SIEMENS

MindSphere

Usage Transparency

System Manual

05/2021

V1801.May/2021.1

Legal information

Warning notice system

This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.

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indicates that death or severe personal injury **will** result if proper precautions are not taken.

⚠ WARNING
indicates that death or severe personal injury **may** result if proper precautions are not taken.

⚠ CAUTION
indicates that minor personal injury can result if proper precautions are not taken.

NOTICE
indicates that property damage can result if proper precautions are not taken.

If more than one degree of danger is present, the warning notice representing the highest degree of danger will be used. A notice warning of injury to persons with a safety alert symbol may also include a warning relating to property damage.

Qualified Personnel

The product/system described in this documentation may be operated only by **personnel qualified** for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

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We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

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Table of contents

Usage Transparency is a component of MindSphere, the industrial IoT platform from Siemens. Usage Transparency collects various consumption data (metrics) on the MindSphere platform, which allows customers to develop, manage and support usage-based pricing models.

This document explains how to:

- access resource consumption metrics for tenant and subscribed service plans as well as consumed pay-per-use services,
- view usage details for a specific time period,
- generate usage reports.

Document history

1

Version	Date	Changes	Link
V1801.May/2021.1	2021-05-15	Updated information on downloading metric usage report for application users.	Applications (Page 27)
V1801.Mar/2021.1	2021-03-27	Added new chapter "Applications"	Applications (Page 27)
V1801.Feb/2021.1	2021-02-03	Updated the information on Time series data ingest rate metric in the "Services" chapter	Services (Page 19)
V1801.Dec/2020.1	2020-12-19	Updated the metrics table in the "Metrics" chapter	Metrics (Page 15)
V1801.Nov/2020.1	2020-11-28	Updated the metrics table in "Metrics" chapter	Metrics (Page 15)
		Updated content for the Timeframe selection in the History tab of "Services" page	Services (Page 19)
V1801.Oct/2020.2	2020-10-31	Added note for information Time series data ingest rate metric data representation	Services (Page 19)
		Updated screenshots on the Overview chapter	Overview (Page 31)
V1801.Oct/2020.1	2020-10-10	Updated the metrics table in "Metrics" chapter	Metrics (Page 15)
		Updated content and screenshot related to "Services" and "Offerings" chapter	Services (Page 19) Offerings (Page 25) Introduction (Page 11) Generating reports (Page 35)
V1801.Sep/2020.1	2020-09-05	Updated the metrics table in the "Metrics"chapter	Metrics (Page 15)
V1801.July/2020.1	2020-07-11	Updated the metrics table in the "Metrics"chapter	Metrics (Page 15)
		Updated screenshot of Limits current tab	Limits (Page 19)
V1801.May/2020.1	2020-05-16	Updated the metrics table in the "Metrics" Chapter.	Metrics (Page 15)
V1801.Apr/2020.1	2020-04-18	Updated the metrics table in the "Metrics" Chapter.	Metrics (Page 15)
V1801.Feb/2020.1	2020-02-20	Updated the metrics table in the "Metrics" Chapter.	Metrics (Page 15)
		Added information about notification for usages in "Limits" Chapter.	Limits (Page 19)
V1801.Dec/2019.1	2019-12-02	Updated the metrics table in the "Metrics" Chapter.	Metrics (Page 15)

Version	Date	Changes	Link
V1801.Nov/2019.1	2019-11-04	Updated information about upgrades purchased in the "Limits" chapter.	Limits (Page 19)
		Updated screenshots to display Exceeded quota and upgrade resquest message.	Limits (Page 19)
V1801.Oct/2019.1	2019-10-02	Updated the metrics table in the "Metrics" Chapter.	Metrics (Page 15)
		Updated screenshot for the "Export" button in "Limits" Chapter.	Limits (Page 19)
V1801.Sep/2019.1	2019-09-04	Updated screenshots and information about upgrades purchased in the "Limits" chapter.	Limits (Page 19)
V1801.Aug/2019.1	2019-08-08	• Updated a screenshot to show addition of new "Upgrade" button. • Added a new procedure to describe steps to purchase upgrades.	Limits (Page 19)
		Updated description for the "Traffic Inbound (MB)" row in the "Assets" tab.	"Assets" tab
V1801.Jul/2019.1	2019-07-11	Added screenshot and information about "Plan Info" option in the "Limits" chapter.	Limits (Page 19)
		Added information on multilingual support in Usage Transparency.	Introduction (Page 11)
		Updated the metrics table in the "Metrics" Chapter.	Metrics (Page 15)
V1801.Jun/2019.1	2019-06-13	Updated content and screenshots related to the display of date and time in the UTC standard.	"Overview" user interface (Page 31) "API/Service" tab (Page 31) "Apps" tab (Page 33) "User" tab (Page 33) "Assets" tab Generating reports (Page 35)
		Added a chapter to describe the supported metrics in Usage Transparency.	Metrics (Page 15)
V1801.May/2019.1	2019-05-16	Updated content and screenshots related to the following changes: • Display of measurement unit of each metric in the "Current" and "History" tabs. • Addition of the "Quick select" list in the "History" tab.	• Limits (Page 19) • Services (Page 25)

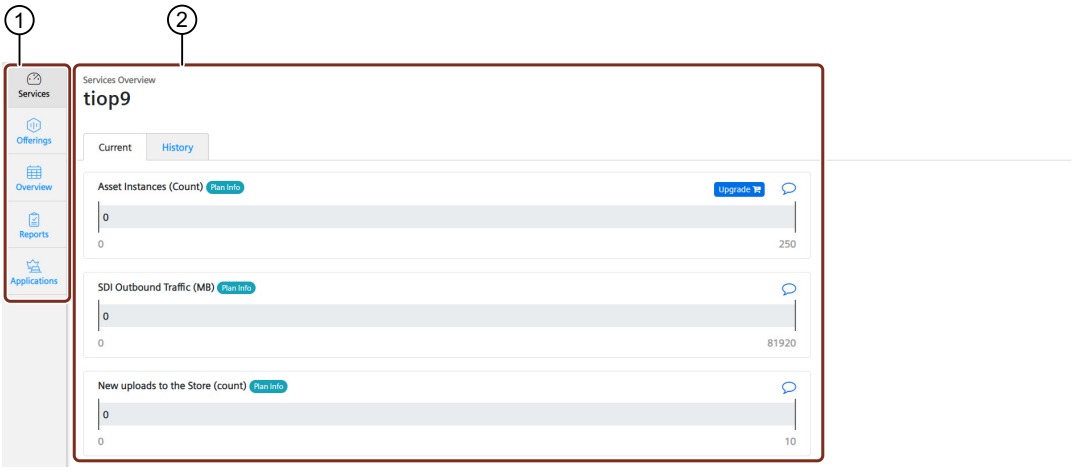
Version	Date	Changes	Link
V1801.Apr/2019.1	2019-04-15	Added the new chapter "Limits".	Limits (Page 19)
		Added the new chapter "Services".	Services (Page 25)
		Updated the "Introduction" chapter.	Introduction (Page 11)
		General update of the document.	
V1801.Mar/2019.1	2019-03-18	Added description for newly added columns in the "Assets" tab.	Assets tab
		General improvement of the document.	
V1801.Feb/2019.1	2019-02-13	Updated user interface changes and related content.	• Overview (Page 31) • Generating reports (Page 35)
		Added a new chapter for application limitations.	Limitations (Page 37)
V1801.K1113	2018-11-13	General update of the entire document.	

