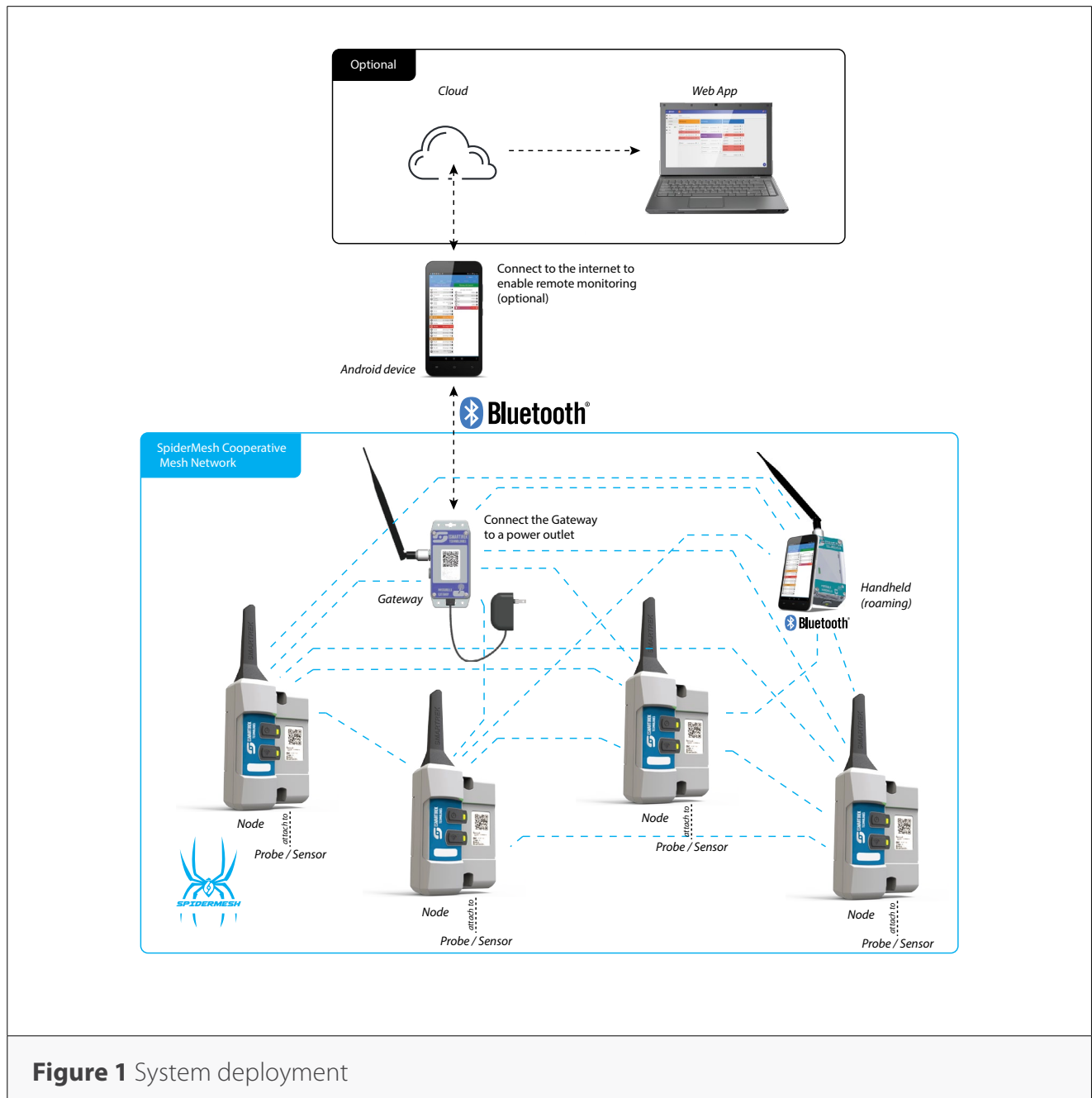# Quick Start Guide

Quick Start Guide

English

Typical Deployment

Figure 1 System deployment

Quick Start Guide

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1. Preparing the system

Most Smartrek turnkey monitoring system include a Starter kit along with the sensors.

In the starter kit, you will find:

1. A Gateway
2. An Android tablet with the Sugarheld App already installed. In most cases, the following steps can be skipped if the tablet has been previously preconfigured.

Unboxing

Step 1

Connect the Gateway to a power outlet and power it on by pressing on the ON/OFF button. Look at the LED flashing. The gateway is ready once it starts blinking at a regular pace. The Smartrek system is sending/receiving data when the LED blinks.

