

SURVEYS & INCOMING KEYWORD PROCESSING

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Introduction

With the 360 SMS **Survey** tool (aka iText or Chatbots) or **SMS Templates** one can easily create interactive ChatBot solutions which both automate the back and forth message flow with a customer but also capture key data to update fields in the Salesforce record or take other actions such as scheduling Calls or adding records to Campaigns. Customers commonly use these techniques for lead qualification and other data capture activities.

As an example, text **DEMO** to **720.605.0632** to see an interactive iText/Chatbot which captures key information into a Salesforce record.

Figure 1 shows a typical lead qualification survey for a Tax Debt Mitigation company where when the lead is created the survey is sent using the techniques learned in the <u>Sending SMS from Process Builder</u> document.

In the following pages we will show examples of how to read incoming responses and update Salesforce records or perform other actions.

We recommend using the 360 SMS **Survey (aka iText)** object instead of **SMS Templates** if your message has any possibility of a reply from the customer because the Survey tool automatically handles the message flow with an easy point-and-click interface that any end-user can define. This then allows the Process Builder developer to focus on what to do with the Answers instead of also having to create processes to send the next SMS Template and always updating his/her Process Builder Criteria when customers come with new variations of the same answer.

While Salesforce Process Builder is needed for updating fields in Salesforce or taking other actions from the answers, we expect the Survey/iText tool to soon have ACTION features on the Answer object such as **Update a Field** so there is less and less need for process builders. However, as of this writing any action that needs to be taken from a Survey Response is done with Process Builders on either the SMS_History or Survey_Response objects. This document will explain the techniques of handling those answers.



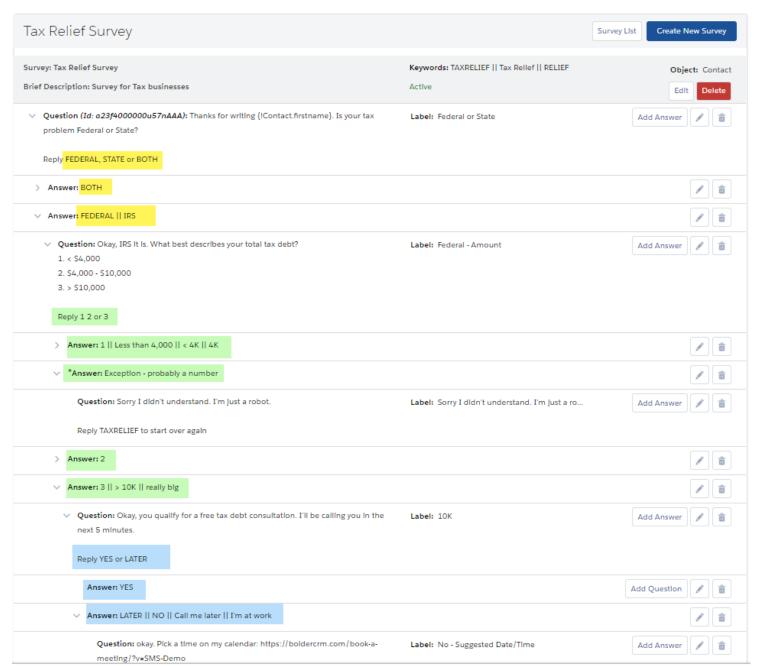


Figure 1 - Typical 360 SMS Survey defining questions and answer paths



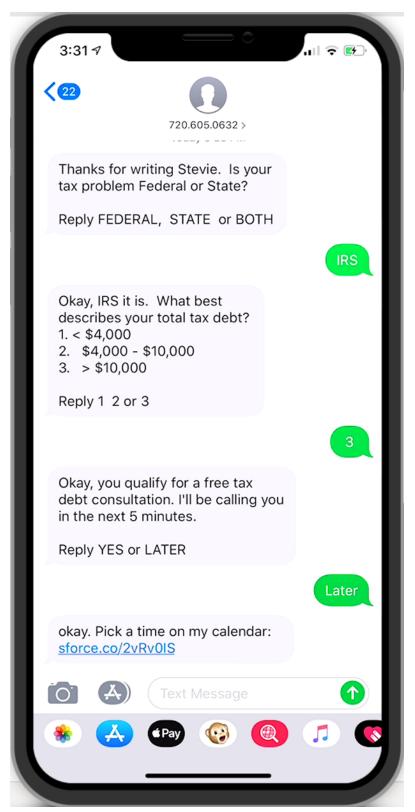


Figure 2 - The corresponding customer experience to the survey defined in Figure 1



