SIEMENS

Insights Hub

Insights Hub Start for Free

System Manual

04/2024

Legal information

Warning notice system

This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.

> ⚠ **DANGER**
>
> indicates that death or severe personal injury **will** result if proper precautions are not taken.

> ⚠ **WARNING**
>
> indicates that death or severe personal injury **may** result if proper precautions are not taken.

> ⚠ **CAUTION**
>
> indicates that minor personal injury can result if proper precautions are not taken.

> **NOTICE**
>
> indicates that property damage can result if proper precautions are not taken.

If more than one degree of danger is present, the warning notice representing the highest degree of danger will be used. A notice warning of injury to persons with a safety alert symbol may also include a warning relating to property damage.

Qualified Personnel

The product/system described in this documentation may be operated only by **personnel qualified** for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

Proper use of Siemens products

Note the following:

> ⚠ **WARNING**
>
> Siemens products may only be used for the applications described in the catalog and in the relevant technical documentation. If products and components from other manufacturers are used, these must be recommended or approved by Siemens. Proper transport, storage, installation, assembly, commissioning, operation and maintenance are required to ensure that the products operate safely and without any problems. The permissible ambient conditions must be complied with. The information in the relevant documentation must be observed.

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We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

Table of contents

Using Insights Hub Start for Free

<div style="text-align: right; font-size: 3em; font-weight: bold;">1</div>

1.1 Overview

"Insights Hub Start for Free" has been designed to guide users step by step through different core functionality and services. This offering allows you to access (a selection of) Industrial IoT services for free without buying a subscription plan.

This document contains a detailed description of Industrial IoT features and capabilities supported within "Insights Hub Start for Free". All Industrial IoT and Insights Hub capabilities are not available within this offering.

This document describes the "Insights Hub Start for Free" registration process and helps you to quickly onboard a device. It also allows users to explore Industrial IoT services that are available to "Insights Hub Start for Free".

"Insights Hub Start for Free" offering provides the following features:

- Register and onboard supported devices like a mobile phone, a hand-held computer like Raspberry Pi or a MindConnect gateway to Insights Hub.

- Explore, visualize and process device data and perform basic monitoring and analytic tasks like time series forecasting and anomaly detection.

- Develop, register, test and run your own application using Industrial IoT services.

- Integrate any application with single sign-in to Insights Hub from a low-code environment like Mendix.

A navigational tool "TourGuide" can be found in the bottom right corner of the "Insights Hub Start for Free" Launchpad. Based on the tour selected by the user, TourGuide will provide step-by-step instructions to explain a specific task.

The following user journeys are available in "Insights Hub Start for Free":

- Connect a mobile phone or Raspberry Pi device

- Visualize and process the device data and get the result details via email

- Create an application using Insights Hub services

- Integrate your self-host app into Insights Hub

- Integrate an application from Mendix to Insights Hub

The following screenshot displays the start screen of "Insights Hub Start for Free" Launchpad:
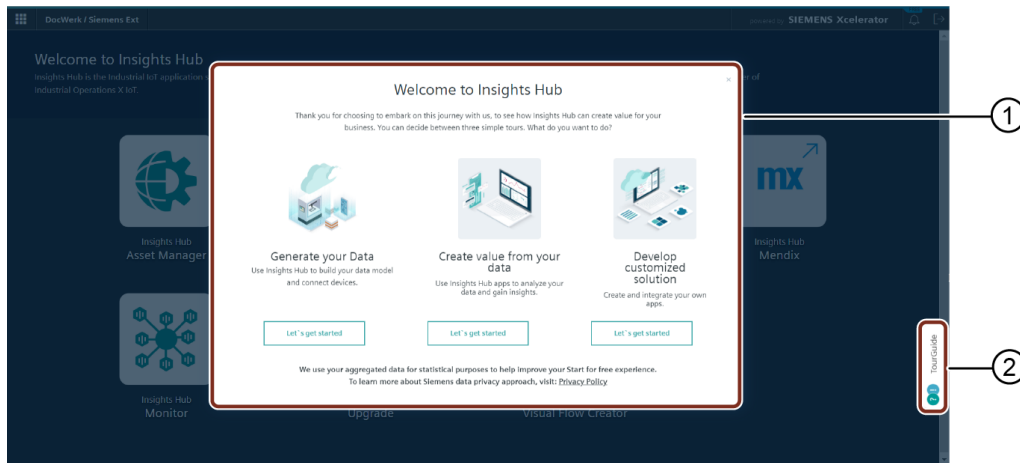
① Insights Hub Welcome screen on the Start for Free Launchpad

②   Navigational tool

> ✏️
>
> When you login to "Insights Hub Start for Free" Launchpad for the first time, all the available user journeys can be viewed from the "TourGuide". And also you can find the links for "Ask the community" and "Read the documentation" from the "TourGuide".

1.2   Register your Insights Hub Start for Free account

The following are some important points to remember when working with "Insights Hub Start for Free":

- If you have already registered your email address to use any Siemens Digital Industries Software product like NX or Teamcenter, you already have a WebKey ID and can use the same email address to register here. If not, you do not have a WebKey ID yet and will need to create one during registration.

- Every free account can have one user only.

To access Industrial IoT services for free, you first have to register as a "Insights Hub Start for Free" user.

Procedure

To create your free Insights Hub account, follow these steps:

1. Click "Start for Free" in "Insights Hub" website.

2. Enter your email address.

3. Click "Get started".

4. Fill out the form and click "Create account".

5. Activate the account from the "Activate account" link received via email.

6. After account activation, you will be redirected to your Insights Hub Start for Free account.

7. Login with your credentials.

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> - Secure your credentials, as the registration information will be displayed only once.
>
> - It is not recommended to launch from a mobile browser or a browser which uses (is set with) an incognito status.

Result

You have successfully logged into the "Insights Hub Start for Free" Launchpad.

