SIEMENS

Insights Hub Add-ons
Product Sheet

Insights Hub Add-ons enhance Capability Packages according to your use case by adding capabilities on demand.

Prerequisites	
Subscription	A valid subscription to an Insights Hub Capability Package (Basic/Standard/Premium) is required.

Insights Hub Asset Health & Maintenance	
Description	Insights Hub Asset Health & Maintenance enables your maintenance team to transform your maintenance processes by making them more efficient. Lower maintenance costs and quickly detect and respond to anomalies before they become problems or downtime.
Third-Party Terms	The Third-Party Terms for Insights Hub Asset Health & Service Maintenance are made available via the following link: https://siemens.mindsphere.io/en/docs/Product-Descriptions-Overview/Third-Party-Terms
Documentation	For further details about Insights Hub Asset Health & Maintenance please see the documentation available via the following link: https://documentation.mindsphere.io/MindSphere/apps/distribution/Asset-Health-and-Maintenance.html

Cloud Foundry Hosting

Description	We offer a managed runtime environment powered by Cloud Foundry to run your own applications. Cloud Foundry is a platform as a service (PaaS) providing a development and production environment within Insights Hub. Cloud Foundry Hosting enables you to create and host practically everything from simple cloud-based IoT dashboards to sophisticated enterprise applications.
	Your subscription to Cloud Foundry Hosting includes access to 2 so-called Cloud Foundry Orgs (one for your Production Environment and one for your Development Environment). Every Org provides a dedicated login to a Cloud Foundry environment that an individual or multiple collaborators can use. Each Cloud Foundry Org comes with 2 GB of RAM per default (can be upgraded for additional fees).
	Your subscription to Cloud Foundry Hosting allows you also to utilize any available size (e.g. XS or M) of Backing Services. The size relates to available memory, storage space and additional properties such as high availability. A usage-based fee will be charged depending on the size of Backing Services in use as set forth in the Price List for Offerings with Usage-based Fees available at https://siemens.mindsphere.io/en/docs/Product-Descriptions-Overview/usage-based.
	Backing Services include any service which an application utilizes over the network as part of its normal operation. You can utilize Backing Services e.g. for storage, caching, messaging etc. Available service types are: ElasticSearch, LogMe, PostgreSQL, RabbitMQ, Redis.
Documentation	For further details about Cloud Foundry Hosting please see the documentation available via the following link: https://documentation.mindsphere.io/MindSphere/paas/index.html

Insights Hub Dashboard Designer

Description	Insights Hub Dashboard Designer enables you to create simple & advanced Grafana based dashboards from IoT data. It is accessible directly from the Launchpad. The following Grafana visualization panels are available, e.g. Bar Gauge, Clock, Dashboard List, Gauge, Graph, Heatmap, Pie Chart, Separator, Singles Table, Text. Additionally, the following third-party visualization plugins are available, e.g. Breadcrumb, ImageIt, Cal-Heatmap, SVG, Traffic Lights. Those visualization panels can be combined into dashboards.
	Insights Hub Dashboard Designer can be subscribed to in different types (Creator/ Viewer) of Authorized Users. An Authorized Creator User can create view, modify and delete existing dashboards. An Authorized Viewer User can view existing dashboards.
	Your subscription to Insights Hub Dashboard Designer includes 5 Authorized Creator Users; additional upgrade subscriptions to upgrade the number of Creators or to subscribe as Viewer are available separately for an additional fee.
Limitations	Please note that creating dashboards by Authorized Creator Users, certain technical limitations may apply. For more information, please refer to https://siemens.mindsphere.io/en/docs/Product-Descriptions-Overview/technical-limitations
Third-Party Terms	Third-Party Terms for the Insights Hub Dashboard Designer are available under "Dashboard Designer" via the following web link: https://siemens.mindsphere.io/en/docs/Product-Descriptions-Overview/Third-Party-Terms
Documentation	For further details about Insights Hub Dashboard Designer please see the documentation via the following link: https://siemens.mindsphere.io/en/docs/apps-and-solutions