Technical Background

It is important to understand that all Incoming Messages are linked to their preceding Outbound Message. Furthermore, the originating outbound **SMS Template** or Survey **Question** is set in the Incoming Message for easy processing and to provide **context** to the incoming message. Therefore, any incoming message has CONTEXT because it references the template/question being asked. Believe it or not many platforms do not have this context and thus you can only handle a single YES response, 360SMS could handle infinite YES responses because we understand the Template or Question that is being answered YES to.

SMS History Create SMS Conversation ActionGrid								
Action	SMS Type	Created Date	Message SMS Templa	te Question Label				
Edit Del	Outgoing	5/12/2019 3:28 PM	Thanks for writing Stevie. Is your tax problem Federal or State? Reply FEDERAL, STATE or BOTH	Federal or State				
Edit Del	Incoming	5/12/2019 3:28 PM	IRS	Federal or State				
Edit Del	Outgoing	5/12/2019 3:28 PM	Okay, IRS it is. What best describes your total tax debt? 1. < \$4,000 2. \$4,000 - \$10,000 3. > \$10,000 Reply 1 2 or 3	Federal - Amount				
Edit Del	Incoming	5/12/2019 3:28 PM	3	Federal - Amount				
Edit Del	Outgoing	5/12/2019 3:29 PM	Okay, you qualify for a free tax debt consultation. I'll be calling you in the next 5 minutes. Reply YES or LATER	10K				
Edit Del	Incoming	5/12/2019 3:29 PM	Later	10K				

Figure 3 - Illustration of the Incoming Message being related to its preceding Outgoing and retaining the Survey Question or Template

When using the Survey tool an additional object is maintained by the platform named **Survey Response**. Although, you can put your process builders on the SMS History, when dealing with answers that could have variable responses it is best to use the Survey Response object. As an example, even though the question asked "Federal, State or Both" the customer answered "IRS" but the survey still correctly offered up the next question. So rather than putting your process builder on SMS History where you would need to handle "Federal OR IRS OR ..." you would put the logic on the Survey Response and only test for the FEDERAL answer path.

Survey Re	esponses	Conga Gri	Conga Grid				Survey Resp	
Action	Survey Response Name	Question Label	Answer	Answer Path	Answer Name	Question Name	Survey	
Edit Del	SR-0966	Federal or State	IRS	FEDERAL IRS	<u>A-0059</u>	Q-0048	Tax Relief Survey	
Edit Del	SR-0967	Federal - Amount	3	3 > 10K really big	A-0063	Q-0050	Tax Relief Survey	
Edit Del	SR-0968	10K	Later	LATER NO Call me later I'm at work	<u>A-0065</u>	Q-0053	Tax Relief Survey	
Edit Del	SR-0969	No - Suggested Date/Time				Q-0054	Tax Relief Survey	

Figure 4 - Survey Response object - showing the question + actual answer + Answer Path

IMPORTANT: The survey Response record is created immediately when the outgoing SMS (question) is sent. It is then UPDATED to reflect the Answer and Answer Path chosen only when the customer replies. This allows one to report on questions that are **not** answered or to put in additional process builder logic for situations where the question remains unanswered, e.g. resending the question after a certain time period without an answer. Most importantly, this means that in your Process Builders you need to not only detect the creation of the Survey Response but that it also has a non-blank Answer value as it will initially be NULL. The last row of **Figure 4** shows one such row that has yet to be answered.



Taking Actions with Incoming SMS or Survey Responses

Commonly one will want to take action with the data gathered via an SMS Survey Question or from a response to an SMS Template. The elegant design of the Survey architecture and the SMS History object make this a snap.

