SIWA Blockage Predictor Package

Product Sheet and Specific Terms

SIWA Blockage Predictor is a MindSphere application which identifies sewer blockages. Artificial Intelligence is applied to level data for a Combined Sewer Overflow (CSO) or Manhole, providing advanced warning of abnormal behavior indicative of a blockage or forming blockage.
The SIWA Blockage Predictor Package consists of the MindSphere application SIWA Blockage Predictor and selected MindSphere Resources which are required to access the Platform and to utilize the application.

Prerequisites	
Level data & connectivity	SIWA Blockage Predictor requires 15-minute resolution level readings from each Site. These data must be uploaded to the MindAccess IoT Value Plan using either a direct connectivity solution (e.g. a MindConnect IoT2040), or via a cloud-to-cloud transfer (e.g. MindConnect API's). As SIWA Blockage Predictor Package Core is provided with one agent, connectivity solutions requiring additional agents will require your subscription to the additional SIWA Blockage Predictor Package Data Source Upgrade. Support with deployment of level sensors and MindSphere connectivity are not part of SIWA Blockage Predictor Package Core. These can be ordered from Siemens under separate terms and conditions.
Historical data	Configuration of SIWA Blockage Predictor requires unrestricted access to 15-minute resolution level readings for each Site. In some instances, historical data covering a minimum period of 6 months prior to the application installation date may be required for analytics configuration.
Asset location	SIWA Blockage Predictor requires location data for each Site either as Latitude and Longitude or as Easting and Northing coordinates.
Asset spill level	SIWA Blockage Predictor requires the level at which water reaches the overflow point and the asset begins to spill. This value can be estimated by SIWA Blockage Predictor; however, this may reduce the accuracy of analytics events and spill event monitoring.
Asset baseline level	SIWA Blockage Predictor requires the minimum level at which the asset operates under normal operating conditions.

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Local rainfall data	SIWA Blockage Predictor requires rainfall radar data to calculate analytics. For UK based Sites, Siemens uses an external provider for this information. Please contact the product team using the email address support.lighthouse.gb@siemens.com to discuss the provisioning of this data if: • You are not based in the UK, • You wish to use your own data source, such as an internal database.
Web browser	An up-to-date Chrome Internet browser with a screen resolution of 1920x1080 is required.
Configuration	SIWA Blockage Predictor application requires onboarding and configuration activities to ensure proper functionality. These are not part of SIWA Blockage Predictor Package and can be ordered from Siemens under separate terms and conditions.

Description of SIWA Blockage Predictor Application	
General	SIWA Blockage Predictor provides insight into spillages and potential blockages in CSO and Manhole assets in the form of events. These events are only provided as recommendations. Any decision, action or inaction taken as a result of these notifications is solely your responsibility.
Application permissions	This application is operated in data centers in the Area European Union and processes the following data: • Time series data which include the variables received from an asset within defined continuous time cycles. • Event data to store and display asset activity and to track application diagnostic information. • Asset configuration data which describe the asset (e.g. asset name, location). • User data (username (given name and surname), email address, language). • Log data incl. usage analytics to provide diagnostic information. The application performs the following activities which modify or amend Your Content in your Account on your behalf: • Read and write access on your time series data (to generate and display analytics). • Read access on your asset configuration data (to use the functionalities of this application). • Write access on your asset types configuration (to automatically create asset types in your Account). • Read and write access on your events to store analytics results and application diagnostics information. • Read and write access to file storage on your Account to store asset specific configuration. • Read and write access to the Notification Service for sending emails to Users.

Description of MindSphere Resources

Depending on your subscription (please see SIWA Blockage Predictor Package Overview), the following MindSphere resources and MindSphere core Applications ("MindSphere Resources") are included in the SIWA Blockage Predictor Package and its upgrades. These have been selected to ensure proper operation of SIWA Blockage Predictor application.

