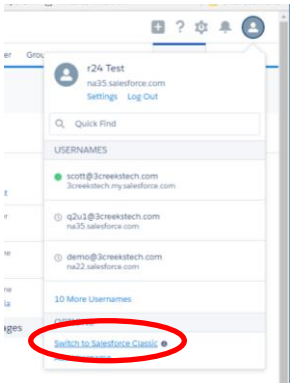
3 Creeks Technologies

QMan SMS Hero

QMan SMS Conversations	QMan Text 2 Case	QMan SMS Auth Codes	QMan SMS Notifications

This configuration guide is intended to be used by Salesforce System Administrators to configure QMan SMS Hero and assumes that you have already installed the QMan package from the Salesforce AppExchange. If you have not installed the package yet, please see the *QMan SMS Hero Installation Guide,* downloadable from the QMan AppExchange page, for instructions.

Salesforce Lightning Experience users should note that not all Salesforce Setup functionality described here may be available in the Lightning interface. To complete all of the configuration steps, you may need to switch to the Salesforce Classic interface at times. To switch to Salesforce classic, click the user icon in the upper right-hand corner of the Salesforce screen and select "Switch to Salesforce Classic".



End-user documentation describing the features and functionality for specific tools are available via the icon for the following QMan Apps:

- QMan Text 2 Case
- QMan SMS Conversations

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Preparing Salesforce for the QMan Text Messaging Engine

All of the QMan text messaging tools use a common underlying text messaging engine that is installed with the QMan package and communicates with the Twilio messaging platform. The steps in this section will need to be completed to get your Salesforce org ready for sending and receiving text messages. *Note: If you are planning to use even one of the QMan tools, you will need to complete all of the steps in this section*.

Creating a Twilio Account

QMan utilizes Twilio.com to send and receive text messages. Twilio is a cloud-based communication platform that is widely used and has a simple pay-per-message pricing model. If your company does not already have a Twilio account, now is a good time to create one. Go to www.Twilio.com and click the *Sign Up* link in the upper right-hand corner. When you are creating your account, remember that any references to the acronyms SMS or MMS just means text messaging. SMS messages are plain text messages and MMS are text messages that include attachments such as pictures.

Speaking of MMS, QMan Text 2 Case handles MMS messages with attached pictures and media (US and Canada. For any other country, please email info@3creekstech.com). If you are not already familiar with it, now would be a time to review Twilio pricing for SMS and MMS messages. For those details, see the Twilio pricing page.

Once you have created your account, stay logged in to the Twilio portal for now. As you go through the below instructions you will be using information in Salesforce to configure your Twilio account and using information in your Twilio account to configure Salesforce.

Twilio trail accounts

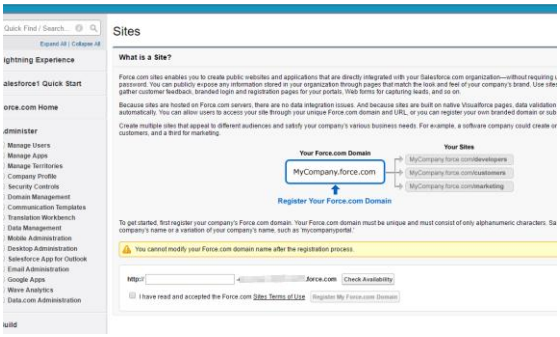
If you are installing QMan for a trial period, you can also create a free trial Twilio account. For full information about Twilio trial accounts read the information on the Twilio site, but it will have a couple differences from a paid account. First, Twilio will require you to register a phone number that you will be using to send and receive texts from during the trial period. This will be the only phone number you can use to send and receive text messages while your Twilio account is in trial mode. Second, any text message sent through a trial Twilio account will have the words “Sent from my trial Twilio account” prepended to the message. They will walk you through all of this when you create the account.

Once you upgrade to a paid Twilio account, you can keep your same Twilio phone number, will be able to send and receive text message from any text message capable phone, and you will not need to make any changes to the Salesforce or QMan configurations you performed here.

Create a Salesforce Site

When your customers send a text message to your QMan install, the message will be coming into it via a text message inbox that was installed with the QMan package. QMan uses a Salesforce Site to implement the inbox. When you create a Salesforce site you are making a publicly available web site, but it is a highly specialized public web site that only accepts and processes connections for your Twilio account from Twilio messaging services. Use the below steps to implement the QMan messaging inbox.

1. Type "Sites" in the Quick Find box. If you do not already have a Salesforce Site, you will see the following screen that you will use to create a Salesforce Site domain for your company. The first thing that you will need to do is come up domain name. Before you do, be sure to read the yellow information box below.

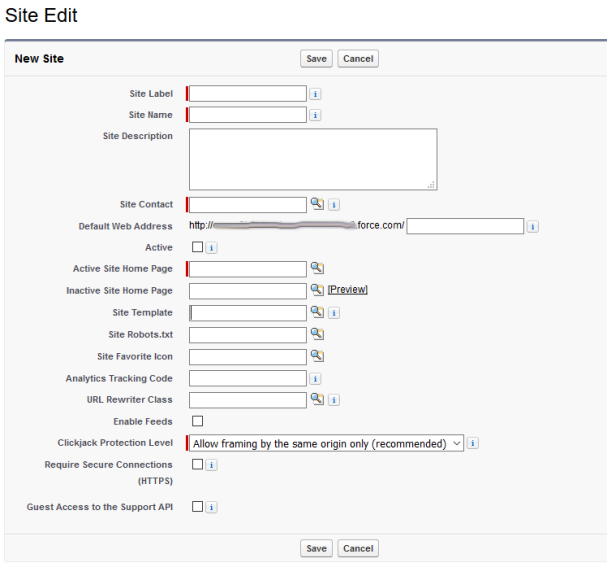


Make your domain name generic!

Since this will be a domain that your company will use for this and all future Salesforce sites, it is recommended that the domain name that you choose is generic to your company. For instance, if your company name is Acme Widgets, a good domain name would be acme-widgets. ***Do not create a domain name specific to QMan!***

Once you have determined a good name for your domain, click the *Check Availability* button to see if that domain name is already in use (it must be unique across all Salesforce users worldwide). If it is already in use, try some variations until you find an available domain name. Once you have found an available name, click the "*I have read and accepted…"* checkbox and click the *Register My Force.com Domain* button.

2. On the next screen, click the *New* button. The following screen will be displayed:



3. On this screen we will specify the details for the text message inbox. Use the below table to fill in the required fields:

Site Label	Copy and paste the following label into this field: **TxtMsgInbox**
Site Name	Copy and paste the following name into this field: **TxtMsgInbox**
Default Web Address	The first part of the web address defaults to the domain you created. In the box, specify a value that will make the full web address unique within your Salesforce org. For example: msgs
Active	Check the checkbox to expose this site to the Internet
Active Site Home Page	Click the magnifying icon and type "TxtMsgInbox" in the search box. This is the inbox that came with the QMan package that will receive incoming text messages. When the TxtMsgInbox search result is shown, click on it to select it.
Clickjack Protection Level	Keep the recommended default value here, "Allow faming by the same origin only".
Require Secure Connections (HTTPS)	Check the checkbox so that all incoming message come in via a secure connect

4. Click the *Save* button to save your site configuration.

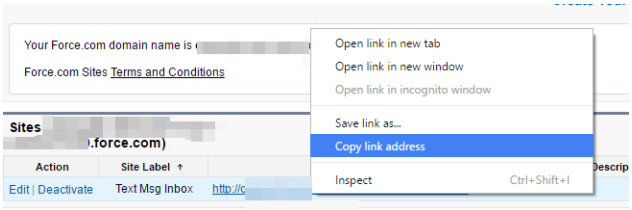
Connecting Twilio to your Salesforce Site

We are now going to configure your Twilio account to forward messages to your Site's inbox we just created when your Twilio phone number receives a text message. We will do this by letting Twilio know what the URL is for the text message inbox.

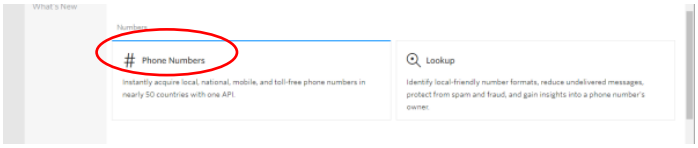
1. Now go back to the Sites page by typing Sites in the Setup Quick find box.

Note: There are two similar looking Site screens in Salesforce, so be sure that you are on the correct screen for this step. The correct screen will simply say "Sites" at the top. If you are on a screen that says "Site Details TxtMsgInbox" at the top, you are on the wrong screen and will need to navigate back one screen before you copy the URL.

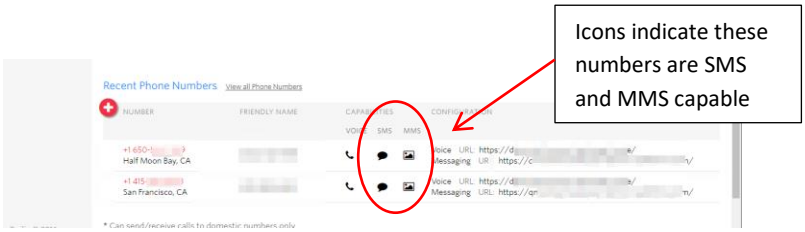
Place your mouse over the message inbox URL shown in the *Site URL* column. In most browsers, if you right click your mouse, a pop up menu will allow you to copy the link address. Copy the link address to your clipboard.



2. Go back to the home page of your Twilio account and scroll down to the Phone Numbers link and click on it:

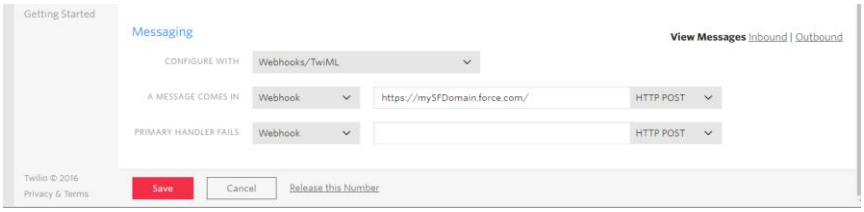


Scroll down until you see the phone number or phone numbers that are associated with your account.



Be sure that your phone number is showing SMS and MMS under the capabilities heading. If it does not, then you will need to either get another phone number that does or talk to Twilio support.

Click on your phone number and, on the next page, paste the URL that you copied to your clipboard into the space next to the "A MESSAGE COMES IN" label under the Messaging section:



Keep the default values for all other fields and click save. If you have multiple numbers that you will be using for either QMan Text 2 Case or QMan SMS Conversations, you will need to follow this step for each number.

Granting access privileges to the site user

After completing all of the steps in the above section, you should now be on the Site Detail page with the following buttons along the top of the page:

Click the *Public Access Settings* button to go to the Profile Overview page and click the *Assigned Users* button (the button may also be called *View Users* depending on your Salesforce config). Under the Full Name column of the list you will see a user name that will look something like "Site Guest User, TxtMsgInbox". All Salesforce Sites have a Salesforce user associated with them, including the site that you just created in the steps above. For the text message inbox, the user will be a "Guest" user that will have access to a limited number of Salesforce objects. We will be granting access rights to the Objects this guest user will need access to now.

The first set of access rights we will assign are contained in a Permission Set that was installed with the QMan package. Follow these steps to implement the permission set:

1. Click on the Site guest user name that is showing under the *Full Name* column
2. You should be on the site guest user detail page. Scroll down to the Permission Set Assignments related list, click the *Edit Assignments* button, select "QMan TxtMsgInbox User Permissions" listed in the *Available Permission Sets* box, click the *Add* button to add it to the *Enabled Permission Sets* box and click *Save*.

You should now be back on the site guest user detail page. Click the profile shown in the *Profile* field (the profile name should be listed as "TxtMsgInbox Profile") for the guest user to get to the profile detail page. Depending on your Salesforce configuration, do one of the following:

- Click the *Object Settings* link located about half way down the page.

- Or -

- Click the *Edit* button and scroll down to the Standard Object Permissions and Custom Object Permissions section.

Use the table below to set the remaining object permissions for the text message inbox guest user.

Object Name	Read	Create	Edit
Cases (under *Standard Object Permissions* section)	✓	✓	
Text2CaseMedia (under *Custom Object Permissions* section)	✓	✓	✓

Once all of the above permissions are selected, click the *Save* button

Understanding case ownership and Salesforce data access

Go back to the Profile Overview page and click the *Assigned Users* button (the button may also be called *View Users* depending on your Salesforce config). Under the Full Name column you will see a user name. This is the user name that:

- QMan Text 2 Case code will be "running as" when messages come in to the message inbox.
- Will be shown in the *Created By* field for cases created from Text 2 Case.
- Unless specified otherwise (see the C*onfigure Messaging Accounts and Phone Numbers* section later in this document), will be the initial owner of any case that is created from a Text 2 Case message.
- Will be the user data access permissions set used when Text 2 Case messages come in and Text 2 Case message responses are sent back.