There are two major techniques to consider:

- 1. **SMS History** All incoming SMS is written to the SMS History object whether it be a Template or Survey Question that was sent in the outbound. When using a Survey, the **QUESTION** value is stored for both the outgoing SMS as well as for the matching incoming SMS History. Thus, there is CONTEXT to the answer. However, only the actual text of the answer they provide is in the SMS History message. Thus, with Survey Questions that offer a variety of answers such as "Yes || Y || si || Ja || oui", one would negate the value of the Survey Answer and be back to trapping for all the various answers with a big OR statement, i.e. UPPER(Message) = 'YES' || UPPER(Message) = 'Y' || UPPER(Message) = 'SI', etc.
 - a. A process builder on the SMS History works well for open-ended questions such as "Full Name please?" but if your survey question uses multiple Possible Answers you should use the Survey Response object instead of SMS History.
- 2. **Survey Response** The survey response is ultimately the best place to put all your business logic for handling survey answers because unlike SMS History it has a relationship to the defined Possible Answers and thus with a single line of code you can handle answers to a Yes/No question where the Possible Answers may have been "Yes | | Y | | Yes, thank you | | Si | | Yep | | You betcha ya".
 - a. If you had tried to handle this in the SMS History you would be reproducing all the logic and defeating the purpose of being able to dynamically update your **Possible Answers** as you see new ways that customers answer your question incorrectly.

Survey Response Method

We recommend creating a single Process Builder on the Survey Response object and name it something like *Survey Response – Master Processor*. Then you can just add more criteria nodes as needed for handling different survey responses.

Key things to remember:

- 1. The Survey Response is created immediately when the outgoing question is sent with NULL values for the Answer (actual answer provided by the customer which is the same as the SMS History.Message) and the Answer Name (Lookup field to the Answer Path record defining the various possible answers).
- 2. Thus, the criteria needs to fire only when the Answer value is **Not Null** and **IsChanged**.
- 3. The Question_Label field becomes important in your process builder as it can be used to determine which Survey Response you are handling, or you can reference these by the QuestionID if you prefer.
- 4. The process builder criteria should use the Answer ID value coded into the criteria. You may want to create a formula field to the Answer.Name field on the Survey_Response object so that instead of ID's you use a more friendly answer_name value. We hope in a future version that the Possible Answer will also have an Answer Label field.



- a. DO NOT be tempted to traverse to the Answer table to use the Answer.Name because you'll get flow errors when the Survey_Response.Answer lookup field is null.
- 5. Open-ended questions such as "Supply your email" or "Supply your full name" still need to have an Answer defined otherwise no Survey Response record is created. Open-ended answers and Exceptions to multiple choice questions should use the **OTHER** checkbox. **Figure 5** shows a survey question asking for a Date Of Birth. Note that we capture the value using the "other" answer.

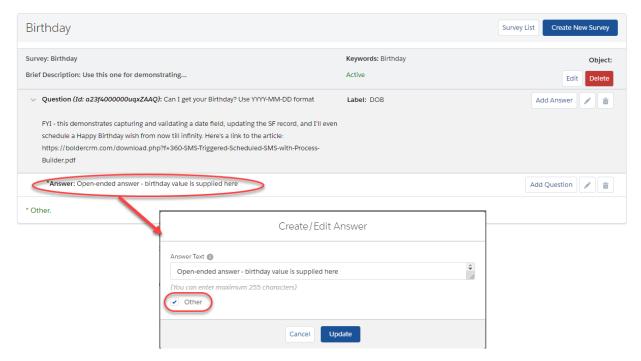


Figure 5 - open-ended questions need to have an Answer defined with the "other" checkbox in order for the Survey Response to be captured.

