

TUTORIAL - LAUNCHING AND USING THE SERVER

Tutorial version: 2.3

System used: ODK Aggregate version 1.4.2; ODK Collect version 1.4.3

Overview

To download your data from the phones to the computer, you will need to

- Launch your server using a UNHCR computer and router,
- Use your ODK server on the computer
- Configure your phones to connect them to the server

This document also contains a section on how to troubleshoot at the end. Downloading data from the server is covered in another tutorial called [Exporting Data for Analysis](#). Installing the server for the first time, and reinstalling the server in case of a problem is covered in another tutorial called [Installing, Reinstalling the server](#).

1. Launch your server using a UNHCR computer and router

Every evening, in order to transfer the data from the phones to the ODK server, the survey manager needs to launch the VM server¹.

Step 1: Before Launching the VM server

- 1) Ensure your router is running. The VM server **CAN NOT** run **without the router being turned on**.
- 2) Make sure your computer is connected to the router.

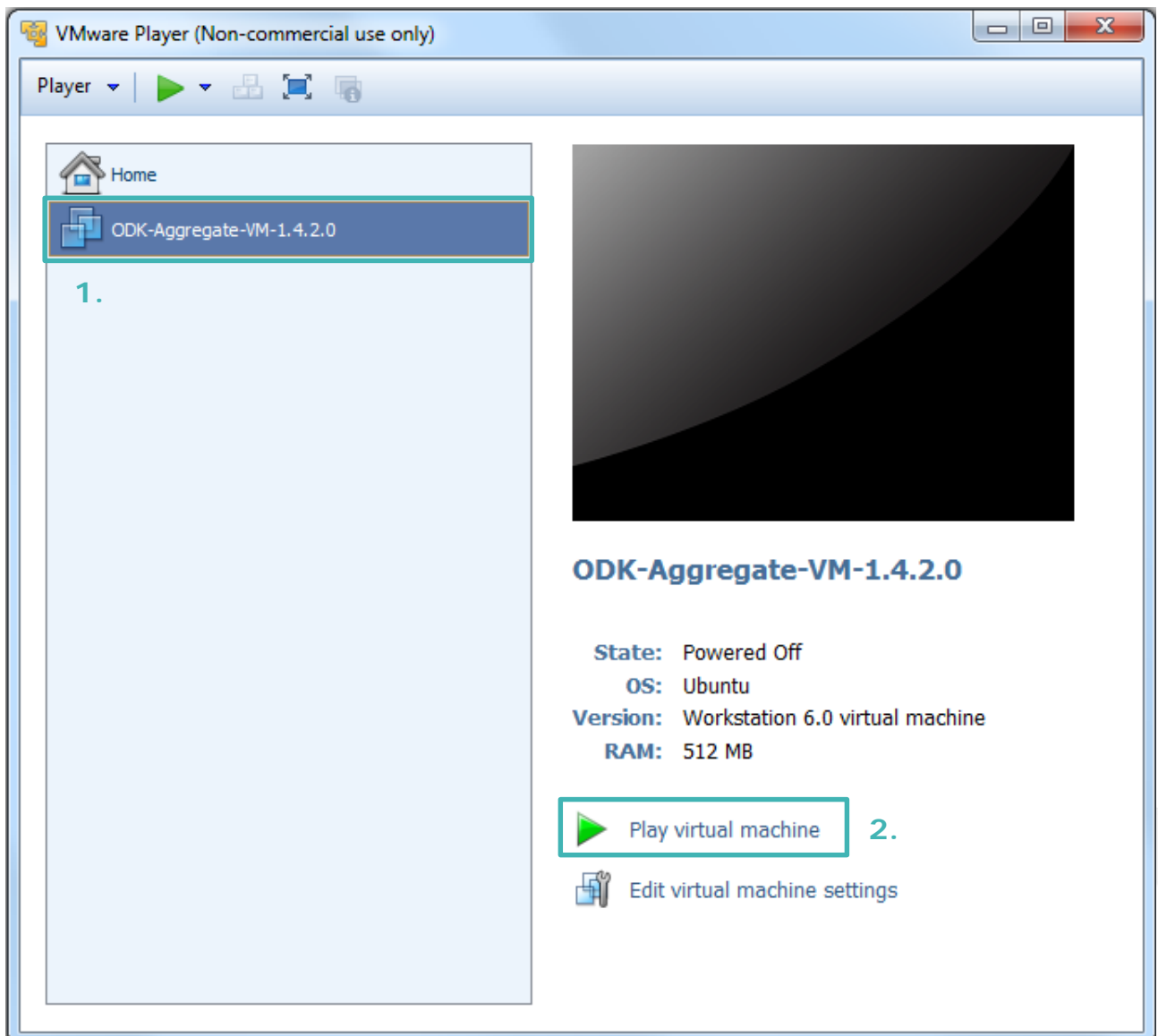
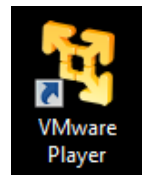
Name: UNHCRAndroid

