1 Scenario

SAP xApp Mobile Sales for handheld 5.0 enables sales representatives to complete surveys/questionnaires that have been defined in the CRM system while visiting their customers. For example, surveys can be used for auditing purposes, inventory counts or to gauge customer satisfaction.

2 Introduction

This how-to guide will explain how the Mobile Sales for handheld enables surveys on mobile devices and what necessary steps are required to enable this functionality. You can deploy surveys to the client with 2 alternate methods: via a standard synchronization container or via add-on. The step-by-step section of this guide explains the two procedures.

In order for the surveys to be sent down to the device the three following conditions have to be met:

1. Surveys are directly linked to activities, so it is necessary that:
   a. **The activity and surveys functionalities are enabled** in the Mobile Sales for handheld customizing in the IMG (transaction SPRO) for the appropriate organization. If you will be using the surveys via the Component Add-On method you should disable the survey functionality for the organization to prevent it from coming down as part of the container.
   b. **The sales representative (user) has an activity scheduled** that falls in the relevant validity period. Validity periods are also configured in the IMG.
2. In the Survey Attributes (Survey Suite), the Offline Handheld option must be checked.
3. In the Survey Repository (Survey Suite), the Static Survey XSLT CRM_SVY_GENERATE_HHOFFLINE_TEMPLATE.XSLT must be present.

Also, please take note of the following:

- Surveys are Client dependent in CRM. Make sure that you create the surveys while logged in to the same client as you will use for Mobile Sales for handheld.
- This guide assumes that the user is familiar with the CRM Survey Suite and knows how to create questionnaires. More information on this topic can be found on [SAP Help](https://help.sap.com).
3 Step-by-Step Solution

There are two ways that the surveys can be used with Mobile Sales for handheld. The first method will bring the surveys down to the device along with its related activities as part of a standard synchronization container.

The second method enables the use of surveys via add-ons. This means that the surveys can be deployed to the device via a downloadable add-on which is deployed from the Mobile Infrastructure server component. This method is only recommended in a very high data volume situation, where we need to cut back on the data coming from the CRM system. It adds additional complexity and administrative overhead.

The following step-by-step explanation will detail the two methods of using CRM surveys with Mobile Sales for handheld.

3.1 Settings in the CRM Survey Suite

1. Access the IMG with transaction SPRO. Follow the path shown in the screenshot and click Define Questionnaires.
2. To create a new survey for use in the Mobile Sales Application highlight the Activities folder and click on the New icon.

3. You can now enter a New Survey Name.

4. Once inside your survey, click on the Maintain Survey Settings button at the top left of the screen.

5. It is recommended to leave the validity period blank in this step, as you will define it in the determination procedure step which follows.
6. Enter the *Short* and *Long Descriptions* for your survey in the *Administrat. Data* tab.

7. In the Scenarios tab make sure to enable Offline Handheld. This is the only option that is required to format the surveys for the handheld device.

8. Once the settings are configured you can save your changes and go back to the survey list page by hitting the *F3* key or using the green *Back* button on top.
Next to your survey name you can see the status of the survey. It is currently inactive. Activate it by clicking the icon in the top menu.
3.2 Define Determination for Questionnaire

10. Now that the survey has been created and setup for handheld use, we need to setup the determination procedure and make some additional configurations. Access the Determination for Questionnaires: Business Activity configuration as shown in the screen shot.

11. Click on New Entries OR select an existing procedure and copy it to create a new procedure. Note that, each new survey will require its own determination procedure.
12. Give a name to your new Determination procedure in the column **Determ.** In this example we call it **ZHTS1**.

13. Provide a **Description** to your new survey determination procedure. In this example we call it **How To Survey**.

14. Provide a **Validity Period** for which the survey will be active and downloaded to the devices. Once the current date falls out of this specified **Validity Period** the survey will no longer be sent to the device.

15. The **Trans. Type** refers to the Activity transaction type for which this survey will be linked to.

16. The **Questionnaire ID** is where you select the survey that you wish to activate on the device for the chosen Activity Type.

17. The **Mand.** checkbox refers to whether the survey will be mandatory to complete for this activity. The application will not allow closing an activity for which a mandatory survey has not been completed.

18. Select the **Activ** checkbox to activate the survey.

19. If you have previously defined a criteria for assigning surveys, you can select it in the **Criteria Set**. The criteria can be used to assign the surveys for a specific sales organization for example.

20. Save your changes.
21. Now that the survey has been created and setup for handheld use, we need to setup the determination procedure and make some additional configurations. Access the Determination for Questionnaires: Business Activity configuration as shown in the screen shot.

22. Click on New Entries OR select an existing procedure and copy it to create a new procedure. Note that, each new survey will require its own determination procedure.
3.3 Synchronizing and Completing the Survey on the Handheld

23. Before you execute a synchronization on the device, you must perform a Client Reset. This must be done when changes are made in CRM customizing, such as creating new surveys or changing the survey configuration. Click on Complete ➔ Synchronize ➔ Advanced Reset to perform a reset of the device database.