## 1.3   Getting Started with Insights Hub Start for Free

There is a two step process to register and begin creating your Start for Free account. This is very simple and will only take a few minutes.

Create your registration

Using this link, you will need to create a secure WebKey account. You may skip this step if you already have an existing WebKey account from Insights Hub or another DI SW product.

Connecting to Insights Hub

The following screenshot displays the start screen of "Insights Hub Start for Free" Launchpad:
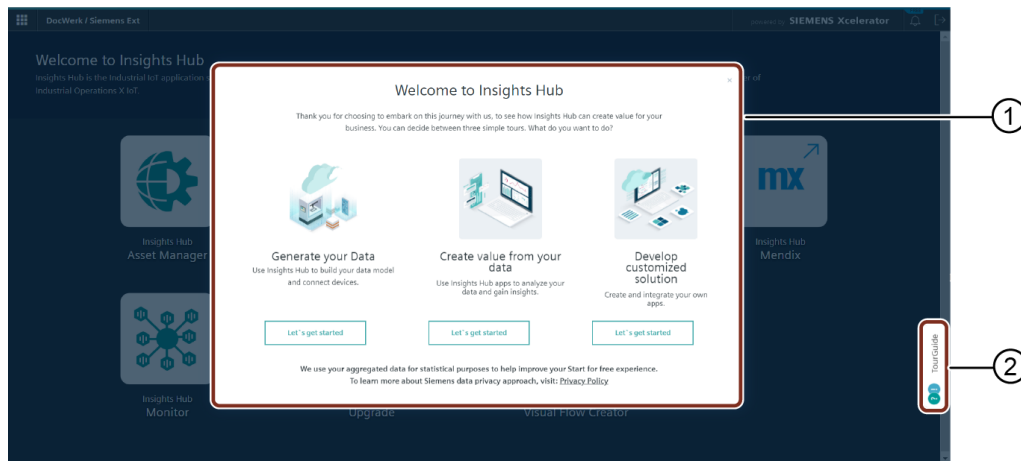
① Insights Hub Welcome screen on the Start for Free Launchpad

②   Navigational tool

> 🖊
>
> When you login to "Insights Hub Start for Free" Launchpad, all the available user journeys can be viewed from "TourGuide".

1.4   Onboarding a device

You can onboard supported devices only. Supported devices are:

- Smartphones

- Raspberry Pi

- Windows 10 devices which support Hyper-V (for more information please check out this link)

- Linux devices which support Docker (for more information please check out this link)

- MindConnect Nano, MindConnect IoT2040 or MindConnect IoT2050

1.5   Onboarding a Smartphone

To connect your mobile phone, first you need to download and install the Insights Hub Mobile Connect app in your mobile phone. Insights Hub Mobile Connect is a mobile application that helps to onboard a mobile device. The purpose of the Insights Hub Mobile Connect is to simply onboard your device (phone, tablet) into Insights Hub and with the shaking action, you can generate time series data. The time series data that you have created will then be used to view, analyze, process and perform basic analytic functions.

For Android devices, please visit: Google Play store. For iOS devices, please visit: iOS App store.

Procedure

To onboard a mobile device, follow these steps:

1. Login to "Insights Hub Start for Free" application, and click Asset Manager.

- A predefined digital representation of your device has already been created in Asset Manager for you. Insights Hub will automatically create an asset for your device.

2. Click "View your assets" and select the "MobilePhone" asset.

3. In "Connectivity" section, click "MindConnect Lib" plugin.
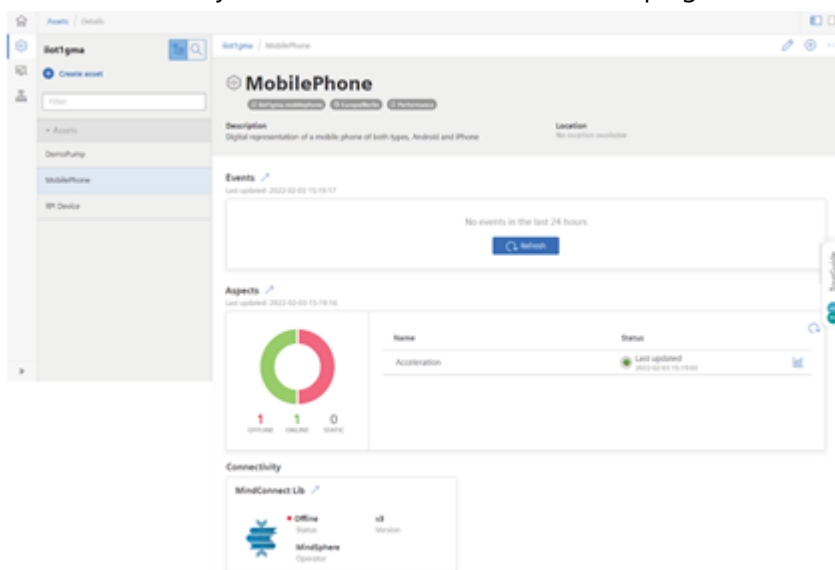
4. Select "Security profile", select "SHARED_SECRET" and click "Save".

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>
> This page is displayed only once to select the security profile.

5.Click ⚙️ to configure the device and click "Generate onboarding key".

- It will display a QR code and a text file.