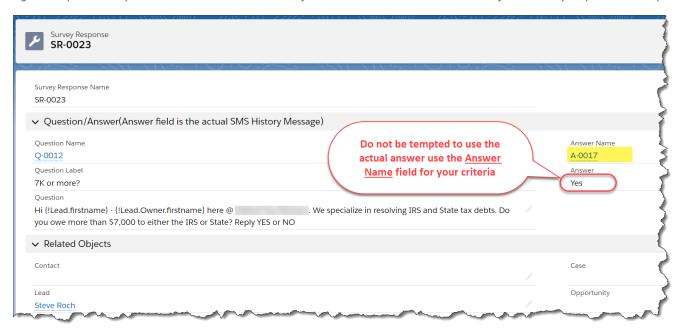


Figure 6 - Survey Response record is created immediately when the outgoing question is sent, then updated with the Actual Answer and the Answer Name (Answer Path)



Process Builder Examples

Below is an example process builder for the Survey shown in Figure 7.

- Figure 8 shows the Survey Response (A-0017) which we want to handle
- Figure 9 shows the process builder criteria handling the YES answer path for the 7K or more? Question
- The process builder criteria checks for the specific Question Label and the ID of the Answer Path.
- In this process builder we take the following immediate actions:
 - a. Update a Field
 - b. Stop a Drip Campaign (see the document 360 SMS Drip Campaigns
 - c. Schedule a Call for the Lead.Owner

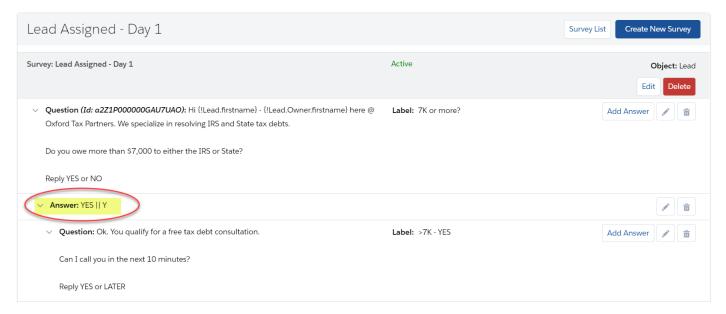


Figure 7 - The survey where we want to take various actions on the YES answer to the first question



Figure 8 - Answer path A-0017 is the YES path for the "7K or more?" question



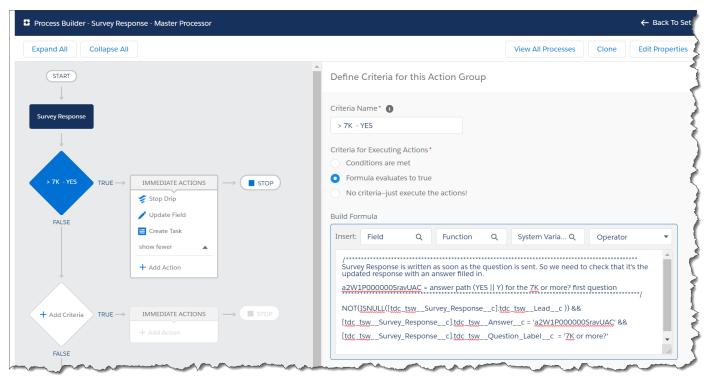


Figure 9 - Survey Response process builder showing criteria and actions

Below is a code snippet from the criteria of the process builder above. Note that we like to use Formulas for our Process Builder Criteria because we can comment our code using the /* some comment */ syntax native to Salesforce formula fields.

Note also that any number of Immediate Actions could be performed, here we:

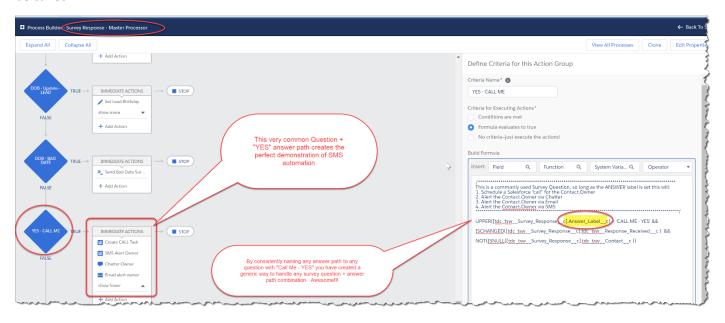
- 1. Stop a Drip Campaign (see 360 SMS Drip Campaigns and the video) or we could have started a drip
- 2. Update a field on the Lead record as the Survey Response has lookups to all your objects automatically
- 3. Create a Salesforce Task for the sales rep to follow-up with the client



Create an Answer Label for Common Question/Answer combinations

It is quite common to have numerous surveys in one Salesforce org asking questions in different ways or in different places in the survey flow but you want to have a single process builder that handles that particular question from any survey. To tackle this, consider adding a Answer_Label column to the ANSWER object and a formula field on the Survey Response which also points to this answer label. Then you generically have one condition that handles the same question in multiple surveys.