Base Tenant	The Base Tenant provides you with a dedicated Account (also referred to as "Tenant") on MindSphere. It enables you to login to your Account via the respective URL provided by us and is required for use of the application and MindSphere Resources. The Base Tenant includes 1 Admin User and provides you with the following administration tools available on the MindSphere Launchpad: Usage Transparency: provides information regarding your consumption of MindSphere Resources. • Settings: allow managing Users, permissions, rights, roles, groups, Collaborations, subtenants[1] and tenant provider information. For every User, an individual login is required. Users are also permitted to access and utilize the user management for the purpose of receiving a service from you. However, a user that receives a service from you shall not be granted with administration rights, except for administration rights that are offered by the user management of a subtenant[1]. • Asset Manager: use Asset Manager to onboard & offboard agents to your Account; configure assets, asset types and aspect types; manage the Sharing of assets under a Collaboration between Accounts using Cross-Tenancy. The User that is entitled to administrate the Asset Manager may permit users of a subtenant[1] who receive a service from you to directly access the Asset Manager in relation to the respective subtenant[1]. • Upgrade: use Upgrade to order available upgrades to your subscribed and additionally available MindSphere Resources (e.g. increase Users or agents); get an overview of your requested and completed upgrades; manage pending upgrade requests (authorized Users only).
User	It allows a defined number of Users to access your Account and use the application.
Agent	An Agent is a software as part of a hardware device (e.g. MindConnect IoT2040) 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.
Asset Type	Asset Type describes the type of an asset (e.g. a generic CSO) including one or several attributes. An Asset Type is a template that describes the attributes of a homogenous group of physical or logical assets, which is used for asset modeling. An Asset Type is a grouping of assets with common characteristics that distinguish those assets as a group or class.
Asset Instance	Asset Instance reflects a physical and/or logical device within your Account, e.g. a specific CSO within the sewer network. Each instance belongs to an asset type.
Time Series Data Ingest Rate	Time Series Data Ingest rate represents the rate at which the sensor data is ingested into the Platform. Data ingest is based on number of assets, number of variables per asset, size per variable including overhead, read cycle interval and sending frequency. This depends on the size of the requests containing time series sent from you to the Platform. Time Series Data Ingest rate is restricted to a maximum of 100 KB/s per asset.

Time Series Data Storage	Time Series Data Storage represents the total volume of time series data ingested and stored in the Platform for an Account.
Events	An event documents the occurrence of a defined situation (e.g. an abnormal level in a CSO).
IoT File Storage	IoT file storage represents the total volume of files (e.g. threshold settings, Users to be notified) uploaded and stored in the Platform for an Account.
Fleet Manager	Fleet Manager allows you to display and monitor measured data and information from your Assets at one central point. The Specific Terms and Third Party Terms set out in the MindSphere Supplemental Terms for Fleet Manager and Rules in Fleet Manager available on www.mindsphere.io/terms apply.
Visual Flow Creator	Visual Flow Creator enables you to design own workflows via 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 its workflows. You can 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. The Specific Terms and Third Party Terms set out in the MindSphere Supplemental Terms for Visual Flow Creator available on www.mindsphere.io/terms apply.
Visual Flow Creator Compute Hours	The Visual Flow Creator Compute Hours module allows you to add single computing hours to the Visual Flow Creator's compute hours capacity. Computing hours represent the available execution time for workflows created in the Visual Flow Creator. Third Party Terms for Visual Flow Creator are available via the following web link: http://sie.ag/MindSphere-ThirdParty_VisualFlowCreator.
Notifications	The number of notifications added to the Package determines how many notifications (emails) you can trigger in total each month. Sending emails leverages MindSphere's Notification Service. The terms and conditions set out in the MindSphere Supplemental Terms for Notification Service available on www.mindsphere.io/terms also apply to your use of notifications.

[1)] Please note that subtenants are not part of the SIWA Blockage Predictor Package Core. Subtenants can be ordered separately for additional fees and can be used for OEM Services as described in the Specific Terms for MindAccess IoT Value Plan available on www.mindsphere.io/terms. If you provide your customers with OEM Services, the Specific Terms for MindAccess IoT Value Plan available on www.mindsphere.io/terms shall apply accordingly as if you had subscribed to a MindAccess IoT Value Plan. However, please note that the SIWA Blockage Predictor Package Core may not be used for OEM Services.

SIWA Blockage Predictor Package Overview

Base subscription	SIWA Blockage Predictor Package Core
The base subscription allows access to the core features of SIWA Blockage Predictor application and the following MindSphere Resources. In order to onboard and start monitoring an asset, the subscription to SIWA Blockage Predictor Package Asset is required.	
SIWA Blockage Predictor application: w/o Monitoring and Reporting and Sensor Health Features	✓
Base Tenant[1]	✓
Asset Types	5