6.Open **Insights Hub Mobile Connect** app on your mobile device. Scan the QR code or use the text file to onboard your mobile device.
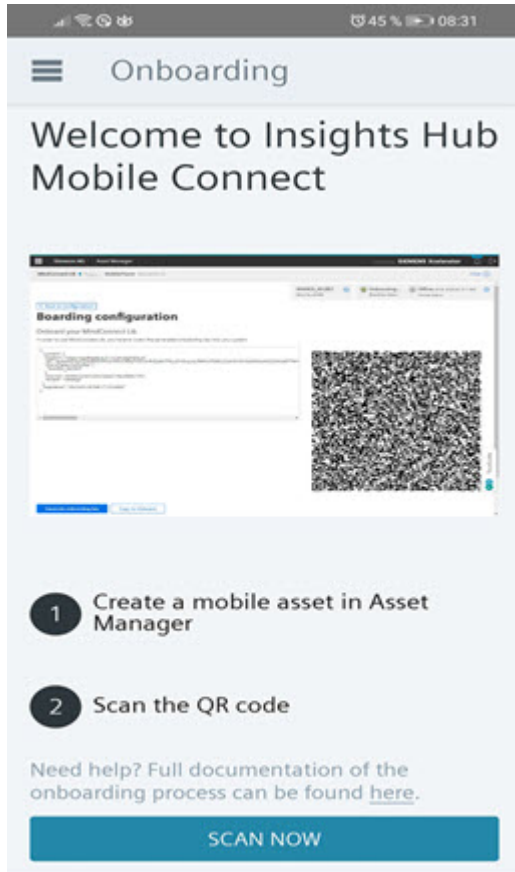
- After scanning the QR code, you will receive a pop-up message of successful onboarding.

7.Click "Start reading data" and shake the mobile device to generate the data.

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> The time series data that you create with your mobile device will be deleted every 30 days. If your data is not longer available, you can follow the above steps to recreate data in your mobile device.

Result

You have successfully onboarded a mobile device to Insights Hub.

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> You will receive a pop-up message every time you stop sharing the data on your mobile device. The message includes the number of successfully transferred files to Insights Hub. You can view the details in Insights Hub Monitor.

1.6 Onboarding a Raspberry Pi

The Raspberry Pi can be onboarded to send time series data from either an external OPC-UA server or connect to the time series data generator, which is part of the Raspberry Pi device. This time series data is stored in Insights Hub into an asset that is created automatically when the Raspberry Pi is onboarded.

Requirements

To onboard a Raspberry Pi device, you will need the following:

- Raspberry Pi model 3B

- Micro SD card

- Micro USB power supply

- Local ethernet network with connection to the public internet, preferably supporting DHCP.

- For using the OPC-UA functionality, an OPC-UA server should be connected to the same local network and OPC-UA data sources or simulators.

Procedure

To onboard a Raspberry Pi, follow these steps:

1. Login to "Insights Hub Start for Free" application, click Asset Manager and then click "View your assets" .

Click "RPI Device" asset, and then click "Starter Agent RPI" plugin in the "Connectivity" section.

2.
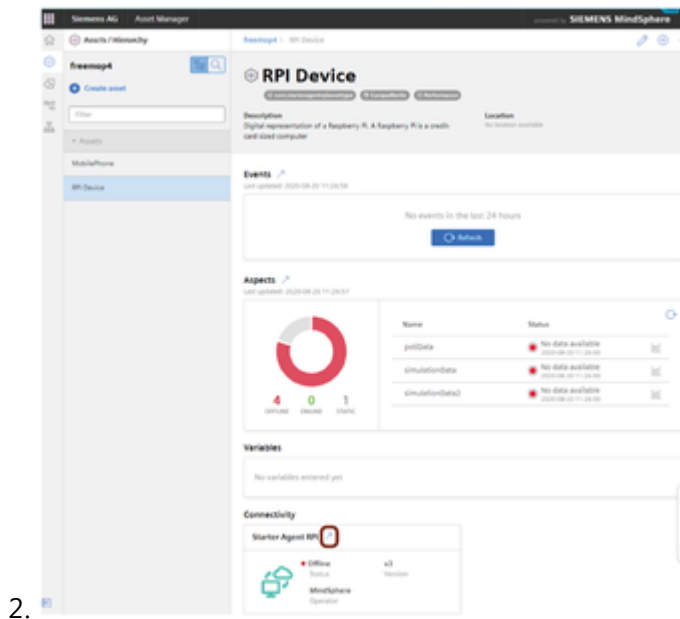
Click "Preparation steps".

3.
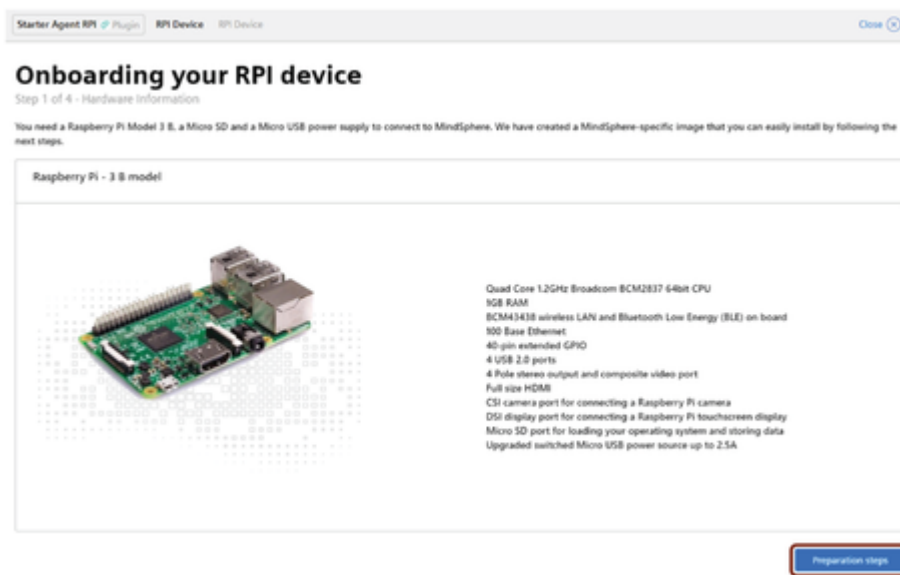
Follow the on screen instructions and then click "Connect to Insights Hub".
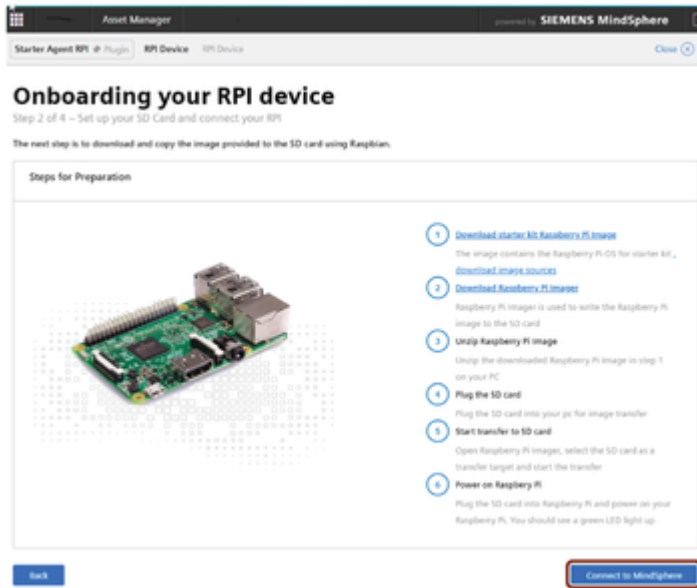
4.

