

# MindSphere Supplemental Terms

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## A GENERAL

- 1. Scope.** These MindSphere Supplemental Terms (the “**Supplemental Terms**”) are an integral part of the MindSphere Agreement.
- 2. Definitions.** Capitalized terms used in these Supplemental Terms shall have the meaning ascribed to them in this document or elsewhere in the MindSphere Agreement.
- 3. New Services.** When we introduce new features, supplements, enhancements, capabilities or Services (e.g. that were not previously included with the subscription, but added for no additional fee or offered separately for an additional fee), we may make updates to these Supplemental Terms on [www.mindsphere.io/terms](http://www.mindsphere.io/terms) that apply to your use of those new features, supplements, enhancements, capabilities or Services. The then-current Supplemental Terms apply to you when you use these new features, supplements, enhancements, capabilities or Services.
- 4. Third Party Services.** The Services may contain Third Party services, including open source software, commercial software, or software-related managed services, which may be subject to additional or different terms, license rights, or require certain notices by their licensors, which we are obliged to pass on to you as your licensor and to which you agree to abide (“**Third Party Terms**”). With respect to your use of such Third Party Services, the Third Party Terms set out in a Transaction Document shall always prevail.
- 5. Changes imposed by Subcontractors.** We may update or modify these Supplemental Terms from time to time during a Subscription Term in order to reflect any changes in the Services agreed with or imposed by Siemens’ subcontractors (including changes in open source software license terms). Changes shall become binding upon release of a new version on [www.mindsphere.io/terms](http://www.mindsphere.io/terms).
- 6. Order of precedence.** In the event of a conflict or inconsistency of these Supplemental Terms with a Specific Terms document applicable to you (e.g. Specific Terms for MindAccess IoT Value Plan), these Supplemental Terms shall prevail.
- 7. Export Control Regulation.** The Services described in these Supplemental Terms are classified as AL =N, ECCN = N/EAR99, unless expressly set out otherwise herein.
- 8. Trial.** “**Trial**” refers to a Service that is designated as a “**Trial**” offering in the product description in the applicable Order Form. Any Service delivered as a Trial constitutes a “**Free of Charge Service**” as that term is defined in the MMA. We will notify you by email of the exact start and end date of the Subscription Term for the Trial (“**Free Trial Period**”). You may terminate the Trial at any time during the Free Trial Period by providing written notice to [trial@mindsphere.io](mailto:trial@mindsphere.io) no later than 14 days prior to the end date of the Free Trial Period. We may terminate your access to the Trial at any time after receipt of your written termination notice. Termination of the Trial shall also result in termination of the respective corresponding paid subscription ordered. During the Free Trial Period, our standard support and service level obligations do not apply. We may however, at our sole discretion, make certain free of charge support services available to you. Upon expiration of the Free Trial Period, the Subscription Term for the respective corresponding paid subscription will begin, and you will be invoiced accordingly.

## B FOR MINDACCESS IOT VALUE PLAN SUBSCRIBERS

For the access to and use of the Services described in this [Chapter B](#), a valid subscription to a MindAccess IoT Value Plan is required. The Services described herein may already be included in your subscription to the relevant MindAccess IoT Value Plan (subject to the applicable levels of authorized use as set out herein or in the relevant Transaction Document) or they can be added for an additional fee as an additional Service subscription in relation to your respective MindAccess IoT Value Plan. If an Order Form indicates that a Service relates to certain other Services (e.g. to MindAccess IoT Value Plan), then the Specific Terms that apply to such other Services shall also apply to the related Services.

### 1. Asset Health & Service Hub Application

Asset Health & Service Hub Application enables you to remotely track, detect, analyze and repair issues in the field before they harm machines or disrupt operations.

For the use of this Service, a valid subscription to MindSphere Remote Services as described in [Section B 17](#) is required.

Specific Terms. You may permit Users of Third Parties to access and use this Service also for the purpose of receiving a service from you.

Third Party Terms. The Third Party Terms for Asset Health & Service Hub Application are made available via the following web link: <https://siemens.mindsphere.io/en/docs/Product-Descriptions-Overview/Third-Party-Terms>.

## 2. Closed-Loop Digital Twin Applications

Closed-Loop Digital Twin Applications enable you to define and manage the connections between virtual models (i.e. the digital representation for a physical object) and onboarded assets. They provide interfaces for sending time series data and events information from the Platform to supported enterprise Applications (i.e. applications hosted by you or a Third Party authorized by you outside the wide area network of the Platform) in order to simulate, analyze, visualize and optimize your products and operations. The following Applications are available as part of the Closed-Loop Digital Twin Application suite:

- Product Twin** enables physical and virtual model mapping and connection to supported enterprise Applications with the Platform. It also allows to configure the model for simulation and run it using operational data of an asset. This Application provides a communication channel between the Platform and enterprise Applications.

It further allows you to create, manage and run simulations between onboarded assets and their system models. With this Application, you can build a connection between an onboarded asset and its corresponding system model. This Application leverages the connection to provide onboarded asset's IoT data as input to the system model. Simulations can be performed on the system model using this Application. Simulation results are saved back into the Platform.

In addition, it enables tractability between product variants and asset events and helps to diagnose a problem by providing field feedback to the product. This Application allows you to connect specific product configurations to onboarded assets, view operational events and related product defects for a specific configuration and to create new product defects for unaddressed events. It can also show you a summary of operational events generated for all product configurations. It allows you to view the complete design of a product with variant information, manage the summary of events from the fleet of assets of different product variants and to perform an analysis of events occurring on multiple assets which use a single design object.

- Factory Twin** enables physical and virtual model mapping and connection to supported enterprise Applications with the Platform. It also allows to configure the model for simulation and run it using operational data of an asset. This Application provides a communication channel between the Platform and enterprise Applications.

It also allows you to create, manage and run simulations between physical assets and their discrete events models. With this Application, you can build a connection between assets and their corresponding discrete events simulation models. This Application leverages the connection to provide physical asset's IoT data as input into the discrete events simulation model.

### Specific Terms.

Enterprise Applications. Enterprise Applications are not part of our Services. It is your responsibility to procure and maintain appropriate licenses for such enterprise Applications. Such enterprise Applications are solely operated by you. Enterprise Applications supported as of the release date of these Supplemental Terms are listed below (subject to change and for informational purposes only; please verify with your MindSphere sales representative):

Closed-Loop Digital Twin Application:	Supported enterprise Application:	Supported connectors:
Product Twin	Simcenter Amesim, Teamcenter	Closed-Loop Connector for Amesim, Closed-Loop Connector for Teamcenter
Factory Twin	Tecnomatix Plant Simulation	Closed-Loop Connector for Plant Simulation

Connector packages. The connection of supported enterprise Applications to Product Twin or Factory Twin on the Platform requires the local installation of corresponding supported connector packages listed above which contain connector software and associated Deployment and Development Guides. The connector packages will be made available for download via the Siemens Support Center portal ("Support"). For each supported enterprise Application listed above which shall be connected to a Closed-Loop Digital Twin Application, we grant you a separate license to the corresponding connector package. Each license grants you the non-transferable, non-sublicensable, and revocable right to use, and permit Third Parties to use, the relevant connector package during the Subscription Term of the relevant Closed-Loop Digital Twin Application in accordance with the Deployment Guide made available as part of the connector package. You are solely responsible for (i) properly installing, configuring and using the connector packages made available by us, (ii) properly connecting them to the Platform, and (iii) regularly monitoring the content, integrity, security, accuracy and timeliness of the data transmission (e.g. by monitoring such transmission over the Platform). You always keep up to date the connector packages by installing updates and patches as they become available. Data collected during an update procedure may be lost. We

disclaim all warranty and liability for such data loss. Outdated connector packages may not be able to (i) be updated to the current version and (ii) transmit data to the Platform.

If you wish to develop and create your own custom connector (e.g. to connect further enterprise Applications to a Closed-Loop Digital Twin Application), you are solely responsible for (i) developing such custom connector in accordance with the Closed-Loop Connector Development Guide, (ii) properly installing, configuring and using it, (iii) properly connecting it to the Platform, (iv) deploying it in accordance with the relevant Deployment Guide (if applicable), and (v) regularly monitoring the content, integrity, security, accuracy and timeliness of the data transmission (e.g. by monitoring such transmission over the Platform). Such custom connectors are not part of our Services.

The connector software provided by us as part of the connector packages is classified as AL = 5D002C1A, ECCN = 5D002ENCB1.

Third Party Terms. Third-Party Terms for Product Twin, Factory Twin, Closed-Loop Connector for Amesim, Closed-Loop Connector for Teamcenter and Closed-Loop Connector for Plant Simulation are available under “Closed-Loop Digital Twin Applications” via the following web link: <https://siemens.mindsphere.io/en/docs/Product-Descriptions-Overview/Third-Party-Terms>.

### 3. Cross-Tenancy

Cross-Tenancy can be used to share asset-based data between two Accounts under a collaboration (“**Collaboration**”). A Collaboration may be requested via the *Settings* on the MindSphere Launchpad. Once the Collaboration is established, both Accounts will be able to share selected asset-based data via the *Asset Manager* (“**Sharing**”).

