

# ABB Ability™ Smart Sensor

## Service description

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# 1 Scope of this service

This service description document sets forth the terms of the ABB Ability™ Service, which includes ABB Ability™ Smart Sensor (Smart Sensor), one valid subscription per sensor and access to the ABB Ability™ Smart Sensor web portal (Smart Sensor Portal).

The ABB Ability™ Service (Service) includes usage of the mobile application: “ABB Ability™ Smart Sensor Platform” available on the applicable app stores and operating systems which are kept up-to-date in the link below:

<https://smartsensor.abb.com/Login>

The mobile application is free of charge, but access to sensor data requires a valid subscription.

Data acquired by the Smart Sensor from Customers equipment is transferred to the Smart Sensor Portal, where it can be viewed remotely with an internet connection and a compatible web browser by users with valid authentication credentials. Registration is performed via the Smart Sensor mobile application or web portal.

Up-to-date documentation on the features and functionality of the products mentioned in this service description can be found at the following web address: <https://new.abb.com/motors-generators/service/advanced-services/smart-sensor/>

## 2 Questions and queries

### 2.1 ABB Service Hotline

For questions and queries during the Smart Sensor Subscription contract with ABB, please contact ABB support team for the Smart Sensor: [support.smartsensor@abb.com](mailto:support.smartsensor@abb.com)

## 3 Customer's obligations

If required for the specific service provided to the Customers, the Customers will be asked to provide the following, free of charge, to ABB and their sub-suppliers (where applicable) to enable performance of the Services:

- All necessary licenses and permits (except for permits required of ABB and/or its sub-suppliers in order to perform the Services, which are the responsibility of ABB and its sub-suppliers);
- Operating and maintenance manuals of the equipment together with updated copies of relevant process schematic diagrams, wiring diagrams, current cable schedules and the like;
- Access to operating and maintenance logs;
- Telephone, facsimile and internet connection facilities to enable communications at all times between ABB service personnel on site to/from head office and home base.

### 3.1 Exclusions

Any costs, time and risk arising out of or related to the maintenance, repair, restoration or re-starting of equipment attributable to any of the following causes is always excluded from the Services:

- Power outages or disruptions to the electrical supply to the equipment;
- Accumulation of dirt or ingress of foreign substances within the equipment;
- Corrosion of component parts;
- Upgrades, enhancements or modifications to the equipment or its use;
- Damage to software or hardware due to any IT security problem, such as but not limited to a virus breakout or malicious hacking of the system;

- Damage or failure of equipment caused by vermin, insect infestations or the like;
- Damage or failure resulting from faults in some other equipment connected to the Service;
- Damage or loss caused by hazards such as fire, flood, storm or the like or spillage or leakage of chemicals or harmful substances onto the equipment;
- Fault tracing caused by problems from a source external to the scope of work;
- Unprofessional or incorrect installation, installation not complying to standards, or installation not following the installation instructions contained in the product-specific manual;
- Improper operation (in breach of the technical requirements or specifications or manuals of the product), negligence or repairs carried out by the Customers (or any third party not authorized by ABB);
- Non-compliance with the applicable safety regulations or other legal standards by other parties than ABB;
- Insufficient ventilation of the equipment;
- Operation of the equipment outside of its design conditions; and
- Relocation of the equipment from the original installation location or alteration of the overall system design.

ABB is entitled to charge the Customers for any additional work, included, but not limited to work related to the exclusions mentioned above. In such circumstances, the price of labour will be in accordance with the current ABB Service rates valid at the time of performing such work. The price of any parts supplied will be in accordance with the current ABB list price for such parts plus the cost of freight, customs duties and the like valid at the time of delivery.

## 4 Activation, access and usage

Usage of the Smart Sensor and access to the operational data measured by the Smart Sensor is realized in four distinct phases:

1. Access rights to Smart Sensor data. The steps in this phase are listed below:
  - a. Purchase of Smart Sensors and Subscriptions.
  - b. Creation of organizational structures on the Smart Sensor Portal, including definition of access rights for operational data measured by the Smart Sensor.
  - c. Inclusion of further users to any created organizational structures.
  - d. Definition of user groups and asset groups and of the access rights between each group, for each organization.
  - e. Download of the “ABB Ability™ Smart Sensor Platform” mobile application, henceforth referred to as "Smart Sensor mobile application".
2. Activation of each Smart Sensor, which entails a trial phase, followed by a subscription period as defined in the order.
3. Commissioning of each Smart Sensor to one desired organization or user of the Smart Sensor Portal.
4. Data uploading.

The following sections indicate the roles and responsibilities between ABB and Customers regarding each of the four phases describe above, in the context of this Service Description.

### 4.1 Access rights to Smart Sensor data

Operational data acquired by each Smart Sensor can only be accessed if the Smart Sensor has been activated and commissioned, a valid subscription is acquired and if Customers have registered to use the Smart Sensor Portal.