Example: We have a question that appears in many surveys: "Can I call you now? Reply YES or LATER". If they answer in any variety of YES (Yes || Y || yep || Sure), then we label this the "Call Me - YES" answer path and our process builder below detects that and schedules a Salesforce Task (Call), sends an Email alert to the Contact.Owner and also sends an internal SMS to the Contact.Owner with a hyperlink and phone number of the person that should be called.



SMS History Method

Especially with Open-Ended answers to survey questions or when handling simple SMS Templates, we find it easier to put our business Logic on the SMS History.

Because both the question and the response are written to the SMS History object, there is <u>context</u> to the incoming SMS History, i.e. the Incoming SMS has the Question or SMS Template that was asked as a field on the SMS History record. One need only create a Process Builder or Flow detecting the Incoming SMS to a particular Question and then take action with all the power of Process Builder or Flows such as to Update Records, Create Records, Send Email Alert, Send SMS Alerts to managers.

Below is a code snippet from the process builder receiving an Email Address from the question "What's your email?" This code also ensures that we have a valid email address. There is a similar Criteria Node in this process builder checking for a Bad Email to the same question and the immediate Action is to send a Template which says "Bad Email address please provide a properly formatted email"



Criteria Formula Explained:

- 1. Name is the API name for the TYPE field (Incoming or Outgoing)
- 2. Tdc_tsw_Question__c is the QUESTION ID that was asked. Get this ID from the URL when clicking on the question. This could also be $tdc_tsw_SMS_Template_c$ if using a template
- 3. Check that the Incoming SMS is linked Contact (or whatever object since later we'll be updating the record)
- 4. The message text is the field tdc_tsw__Message_Text_New__c. Make sure to always **TRIM** and **UPPER** the field on the left so you are handling case sensitivity.



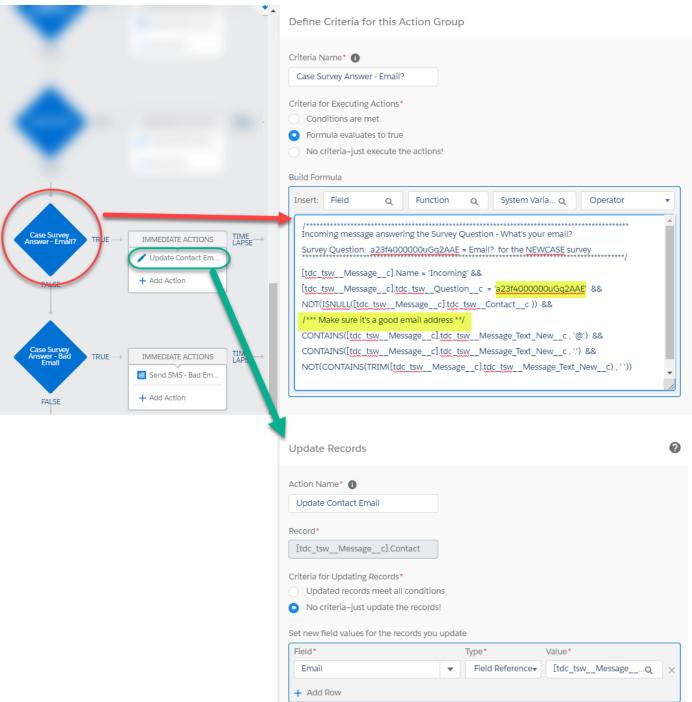


Figure 10 - Process Builder detecting a Survey Answer and updating a Salesforce field