Specific Terms. Collaboration and individual Sharing require prior approval of the involved Accounts.

Between Siemens and the involved Accounts it is expressly understood that (i) the Account sharing its data is and remains the sole owner of such data, (ii) the Account intending to share its data may revoke its Collaboration offer or Sharing offer as long as the receiving Account has not yet accepted the relevant offer, and (iii) both Accounts may terminate a Collaboration or delete single Sharings anytime at their discretion with immediate effect. Upon termination of a Collaboration, no new Sharings can be created and all existing Sharings will be deleted.

You acknowledge and agree that the outcome of any Collaboration and Sharing of Your Content with a Third Party through the use of the Services is beyond our control. You are responsible for the implementation of measures required to reasonably protect Your Content from misuse by such Third Party. Cross-Tenancy allows 1 000 Collaborations per Account and the Sharing of 250 assets per Collaboration. One asset can be shared with up to 10 different receiving Accounts.

### 4. Data Exploration built on Tableau®

Data Exploration built on Tableau® enables you to export data from assets and aspects under your Account to your on-premise Tableau Desktop® installation for further analysis. The data is exported from your Account via a web data connector provided by us.

Specific Terms. Data exported via Data Exploration built on Tableau® may only be stored and processed in connection with your on-premise Tableau Desktop® installation. Tableau Desktop® installations are not part of our Services. The procurement and maintenance of appropriate licenses for Tableau Desktop® installations are your responsibility. Tableau Desktop® installations are solely operated by you. You may permit Users of Third Parties to access and use this Service also for the purpose of receiving a service from you.

### 5. easyDash

easyDash is an industry agnostic dashboarding application that allows you to create no code, flexible, insightful dashboards powered by a leading open source visualization environment.

Specific Terms. You may permit Users of Third Parties to access and use this Service also for the purpose of receiving a service from you. Your subscription to easyDash allows access and use of the application with up to 200 000 requests made to the Platform from the application (“**Queries**”) per month. Additional Queries can be upgraded for additional fees.

Third Party Terms. Third Party Terms for easyDash are available via the following web link: <https://siemens.mindsphere.io/en/docs/Product-Descriptions-Overview/Third-Party-Terms>.

### 6. Edge Analytics

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 Edge Analytics comprises (i) a subscription license to the 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 Application Edge Analytics on the Platform that allows you to configure your data points and KPIs on your Account.

The Edge Analytics Engine software will be made available for download on the Platform and must only be used on supported connectivity hardware. As of the release date of these Supplemental Terms, the MindConnect Nano from Siemens is supported connectivity hardware. For further information as to which connectivity hardware is currently or will be supported, please verify with your MindSphere sales representative.

This Service is available in three different sizes. Depending on the size ordered, the subscription includes 5, 50 or 300 external data points.

Specific Terms. Connectivity hardware for the connection of devices, systems or other equipment to the Platform is not part of our Services. It is your responsibility to procure such connectivity hardware. Connectivity hardware is solely operated by you. For each connectivity hardware device, a separate subscription license to Edge Analytics Engine software must be obtained. Each subscription license grants you the non-transferable, non-sublicensable, and revocable right to use, and permit Third Parties to use, the Edge Analytics Engine software during the Subscription Term of this Service on a single supported hardware device that interfaces with the software on a one-to-one basis.

You are solely responsible for (i) properly installing, configuring and using the Edge Analytics Engine software, (ii) properly connecting it to the Platform, and (iii) regularly monitoring the content, integrity, security, accuracy and timeliness of the data transmission (e.g. by monitoring such transmission over the Platform).

You always keep up to date the Edge Analytics Engine software by installing updates and patches as they become available. Data collected during an update procedure may be lost. We disclaim all warranty and liability for such data loss. Outdated Edge Analytics Engine software may not be able to (i) be updated to the current version and (ii) transmit data to the Platform.

## 7. Integrated Data Lake

Integrated Data Lake allows you to store data as an object, bring together data from different sources and use it with Applications and tools. You can organize data in different folders, associate it with metadata tags, search and delete objects.

Specific Terms. Integrated Data Lake leverages our Notification Service for the sending of emails and other types of messages. The terms and conditions set out in these Supplemental Terms for Notification Service ([Section C 1.13](#)) also apply to your use of the Integrated Data Lake.

Integrated Data Lake is available in three different sizes:

- *Integrated Data Lake Essential* includes 10 GB of data read and write quota per month, 100 000 read and write operations and 10 000 search operations per month. The data storage volume is limited to 120 GB and allows storing 1 200 000 objects.
- *Integrated Data Lake Standard* includes 50 GB of data read and write quota per month, 300 000 read and write operations and 50 000 search operations per month. The data storage volume is limited to 600 GB and allows storing 3 600 000 objects.
- *Integrated Data Lake Enterprise* includes 100 GB of data read and write quota per month, 500 000 read and write operations and 100 000 search operations per month. The data storage volume is limited to 1 200 GB and allows storing 6 000 000 objects.

These limits can be upgraded individually for additional fees.

Third Party Terms. Third Party Terms for Integrated Data Lake are available via the following web link: <https://siemens.mindsphere.io/en/docs/Product-Descriptions-Overview/Third-Party-Terms>.

## 8. Intosite Connector

Intosite Connector enables you to connect between the Platform and the cloud-based application 'Intosite' hosted outside the wide area network of the Platform. It easily maps MindSphere assets and rules to Intosite status placemarks. This allows Intosite Connector to capture standard events triggered by the Platform and update corresponding Intosite status and event information. The status of the events is shown in Intosite in the visual context of the factory. A bi-directional link is established that allows the Intosite user to go back to the exact time series slot when the event happened. This allows the users to investigate what happened before or after the time of the event. Intosite Connector's main features:

- Updates asset status and event information in Intosite.

- Configuration and management of Connectors and asset Connections.
- Maps assets, rules and event severity to Intosite status placemark and event information.
- Enables bi-directional connectivity between the Platform and Intosite.
- Timeseries Data Generation Simulator to simplify configuration and validation of the Connections.

Specific Terms. You may permit Users of Third Parties to access and use this Service also for the purpose of receiving a service from you. This Service is also available as a Trial.

Your subscription to Intosite Connector includes 5 Sites, 5 Connectors and 75 Connections. If your usage exceeds the authorized limits for either Sites, Connectors or Connections, we will charge you for the excess usage as set forth in the Order Form; this does not apply during the Free Trial Period if you order this Service as a Trial.

Intosite is not part of this Service. It is your responsibility to procure and maintain a valid subscription to Intosite in order to create or update the connection between the Platform and Intosite. Once the connection is established, Intosite Connector will continuously update Intosite with status and event information.

Third Party Terms. Third Party Terms for Intosite Connector are available via the following web link: <https://siemens.mindsphere.io/en/docs/Product-Descriptions-Overview/Third-Party-Terms>.

## 9. MindConnect API Services

MindConnect API Services are available via their respective MindSphere API and allow you to transfer data between your Account on the Platform and on-premise hardware devices or on-premise connectivity software from Siemens or from Third Parties, provided such hardware or connectivity software is compatible with the MindConnect API Services. Connectivity software and hardware for the connection of devices, systems or other equipment to the Platform are not part of our Services. It is your responsibility to procure and maintain appropriate licenses for such hardware and connectivity software. Such hardware and connectivity software are solely operated by you.

## 10. MindConnect Integration

MindConnect Integration allows you to connect Third Party on-premise systems and Third Party cloud-based services to your Account on the Platform, for which we make an adaptor on the Platform available via MindConnect Integration. An “Integration” is a link established by you between the Platform and an interface of (i) an “On-Premise System”, i.e. a software system running on-premise in your private data center, or (ii) a “Cloud-Based Service”, i.e. a service running on a public cloud infrastructure other than the Platform.

Installation assistance and consulting regarding MindConnect Integration are offered for an additional fee in the form of Professional Services.

Specific Terms. On-Premise Systems and Cloud-Based Services are not part of our Services. It is your responsibility to procure and maintain appropriate licenses for such On-Premise Systems and Cloud-Based Services and their integrations with the Platform. On-Premise Systems, Cloud-Based Services and their integrations are solely operated by you. On-Premise Systems and Cloud-Based Services supported as of the release date of these Supplemental Terms are listed below (subject to change and for informational purposes only; please verify with your MindSphere sales representative):

Supported On-Premise Systems	Ariba, OnRamp, LotusNotes, OFTP, Oracle, PeopleSoft, Remedy, SAP, SAP XI, Siebel, AS/400, JavaBeans, JDBC, Apache HIVE, MongoDB, Cassandra, HDFS, Apache Impala, Apache WebSphereMQ, Tuxedo, MSMQ, Apache Kafka
Supported Cloud-Based Services	FTP(S), SOAP, REST, OData 2.0, OData 4.0, Alfabet, Cumulocity, Apps, BigQuery, Calendar, Cloud Storage, Contacts, Drive, Cloud Pub/Sub, Sheets,S3, SNS, SQS, Apache Solr, AvaTax, Concur, Coupa, Magento, Marketo, Microsoft Dynamics, NetSuite, SAP Cloud, SAP Hana Marketing Cloud, Salesforce, Salesforce CRM, ServiceNow, Slack, Strikelron, SuccesFactors, SugarCRM, Zendesk

You may permit Users of Third Parties to access and use MindConnect Integration also for the purpose of receiving a service from you.