Keep the above information in mind as you go through these configuration steps and be sure to review the boxes titled Case updates and Salesforce sharing settings and Case status requests and Salesforce sharing settings in the Text 2 Case Settings section later in this document to understand how case ownership and sharing settings impact Text 2 Case functionality.

Configure Salesforce Named Credentials

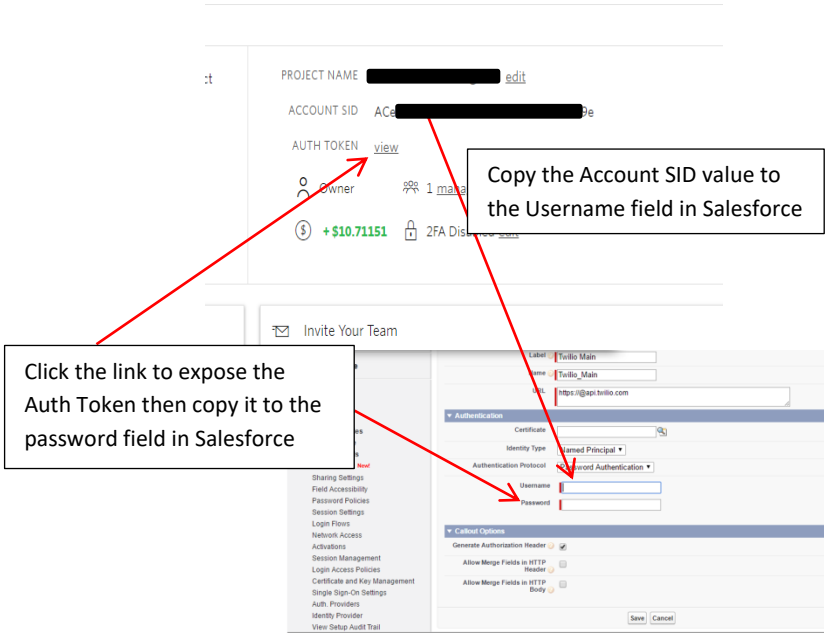
When QMan sends messages through your Twilio account on behalf of your users, it will need to authenticate with Twilio. This is done automatically for you by QMan via Salesforce Named Credentials. Name Credentials is the Salesforce mechanism for securely storing user and password information for remote sites such as Twilio.

If you are not there now, navigate back to your home page in the Twilio portal. You will need information on this page in the steps below.

To complete the configuration of your Named Credentials entry:

1. In the Salesforce Set Up quick find box, type "Named Credentials" , click the link that comes up, then click *the New Named Credentials button*, and use the table below to create the named credentials entry.

Label	Input something descriptive like **TwilioDefault**
Name	Defaults to what was input for label
URL	Copy and paste the URL: **https://@api.twilio.com**
Identity Type	Select **Named Prinipal**
Authentication Protocol	Select **Password Authentication** Once you select Password Authentication, the username and password fields will appear.
Username	Copy and paste the value from the *Account SID* field on the Twilio console dashboard into this field. See the image below for more info. *NOTE: There are a number of different SIDs shown in your Twilio portal, but the one that you want here is the Account SID. It will start with the letters "AC" and is displayed on the Home page of the Console Dashboard.*
Password	On the Twilio portal, click on the *View* link next to the Auth Token label to expose your Auth Token and then copy it to the *Password* field in Salesforce. See the image below.
Generate Authorization Header	Keep this selected



2. Click the *Save* button on the Salesforce Named Credentials screen.

Named credentials and multiple Twilio accounts

QMan gives you the ability to use multiple Twilio accounts for sending and receiving text messages. You may want to use more than one Twilio account if different groups within your company are responsible for their own messaging expenses.

If you are going to use more than one Twilio account, you will need to configure a different Named Credentials entry for each account you will use. Each entry will have the Account SID and password specific to the Twilio account and a unique name. Other than that, the other information in each entry (URL, Identity Type, etc) will be the same as the QMan created named credential entry.

You will see instructions a little later in this document on how to assign a set of named

Later in this document you will be walked through how to associate each named credentials entry to a Salesforce profile. This will enable different users to send messages via the Twilio account associated with their profile.

Setting Up QMan SMS Conversations

This section will walk you through the steps that are specific to setting up and using QMan SMS Conversation. QMan SMS Conversation can be associated with nearly any Salesforce standard or custom object. Before completing this section, be sure that you have first completed all of the steps in the "Enabling QMan Text Messaging in Salesforce".

Creating and Adding a SMS Conversation Button to Page Layouts

Once you have determined which Salesforce screens your users will be having sms conversations from, you will need to add a button to those screens that will allow your users to initiate a conversation.

Note that if you are going to be initiating sms conversations from a Salesforce Case or Service Console screen, you can follow the steps in this section to add a button to the case screen. However, it is highly recommended that you instead follow the steps to implement the message media widget in the "Setting Up QMan Text 2 Case" section instead. The message media widget has enhanced functionality specifically designed for case screens.

QMan SMS Conversations and QMan Text 2 Case go hand-in-hand

As stated before, you can use SMS Conversations on its own, however it is highly recommended to have some processes in place for handling unsolicited incoming text messages.

There will be times when a text message comes in during off-hours or when users are not already engaged in a SMS conversation with the phone number associated the incoming message. In these scenarios, since that incoming message's phone number is not already engaged in an SMS conversation, the QMan text messaging engine automatically hands the text message off to QMan Text 2 Case and a Salesforce case is created containing all of the information from the text message. This ensures that the communication is not lost even when users are not actively monitoring a conversation.

When a case is created because of this process, you can use standard Salesforce tools (such as Process Builder or workflows) to notify your users that a new text message was received and they can then take appropriate action such as contacting the sender via QMan SMS Conversations.

Follow the below steps to add a SMS Conversation button to a Salesforce standard or custom object screen.

1. For a Salesforce standard object, type "Buttons" in the set up Quick Find box and select the *Buttons, Links,…* link under the object that the button will be added to. Or, for a custom object, type "Objects" in the Quick Find box, click on the Objects link, select the custom object in the list and scroll down to the Buttons, Links, and Actions section.
2. Click the "New Button or Link" button and add a label that makes sense to your users such as "SMS Conversation". The button name will default to the button label that was indicated.
3. Select "Detail Page Button" from the radio buttons, then "Execute JavaScript" from the Behavior drop down, and "OnClick JavaScript" from the Content Source drop down.
4. Next, copy and paste the code from the below box into the formula box on the screen:

```
window.open('/apex/SMSConversation?id={![OBJECT].Id}', 'QMan SMS Conversation','height=860,width=550,resizable=yes,scrollbars=yes,toolbar=no,status=yes')
```

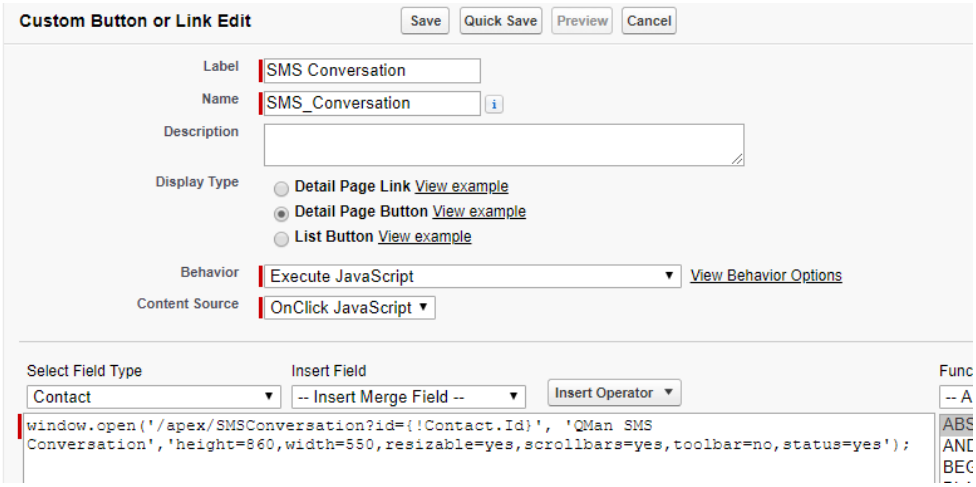
Be sure that you copy and paste all of the above code starting from window and ending with the close parenthesis after yes'.

5. Now insert the Object name that you are creating the button for into the code that you just pasted into the formula. Notice the [OBJECT] highlighted in the box above, replace all of the characters highlighted in yellow with the object name. For a custom object, the object name will end with __c. When inserted correctly the object name should be surrounded by a {! and the .Id}

   Below are working examples of the code for some common Salesforce standard objects. If you are creating a button for one of these standard objects, all you need to do is copy the appropriate code below and you will be set. The last row is an example of what a custom object would look like.

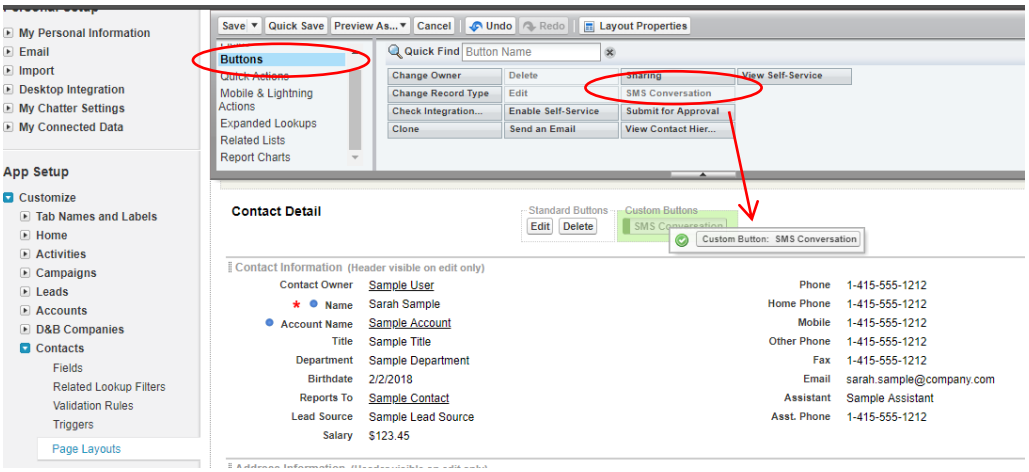
Standard object: Account	window.open('/apex/SMSConversation?id={!Account.Id}', 'QMan SMS Conversation','height=860,width=550,resizable=yes,scrollbars=yes,toolbar=no,status=yes');
Standard object: Contact	window.open('/apex/SMSConversation?id={!Contact.Id}', 'QMan SMS Conversation','height=860,width=550,resizable=yes,scrollbars=yes,toolbar=no,status=yes');
Standard object: Opportunity	window.open('/apex/SMSConversation?id={!Opportunity.Id}', 'QMan SMS Conversation','height=860,width=550,resizable=yes,scrollbars=yes,toolbar=no,status=yes');
Custom object: Lead	window.open('/apex/SMSConversation?id={!Lead.Id}', 'QMan SMS Conversation','height=860,width=550,resizable=yes,scrollbars=yes,toolbar=no,status=yes');
Custom object: My_Object__c	window.open('/apex/SMSConversation?id={!My_Object__c.Id}', 'QMan SMS Conversation','height=860,width=550,resizable=yes,scrollbars=yes,toolbar=no,status=yes');

Here is what the SMS Conversation button set up screen will look like for the Contact object:



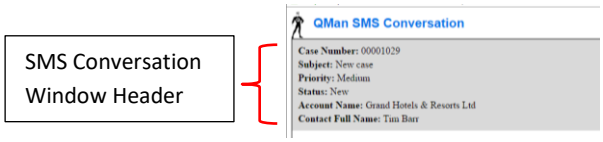
Click the Save button to save your new button.

6. The next step is to add the button you just created to the page layouts so that it shows on the screen for the user. Find the Page Layouts screen for the same Salesforce object that you created the button for. For a standard object; Set up -> Customize -> [object name] -> Page Layouts. For a custom object; Set up -> Create -> Objects, click on the custom object name and scroll down to the Page Layouts section.
7. For each page layout that should have the button on it, click Edit and then on the next screen click “Buttons” in the upper left-hand corner of the screen, find the SMS conversation button that you created and drag and drop it down onto the screen layout. As you drag the button down the page, a green check mark will appear when you drag it over a section of the page that can accept a button. Once you have dropped the button on the page, click the save button in the upper left hand corner of the screen to save the update to the page layout.



Create SMS Conversation Window Headers

When your users initiate a SMS Conversation, a window will pop up with detail information at the top about the Salesforce record that the conversation is about. The top portion of the SMS Conversation window containing this detail information and is called the SMS Conversation window header.