Agent	1		
Fleet Manager	✓		
Notifications	60 emails per month		
Users	1		
Visual Flow Creator	✓		
Visual Flow Creator Compute Hours[2,3]	1		
Asset subscriptions	**SIWA Blockage Predictor Package Asset**		
SIWA Blockage Predictor Package Asset contains the following MindSphere Resources and depending on the selected SIWA Blockage Predictor Package Asset size, you are able to onboard and monitor 5/25/100 assets in the application. At least one SIWA Blockage Predictor Package Asset subscription is required. As precondition you need a valid base subscription to SIWA Blockage Predictor Package Core.			
Asset subscription sizes	**5 Assets**	**25 Assets**	**100 Assets**
Asset Instances	5	25	100
Events	1 000	6 000	24 000
IoT File Storage	0.5 GB	0.5 GB	0.5 GB
Time Series Data Ingest Rate[4]	0.01 KB/s	0.01 KB/s	0.04 KB/s
Time Series Data Storage[5]	0.5 GB	0.5 GB	2 GB
Visual Flow Creator Compute Hours[2,3]	1	2	8
MindSphere Resources upgrade (optional)	**SIWA Blockage Predictor Package User Upgrade**		
Notifications	60 additional emails per month		
Users	1 additional User		
MindSphere Resources and application upgrade (optional)	**SIWA Blockage Predictor Package Monitoring and Reporting Upgrade**		
This upgrade contains the MindSphere Resources for use of the SIWA Blockage Predictor Monitoring and Reporting Features in the SIWA Blockage Predictor application for 100 assets. As precondition you need a valid subscription to one of the SIWA Blockage Predictor Package Asset sizes.			
SIWA Blockage Predictor application: Monitoring and Reporting Features	✓ for 100 assets		
Events	12 000 additional Events		
IoT File Storage	0.5 GB additional IoT File Storage		
MindSphere Resources and application upgrade (optional)	**SIWA Blockage Predictor Package Sensor Health Upgrade**		
This upgrade contains the MindSphere Resources for use of SIWA Blockage Predictor Sensor Health Features in the SIWA Blockage Predictor application for 100 assets. As precondition you need a valid subscription to one of the SIWA Blockage Predictor Package Asset sizes. To use this upgrade, you must have Echo Confidence readings available for the selected assets as a Data Source.			

SIWA Blockage Predictor application: Sensor Health Features	✓ for 100 assets
Events	12 000 additional Events
IoT File Storage	0.5 GB additional IoT File Storage
Time Series Data Ingest Rate[4]	0.04 KB/s additional Time Series Data Ingest Rate
Time Series Data Storage[5]	2 GB additional Time Series Data Storage
Visual Flow Creator Compute Hours[2,3]	1 additional Visual Flow Creator Compute Hour
MindSphere Resources upgrade (optional)	**SIWA Blockage Predictor Package Data Source Upgrade**
This upgrade allows you to connect one additional Data Source to the Platform.	
Agent	1 additional Agent

[1)] You can decide if a Base Tenant shall be created and provisioned to you as part of your SIWA Blockage Predictor Package Core base subscription or if the SIWA Blockage Predictor Package Core (without a Base Tenant) shall be added to an existing Account (Base Tenant or MindAccess IoT Value Plan Account). A Package can only be added to an existing Account if the Account and Package are hosted in the same data center location. If you decide to add various Packages to one existing Account, please note the following: The MindSphere Resources included in the various Packages will be combined under one Account; it is your responsibility to allocate the MindSphere Resources to the various Packages according to your needs. The combination of MindSphere Resources under one Account may lead to technical limitations in their accessibility and should therefore not exceed the limits set out under https://sie.ag/MindSphere_TechnicalLimitationsforUsageofMindSphereServices; [2)] Visual Flow Creator Compute Hours are calculated based on receiving or retrieving data in batches with at a maximum frequency of one batch every 3 hours. If more frequent data upload is required, or systems are not capable of providing data in a batched format, this will require your subscription to the Visual Flow Creator Compute Hour Upgrade using the Upgrade tool; [3)] Visual Flow Creator Compute Hours are based on estimated requirements; system integration conditions, such as your systems API response times or complexity, may require your subscription to additional Visual Flow Creator Compute Hour Upgrades using the Upgrade tool; [4)] Data ingest rates are provided for 15 min resolution data. Higher data resolutions may require the purchasing of additional Time Series Data Ingest Rate Upgrade; [5)] Time Series Data Storage capacity displayed above will suffice for data collected in the 1st year. Accumulating data beyond 1 year will require purchasing of Time Series Storage Upgrade.

Specific Terms

Subscription Term	The initial Subscription Term for SIWA Blockage Predictor Package Core, the different sizes of SIWA Blockage Predictor Package Asset and for any of the upgrades described herein is 12 months. Following expiration of the preceding Subscription Term, the subscription automatically renews with a Subscription Term of 12 months at the then-current terms made available under www.mindsphere.io/terms, unless either Party notifies the other Party at least 60 days prior to the then-current expiration date that it has elected not to renew.
Payment terms	The fees for SIWA Blockage Predictor Package Core, the different sizes of SIWA Blockage Predictor Package Asset and for any of the upgrades described herein are charged yearly in advance.
Data center location	Your Content processed by the MindSphere Resources is stored at rest in the European Union as set out in the MindSphere Supplemental Terms available on www.mindsphere.io/terms.
Adaptation of fees	The fees during any renewed Subscription Term will be the same as during the immediately prior Subscription Term, unless we notify you of a Fee Change at least 90 days prior to the end of the then-current Subscription Term, in which case the communicated Fee Change will be effective upon subscription renewal. During a running Subscription Term we may change or add new fees (collectively referred to as "Fee Change") due to and to the extent required to reflect: (i) changes in the quality or functionalities of the Service; (ii) material changes in market conditions; (iii) general increases in wages or other employment costs; and/or (iv) changes in procurement costs due to price changes made by our suppliers, in each case to the extent that the changes