Click "Start onboarding process" and click "Next".
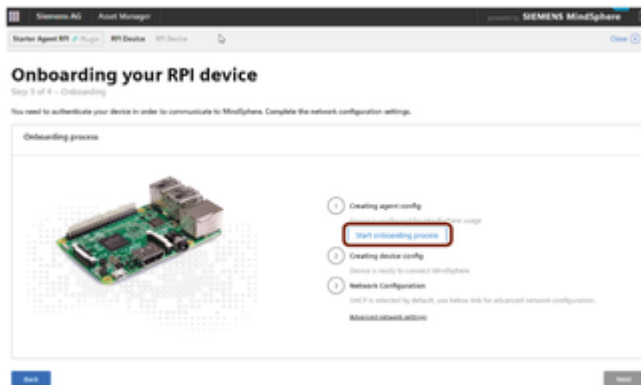
5.

6. To configure your data source, choose one of the following options:

- Simple Configurarion (Real Data): In this configuration, you can configure only 1 OPC-UA server with a single data point of the data type "DOUBLE" with the unit named as "unit" and automatically mapped to an aspect of the "RPI Device" asset.

- Simple Configuration (Simulation Data): In this configuration, you can configure only 1 simulated time series data source with a single datapoint named as "Simulation Data" and automatically mapped to an aspect of the "RPI Device" asset.

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- In Simple Configuration (Real Data), you can choose the data from your external OPC-UA data source and configure by providing the OPC-UA related information. OPC-UA "Data Point Address" identifier range "I" for Identifier Type (numeric) is limited from 0 to 2147483647. For more information on OPC-UA, see [MindConnect Hardware General Description](#).

- In Simple Configuration (Simulation Data), you can also use time series data created internally on the Raspberry Pi. The Raspberry PI has a webserver where you can choose between different waveforms (sine, triangle and square wave) for your simulated time series data.

- Advanced Configuration: In this configuration, you can configure up to 2 OPC-UA servers with 6 data points. Full control over OPC-UA configuration including data types, unit specification and data point mapping to assets / aspects / variables.

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- In Advanced Configuration, to configure OPC-UA and to create aspects, assets and map data points to them can be reffered to [MindConnect Hardware General Description](#).

- It is possible to create only limited number of new assets and aspects. For more information, refer to the [Insights Hub Start for Free data sheet](#).

①   Enter the configuration details

②   Click here to copy the onboarding key

③ Click here to open the "Insights Hub-starterkit" to paste the onboarding key

④   Click to finish the onboarding process

7.Click "Save" and click "Copy onboarding key".

8.Click "To Open Raspiberry Pi onboarding configuration in a new browser window/tab click here".

9.In "Insights Hub-starterkit" browser, click "Enter json content" to paste the copied onboarding key and then click "Onboard".
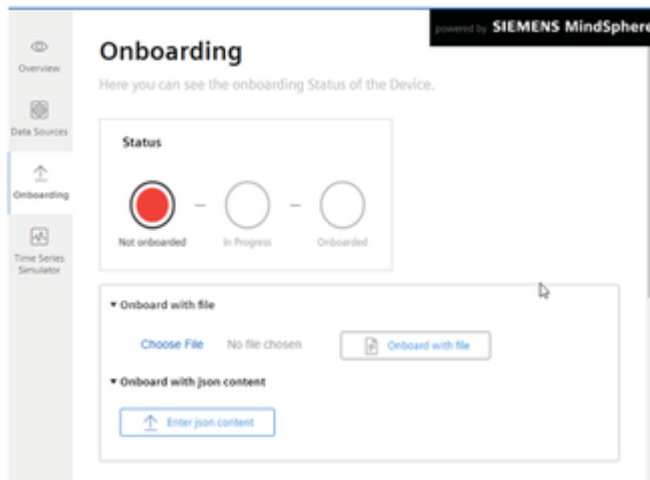
10.Click "Finish Onboarding".

11.In the confirmation dialog box, click "Yes".

Result

You have successfully onboarded Raspberry Pi to Insights Hub.

The configured data sources and data points are mapped automatically to aspects of the asset "RPI Device".