Introduction

2

Usage Transparency provides customers with a user interface that provides transparency and allows them to gain detailed insights into tenant specific consumption data (metrics) and their specific limits/targets on MindSphere subscription plans. It brings together various consumption data on the MindSphere platform allowing the users to track the metrics that enable their utilization-based pricing models. The dashboards allow the users to access required usage metrics for a specific time period. Also, users can generate usage reports in the `.csv` file format for further analysis. These reports help the users to track the metrics and make decisions about managing and upgrading their subscription plans.

The following screenshot shows Usage Transparency user interface:



① MindSphere home button

② Navigation pane

③ Tenant information area

④ Display area

Usage Transparency is hosted in different regions in various data centers, refer MindSphere Regions (http://mindsphere.siemens.io/concepts/concept-regions.html)for more information.

Multilingual support

Usage Transparency User Interface (UI) provides support for English and Chinese languages. To view the UI in Chinese language, change your browser language settings.

User rights in "Usage Transparency" 3

To access Usage Transparency, you need the TenantAdmin role.

For more information on roles, see Settings documentation (https://documentation.mindsphere.io/resources/html/settings/en-US/index.html).

Metrics

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This chapter contains a list of all supported metrics and provides a description of each Metric. These metrics show information about your resource consumption.

Supported metrics

The following table explains the supported metrics:

Metric name (measurement unit)	Description
Agents (Count)	Total number of Siemens Connectivity agents (except agents using Mindconnect IoT Extension).
Asset Instances (Count)	An asset instance represents physical and/or logical devices within your tenant. It is the total number of assets created in the tenant. Note that the root assets from the tenant and subtenants are not counted.
Asset Types (Count)	Asset type describes the type of an asset (for example, a generic motor) including one or several attributes. It is the total number of asset types created in the tenant.
Backing Services - M (Hours)	This is the total number of hours of backing service instances of size "M" used within the subscription limits per respective month.
Backing Services - M50 (Hours)	This is the total number of hours of backing service instances of size "M50" used within the subscription limits per respective month.
Backing Services - M150_HA (Hours)	This is the total number of hours of backing service instances of size "M150_HA" used within the subscription limits per respective month.
Backing Services - S10 (Hours)	This is the total number of hours of backing service instances of size "S10" used within the subscription limits per respective month.
Backing Services - S10_HA (Hours)	This is the total number of hours of backing service instances of size "S10_HA" used within the subscription limits per respective month.
Backing Services - XS (Hours)	This is the total number of hours of backing service instances of size "XS" used within the subscription limits per respective month.
Cloud Foundry RAM (MB)	This is the total amount of memory assigned to running applications in the Cloud Foundry ORG.
Data transfer volume via IPSec tunnel (GB)	This is the total amount of data transferred via IPSec tunnel per respective month.
Data transfer volume via SNX tunnel (GB)	This is the total amount of data transferred via Bring Your Own Tunnel (SNX) per respective month.
Event Instances (Count)	An event instance represents the actual occurrence of an event (a defined situation). For example: 2018-07-10 15:45:23 | HIGH | Temperature high. It is the total number of created events.
Event Types (Count)	The order and the content of an event instance are specified in the corresponding event type. For example: timestamp, priority, and description. It is the total number of custom created event types available for the event management.
File Storage (GB)	File Storage represents the IoT File Service included in your subscribed plan. It is the total size of the files uploaded to IoT File Service.
IDL Data Read (GB)	This is the amount of data the customer can read in Integrated Data Lake calculated per respective month.

Metric name (measurement unit)	Description
IDL Data Storage Space (GB)	This is the maximum data storage capacity that is available in Integrated Data Lake per offering.
IDL Data Write (GB)	This is the amount of data the customer can write in Integrated Data Lake calculated per respective month.
IDL Objects Stored (Count)	This is the total number of objects that can be stored in the Integrated Data Lake.
IDL Read Operations (Count)	This is the amount of read operations that the customer can perform on the Integrated Data Lake in the respective month.
IDL Write Operations (Count)	This is the amount of write operations that the customer can perform on the Integrated Data Lake in the respective month.
IDL maximum number of search operations (Count)	This is the amount of search operations per month, which you can perform on Integrated Data Lake.
MindConnect IoT Extension data ingest per actual month (MB)	This is the amount of data ingested into MindConnect IoT Extension calculated per respective month.
New uploads to the Store (count)	This is the number of applications published to the MindSphere Store during the respective month.
Notifications (Count)	It is the total number of notifications sent out via Notification Service. One notification may be sent out to multiple recipients and will be counted accordingly.
Packages Created (Count)	This is the number of existing packages created by the Package Builder. By default up to four packages can exist, if more are required, package upgrades can be purchased.
PPU Backing Services - Size independent (Hours)	This is the total number of hours of all the backing service instances used above the subscription limits per respective month.
PPU Backing Services - M (Hours)	This is the total number of hours of backing service instances of size "M" used above the subscription limits per respective month.
PPU Backing Services - M50 (Hours)	This is the total number of hours of backing service instances of size "M50" used above the subscription limits per respective month.
PPU Backing Services - M150_HA (Hours)	This is the total number of hours of backing service instances of size "M150_HA" used above the subscription limits per respective month.
PPU Backing Services - S10 (Hours)	This is the total number of hours of backing service instances of size "S10" used above the subscription limits per respective month.
PPU Backing Services - S10_HA (Hours)	This is the total number of hours of backing service instances of size "S10_HA" used above the subscription limits per respective month.
PPU Backing Services - XS (Hours)	This is the total number of hours of backing service instances of size "XS" used above the subscription limits per respective month.
Count of IPSec router (Count)	This is the total number of routers onboarded to VPN tunneling per respective month.
Rules Quota (Count)	A rule is a condition based on which the overshooting or undershooting of a defined threshold value is monitored and an appropriate event is triggered. It is the total number of rules that are activated within Fleet Manager.
SDI Connected Systems (Count)	This is the number of registered data sources from where data is consumed from Semantic Data Interconnect.
SDI Data Storage (GB)	This is the processed data stored in Semantic Data Interconnect.
SDI Outbound Traffic (GB)	This is the outbound queried result traffic from Semantic Data Interconnect.
Subtenants (Count)	Subtenants are subparts of a tenant and it represents an organization of your own or of a third-party that you are permitted. It is the total number of the subtenants created in the "Settings" application on the tenant.
Technical Token Manager API calls (Count)	This is the number of times technical token service API endpoints are accessed per month.
Time series data ingest rate (KB/s)	This is the average transfer rate of all machine data sent to Timeseries service.

Metric name (measurement unit)	Description
Timeseries Storage (GB)	This is the amount of machine data that is stored for the tenant in Timeseries service.
Users (Count)	It represents the users who have the permissions to log in to a tenant. It is the total number of users that can log in to the tenant. These users are identified by their emails and are created in the "Settings" application on the tenant.
Visual Analyzer Users (Count)	This is the total number of users that have one or more Visual Analyzer specific role. The following are the available Visual Analyzer roles: • mdsp:core:va.adminusage • mdsp:core:va.usage • mdsp:core:va.subtenantusage
Visual Explorer Viewer Users (Count)	This is the total number of users created in Visual Explorer (=Tableau Server). A user is created with the first login to Visual Explorer. To log in, the user needs the role "mdsp:core:visualexplorer.viewer".
Visual Explorer Creator Users (Count)	This is the total number of users created in Visual Explorer (=Tableau Server). A user is created with the first login to Visual Explorer. To log in, the user needs one of the roles "mdsp:core:visualexplorer.{explorer,interactor,administrator}".
VFC Compute Hours (Hours)	This is the number of computing time (hours) used for running user created workflows in Visual Flow Creator on a monthly basis.

