

LAB 7 - AUTHENTICATE MOBILE USERS USING TWILIO

OVERVIEW

This document will show you how to setup Twilio in your forms and use it for phone verification. We will use this function as part of the Expense Report process upon form submission.

BEFORE YOU START

- This lab assumes that you already have deployed a working version of the Expense Report. If not, please follow the **Expense Report Deployment Guide.doc**.

CREATE YOUR OWN TWILIO ACCOUNT

- Go to Twilio website: <https://www.twilio.com/>
- Click on the **Get a free API key** to sign up.



- Fill out the form to create your own account.

Sign up for free

Kervi	Alfajara
Company Name (optional)	
kervi.alfajara@qdabra.com	
.....	
WHICH PRODUCT DO YOU PLAN TO USE FIRST?	
Please select	
WHAT ARE YOU BUILDING?	
Please select	
CHOOSE YOUR LANGUAGE	
Please select	
POTENTIAL MONTHLY INTERACTIONS (OVER SMS, CHAT, VOICE, & VIDEO)	
Please select	

- Twilio will ask for your phone number and go through the verification process.

We need to verify you're a human

Please enter the verification code we sent to your phone. If you didn't receive a code, you can [try again](#)

- Give your project a name.

Give Your Project a Name

You can make changes later if you need to.

PROJECT NAME

- Next, you will need to have a Twilio phone number. Choose **Get a number**.

Build with Programmable SMS

[You have a Trial Account](#) >

First let's get a Twilio phone number

In order to make calls or send messages through the Twilio API, you need to get a Twilio phone number.

- Twilio will suggest one for you. Click **Choose this Number** if you're happy with the number generated.

Your first Twilio Phone Number

(412) 444-7593

Don't like this one? [Search for a different number](#)

This United States phone number has the following capabilities:

Voice: This number can receive incoming calls and make outgoing calls.

SMS: This number can send and receive text messages to and from mobile numbers.

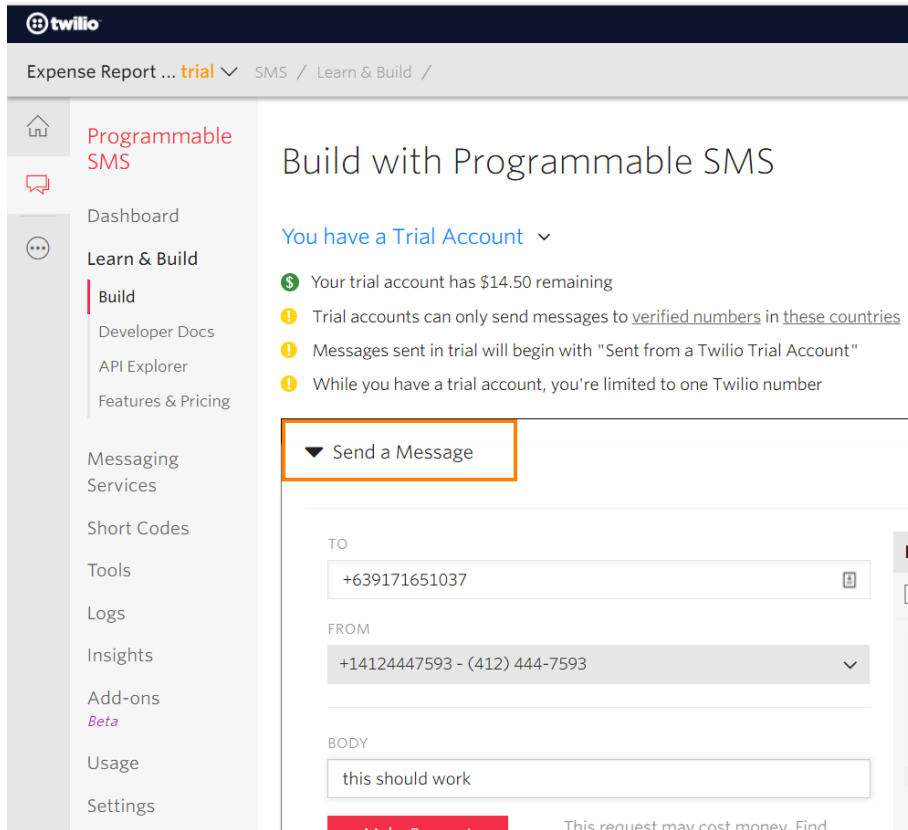
MMS: This number can send and receive multi media messages to and from mobile numbers.