> ✏️
>
> The configured simulated data sources and data points are mapped automatically to aspects of the asset "RPI Device". The Simplified OPC UA configuration's data points will be mapped to an aspect of a data holder asset called `dataOwnerAsset_of_<agent_asset_name>`.
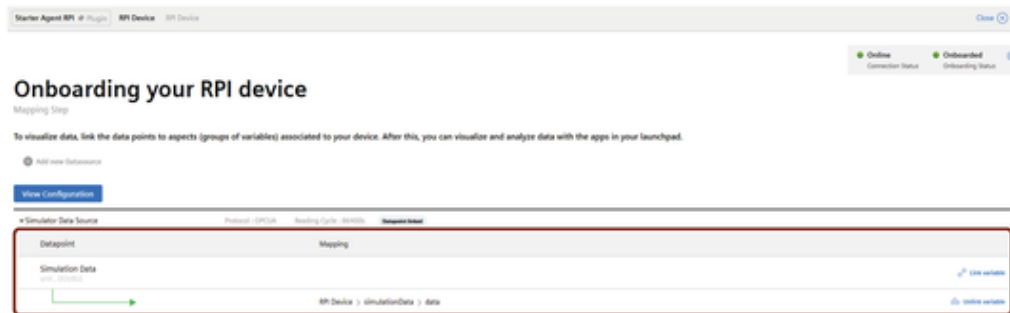
Click "Back to Assetmanager" to see the mapped results. To verify that the onboarding is successful, click "Start RPI Device" plugin of the "RPI Device":

> ✏️
>
> - The simulation data can be viewed in "Insights Hub Monitor". To access "Insights Hub Monitor", click ⋯ at the top right corner of "Asset Manager" screen.
>
> - "Insights Hub Monitor" can also be accessed from "Insights Hub Start for Free" Launchpad.
>
> - Open Edge Device Kit (OEDK) is the operating system running behind Raspbian lite.
>
> - Bootup time depends on dockers and first bootup will take a while until the build for docker containers is initiated.

1.7 Onboarding and installing MindConnect Software Agent

MindConnect Software Agent is a pure software solution to connect industrial data sources to Insights Hub. It provides local data collection, encryption and transfer to your Insights Hub account.

MindConnect Software Agent can be installed on:

- Windows 10 devices which support Hyper-V

- Linux devices which support Docker

For more information please check out this [link](#).

Procedure to install and onboard MindConnect Software Agent

For onboarding a MindConnect Software Agent, follow the steps given in the TourGuide or visit here.

1.8 Register an application

In Insights Hub, you can develop and register your self-hosted, codeful applications using the provided Developer Cockpit or you can integrate your low-code application powered by Mendix. To register your self-hosted, codeful application, you will use the provided Developer Cockpit.

1.9 Register your Mendix application

When you create your Insights Hub Start for Free account, it will be linked to your Mendix account. With Mendix, you can create your own low-code application. To develop your low-code app from Mendix, you can refer to ["Build a Insights Hub app with Mendix"](#).
In this learning path, you can learn how to register your app. Cloud Foundry environment is not yet available within Insights Hub Start for Free, hence we allow you to integrate your application to Mendix and thereafter, you can follow an easy workflow to register your application.

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>
> If Mendix Insights Hub Start for Free account displays an error while accessing it, then create your account using Mendix.

Procedure

To register your app from Mendix to Insights Hub, follow the steps below:

1. Click button to run your Mendix Studio Pro project.

2. Click button to open your application within your browser.

3. Click "Start Auto Registration".

4. Enter required details

5. Click "Register".

6. After successfully registering your app, click "Launch your application".

> ✏️
>
> If you edit your application, click "Run" and "View" buttons in the Mendix application and you will be redirected to your application. It is not required to register your application again.

Result

The application is successfully registered and can be used with data available from devices connected to your account.

1.10 "Insights Hub Start for Free" services

The following table displays the Insights Hub services scope available to "Insights Hub Start for Free" account:

Services	Description
Asset Manager	Asset Manager is an application of Insights Hub. In the Asset Manager, you can model the structure of an industrial process using assets. "Insights Hub Start for Free" users have the following scope of services: - Each user will have one environment account, 10 asset types and 10 asset instances. - Out of the overall limits, 3 of them are predefined and provided by us with each Insights Hub Start for Free account: a mobile phone device, a Raspberry Pi device, and a simulated asset representing a pump and providing you simulated data which you can use right away to explore the apps. For more details, refer to Asset Manager.
Developer Cockpit	Developer Cockpit is a system tool from Industrial IoT. It allows you to generate working skeleton code with appropriate project structure and build tool integration for your micro-service based web application. "Insights Hub Start for Free" users have the following scope of services: - You can create self-hosted applications using Insights Hub data and services. - Maximum 3 applications can be created using Insights Hub data and services. - Application crendentials will be valid for 48 hours, by default. If you want to create API applications, promote your application to other users and customize roles and scopes, then upgrade to Insights Hub full version services. Insights Hub Start for Free allows you to create a standard self-hosted application. But Insights Hub full version services offers more. Check out our Industrial IoT store to upgrade for full version. For more details, refer to Developer Cockpit.
Mendix	"Insights Hub Start for Free" allows you to use Insights Hub data and services and run a low-code application on Mendix. Single sign-in integration of application is allowed between the Mendix and Insights Hub system.

Services	Description
Insights Hub Monitor	Insights Hub Monitor is a core solution that allows you to monitor your production lines and machines via one common user interface that integrates the most often used displays and configurations. In addition to well known functionalities it now also features configurable dashboards and work order tracking capabilities. With easy-to-use configurations, it is possible to monitor the performance and condition of the assets in real time, get full and harmonized transparency of the data from their connected assets and gain deeper insights into your production system and analyze the machine performance. For more details refer to Insights Hub Monitor
Upgrade	Upgrade allows you to buy the upgrades and use them instantly on your MindAccess Plan account. You can upgrade your environment with additional offerings. For more details, refer to Upgrade.
Visual Flow Creator	Visual Flow Creator enables you to design your own workflows by drag and drop functionality to develop graphic depiction of workflows. We provide you a sample flow consisting of multiple interconnected nodes, which inject your mobile phone data into the flow, reads time series data, calculate KPIs and generates a dashboard. With the dashboard, you can also generate simulated mobile phone data that in turn can be used to explore the app. The compute capacity for flows is set to 2 hours per month. For more details, refer to VFC documentation. **Note**: - In Insights Hub Start for Free environment, creating cyclic flows for longer than 24 hours is not possible. - If compute hours are zero, Insights Hub Start for Free flows are disabled for the execution. You need to login and make some changes to your flows to enable them again.

