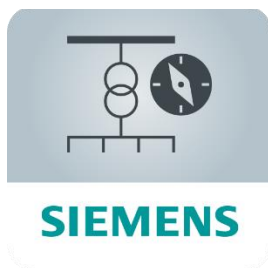# SIEMENS

SICAM Navigator Package
Product Sheet

SICAM Navigator is a cloud-based application which enables power grid operators to monitor the operational status of transformer stations (cable networks) using station gateway devices to optimize maintenance activities and reduce operational expenditure (OPEX).

The SICAM Navigator Package consists of the MindSphere application SICAM Navigator and selected MindSphere Resources which are required to access the Platform and to utilize the application.

Prerequisites	
Data sources	As of the date of release of this Product Sheet only the following station gateways can be used to supply data to SICAM Navigator application: • For SICAM A8000 CP-8050/CP8031 the required minimum protocol firmware version of "OPUPI0 AMQP/MQTT (IOT)" is V0301. • For SICAM A8000 CP-8000/CP-8021/CP-8022 the required minimum protocol firmware version of "OPUPT0 AMQP/MQTT (IOT)" is V0301. • For SIMARIS control gateway the required minimum software version is v1.0 The following SICAM A8000 engineering software can be used for the configuration of the IoT communication protocol: • SICAM TOOLBOX II v6.02 or higher • SICAM Device Manager v2.10 or higher • SICAM Web v5.10 or higher The configuration and onboarding of such station gateway devices is not part of our Services. It is your responsibility to select, procure, configure, onboard, and operate the station gateway devices. The measured value cycle of the station gateway devices shall be set to 30 seconds.
Software	The installation of a certificate manager application (e.g., SICAM GridPass) is required on your machine to create, sign, and renew certificates that are used for authentication and secure communication between the station gateway devices and your Account. SICAM GridPass is available for download at www.siemens.com/sicam-gridpass at separate terms and conditions that shall apply when you install the software.
Web browser and operating systems	SICAM Navigator is a web-based application specifically optimized for use on Desktop PCs running Windows or tablets running Google Android or Apple iPadOS operating systems. The recommended screen resolution is 1920x1080px or higher. The application requires at least a recent version of Windows, Android or iPadOS and a recent version of Google Chrome, Microsoft Edge, or Apple Safari.

Internet connection	A secure, firewalled Internet connection between your process LAN and the MindSphere MQTT Broker is required. The firewall must allow outgoing TCP-connections to port 8883. If your Internet router does not act as a DNS proxy or a DNS server, additionally the firewall must allow outgoing UDP connections to port 53. The bandwidth of your Internet connection will determine your experience of the performance of the Offerings.
Data access	To access and use the application, data stored in your existing Account (e.g., Base Environment or MindSphere Capability Package Account) may be accessed by the application.

Description of SICAM Navigator application

Map	Shows all digitalized transformer stations in a map view with the corresponding station status indicated by accordingly colored station icon. Additionally, latest unacknowledged alarms are shown in a list. The User can select an alarm from the list and the map will zoom to all stations belonging to that alarm. Additionally, non-digitalized stations can also be added to the map as "incoming feeder" or "normal station". The User can configure the power grid topology by connecting the stations to each other in the map.
Events	Shows a list of events for the selected station.
Single-line diagram	Shows a user configurable single line chart with the actual switch positions and measurement values.
Measurements	Shows the User selected measurement data of the connected station gateway devices in a timeline diagram. Measurement data from different station gateway devices can be displayed in the same diagram for comparison. The displayed time range can be selected.
Limit supervision	Shows the User upper and lower limits for warnings and alarms with colored plot lines in the measurements view. Up to four limits can be configured by the User for each data point. Limit violations can be notified by E-mail or SMS.
Commands	Allows the user to control the status of connected assets. To use this feature the station gateway devices need to be connected to the Platform via MindConnect MQTT.
Load profile	Shows the User the load profile of a selected branch in a heatmap, load profile and timeline diagram. The displayed time range can be selected.
E-mail notifications	The User can register an e-mail address for receiving e-mail notifications in case of an alarm. This e-mail includes: • The name and the location of the station, • The name of the alarm, • A link to the station in Google Maps, • A link to the SICAM Navigator application.
SMS notifications[1]	The User can register a phone number for receiving SMS notifications in case of an event. This SMS includes: • The time stamp of the event, • The name of the station, • The name of the alarm, • A link to the SICAM Navigator application.
[1] Please verify with your sales representative if SMS Notification Service is available for your region.	