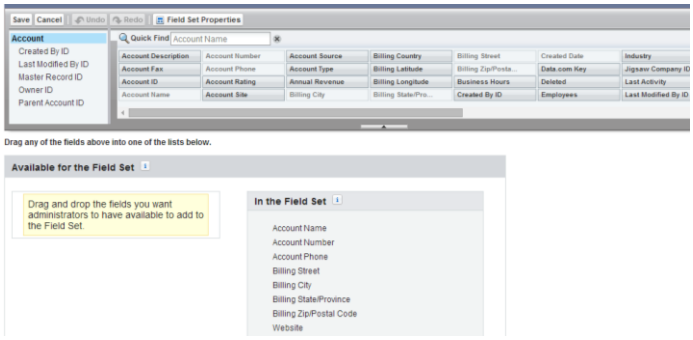


Salesforce *field sets* are used to hold the information that is displayed in the header. You can create a different SMS Conversation header field set for each object that you will be starting SMS conversations from. This allows you to specify different fields for each header in order to make the header as relevant as possible to the object. To define a SMS Conversation header, follow the steps below for each object that sms conversations will be taking place from.

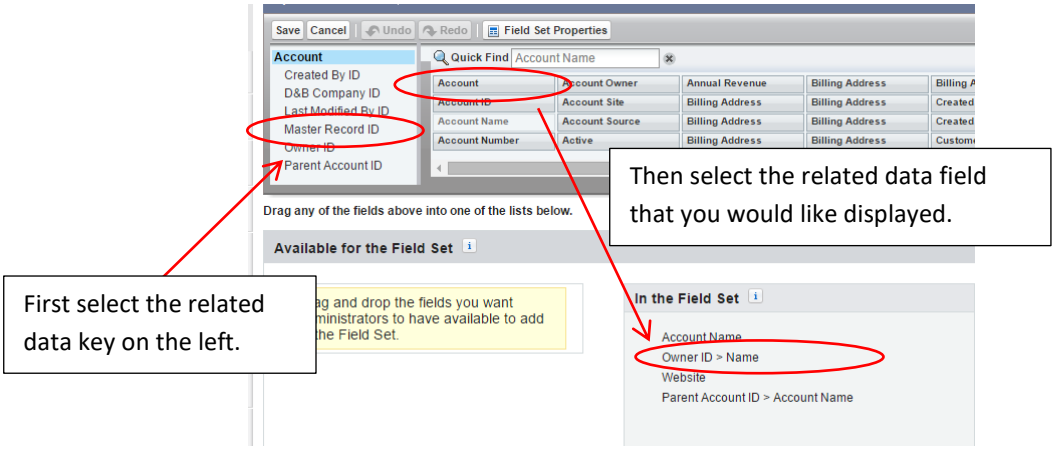
1. For a Salesforce standard object, type "Field Sets" in the Set up Quick Find box and select the *Field Sets* link under the object that sms conversations will be initiated from. Or, for a custom object, type "Objects" in the Quick Find box, click on the Objects link, select the custom object in the list and scroll down to the Field Sets section. *Note: the Field Sets screen is one of the setup screens not available in the Lightning interface as of the writing of this guide. So you may need to use the Classic interface to complete these steps.*
1. Click the *New* button
2. Use the table below to fill in the fields on the screen.

Field Set Label	QManSMSConversationHeader
Field Set Name	QManSMSConversationHeader (*Note that the name must be specified in your Salesforce org exactly as indicated here in order for the sms conversation window to find it*)
Where is this used?	SMS conversation Header

Click the *Save* button. A screen similar to the one below will be displayed:



3. Use your mouse to drag the Salesforce fields from the field list at the top to the "In the Field Set" box.
4. When adding related data fields to the field set, pick the field that links the related data to the object from the list on the left and then select the related data field that you would like to add to the field set (see the image below).



Arrange the fields in the order that you would like to see them in the header. When you have all the fields selected and in the desired position, click the *Save* button towards the top of the screen.

Give Users Access to SMS Conversations

In this next step we will be granting access to the user profiles within your organization that will be allowed to participate in SMS Conversations.

1. Type "Visualforce Pages" in the Quick Find box. Find the listing for "SMSConversation" listing under the *Label* column in the table and click on the *Security* link on the left of it.
2. When you installed the QMan package in your Salesforce org, if you selected "Install for all users", all of the profiles in your org will be listed in the *Enabled Profiles* box. If you selected

"Install for Admins only", only System Administrator profiles will be listed. Add or remove profiles to the *Enabled Profiles* box as need and then click *Save*.

Sending Attachments from the SMS Conversations Window

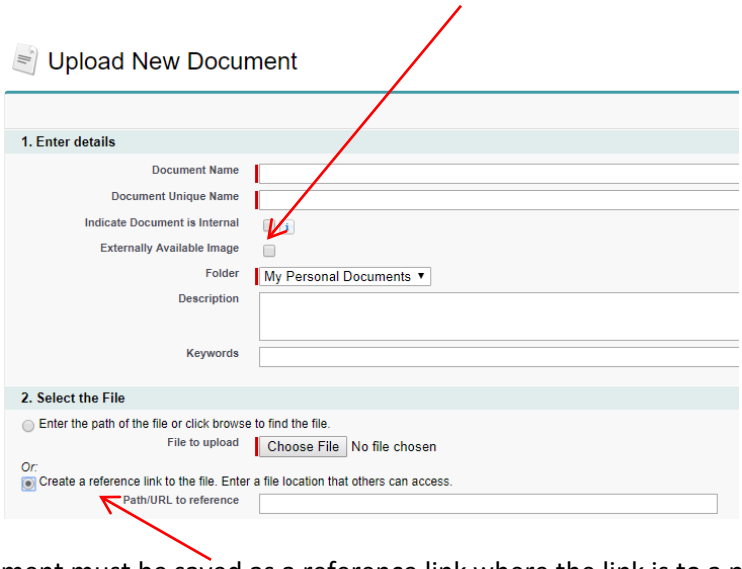
SMS Conversations also does MMS messaging, meaning users can send attachments with outbound messages. The attachments that are sent are stored as standard Salesforce Documents. To send attachments, users click the attachment button on the right hand side of the message input box and then select one or more documents from a pop up search window.

See the Salesforce documentation for complete information on how to create Salesforce Documents.

To allow your users to send attachments from the SMS conversation window, you will need to enable it through the SMS Conversation Settings tab in the QMan Administration screen. You do this by checking the *Allow sending Salesforce Documents as message attachments* check box.

To ensure that Salesforce Documents are available sending out, use the following guidelines when creating documents in Salesforce.

- The document must be saved with the *Externally Available Image* check box checked.



- The document must be saved as a reference link where the link is to a publically available location.
- The document must be a file format that is support as a MMS attachment. Note that different phone service providers and phone operating system will vary in the file formats that they support. Generally speaking though, image files (JPG, PNG, etc.) are the most widely and consistently supported formats, but formats such as PDF, video, and others as also typically supported.

To be sure that your users will not have problems sending document attachments, be sure to test each document available to them by sending it to a known phone number.

Using Quick Text in SMS Conversations

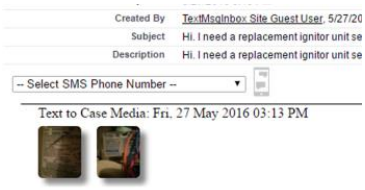
Quick Text allows you to define text for standard conversation greetings, conversation closings, and answers for common questions or issues. Quick Text is useful for SMS Conversations because it saves users typing and time, as well as helping to maintain consistent communication. For complete information on how to set up Quick Text in your Salesforce org, please see this standard Salesforce documentation page.

As you create Quick Text for use on the SMS Conversation window, ensure that those entries you want available to your users has a *channel* attribute that matches the object or objects that the SMS Conversation window will be used with. For example, if you use SMS Conversations from the Case screen, then Quick Text entries users can select from should have a Channel attribute that includes *Case*. To add new Quick Text channels, add them to the pick list of the Quick Text object's Channel field (type Quick Text in the quick find box and select *Fields*).

Once you have Quick Text defined, give users of SMS Conversations access to them by clicking the *Allow Quick text messages* check box on the SMS Conversation Settings tab in the QMan Administration screen. When you do, the Quick Text button will appear on the SMS Conversation window for your users.

Setting Up QMan Text 2 Case

In this section we will implement a small but powerful tool designed to enhance the use of Salesforce Call Center and Service Center. It allows your users to start and manage QMan SMS Conversations and to view attachments that were sent in with messages that opened cases.



The tool is called the Message Media widget and it is a component of QMan Text 2 Case. If you read the information in the box titled "QMan SMS Conversations and QMan Text 2 Case go hand-in-hand", you know that QMan SMS Conversations ensures incoming messages are not lost during off-hours by handing those messages off to QMan Text 2 Case. The Message Media widget further enhances Text 2 Case by:

- Allowing case viewers to quickly and easily start a new SMS conversation
- Displaying and allows the viewing of all of the media attachments that were received from a text message sender.

- When a sms conversation is taking place, displays an indicator so that users viewing the case can quickly see that a SMS conversation is taking place on the case and allows case viewers to quickly and easily join the conversation.

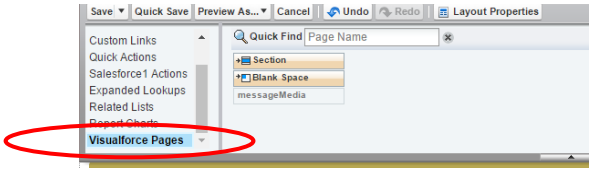
Before completing this section, be sure that you have first completed all of the steps in the "Enabling QMan Text Messaging in Salesforce".

Add the QMan Message Media Widget to Case Page Layouts

The first step is to add the Message Media widget to your case page layouts. The widget can be added to a Salesforce "classic" case page layout, a Salesforce Service Console layout, or a Lightning page layout. The steps necessary to add the widget to each of the different page types are outlined below. Depending on the type of case screen or screens your service organization is using, you may need to follow one or more of the below instructions.

Adding the Message Media widget to a Salesforce classic page layout

1. Type "Page Layouts" in the Quick Find box and select Page Layouts under Cases. Perform the following steps for each Case page layout that should contain the message media widget.
2. Click the *Edit* link next to the page layout being modified.
3. Add a new section to the page by dragging the *Section* icon from the box on the top of the page down to the page layout and dropping it on the page where you would like the widget to be displayed (a green line will be displayed as you drag it down on the areas of the page where the new section is allowed). In the dialog that pops up, give the new section a Name to display on the screen such as "SMS Conversations and Attachments". Uncheck the Edit check box, click the "1-Column" radio button, and then click the *OK* button.
4. On the left side of the upper box, find the listing for *Visualforce Pages* and click on it.



On the right-hand side of the box, click on the *messageMedia* icon and then drag and drop it into the new section that you added to the page in Step 3. Move your mouse to the upper right-hand corner of the Message Media box that appears until a wrench icon is displayed and click on it. Keep the default value of 100% for Width in the Page Properties. You can set any pixel height for the message media widget that you would like, but we recommend a minimum of 200 pixels. Click Ok to close the dialogue and then click the *Save* button in the upper left-hand corner to save your changes to the page layout.

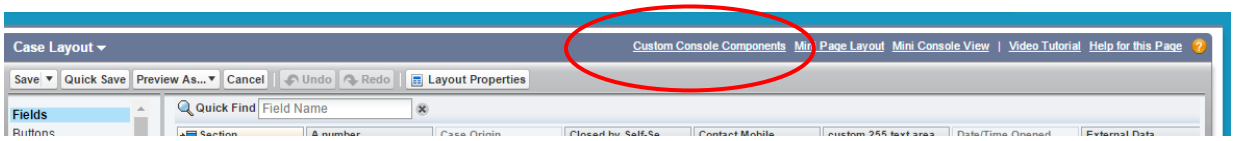
Adding the Message Media widget to custom Visualforce pages

If your company uses custom built Visualforce case pages, you will need your developer to add the Message Media widget to those custom case pages. This can be done in a Visualforce page that has a standardController attribute equal to *Case* by using the <apex:include pageName="qman__messageMedia"/> tag. Don't worry…your developer will know.

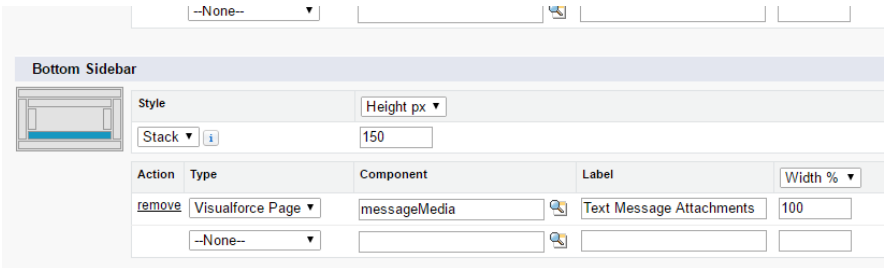
Adding the Message Media widget to a Salesforce Service Console layout

Note: you will need to have a Service Console license for your Salesforce Org and have associated the Service Console license to Salesforce profiles to complete this step. For more information see the section titled "Set Up a Salesforce Console" in the Salesforce help.