Congratulations!

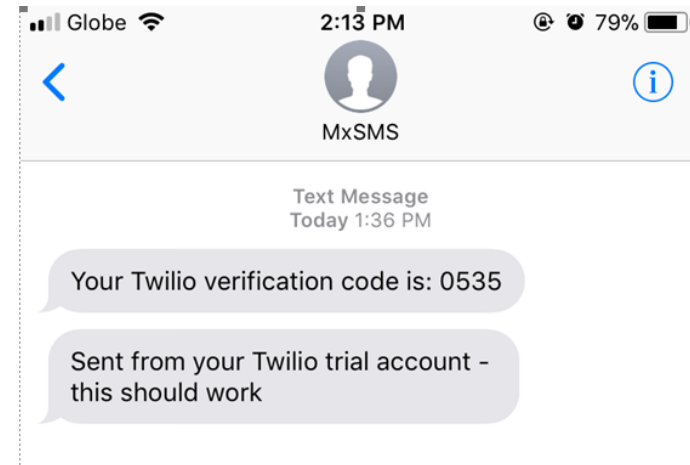
Your new Phone Number is **+14124447593**

For help building your Twilio application, check out the resources on the getting started page. Once you've built your application, you can configure this phone number to send and receive calls and messages.

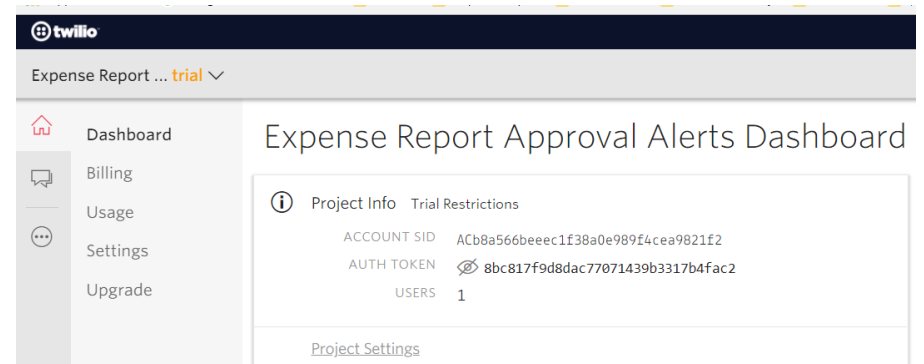
8. To test if you can send a message using Twilio click on **Send a Message** under **Learn & Build**. Add a message inside the **Body** field and click **Make Request**.



The screenshot shows the Twilio console interface. On the left, a sidebar contains navigation links: Home, Programmable SMS, Dashboard, Learn & Build, Build, Developer Docs, API Explorer, Features & Pricing, Messaging Services, Short Codes, Tools, Logs, Insights, Add-ons (Beta), Usage, and Settings. The main content area is titled 'Build with Programmable SMS' and includes a 'You have a Trial Account' section with three informational items. Below this, a 'Send a Message' button is highlighted with an orange box. The form below the button has the following fields: 'TO' with the value '+639171651037', 'FROM' with the value '+14124447593 - (412) 444-7593', and 'BODY' with the value 'this should work'. A red 'Make Request' button is at the bottom, with a warning text 'This request may cost money. Find' partially visible.



9. Go to **Dashboard** and take note of your **Account SID** and **Auth Token**. We will be using these for the next steps.



