

Outgoing Webhooks – Lab Guide

Purpose

Use the baseline features to allow integrations with 3rd party systems that are triggered from NetForum when a record is added or updated. This enables real-time integration with little to no code using IPaaS.

Estimated Time

30-45 minutes

Requirements

- Attendees are required to bring their own laptop to follow the hands-on exercises.
- WIFI – You need an internet connection.
- Access to a NetForum training site.
 - Site URL: <https://train06.netforument.com/nftstrain2017/iWeb>
 - Username: student + Student ID + “_train”.
 - Example: student01_train
 - Password: Abila4u

Tips

- To ensure each student has its own setup many of records you create must follow a strict naming convention. We recommend you follow the recommend names and replace the student ID with the number given to you.
- To help with sorting use your student ID with two digits, i.e. “01” instead of “1”.
- Keep this document open and copy and paste as needed.

Tasks

Task 1: Create a message definition


When a webhook fires a message pertaining to the created or updated object will be created as a payload. This message will be sent to the webhook subscribers. The message format is normally in a pre-agreed format. For this example, we will create a simple JSON of individual data using SQL.

Main area: Admin/ Integration / Integrations/ Webhook Message

Step	Action	Result
1	Goto Admin/ Integration/ Integrations	The system shows the integrations profile form.
2	Click + on the Webhook Messages	The Add Webhook Message form shows up.
3	Fill-in the form: Message ID: IndividualData + Your student ID. For example: IndividualData-01. Objec Key: Individual	A webhook message created in the database.

	<p>Data Format: JSON</p> <p>Description: Optional – put your name or something meaningful.</p> <p>Message Generator: SQL</p> <p>Message SQL:</p> <pre> SELECT ind_cst_key, ind_first_name, ind_last_name, adr_line1, adr_line2, adr_city, adr_state, adr_post_code, adr_country, email = cst_eml_address_dn, phone = cst_phn_number_complete_dn FROM co_individual with(nolock) JOIN co_customer with (nolock) ON cst_key = ind_cst_key JOIN co_customer_x_address with(nolock) on cst_cxa_key = cxa_key JOIN co_address with(nolock) on cst_cxa_key = cxa_key WHERE ind_cst_key = {ind_cst_key} FOR JSON AUTO; </pre> <p>Click Save</p>	
--	---	--

Sample screen:

OutboundMessageHeader


Message Id:
IndividualData99

Object Key:
Individual

Data Format:
JSON

Description:
Student 99: Please use a different message ID based on your student ID.

Message Generator:
SQL

Message Sql:
SELECT ind_cst_key, ind_first_name, ind_last_name, adr_line1, adr_line2, adr_city, adr_state, adr_post_code, adr_country, email = cst_eml_address_dn, phone = cst_phn_number_complete_dn FROM co_individual with(nolock) JOIN co_customer with (nolock) ON cst_key = ind_cst_key JOIN co_customer_x_address with(nolock) on cst_cxa_key = cxa_key JOIN co_address with(nolock) on cst_cxa_key = cxa_key WHERE ind_cst_key = {ind_cst_key} FOR JSON AUTO;

Task 2: Define webhook subscribers

Normally, you work with a 3rd party app or vendor to define where the payload will be sent to. In this example, we will be using a webhook testing web site to send the payload and inspect the results.

Step	Action	Result
1	Navigate to Admin/ Integration/ Integrations. Click the + to add Outgoing Webhooks. Fill-in the form: Name: WebhookSub + Student ID. For example: WebhookSub-01.	A webhook subscriber initial metadata added. Note: The subscriber information is not yet fully defined. We will complete in the next step.
2	Find the Outgoing Webhook record you just created and click Go To	The Outgoing Webhook profile form is displayed.
3	Update the Integration Settings as described below: Object: Individual Action: Insert Message Type: The message type you created above. Example: IndividualData-01. URL: We need a destination URL. So, keep the profile as is. Go the next step to get the U: IndividualData + Your student ID	Some integration settings of the webhook subscription defined,
4	Setup a testing URL by navigating to this URL in a separate tab. Do not close this tab! https://webhook-test.com/ A webhook testing URL is automatically generated. Copy the URL you will need it to complete the next steps. Go the NetForum screen and paste the URL in the value section for the URL setting.	
4	Enter any value for the Secret Key and description. We won't be using those.	Webhook integration settings are now fully defined.
5	Click the Edit button to update the Integration itself. Check the Active flag.	Integration is now marked as active.