1. Type "Page Layouts" in the Quick Find box and select Page Layouts under Cases. Perform the following steps for each Case page layout that should contain the message media widget.
2. Click the *Edit* link next to the page layout being modified.
3. Click the *Custom Console Components* link at the top of the page.

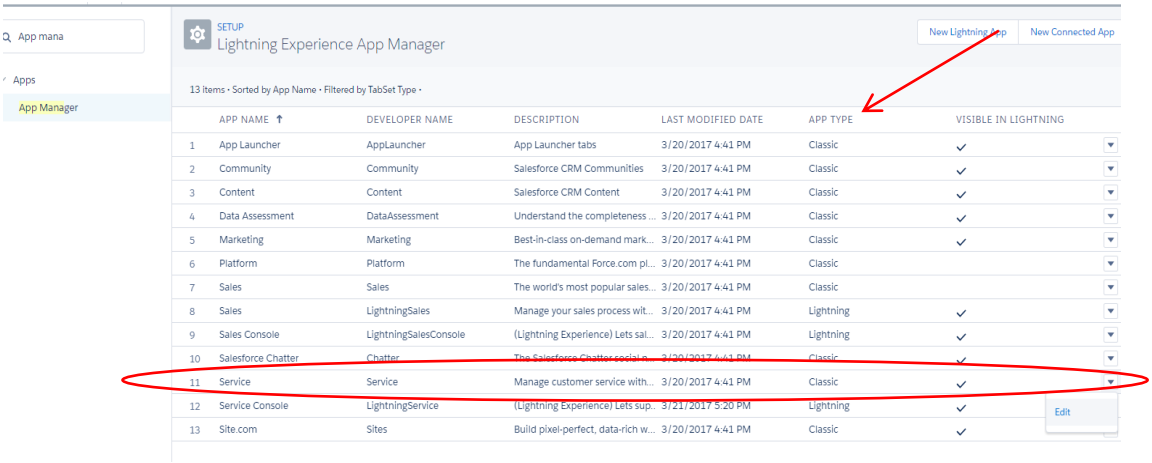


4. Determine where on the console screen you would like the Message Media widget displayed and then in the appropriate section, select *Visualforce Page* from the drop down under the *Type* column. Click the magnifying glass icon under the *Component* column, find the *messgeMedia* page and select it. Give the section where the widget will be displayed a label, such as "SMS Conversations and Attachments", and indicate the width that this section should take up on the screen. Under the *Style* section indicate if this section should stack or be shown in a tab and give the section a height in pixels (200 px is recommended). Click the Save button at the top of the screen to save your changes.

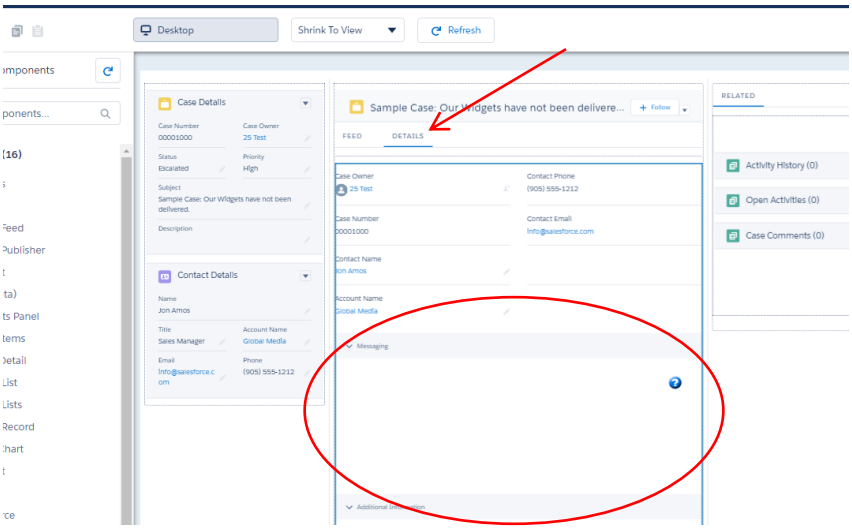


Adding the Message Media widget to a Salesforce Lightning page

1. In Setup in the Lightning interface, type “App Manager” in the Quick Find box and select the *App Manager* link that appears. The Apps that are configured for your org will be listed:

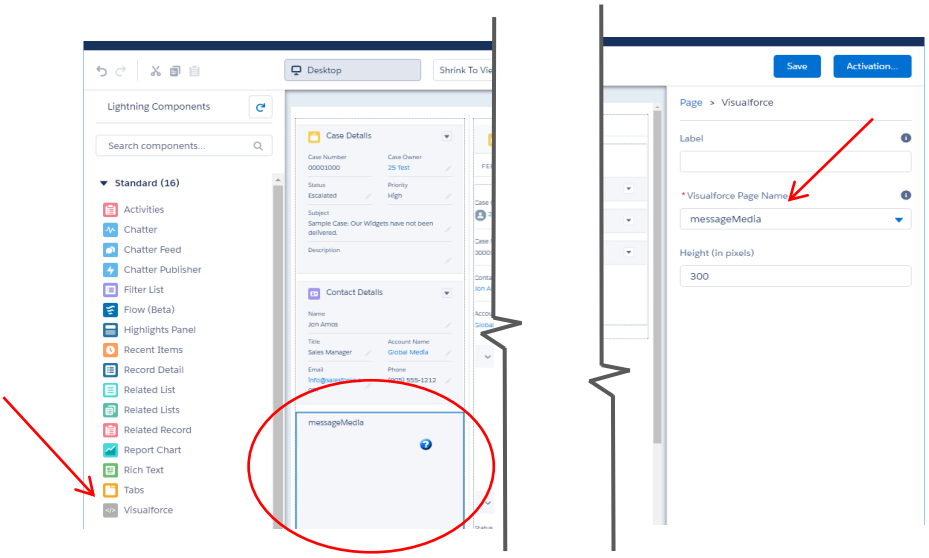


Look at the “App Type” indication for the Service app that your org is using. If the type for your Service app is “Classic”, you may not have to do anything more to get the Message Media widget to show on the screen as long as you complete the steps in the Adding the Message Media widget to a Salesforce Classic page layout section above. Salesforce will use your classic case page layout to display the lightning Service Screen. To verify, type “Lightning App” into the setup Quick Find box and select the Lightning App Builder link that appears. Click the Edit link for the Case Record Pages listed. On the next page click the DETAILS link on the sample case record page that is showing.



If the Message Media widget is showing on the screen then you are good to go! If not, complete the steps in the Adding the Message Media widget to a Salesforce "classic" page layout section or follow the below steps.

2. To add the Message Media widget to a lightning page, navigate to the detail page that you will be added the widget to, click the gear icon in the upper right hand corner, and select Edit Page. Click the *Visualforce* link under the Lightning Components heading on the left hand side of the screen. The Message Media widget will be added to the sample case screen. If it was not, be sure that *messageMedia* is showing in the dropdown labeled *Visualforce Page Name* on the right side of the page. You can reposition the widget on the screen by dragging and dropping it.



Add a label, such as "SMS Conversations and Attachments", and a pixel height for the widget (at least 300 pixels recommended). Click the *Save* and, if necessary, the *Activation* button.

Implementing and Configuring the QMan Administration Screens

Ok, we are almost done. There are just a few more steps and then we can send a couple text messages to test everything out!

A QMan administration screen was created in your org when you installed the QMan package. In this section we will be implementing a custom link that can be used by a System Administrator to access the screen and then we will be setting the configuration of the screen. As we have done in the past, the implementation of the QMan admin screen will differ depending if you are using the Lightning interface or the classic interface.

Note: since the QMan Administration screen contains settings that affect the system wide use of QMan, only System Administrators have the privileges necessary to modify them. For this reason, the QMan Administration screen should only be added to page layouts that are accessed by System Administrators.

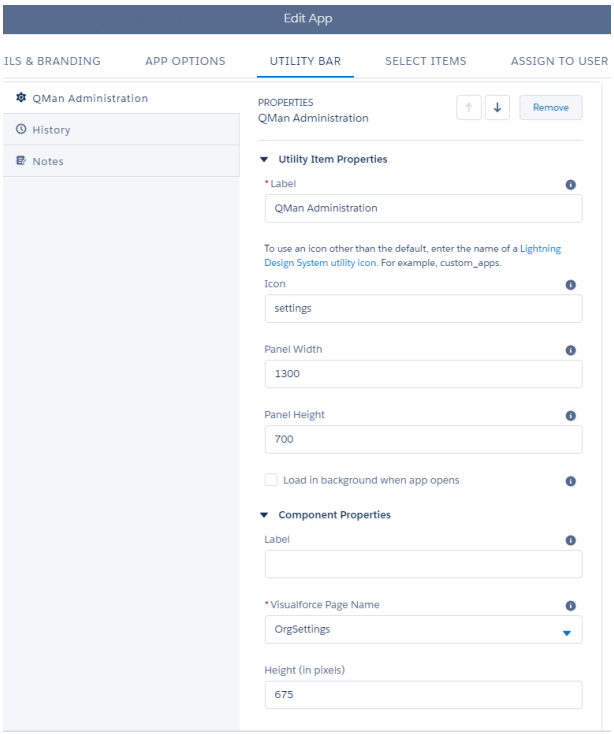
Implementing the QMan Admin screen for Salesforce classic interfaces

1. Type “Home Page Layouts” in the Quick Find box. For each Home Page Layout that a System Admin uses (if you do not have a specific home page layout for system admins, create one by cloning an existing layout), click the *Edit* link to the left of it.
2. Click the checkbox next to the label *Administration Screens* and click *Next.*
3. Use the up and down arrows to adjust where the link will show on the page and then click *Save*.
4. Navigate to the Salesforce Home page and click the QMan Settings link to bring up the screen.

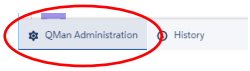
Implementing the QMan Admin screen for Salesforce lightning interfaces

For Lightning interfaces, we will be adding a Utility Bar item that will allow System Administrators to use the QMan administration screens. The steps below will walk you through this. You can also read about creating lightning utility bars by going to this Salesforce help screen.

1. In the lightning interface type “App Manager” into the setup Quick Find box and select the *App Manager* link. For any Lightning App, click the down arrow on the right and select *Edit*.
2. In the App Details screen, select the *Utility Bar* link on the left, click the *Add* button next to Utility Bar Items, and then select *Visualforce* from the pop up menu.
3. In the Utility Item Properties panel and component Properties panel, specify the following:
    a. Indicate a label such as “QMan Administration”
    b. You can optionally specify an Icon for the QMan Administration screen. To see available icons, click the *Lightning Design System utility icon* link and input one of the labels for the desired icon. For example, inputting “settings” will make a gear icon appear for the QMan Administration link on the utility bar.
    c. For panel width and height, a setting of 1300 wide 700 high is recommended. You may have to play with these settings a little depending on your monitor size.
    d. Add a label under Component Properties, you can use the same label as that specified in step a.
    e. Click the dropdown arrow and select “OrgSettings” for Visualforce Page Name.
    f. For the *Height (in pixels)* setting, 25 pixels less than the height setting indicated in step c usually works pretty well.



4. Click the *Save* button to save your changes.
5. Use the App Launcher to go to the Salesforce lightning app where you added the utility bar and click the QMan Administration link. The next section will walk you through the configuration of the QMan Administration screen.



Configuring the Messaging Accounts and Phone Numbers Tab

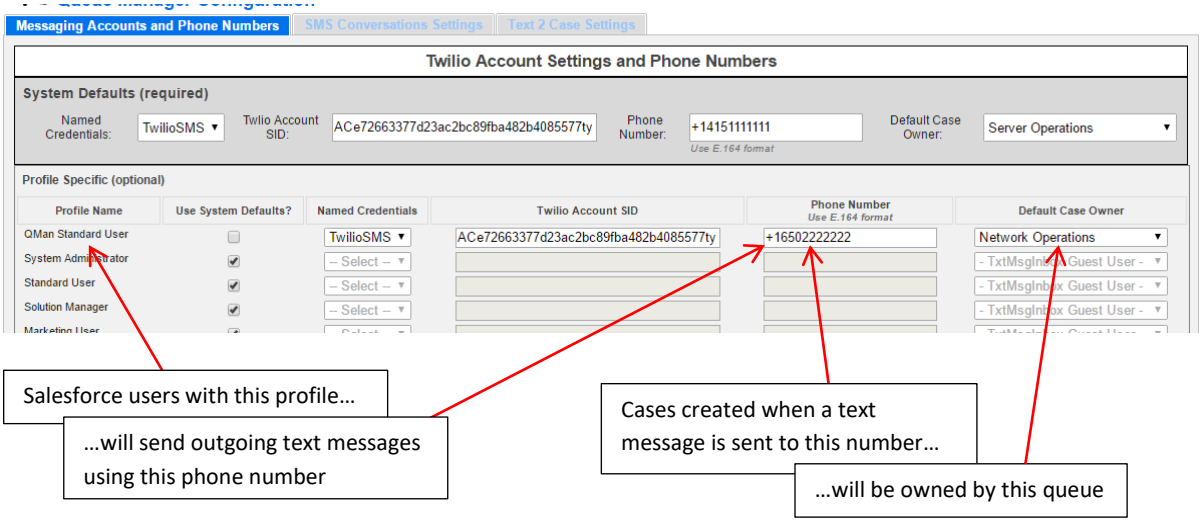
This step will tie together much of the information that we configured earlier with the QMan text messaging engine. There are two main things that we will be doing in this section.