Note

All the metrics will be updated as per the default update cycle of approximately 4 hours. In some cases, it may take longer cycles due to delayed extraction from the corresponding service. For the metrics with specific cycle, update cycle is displayed next to the respective metrics.

Services

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"Services" provides information about purchased limits and used limits of metrics with respect to plans associated with the tenant. On analyzing the status of metrics, users can manage or upgrade their plans. If the customers are nearing or exceeding the metrics usage, an email notification will be sent with information about the usages and how to upgrade the metrics.

Email notifications are sent based on the following usages of the metrics:

- 90% of allowed usage
- 100% of allowed usage
- More than 100 % of allowed usage.

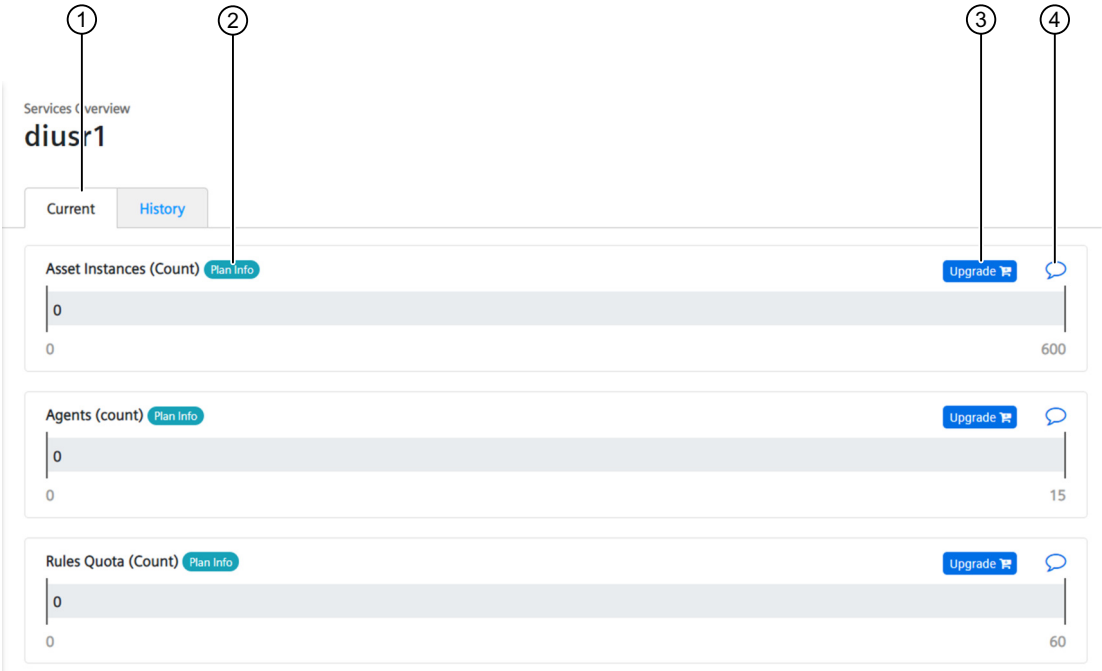
After sending an email notification for more than 100% of allowed usage, 30 days of grace period is provided to purchase an upgrade for the metric. If the metric is not upgraded even after the 30 days period, a final notice email is sent with an additional grace period of 7 days. After that if the metric is still not upgraded or usage capacity of the affected services is not reduced, MindSphere intends to exercise its contractual right to suspend access to the affected services.

The following table shows the color codes to describe the status of the metrics usage:

Color Code	Metrics usage (%)
Green	Less than 80 percent of allowed usage
Yellow	Between 80 to 100 percent of allowed usage
Red	More than 100 percent of allowed usage

Viewing current status of metrics

To view the current status of metrics, in the navigation pane, click "Services".
In the "Current" tab, purchased limits and used limits of all the metrics are displayed. Each metric name is followed by its measurement unit displayed in parentheses.



1. The "Current" tab displaying status of metrics
2. "Plan Info" button shows limits and usage details of the plans and the metrics
3. The "Upgrade" button allows you to navigate to the "Upgrade" system tool to purchase an upgrade in an easy and convenient way for immediate use on your tenant
4. You can add a comment for later reference

Note

- "Time series data ingest rate" metric is displayed for both tenant and asset with the update cycle of 15 minutes and has a 35 minutes delay. For example, data from 10:45 will be available at 11:20.
- "Time series data ingest rate per asset" provides the metric details in a table containing "Asset Name", "Asset Id", "Data Ingest", "Unit" details.

Purchasing upgrades

Currently, you can purchase upgrade for the following metrics:

- Asset Types
- Asset Instances
- Users
- Subtenants

- Rules Quota
- Timeseries Storage
- Visual Explorer Viewer Users
- Visual Explorer Creator Users
- VFC Compute Hours

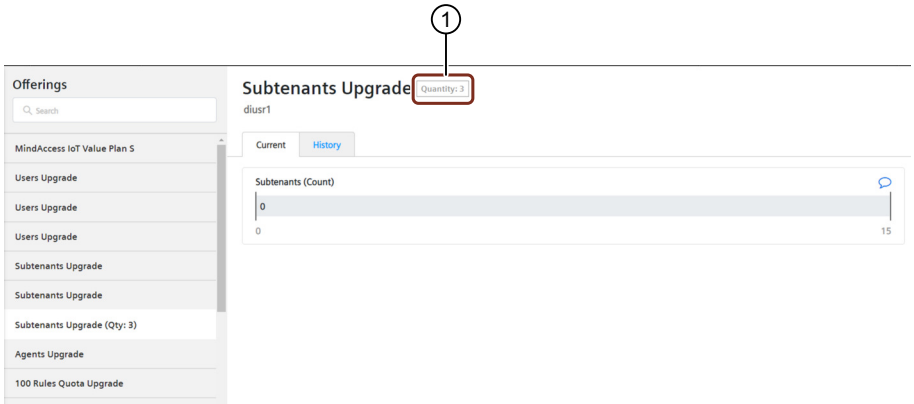
To purchase an upgrade for a metric, follow these steps:

1. In the navigation pane, click "Services".
2. In the "Current" tab, click "Upgrade" for the metric you want to upgrade.
   You are directed to the "Upgrade" application.
3. Purchase the upgrade. For more information, refer the "Upgrade (https://documentation.mindsphere.io/resources/html/upgrade/en-US/index.html)" manual.
   After the purchase, click "Back to previous app" to navigate back to the "Usage Transparency" application.

Result

The purchased upgrades are updated in the "Current" tab of the "Services" page.

The purchased upgrades are added to the list of services in the "Offerings" page.