Step 2

Open your tablet. Look for the Sugarheld App icon , either on the main screen or by clicking on Applications. Open the Sugarheld App.

Step 3

After the main splash screen, you will either enter into the App or be presented with an installation Wizard. If you are not comfortable setting up the system manually, then follow through the steps of the Wizard to get your system operational.

Installation Wizard

Starting with a fresh install of the Sugarheld App (**not an update nor a preconfigured tablet**), the Installation Wizard will automatically launch when the App starts. You can skip the Wizard anytime, except at the end, when the finish button has already been pressed. **This step will automatically be skipped if your tablet was preconfigured.**

If you skip the Wizard, it will automatically re-launch at the next app resstart, and will continue to do so as long as there are no gateway or handheld registered in the app. Once a master component is registered in the database (a gateway or handhel), then the Wizard can only be launched manually through the Cfg. tab, under Installation Wizard.

Note that you will need to be connected to an internet network for the Wizard to configure and download your maps properly.

Wizard - step 1 - Name device

Name your device (your Android device) so that you can recognize it easily in the future when you have more Android devices.

Wizard - step 2 - Enter your address

Enter your address (the location of the system installation). It could be a zip code (or for Canadian customers, the 3 first digits of the postal code). Then tap on Search Address. The address found will be used as the center location of the maps that will be downloaded. It is important to enter the correct location or the maps downloaded won't be relevant (only maps surrounding your area will be saved to your device).

Wizard - step 3 - Remote use

Next, you'll be asked whether you wish to use the system locally only or locally and remotely (i.e. use the system outside of the network, to view your system at home, at work or anywhere in the world).
If you select Yes, then the wizard will guide you through some extra steps to configure the remote access

Wizard - step 4- Configure Google Account

For remote use, the wizard will prompt you to configure a Google Account (either choose an existing one or create a new one). Most of our services use Google services (such as Google Drive)

to store your private data.

Wizard - step 5 - Configure Alarms

Next, you can customize the basic alarm settings. You can disable/enable:
- Sound alarms on errors and warnings (you will be able to set the error limits on each sensor later on)
- Turn on Text-to-speech to get warnings and errors even when not looking at the system

Wizard - step 6 - Configure Units

Next, you can customize the units that will be used throughout the app. You can choose either Metric or Imperial units or tap on Customize Units to choose the right unit for each of your measurements.
- Metric units : distance in m, height in cm, temperature in °C, positive pressure in bar, negative pressure or vacuum in in Hg, volume in L, flow in gpm (UK gallons)
- Imperial units : distance in ft, height in in, temperature in °F, positive pressure in psi, negative pressure or vacuum in in Hg, volume in gal (US), flow in gpm (US gallons)

Wizard - step 7 - Choose Application

Next, you will be prompted to select the main use of the Smartrek system. Choose general application if you are unsure.

Wizard - step 8 - Reader or Writer

Then, you will be asked to choose how the app will gather data from the Smartrek system:
1) by pairing with a Gateway (choose this if this is your first installation)
2) by pairing with a Handheld
3) if you answered yes at step 3 (you are going to use the system remotely), by reading data from the cloud

Wizard - step 9 - Install gateway

Now it's time to install the device that you have chosen in step 8. Tap on scan if applicable to scan the barcode of your gateway or handheld. Then, name your gateway/handheld device. The next two steps will configure the gateway settings (if applicable) depending on the configuration of your network size and estimated coverage.

Wizard - step 10 - Define system

Enter the distance of the farthest node from the gateway (from your main location). In other words, what will be the radius of your Smartrek network if the center is at the gateway.

Wizard - step 11 - Configure Performance

Choose how you would like to optimize the system:
1) Save batteries (low data-rate). You should choose this option if you do not currently need very high data rate to save your battery life. When saving batteries, the system will respond slower than with the high performance option. You will still get a lot of data, but not once every second.
2) High performance (high data-rate). You can choose this option if you are currently monitoring a critical operation. The system will respond very fast and consume a lot more batteries.
You can choose to run on the Save Batteries mode at all time. You should still have plenty of data. Once the wizard is over, you can still change these options manually without having to re-run the Wizard. To do so, go to the Node tab in the Sugarheld App. Tap on your activated gateway. Change the duty cycle from 5% (battery saving mode) to any higher value (e.g. 10%, 15%, 20%...).