Integration Software. To connect an On-Premise System to the Platform, certain Third Party software must be installed on a server on-premise in your data center (“**Integration Software**”). You can only onboard your On-Premise System if the Integration Software has a connection to the internet.

Integration Software is not part of our Services and is solely operated by you. It is your responsibility to procure and maintain appropriate licenses for such Integration Software. We will direct you to the website of a Third Party vendor, where Integration Software is available for your download via the internet. Separate terms and conditions apply to the download and installation of Integration Software. We will provide you with Third Party license keys for such Integration Software to enable your use of the Integration Software in connection with the Services, limited to bi-directional communication of data between Integration Software and your Account. Integration Software may contain a mechanism to disable its use after the end of the Subscription Term to MindConnect Integration and you will not interfere with the date and time of such disabling mechanism. We may, at our sole discretion, make available software updates or security patches for Integration Software and will provide reasonable notice when such updates or security patches are available. You shall update the Integration Software without undue delay after the publication of any updates and patches. Please note that data collected during an update procedure may be lost. Separate terms and conditions may apply to the download or installation of such updates or security patches. Integration Software with older firmware may not be able to be updated to the current version. An outdated version of Integration Software may not be able to transmit data to the Platform.

Third Party Terms. Third Party Terms for MindConnect Integration are available via the following web link: <https://siemens.mindsphere.io/en/docs/Product-Descriptions-Overview/Third-Party-Terms>.

## 11. MindConnect IoT Extension

MindConnect IoT Extension allows you to connect to your Account on the Platform (i) supported Third Party IoT hardware devices, (ii) supported Third Party IoT connectivity software or (iii) other Third Party IoT hardware devices or connectivity software using supported field protocols. IoT hardware devices (with sensors or actors attached) can be connected to the Platform either directly or via a fieldbus device. IoT connectivity software is software which is able to connect to the Platform to protocol and mediate data.

Specific Terms. Third Party IoT hardware devices and connectivity software are not part of our Services. It is your responsibility to procure and maintain appropriate licenses for Third Party IoT hardware devices and connectivity software. You are solely responsible for the operation of Third Party IoT hardware devices and connectivity software. Third Party IoT hardware devices, connectivity software and field protocols supported as of the release date of these Supplemental Terms are listed below (subject to change and for informational purposes only; please verify with your MindSphere sales representative):

Supported IoT hardware devices	BeagleBone Black, Cinterion Java Modules, CloudGate, Dell Edge Gateway, INSYS Smart Devices – INSYS OS, INSYS Smart Devices – icom OS, Janz Tec emPC A/RPI, Libelium-Mesehlum, Mbed u-blox C027, Meitrack, Netcomm, OWA3x, QuecLink, RaspberryPi, Red Lion RAM, SMARTBox, Robustel, SMARTBox IO, SMARTBox Mini, TC3G, Telic, TinkerForge, Tixi
Supported IoT connectivity software	MQTT Agent, Java Agent, C++ Agent
Supported field protocols	HTTP/HTTPS, TCP, VNC, MQTT/MQTT+TLS, REST, SmartRest 1.0/2.0, OPC-UA, Modbus/RTU, Modbus/TCP, CAN bus, MMC, SPI, I2C, McASP, device specific protocols

Onboarding, Configuration and User Assignment. You may onboard and manage Third Party IoT hardware devices and connectivity software via management and configuration tools accessible from your MindSphere Launchpad. Such configuration tools may be used to determine which data is ingested and stored for further use on the Platform. You may also assign Users to Third Party IoT hardware devices and connectivity software.

Third Party Terms. Third Party Terms for MindConnect IoT Extension are available via the following web link: <https://siemens.mindsphere.io/en/docs/Product-Descriptions-Overview/Third-Party-Terms>.

## 12. MindConnect MQTT Services

MindConnect MQTT Services are available via their respective MindSphere API and allow you to transfer data between your Account on the Platform and on-premise hardware devices or on-premise connectivity software from Siemens or from Third Parties, provided such hardware or connectivity software is compatible with the MindConnect MQTT Services. Connectivity software and hardware for the connection of devices, systems or other equipment to the Platform are not part of our Services. It is your responsibility to procure and maintain appropriate licenses for such hardware and connectivity software. Such hardware and connectivity software are solely operated by you.

## 13. MindConnect OPC UA PubSub Services

MindConnect OPC UA PubSub Services are available via their respective MindSphere API and allow you to transfer data between your Account on the Platform and on-premise hardware devices or on-premise connectivity software from Siemens or from Third Parties,

provided such hardware or connectivity software is compatible with the MindConnect OPC UA PubSub Services. Connectivity software and hardware for the connection of devices, systems or other equipment to the Platform are not part of our Services. It is your responsibility to procure and maintain appropriate licenses for such hardware and connectivity software. Such hardware and connectivity software are solely operated by you.

## 14. MindConnect Software Agent and MindConnect Advanced Driver Extension

MindConnect Software Agent is a software that allows you to connect supported Third Party hardware devices to your Account on the Platform. It also allows you to collect data from industrial devices using supported field protocols such as S7, OPC-UA, EtherNet/IP and Modbus TCP and to transfer the collected data to your Account via an established connection.

The software will be made available for download on the Platform and must only be used on supported Third Party hardware devices. For further information as to which hardware devices are currently or will be supported, please verify with your MindSphere sales representative.

MindConnect Advanced Driver Extension is an optional extension to the MindConnect Software Agent to which you can subscribe. 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.

Specific Terms for MindConnect Software Agent. Hardware devices are not part of our Services and are solely operated by you. It is your responsibility to procure such hardware devices. We grant you the permanent, non-transferable, non-sublicensable, and revocable right to use, and permit Third Parties to use, the MindConnect Software Agent software on a single supported hardware device that interfaces with the software on a one-to-one basis.

You are solely responsible for (i) properly installing, configuring and using the MindConnect Software Agent software, (ii) properly connecting it to the Platform, and (iii) regularly monitoring the content, integrity, security, accuracy and timeliness of the data transmission (e.g. by monitoring such transmission over the Platform).

You must always keep the MindConnect Software Agent software up to date by installing updates and patches as they become available. Data collected during an update procedure may be lost. We disclaim all warranty and liability for such data loss. Outdated MindConnect Software Agent software may not be able to (i) be updated to the current version and (ii) transmit data to the Platform.

Specific Terms for MindConnect Advanced Driver Extension. 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.

## 15. Operations Insight

With Operations Insight it is possible to explore the performance and condition of assets, products or lines in real time, get full and harmonized transparency and root cause of the data from connected assets, calculate KPIs, assign work orders within your team and get automatically notified upon exceeded thresholds. This Service offers the following functionalities in the categories “explore”, “analyze” and “configure”: **Explore Dashboards** can be used to visualize time series data and other information (e.g. text, images) on one page. **Explore Assets** provides an overview of assets configured in the respective Account, allows to search and filter for relevant assets based on various criteria, and displays measured data and information from assets. **Explore Events** shows time series events of different severities and allows you to acknowledge events, start work orders and explore assets. **Explore Work Orders** is used to investigate issues and ongoing maintenance activities within your own production and assets, and it allows you to change status, priority, and assignee of a work order (in which case a message will be sent to the assignee). **Analyze Time Series** is a basic analytics application for time series data. **Configure KPIs** is used to define and calculate KPIs on time series data by visually selecting input and output variables and writing the calculation formula using JavaScript language. **Configure Rules** is used to monitor one or more variables of the respective assets and define resulting actions such as sending notifications or setting a status indication after the occurrence of an event set, e. g. if the data relating to a certain asset exceeds a threshold defined.

Specific Terms. The functionalities “Configure Rules” and “Explore Work Orders” leverage our Notification Service for sending emails and other types of messages. The terms and conditions set out in these Supplemental Terms for Notification Service ([Section C 1.13](#)) also apply to your use of Operations Insight. You may permit Users of Third Parties to access and use this Service also for the purpose of receiving a service from you.

The number of rules, simple KPIs and creators of dashboards & KPIs are limited. These limits are defined by the respective Plan size ordered. The number of rules and creators of dashboards & KPIs can be upgraded at an additional fee.



Third Party Terms. Third Party Terms for Operations Insight, Explore Dashboards, Explore Assets, Explore Events, Analyze Time Series, Configure Rules, Explore Work Orders, Configure KPIs and Tour Guide are available under “Operation Insight” via the following web link: <https://siemens.mindsphere.io/en/docs/Product-Descriptions-Overview/Third-Party-Terms>.

## 16. Predictive Learning

Predictive Learning allows you to build predictive models through machine learning techniques, enabling companies to optimize product quality as well as reduce potential field failures and performance issues. You can employ machine learning algorithms including Naive Bayes, Random Forest, Logistic Regression, Decision Trees, Gradient Boosting, Support Vector Machines and others. It also allows you to build and execute predictive models in Python, R and Spark.

You can import data to Predictive Learning from an AWS S3 storage, or from Integrated Data Lake as described in [Section B.7](#). Asset-related time series data can also be imported to Predictive Learning from the Platform.