① Quantity of the upgrade purchased

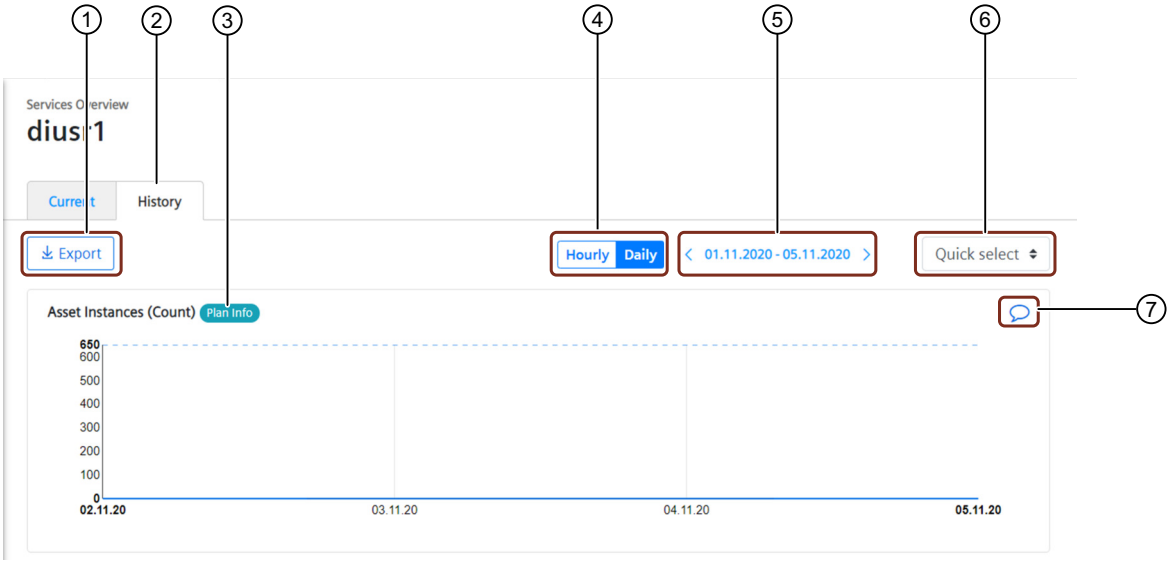
Viewing historic usage status of metrics

The histoy usage status of the metrics can be viewed either on "Daily" or "Hourly" basis.

To view the history of usage status of metrics on a "Daily" basis, follow these steps:

1. In the navigation pane, click "Services".
2. Click the "History" tab.

3. Select "Daily".
   The purchased limits and used limits of all the metrics with the daily data of the tenant are displayed. Each metric name is followed by its measurement unit displayed in parentheses.
4. To view the status of metrics for a specific date range, in the date selection area, select required dates.
   Or
   Use the "Quick select" list to select a predefined period.



① "Export" button creates a .csv file containing the usage status data

② The "History" tab displaying status of metrics

③ "Plan Info" button shows details of plans and upgrades of the metric

④ Toggle button to select metric aggregation time

⑤ Date selection area

⑥ "Quick select" list shows a list of predefined periods as follows:

- Last 7 days
- Last 15 days
- Last 30 days
- Last 90 days
- Last 1 year

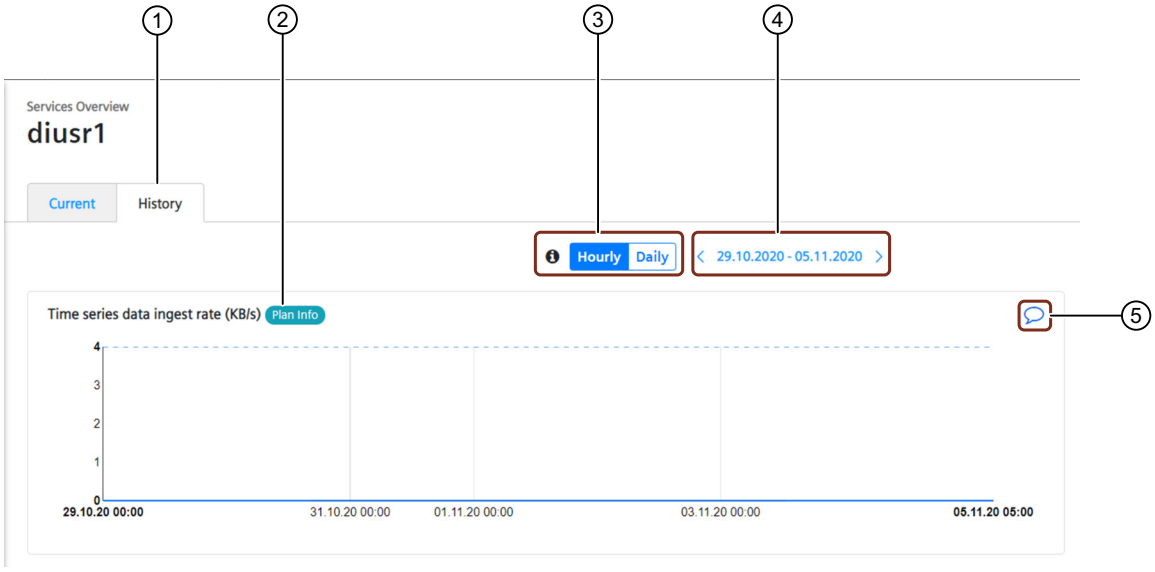
⑦ You can add a comment for later reference

Note

Daily aggregated data of "Time series data ingest rate per asset" is available for the last 3 months and up to 7 days data can be retrieved at a time with the latest data from the previous day. The data is available only for export.

To view the history of usage status of metrics on a "Hourly" basis, follow these steps:

1. In the navigation pane, click "Services".
2. Click the "History" tab.
3. Select "Hourly".
   The purchased limits and used limits of all the metrics with the hourly data of the tenant are displayed. Each metric name is followed by its measurement unit displayed in parentheses.
4. To view the status of metrics for a specific date range, in the date selection area, select required dates.
   Or
   Use the "Quick select" list to select a predefined period.



① The "History" tab displaying status of metrics
② "Plan Info" button shows details of plans and upgrades of the metric
③ Toggle button to select metric aggregation time
④ Date selection area
⑤ You can add a comment for later reference

Offerings

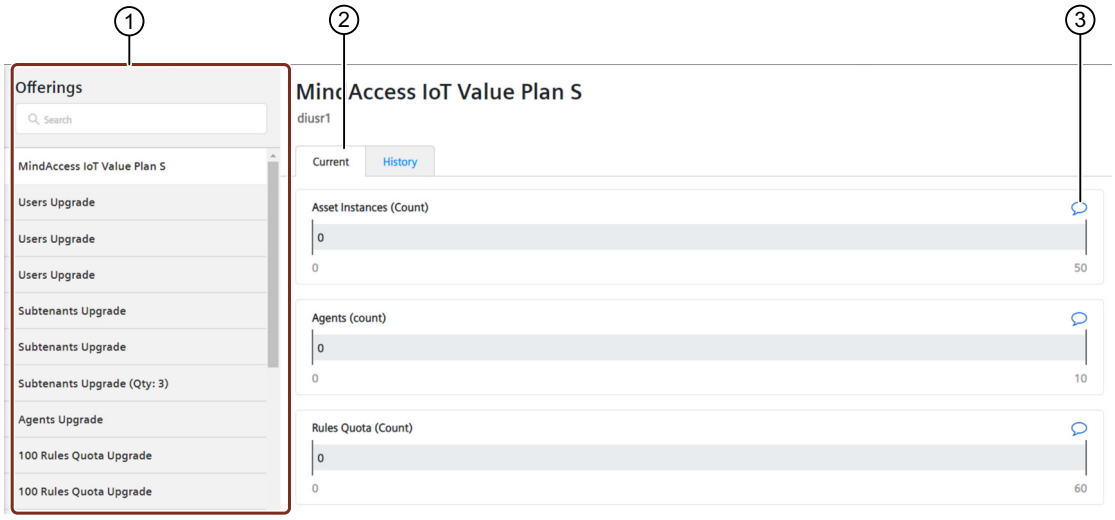
6

"Offerings" allows the users to track usage metrics for their subscribed plans. This chapter provides information on how to view the current as well as past usage status (purchased limits, used limits) of metrics of subscribed plans associated with the tenant. On analyzing the status of metrics, users can manage or upgrade their plans.