Insights Hub Edge Analytics

Description	Insights Hub Edge Analytics allows you to collect high frequency data, pre-process raw data and use an analytic edge functionality to calculate your KPIs. These KPIs allow condition monitoring (e.g. vibration analysis) of your asset. Your subscription to Insights Hub Edge Analytics comprises (i) a subscription license to the Insights Hub Edge Analytics Engine software for use on your connectivity hardware in the field to collect data and perform edge analytics of the data to calculate KPIs and send the calculated KPIs to the Platform, and (ii) a subscription to the Insights Hub Edge Analytics that allows you to configure your data points and KPIs on your Account.
	The Insights Hub Edge Analytics Engine software will be made available for download and must only be used on supported connectivity hardware. The MindConnect Nano, MindConnect IoT2050 and MindConnect Software Agent from Siemens are currently supported connectivity hardware. For further information as to which connectivity hardware is currently or will be supported, please verify with your Insights Hub sales representative.
	This Offering is available in three different sizes. Depending on the size ordered, the subscription includes 5, 50 or 300 external data points and can be used for 1 connectivity hardware device, e.g., MindConnect Nano.
	You can also use the trial mode for up to 5 external datapoints to explore and test the Edge Analytics functionalities within 7 days. After expiration, the Insights Hub Edge Analytics Engine needs to be restarted again.
Third-Party Terms	Third-Party Terms for Edge Analytics are available within Industry Online Support via the following web links:
	MindConnect IoT2050: https://support.industry.siemens.com/cs/ww/en/view/109813714
	MindConnect IoT2040: https://support.industry.siemens.com/cs/ww/en/view/109745562
	MindConnect Nano: https://support.industry.siemens.com/cs/us/en/view/109745561
	MindConnect Software Agent: https://support.industry.siemens.com/cs/us/en/view/109809640
	Third-Party Terms for Edge Analytics are integrated into MindConnect firmware, therefore the above mentioned web links will depend on the MindConnect products you are using.
Documentation	For further details about Insights Hub Edge Analytics please see the documentation available via the following link: https://documentation.mindsphere.io/MindSphere/apps/insights-hub-edge-analytics/introduction.html

Insights Hub Intralogistics

Description	Insights Hub Intralogistics helps you to optimize your intralogistics processes through the calculation of relevant parameters and to monitor your material channel health. The application enables you to reduce material-related downtimes and to better understand your internal material supply.
	Insights Hub Intralogistics offers the following core capabilities:
	• Calculation and visualization of material replenishment and consumption times on material channels to gain insights into your production process.
	• Automatic detection and issue generation using different scenarios to increase the uptime of the material supply. The following issues are automatically tracked:
	▪ Empty material channels
	▪ Material channels below the minimum fill level
	▪ Material out of position
	▪ Consumption time is quicker than the replenishment time
	• Automatic exclusion of useless datapoints, e.g., replenishment or consumption times over the weekends.

	• Overview dashboard to provide the current factory dashboard.
	Your subscription to Insights Hub Intralogistics includes 50 Users and 100 Material Channels, for which the replenishment and consumption times can be calculated, and the issues being tracked. Material Channel is defined as logical group of sensors which can indicate if a position in the material channel is filled or empty. Additional upgrade subscriptions to upgrade the number of Users or Material Channels are available separately for an additional fee.
Third-Party Terms	The Third-Party Terms for Insights Hub Intralogistics are made available via the following web link: https://siemens.mindsphere.io/en/docs/Product-Descriptions-Overview/Third-Party-Terms
Documentation	For further details about Insights Hub Intralogistics please see the documentation available via the following link: https://documentation.mindsphere.io/MindSphere/apps/insights-hub-intralogistics/introduction.html

MindConnect Advanced Driver Extension

Description	MindConnect Advanced Driver Extension is an optional extension to the MindConnect Software Agent and MindConnect IoT2050. A subscription to this extension allows you to use additional adapters within the supported hardware devices and to enable various additional supported field protocols such as S7+, IEC61850, or SINUMERIK PL.
Limitations	With your subscription to this extension, we grant you the non-transferable, non-sublicensable, and revocable right to use, and permit Third Parties to use, the extension for using one adapter within one supported hardware device during the Subscription Term.
Documentation	For further details about MindConnect Advanced Driver Extension see the documentation available via the following link: https://documentation.mindsphere.io/resources/html/getting-connected/en-US/146436770955.html

Insights Hub OEE

Description	Insights Hub OEE allows you to calculate Overall Equipment Effectiveness (OEE) and additional KPIs for lines and machines, in order to better understand the efficiency of underlying production processes and to be able to continuously improve. Additionally, it also helps the user to track the success of measures taken.
	Insights Hub OEE offers you the following core capabilities:
	• Calculate OEE, Mean Time To Repair (MTTR), Mean Time Between Failure (MTBF) and further relevant KPIs for machines and lines
	• Filter capabilities for timeframe, products, and orders
	• Support of single- and/or multiproduct production systems
	• Reason tree modeling and ability to change recorded downtime reasons afterwards
	• Customization of OEE formulas for OEE calculation
	• Set up production times, breaks, maintenances etc. in calendars
	The subscription includes an initial quota of 25 assets, for which the OEE calculation can be set up, and 50 named users. Additional OEE assets or named users can be upgraded for additional fees.
Third-Party Terms	The Third-Party Terms for Insights Hub OEE are made available via the following web link: https://siemens.mindsphere.io/en/docs/Product-Descriptions-Overview/Third-Party-Terms
Documentation	For further details about Insights Hub OEE please see the documentation available via the following link: https://documentation.mindsphere.io/MindSphere/apps/insights-hub-oee/introduction.html