Specific 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 and CRAN (<https://cran.r-project.org/>) for R. Such libraries are not part of our Services and solely operated by you.

## 17. Remote Services

Remote Services (RS) is a Service available via user interface accessible from your MindSphere Launchpad in two versions:

- RS v1 providing a functional approach allowing fast switching between all RS functionalities;
- RS v2 providing a workflow-driven approach for everyday service tasks.

RS uses tunnel technology and provides you with remote access to on-site assets that are registered within RS for the purpose of fast remote service and maintenance (“**Service Assets**”).

RS is available as:

- **RS** : Your subscription to RS enables you to service and maintain Service Assets via native or browser-based remote login. Fine grained access control ensures that Users have access only to those Service Assets which are assigned to them by a RS administrator. Users may transfer Service Data such as production-related data or deliver Service Data such as configurations by means of file transfer. “**Service Data**” means all RS-related data for administration and usage of RS functionalities. Your subscription to RS comprises access to 1 Service Asset, 10 MB of monthly Service Data transfer and 1 Service Tunnel. “**Service Tunnel**” means hosting of one asset-specific communication protocol in a generic tunnel, which connects a service personnel’s operator PC to a particular Service Asset. Additional Service Assets, Service Data volume and Service Tunnels can be upgraded for additional fees.
- **RS (Engineering Option)**: Your subscription to RS (Engineering Option) adds remote engineering support capabilities to RS. It enables the use of certain engineering tools procured and operated by you from remote, which may alleviate service and maintenance tasks such as commissioning or improvement of Service Assets.

Specific Terms. Under the Account of your MindAccess IoT Plan, you may permit Users of Third Parties to access and use this Service for the purpose of receiving a service from you.

Client Software. RS requires installation of, and we grant you a license to, (i) a device client for terminating tunnel connections in the serviced remote network and which may also be used as a gateway for accessing Service Assets in sub-networks, and (ii) an operator client for establishing underlying Service Tunnels originating in the remote service personnel’s operator PC to a serviced site. Both clients will be made available for download on the Platform. Installation of the operator client is not required for browser-based remote login. Each license grants you the permanent, non-transferable, non-sublicensable, and revocable right to use, and permit Third Parties to use, the software on a single Service Asset that interfaces with the software on a one-to-one basis.

For details regarding validated hardware and software configurations for operator and device clients, please see the MindSphere Release Notes available via the following weblink: <https://documentation.mindsphere.io/resources/html/release-notes/en-US/index.html>.

You are solely responsible for (i) properly installing, configuring and using the client software, (ii) properly connecting it to RS, and (iii) regularly monitoring the content, integrity, security, and accuracy of Service Data transfer You always keep the software up to date

by installing updates and patches as they become available. Service Data transferred during an update procedure may be lost. We disclaim all warranty and liability for such data loss. Outdated software may not be able to (i) be updated to the current version and (ii) handle Service Data.

**Restrictions.** RS provides a means for secured remote login, remote engineering and file transfer. Please note that Service Tunnels and transfer of Service Data may be subject to local restrictions or prohibitions, e.g. regarding encryption (e.g. use of tunnels as in RS), data sensitivity (e.g. production-related data), or cross-border traffic. It is your responsibility to check if such local restrictions or prohibitions apply and to use this Service in compliance with Laws.

**Third Party Terms.** Third Party Terms for RS v1, RS v2 and operator and device clients are available under “Remote Services” via the following web link: <https://siemens.mindsphere.io/en/docs/Product-Descriptions-Overview/Third-Party-Terms>.

## 18. Semantic Data Interconnect

Semantic Data Interconnect () is available via its respective MindSphere APIs. It is a contextualized data integration framework that allows you to maximize the value of enterprise data from disparate sources along with IoT data. This Service enables you to infer relationships between various data points and to correlate design, financial and manufacturing data with operational data from physical assets. This Service provides a complete workflow to register, ingest and search data and associated metadata from external data, build semantic models and finally query to consume correlated data. It consists of the following Services:

- **Data Registry Service** provides the functionality of data source, data lake and custom data type registration. As of the date of release of these Supplemental Terms, only Integrated Data Lake as described in [Section B 7](#) is supported for data lake registration.
- **Data Ingest Service** is used post registration to ingest files from various systems and trigger the data ingestion process. It allows application developers to integrate source systems. For subscribers of Integrated Data Lake as described in [Section B 7](#), the requirements for data ingestion are described in the developer documentation available via the following web link: [www.mindsphere.io/developer](http://www.mindsphere.io/developer).

After the data ingestion is completed, Semantic Data Interconnect triggers automatic-schema discovery process and provides schema for ingested data into Semantic Data Interconnect.

- **Semantic Model Service** provides end-to-end capability to create, store, update or delete semantic models.
- **Data Query Service** enables you to create, store, update, and get results for semantic business queries and physical queries.

**Specific Terms.** This Service requires access to data lake storage from either (i) Integrated Data Lake, as described in [Section B 7](#) or (ii) a separate data lake provided and operated by you. If you provide separate data lake storage, you must also purchase the SDI data storage upgrade (500 GB per upgrade).

This Service allows you to ingest data from 3 SDI systems (i.e. connected data sources from which data is consumed, e.g. PLM, ERP or MES system) and includes SDI outbound traffic of 100 GB. SDI systems can be upgraded for additional fees. If your usage exceeds the authorized limits for either SDI data storage or SDI outbound traffic, we will charge you for the excess usage as set forth in the Order Form.

**Third Party Terms.** Third Party Terms for Semantic Data Interconnect are available via the following web link: <https://siemens.mindsphere.io/en/docs/Product-Descriptions-Overview/Third-Party-Terms>.

## 19. Visual Explorer

Visual Explorer enables you to visualize certain parts of Your Content. Such visualizations can be combined into dashboards, which may be used to analyze the performance of connected assets. Depending on the package ordered, you will receive storage volume to save your data sources and visualizations.

**Specific Terms.** Visual Explorer can be subscribed to in certain package types, containing different types of authorized user-based licenses.

A *Creator* license allows you to access the Visual Explorer main Application, which is built on Tableau®, and the supplemental tool *Visual Explorer – Connector* from the MindSphere Launchpad. Visual Explorer – Connector can be used to select *Assets* and *Aspects* and transform those into data sources, which can later be used to create visualizations with the Visual Explorer main Application. The Visual Explorer 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* license provides each User with access to a subset of features and functionalities via the Visual Explorer main Application. A Viewer may interact with or export an existing visualization, but may not use *Visual Explorer – Connector*.

The number of User licenses depends on the package that has been ordered; the ordered package can be upgraded for additional fees.

Under the Account of your MindAccess IoT Value Plan, you may permit Users of Third Parties to access and use Visual Explorer for the purpose of receiving a service from you solely to query and analyze Your Content for your OEM Customer's internal purposes as end-users.

Third Party Terms. Third Party Terms for the Visual Explorer main Application and Visual Explorer – Connector are available under "Visual Explorer" via the following web link: <https://siemens.mindsphere.io/en/docs/Product-Descriptions-Overview/Third-Party-Terms>.

## **20. Visual Flow Creator**

Visual Flow Creator enables you to design your own workflows via a drag and drop functionality to develop graphic depiction of workflows. You can choose from a variety of pre-configured nodes provided by Siemens or you can deploy your own nodes to Visual Flow Creator for use in your workflows. Create the workflows with the web-based editor to analyze and generate new virtual data points or deliver the formatted data for reporting tools. The workflows can be triggered manually, time-based or via RESTful call. You can calculate KPIs or trigger actions.

Specific Terms. The number of worksheets is limited to 10 per User. The number of nodes for one sheet is limited to 100. The amount of data stored in the context of function node is limited to 128 KB and only one context variable is allowed. The file size is limited to 1 MB for read and write and 100 file transfers per day. Only 2 000 values can be processed per time series request. The calculation duration of a flow must be less than 30 seconds. The number of node context variables in a function node is limited to 5 per node per User. The number of flow context variables in a function node is limited to 20 per node per User. The number of global context variables in a function node is limited to 100 per node per User.

You will be charged based on the execution time by the respective size of Visual Flow Creator ordered. Please consider that the available workflow execution is based upon a 30% asset coverage which can be increased by ordering additional workflow execution time quota. The execution time of all nodes for one Account could be limited depending on the Application and Platform load. All created workflows are visible for all Users of your Account.

It is your responsibility to procure and maintain appropriate licenses for any nodes you deploy to Visual Flow Creator.

Third Party Terms. Third Party Terms for Visual Flow Creator are available via the following web link: <https://siemens.mindsphere.io/en/docs/Product-Descriptions-Overview/Third-Party-Terms>.

## **C FOR MINDACCESS DEVELOPER PLAN AND MINDACCESS OPERATOR PLAN SUBSCRIBERS**

For the access to and use of the Services described in this [Chapter C](#), a valid subscription to a MindAccess Developer Plan or a MindAccess Operator Plan, respectively, is required. The Services described herein may already be included in your subscription to the relevant MindAccess Plan (subject to the applicable levels of authorized use as set out herein or in the relevant Transaction Document) or they can be added for an additional fee as additional Service subscription to your respective MindAccess Plan. If an Order Form indicates that a Service relates to certain other Services (e.g. to MindAccess Developer Plan), then the Specific Terms that apply to such other Services shall also apply to the related Services.