First, we will be associating Twilio accounts and phone numbers to the users that will be sending SMS messages. This will allow you to assign specific phone numbers to Salesforce profiles so that when Salesforce users initiate SMS Conversations, the "from" phone number that will be displayed on the phone receiving the message will be the one that has been assigned to that user's profile. Additionally, if your company has multiple Twilio accounts, you can associate the different accounts with different profiles. This will allow individual groups in your company to be responsible for their own messaging expenses.

Second, we will associate each Twilio phone number to default case owner. This will enable you to tell QMan Text 2 Case to assign cases to specific users or queues when messages are sent to one of your Twilio phone numbers. You can do this in order to route cases to users based on their subject matter

expertise, or to route cases to certain area of your company based on the product, for example. If you have only one Twilio phone number, no worries, this section will be very easy to complete.

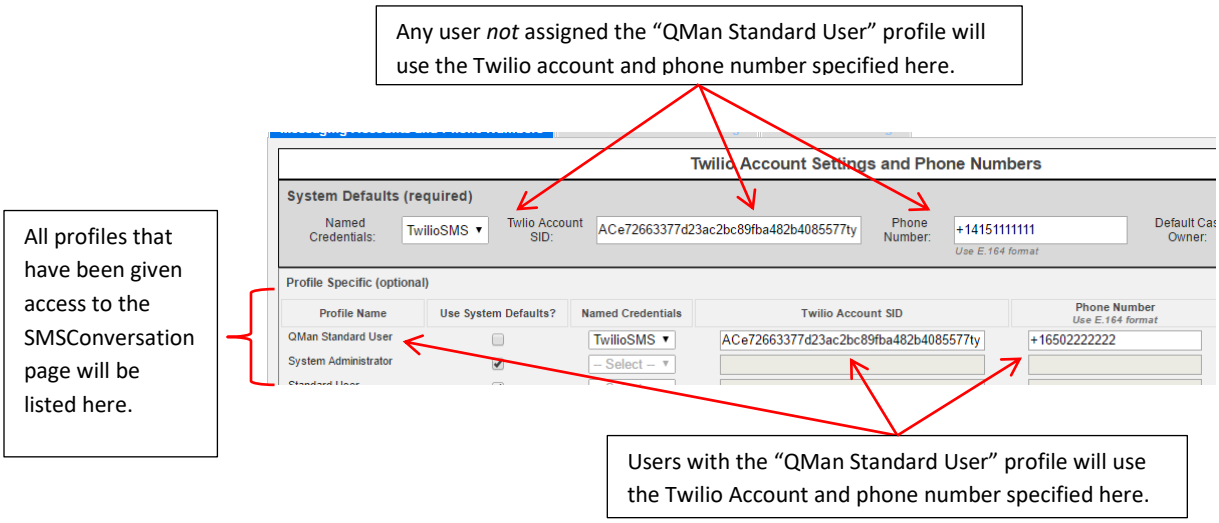
The diagram below displays the Messaging Accounts and Phone Numbers screen in QMan administration and illustrates the relationships that will be configured in this step.



Follow the below steps to configure the Messaging Accounts and Phone Numbers tab

1. In Salesforce, click on the *QMan Administration Screen* link that you added in the above section. The Messaging Accounts and Phone Numbers tab should be displayed.
2. In the *System Defaults* section of the SMS Conversation Settings tab, you will be indicating the default Twilio information for your users. If your company has only one Twilio account and phone number, you will enter that information here.

   If your company has more than one Twilio phone number or more than one Twilio account, you will need to decide which account and phone number will be the default for users that do not have specific phone numbers or accounts assigned to them. *Note: you must always save values in the System Default section of this screen. If you have multiple numbers or Twilio accounts, the System Default settings serve as the fail-safe settings for any profiles that did not get specific numbers assigned to them.* See the illustration below.



Select the Named Credentials that you created earlier from the drop down list that is associated with the Twilio account that will be used as the system default.

3. Copy and paste the Twilio Account SID into the SID field. This is the same account SID that you copied into the Username field in the Named Credentials that you are using here. *Note: You may see multiple fields on the Twilio portal that are labeled "SID". The SID that should be added in this step is the Account SID, is found on the Home page of your account, and begins with the letters AC.*
4. Input the system default phone number from the Twilio account that is represented by the Named Credentials that you selected in step 2. The phone number should be input in E.164 format and can be found in your account portal on the Twilio website.

More than you ever wanted to know about E.164

E.164 format is a worldwide phone number formatting standard. It consists of a phone number that begins with a + symbol followed by the country code and then the rest of the phone number without any other non-numeric characters or spaces. So the US phone number in "friendly" format (999) 999-9999, in E.164 format would be +19999999999. To read more about E.164 format, you can go here.

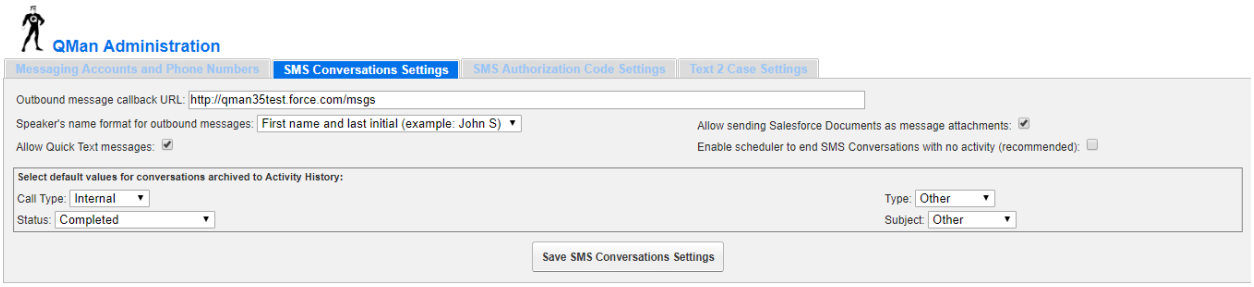
5. Select the default case owner for cases that are sent via QMan Text 2 Case to the phone number that you indicated in step 4. You can select from any case queue or case queue member that is set up in your Salesforce org. If you do not specify a case queue or a member of a case queue as the default owner here, all incoming cases to the phone number in question will be owned by default to the TxtMsgInbox guest user that was discussed in the yellow box titled *Understanding case ownership and Salesforce data access* in the *Create a Salesforce Site* section of this document.
6. Optionally, in the *Profile Specific* section, assign named credentials, Twilio account SIDs, phone numbers, and default case owners to any specific user profiles that have access to SMS

Conversations. For different Twilio accounts, be sure to enter the Account SID and phone numbers from the correct account into the *Phone Number* and *SID* fields.

7. Click the Save button to save the information on this page before moving on to the next section.

The SMS Conversation Settings Tab

Next we will set the configuration and some of the default behavior of sms conversations in the SMS Conversation Settings tab.



1. The first field to configure on this screen is the *Outbound message callback URL*. This is the URL that QMan SMS Conversations tells Twilio to send message statuses to. When a user sends an outbound text message in the SMS Conversation window, once the status is received back, QMan will display it to indicate that it was sent and received. The URL the goes here is the same Salesforce Site URL that you configured earlier in steps 6 and 7 of the *Create a Salesforce Site* Section. Type "Sites" in the Set up Quick Find box to go back to the Site menu in Salesforce and refer back to steps 6 and 7 of the *Create a Salesforce Site* Section on how to copy the Site URL.
2. For the *Speaker's name format for outbound messages* field select how you would like speaker's names formatted on outgoing messages sent from the SMS Conversations. Note that this setting is only for the format of the name that appears on the receiving phone. The full name of the Salesforce user is always display on a message in the SMS Conversation window regardless of the setting selected here.
3. Checking the *Allow user to send Salesforce Documents from SMS Conversation window* will allow the attaching of files to outbound messages. When checked, a button will be displayed on the SMS conversation window allowing users to select one or more documents stored in Salesforce Documents to send along with outbound messages. Note that when attachments are sent, the outbound message will automatically be converted from a SMS message to a MMS message.
4. The check box labeled *Enable scheduler to end SMS Conversations with no activity* allows you to implement an automated task that will clear SMS Sessions on a nightly basis if there has been no activity in the conversation for at least 4 hours. To implement the task simply check the box. The task will run once every 24 hours at 11 PM (11 PM in the time zone for the user that saves these QMan settings).
5. Check the *Allow Quick Text* check to enable the Quick Text button on the SMS Conversation window. See the Using Quick Text in SMS Conversations section in this guide for more information.

Why is it recommended to end abandoned SMS conversations?

When a new message comes into the text message inbox, the first thing QMan does is to check to see if the "to" and "from" number on the message is involved in an active SMS session. If they are, QMan will send the incoming text message to the appropriate SMS Conversation window. If there is no active SMS conversation for the number combination, QMan either creates a new case or updates an existing case from the incoming message.

If a SMS conversation was not ended properly (by the conversation initiator clicking the *End Session* button on the SMS Conversation window), any messages received with the same to and from number combination will be added to the SMS Conversation, even during off-hours when none of your users are watching sms conversations. If no users are watching sms conversations, the message sender will not get any response to their message. *This is why it is important that users end sessions properly by clicking the End Session button*. The nightly auto-end task can be utilized to clean up old sessions for those times that a user forgets to click the *End Session* button.

6. When a QMan SMS Conversation ends (because the user clicked the *End Session* button), QMan archives all information from the conversation into your org's historical records. It does this one of two ways:
    1. If the SMS Conversation is initiated from the Salesforce Case object, the archived conversation is added to the Case's Comments.
    2. If the SMS Conversation is initiated from any Salesforce object other than Case, the archive is added to that object's Tasks or Activities History

    All of the fields in *Select default values for conversation archived to Activity History* section allow you to specify default values when QMan SMS conversation are archived to Salesforce Tasks or Activities History.

7. Save the settings in this tab before moving on.

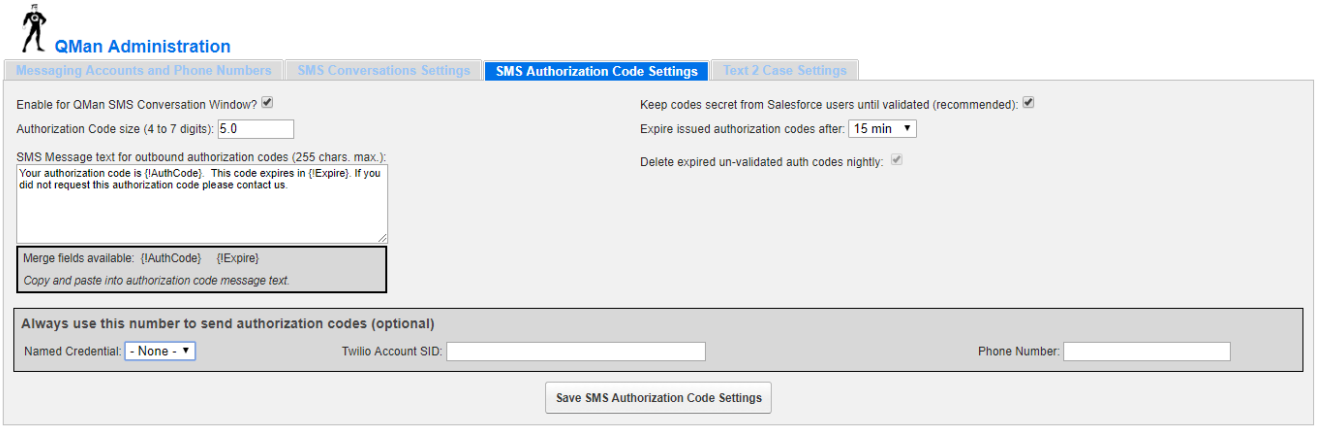
The SMS Authorization Code Settings Tab

The SMS Authorization Code Settings screen allows you to specify how auth codes are issued and validated. Note that QMan SMS Auth Codes can be used in a few different ways:

- **From the QMan SMS Conversation screen**. Via the SMS Conversation Window, your users can both issue and validate auth codes. The set up for this is extremely simple and can be accomplished without any programming. This section will walk you through performing this set up.