Password: UNHCR_Android

¹ VM stands for Virtual Machine.

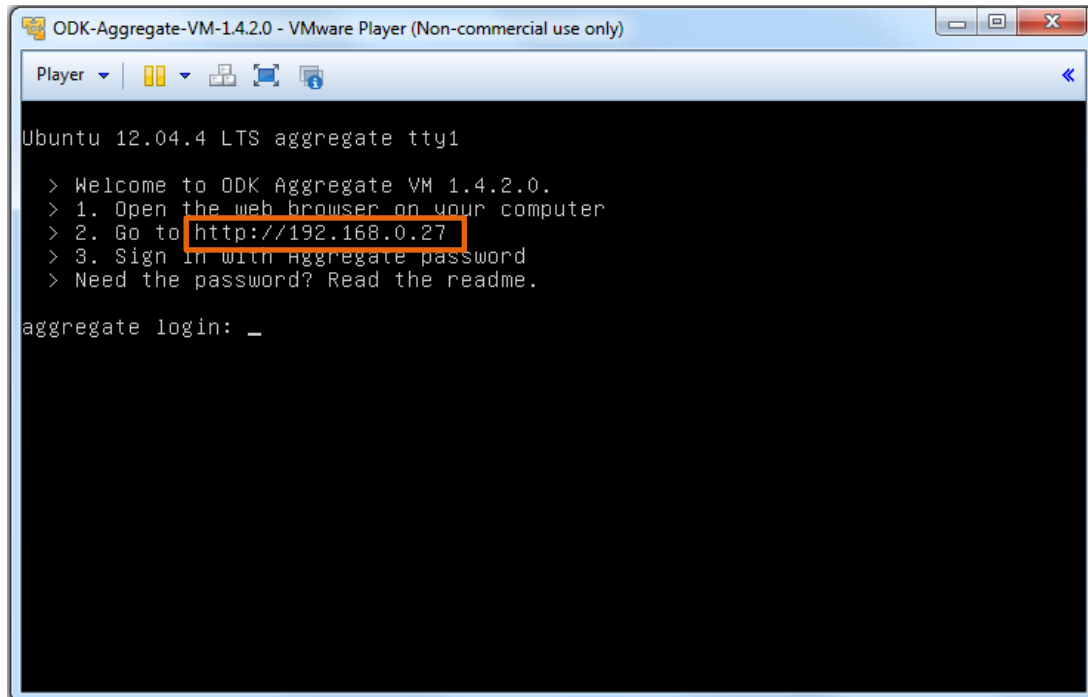
Step 2: Launching the server

- 3) Launch the VM player from the icon on your desktop (see icon). If the icon is not on the desktop, look into your programs under name: *vmware*.
- 4) In the VM player, on the left panel select your ODK aggregate VM (1.) and then play your virtual machine (2.). You can also double-click on the VM that you want to open.
- 5) Once you have launched your virtual server, the window will go black for a moment... your server is launching, be patient, it can take up to 10 minutes.



 If a pop-up shows up suggesting to apply updates, reject them.