## 1. Services via MindSphere APIs

Overview of Services and authorization levels included in the MindAccess Developer Plan sizes listed below:

Service Name	Metric	Included in MindAccess Developer Plan			Section in Chapter C	
		Small	Medium	Large		
Agent Management	Connected Agents <sup>1</sup>	1	5	10	<a href="#">1.1</a>	
Analytics Services	Interactive mode and direct interactive mode: Number of API calls per month of this service group	500	1 000	1 500	<a href="#">1.2</a>	
Anomaly Detection Event Analytics KPI Calculation Signal Calculation Signal Spectrum Analysis Signal Validation Trend Prediction		Batch mode: Number of data points <sup>2</sup> processed per month of this service group	10 000 000	20 000 000		30 000 000
Asset Management	Asset instances	20	100	200	<a href="#">1.3</a>	
	Asset types	5	25	50		
Backing Services	Included concurrent instances of Backing Services XS	2	4	6	<a href="#">1.4</a>	
	Included concurrent instances of Backing Services M	-	-	-		
Event Management	Event instances	250 000	1 250 000	2 500 000	<a href="#">1.5</a>	
	Event types	10	50	100		
Identity and Access Management	Subtenants	1	5	10	<a href="#">1.6</a>	
	Users <sup>3</sup>	10	50	100		
IoT and Storage Services	Time Series Service	20 GB	100 GB	200 GB	<a href="#">1.7</a>	
	Time Series Bulk Service	3 kB/s	13 kB/s	25 kB/s		
	Aggregate Service	3 kB/s	13 kB/s	25 kB/s		
	File Service	10 GB	50 GB	100 GB		
MindConnect Device Management Services	Deployment Workflow	Deployment models <sup>5</sup>	5	10	20	<a href="#">1.10</a>
		Deployment job instances	100	500	1 000	
	Device Configuration	Device configuration file storage <sup>6</sup>	-	-	-	
	Device Management	Device types	5	25	50	
	Device Status	-	-	-	-	
	Firmware Deployment	Download volume <sup>7</sup>	-	-	-	
Notification Service	Notifications per month	1 000	5 000	10 000	<a href="#">1.13</a>	
Token Manager Service	Number of API calls <sup>8</sup> per month	150 000	750 000	1 500 000	<a href="#">1.15</a>	
Usage Transparency Service	Calls per tenant and month	1 000	1 000	1 000	<a href="#">1.16</a>	

<sup>1</sup> Each connected Agent leads to one used asset instance; <sup>2</sup> 20 000 data points are equal to 1 API call; <sup>3</sup> User can have different roles e.g. Admin, Developer etc.; <sup>4</sup> Data ingest is based on number of assets, number of variables per asset, size per variable, read cycle interval, sending frequency and overhead; <sup>5</sup> Predefined deployment models for firmware, configuration and edge Application deployments are not included; <sup>6</sup> File storage limits of File Service included in your MindAccess Plan applies; <sup>7</sup> Outbound Traffic limits of your MindAccess Plan apply; <sup>8</sup> An API call is defined as a token refresh to enable backend processing without user interaction.

Overview of Services and authorization levels included in the MindAccess Operator Plan sizes listed below:

Service Name	Metric	Included in MindAccess Operator Plan			Section in Chapter C	
		Small	Medium	Large		
Agent Management	Connected Agents <sup>1</sup>	1	5	10	<a href="#">1.1</a>	
Analytics Services	Interactive mode and direct interactive mode: Number of API calls per month of this service group	500	1 000	1 500	<a href="#">1.2</a>	
Anomaly Detection Event Analytics KPI Calculation Signal Calculation Signal Spectrum Analysis Signal Validation Trend Prediction		Batch mode: Number of data points <sup>2</sup> processed per month of this service group	10 000 000	20 000 000		30 000 000
Asset Management	Asset instances	20	100	200	<a href="#">1.3</a>	
	Asset types	5	25	50		
Backing Services	Included concurrent instances of Backing Services XS	-	-	-	<a href="#">1.4</a>	
	Included concurrent instances of Backing Services M	-	-	-		
Event Management	Event instances	250 000	1 250 000	2 500 000	<a href="#">1.5</a>	
	Event types	10	50	100		
Identity and Access Management	Subtenants	2	2	2	<a href="#">1.6</a>	
	Users <sup>3</sup>	5	10	25		
IoT and Storage Services	Time Series Service	20 GB	100 GB	200 GB	<a href="#">1.7</a>	
	Time Series Bulk Service	3 kB/s	13 kB/s	25 kB/s		
	Aggregate Service	10 GB	50 GB	100 GB		
	File Service	10 GB	50 GB	100 GB		
MindConnect Device Management Services	Deployment Workflow	Deployment models <sup>5</sup>	5	10	20	<a href="#">1.10</a>
		Deployment job instances	100	500	1 000	
	Device Configuration	Device configuration file storage <sup>6</sup>	-	-	-	
	Device Management	Device types	5	25	50	
	Device Status	-	-	-	-	
	Firmware Deployment	Download volume <sup>7</sup>	-	-	-	
Notification Service	Notifications per month	1 000	5 000	10 000	<a href="#">1.13</a>	
Token Manager Service	Number of API calls <sup>8</sup> per month	150 000	750 000	1 500 000	<a href="#">1.15</a>	
Usage Transparency Service	Calls per tenant and month	1 000	1 000	1 000	<a href="#">1.16</a>	

<sup>1</sup> Each connected Agent leads to one used asset instance; <sup>2</sup> 20 000 data points are equal to 1 API call; <sup>3</sup> User can have different roles e.g. Admin, Developer etc.; <sup>4</sup> Data ingest is based on number of assets, number of variables per asset, size per variable, read cycle interval, sending frequency and overhead; <sup>5</sup> Predefined deployment models for firmware, configuration and edge Application deployments are not included; <sup>6</sup> File storage limits of File Service included in your MindAccess Plan applies; <sup>7</sup> Outbound Traffic limits of your MindAccess Plan apply; <sup>8</sup> An API call is defined as a token refresh to enable backend processing without user interaction.

The authorization levels shown in the tables above, set out the overall limits of authorizations for the respective metrics of the relevant MindAccess Plan size. For clarity, if your subscription to MindAccess Developer Plan includes 5 connected Agents, such 5 Agents may for instance be 3 Agents connected via the Asset Manager tool in your Account and 2 assets connected via the respective API of Agent Management in your Account.

Should the actual usage of your Plan size repeatedly exceed one or more of the applicable limits above (e.g. the number of Users for your Plan size), and should you not order the appropriate increase of usage capacities for an additional fee, we reserve the right to suspend the Service. Other contractual rights and remedies remain unaffected.

## 1.1 Agent Management

Agent Management is a Service made available via its respective MindSphere APIs. This Service can be used e.g. to create, update, request status or delete an Agent, and allows you to onboard or offboard an Agent.

An “**Agent**” is a software as part of a hardware device (e.g. MindConnect Nano) or in the form of an Application provided by Siemens or a Third Party which you connect to your Account and which can ingest data into your Account and send data to one or more asset instances. The number of Agents equals the number of parallel data ingest channels. The data points that are ingested into the Account are associated to asset instances.

## 1.2 Analytics Services

Analytics Services are available via their respective MindSphere APIs and provide basic and advanced analytical functions for time series data such as Anomaly Detection, Event Analytics, KPI Calculation, Signal Calculation, Signal Spectrum Analysis, Signal Validation and Trend Prediction.

- **Anomaly Detection** aims to support the detection of unexpected behavior of processes and assets. For the training of anomaly detection, normal data is sufficient. Normal data represents the standard conditions of assets. Furthermore, clustering based on anomaly detection techniques allow human interaction and integration of domain knowledge (e.g. by labeling of new clusters and/or anomalies). A developer can build Applications for process and condition monitoring, early warning functionality and detection of fault conditions without explicit definitions.
- **Event Analytics** provides a statistical analysis for visualizing the most frequent events over a period of time.
- **KPI Calculation** offers an easy way to provide various calculations for Key Performance Indicators based on sensor data as well as sequence of events (i.e. from control/automation systems). The characteristic of these KPI calculations is related to an ISO 3977-9:1999 standard which is in fact dedicated to gas turbines. The characteristic is also applicable to other industrial applications. It is possible to provide automated annotation for time series data for many common characteristics. Additionally, the function can combine two information sources, numerical sensor data as well as events. The Service can be applied for historical data as well as the automated processing of incoming new data.
- **Signal Calculation** offers commonly used missing value handling strategies, for instance, removal and interpolation. It calculates a descriptive summary of a sequence of signal values and if required, it derives new signal values by shifting, smoothing and transforming the original ones.
- **Signal Spectrum Analysis** allows detecting changes in the signal spectrum, for instance noise arising in a specific frequency band or a known frequency suddenly missing in the spectrum. The User may conduct *discrete Fourier transform* based on audio files and then detect upper or lower frequency band violations.
- **Signal Validation** provides functions that help to detect common issues in time series data. Signal Validation can be used for optimizing the data quality.
- **Trend Prediction** is a forecasting framework that may be useful in the area of process and condition monitoring. Also, seasonality and trend removal is an essential task of data analytics pre-processing.