- **As a Web Service**. Auth codes can also be issued and validate via a web service call out from a system outside of Salesforce. This is an extremely powerful and flexible way to use QMan SMS Auth Codes because any of your company's systems that can perform a REST web service call out can use the tool. However it takes both web services and programming knowledge to use it this way. To configure QMan SMS Auth Codes as a web service, perform the step in this section, and then see the *Using the QMan SMS Auth Codes web service* section in this guide for specifics about the web service.
- **Through the QMan Two-Factor Authentication for Communities Lightning Component.** This is a component that adds 2FA functionality to the login process of a Salesforce communities implementation. It is extremely easy to implement and is available for free on the Salesforce AppExchange (search QMan Two-Factor Authentication).

You can use QMan SMS Auth Codes with all of the above methods, by one of them, or any combination. The different methods of use are completely independent of each other.



1. If you want to issue or validating auth codes via the SMS Conversation window, check the *Enable for QMan SMS Conversation Window* checkbox. Once checked, the SMS conversation window will display a tab that will allow your users to issue and validate auth codes.
2. When the *Keep codes secret from Salesforce users until validated* checkbox is selected, auth codes issued from the SMS Conversation window are redacted when the outgoing message is displayed in the message thread pane of the SMS Conversation window. This ensure that only the recipient of the text message sees the auth code and allows for a higher degree of security.
3. Indicate the number of digits that you would like issued auth codes to be for your organization. You can issue auth codes between 4 and 7 digits in length.
4. Select how long you would like issued auth codes to be valid before they expire with the *Expire issued authorization codes after* drop down.
5. In the *SMS Message text for outbound authorization codes* text box, input a message to accompany the authorization code that is sent to the recipient. Use the merge fields *{!AuthCode}* and *{!Expire}* to have those values inserted into the text that is sent.
6. The *Delete expired un-validated auth codes nightly* check box is checked by default and cannot be changed. This enables a scheduled process that runs automatically once every 24 hours in

the middle of the night to remove expired un-validated auth codes from the DB in order to keep it clear of auth codes that may not ever be validated.

7. You can designate a Twilio account and phone number to use whenever you send out an authorization code by filling in the *Always use this number to send authorization codes* section. When you do, QMan will ignore the system defaults and profile specific settings in the Messaging Accounts and Phones tab and, instead, always use the phone number that is specified here. See the box below for more information on why you may want to do this. The account number and phone number that is specified here can be one of those used on the Messaging Accounts and Phones tab, or a completely different valid Twilio account and phone number. Follow the same instructions as those in the Configuring the Messaging Accounts and Phone Numbers Tab for this section.
8. Click the *Save SMS Authorization Code Settings* button to save your settings in the tab.

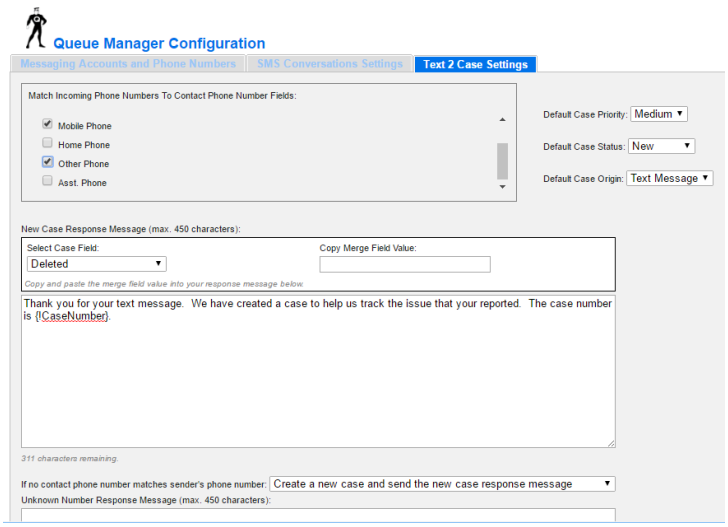
The short code advantage

More and more cell phone service providers use algorithms to try to detect and filter out text messages that may be coming from spammers. There are vary degrees of sophistication of these algorithms, but sometimes legitimate messages will be rejected by a service provider. If a message that is sent from the SMS Conversation window is rejected as suspected spam, the message's status will show an error code of 30007.

Because standard phones numbers are easy and cheap (or free) to obtain, spammers typically only use them for sending out messages. Because of this, these algorithms are applied to messages coming from standard phone numbers. Service providers usually do not use these algorithms on messages coming from short codes. This is because the process is lengthier and the cost is higher for short codes, making it more likely that the message is coming from a legitimate business. So for a higher level of delivery consistency, it may be advantageous for your company to obtain a short code and always use it for issuing authorization codes. There are other advantages that you gain from using short codes that you can read about here and here.

The Text 2 Case Settings Tab

Text 2 Case settings specify how QMan should handle incoming text messages when creating cases, updating cases, or sending statuses on cases.



1. In the upper left-hand box of the tab, use the check boxes to select which phone number fields on the Salesforce Contact object to use when matching the "from" number of an incoming text message to. When a contact is found with a phone number that matches the from number of an incoming text message, QMan will associate that contact with the case that is created. The list displays all standard and custom fields on the Contact object that have a field type of *Phone Number*.

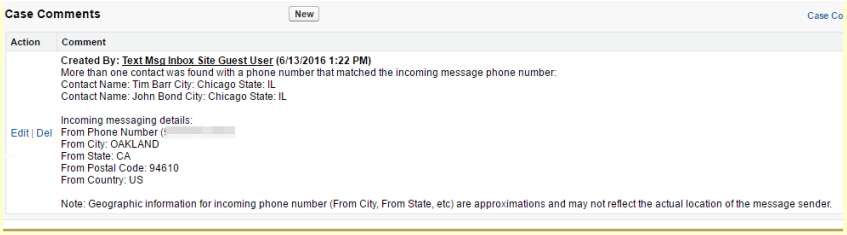
So, should I just select all contact phone numbers to match SMS messages to?

Probably not and here is why.

First, it does not do any good to try to match a number from a text capable phone to a number that is not a text capable phone. Some phone number fields on the contact object may not be to text capable phones.

Second, QMan really wants to match incoming numbers to one and only one phone number in your contacts. If the incoming text message's number is found on more than one contact record, QMan will not know which of those contacts is the text message sender.

If multiple contacts are found with the same phone number, QMan will still create a new case from the incoming text message, but it will not associate a contact with the case. Instead, it will create a case comment for the new case that lists information from each of the contacts found. An example of such a case comment is below.



So, if you can accurately match phone numbers to contacts, then there will be less work that your users will need to do to match contacts to the new case!

2. Select the default Case Priority, Case Status, and Case Origin that should be assigned to cases that are created from incoming text message from the drop down lists in the upper right-hand corner of the tab.
3. Create a new case response message to send back to the sender of an incoming text message that creates a new case. Use the merge field dialog to embed case object fields into the response. If you do not save a new case response message, incoming text messages will still create new cases, but the message sender will get no response message back.
4. Select how you would like to handle incoming text messages when the sender's phone number cannot be found in your contacts. The options are:
    - Create a new case and send back the new case response message to the message sender. *Note: If you select this option, the case will be created with no associated contact and a case comment will automatically be added to the case that will contain information from the message that may be helpful to your users in identifying who the contact may be.*
    - Do not create a new case, but send the message sender the unknown number response message (see step 6 below).
    - Do not create a new case and do not send any response to the message sender.
5. Create an unknown number response message. This response message is only required if you selected *Do not create a case, send the unknown number response message* in step 5.
6. If you want to give your users the ability to update cases via text message, select the *Allow Case Updates* check box and then create a case update response message to send back to the message sender once the update has been applied to the case.

Case updates and Salesforce sharing settings

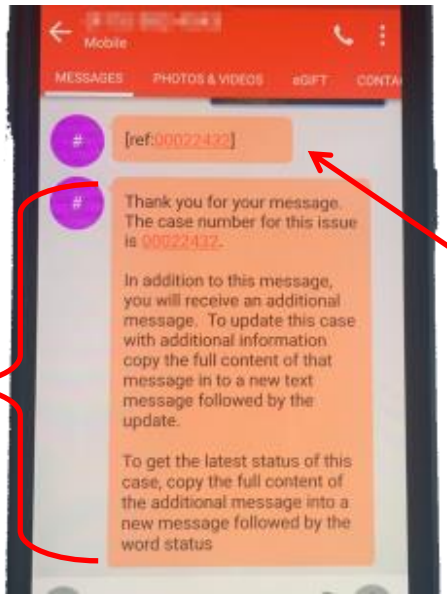
You are probably familiar with Salesforce sharing settings (Setup -> Security Controls -> Sharing Settings). Sharing settings allow you to restrict access to Salesforce records based on the owner of the record.

You should be aware that sharing settings on the Case object that are set to Private will impact how case updates coming through QMan behave!

When the owner of a case is not the text message inbox guest user that you reviewed in

step 5 of the *Create a Salesforce Site* section and the Case object's sharing setting is set to *Private*, case updates coming through QMan Case 2 Text will *create a new case from the incoming message and not update the case referenced in the text message*. This will be the behavior even when the case was originally created by the text message inbox guest user.

When a new case is created from a text message and case updates or case status checks are enabled, in addition to the message responses that you create, QMan will automatically send a message back to the message sender consisting of only a case reference tag. The sender then uses the case reference tag to update the case or to get its status. Below is an example.



New case response message saved in the Text 2 Case Settings

Case reference tag message is automatically sent back to user along with new case response message when *Allow Updates* or *Allow Status Requests* is checked.

Message sender copies and pastes the content of the case reference tag message into a new message when adding a case update or requesting the case status.

The QMan case update and case status functionality will work with any case (even cases not created from a text message), as long as the update or status text message received has [ref:*casenumber*] prepended to it and your org's Case object sharing setting's are not set to *Private*.

Text message case updates are saved in Salesforce as a case comment on the original case. *Note: for case updates, if the case number that the user referenced in their message is not found, QMan will create a new case from the message so that the information received is not lost.*

7. If you want to give your users the ability to request case statuses via text message, select the *Allow Status Requests* check box and then create a case status response message to send back to the message sender.

Merge fields in message responses and Salesforce Sharing Settings

As you read in step 7, sharing settings on the Case object that are set to private impact how case updates are processed. *You should be aware that sharing settings on the Case object that are set to Private will also impact how case status request behave!*

When the owner of a case is not the text message inbox guest user that you reviewed in step 5 of the *Create a Salesforce Site* section and the Case object's sharing setting is set to *Private*, senders of case statuses will receive the case not found response message that you will create below in step 9. This will be the behavior even when the case was originally created by the text message inbox guest user.

In addition, be aware that you may be able to see data in certain fields on a case record, but that those same fields may not be viewable to the text message inbox guest user.

Remember that when a message comes in to the inbox, the code that processes that message is run under the text message inbox guest user and will use that user's data access permissions. So if you configure message response text with embedded merge fields and when testing some of field's data received on your phone are blank, it may be due to the guest user's data access permission setting for those fields.

To check, click the *Public Access Settings* button from step 5 of the *Create a Salesforce Site* section, scroll down to the Field-Level Security section and click the *View* link next to Case. If there is not a check mark in the *Read Access* column for a field, case data in that field will not be sent back to the message sender in the response message.

8. If you are allowing case status requests, create a response to send back to the user if the case number that they referenced in their request is not found.
9. Now click the *Save* button to save the information input in all of the tabs of the QMan settings screen.

Time to Test!

Great job! We still have some set up to do, but at this point we can do some testing to make sure that your Salesforce org can speak to your Twilio account. Before we do this, just a couple things…

First, as mentioned earlier, remember that if you are going to be testing using a trial Twilio account, the phone that you will be sending text messages from will need to have its phone number registered at Twilio. Log in to your Twilio account to do that if you have not already done so.

Second, we want to test that contacts are associated with new cases correctly, so be sure to create a test contact and give that test contact the phone number of the phone that you will be testing with. Make sure that the phone number is in one of the fields that you selected in step 2 of the *Input*

Messaging To Case Settings section above. We will use this same test contact to test both the Text 2 Case functionality and the SMS Conversations functionality.

To test QMan Text 2 Case, simply use the phone that is registered with your Twilio account to send a text message from your phone to your Twilio phone number. If all is well, you should receive the response that you input into the new case response box in step 4 above. If you have enabled case updates or status requests, you should also receive another message with the case number reference tag in it. If you did not get a response message, see the troubleshooting section in the appendix. Login to Salesforce and refresh the case listing. You should see the newly created case listed there and the test contact associated with the new case.

If you are using the Message Media widget on a Case screen, be sure to also test message media by sending a text with an attachment. Keep in mind that images and other attachments take longer to send so it may take longer to get a response message back on your phone.