Wizard - step 12 - Enable features

There are a few features that are only available for handhelds users. If you plan on roaming on the network using handhelds in your system deployment, then select the Handheld use. For most applications, you will not need this advanced option. If you are unsure, leave unchecked.

If you have chosen to use Handhelds, then you will have two more options:

1) Enable Chat/DB sync/Synced Notes on map: select this option if you wish to chat within the Smartrek network with your workers/colleagues or if you wish to sync your DB (sensors' list) in the field using handheld devices. With DB syncing, you can add nodes in the field using the handheld and they will sync on the main tablet. You can also add notes on the map that will also sync to all tablets/smartphones (connected to a gateway or a handheld).
2) Enable Equipment control through Handhelds: select this option if you wish to control your equipments from tablets/smartphones connected to handhelds (control while roaming). Note that it is also possible to control equipment while roaming/remotely without these extra steps if you have enabled remote use and have internet access at the gateway.

Wizard - step 13 - Choose Theme

Choose the look of your app. For those who are getting used to the old interface (prior to 2017), select the Legacy theme. For the best experience, however, select Modern theme.

Wizard - last step (14) - Finish

You can now commit your preferences and click on Finish, or you can cancel by pressing Skip (no changes will be made). Wait until your preferences are being applied. The Wizard will also take care of downloading the satellite map for you. Once completed, the app will restart and you should be ready to start adding sensors to your network and enjoy the system!

Installing Sensors in the field

Figure 2 Sensor's buttons and features

2. Turn on the sensor by pressing on the Power button ⏻. The Network LED 📶 indicator will start blinking. The first sequence of blinks represents the Channel that the sensor is currently set on (e.g. 3 blinks = channel # 3). After the startup sequence, the Power LED light will start blinking at the same rate as your gateway once it is connected (after a few seconds to a few minutes). The Network LED will blink 3 times every 8 seconds while it is searching for the network (It is not connected yet!)

3. Install the sensors starting from the nearest ones (from the gateway). Go to the exact location where the Sensor will be installed with your tablet.

4. If the LED on the Power button of the sensor is still blinking steadily, then you can install your Smartrek sensors at that location (the blinking LED indicates a connection to the network). If the Network LED, **not the Power LED**, is blinking then you are out of the network. Install other sensors or a repeater in between. Since the sensors are relaying messages to the gateway, installing other sensors first might increase the network's coverage.

In the Sugarheld app (on the tablet):
1. Go to the Nodes tab, swipe left to right or right to left to view the sensors list (Gateway, Repeater, Pressure, Vacuum, Flowmeter, Temperature, Tensiometer, etc.) If your tablet was preconfigured, then all unused sensor types might be hidden. You can unhide them by going to the Cfg. tab, tap on Select Active sensors and check all sensor types that you wish to show.

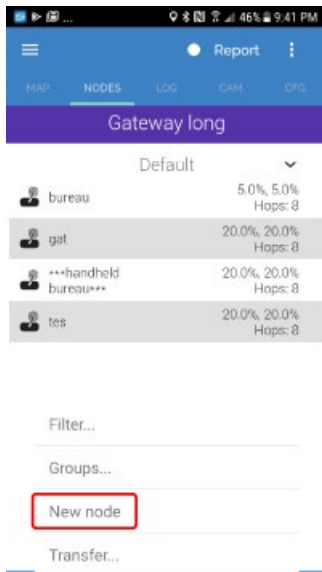3. Tap on the Menu button of the Android device and tap on Add node.
The menu button varies depending on the Android device and can be toggled by clicking or long-clicking any of the following buttons (or any other)

3. Tap on Add new node

4. In the menu, click on the scan barcode button

5. Scan the barcode on the sensor, turning on the flashlight if needed

6. Tap the Name field and name the sensor. Tap the Ok button

7. The sensor has now been installed and the sensor's icon should appear in the sensors list (Nodes tab) and on the Map tab as well.