Analytics Services can be utilized in an interactive mode, direct interactive mode or batch mode, e.g. via the Visual Flow Creator (workflow tool for calling APIs) or from your Applications:

- **Batch mode:** Allows processing of up to 1 000 000 data points using one single API call including all dimensions with a response time between 40 seconds and several hours (depending on algorithm complexity).

- **Interactive mode:** Allows processing of up to 20 000 data points provided as input to the API request using one single API call with a response time below 10 seconds.
- **Direct interactive mode:** Allows processing of up to 20 000 data points from the time series data storage using one single API call with a response time below 10 seconds.

As of the date of release of the Supplemental Terms only Anomaly Detection is available in all three aforementioned modes. KPI Calculation, Trend Prediction, Signal Calculation and Signal Validation are available in an interactive and direct interactive mode. All other Analytics Services are available only in an interactive mode.

### 1.3 Asset Management

Asset Management is a Service available via its respective MindSphere APIs. An asset is the logical representation of a thing which can be a machine or an automation system with a single or multiple automation unit(s) e.g. PLC or even a factory site. This logical representation incorporates a data model describing properties and abilities of the respective thing. Assets can be set into relation with other assets to create structures such as hierarchies. Asset Management allows you to create, read, update and delete assets through an appropriate user interface developed by you.

The number of asset types and asset instances you are allowed to create is limited. These limits are defined by the respective Plan size ordered and can be upgraded at an additional fee.

You shall not use Asset Management Services in connection with things manufactured by a Third Party without procuring and maintaining appropriate consent and licenses from such Third Party (as may be required) in your own responsibility. You shall not create representations of assets which inaccurately represent the properties and abilities of a physical object.

### 1.4 Backing Services

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 (more Services may be available in the future).

Backing Services are available in different sizes, e.g. XS or M. This relates to available memory, storage space and additional properties such as high availability. Backing Services included in the respective Plan size ordered are limited and can be upgraded individually at an additional fee.

Backing Services are also available in a "Pay-Per-Use" version. Your subscription to Backing Services Pay-Per-Use allows you to utilize any available size of Backing Services. In such case, a usage-based fee will be charged depending on the size of Backing Services in use as set forth in the Order Form.

### 1.5 Event Management

#### Managing events, creating and publishing event types

Event Management is a Service available via its respective MindSphere APIs. This Service is used to manage standardized and customized events. Events, alarms, warnings can be received from the field or other Applications and be used to inform a User.

An event documents the occurrence of a defined situation (e.g. exceed temperature threshold or starting a motor). The order and the content of an event instance are specified in the corresponding event type (e.g. timestamp, priority and description). Event instance represents the occurrence and includes the information defined in the event type (e.g. 2018-07-10 15:45:23 | HIGH | Temperature high). The number of event instances and event types you are allowed to create is limited. These limits are defined by the respective Plan size ordered and can be upgraded at an additional fee.

When creating an event type, the respective creator ("**Event Owner**") can designate it as *local* or *global*:

- **Local event type:** Local event types are private and can only be used by Users that have access to the Account of the relevant Event Owner.
- **Global event type:** Global event types are listed and accessible to all MindSphere users for their use.

By default, a newly created event type is designated as *local*. By designating an event type as *global*, the relevant Event Owner grants the non-transferable, irrevocable and royalty-free right to use and permit Third Parties to use the respective event type (i) to Siemens and (ii) to all current and future MindSphere customers for their use on the Platform.

## Using global event types

By using a global event type you acknowledge and agree that: (i) any relationship regarding the use of a global event type is solely between you and the relevant Event Owner; (ii) Siemens is under no obligation to test, validate or otherwise review a global event type; (iii) Siemens does not assume any obligation or responsibility with regard to the use or support of a global event type; and (iv) (only) the relevant Event Owner may modify from time to time and cease to maintain an existing global event type.

### 1.6 Identity and Access Management

Identity and Access Management are Services available via their respective MindSphere APIs. These Services are used to manage users, customers/subtenants, roles, scopes and access policies. Access policies are available only upon request. Please contact your MindSphere sales representative or MindSphere Support to enable use of access policies.

A tenant is a representation of a real-world organization. It covers properties such as users, data, assets, entities and others. A subtenant is a certain limited resource of a tenant representing a subpart of your own real-world organization. In a MindAccess Developer Plan, a subtenant can also represent the real-world organization of a third party that you permit to test Applications for such third parties' end use. A subtenant is also used to assign Applications and provide access to Applications.

### 1.7 IoT and Storage Services

IoT & Storage Services are Services available via their respective MindSphere APIs. It covers Aggregate Service, File Service, Time Series Service and Time Series Bulk Service:

- **Aggregate Service** is used to read aggregated time series values. Retrieve the following aggregated values per interval: Count, Sum, Average, Minimum, Maximum, First Value, Last Value and Standard Deviation.  
*Aggregate Services use pre-calculated intervals to enhance performance upon retrieval. Performing queries that require on-the-fly calculations might perform slower than queries that make use of pre-calculated aggregates. Aggregates are pre-calculated based on incoming raw data with a slight delay. Therefore, it might be possible that the latest time series values are not available when reading aggregates.*
- **File Service** is used to read, write, delete, upload and update files associated to assets, store metadata information, and search for files by metadata. Since files are always related to an asset, the instance of an asset must have been created by you beforehand.
- **Time Series Service** can be used to create, read, update and delete dynamic data. Since time series data are always related to an asset, the instance of an asset must have been created by you beforehand.
- **Time Series Bulk Service** can be used to upload historic time series data using files. Only time series data with timestamps within the past 3 years can be uploaded when using Time Series Bulk Service.

The time series data ingest rate, time series data storage volume and file storage you can use is limited. These limits are defined by the respective MindAccess Plan size ordered and can be upgraded at an additional fee. The time series data storage volume of your MindAccess Plan also applies to historic time series data uploaded via Time Series Bulk Service.

### 1.8 Integrated Data Lake

Please refer to [Section B 7](#).

### 1.9 MindConnect API Services

Please refer to [Section B 9](#).

### 1.10. MindConnect Device Management Services

MindConnect Device Management Services are Services available via their respective MindSphere APIs. It covers the following Services:

- **Device Management** allows to maintain an inventory of all connected devices as well as to manage the lifecycle of device types. The device type is used when determining which software (especially firmware) can be installed on which device instance. A device can only be onboarded to the Platform via an Agent. Credentials for accessing the Platform are tied to Agents created by using Agent Management Service as described in [Section C 1.1](#).



- **Deployment Workflow** allows to deploy software packages or configuration files to devices. You can model the deployment operations as a workflow state machine according to your needs, while deploying artifacts or configuration to your devices.
- **Device Configuration** allows to (re-)configure devices. This Service uses Deployment Workflow for controlling the update process and for tracking the result of the update with a predefined deployment model. It also allows to store, manage and version configuration files.
- **Device Status** allows to monitor the health status (e.g. *online/offline*) of devices on the Platform.
- **Firmware Deployment** allows to initiate jobs for deploying firmware releases on devices. This Service initiates a job instance on Deployment Workflow to download firmware artifacts onto devices by using a predefined deployment model. It generates a URL for devices to download the artifacts files. Those generated pre-signed URLs may only be used to manage firmware releases to connected edge devices.

**Specific Terms.** By using MindConnect Device Management Services you acknowledge and agree that (without limiting any of your further obligations under the MindSphere Agreement): (i) any transfer and deployment of configuration files, firmware images or other data or software as well as corresponding documentation or terms and conditions to connected devices is solely agreed between you and the relevant device owner/user; and (ii) Siemens does not assume any obligation or responsibility with regard to, and is under no obligation to test, validate or otherwise review, such content.

MindConnect Device Management Services leverage the content delivery network service Amazon CloudFront to deliver content with lower latency by using regional edge caches. The locations of the regional edge caches can be found on the following web page: [https://aws.amazon.com/cloudfront/features/?nc1=h\\_ls](https://aws.amazon.com/cloudfront/features/?nc1=h_ls).

## 1.11 MindConnect MQTT Services

Please refer to [Section B 12](#).

## 1.12 MindConnect OPC UA PubSub Services

Please refer to [Section B 13](#).

## 1.13 Notification Service

Notification Service is available via its respective MindSphere APIs. This Service enables you to (i) send email, mobile push notifications and if available for your region also SMS in relation to certain events defined by you, or (ii) send email notifications to (a group of) individual recipients. As of the date of release of these Supplemental Terms, mobile push notifications and SMS is subject to the offering of the respective MindSphere infrastructure provider. We may use a Third Party service provider to provide you with Notification Service.