Different phones handle multiple attachments differently

Depending on the phone, the phone's text messaging app, the phone's carrier service, or the number of attachments, MMS messages with multiple attachments may be broken up into multiple messages before they are sent. In this scenario, one message may come in to QMan Text 2 Case with the text part of the message plus one or two attachments. Then additional messages may come in with only the remaining attachments.

In general Cell phone carriers and Twilio do not guarantee the order in which multiple messages arrive at their destination. So, in these situations the messages with only the attachments may come in to the QMan text message inbox before the message with the text.

QMan Text 2 Case has logic built in to it that tries to "re-assemble" these broken up MMS messages into a single message so that only one case is created from them. However, in some cases, QMan is not able to re-assemble the message. In these cases, you may see a case with a text message attachment, but a blank subject and description.

To test SMS conversations, view the detail page of the case that was created from your text. Click on the phone number drop down list in the message media widget section of the case screen and select the number of the phone that you are testing with. Click on the cell phone icon to pop up the SMS conversation window and send a few messages back and forth between Salesforce and your phone. Click the *End Session* button to close the SMS conversation window, refresh the case detail screen, and you should see the content of the SMS conversation in the case comment section.

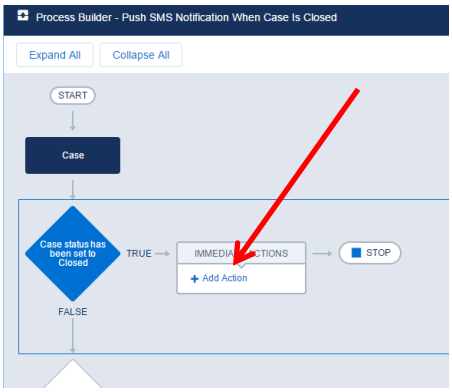
Using QMan SMS Notifications

If you will be using QMan SMS Notifications to push text message notifications, the good news is that there are no additional configuration steps needed to start using it as long as you have already followed the steps earlier in this guide to enable text messaging in your Salesforce organization and completed the steps in the *Configure Messaging Accounts and Phone Numbers Tab* section of this guide.

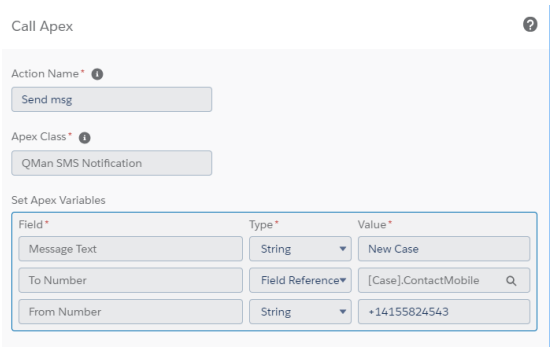
You can now start defining the processes in Salesforce Process Builder that will send sms notifications. If you are unfamiliar with Process Builder, be sure to read the standard Salesforce documentation located here. You can also learn about using Process Builder through the Process Automation Trialhead.

When using Process Builder follow the steps below to enable QMan SMS Notifications for the "Action" portion of each process that you build. Although the below example illustrates how to create a process for the Case object, QMan SMS Notification can be used to send SMS messages for nearly any Salesforce standard or custom object.

1. Type "Process Builder" in the Set up Quick Find box and Select the Process Builder link.
2. Once you have defined the process name, the Salesforce object that the process runs on, and specified all of the criteria that the process needs to meet before the process' action is fired, click on the *Add Action* link in the IMMEDIATE ACTIONS box to open up the *Select and Define Action* panel.



3. In the *Action Type* drop down list select "Apex". Give the action a descriptive name in the *Action Name* box, and the select "QMan SMS Notification" from the *Apex Class* drop down list.



4. In the *Set Apex Variables* box, you will be defining the phone number to send the SMS notification to, the text of the message to send for this process, and you can optional define the "From" number for the outgoing message. Use the table below to guide you through defining each of these values.

Field	Type	Value
SMS Phone Number	Reference	Select the Salesforce field that contains the phone number that the message will be sent to.
Message Text	Formula or String (*See yellow info box below*)	Indicate the message that should be sent for this process.
From Number	Select from the list	If you would like messages sent from your process to always come from the same number, you can indicate it here. If you do not specify a from number, QMan will use the number that is associated with the profile of the user that kicked off the process (see the *Configure Messaging Accounts and Phone Numbers Tab* section). If you do specify a specific from number here, note that the number indicated must still be a valid Twilio phone number that is set up in the Configure Messaging Accounts and Phone Numbers Tab.

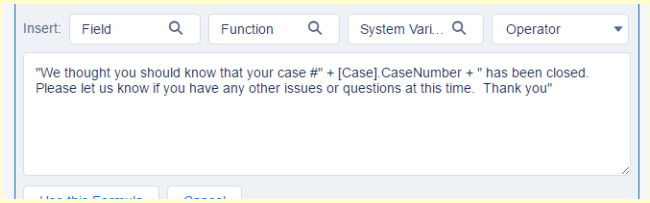
Configuring the message text of your Process Builder action

For the message text, depending on the actual message that you will be sending, you will either select “Formula” or “String” in the *Type* dropdown. If you will be sending a message that does not contain any object field information specific to the record that triggered the process, you can select String in the Type box and simply type the message to send in the Value box.

If you would like to include information specific to the record that trigger the process, then you will need to select Formula and format the message with quotation marks and plus signs around anything that is not a field as follows:

```
“Here is some of the text of the message to send “
+ [Object].Field + “ more message text.”
```

For example, if you wanted to include the case number in the message sent, the formula will look like that shown below.



Once you have the text and fields formatted for your message, click the *Use this Formula* button to save the formula and then click the *Save* button to save the action that you have defined for the process.

5. Click the Activate button to make your process active. You can now test out the process that you built by triggering the process through changing data on an object record that the process is built on.

Using QMan SMS Auth Codes

SMS Auth Codes is a tool that generates and validates one-time use codes that are sent out to users, customers, or vendors via SMS message. Auth codes can be used to implement more secure caller verification processes, two-factor login authentication processes, to issue discount codes, or a number of other processes. Salesforce administrators can configure the size of the code that is generated (number of digits in the code), the expiration time frame, and other details about how the code is generated and sent.

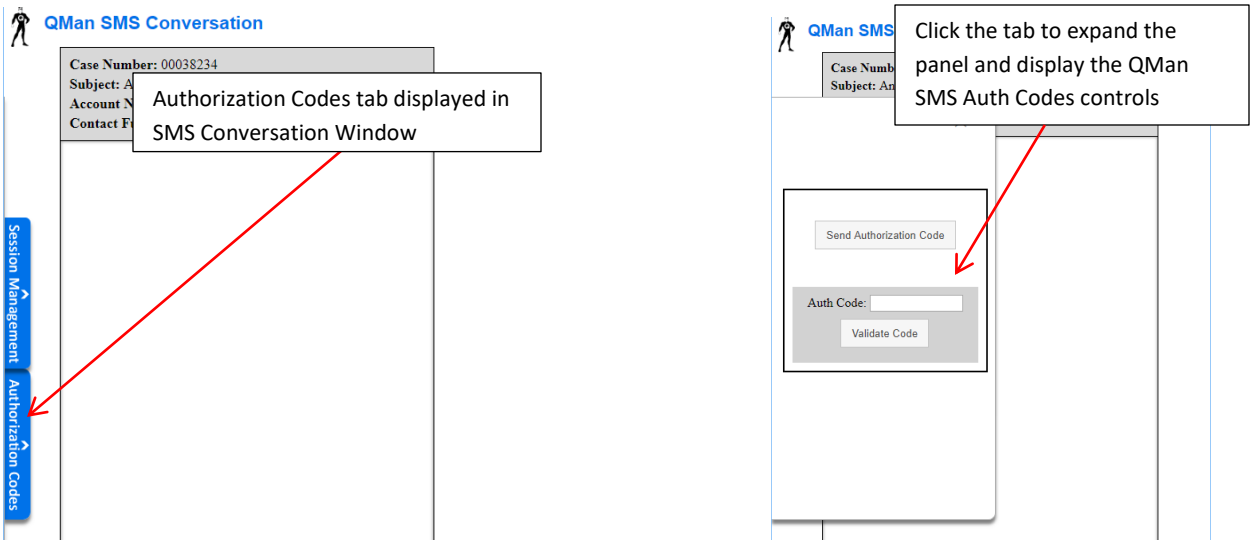
There are a number of different mechanisms QMan SMS Hero provides to implement SMS Auth Codes into your organization:

- **SMS Conversation window –** Users can issue and validate authorization codes with a click of a button on the SMS Conversation window. Using SMS Auth Codes this way is described below.
- **SMS Auth Code Web Services –** QMan SMS Hero provides a REST web service that allows you to leverage the user, contact, or custom object data in your Salesforce organization to issue and validate auth codes from any system that your company uses. This is an extremely flexible and powerful way to implement SMS Auth Codes, but it does involve knowledge of programming. Read the *Using the QMan SMS Hero web service* section below for the details.
- **QMan Two-Factor Authentication for Salesforce Communities** – This Lightning Component is a QMan SMS Hero package extension that can be installed and used in your Salesforce org for free from the AppExchange. It allows you to add two-factor authentication to your Salesforce Community website in seconds by simply dragging a dropping this QMan component onto the login form of your community web site. See the QMan Two-Factor Authentication for Salesforce Communities AppExchange listing for complete details and to download the package.

Sending and validating auth codes from the SMS Conversation window

Sending and validating authorization code from the SMS Conversation window is extremely easy and does not require much explanation. To send a code to a recipient, simply click the Authorization Codes tab on the left-hand side of the SMS Conversation window and click the *Send Authorization Code* button in the panel. An information message will be added to the message thread pane of the window indicating that a code was generated and sent, as well as a copy of the message that was sent to the recipient. If the recipient of the auth code does not receive the code or needs another code sent, simply press the Send Authorization Code button again. A new code will be issued and the original code will be invalidated.

Once the recipient responds with the code that they received, enter the code into the *Auth Code* field in the panel and click the *Validate Code.* If the code entered matches the code issued, an additional message will be added to the thread pane indicating that the code was validated.

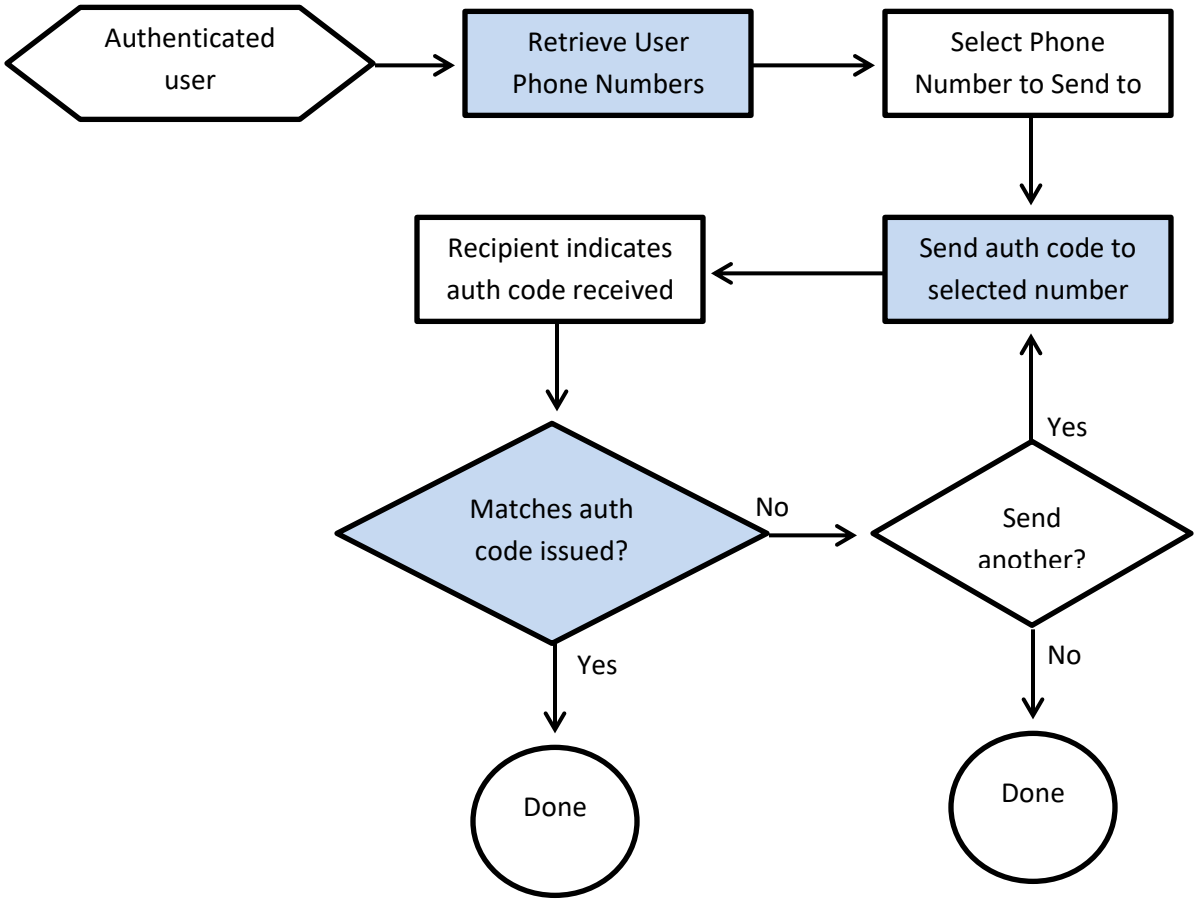


Using the QMan SMS Auth Codes web service

Using the QMan SMS Auth Code web service is the most flexible way to issue and validate authorization codes because it allows you to perform this function from any system that can authenticate to the Salesforce REST API. It does not matter if the system using the web service is internal to your Salesforce instance or external to it.