Description of MindSphere Resources

The following MindSphere resources ("MindSphere Resources") are included in the SICAM Navigator Package Starter or its extensions.

Base Environment	The Base Environment provides you with a dedicated Account (also referred to as "Environment") 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 Environment 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. • Agent Diagnostic: allows you to activate and deactivate agent logfiles and to access them. • Settings: allow managing Users, permissions, rights, roles, groups, Collaborations, and environment provider information. For every User, an individual login is required. Access policies are available only upon request. MindSphere sales representative or MindSphere Support to be contacted to enable use of access policies. • Asset Manager: use Asset Manager to onboard & offboard agents to your Account; to configure assets, asset types and aspect types; to manage the Sharing of assets under a Collaboration between Accounts using Cross-Tenancy. • Upgrade: can be used to order available upgrades (incl. add-ons) to already Offerings; to get an overview of requested and completed upgrades; to manage pending upgrade requests (authorized Users only). The Base Environment provides you with the following connectivity "Connect your Things" capabilities as well: • To connect assets using own PC as a gateway with MindConnect Software Agent. • To connect individual hardware using MindConnect API services, MindConnect MQTT Services, MindConnect OPC UA PubSub Services and MindConnect Library. • To use MindConnect Hardware e.g. MindConnect Nano, MindConnect IoT2040, MindConnect IoT2050. • Zero touch onboarding using MindConnect OPC UA PubSub Services and MindConnect MQTT Services. • To maintain connected devices by using MindConnect Device Management Services. • For more information regarding Connect your Things capabilities, please refer to the Product Sheet for MindSphere Capability Packages available at https://siemens.mindsphere.io/en/docs/Product-Descriptions-Overview/MindSphere-Product-Sheets.
Additional MindSphere Resources	In addition to the Base Environment, the following MindSphere Resources are included in the SICAM Navigator Package and its extensions: • Asset Attributes • File Storage • Notifications SMS • Time Series Data Ingest Rate • Time Series Data Storage For general descriptions of the MindSphere Resources listed above, please refer to the MindSphere Glossary.

SICAM Navigator Package Overview

Application subscription	SICAM Navigator Package Starter
Fee	See Order[1]

The MindSphere Resources included in the SICAM Navigator Package Starter are suitable to connect 1 station gateway device to the Platform with a maximum of 50 Data Points.

SICAM Navigator application	✔
Base Environment[2]	✔
Asset Attributes	250
Time Series Data Ingest Rate	0.16 KB/s
Time Series Data Storage	6 GB
File Storage	0.5 GB

Extension (for MindSphere Resources) (optional)	SICAM Navigator Package Station Extension
	Usage-based
Fee	See usage-based list[3]
Billing cycle	Monthly in arrears

The SICAM Navigator Package Station Extension contains the following additional MindSphere Resources and is suitable to connect 1 additional station gateway device to the Platform with a maximum of 50 Data Points. This extension can only be activated within the SICAM Navigator application.

Asset Attributes	250 additional Asset Attributes
Time Series Data Ingest Rate	0.16 KB/s additional Time Series Data Ingest Rate
Time Series Data Storage	6 GB additional Time Series Data Storage
File Storage	0.5 GB additional File Storage

Extension (for MindSphere Resources) (optional)	SICAM Navigator Package 50 Stations Extension
	Usage-based
Fee	See usage-based list[3]
Billing cycle	Monthly in arrears

The SICAM Navigator Package 50 Stations Extension contains the following additional MindSphere Resources and is suitable to connect 50 additional station gateway devices to the Platform with a maximum of 50 Data Points for each device. This extension can only be activated within the SICAM Navigator application.

Asset Attributes	12 500 additional Asset Attributes
Time Series Data Ingest Rate	8 KB/s additional Time Series Data Ingest Rate
Time Series Data Storage	300 GB additional Time Series Data Storage
File Storage	25 GB additional File Storage

Extension (for MindSphere Resources) (optional)	SICAM Navigator Package 200 Stations Extension
	Usage-based
Fee	See usage-based list[3]
Billing cycle	Monthly in arrears

The SICAM Navigator Package 200 Stations Extension contains the following additional MindSphere Resources and is suitable to connect 200 additional station gateway devices to the Platform with a maximum of 50 Data Points for each device. This extension can only be activated within the SICAM Navigator application.