Figure 11 below is a second example of a Survey asking a "what's your name" question. Here we've used a technique to allow the **FULL NAME** question to be asked on <u>any</u> survey by creating a **Question Label** custom formula field on the SMS History Object. With this technique, so long as the survey administrator names their question label **FULL NAME** our process builder will handle any and all survey questions named **Full Name** the same way because it's not testing for a particular Question it's generically handling all questions labeled "FULL NAME"

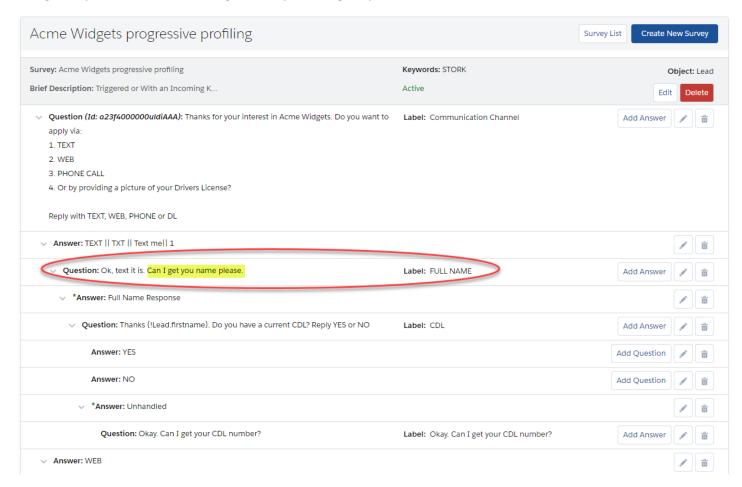


Figure 11 - Survey gathering lead data



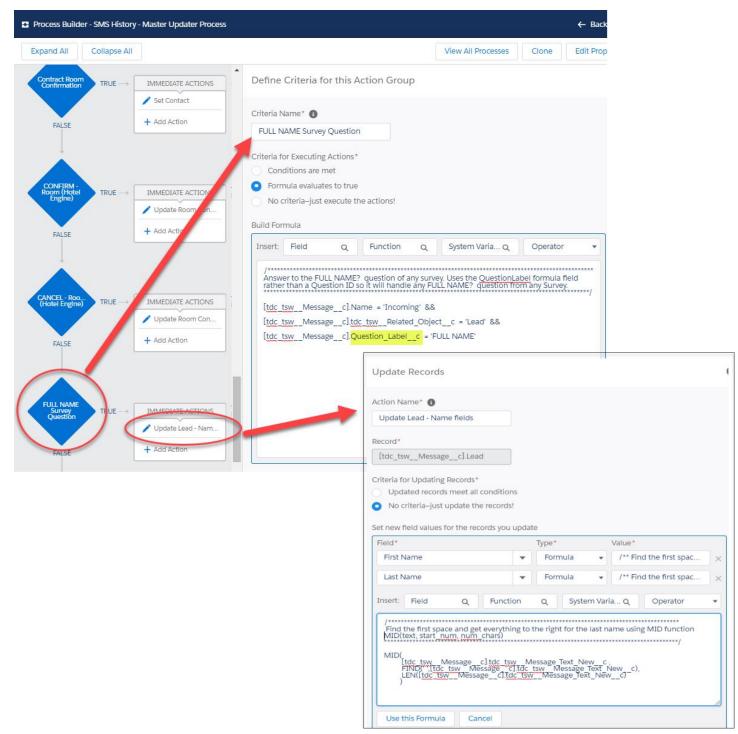


Figure 12- Process Builder handling the Full Name response to "What's your name?"



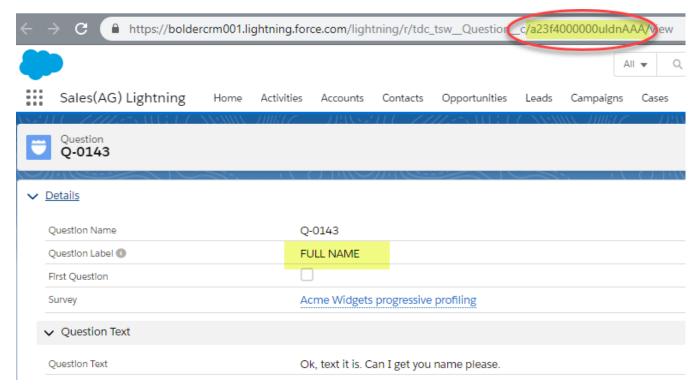


Figure 13 - Get the QuestionID by drilling into the question field from the SMS History. Then get the ID from the URL.