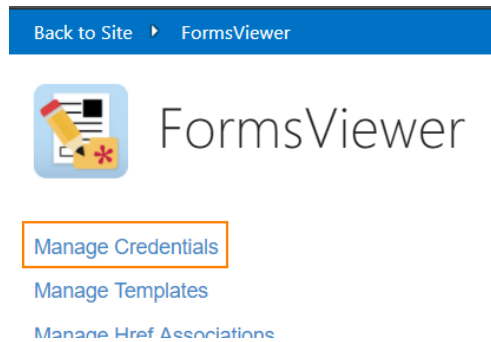
The screenshot shows the Twilio console interface with the 'Expense Report Approval Alerts Dashboard' selected. The sidebar on the left includes links: Home, Dashboard, Billing, Usage, Settings, and Upgrade. The main content area is titled 'Expense Report Approval Alerts Dashboard' and contains a table with project information. The table has two sections: 'Project Info' and 'Trial Restrictions'. The 'Project Info' section lists 'ACCOUNT SID' as 'ACb8a566beec1f38a0e989f4cea9821f2' and 'AUTH TOKEN' as '8bc817f9d8dac77071439b3317b4fac2'. The 'Trial Restrictions' section lists 'USERS' as '1'. A 'Project Settings' link is at the bottom.

Project Info		Trial Restrictions	
ACCOUNT SID	ACb8a566beec1f38a0e989f4cea9821f2		
AUTH TOKEN	8bc817f9d8dac77071439b3317b4fac2		
		USERS	1

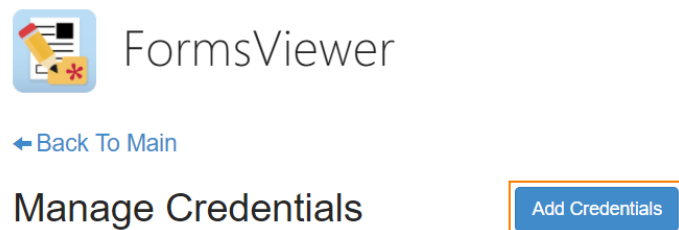
You should receive a message in our phone containing the text you entered in Twilio.

SETUP TWILIO CREDENTIALS IN FORMSVIEWER

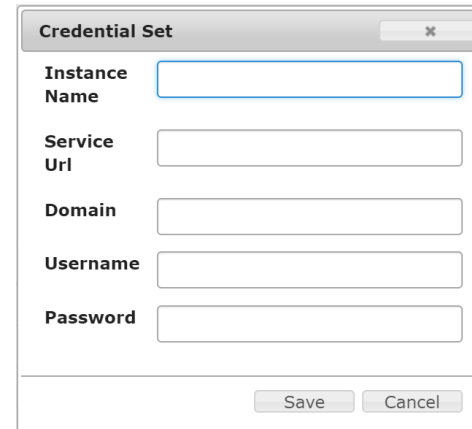
1. In the FormsViewer app, click Manage Credentials.



2. Click **Add Credentials**.



3. Provide the following information:



Instance Name: Twilio

Service Url: https://api.twilio.com/2010-04-01/

Domain: [Leave this blank]

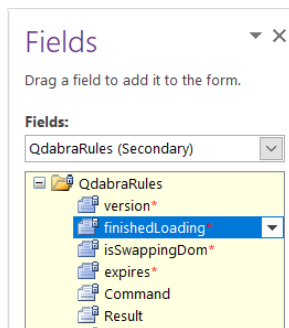
Username: [Your Twilio Account SID]

Password: [Your Twilio Auth Token]

4. Click **Save**.

UPDATE THE INFOPATH FORM

1. Open the **Twilio Integration – Start.xsn** provided in the Lab 7 folder.
2. Once form is open in InfoPath Designer, click on **Manage Rules**.
3. Navigate to **QdabraRules** data source > **finishedLoading**.



4. Change the following actions under **Set config value** rule. Replace the highlighted texts with your SharePoint site URL, Twilio Account SID, and Twilio Phone Number.

Rules

Set config value
Fix up data connections
Query Resources
Set Current User
Run On Load
Check if opened from link (GetInputParamter)
Check if Submitted
Set Parameters (Approved from Link)
Check if approver
Not Approver
Run Approve
Run Reject
Run Paid

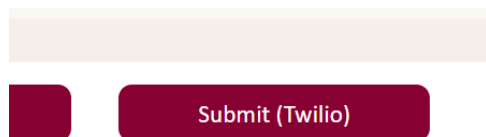
 New ▼

Details for:
Set config value
Condition:
None - Rule runs when field changes
Rule type:
Action
Run these actions: *
Set a field's value: SiteUrl = "YourSiteURL"
Set a field's value: TwilioAccountId = "YourTwilioAccountSID"
Set a field's value: TwilioPhoneNumber = "YourTwilioPhoneNumber"
☐ Don't run remaining rules if the condition of this rule is met

5. Save the xsn file and upload to FormsViewer.

TEST YOUR FORM!