6) Once your server is running, the VM window should look like this:

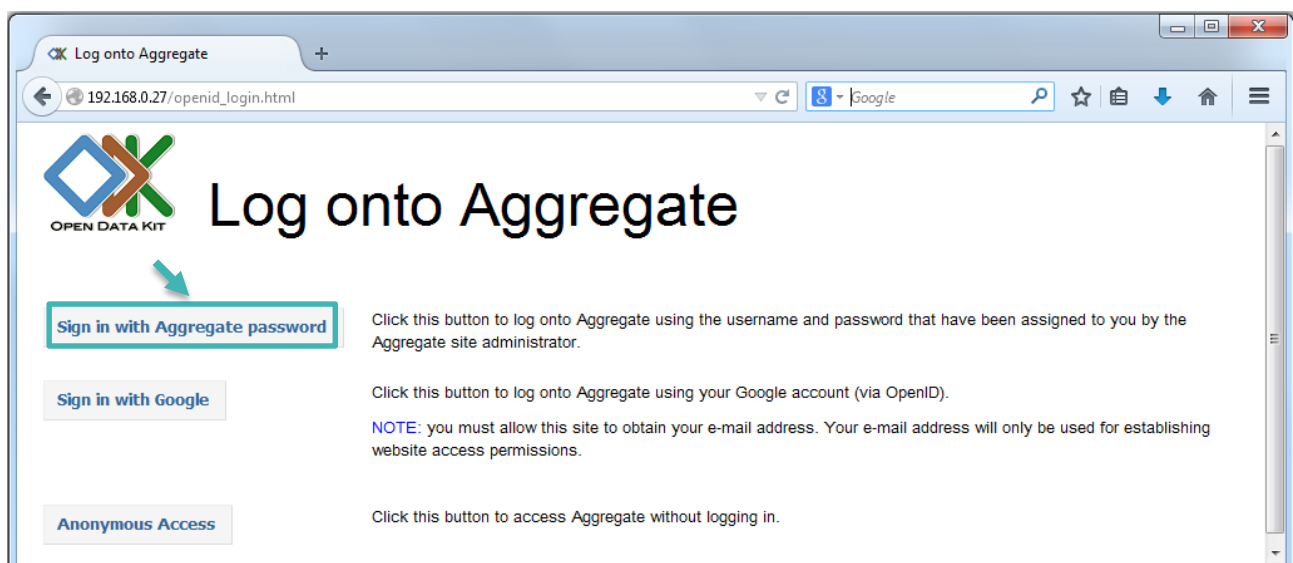


→ **Do not attempt to directly login in the Virtual Machine window.** Open an internet browser and type the URL highlighted in orange in the address bar.



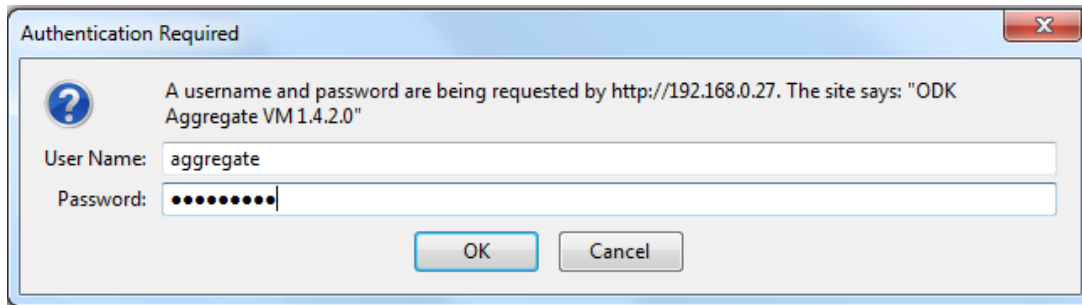
💡 Any time you change the router and hence the network, this url will change. It is not possible to run the VM Server on the same url after you have switched the network, unless this network has been configured exactly the same. Therefore you should always run the VM on the same network.

→ An Aggregate Window will show up, requesting you to log in. Use the "Sign In with Aggregate password" option.



→ Another window will open. Use the following identification:

User: aggregate
Password: aggregate



It is advisable to allow anonymous retrieval of the data. You can check if it's the case on the "Site Admin" tab in Aggregate. Make sure the box "Data collector" is ticked for the User Anonymous:

Configure Site Access

Users access the site either

- anonymously (i.e., as the *anonymousUser*), or
- via a Google account, using OpenID (requires an Email account (e.g., user@gmail.com)), or
- via an OAuth 1.0 or OAuth 2.0 token (issued by Google with access to userinfo.email), or
- via an ODK account, with a username and password that a site administrator has configured for them.