	affect our provision of the agreed Service. We will notify you of any Fee Change at least 60 days in advance of the effective date of the Fee Change.
Service Level Agreement	The Monthly Uptime Percentage for this application is 99.5%. Monthly Uptime Percentage is defined in the MindSphere Supplemental Terms available on www.mindspher.io/terms.
Data use rights	"Collected Data" means the following data collected by this application: • Any device data collected from the asset (timeseries, alarms, etc.), • Historical data provided to Siemens for the purpose of configuring SIWA Blockage Predictor, • Static reference data related to the asset (location, name, etc.), • Processed data (timeseries, events, comments, etc.), • Log data (app log, system log) without personal data. You acknowledge that Collected Data may include copies made by the application from certain parts of Your Content for use in accordance with this Product Sheet and Specific Terms. During and after the Subscription Term, Siemens and its business partners may use Collected Data for Siemens' internal purposes (e.g. development or improvement of products or services). On an aggregated basis with other data and in a form that does not identify you and your Users, Siemens shall own and be free to make Collected Data publicly available to you and others (e.g. for information and industry trends, benchmarking data). Use of Collected Data in accordance with this Section will be at Siemens' risk.
Confidential Information	For the avoidance of doubt, the data provided by Siemens or generated as part of this Service constitutes our Confidential Information as this term is defined in the MMA. This includes, but is not limited to: • Rainfall data, • Neural network models, • Events generated by the application.
Third Party Terms	The application contains Third Party Services, including open source software, commercial software, or software-related managed Services, which are 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"). The Third Party Terms for SIWA Blockage Predictor application are made available via the following web link: https://sie.ag/MindSphere-ThirdParty_SIWABlockagePredictor.
Changes to the Product Sheet and Specific Terms	We may update this document from time to time during a Subscription Term in order to reflect any changes agreed with or imposing by our subcontractors (including changes in open software license terms) or when we introduce new MindSphere Resources, features, supplements, enhancements or capabilities (e.g. that were not previously included with the subscription, but added for no additional fee). Changes shall become binding upon release of a new version for this document on www.mindsphere.io/terms.
Support	The primary support channel is to e-mail support.lighthouse.gb@siemens.com with responses offered within business operating hours from Monday to Friday (8:00 am to 5:00 pm GMT) – excluding national and local holidays. The priority and escalation levels set out in Chapter F of the MindSphere Supplemental Terms available on www.mindsphere.io/terms also apply for this application.

Export Control Regulations	
Applicable for SIWA Blockage Predictor application and MindSphere Resources.	
AL	N
ECCN	N

Security Information	
General	In order to protect plants, systems, machines and networks against cyber threats, it is necessary that you implement and continuously maintain a holistic, state-of-the-art industrial security concept.

Definitions	
MindSphere Launchpad	After the login into your Account, the Launchpad appears. Similar to a desktop on any common operating system (OS), the MindSphere Launchpad facilitates starting various assigned applications. If you provide services to your customers, you must replace the Siemens service and support information provided in the MindSphere Launchpad with your companies' service and support information.
CSO	Combined Sewer Overflow is a point in the sewage network where sewage and storm drainage systems are combined with an overflow to allow water to leave the sewage system in the event of a storm. This prevents overflows in other areas of the sewer network or damage to water treatment plants.
Manhole	In the context of the SIWA Blockage Predictor application, a Manhole refers to an access point into the sewer system with bifurcation. This is sometimes also known as a 'dual manhole'.
Site	In the context of the SIWA Blockage Predictor application, a Site is defined as an overflow point within a sewage network equipped with a level sensor, such as a CSO or Manhole.
Monitoring and Reporting Features	SIWA Blockage Predictor features for monitoring and reporting spill events and duration.
Sensor Health Features	SIWA Blockage Predictor features for monitoring sensor health using Echo Confidence data.
Echo Confidence	A data value provided by some ultrasonic level sensors, indicating the confidence of a level reading. Each level reading from the sensor will have an associated Echo Confidence value.
Data Source	A single system or device that is providing data to the Platform. For example, if you are uploading data from two separate sensor data storage solutions with separate API's, this is considered as two different Data Sources.
General	Unless otherwise indicated, capitalized terms used in this document shall have the meaning given to them in this Product Sheet and Specific Terms or elsewhere in the MindSphere Agreement.