The Customer administrator (admin) is responsible for creating an organizational structure in the Smart Sensor Portal (e.g. add users). This entails the definition of virtual environments to group users and sensors and define access rights.

Up-to-date documentation pertaining to accessing and visualizing operational data measured by the Smart Sensor is available under the following web address:

<https://new.abb.com/motors-generators/service/advanced-services/smart-sensor/>

## 4.2 Activation procedure

Upon activating the sensor, a trial period (as described in the order) will start.

Each Smart Sensor requires one activated subscription which can be accessed by an unlimited number of users.

The subscription period is valid starting from the date in which the Customers choose to activate the purchased subscription using the Smart Sensor mobile application.

Furthermore, ABB will inform Customers of expiration of any purchased subscriptions two months in advance of the final day of each subscription, allowing Customers to allow each subscription to expire, or to acquire a new subscription. Access to data measured by the Smart Sensor is only possible during the trial phase or with an activated subscription.

Up-to-date documentation pertaining to Smart Sensor and Subscription activation is available at the following web address:

<https://new.abb.com/motors-generators/service/advanced-services/smart-sensor/>

## 4.3 Commissioning

With the “ABB Ability™ Smart Sensor Platform” mobile application, each activated Smart Sensor can be commissioned directly to a user or to an organization on the Smart Sensor Portal, by using the mobile application.

Commissioning entails configuring the Smart Sensor to monitor specific equipment, including inputting the technical details of the equipment to be monitored. Customers are responsible for ensuring correctness of the information input to the “ABB Ability™ Smart Sensor Platform” mobile application during commissioning of the Smart Sensor.

Up-to-date documentation pertaining to the commissioning process is available at the following web address:

<https://new.abb.com/motors-generators/service/advanced-services/smart-sensor/>

## 4.4 Data uploading

Operational data measured by a Smart Sensor can be uploaded in the following ways:

1. Manual upload of Smart Sensor measurements via a Bluetooth® “ABB Ability™ Smart Sensor Platform” mobile application, which in turn automatically uploads the data to the Smart Sensor Portal via the Internet.
2. In the presence of a gateway, automatic upload via a Bluetooth® connection from provided edge gateway devices, which in turn automatically upload the data to the Smart Sensor Portal via the Internet.

ABB will provide access to the “ABB Ability™ Smart Sensor Platform” mobile application as well as to the Smart Sensor Portal.

A functioning Bluetooth® connectivity on Customer’s mobile devices as well as a secure internet connection for the Edge Gateway devices, if applicable, are responsibility of the Customers.

Up-to-date documentation pertaining to the data downloading and visualization process, as well as to the use of Bluetooth® Edge Gateway devices, if applicable, is available at the following web address:

<https://new.abb.com/motors-generators/service/advanced-services/smart-sensor/>

# 5 Organization and user management

## 5.1 Smart Sensor organization concept

An organization is a concept that is part of the ABB Ability™ Smart Sensor service and it allows Customers to set-up the right structure to manage their assets (commissioned sensors). For example, an organization set-up can represent a whole company or a specific plant/location.

Within a Smart Sensor organization there are asset groups, which are a fleet of sensors that Customers can monitor together, and user groups. The concept of user groups is used to control the access rights to specific asset groups.

### 5.1.1 User levels

There are two levels of users in a Smart Sensor organization: admins and members.

An admin has the following rights: an admin can control and grant access rights of other users, create user groups and asset groups within a Smart Sensor organization. Per default, an admin is the first person who joins a Smart Sensor organization and can be changed afterwards. Three different levels of admin exist, and it is explained in the following document:

<http://search.abb.com/library/Download.aspx?DocumentID=9AKK107046A5705&LanguageCode=en&DocumentPartId=&Action=Launch>.

A member has the following rights: a member can access data from a designated asset group.

For more information regarding organization and user management please refer to the ABB Ability™ Smart Sensor User and asset management guide video.

<https://search.abb.com/library/Download.aspx?DocumentID=9AKK107492A5852&LanguageCode=en&DocumentPartId=&Action=Launch>

## 5.2 User account creation

To create an account and a Smart Sensor organization, please follow the steps explained in this document:

<http://search.abb.com/library/Download.aspx?DocumentID=9AKK107046A5705&LanguageCode=en&DocumentPartId=&Action=Launch>.

## 5.3 Trusted organization

In the standard setup, all data of users and assets will only be visible inside their own Smart Sensor organization. However, users who are admins of the "Sharing Organization" can allow their data also to be visible inside the interface of a selected "Trusted Organization".

"Trusted organization" is a feature in the ABB Ability™ Smart Sensor Platform that allows interaction between two different organizations. One would be called the "Trusted Organization", the other would be called the "Sharing Organization".

One "Trusted Organization" can be trusted by multiple "Sharing Organizations". For example, if one service provider is supporting multiple Customers.