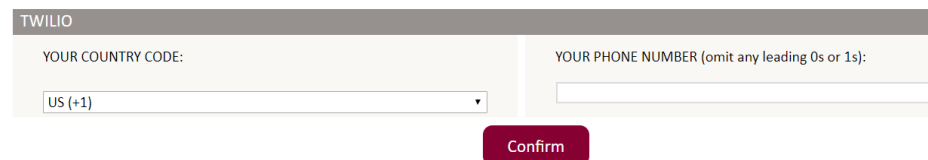
1. Once xsn is uploaded in FormsViewer, open the form and fill out the required fields. Then click **Submit (Twilio)**.



A screenshot showing a light beige rectangular area above a dark red button labeled "Submit (Twilio)".

After submitting, a new section will appear at the bottom part of the form.

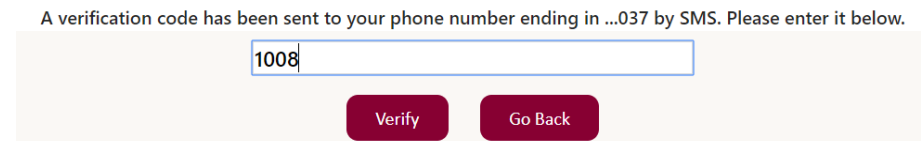
2. Provide your country code and mobile phone number. Once done, click **Confirm**.



A screenshot of a Twilio verification form. It has a header "TWILIO" in a grey bar. Below, there are two input fields: "YOUR COUNTRY CODE:" with a dropdown menu showing "US (+1)", and "YOUR PHONE NUMBER (omit any leading 0s or 1s):" with a text input field. A dark red "Confirm" button is at the bottom.

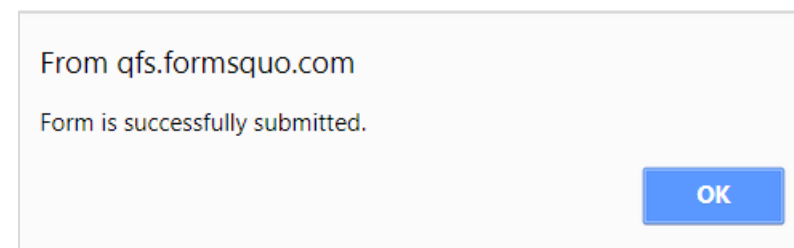
3. You will now receive a verification code in your phone.

4. Once you receive the code, enter it in the text field provided. Then click **Verify**.



A screenshot of a verification screen. It says "A verification code has been sent to your phone number ending in ...037 by SMS. Please enter it below." Below this is a text input field containing "1008". At the bottom are two dark red buttons: "Verify" and "Go Back".

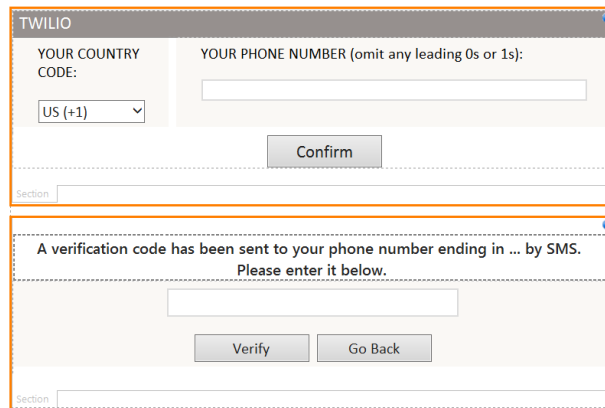
5. Expense report will now be submitted to your library/lists.



