2. Add consent

Create custom consent record ×

Choose an address from the record or fill in one by yourself.
If the address exist in different records in the system, please select which record request for that consent changes in next step as audit propose.

Select or fill in an address

Change consents

- ☐ Allow custom
- ☐ Allow tracking

Reason for changing

Who requested the change? (optional)

Save

Cancel

Steps 7- Configure Custom Channel

Import "SampleCustomChannelSolution_managed"

Steps:

- 1. Go to marketing app + settings
- 2. Open Custom channels- create channel
- 3. Fill the data
- 4. Save and test in RTM

Set up channel

Enter the details required to connect your channel to Dynamics 365 Marketing. [Learn more](#)

Name*

Description

Sender*

Account Id*

Auth Token*

WhatsApp - Saved

Channel Instance · Channel Instance ▾

Channel Settings Related ▾

Basics

Name	*	WhatsApp
Description		WhatsApp
Sender	*	15550626407
🔒 Channel	*	Sample custom channel

<https://learn.microsoft.com/en-us/dynamics365/marketing/real-time-marketing-create-custom-channels?source=recommendations>

Steps 8- Add Message

Go to real-time marketing

Steps:

1. Go to Consent Center
2. Add consent

Create custom consent record ×

Choose an address from the record or fill in one by yourself.
If the address exist in different records in the system, please select which record request for that consent changes in next step as audit propose.

Select or fill in an address

Change consents

- ☐ Allow custom
- ☐ Allow tracking

Reason for changing

Who requested the change? (optional)

Save

Cancel

Steps 9- Send message

Go to real-time marketing

Steps:

1. Go to **More channels**
2. Add new message
3. Select Channel
4. Test it before using inside journey.

Select a channel



Select a channel to create a message for. [Learn more](#)

Channel

WhatsApp

Select

Cancel

Marketing

Search

Message 1 • Ready to send - Saved

Channel
WhatsApp

Text*
test msg

Test send

Check content
Test send
Refresh
Check Access
Assign
Run Report

Delivery funnel

Sent
1 (100%)

Delivered
0 (0%)

Thank you