**Use Restrictions.** You may only use Notification Service to send notifications or messages to recipients who have agreed to receive such notice and you shall disclose to recipients the name of the Application through which the notifications or messages were sent. Through your use of Notification Service you will not: (i) transmit any material that contains viruses, Trojan horses, worms or any other malicious, harmful, or deleterious programs, (ii) offer or purport to offer any services that allow the connection with emergency services personnel or public safety answering points (such as 911, 112 etc.), (iii) materially violate or facilitate the violation of any local or foreign law, rule, regulation or order, including laws regarding the transmission of data or software, (iv) transmit material that is sexually explicit, relates to *adult services*, or contains sensitive financial or identifying information (such as social security numbers), (v) use Notification Service on behalf of anonymous or other Third Parties, (vi) use Notification Service in hazardous environments (such as operation of nuclear facilities, aircraft navigation, or any other use that may result in foreseeable risk of injury, death, or destruction of property), (vii) allow recipient of an email or mobile push notification to respond to the Notification Service or otherwise communicate back to the Notification Service.

**Temporary Suspension.** We may immediately and without notice suspend the provision of Notification Service at any time, in whole or in part, if and for as long as in our reasonable opinion: (i) your use of Notification Service may be in violation of the Acceptable Use Policy or the MindSphere Agreement, (ii) your notifications or messages include abusive or low quality content (such as *spam*), (iii) emails sent by you through Notification Service bounce back to us, (iv) we receive abuse complaints (including complaints from Third Parties) in connection with your notifications or messages, (v) the email address you have provided to us for *address bounces* or complaints is not successfully receiving emails or (vi) your notifications or messages include an attachment in a format that we do not support.

**Reliability.** Notifications or messages sent through Notification Service may be blocked, delayed or prevented from being delivered by destination servers and other reasons outside of our control and there is no warranty that Notification Service will be uninterrupted, secure or error free or that notifications or messages will reach their intended destination during any stated time-frame.

**Email Scanning.** We take steps to increase the security and reliability of emails you send or attempt to send using Notification Service. Like many email service providers, when you send or attempt to send an email through Notification Service, we (or our subcontractors) may store, scan and analyze your email and the content included in your email. We (or our subcontractors) may conduct such email scanning and analysis to prevent and block *spam* emails, viruses, spyware, and other harmful or unwanted items from being sent through Notification Service and we (or our subcontractors) may use the results of such analysis for our own purposes.

## 1.14 Semantic Data Interconnect

Please refer to [Section B 18](#).

## 1.15 Token Manager Service

Token Manager Service is available via its respective MindSphere APIs. This Service is necessary if your Applications shall access data without user interaction from MindAccess IoT Value Accounts by issuing access tokens. Before an Application can issue access tokens for a MindAccess IoT Value Plan Account, the Application must be provisioned to the MindAccess IoT Value Plan Account and explicit approval for the data access must be obtained by you from the Application customer. We will provide technical means for you to obtain such approval via a standard process and template as currently described in more detail in the user documentation for the *Operator Cockpit* available via the following web link: [www.mindsphere.io/docs](http://www.mindsphere.io/docs).

## 1.16 Usage Transparency Service

Usage Transparency Service is a Service available via its respective MindSphere APIs. This Service offers insight on your consumption of certain resources and corresponding limits of your MindAccess Plans and other subscribed Services, e.g. API calls, number of Users, inbound traffic and data storage volume. Moreover, developers can define metrics within this Service so that consumption can be tracked.

## 2. Other Services

Some Services that are described in [Chapter B](#) above are also offered to MindAccess Developer Plan or MindAccess Operator Plan subscribers. Permissions regarding access and use of such Services by Users of Third Parties for the purpose of receiving a service from you do not apply to the use of such Services in a MindAccess Developer Account or MindAccess Operator Account.

### 2.1. Cross-Tenancy

Please refer to [Section B 3](#).

### 2.2. Data Exploration built on Tableau®

Please refer to [Section B 4](#).

### 2.3. easyDash

Please refer to [Section B 5](#).

### 2.4. Edge Analytics

Please refer to [Section B 6](#).

### 2.5. Mendix for MindSphere Single App Edition

This Service entitles you to access and use the Mendix Platform to develop Applications for MindSphere and to deploy and operate one Application that has been developed through the use of the Mendix Platform on your MindAccess Account.

The Mendix Platform is a Siemens-proprietary package of services and a nonexclusive, nontransferable, limited software license allowing Users to access and use the Mendix software provided, including but not limited to, the Mendix website(s), (Web/Desktop) Modeler, Team Server, Platform Portal, Developer Portal, App Store, Support Portal, Mendix Runtime, Mendix Community, Mendix Forum, Sandbox and Platform-as-a-Service. The software components of the Mendix Platform consist of a bundle of (i) software and services that are being made available online to you through Mendix websites ([home.mendix.com](http://home.mendix.com)) (ii) software which can be installed on the workstation of the User (Desktop Modeler) and (iii) Mendix Runtime which is installed as part of our Services on your MindAccess Account. Therefore, the Mendix Platform is by default offered to you in a combination of software in object code form

and cloud services (such as software-as-a-service). The Documentation for each Mendix Platform product is available at <https://docs.mendix.com> and provides a description of the technical specifications and the included use rights and entitlements which together constitute the Mendix Platform as well as a description of the default arrangement of software in object code and services included in the Service fee.

For the purpose of access and use of the Mendix Platform, your “Account” as defined in the MindSphere Master Agreement relates to your User’s registrations through the Mendix websites. The number of Named Users as specified on the Order Form relates to the individuals authorized by you to access an Application through login credentials unique to that individual, which Application has been developed through the use of the Mendix Platform by you or on your behalf and/or deployed under your MindAccess Account, regardless of whether such use is related to the development, the testing or the end-use of the Application. Named User includes any unique external system that accesses or is accessed by the Application.

Application Models. You retain ownership of all rights, title and interest in and to any visual model of your Application, which visual model has been created by you or by a Third Party per your instructions and requirements, making use of the Mendix Platform (“**Application Model**”). Your Application deployed and operated on your MindAccess Account is the Application Model as interpreted by the Mendix Platform in order to make it a functioning Application ready to process Your Content.

Mendix Platform Limited Warranty. We warrant that (i) the Mendix Platform will function substantially as described in the Documentation; and (ii) we have secured the right to provide the Mendix Platform to you under the MindSphere Agreement. If the Mendix Platform fails to function as warranted hereunder, to the extent permissible under Applicable Law, our sole obligation and your exclusive remedy will be that we, at our option and own expense, either (i) modify the Mendix Platform to conform to the Documentation, or (ii) provide a workaround solution that will reasonably meet your requirements. If neither of these options is commercially feasible, either Party may terminate the relevant Service subscription, in which case we shall refund any prepaid amounts for such Service on a pro-rata basis for the remainder of the Subscription Term. However, we make no warranties (i) to the extent that the Mendix Platform has been modified by you or any Third Party, unless such modification has been approved by Siemens in writing; (ii) for a version of the Mendix Platform that has passed its End-of-Life-Date; or (iii) for errors, omissions, problems, malfunctions, faults, etc. in the Mendix Platform caused by any third-party software or hardware, by accidental damage or by other matters beyond Siemens’ reasonable control. The warranty limitations set out in the MindSphere Master Agreement apply.

Third Party products and services. Third-party products or services may be made available to you for download and/or purchase (e.g. through a marketplace, appstore or otherwise). Such third party products and services may include (i) web-based, mobile, offline or other software application functionality that is (a) provided by you or a Third Party and interoperates with a service, including, for example, an application that is developed by or for you, or (b) is listed on a marketplace (such as app services, layouts, modules, themes, widgets, GitHub or connectors); and (ii) implementation and other consulting services. Without prejudice to your obligations when using Third Party Applications, any acquisition by you of such products or services, and any exchange of data between you and any Third Party provider, product or service is solely between you and the applicable provider. We do not warrant or support such non-Mendix functionality or other non-Mendix products or services, whether or not they are designated as ‘certified’ or otherwise, unless expressly provided otherwise in an Order Form.

## **2.6. MindConnect Integration**

Please refer to [Section B 10](#).

## **2.7. MindConnect IoT Extension**

Please refer to [Section B 11](#).

## **2.8. MindConnect Software Agent**

Please refer to [Section B 14](#).

## **2.9. Operations Insight**

Please refer to [Section B 15](#).

## **2.10. Predictive Learning**

Please refer to [Section B 16](#).

## 2.11. Self-hosted Applications

Your subscription to a MindAccess Developer Plan and/or MindAccess Operator Plan allows you to use Services that are made available to you in the Account relating to your MindAccess Developer Plan and/or MindAccess Operator Plan via respective MindSphere APIs from an Application that is hosted by you (or a Third Party authorized by you) in your own responsibility outside the wide area network of the Platform (“**Self-hosted Application**”). You are entitled to register such Self-hosted Application to your MindAccess Account in order to deploy, operate and provide it to you and Third Parties.

For the avoidance of doubt: The term *Your Application* in the *Specific Terms for MindAccess Developer Plan* and the term *Operated Application* in the *Specific Terms for MindAccess Operator Plan* include Self-hosted Applications. An Application hosted by you (or a Third Party authorized by you) in your own responsibility outside the wide area network of the Platform, which is designed to run on mobile devices such as smartphones or tablet computers (sometimes also referred to as “mobile native Application” and described in more detail in the developer documentation and user documentation for Developer and Operator Cockpit available via the following web links: [www.mindsphere.io/developer](http://www.mindsphere.io/developer) and [www.mindsphere.io/docs](http://www.mindsphere.io/docs)) qualifies as Self-hosted Application.