Upgrading from Insights Hub Start for Free to the full user experience **2**

2.1 Overview

As a "Insights Hub Start for Free" user, you might run out of capacity in your free account, or perhaps you need an app that never stops, or more features, or a formal SLA which includes professional support.

For these above reasons, we have made available the upgrade to the so-called Basic Starter Package. This allows you to transform your free account quickly and easily into a fully productive, expandable one. The user account and all the assets will be available and upgraded which are already been configured in your Insights Hub Start for Free account.

After upgrading, you will have access to different applications like Agent diagnostic, Dashboard Viewer, Settings and Usage Transparency etc. For more information on offerings for the Full version, see the [Product Sheet](#).

> 🖉
>
> - Once the free environment is upgraded, it cannot be reverted.
>
> - Regular data deletion in Insights Hub Start for Free accounts disappears after conversion to Basic Starter Package.

2.2 Upgrade

To upgrade to the Basic Starter Package, proceed with the following steps:

1. Login to your Start for free environment, and click the "Upgrade" app in the Launchpad.

2. In the "Home" page, click "Bring your data to the next level".

3. In the "Upgrades" tab, click "Upgrade".

The services and quotas included in Insights Hub Start for Free and the Basic Starter Package are visible in the "Upgrades" tab. For more information, refer to the below "Offering Overview" section in this page.

4. In the "Product Details" page, the billing cycle, subscription term and applicable fees are displayed. Verify the details and click "Next".

5. Enter your company details in the Registration form.
Based on the information you have entered during registration for Insights Hub Start for Free, few fields in the Registration form are prefilled.
Verify the correctness of the fields and click "Next".

> To change the prefilled information, it is possible to amend/change them except the authorized technical person, which is you. This field cannot be changed during upgrade. If you need to change it, you will be able change after the upgrade has been completed by raising a Support Center ticket.

6. The "Order Review" page incorporates the ordering information including all T&C, for more information, refer to Terms & Conditions. It includes your account details and sets forth the ordered services and respective fees are displayed. It is recommended to read the details displayed. Thereafter, accept the Contract Formation and click "Next".

After processing is complete, "Welcome to Insights Hub!" pop-up appears. Click "Log into your upgraded tenant and explore our product" to access and explore the Basic Starter Package.

Welcome to Insights Hub

Thank you for upgrading to full access. We have done some background activities to make your tenant ready to use. Just login to your tenant and explore it. Enjoy!

Please click here to get more information about the full functionalities.

Log into your upgraded tenant and explore our product

"Basic Starter Package" services information

Basic Starter Package provides the following services:

Services	Description
Agent diagnostic	Agent diagnostic is an application from Insights Hub. It enables you to monitor agents, which are located on Industrial IoT devices, such as MindConnect Nano. For more details, refer to [Agent Diagnostic]().
Asset Manager	Asset Manager is upgraded with the below offerings in the Basic Starter Package: - Each environment will have 6 users, 3 asset types and 10 asset instances.
Dashboard Viewer	Dashboard Viewer is an application from Insights Hub. It enables you to access the dashboards created by the users in your environment. For more details, refer to [Dashboard Viewer]().
Developer Cockpit	Developer Cockpit is upgraded with the below offerings in the Basic Starter Package: - You can create self-hosted applications using Insights Hub data and services. - Maximum 30 applications can be created. - Application credentials will be valid for 30 days, by default in the Basic Starter Package. In Basic Starter Package, you can create Standard, Insights HUb Monitor Plugin, Mobile and API applications. **Note:** - Application credentials created in "Insights Hub Start for Free" account is still valid for 48 hours after upgrading to the Basic Starter Package. - Applications created in the Insights Hub Start for Free will also be available in the Basic Starter Package.
Insights Hub Monitor	Insights Hub Monitor is upgraded with the below offerings in the Basic Starter Package: - You can create 5 rules within the quota limit and will get a message to upgrade when you exceed the quota limit.
Mendix	"Basic Starter Package" also allows you to use Industrial IoT data and services and run a low-code application on Mendix. Single sign-in integration of application is allowed between the Mendix and Insights Hub system.
Insights Hub Monitor	Insights Hub Monitor is upgraded Basic Starter Package comes with - 5 rules: Rules will not be automatically deactivated anymore. - 5 (simple) KPIs: KPI calculation will not be automatically deactivated anymore.
Settings	Settings is an application which handles the user management and the settings of your environment. It allows you to customize the provider information in your environment and create further subtenants. For more details, refer to [Settings]().
Usage Transparency	Usage Transparency service is an application from Industrial IoT. It gathers various consumption metrics in Insights Hub. For more details, refer to [Usage Transparency]() service.
Visual Flow Creator	Visual Flow Creator is upgraded with the below offerings in the Basic Starter Package: - The compute capacity for flows is set to 3 hours per month.