Capabilities are as follows:

- Data Collector - able to download forms to ODK Collect and submit data from ODK Collect to ODK Aggregate. Only ODK accounts and the *anonymousUser* can be granted Data Collector rights. The *anonymousUser* must be granted Data Collector rights to accept submissions from unidentified sources (e.g., from ODK Collect 1.1.6 and earlier, or from ODK Collect 1.1.7 and later if not authenticating).
- Data Viewer - able to log onto the ODK Aggregate website, filter and view submissions, and generate csv or kml files for download.
- Form Manager - all the capabilities of a Data Viewer plus the abilities to upload a form definition, delete a form and its data, and upload submissions manually through the ODK Aggregate website.
- Synchronize Tables - able to download, upload and alter data records within ODK Tables as restricted by table-access privileges granted to the user.
- Administer Tables - able to administer tables and table-access privileges from the ODK Tables website.
- Site Administrator - all the capabilities of a Form Manager plus the ability to add users, set passwords, and grant these capabilities to other users.

Edit Users

Change usernames, delete usernames, grant capabilities and set passwords for ODK accounts below.

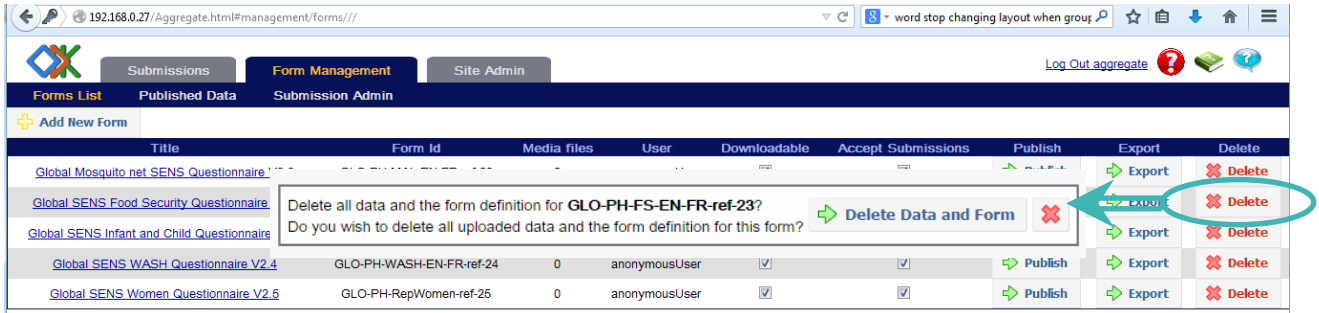
	Username	Full Name		Account Type	Data Collector	Data Viewer	Form Manager	Site Administrator
	aggregate	aggregate	Change Password	ODK	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	root@aggregate.local		Change Password	Google	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	anonymousUser	Anonymous Access	Change Password		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

Allow anonymous retrieval of images, audio and video data (needed for GoogleEarth balloon displays)

Save Changes

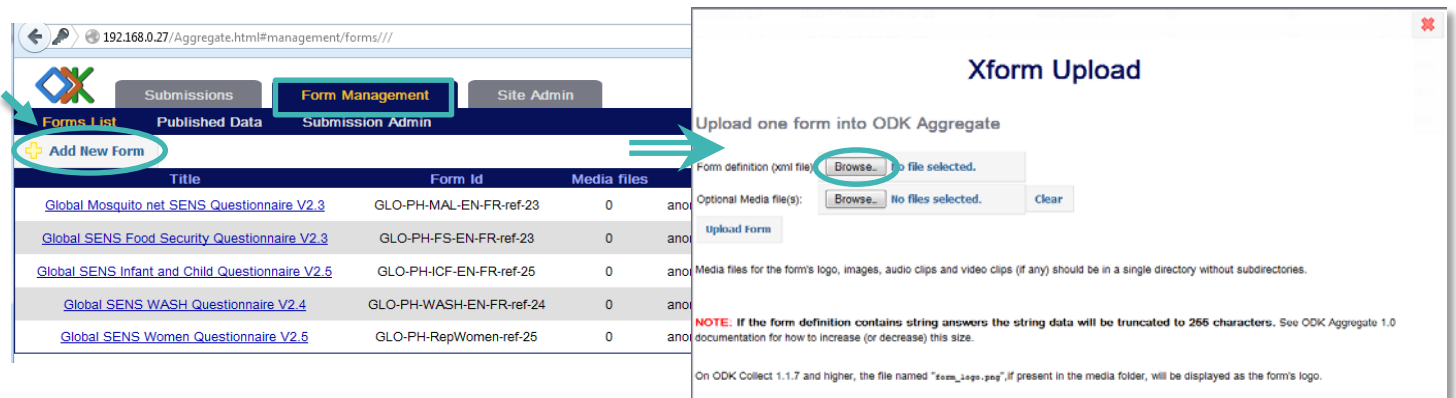
2. Use your ODK server on the computer

Before the beginning of a survey, erase any old form from the server by clicking on the delete button and confirming you want to delete both forms and data.