8. Repeat steps 1-7 for all nodes to be added to the network, always using the same Android device (tablet) to add/remove nodes
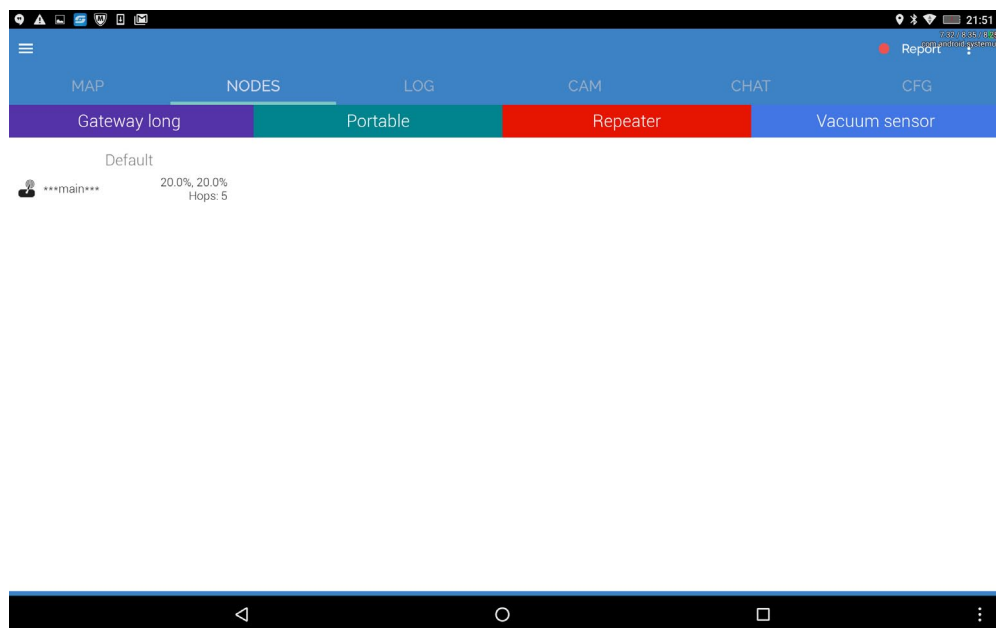
9. You will start getting your readings once you get back next to your gateway (until the tablet can communicate with the gateway via a bluetooth link)

Your system should now be up and running. If the sensors' page headers (including the gateway header) are greyed out then your tablet has not been paired with the gateway. To pair, click and hold on the gateway's name. In the menu, scroll down and tap on Activate. The app will restart, this time with a bluetooth connection with the gateway. After a few seconds, the sensors lists will change color and you will start receiving data. If the gateway stays red, make sure the bluetooth is activated on the android device and that it is in bluetooth range of the gateway.

(a)

(b)

Figure 3 (a) Gateway is not connected to the tablet and sensors lists are greyed out (b) Gateway is connected to the tablet and sensors lists are coloured
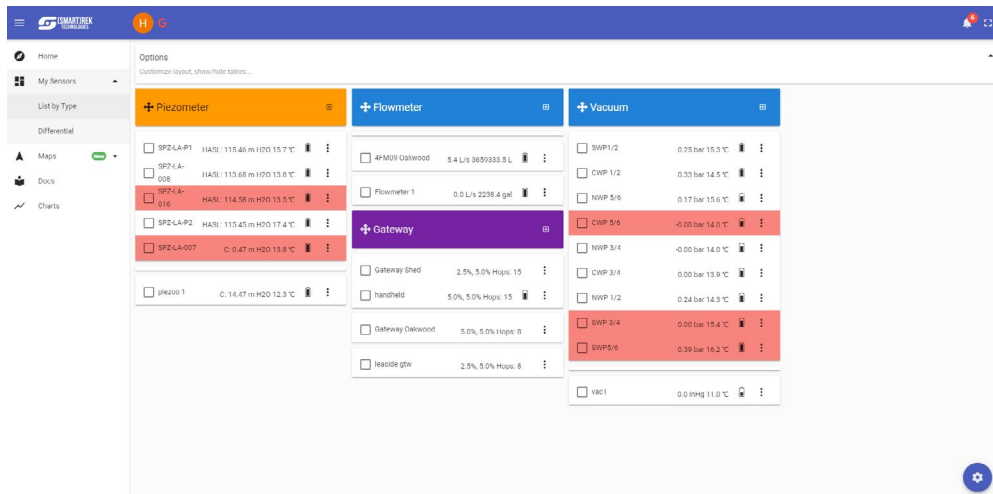
Data is stored locally in the Android smartphone/tablet. You can view the logged history by tapping on the sensor of interest and click on the graph button 📈.

If you have enabled remote use in the Installation Wizard, then you should see a Google Drive Downloading message appear at the bottom of the screen from time to time. Once the message change to Google Drive OK, then your remote access is ready to be viewed online. Open a Chrome browser on any computer/tablet/smartphone that has access to the internet. Then go to:

https://www.smartrektechnologies.com/vip/sugarheld_proto/Web15_general

Click on the user icon 👤 and log into the same Google Account as configured on the Smartrek system. In the menu, click on My Sensors - List by Type to view your system.

Figure 4 Smartrek Web App