Asset Attributes	50 000 additional Asset Attributes

Time Series Data Ingest Rate	32 KB/s additional Time Series Data Ingest Rate
Time Series Data Storage	1 200 GB additional Time Series Data Storage
File Storage	100 GB additional File Storage
Extension (for MindSphere Resources) (optional)	**SICAM Navigator Package Data Points Extension**
	Usage-based
Fee	See usage-based list[3]
Billing cycle	Monthly in arrears

The SICAM Navigator Package Data Points Extension contains the following additional MindSphere Resources and is suitable to send 50 additional Data Points for any station gateway device. This extension can only be activated within the SICAM Navigator application.

Asset Attributes	250 additional Asset Attributes
Time Series Data Ingest Rate	0.16 KB/s additional Time Series Data Ingest Rate
Time Series Data Storage	6 GB additional Time Series Data Storage
Extension (for MindSphere Resources) (optional)	**SICAM Navigator Package Notifications Extension**
	Usage-based
Fee	See usage-based list[3]
Billing cycle	Monthly in arrears

The SICAM Navigator Package Notifications Extension contains the following MindSphere Resources and is suitable to send 50 SMS Notifications. This extension can only be activated within the SICAM Navigator application.

Notifications SMS per month	50 SMS notifications

[1] Subscription-based pricing is set forth in the Order; [2] You can decide if a Base Environment shall be created and provisioned to you as part of your SICAM Navigator Package Starter or if the SICAM Navigator Package Starter (without a Base Environment) shall be added to an existing Account (Base Environment or MindSphere Capability Package 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://siemens.mindsphere.io/en/docs/Product-Descriptions-Overview/technical-limitations; [3] Usage-based fees are set forth in the Price List for Offerings with Usage-based Fees available at https://siemens.mindsphere.io/en/docs/Product-Descriptions-Overview/usage-based.

General

Subscription Term for application	The standard Subscription Term for SICAM Navigator Package Starter is 12 or 36 months. The Subscription Term shall automatically renew if stated in the Order. Upon expiration of the Subscription Term for SICAM Navigator Package without renewal, any upgraded MindSphere Resources will also be deactivated and cannot be used any longer.
MindSphere Resources extension, activation, and deactivation	Any of the extensions described herein may be activated or deactivated within the application at any time during a valid Subscription Term for SICAM Navigator Package Starter.
Extensions (usage-based)	Upon activation and until deactivation of an extension described herein, the fee for the relevant extension is charged on a daily basis monthly in arrears. For further details about calculation of usage-based fees please refer to Usage-based Calculation Methods for MindSphere Applications available at https://siemens.mindsphere.io/en/docs/Product-Descriptions-Overview/app-usage-based-calculation.
Payment terms	The subscription fee for SICAM Navigator Package Starter is fully charged in advance for the entire Subscription Term unless otherwise expressly provided in an Order.

	The fee for usage-based extensions is charged monthly in arrears, if the cumulated fee exceeds the threshold of EUR 200 equivalent. If the cumulated fee for the usage-based extension does not exceed the threshold of EUR 200 equivalent, the fee will not be charged.
Service Level Agreement	The Monthly Availability for the SICAM Navigator Package is 95%. Monthly Availability is defined in the Cloud Services Support and Service Level Framework available on https://www.siemens.com/sw-terms/sla.
Third-Party Terms	The Third-Party Terms are made available via the following web link: https://siemens.mindsphere.io/en/docs/Product-Descriptions-Overview/Third-Party-Terms.
Support	Support is available 24 hours a day in English and German. Support requests can be addressed to the Customer Support Center (CSC) of Siemens: Phone: +49 911 2155 4466 For more information, refer to https://new.siemens.com/global/en/products/energy/contact.html.

Export Control Regulations

Applicable for SICAM Navigator 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.
Access credentials	Authentication and authorization on User level based on username and password.

Definitions

Data Point	Each signal configured on the IoT interface of the station gateway, e.g., measured values, alarms, switch positions or fault indications.
General	Unless otherwise indicated, capitalized terms used in this document shall have the meaning given to them in this document or elsewhere in the Agreement. You may also want to check our Glossary.

https://siemens.mindsphere.io/en/docs/Product-Descriptions-Overview