Predictive Learning Essentials

Description	Predictive Learning Essentials allows you to manage the lifecycle of your data, models, and execution environment in an interactive way as subscriber of Premium Capability Package to extend your advanced analytics journey on Insights Hub.
	You can import data in various formats from Insights Hub IDL and Asset-related time series data for model executions either interactively through the integrated Jupyter Notebook environment or by the assigned execution environment for the Python/ Docker models built from external.
	Your subscription to Predictive Learning Essentials enables you to create and use machine learning solutions written in Python and includes 1000 Predictive Learning Compute Hours. Additional Compute Hours can be upgraded for additional fees.
Third-Party Terms	Pre-installed open source libraries are listed in the Third-Party Terms available via the following web link: https://siemens.mindsphere.io/en/docs/Product-Descriptions-Overview/Third-Party-Terms. Further libraries can be procured by you under separate terms via download from external repositories, i.e. pip (https://pypi.org/project/pip/) for Python. Such libraries are not part of our Offering and solely operated by you.
Documentation	For further details about Predictive Learning Essentials please see the documentation available via the following link: https://documentation.mindsphere.io/MindSphere/apps/distribution/predictive-learning.html

Insights Hub Quality Prediction

Description	Insights Hub Quality Prediction represents a solution for production managers, quality engineers, manufacturing engineers and machine operators to discover complex relationship between production machine parameters and resulting product quality with application of Machine Learning (ML) technique. The ML model of the process established in the application is used to predict resulting product quality characteristics with input of actual manufacturing parameters in real time before a defect and quality loss occurs.
	Key capabilities of the solution:
	• Automatic prediction of the quality results by production data analytics
	• Selection of machine data, quality data and ML model parameters with user interface in wizard form
	• Visualization of machine and quality data including run-time charts, distribution histograms and correlation map
	• Automatic pre-processing, aggregation and feature generation for machine and quality data
	• Automatic training of selected ML model to solve regression problem for quality prediction
	• Visualization of prediction results with true vs. predicted values chart, feature importance diagram and model accuracy analysis
	• Output of predicted quality results in relation to specified tolerances
	Your subscription to Insights Hub Quality Prediction includes 3 Prediction Models and 50 Users. Additional Prediction Models and Users can be upgraded for additional fees.
Third-Party Terms	The Third-Party Terms for Insights Hub Quality Prediction are made available via the following web link: https://siemens.mindsphere.io/en/docs/Product-Descriptions-Overview/Third-Party-Terms
Documentation	For further details about Insights Hub Quality Prediction please see the documentation available via the following link: https://documentation.mindsphere.io/MindSphere/apps/Insights-hub-quality-prediction/introduction.html

Remote Services

Description	Remote Services provides customer-owned apps with tunnel-based encrypted network-to-network access for using IP-based protocols under fine-grained access control.
	
	Such networks may either be "Service Networks" or "Device Networks". Service Networks host apps and data on computers or servers, Device Networks host apps and data located on computers or embedded systems being part of machinery.
	
	Example use cases are: The Remote Services application helps you to perform remote maintenance and engineering of machine controllers in a Device Network or to access a camera video stream. Furthermore, apps on machinery in Device Networks may issue tickets or access data storage. Beyond that apps in Device Networks may integrate with apps or data on Insights Hub.
	
	Remote Services comes with two user interfaces:
	Remote Services v1 providing a functional approach allowing fast switching between all Remote Services functionalities;
	Remote Services v2 providing a workflow-driven approach for everyday tasks.
	
	The application provides the following capabilities:
	
	• Leverage preconfigured native or browser-based remote login protocols from within Service Networks to devices located in Device Networks. Fine-grained access control ensures that users have access only to those devices, which are assigned to them by an administrator.
	  ▪ Your subscription comprises access to 1 "Service Device" and 0.01 GB of monthly "Service Data" transfer. Additional Service Devices and Service Data volume can be upgraded for additional fees.
	  ▪ "Service Devices" are devices registered with the Remote Services application for the purpose of being accessed.
	  ▪ "Service Data" means all data transfer related to usage or administration of the application functionalities.
	  ▪ "Service Tunnel" means hosting of one Service Asset-specific communication protocol in a tunnel.
	• Route custom IP-based protocols from Service Networks to Device Networks. Example use cases are remote engineering and commissioning of Service Devices by using customer-provided tools from within a Service Network instead of within a Device Network. Furthermore, IP-based streams may be accessed.
	• Route custom IP-based protocols from Service Devices in Device Networks to apps or data located in Service Networks. Example use cases are access to ticketing systems or data storage. Furthermore, apps on Service Devices may integrate with apps or data on Insights Hub.