Offerings Overview

The offerings available with "Insights Hub Start for Free" and "Basic Starter Package" are as defined in the below table:

Resource Packages: IIoT Data Package	Insights Hub Start for Free (Explore Insights Hub for free)	Basic Starter Package (Unlock the full potential of IIoT)
Data ingest rate	0.1 KB/s	0.5 KB/s
Data storage volume	1 GB (Retention limited to 30 days)	15 GB (Unlimited retention)
File storage	2 GB (Retention limited to 30 days)	12.5 GB (Unlimited retention)
Compute hours for Visual Flow Creator, KPI Management & Dashboarding	2.1 hours / month	3 hours / month
Rules	5	5
Notifications	-	1.000 e-mail notifications p. month 100.000 push notifications p. month

Application Developer Resources	Insights Hub Start for Free	Basic Starter Package
Token Manager	150 API calls / month	150 API calls / minute
App Credentials	Valid for 48 hours	Valid for 30 days
App registrations	3	30
Services available via APIs	Limited to APIs and authorized limits listed in the Product Sheet	Limited to APIs and authorized limits listed in the Product Sheet

IIoT Capabilities	Insights Hub Start for Free	Basic Starter Package
Productive IoT account	No (non-productive)	Yes
Onboarding, managing & configuration of assets	Yes	Yes
Fleet Management	Yes	Yes
Comparison of Time Series Data	Yes	Yes
Root Cause Analyzer	Yes	Yes

IIoT Capabilities	Insights Hub Start for Free	Basic Starter Package
KPI Management	Yes	Yes (extended functionality)
Dashboarding	Yes	Yes (extended functionality)
Collaborative low-code / no-code / codeful application development	Yes (self-hosted)	Yes (self-hosted. Other hosting options on-demand)
System tools	Asset Manager, Upgrade Tool	Agent Diagnostic, Asset Manager, Settings, Upgrade Tool, Usage Transparency Service

User Types	Insights Hub Start for Free	Basic Starter Package
Regular Users	1	1
Viewers	-	5

Asset Attributes	Insights Hub Start for Free	Basic Starter Package
Agents	3	3
Asset types	10	10
Asset instances	10	10

Add Ons	Insights Hub Start for Free	Basic Starter Package
Grow as you go (Upgrade)	Non-expandable	Expandable

Support	Insights Hub Start for Free	Basic Starter Package
Community Access	Yes	Yes
Customer Service Center Access	No	Yes

Limitations

The following are the limitations in full version:

- The resource consumption values in the Usage Transparency app can take up to 4 hours to update and reflect the real consumption. An exception are metric values for registered applications. These values will be updated as soon as the required account identifiers have been associated to your Basic Starter Package. The Account identifiers "SoldTo ID" and "Install ID" will be made available to you via e-mail, in your Upgrade tool and in OS bar.

- The Upgrade tool does not display the whole Upgrade Catalog until the required account identifiers "SoldTo ID" and "Install ID" have been associated to your Basic Starter Package. In Upgrade Catalog, displays all the products but purchasing a product is still not possible.

- The Upgrade tool does not show the correct subscription term until the order has been associated to your Basic Starter Package by us. This processing may take up to several days.

- Users with "Developer Admin" role are able to access Settings from Launchpad but will not be able to see any functionality. This behavior will be fixed in upcoming releases.

See also

Insights Hub Capability Packages

FAQs

<div style="text-align: right; font-size: 2em;">3</div>

3.1 FAQs

Which version of Insights Hub Mobile Connect needs to be installed?

For the Insights Hub Mobile Connect app, 8.0 is the version of the smartphone (for Android). Supported mobile phones are smartphones running with Android (minimum 8.0 and 9.0) or iOS (iPhone7 & Plus, iPhone 8 & Plus and iPhone X, XR & XS) operating systems.

How many users can be onboarded to an Insights Hub Start for Free account?

You can only onboard one user in an Insights Hub Start for Free account.

What are the alternative options to onboard a mobile phone, other than scanning the barcode?

You can also use "text file" to onboard a mobile phone.

How many assets can be onboarded with Insights Hub Mobile Connect?

You can onboard only one asset with Insights Hub Mobile Connect.

What will happen to my Insights Hub Mobile Connect once the account data is deleted?

You have to onboard your mobile phone again on Insights Hub Mobile Connect.

What do I do to offboard my mobile phone?

To disconnect your mobile phone from your Insights Hub Start for Free account, use the "Offboard" function in the mobile app. This will deregister the asset and delete the data model configuration. If you offboarded your mobile phone in the Asset Manager instead of using the app, you need to delete the data model configuration in Asset Manager too.

What is the validity of the "Insights Hub Start for Free" account?

Your "Insights Hub Start for Free"account will not expire, only the data will be reset after 7 days. You can either upgrade to Insights Hub premium services or recreate asset data again.

How to configure Raspbian with WiFi?

You have the following options to configure a Raspbian with WiFi:

- By using a Raspbian configuration tool "raspi-config".

- By setting the connection with command line.

For detailed information, refer to [Configuration Procedure](#).

Which imaging tool is required for "Insights Hub Start for Free"?

Insights Hub recommends Raspberry Pi Imager for your device, but you can also use any imaging tool, for example, win32 disk imager, balena etcher etc.

How to troubleshoot onboarding process of Raspberry Pi?

You can use the following commands:

```
sudo su

# password root to elevate to superuser docker container rm -f $(docker container ls -qa)

# remove all docker containers docker volume prune

# remove all unused local volumes

# check if all volumes are gone if not docker volume rm <container name> reboot

# reboot the raspberrypi
```

How to extract Insights Hub related log files from the Raspberry Pi?

You can use the following procedure:

- Login to "starterkit" with password "root" by using Putty and access Raspberry Pi with the hostname Insights Hub-starterkit (port is 22). If your local hostname does not support hostname translation, refer to your network manual about how to obtain the assigned ip address for devices in your network.

- Extract the files by entering the following command:

```
sudo su

cp -v /var/lib/docker/volumes/mindsphere-oedk_massdata/_data/log/
*.log /boot
```

How to assign a static IP for the Raspberry Pi?

To assign a static IP for the Raspberry Pi, you can use the following 2 procedures:

Procedure 1:

Refer to the router manual to assign a static IP to the Raspberry Pi.

Procedure 2:

Edit the config files on the Raspberry PI to access the files either to connect a keyboard and a monitor to the Raspberry Pi or connect to a network where DHCP is available.