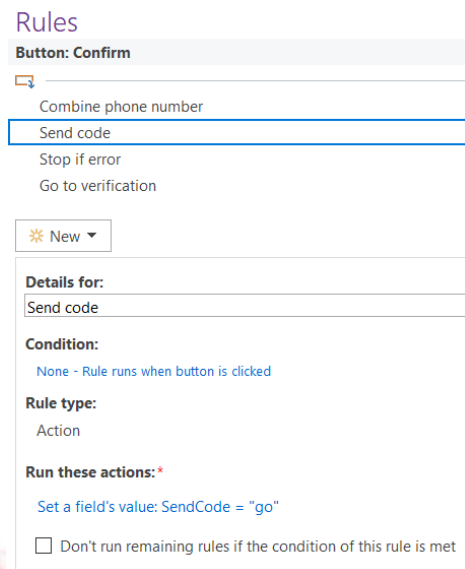
A screenshot of a confirmation message box. It says "From qfs.formsquo.com" and "Form is successfully submitted." There is a blue "OK" button in the bottom right corner.

WHAT'S NEW IN THE FORM?

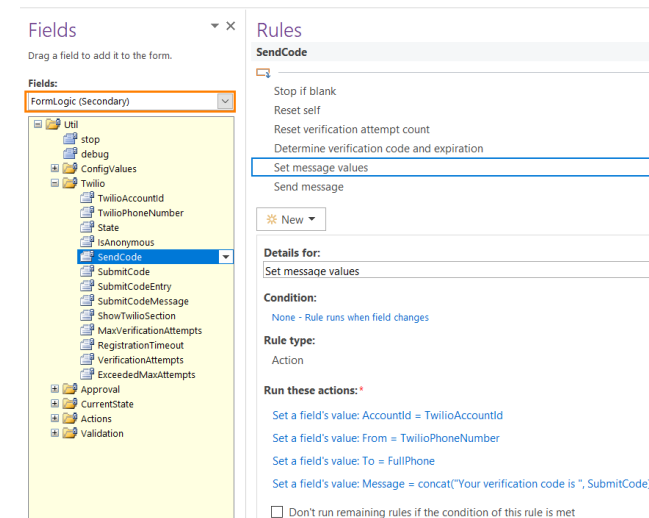
Two sections are added in the form, one for entering the mobile number to which the code will be sent, second is for code verification.



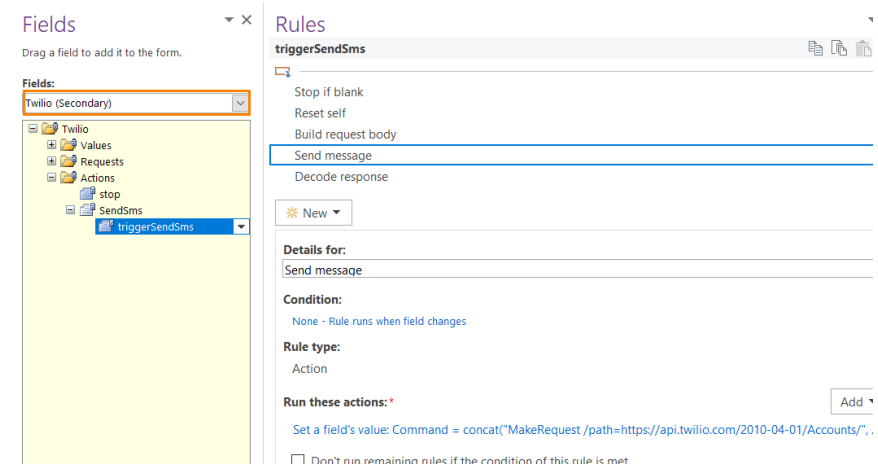
With the **Confirm** button, a rule is added to place the SendCode = "go" action.



In the SendCode section, the verification code will be generated. Twilio account number and user's phone number is placed. This will trigger sending the SMS message.



A secondary source named as **Twilio** is added. Here we have the triggerSendSms which contains the action to make request to Twilio to send the code to the specified phone number using the user's Twilio account.



Once submitter enters the code correctly and click the **Verify** button, it will then run some validations (check if code is correct) and will trigger the Submit action to start.

Rules

Button: Verify

Code blank

Code expired

Check for attempts exceeded

Attempts exceeded

Code mismatch

Submit

New

Details for:
Submit

Condition:
None - Rule runs when button is clicked

Rule type:
Action

Run these actions:*
Set a field's value: Submit = "go"
Show dialog box message: Form is successfully submitted.

☐ Don't run remaining rules if the condition of this rule is met

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