Limitations	Endpoint (Client) Software. Remote Services requires installation of, and we grant you a Perpetual license to, (i) a Device Endpoint (technically a device client) for establishing Service Tunnels with Service Devices located in Device Networks and which may also be used as a gateway for accessing Service Devices in sub-networks, and (ii) a Service Endpoint (technically an operator client) for establishing Service Tunnels with computational devices (such as a technician's PC or a server) located in Service Networks. Both Endpoints (clients) will be made available for download from the Platform. For details regarding validated hardware and software configurations for Service and Device Endpoints, please see the Insights Hub Release Notes available via the following weblink: https://documentation.mindsphere.io/resources/html/release-notes/en-US/index.html
Third-Party Terms	Third-Party Terms for Remote Services v1, Remote Services v2 and Service and Device Endpoints (clients) are available under "Remote Services" via the following web link: https://siemens.mindsphere.io/en/docs/Product-Descriptions-Overview/Third-Party-Terms

Documentation	For further details about Remote Services please see the documentation available via the following link: https://documentation.mindsphere.io/MindSphere/apps/Remote-Services-(RS)/RS-Overview/RS-Overview.html

Subscription Based Notifications for Time Series Data, Events & Asset Model Change.

Description	This feature enables Insights Hub to send notifications to the subscribing Environments when new Time Series data or Events arrive and when Asset Model is changed. Apps can be configured to listen to these notifications for polling the subscribed data more efficiently. Thus, eliminating the need for cyclic polling.
Pre-requisites	For existing applications, this feature needs modifications in the app by the app developer. For new applications, the use of Subscription Based Notifications must be planned beforehand during design phase.
Limitations	The notifications work with a minimum window of 1 minute. Currently the apps outside the Insights Hub ecosystem are not supported. Works only with latest Message Broker Service Version.
Documentation	How to Receive Notifications (App Development/Publish): Message Broker API: https://developer.mindsphere.io/apis/core-messagebroker/api-messagebroker-api.html

Data Contextualization Data Registries Upgrade

Description	This add-on provides 4 additional Data Registries for Data Contextualization.
Pre-requisites	A valid subscription to an Insights Hub Capability Package (Standard/Premium), Data Contextualization Resource Package, and Integrated Data Lake (IDL) Resource Package (Optional Insights Hub Cloud Resources Packages) is required.
Documentation	How to Receive Notifications (App Development/Publish): Data Registry Concept: https://documentation.mindsphere.io/MindSphere/apis/datamanagement/api-datamanagement-overview.html#data-registration Data Registry API of Data Contextualization: https://documentation.mindsphere.io/MindSphere/apis/datamanagement/api-datamanagement-api.html

Insights Hub Business Intelligence

Description	Insights Hub Business Intelligence enables you to visualize certain parts of customer content. Such visualizations can be combined into dashboards, which may be used to analyze the performance of connected assets. Your subscription includes 5 GB of storage volume to save your data sources and visualizations. It can be subscribed to in different types (Creator/ Viewer) of Authorized Users. A *Creator* can access the application, which is built on Tableau®, and the supplemental tool *Business Intelligence Data* from the Insights Hub Launchpad. It can be used to select Assets and Aspects and transform those into data sources, which can later be used to create

	visualizations with the main application. The main application further enables you to create or publish a workbook (i.e., a combination of visualizations and dashboards), modify an existing workbook or create subscriptions, alerts or comments on a published workbook.
	A *Viewer* gets access to a subset of features and functionalities via the Insights Hub Business Intelligence application. A Viewer may interact with or export an existing visualization but may not use *Business Intelligence Data*.
	Your subscription includes 5 *Creators*; additional upgrade subscriptions to upgrade the number of *Creators* or to subscribe as *Viewer* are available separately.
Third-Party Terms	Third-Party Terms for the Insights Hub Business Intelligence main application and Business Intelligence Data are available via the following web link: https://siemens.mindsphere.io/en/docs/Product-Descriptions-Overview/Third-Party-Terms
Documentation	For further details about Insights Hub Business Intelligence please see the documentation available via the following link: https://documentation.mindsphere.io/MindSphere/apps/distribution/Business-Intelligence.html

Export Control Regulations

The Offerings described in this Insights Hub Add-ons Product Sheet have the following classification, unless expressly set out otherwise herein:

AL	N
ECCN	N/EAR99

Security Information

General	In order to protect plants, systems, machines and networks against cyber threats, it is necessary that you implement and continuously maintain a holistic, state-of-the-art industrial security concept.
Secure communication	Data transmission will be done via HTTPS protocol from Asset to your Account.

Definitions

General	Unless otherwise indicated, capitalized terms used in this document shall have the meaning given to them in this document or elsewhere in the Agreement. You may also want to check our Glossary