24. Click on Reset All Tables to perform a reset of the device database.
25. Now access the sync screen by clicking on Complete → Synchronize → Synchronize.

26. It is recommended to sync for all components when performing an initial sync, however if you are just testing your surveys you may just sync for Accounts and Activities and Tasks. This will allow us to create an activity with a Business Partner. Make your selection and click on Synchronize.
27. We can now create an Activity to test our Survey. Make sure that you create an activity of the same Transaction Type that you have assigned your survey in the Determination Procedure configuration. In this case we use *Business activity*, which was defined as Transaction Type *ACTI* in CRM.

Note that Surveys are currently unavailable when creating an activity. The survey options only appear when you perform a synchronization. At that point CRM will recognize the new activity of transaction type ACTI and assign the surveys that were customized for it.

28. Perform a synchronization for Activities and Tasks and access the Activity that you created once again.

You can now see the Mandatory and Optional surveys that are currently configured for this Activity Transaction Type. Click on *GO* to access the survey you have created.
29. The Survey can now be completed and stored until the next synchronization is possible.

30. Take note of the asterisk (*) that now appears next to the survey name. This indicates that the survey has been completed but not yet synchronized. Also note, that once you synchronize the asterisk will disappear and the survey values will be reset to default.
3.4 Downloading Surveys via Add-on Component

A different way is to download the survey as an add-on. The example describes how the user can download the HTML templates of the selected Surveys, after proper implementation and configuration.

1. Ensure that all steps up to step 22 have been completed.

2. In the CRM Survey Suite, click on the Survey Repository button.

3. Ensure that the entry CRM_SVY_GENERATE_HHOFFLINETYPE TEMPLATE.XSLT is present in the Static Survey XSLTs section. This is the template for the Media Type: 90, which is required. If it is not present, you will need to upload it into the CRM backend.
4. Run the Reporting transaction, CRM_HH_DOWNLOAD_SURVEY_HTML from System -> Services -> Reporting. Select the survey IDs for which the HTML templates have to be generated. Enter the full path of a directory in the local PC. Make sure that the directory exists. Execute the report after entering the above information.

5. Zip the html files that got generated in the specified directory.

   Note: the name of the zip file should be always "html.zip".

6. Put the html.zip in another zip file called "survey.zip"
7. Upload the survey.zip to the NWA via the SDM (Software Deployment Manager) with proper version no. Note: the zip file should be uploaded as a type "add-on". Also the application name which is going to be mentioned in the Upload screen should be always "SURVEY".

8. Assign the new add-on uploaded to the user in the NWA.

9. Do an Application sync from the Mobile Infrastructure homepage on the PDA/desktop.

10. After the application sync, the add-on html.zip file should be downloaded to the addons\SURVEY directory of MI and the surveys are available in the activities.
4 Appendix – Frequently Asked Questions

Question:
Why am I not getting surveys down to the device?

Answer:
There could be several reasons why the surveys are not coming down or not being displayed on the device. Verify the following items:
- In the CRM Survey Suite open your survey, click on Maintain Survey Attributes and ensure that the Offline Handheld checkbox is checked
- The Validity period for the survey must include today’s date
- The Activity and Surveys components must be enabled for the user’s Sales Organization. This is configured in the IMG (transaction SPRO) → CRM → Mobile Sales for handheld.
- The device user must have an activity that falls into the time range that is sent down to the device. This period is defined by Back Days and Days Ahead in the IMG (transaction SPRO) → CRM → Mobile Sales for handheld → Activities for the user’s organization.

Question:
I am getting the following error when I try to display the survey on the device:

Error occurred while processing the survey information.

Actual Error follows:
- ~E~IBND_CRM_SVY_TEMPLATE_READ: No data record found (key &1&2&3&4)( class com.sap.cat.survey.SurveyException )

Answer:
Make sure to perform an Advanced Reset on the device before synchronizing to retrieve a brand new survey or a survey for which the configuration has changed. The Advanced Reset can be performed from the Complete → Synchronize menu option in the xMSA handheld client application.

Question:
Why do I not see the values that I entered previously in a survey?

Answer:
Once you have completed a survey and synchronized, only the survey template is displayed with default values. It is recommended that you update the status of the corresponding activity as completed, once you have finished the survey.

Question:
Can I download a completed survey?
**Answer:**
No, only the survey templates with the default values are retrieved from the CRM system.

**Question:**
How does the style sheet work for the surveys and how can I change it?

**Answer:**
The style sheet (fonts, sizes, etc…) are hard-coded in the application. The CRM system does not send any css file to the client. In order to change the look of your surveys, you should enhance the file survey.jsp in your development environment. The styles are defined in survey.jsp in lines 19-29. Please refer to the Enhancement Guide, which is available on Service Market Place for enhancement approaches and techniques.

**Question:**
Are there any existing SAP notes related to xMSA HH surveys?

**Answer:**
1. 1006020 - Survey encoding errors
2. 993184 - Special Characters in Application Data are not Decoded