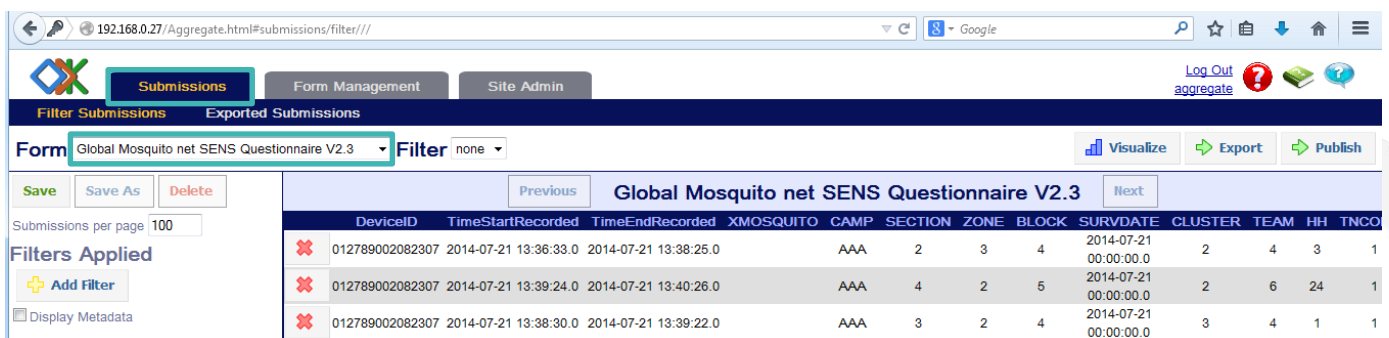


At the beginning of the survey, you have to upload blank forms to the server.

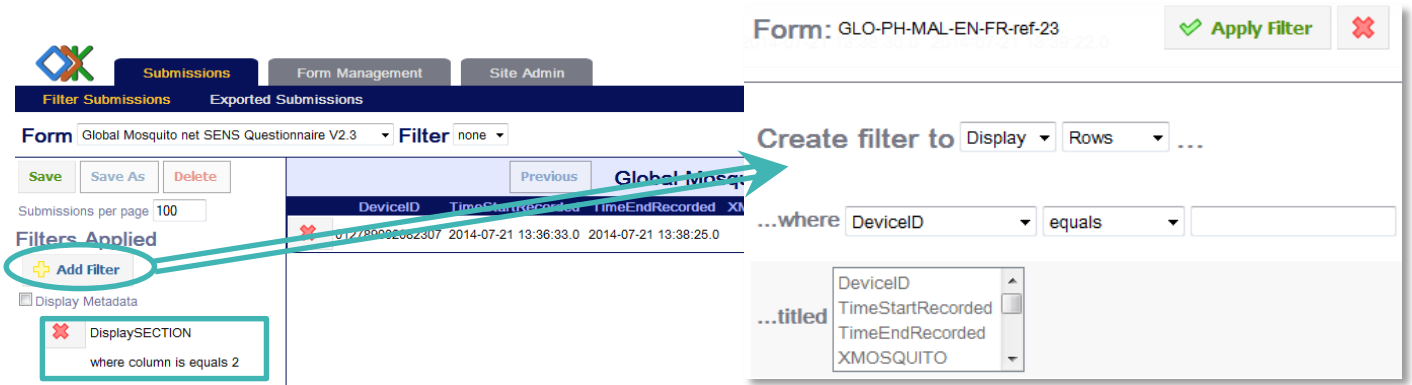
Go to the "Form Management" tab, click on "Add New Form", select the xml file of your form and upload the form. This step DOES NOT need to be repeated every evening, just when you want to add a new form to your server.



If you click on the Submission tab and you select a form, you can view the data which has been sent so far. In the example below, you can see test data for the Mosquito net form.