In the Smart Sensor Portal, ABB maintains a public list of service providers, in order to make it easy for the "Sharing Organization" to select the right "Trusted Organization". Users who do not wish to be listed publicly, or who do not qualify to be listed publicly, can still create a "Trusted Organization". In that case, the "Sharing Organization" must get the name of the "Trusted Organization" through an offline channel, such as an email.

If users want to create a trusted organization, they need to send a request to ABB Smart Sensor support team.

In order to enable this feature, the admin of the "Sharing Organization" needs to enter the name of the "Trusted Organization" in the Smart Sensor Portal under "Organization management" and add the available asset group (click on the plus icon). To disable this feature, the admin of the "Sharing Organization" needs to remove the asset group in the same tab.

It is the responsibility of the admin of the "Sharing Organization" to make sure that the appropriate "Trusted Organizations" are allowed to access the data of the "Sharing Organization". ABB cannot be held responsible for any inappropriate use.

## 6 Cloud Interface for ABB Ability™ Smart Sensor

The Cloud Interface ABB Ability™ Service (Cloud Interface) allows the enablement of an external integration with the Smart Sensor Platform of ABB Ability™.

Through the Cloud Interface, the Customers have access to the data acquired by the Smart Sensor from their equipment without having to access the Smart Sensor Portal through an internet browser.

This feature is using Web APIs (Application Programming Interfaces), which enable a secure and controlled remote access from the outside to the data in the cloud.

For authentication, the users can use the same login credentials as for the Smart Sensor Portal or request a dedicated API Key in the Smart Sensor Portal. The API Key can be requested by the users under their profile, going to API Keys and selecting the function "add new". The users will receive the API Key via email.

### 6.1 Customers responsibilities for Cloud Interface

The Customers are responsible for the integration of the API Cloud Interface into their own systems such as, but not limited to, defined integration scope and validation and data visualization in MES or ERP systems. The ABB Smart Sensor Support team does not provide any support for the development of the Customer's API implementation.

To start creating the Cloud Interface integration project, Customers should follow the steps described in the Cloud Interface user guide:

<https://search.abb.com/library/Download.aspx?DocumentID=9AKK107728&LanguageCode=en&DocumentPartId=&Action=Launch>

or contact the Smart Sensor support team: [support.smartsensor@abb.com](mailto:support.smartsensor@abb.com).

## 7 ABB Ability™ Smart Sensor reports

ABB may provide reports or access to data and reports as part of the ABB Ability™ Smart Sensor services. Reports are based on the data collected by the Smart Sensor. ABB offers several reports which help Customer to get a better understanding and use of the data generated or gathered by the Smart Sensor.

Customer must be aware that the generation of Instant Reports and Expert Reports will trigger raw data collection and therefore it will impact and reduce the battery lifetime of the Smart Sensor.

All reports are based on the data collected by the Smart Sensor and provided to ABB. Such data is subject to measurement tolerance and may not fully accurately reflect the status of the machine to which the Smart Sensor is attached. Accordingly, the reports may not fully accurately describe the status of the machine(s) and the actual operational performance may differ from reports and the outcome of data

analysis. The reports shall be used as a means of guidance and any decision based on the information provided in a report is taken at Customer's own risk.

## 7.1 Instant Reports

Instant Reports are automatically generated from the data gathered by the Smart Sensor.

Instant Reports may be available for an individual asset (Instant Asset Report) or for an entire fleet of assets (Instant Fleet Report). The Instant Asset Report and Instant Fleet Reports can be downloaded from the ABB Ability™ Smart Sensor web portal by eligible users.

**The Instant Fleet Report is not part of the standard ABB Ability™ Smart Sensor service subscription and can be ordered by Customers as an add-on service from a local ABB representative or from ABB Ability Marketplace™.**

## 7.2 Expert Reports

ABB may offer Expert Reports to Customers who wish to gain a deeper understanding of their equipment's health and performance. The Experts Reports are based on data collected by the ABB Ability™ Smart Sensors. ABB experts will analyze the extracted data and summarize the findings in easy to read reports. Expert Reports may be available for an individual asset (Expert Asset Report) or for an entire fleet of assets (Expert Fleet Report).

**Expert Asset Report and Expert Fleet Report are not part of the standard ABB Ability™ Smart Sensor subscription and can be ordered as an add-on service from a local ABB representative.**

## 8 Further obligations

Up-to-date technical specifications for the hardware, service descriptions and usage, as well as all necessary regulatory and safety certifications and disclaimers pertaining to this agreement are available on the following webpage:

<https://new.abb.com/motors-generators/service/advanced-services/smart-sensor/>

Software updates released, as far as applicable, for the "ABB Ability™ Smart Sensor Platform" mobile application by ABB will be made available through the applicable mobile App stores listed in the web address below:

<https://smartsensor.abb.com/Login>