This section will describe the different web service calls that you will need to make to generate authorization codes and to validate them. Descriptions in this section assume that your code has already authenticated and logged on to Salesforce through one of the standard Salesforce authentication methods such as OAuth. If you need information about Salesforce web services authentication see the Salesforce Documentation.

There are many ways the QMan SMS Auth Code web services can be integrated into your systems and processes. The below sample process flow is just one example and illustrates a simple logic flow that is using SMS auth codes to implement two-factor authentication when a user is logging into a web portal. In this example, the user enters their username and password into the portal, they are authenticated with Salesforce and then flow into this process.



The QMan SMS Auth Code web service provides calls that perform the functions indicated by the blue highlighted shapes in the above process flow. How to call these web services and the responses they send back are indicated below.

QMan SMS Auth Code web service URL

All QMan SMS Auth Code web services can be accessed through the following URL:

https://<*Salesforce instance*>.salesforce.com/services/apexrest/qman/smsac

For example, if your Salesforce instance is na25, auth code web services are accessible with the url:

https://na25.salesforce.com/services/apexrest/qman/smsac

Note that if your Salesforce org has My Domain deployed, you would substitute <*My Domain Name*>.my for <*Salesforce instance*> in the above example.

Web service response headers

All response headers will contain the below QMan SMS Auth Code specific properties which can be used for validation or decoding purposes.

Key	Value	
package	qman	Denotes the package name responding to the request
parameters	<*parameters*>	The parameters that were received for the current request
resp_encode	UTF-8	The encoding method used to encode the response

Web services response body

All response bodies are sent as JSON formatted strings that are URL encoded using the encoding method specified in the response header.

All successful request responses will begin with the key value pair "result":"success".

Unsuccessful request responses will contain a result value of either “error” or “fail”. In general, a result with a value of “error” indicate some error condition in the request itself. This may be due to an issue with the number or type of parameters, or due to more specific error conditions (see below).

Error results due to an issue with the format of the request will have the generic info value of “Did not understand the request check required params and retry”.

See the specific web service request below for additional error and fail messages.

QMan SMS Auth Code web requests

The below describes the different auth code calls that you can make. All methods are HTTP GET requests and are accessed by appending parameters to the web service URL.

Retrieve Phone Numbers: oid=<*Salesforce sObject Id*>

Returns a JSON formatted string with a list of phone number fields, field labels, and field values for the sObject Id indicated.

Example request:
https://na25.salesforce.com/services/apexrest/qman/smsac?oid= 0031a000002hMuTAAU

Example response:
{"result":"success","info":"0031a000002hMuTAAU ","phonevalues":{"Fax":["Business Fax","(333) 444-5555"],"MobilePhone":["Mobile Phone","(111) 222-3333"],"Phone":["Business Phone","(555) 666-7777"]}}

Note that the list of phone number fields returned may vary in length from record to record within the same sObject because this method does not return phone number fields that are blank.

Possible request responses:

result	info
success	<*oid sent*>, <*list of phone number fields, labels, and values*>
error	No record found for oid <*oid sent*> or no phone numbers associated with record
error	oid is not a valid Salesforce Id

Send Auth Code: oid=<*Salesforce sObject Id*>&p=<*Recipient phone number*>

Generates an authorization code and sends it via a SMS message to recipient phone number indicated.

Example request:
https://na25.salesforce.com/services/apexrest/qman/smsac?oid= 0031a000002hMuTAAU&p=(111) 222-3333

Example response:
{"result":"success","info":"Auth code sent to +11112223333"}

The phone number sent in the request does not have to be in E.164 format. QMan will convert the number to E.164 format before the auth code is sent.

Possible request responses:

result	info
success	Auth code sent to <*phone number indicated*>
error	No record found for oid <*oid sent*> or no phone numbers associated with record
error	p value not found on oid record <*oid sent*>
error	Exception sending auth code <*Exception message*>

Validate Auth Code:
oid=<*Salesforce sObject Id*>&p=<*Recipient phone number*>&ac=<*auth code*>

Validates the auth code indicated in the request against the auth code issued to the same sObject Id and phone number. Returns a success or fail. If fail, indicates the reason for the failure.

Example:
https://na25.salesforce.com/services/apexrest/qman/smsac?oid=0031a000002hMuTAAU&p=(111) 222-3333&ac=12345

Response:
{"result":"success","info":"auth code 12345 with time stamp Tue, Oct 2 2018 19:58:24 UTC validated"}

Possible request responses:

result	info
success	auth code <*auth code*> with time stamp <*time stamp*> validated
fail	Not able to validate code. No issued authorization code found for this phone number
fail	Not able to validate code. The authorization code issued has expired.
fail	Validation failed. The code does not match the authorization code issued.

Appendices

Troubleshooting

If you are having trouble sending or receiving text messages with any of the QMan apps, see if the issue you are having is one of those described below.

Issue: No case is being created and no response is received back when a text message is sent to the Text 2 Case number.

- *Is Twilio receiving your text messages?*

  Login to your Twilio account and click the *Logs* link in the left-hand side of the home page, then click the *Messages* link under the "Programmable SMS Logs" heading. You should see a listing of messages that were received in your Twilio account along with whether they were incoming messages or outgoing messages. If you hold your mouse pointer over any message, it will display the content of the message.

  Now click on the *Dashboard* link in the left-hand side navigation bar on the Twilio site. You should see a graph on the left showing incoming and outgoing message volumes. Any message errors or warnings will be shown on the right side of the page along with the date and time it occurred. A listing of Twilio error codes and what they mean can be found here.

  Any error with error codes 11200 or 11205 means that text messages are getting from your phone to Twilio, but that Twilio could not communicate with your Salesforce org. This is likely an issue with the Salesforce Site, Named Credentials, or Remote Sites setup. See these trouble shooting steps for help with that:

  - *Checking the Remote Sites and Named Credentials set up.*
  - *Check the Site settings.*

  Any warning codes of *11200: HTTP retrieval failure* may mean that the communication from Twilio to Salesforce was established, but something such as a Salesforce access issue occurred within Salesforce before the response could be sent back to Twilio. Review step 5 of the *Create a Salesforce Site* to ensure that the guest user profile for the Text 2 Case site has access to create and read cases and that the profile has access to the TxtMsgInbox Visualforce page (find the TxtMsgInbox entry on Setup -> Develop -> Visualforce Pages page and click the *Security* link). You can also use the Salesforce debug logs under Setup -> Monitor -> Logs -> Debug Logs to view the debug logs that the TxtMsgInbox Site user creates.

- *Checking the Remote Sites and Named Credentials set up.*

  Go back to the Remote Site and Named Credentials screen and double check the settings are correct and that all Remote Sites and Name Credentials that you created are marked as *Active.*

- *Check the Site settings.*

  Go back to the Sites Settings page and make sure that all of the configurations specified earlier are set correctly and that the *Active* checkbox is checked. Then go to the Phone Numbers page of your Twilio account and make sure that the URL specified there for your Salesforce site is correct.

- *Check if there is an active SMS conversation for the same to and from phone number*

  Messages for both Text 2 Case and SMS Conversations come into the same TxtMsgInbox. When a message is received, QMan first looks to see if an active SMS Conversation is in session for the from and to phone numbers on the incoming message. If there is an active conversation, the incoming message is assumed to be part of that conversation and will be added to the conversation's thread and not used to create a new case.

- *Did you create a test contact that has the phone number you are testing with?*

  If there is no contact in your Salesforce system with the phone number that you are sending the text message from…

  -AND-

  …on the Text 2 Case Settings tab of QMan Administration you have selected *If no contact phone number matches sender's phone number: Do not create a case and do not send a response,* it is possible that the text message is being received but QMan is ignoring it because of this setting.

Issue: When sending a message to the Text 2 Case number, a case is being created and a response is received, but the merge field values in the response message are empty.

- *Have object permissions been set correct?*

  Go back to step 5 of the *Create a Salesforce Site* section and make sure that the object permissions shown in the table for the Case, SMSEntrys, SMSSessions, and Text2CaseMedia objects are set as indicated.

- *Are the Case object's sharing settings set to private?*

  Read the yellow box in the guide titled *Understanding case ownership and Salesforce data access*. If your case object's sharing settings are set to private and you are experiencing this issue when a new case is created from a text message, your organization may have a trigger or other custom code in place that is automatically changing the ownership of new cases behind the scenes.

Issue: When I send a message to the Text 2 Case number, the response message I get back does not make sense and/or is not the response message I created and/or has weird characters in it.

- *Modify your response message and try again until the weirdness goes away.*

  Cell phone service providers sometimes will interpret non-alphanumeric characters as something that you did not intend. As an example, we have noticed that if you create a message response that has a date (in the format of mm/dd/yyyy) as the last line of the response, some providers will send a whole world of weird characters to you. But if you simply move that date up in the response so that it is not the last line in the message, all is good. Go back to your response and remove non-alphanumeric characters (including non-printable characters like new line characters), or move them up in your response and see if that clears things up.

Issue: After creating and activating my Process Builder process to send an SMS notification, when I take some actions (edit a record, create a new record, etc.), I get messages on the screen that says that there was a flow error.

- *Check to ensure that the process' criteria contains a check that the record information used in the process is not null.*

  For instance, if the phone number that you are using in the QMan SMS Notification action is the case contact's mobile phone number, you may need to add a check in the process' criteria that validates that the contact phone number is not null.

Issue: In SMSConversation, outgoing message's status never changes from "Sending".

- *Check the call back URL in the Outbound message callback URL field of the SMS Conversation tab of the QMan Admin screen and make sure that it is the same URL that is indicated in the Sites screen and the Twilio portal. Be careful to read the entire URL for the QMan SMS text message inbox and make sure that it matches the callback URL in the QMan Admin screen! If Salesforce has recently migrated your Salesforce instance, the instance number for your site would have changed on the Sites page, but the old instance number may still be shown on the QMan Admin screen (ie. na24 might now be na80).*
- *Check that the permissions have been set correctly for the SMS tables as indicated in the table in step 5 of the Create a Salesforce Site section.*

Issue: In SMSConversation, outgoing message's status use to work but no longer does and, in my Twilio dashboard, there is warning or error message of "11200 There was a failure attempting to retrieve the contents of this URL".

- *Check the call back URL in the Outbound message callback URL field of the SMS Conversation tab of the QMan Admin screen and make sure that it is the same URL that is indicated in the Sites screen and the Twilio portal. Be careful to read the entire URL for the QMan SMS text message inbox and make sure that it matches the callback URL in the QMan Admin screen! If Salesforce has recently migrated your Salesforce instance, the instance number for your site would have*

changed on the Sites page, but the old instance number may still be shown on the QMan Admin screen (ie. na24 might now be na80).

Issue: In SMSConversation, some outgoing messages are getting an error status with a code of 30007.

- *You can read the description of this error code on the Twilio site, but basically the issue is that the message is being rejected by, most likely, the remote conversation participant's service provider.*

  Cell phone providers use algorithms to try to detect and filter out text messages that may be coming from spammers. There was something in the message that triggered one of these algorithm to consider it spam.

  If you get this error when issuing authorization codes via QMan, there are two things you can try to work around this issue:

  1. *Re-word the message that is sent with the auth code so that it does not sound like an automated message. For instance, instead of "Your authorization code is 12345…",* try *"Use security number 12345 to…".*
  2. *Consider getting and using a short code for sending authorization codes. Read more about this in the SMS Authorization Code Settings Tab section of this guide.*

Additional Resources

Here are some additional information resources that are available on the QMan AppExchange page.

- *The Insider's Guide to QMan Charts*. This document will give you all of the information that you need to understand how QMan Charts are generated.
- *QMan SMS Hero Installation Guide*.
- *Salesforce Process Builder Tips and Tricks*

Also check out the QMan FAQs on the 3 Creeks website.