Note: Though the webhook integration is now active, there are no workflows to trigger the integration. We will do that in the next step.

Sample screen:

Integration Profile

Name: WebhookSub-99
Type: PublishWebhookEvent
Active? Yes

Edit

Integration Settings		
	Name	Value
	Object	Individual
	Action	Insert
	URL	https://webhook-test.com/9c5206786d10fd81ef9b5f26f229fb68
	MessageType	IndividualData-99
	SecretKey	NotUsed
	Description	Student 99 Webhook

Task 3: Create a workflow trigger

Workflows are key to real-time integrations. They trigger one or more actions when a record is inserted or updated. A workflow can have multiple task types. In this lab, we create a workflow with only one task. The task is therefore marked as “Start” and “Stop”.

Workflow can be marked as “sync” (they are part of the insert/update thread) or async which they run separately after the insert/ update is completed. In this lab, we use Async workflows.

Step	Action	Result
1	Navigate to Toolkit/ Workflow	Add workflow rule form is displayed.
2	Fill-in the form as follows: Active: Unchecked Rule name: IndividualWorkflow + Student ID. Example: Workflow-01. Object: Individual Trigger on Insert: Checked Trigger on Update: Checked Trigger Async: Checked Order: Your student ID, Example: 1 Click Save.	A workflow rule is created.

	<p>Workflow Rule</p> <p>Rule Name: IndividualWorkflow-99</p> <p>Object: Individual</p> <p>Data Object:</p> <p>Data Object Control:</p> <p>Value To Trigger Rule:</p> <p>Trigger On New Value?: No</p> <p>Trigger On Old Value?: No</p> <p>Trigger On Insert?: Yes</p> <p>Trigger On Update?: Yes</p> <p>Trigger On Delete?: No</p> <p>Trigger On Async?: Yes</p> <p>Active?: Yes</p> <p>Order: 99</p>	
3	<p>A workflow consists of one or more activities called Tasks. In this step we add a workflow task to send a message to your webhook subscriber.</p> <p>Click the + sign on the Workflow Task.</p>	Add workflow task displayed
4	<p>Fill-in the form as following.</p> <p>Task Name: WebhookSendTask + Student ID.</p> <p>Example: WebhookSendTask-01</p> <p>Type: Program Code</p> <p>Start Task: Checked</p> <p>End Task: Checked</p> <p>Under the Program Code Workflow:</p> <p>Assembly: netForumIntegrationPublishObject</p>	A workflow task added to the workflow rule

	<p>Object type name: netForumIntegrationPublishObject.WorkflowHandler</p> <p>Method to execute: WorkflowTaskHandler</p> <p>Method Parameters: FacadeObject:f;Operation:o;string:WebhookSub-01 (Replace 01 with your ID)</p> <p>Program Code Workflow</p> <p>object assembly: netForumIntegrationPublishObject</p> <p>object type name: netForumIntegrationPublishObject.WorkflowHandler</p> <p>method to execute: WorkflowTaskHandler</p> <p>method parameters: FacadeObject:f;Operation:o;string:WebhookSub-01</p> <p>Click Save</p>	
5	<p>Activate the workflow Rule:</p> <p>Edit the workflow and set the “Active” flag to checked.</p>	A workflow is now active.

Task 5: Clear cache

Step	Action	Result
1	<p>Admin/ Overview/ Clear cache</p> <p>Click OK to confirm</p>	Cached metadata is now cleared, and new metadata will be fetched from the database.

Task 6: Verify

At this point, your webhook is now ready the message to your endpoint. Remember, adding a new individual fires any active workflow setup for the Individual object. As a result, other people action could trigger your workflow.

Step	Action	Result
1	Check your workflow test listener which was open on the other tab.	You may or may not see any log.
2	<p>Add a new Individual Record: CRM/ Individual/ Add Individual.</p> <p>Fill-in the work and save.</p>	
3	Switch to the webhook testing tab. You should be able to see a new post from NetForum:	A message is posted to the external system.