Viewing current usage status of metrics

Follow these steps to view the current status (at the time the user is logged in) of metrics:

1. In the navigation pane, click "Offerings".
   The "Offerings" section appears with a list of subscribed plans of the tenant.
2. Select the plan to view its status.
   Or
   In the search box, enter the plan name, and then select it.
   In the "Current" tab, purchased limits and used limits of all the metrics of the selected plan are displayed. Each metric name is followed by its measurement unit displayed in parentheses.



① Offerings section - lists offering services (for example, plans, apps, components, or upgrades) for the tenant

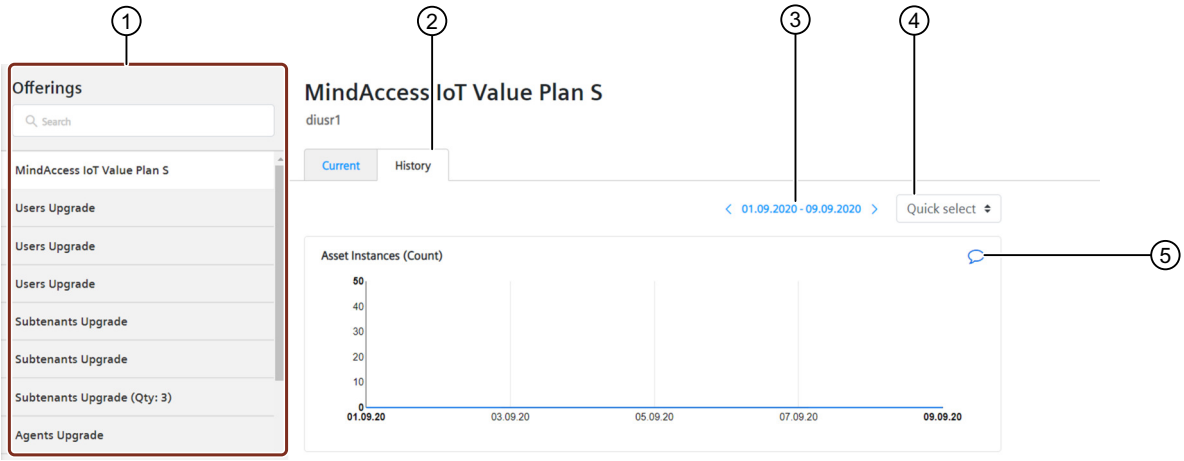
② The "Current" tab displaying status of metrics

③ You can add a comment for later reference

Viewing past usage status of metrics

Follow these steps to view the past status of metrics:

1. In the navigation pane, click "Offerings".
   The "Offerings" section appears with a list of subscribed plans of the tenant.
2. Select the plan to view its status.
   Or
   In the search box, enter the plan name, and then select it.
   Status of metrics are displayed in the "Current" tab.
3. Click the "History" tab.
   Purchased limits and used limits of all the metrics of the selected plan are displayed for the current month. Each metric name is followed by its measurement unit displayed in parentheses.



① Offerings section - lists offering services (plans) for the tenant

② The "History" tab displaying status of parameters

③ Date selection area

④ "Quick select" list shows a list of predefined periods as follows:

- Last 7 days
- Last 15 days
- Last 30 days
- Last 90 days
- Last 1 year

⑤ You can add a comment for later reference

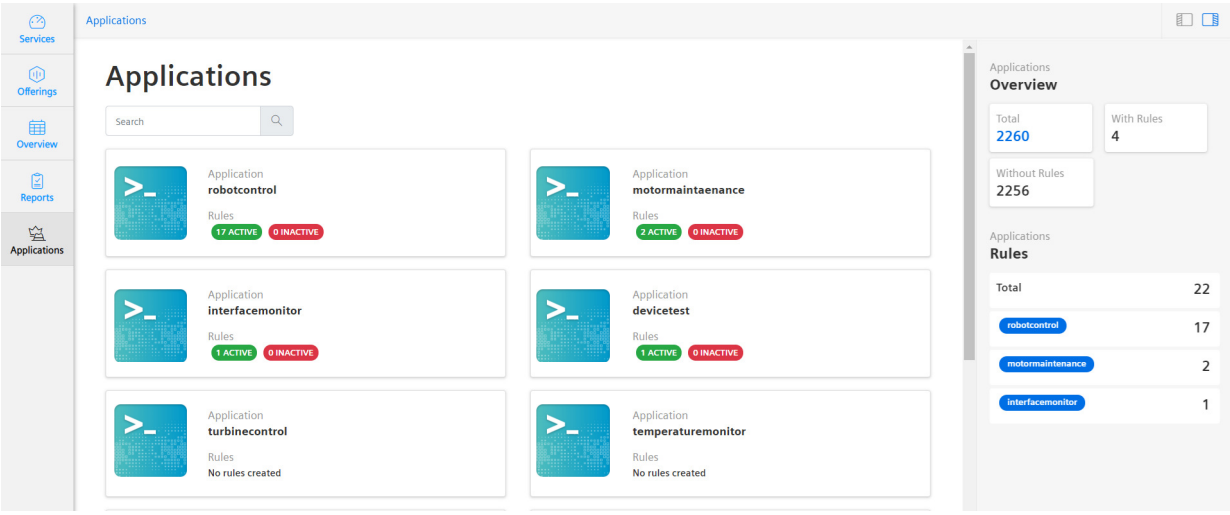
4. To view the status of metrics for a specific date range, in the date selection area, select required dates.
   Or
   Use the "Quick select" list to select a predefined period.

Applications

7

"Applications" allows the users to analyze the usage and provides transparency on the selected metrics usage of the application as per the rules configured for the operator applications. This chapter provides information on how to view the metrics usage of the applications sent for billing. On analyzing the metrics usage, users can monitor and control the metrics usage.

The following screenshot shows "Applications" user interface for the application operators:



Note

Rule is a usage metric of an application. Rule enables the application to send usages to UTS and helps to configure the aggregation method to be applied based on the billing model.

Active rules accept usages and inactive rules do not accept usages for billing.

The "Applications" section supports the below mentioned roles:

- Application Operators: Assign the metric units to application users.
- Application Users: View the metric usage data sent for billing.

Assigning the metric units

For the application users to view the billing data, application operator has to assign the metric units to application users.

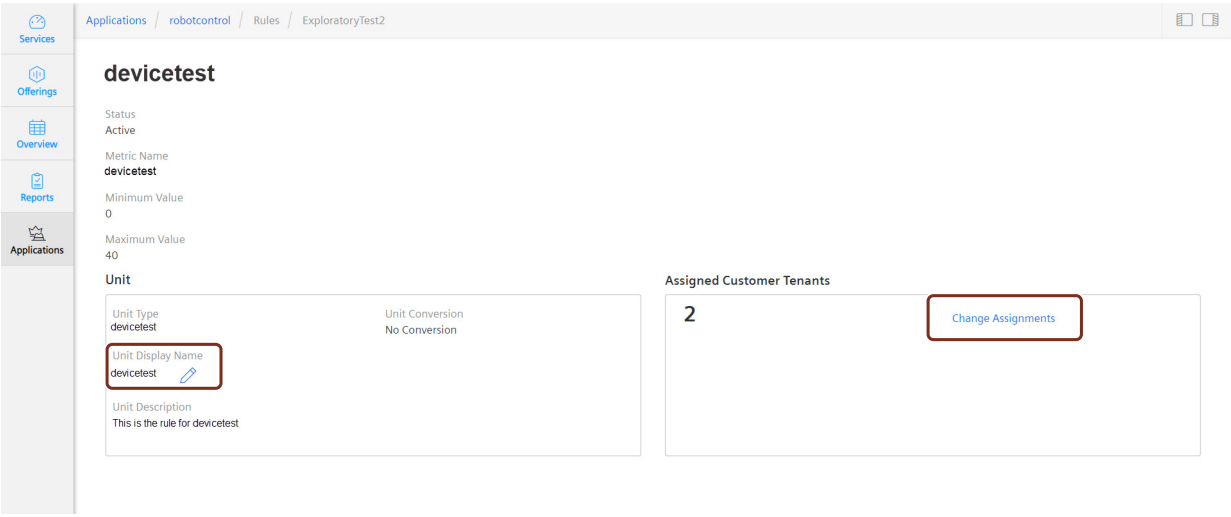
Follow these steps to assign the metric units from application operator to application users:

1. Click "Applications" in the navigation pane.
   The "Applications" section appears with a list of applications hosted in the tenant.
2. Select the application and click ↗ in the preview section.
   Or
   In the search box, enter the application name, select it, and then click ↗.

   Note

   If the required application is not available in the list, contact the support team.

3. Select the rule and click ↗.
4. Click "Change Assignments".



Application operators can also edit the metric "Unit Display Name" for the application users.

Note

Once the Unit Display Name is modified, the rule (metric unit) will be inactive for a minimum of 30 minutes and usages sent during this timeframe will not be accepted and cannot be considered for billing. Hence, ensure to update the display name only during non-business hours.

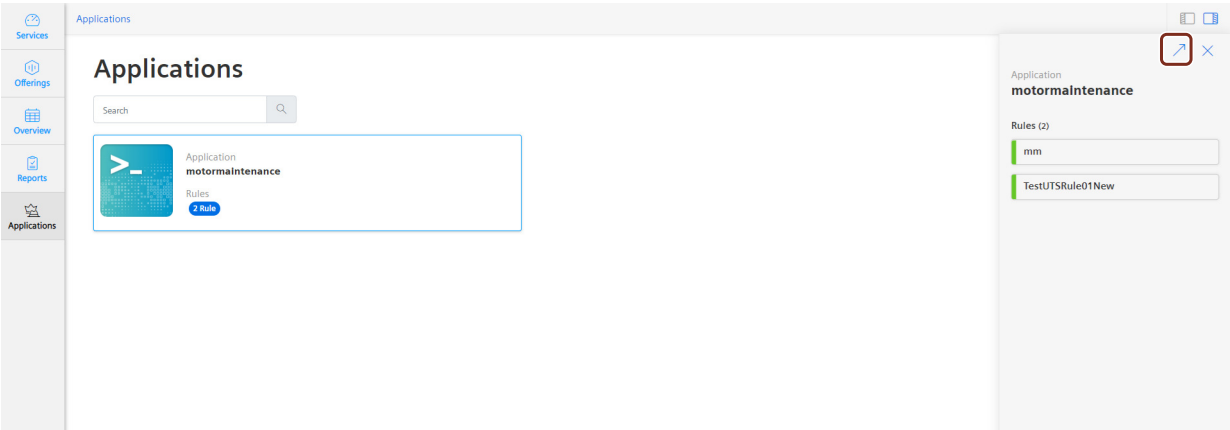
5. Select the tenants you want to assign the metric unit.
   Or
   In the search box, enter the tenant name, and then select it.
6. Click "Save".

Viewing the usage data of the metric

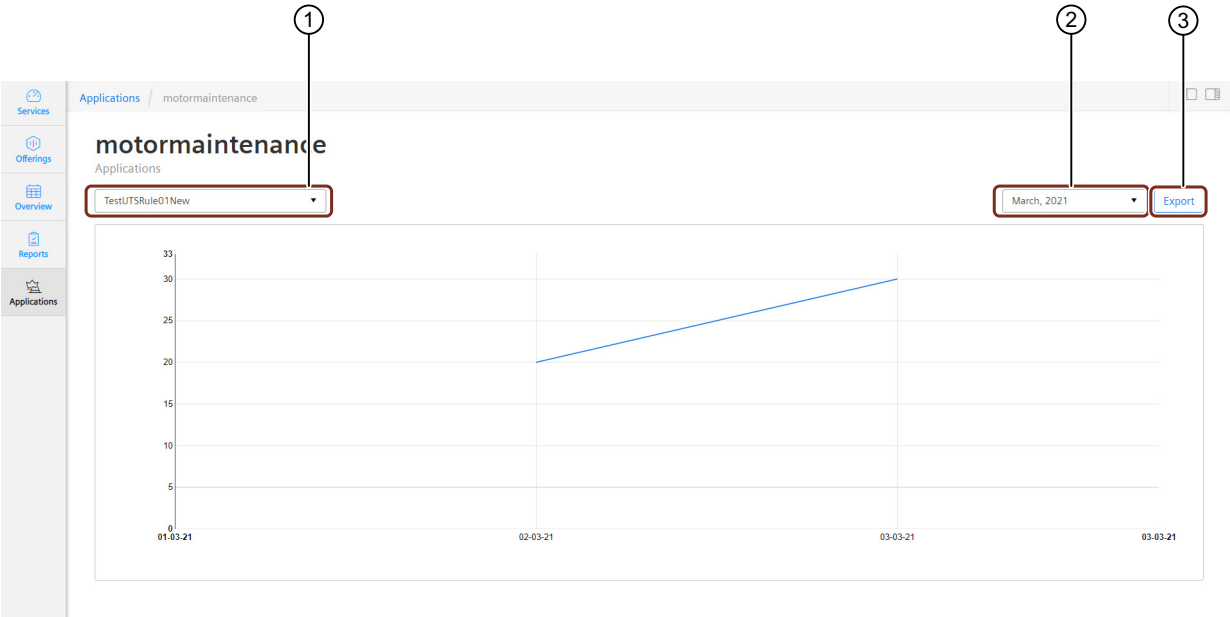
Metric usage data of an application can be viewed only as an application user (IoT, Premium, Base and Mendix tenants).

Follow these steps to view the metric usage data:

1. Click "Applications" in the navigation pane.
   The "Applications" section appears with a list of applications hosted in the tenant.
2. Select the application and click ↗ in the preview section.
   Or
   In the search box, enter the application name, then select it and click ↗.



   The list of provisioned metric units (rules) is displayed.
3. Select the required metric unit.
4. Select the required month and click "See details".
   The graph with the metric usage details will be shown.
   Currently, it is only possible to view the metric usage graph for the latest 3 months.