You can also apply a filter to display only some of the records based on criteria of your choice, clicking on the “Add filter” button on the left menu. On the following example, only the records from a specific section are displayed:



Now you can connect the smartphones to the server.

3. Configure your phones to connect them to the server

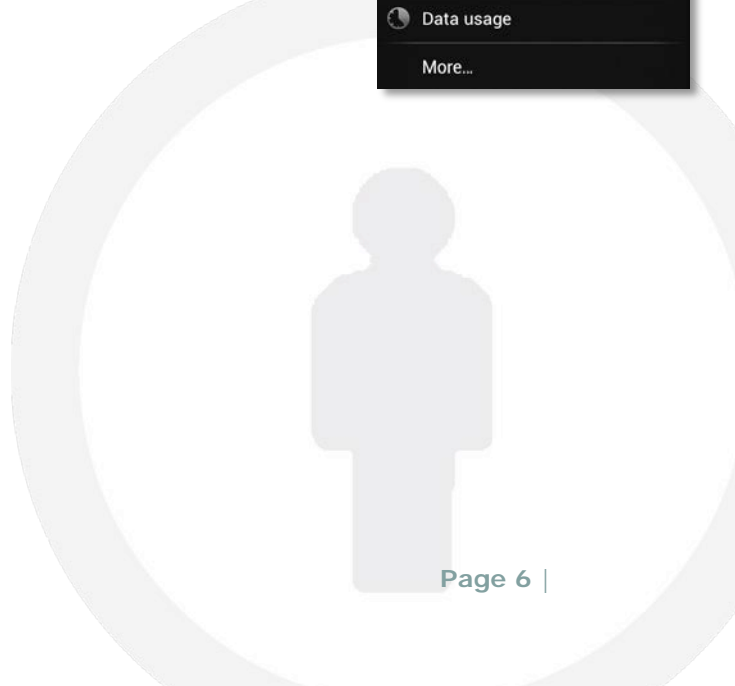
3.1. Connect the phone to the Wi-Fi network

The phones must be in **Wi-Fi mode**: click on the Wi-Fi icon on the status switch widget, so that the icon is lightened and the status bar becomes green (1.). If the widget is not visible on your phone home screen, open the Settings menu (2.), then press the “OFF” button on the Wi-Fi line to turn it to “ON” (3.).

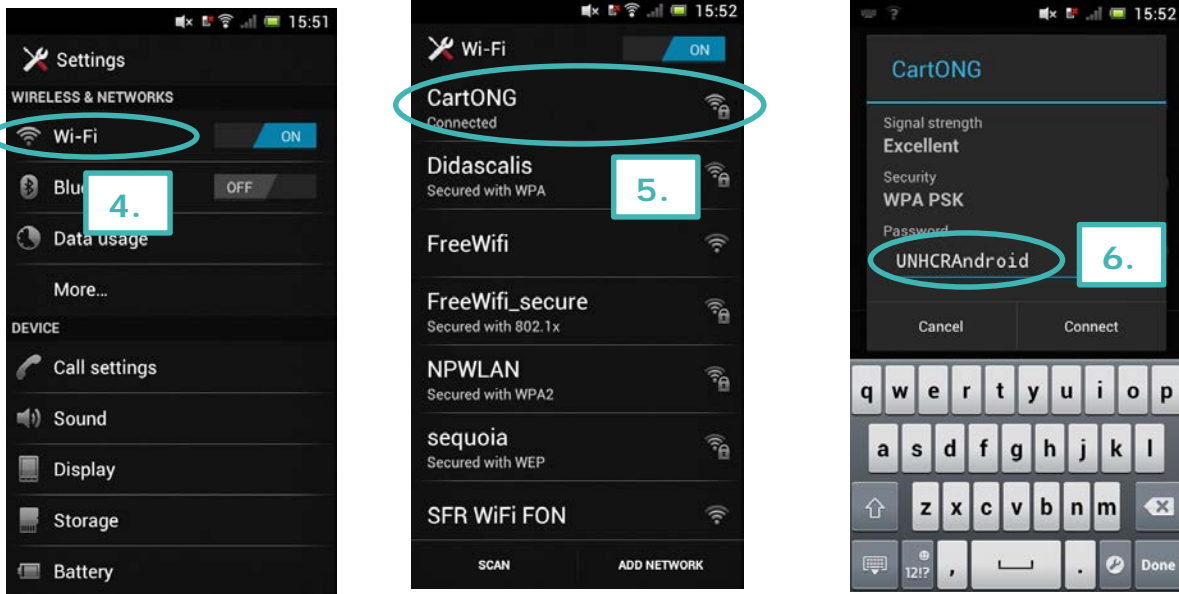
If the Wi-Fi network has never been set up on your phone, you will need to enter the log in details:

Network: UNHCRAndroid
Password: UNHCR_Android

To do so, open the Settings menu and press the Wi-Fi line (except on the ON/OFF button) (4.).



Press then on the name of the network you want to connect to (5.) (should be "UNHCRAndroid"), and enter the password in the pop-up that appears (6.), and click on "Connect":

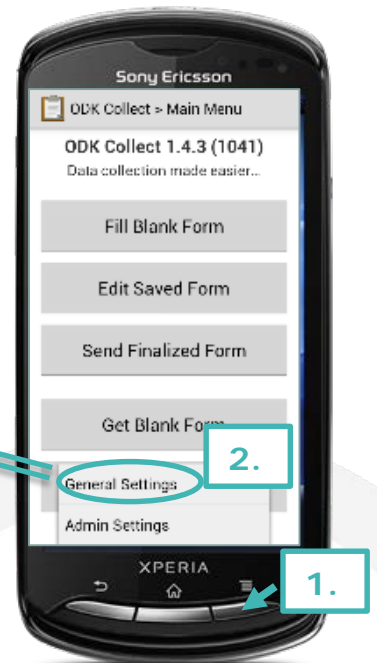
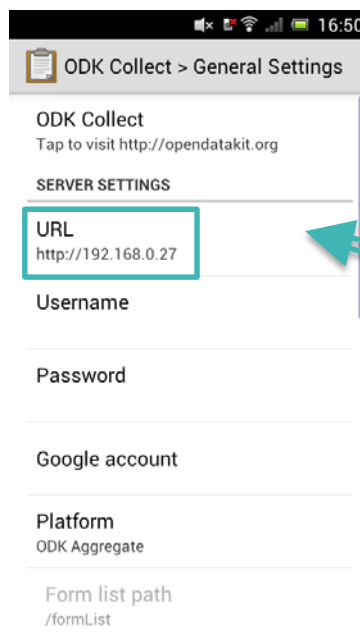


3.2. Configure ODK Collect

Open ODK Collect. Press the menu key of the phone: on the Sony Xperia Pro, it is the bottom right button on the front of the phone (1.). Two options will appear, "Admin Settings" and "General Settings". Press on "General Settings" (2.).

Select "URL" and enter the IP address of your server, in this example it is <http://192.168.0.27> (it is the same address we used before while connecting with ODK Aggregate).

No username and password are required.



4. Download new forms from server

Select *Get Blank Forms* at the bottom and select the forms you want to load on the smartphone (1.).

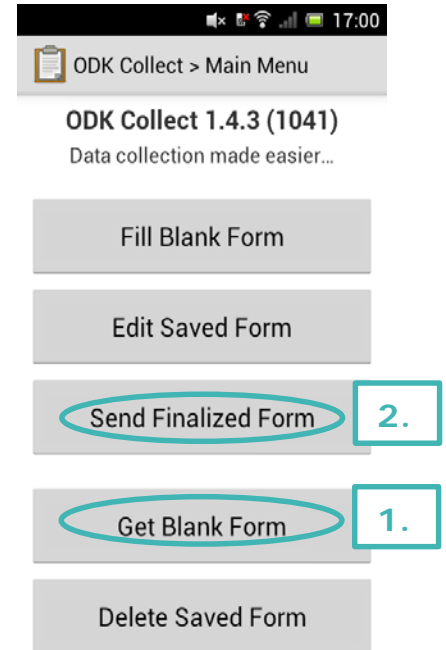
The forms are now on the phone, ready for the surveys.

5. Send filled forms to server

Once the survey is completed and you are connected again to the network with the Aggregate server, you can send the completed submissions to the Aggregate server. Select "Send Finalized Form" (2.). Toggle all and send. A summary comes up where it should say "Success" behind all forms. The forms will now be in the server. All forms that have been successfully sent will disappear from the ODK Collect interface.