You are solely responsible to procure and maintain appropriate licenses for all Third Party software or services that you use in relation to your Self-hosted Application (including for the hosting and operation).

Use Restrictions. Third Parties may access and use your Self-hosted Application via a non-MindSphere URL only through your own user login services. In this case, the Application cannot be published on the Store or otherwise be marketed in relation to MindSphere (unless otherwise agreed). The MindSphere Marketing Guide does not apply. In any event, when you make available your Self-hosted Application via a non-MindSphere URL through your own user login services, you shall not (i) follow the design requirements set out by the MindSphere DevOps Guide or the MindSphere Marketing Guide with respect to Application icons and Application user interface or (ii) use a substantially similar design; and (iii) the OS Bar shall not be integrated with the Self-hosted Application.

Access and use of your Self-hosted Application via a URL that refers to MindSphere is only permitted when you provide (a version of) your Self-hosted Application to MindAccess IoT Value Plan subscribers. In this case, the Application can be placed on the Store or otherwise be marketed in relation to MindSphere in accordance with the *Specific Terms for MindAccess Operator Plan*.

## 2.12. Visual Explorer

Please refer to [Section B 19](#).

## 2.13. Visual Flow Creator

Please refer to [Section B 20](#).

## D DATA CENTER LOCATIONS

Per default, on your tenant of your MindAccess Plan, Your Content at rest will be stored within certain major geographic areas (each, an “**Area**”) as follows. If you select to provision your tenant in a different Area, Siemens will store on such tenant Your Content at rest within the selected Area.

List of data center locations:

Your country of residence as our customer	Area
Asia Pacific (APAC), Europe, Middle East & Africa (EMEA), Americas	European Union

Siemens does not control or limit the regions from which you or the Users may access or move Your Content.

## E SERVICE LEVEL AGREEMENT

### Service Commitment

We will use commercially reasonable efforts to make the Services listed in [Section E 1](#) below (the “**Included Services**”) each available as described below with a Monthly Uptime Percentage of at least 99,5%, unless deviating availability goals for certain Services are listed below.

## 1. Included Services

With respect to MindAccess IoT Value Plan: (i) MindSphere Launchpad, OS Bar; (ii) MindConnect API Services; (iii) Operations Insight; and (iv) Asset Manager.

With respect to MindAccess Developer Plan and MindAccess Operator Plan: (i) MindSphere Launchpad, OS Bar; (ii) Developer Services in Cloud Foundry with a Monthly Uptime Percentage of 95% (for MindAccess Developer); (iii) Operator Services in Cloud Foundry (for MindAccess Operator); and (iv) the following Services made available via their MindSphere APIs: Asset Management, Event Management, Identity and Access Management, MindConnect API Services, IoT and Storage Services, Notification Service, and Token Manager Service.

With respect to Applications from Siemens the Monthly Uptime Percentage is set out in the applicable Transaction Documents.

## 2. Definitions

“**Monthly Uptime Percentage**” means the percentage of a Service being Available in average during a Month, based on our Availability measurements. Monthly Uptime Percentage excludes downtime resulting directly or indirectly from any SLA Exclusions.

“**Month**” means a calendar month.

“**Available**” and “**Availability**” mean:

- For Launchpad, OS Bar, Operator Services in Cloud Foundry, Operations Insight, Asset Manager and Applications from Siemens: The respective Service is Available if at least 4 out of 5 times within a 5-minutes interval (where logins are performed every minute) the user interface is accessible at the exit of the wide area network of the data center used by us. Such interval measurements shall be performed by us evenly distributed 288 times a day.
- For Developer Services in Cloud Foundry: The respective Service is Available if at least 4 out of 6 times within a 60-minutes interval (during which an Application is deployed every 10 minutes) an Application (developed according to the MindSphere DevOps Guide) is deployed and accessible at the exit of the wide area network of the data center used by us. Such interval measurements shall be performed by us evenly distributed 24 times a day.
- For Services made available via their APIs: The respective Service is Available unless service invocation responses based on requests (according to the specification and in compliance with the MindSphere DevOps Guide) report internal errors at the exit of the wide area network of the data center used by us at least 2 out of 5 times within a 5-minutes interval (where service invocations are performed every minute). Such interval measurements shall be performed by us evenly distributed 288 times a day.

“**SLA Exclusions**” mean unavailability, suspension or termination of the Included Services, or any other performance issues affecting the Included Services: (i) caused by factors outside of our reasonable control, including any force majeure event; (ii) that result from any actions or inactions of you or any Third Party; (iii) that result from your equipment, software or other technology and/or Third Party equipment, software or other technology (other than Third Party equipment within our direct control); (iv) that result from any planned maintenance, for which we will use commercially reasonable efforts to notify you at least one day in advance by posting a notice on your Account or sending a message to the email address associated with your Account or (v) arising from our suspension or termination of the Included Services in accordance with the MindSphere Agreement.

## F SUPPORT

**1. Contacting MindSphere Support.** Beginning on the date of the agreement of an Order Form between you and us for a Service, you may contact the MindSphere Support organization as primary point of contact for support in relation to such Service.

- A support case number is required to process your request. To receive such number, you will have to create a support case request (sometimes also referred to as ‘incident request’) via the Siemens Support Center portal (“**Support Center**”) by using the link provided on your MindSphere Launchpad or by accessing the Support Center directly at <https://support.sw.siemens.com>. The support case number will then be sent via email and can be found under ‘Support Cases’ or ‘Case History’ in the Support Center.
- After receipt of the support case number, your support case will be updated via the Support Center. You can also choose to receive email updates by updating your Support Center profile accordingly. If required, we will schedule follow-up calls for issue review and troubleshooting.

**2. Scope of MindSphere Support.** MindSphere Support is available for Service-related support cases concerning MindSphere. MindSphere Support is not responsible, and is not provided for any Third Party Software, Third Party Services or Applications purchased through or provided by us, unless expressly set out otherwise in a Transaction Document.

List of MindSphere Support centers & business operating hours:

Support language	Business operating hours & Support centers
English	Monday through Friday – excluding national and local holidays. EMEA: 8:00 am to 5:00 pm CET Americas: 8:00 am to 5 pm CST APAC: 9:00 am to 6:00 pm IST

The following types of incidents are excluded from the scope of MindSphere Support, but you may revert such requests to the sales team(s) for resolution:

- (i) incidents regarding a release, version and/or functionalities of a Service developed or configured specifically for you (unless expressly set out otherwise in a Transaction Document);
- (ii) the root cause behind the incident is not a malfunction, but rather a missing functionality (“development request” which will be forwarded to the product management team);
- (iii) the incident is ascribed to a consulting or training request (“how-to”). These are covered in the developer and user documentation and might be subject of a MindSphere Academy training;
- (iv) the incident is ascribed to a custom development request;
- (v) errors received as a result of Services not provisioned or applicable Service limits exceeded. Corresponding requests will be forwarded to the appropriate MindSphere sales representative or provisioning team(s) for resolution.

The following types of incidents are excluded from MindSphere Support being out of scope of the authorized usage:

- (i) Services that have been modified by anyone other than us;
- (ii) load testing that exceeds the authorized Service limits.

**3. Priority and escalation.** MindSphere Support will use commercially reasonable efforts to provide a first response to a support case request in accordance with its classification within the time periods set out below on a first come/first served basis. Support cases are escalated based on severity and complexity. You will initially classify each support case to the priority classes set out below. The final priority classification will be at our sole discretion.

Priority class	Support Center Definition	Extended Definition	Targeted Response Time
<b>Critical</b>	Production Site Down, action halted	The Platform is currently inoperative and stops all your production or deployment operations. Continued use of several critical functions or Services of the Platform is not possible. Any errors reported on a test/sandbox environment will never be considered critical.	< 1 business operating hour as per the table above
<b>High</b>	Major functionality loss, production/usage impact, time sensitive	A major functionality loss of individual Services within the Platform deployment but the Platform remains operational. A problem that severely affects or restricts significant functionality of the Service and impacts continued usage. The	< 2 business operating hours as per the table above

		problem is time-sensitive and may be causing an immediate functional or work stoppage. Any errors reported on a test/sandbox environment will never be considered high.	
<b>Medium/General</b>	Minor functionality impact, usage continues	A functionality issue exists but your operations can continue or a non-business critical function is not performing properly. The problem can be time-sensitive but it is not causing an immediate work stoppage; usage can continue in a restricted fashion, and/or a workaround exists.	Next business day
<b>Low</b>	Support information/questions, enhancement requests	A request or question for general support or information on a Service. There is no impact to Platform operations or Services	Next business day

**4. Your Responsibilities.** To receive support services hereunder, you shall reasonably cooperate with MindSphere Support to resolve support cases, and shall have adequate technical expertise and knowledge of their configuration of the MindSphere Services to provide relevant information to enable MindSphere Support to reproduce, troubleshoot and resolve the experienced error such as, by way of an example, instance name, username, form name and screenshot. You shall also ensure remote access to your local networks for e.g. remote-diagnoses.