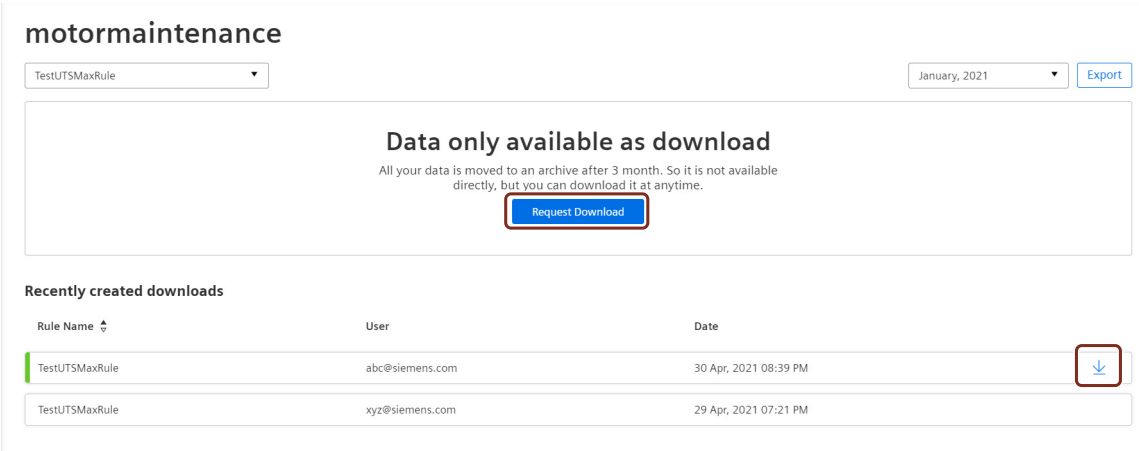
① Dropdown option to select metric units
② Month picker to select the required month
③ Export option to download the .csv report

Note

It takes a minimum of 1 hour for the latest usage data to be displayed on the graph.

It is also possible to download the .csv format of the metric usage unit, click "Export" to download the .csv format of the metric for the latest 3 months.

To download the usage report older than the latest 3 months, a request has to be made. Click "Request Download" and the download icon displayed next to the rule in the "Recently created downloads" list.



The downloaded .csv file contains the below mentioned details:

Column name	Description
Date	Date on which the metric unit is used
App Name	Name of the application
Usage Unit Name	Name of the metric unit
Resource Name	Name of the resource
Resource Value	It is the resource information of the usage Resource value information is separated by hyphen, if there are more than one values. (Example: C9a5bd5d50614a558a39460fe9b7812c-motor)
Usage Value	It is the count of the usage value used
Tenant Id	It is the identification code of tenant
Operator Id	It is the identification code of operator

Note

Currently, Tenant Id and Operator Id are only available in the usage report older than the latest 3 months.

Overview

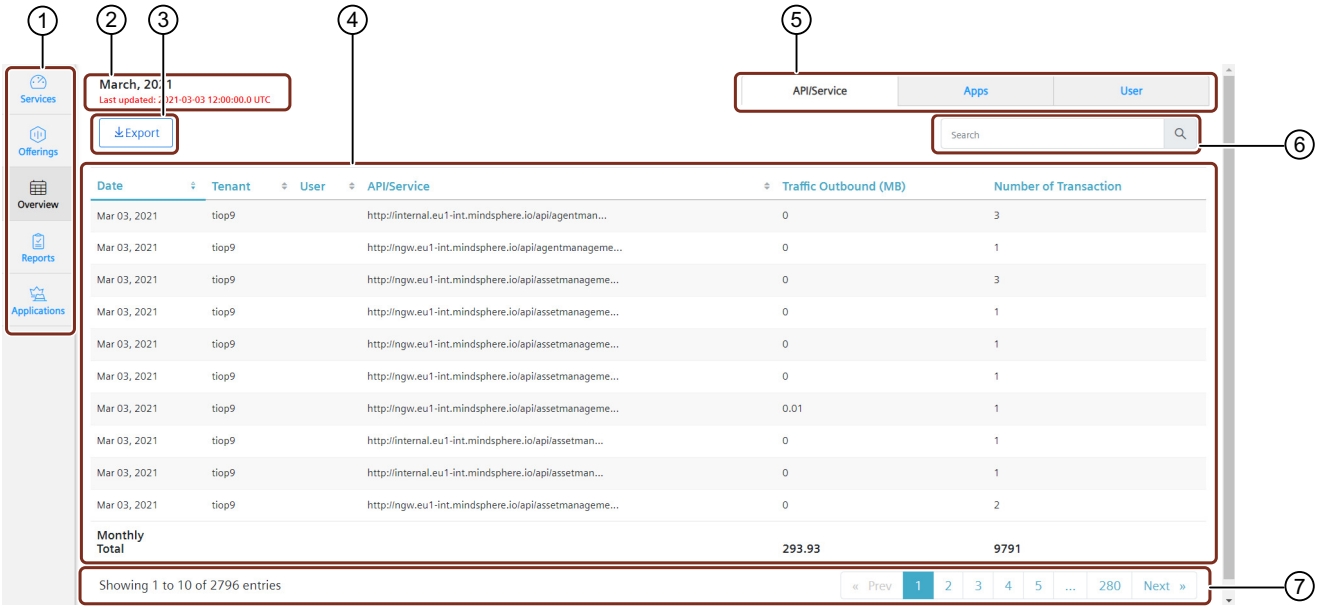
8

"Overview" user interface

Using "Overview", you can track the utilization of the following resources:

- **API/Service**: Gives you an overview of the API resource consumption by the tenant.
- **Apps:** Gives you an overview of the applications used by the tenant**.**
- **User:** Gives you an overview of the number of users per tenant and subtenants.

The following image shows the "Overview" user interface:



① Navigation pane
② Shows the date and time when the data is last updated. The time is displayed in the UTC standard.
③ Creates a `.csv` file format containing the usage data
④ Usage view area
⑤ Resource tabs
⑥ Search box
⑦ Page navigation area

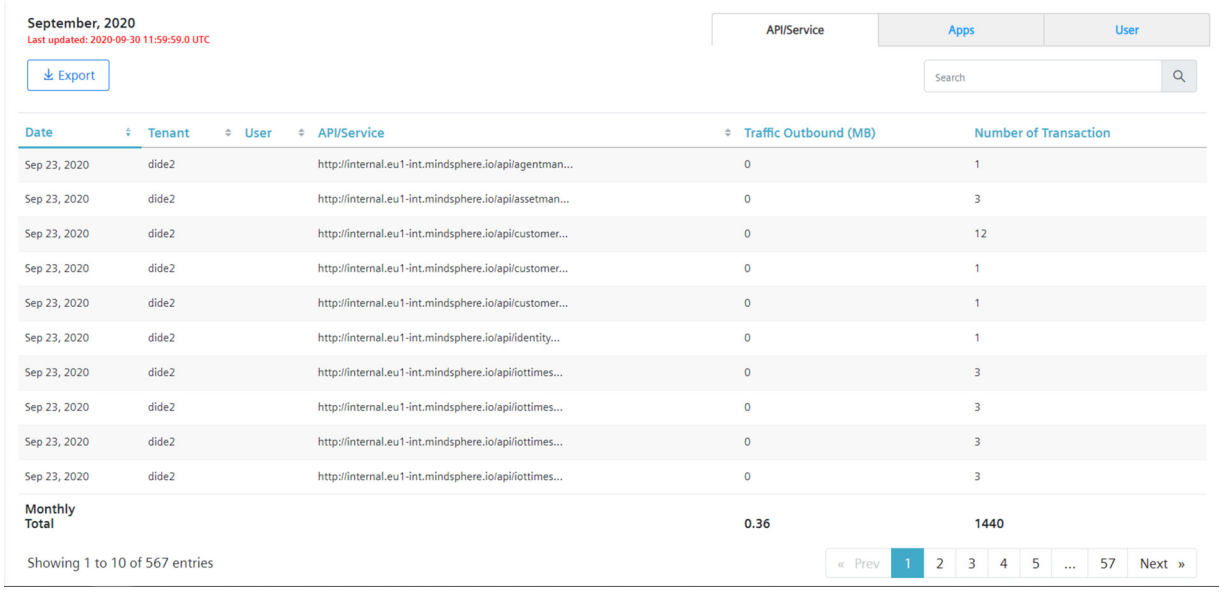
8.1 "API/Service" tab

The "API/Service" tab displays a list of the API/services currently used by the users.