Below is a code snippet to parse a First and Last Name value from a "Full Name" question.

First Name

```
/** Find the first space character and get everything to the LEFT of that **/
LEFT(
        [tdc_tsw__Message__c].tdc_tsw__Message_Text_New__c,
        FIND(' ',Trim([tdc_tsw__Message__c].tdc_tsw__Message_Text_New__c),1)
    )
```

Last Name



More Examples

Figure 15 shows an outbound SMS Template from the Case object asking if we can CLOSE the Case. The associated Process Builder detects that it's an Incoming Message from a specific Template and interrogates the Message Body. For easy copy/pasting the criteria is below.

Figure 14 - typical criteria handling an SMS Template response



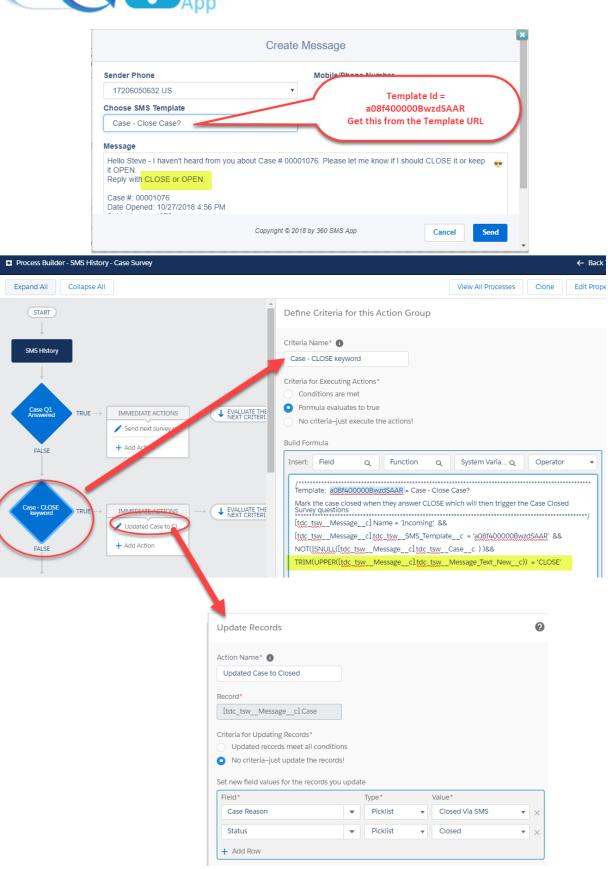


Figure 15 – Processing an Incoming Answer to a question and updating a Salesforce field accordingly.



Dynamic Survey Response Action Handler Module

Even though, we have fully documented the programmatic methods of taking action on Survey/ChatBot answers, Bolder CRM has invented **Dynamic Survey/Chatbot Action Handling** which eliminates all one-off programming.

With a packaged but customizable module we now offer **generic point-and-click actionability** for any Survey Question. This completely eliminates the majority of Process Builder/Flow development documented above.

By adding several new fields to the 360SMS **Answer Path** object we've created a point-and-click method for end-users to define what actions should be taken when the question is answered taking a particular Answer Path.

Most importantly, the module has built in **field validation** for various Salesforce field types that would generate flow errors if one simply tries to stuff the answer text into fields such as Date, Number, Email, etc. The Field Update validation re-routes to a **Valid Response** and **Invalid Response** dynamically. An example would be a response to a Birthday or Email question where the answer is a bad date format or an email without an @ or at least one dot.