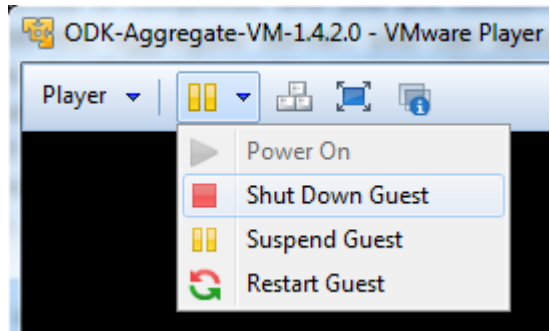



The forms are still on the SD card in XML format. So if there has been an issue with synchronization, it is still possible to upload them manually. However, if you delete them from the "Delete Saved Form" folder, they will have been deleted permanently from the SD card.



6. Troubleshooting

- Remember that your VM Server needs a network connection, Make sure you have first started the router, connected your computer to the network and then launched the VM. Doing those steps in any other orders is incorrect.
- If you are trying to open your ODK Aggregate VM with the desktop icon and an error “browse for VM or remove VM from library” appears, it means the Aggregate has been moved on your computer. You need to browse it using the search function of the Start menu.
- If the server does not start correctly, or your ODK Aggregate browser displays “This webpage is not available”, you may have to check whether your router is still working and your computer is connected. If they are not working/not connected, you will need to reset the server by clicking on the pause button and selecting “Reset”. If you have to shut down the computer, you should always “Power Off” your VM Server.
- If your ODK Aggregate browser still displays “This webpage is not available” after trying that, try to temporarily turn down your Firewall and/or Antivirus. As a last resort, try to shut down the VM and restart your computer.
- If your VM still does not work after trying all these solutions, it may be corrupted. Possible causes for that are a switching off WIFI network while the VM is running, wrong extraction, moving the VM’s directory improperly (it does not like drag & drop) or placing it on a FAT32 partition (after several uses, the VM becomes too big). You then need to create a new VM, see tutorial on [Installing, Reinstalling the server](#).
- If a connection to the router fails (resetting the router by switching it off for at least 30 seconds needs to be attempted first!) and there is not an alternative router at hand, you can also run the server and the synchronization through a spare phone. You will need to change the Wifi server settings on all phones including the ODK server settings and the WiFi network will be much less powerful, so only use it as a last resort solution.



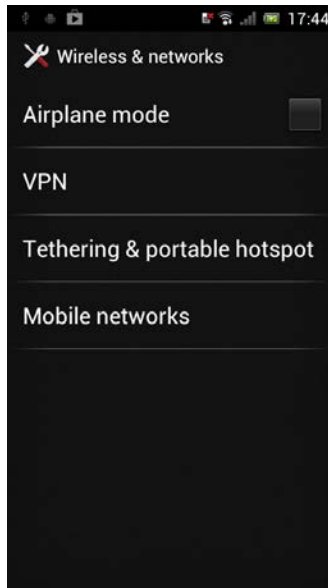
 This does not work with all Android phones; the concept has been successfully tested with the Sony Ericssons Xperia Pro. The phone which is being used as a hotspot CANNOT synchronise, therefore you will need to use a spare phone.



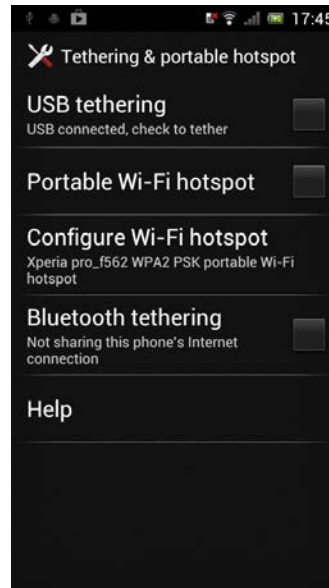
Follow the steps outlined below:



→ Select "More".



→ Select "Tethering & portable hotspot"



→ Select "Portable Wi-Fi hotspot"



→ Add a name for the hotspot. If you leave "Security" open, no password is required for the computer and the other phones to connect.

Now you can connect your server to the Hotspot (here: network ODK). Restart the server, open your browser for ODK Aggregate interface and connect all your phones to the Hotspot, change the ODK server settings and synchronise them.