Login to the device by using the following credentials:

- Username: starterkit

- Password: root

- Edit the file /etc/dhcpcd.conf with the command:

```
sudo su

nano /etc/dhcpcd.conf
```

This is an example to configure static IP:

Interface	Static iP address	Static routers address	Static domain_name_servers
eth0	192.168.178.244/24	192.168.178.1	8.8.8.8

192.168.178.244 is the desired fixed IP address.

To change the interface from interface eth0 dhcp to interface eth0 manual, you can use the following procedure:

- Edit the file /etc/network/interfaces with the command:

```
sudo su

nano /etc/network/interfaces

interface eth0 manual
```

Reboot the device.

What to do when I see quota error message?

The quota error message appears, when you have exhausted the limit of the current defined capacity of your Insights Hub Start for Free account. In this case, you need to upgrade to premium.
To continue with the Insights Hub Start for Free account:

Quota limit error message	Possible solution
API call limit	Wait until the reset time
Visual Flow Creator	Wait until the next month (maximum 2 compute hours per month)
IoT Time series data and files	Wait for the free space (since the data and files are deleted every 7 days)
Assets, agents, etc.	Delete and create new assets, agents, etc.

> IoT Time Series data and files are deleted every 7 days after ingest or upload.

You can design, build and integrate your solutions without any restrictions. Visit our Insights Hub Store to see how fast and easy it is to continue.
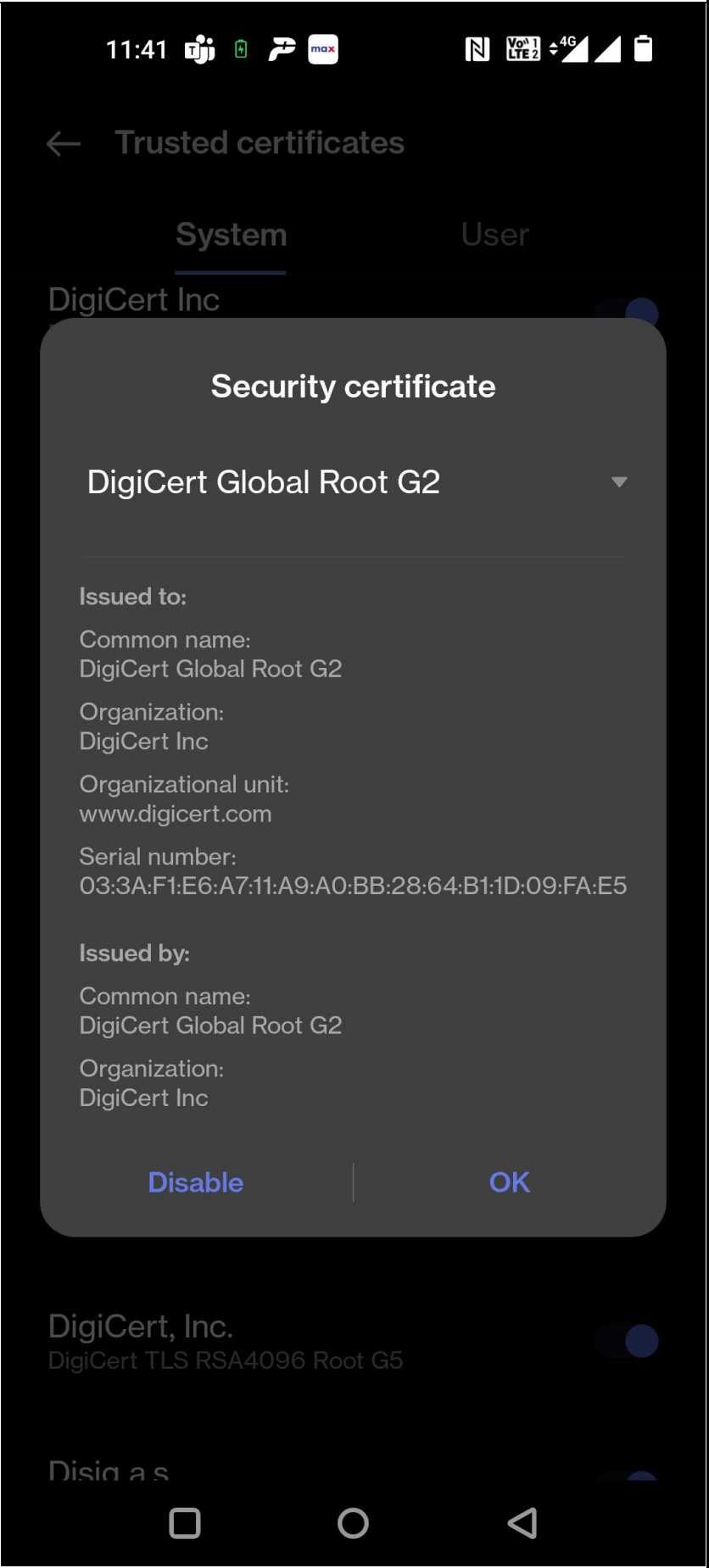
What should I do if the TourGuide is interrupted?

If the TourGuide is interrupted, check that your internet connection is stable. If this is not the problem, then re-launch the user journey from your Launchpad.

What if mobile phone is not connected to Insights Hub using Insights Hub Mobile Connect app?

Issue	Error message	Solution
Insights Hub certificate not trusted	Onboarding breaks with network error	Check the general settings of the mobile operating system, if the root certificate QuoVadis Root CA 2 G3 or DigiCert Global Root G2
Insights Hub	Onboarding	

Issue	Error message	Solution
		is trusted.
		is trusted.

Issue	Error message	Solution

Issue	Error message	Solution
Clock synchronization	Data source configuration fails with status code: 400	Check the date and time of the mobile phone is correct. If the mobile phone date and time is ahead of the real time with just a few minutes, then it will not work.
Data source zombies	Data source configuration fails with status code: 409	Check, if already some data source configurations in the particular asset. If yes, clean it up and also do not forgot to clean the data mappings (both in the MindConnect Lib plugin of the Mobile Phone asset).