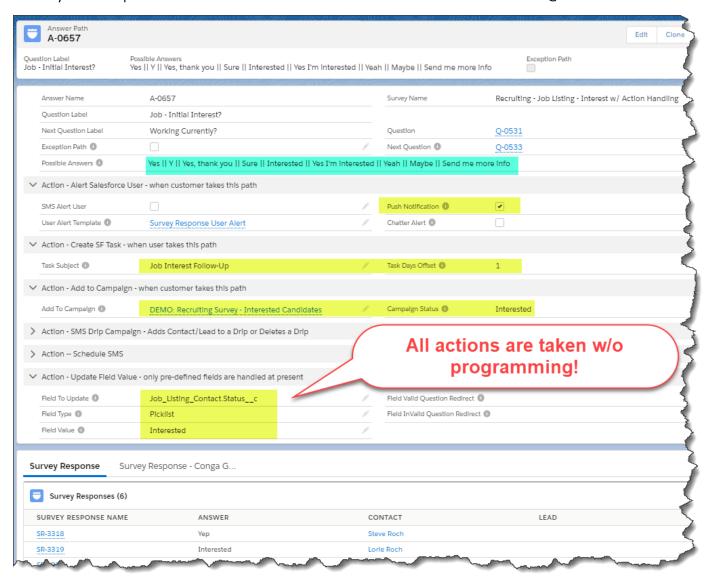


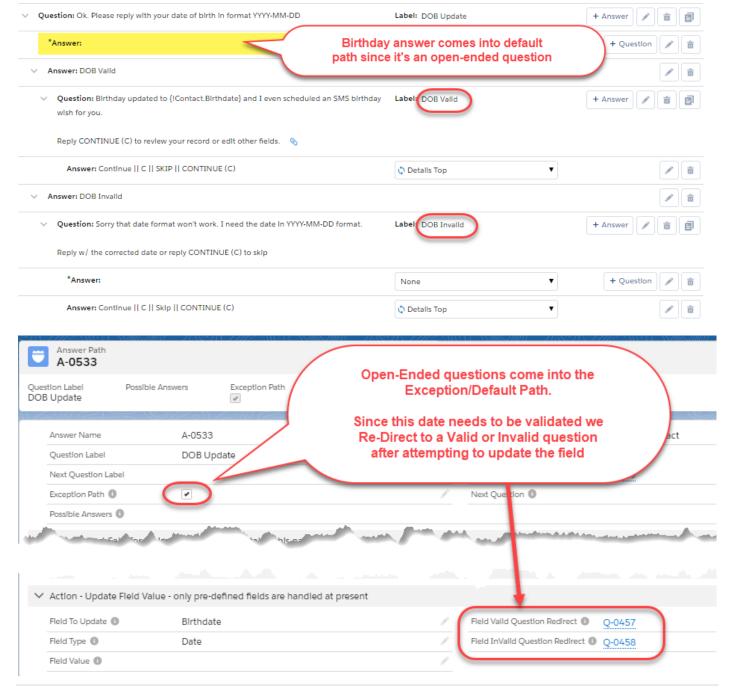
Figure 16 - generic Actionability for any Question/Answer with no programming



Currently supported dynamic Actions are:

- Field Updates including field validation and Valid/Invalid Re-Directs
- Add to a Salesforce Campaign add the contact/lead to an SF Campaign along with a Status
- Create Salesforce Tasks set the Subject plus Days Offset of the task
- Alert internal SF Users Push Notifications, Chatter Alerts or send an SMS to the SF User
- Schedule additional SMS schedule another SMS or another Survey into the future
- Start/Stop an SMS Drip Campaign put the customer on an SMS Drip campaign or stop an existing drip

Below is an example Birthday question showing how the field validation is handled:





About the Author

Steve Roch, CEO of Bolder CRM is an SMS Industry expert having worked or consulted with the top three SMS Apps on the Salesforce AppExchange and also having built the popular Salesforce app ActionGrid, acquired by Conga in April-2016 and renamed Conga Grid now. Bolder CRM is the exclusive distributor of 360 SMS in the United States, Canada and the United Kingdom.

Learn more about Steve and Bolder CRM at https://www.BolderCRM.com and https://www.linkedin.com/in/steveroch/

Call or Text: 720.605.0632

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Text **DEMO** to **720.605.0632** to experience several live ChatBots including the one above allowing you to UPDATE fields of your own contact or lead record.