These include:

- All transactions.
- Data consumed in the transactions.
- Endpoint information which is used by consumers to retrieve data from MindSphere.
- Relevant data of all the API calls passing through MindGate.
- Relevant API details. All the dependent API details are also captured. For example, if APIs A and B are dependent on C, the details for all the three APIs will be captured.

The following screenshot shows the "API/Service" tab:



Column description

The following table provides descriptions for the columns in the "API/Service" tab:

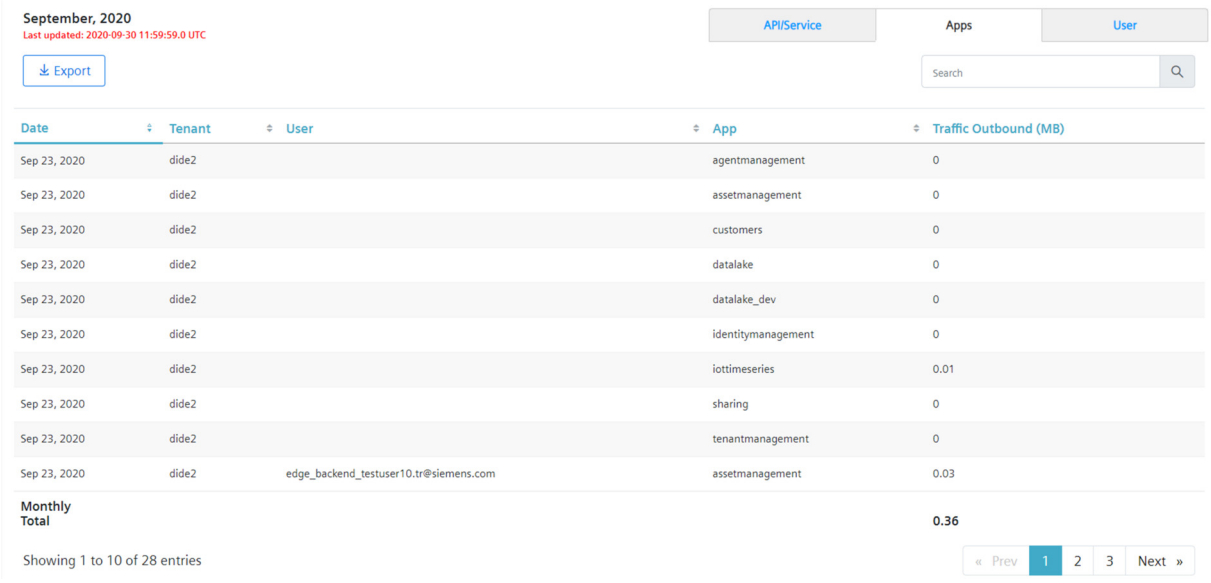
Column name	Description
Date	Shows the date on which the API is used.
Tenant	Name of the tenant.
User	Shows the email address of the user who used the API.
API/Service	Service link with the endpoint information.
Traffic Outbound (MB)	Shows the Traffic Outbound (in MB) that occurred while using the API.
Number of Transaction	Shows the total count of the transactions occurred in the API on one day.

8.2 "Apps" tab

The "Apps" tab displays a report based on the usage of applications by different users of tenants. These include:

- Consolidated data consumed by applications.
- List of applications used by users.
- The data flow response to the user is termed as outbound traffic. The outbound data is also referred as the northbound data or user's data.

The following screenshot shows the "Apps" tab:



Column description

The following table provides descriptions for the columns in the "Apps" tab:

Column name	Description
Date	Shows the date on which the person using the application.
Tenant	Name of the tenant.
User	Shows the e-mail address of the user who used the application.
App	Shows the name of the application used.
Traffic Outbound (MB)	Shows the Traffic Outbound (in MB) consumed by users on a single day.

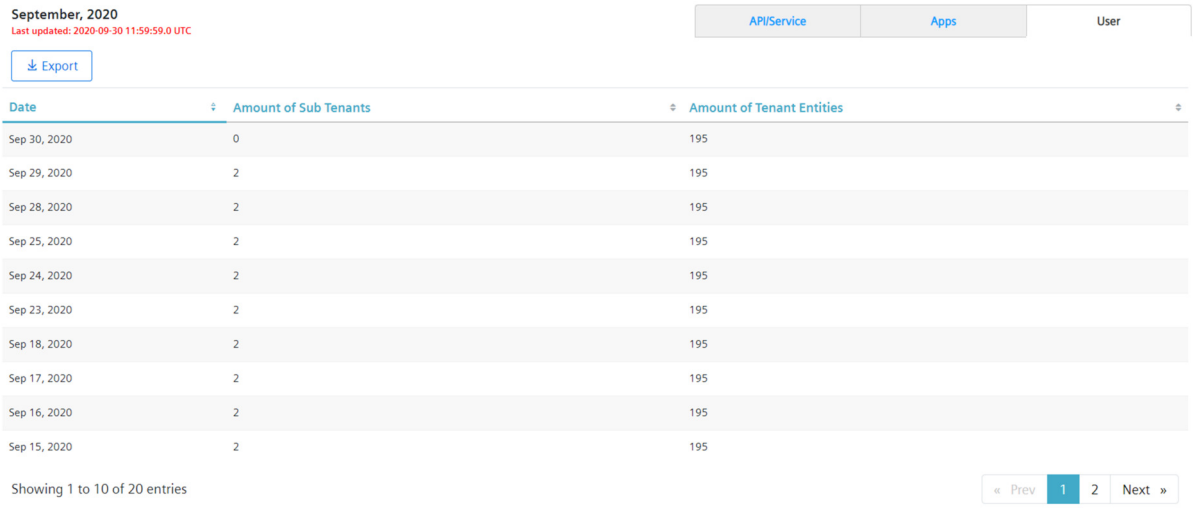
8.3 "User" tab

The "User" tab provides a report which contains user counts with the respective tenant/ subtenant. It displays:

- The total number of subtenants.
- Entities on the User Interface (UI).

These numbers are displayed with respect to a particular date on which the applications are accessed.

The following screenshot shows the "User" tab:



Column description

The following table provides descriptions for the columns in the "User" tab:

Column name	Description
Date	Shows the date on which the applications are used.
Amount of Sub Tenants	Total number of subtenants
Amount of Tenant Entities	Total number of tenant users

Reports

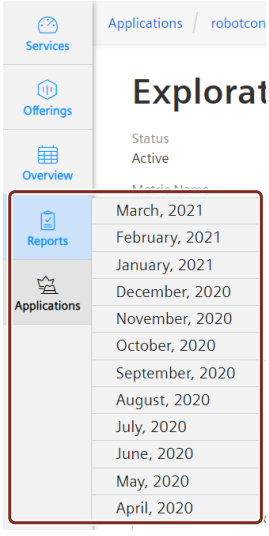
9

Using the "Reports" option, you can view the usage report for a specific month and export the usage data to a `.csv` file format for further data analysis.

Procedure

Follow these steps to export the report to a `.csv` file:

1. In the navigation pane, hover over "Reports". A submenu is displayed with a list of months.



2. Select the month for which you want to export the data.
3. Select the resource tab you want.
4. Click "Export". A `.csv` file is created and downloaded to your system.

Limitations 10

This chapter lists current limitations of the Usage Transparency application.

Application limitations

The Usage Transparency application does not collect all usages generated within a cloud foundry (this covers all usages during development of an application). As a result, the application does not display these usage details.