Telemetry Datasheet

Collecting non-personal data for personalized engagement

asurion

Telemetry Datasheet
Android Release N.N.N.N , iOS Release 0.0.24
Asurion Internal Use Only

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Contents

Chapter 1

Introduction

Mobile device telemetry data is a main information source for personalized engagement.

When the Asurion Telemetry Library SDK is installed on a mobile device, Asurion measures the real-time user experience. We then use unique, big data analytics to associate the anonymized device data with customer context and social media information to enable personalized engagement through Asurion mobile applications that is timely, relevant, and actionable for the user. This document describes the Android and iOS mobile device telemetry data that Asurion collects. Before we look at the detailed reports, let's take a high-level look at how we collect the data.

Telemetry data is uploaded from the device to the Asurion cloud-based analytics system. Collection and transmission of device telemetry are optimized to balance frequency of collection for obtaining up-to-date information with minimizing battery drain and data volume. We practice the following key tenets of collection and optimization:

- Personally Identifiable Information (PII) is not collected from the device and device identity is anonymized.

- All data is compressed on the device to minimize data transmission costs.

- The device can be configured to send data only when connected to Wi-Fi or only when the device is charging.

- Payloads are as small as possible: the average data usage is approximately 25 to 40 KB per day.

The Telemetry Library comes configured with default settings for how to collect telemetry data. Configuration can be done either directly on the server and then served to the device or directly on the device by the third-party application. Some settings can be configured for every report and some settings can be configured for only certain reports. You can configure the following for every report:

- Whether the report is generated.

- What the frequency is of transmitting the report.

- The maximum size of the report, in bytes.

- The maximum number of reports to store.

Each report in the following sections lists what its configurable settings and defaults are. To change the configuration, contact your Asurion Account Manager.

Chapter 2

Android Telemetry Reports

2.1   Android Accelerometer Report

The Accelerometer report contains information about the accelerometer hardware and the movement of the phone.

Preloaded App Required No

Size Up to 200 KB

Permissions None

Triggers This report is generated and transmitted according to the configurable dispatchFrequency below.

API Public

Configurable You can configure the following items for this report:

Name	Description	Default Value
enable	Whether to generate the report	Enabled
dispatchFrequency	How often to transmit the report to the server	8 hours
maxDataSizeInBytes	The maximum size of the report. This value is usually not changed.	Huge. In technical terms, it is Long.MAX
maxReportsToPersist	The maximum number of reports to keep on the device between transmissions	1

2.1.1   Accelerometer Report Data Points

Field Name	Description
bootTime	The time in milliseconds since the device was last powered-on.
data	The list of data measures.

Field Name	Description
sensorMetaData	Information about the accelerometer hardware. See the SensorMetaData Data Points table below.
dateRange	The start and end dates of the report.

2.1.2 SensorMetaData Data Points

Information about the accelerometer hardware.

Field Name	Description
maximumRange	The maximum number of meters per second that the accelerometer can detect.
minDelay	The minimum time in microseconds between when data points are recorded.
name	The manufacturer-assigned identifier for the accelerometer component.
power	The amount of power in mA that the accelerometer uses.
resolution	The smallest change in acceleration that results in data being recorded.
type	A number that specifies the specific type of sensor: 1 = TYPE
vendor	The manufacturer-assigned identifier for itself as the maker of the accelerometer.
version	A manufacturer-assigned number that identifies the ability of the accelerometer. 1 means an accelerometer.
stringType	The technical identifier for the kind of sensor, android.sensor.accelerometer.
maxDelay	The maximum time in microseconds between when data points are recorded.
reportingMode	A number that specifies the rate at which events are recorded. 0 = REPORTING_MODE_CONTINUOUS. Events are reported at a constant rate.

2.2 Android App List Report

The App List report contains detailed information about all installed applications on the device and lists uninstalled applications.

Preloaded App Required No
Size 12 KB
Permissions None
Triggers This report is generated and transmitted according to the configurable dispatchFrequency below.
API Public
Configurable You can configure the following items for this report:

Name	Description	Default Value
enable	Whether to generate the report	Enabled
dispatchFrequency	How often to transmit the report to the server	8 hours
maxDataSizeInBytes	The maximum size of the report. This value is usually not changed.	Huge. In technical terms, it is Long.MAX
maxReportsToPersist	The maximum number of reports to keep on the device between transmissions	1

2.2.1   App List Report Data Points

Field Name	Description
Packages	Detailed information about each application installed on the device. See the AppListReport.PackageStat Data Points table below.
UninstalledPackages	List of applications that have been uninstalled from the device.

2.2.2   AppListReport.PackageStat Data Points

Version, update and install times, and detailed information about each application installed on the device.

Field Name	Description
AndroidApp	Detailed information about each application installed on the device. See the AppListReport.PackageStat.Data Data Points table below.

Field Name	Description
VersionCode	The internal version identifier for the application, assigned by the provider. If an updated version of the application is available, this identifier will notify the user that an update is available.
VersionName	The user-visible name of the version of the application. This name is independent of the VersionCode.
FirstInstallTime	The time in milliseconds that the application was first installed.
LastUpdateTime	The time in milliseconds that the application was last updated.

2.2.3   AppListReport.PackageStat.Data Data Points

Detailed information about each application installed on the device.

Field Name	Description
isEnabled	Whether the application is available for use. Valid values are: True .= The application is available. Components that are disabled are not available for use. False = The application is not available, even though its components are enabled.
isSystemApp	Whether the application was installed by the device manufacturer or carrier, or user. True = The application was installed by the device manufacturer or carrier. False = The application was installed by the device user.

2.3   Android App Start Report

The App Start report contains the launch time of each application on the device.
Preloaded App Required Yes
Size 0.5 KB
Permissions android.permission.READ_LOGS
Triggers This report is generated and transmitted according to the configurable dispatchFrequency below.
API Private
Configurable You can configure the following items for this report:

Name	Description	Default Value
enable	Whether to generate the report	Enabled

Name	Description	Default Value
collectionInterval	The frequency at which the report generates on the device	60 min
dispatchFrequency	How often to transmit the report to the server	8 hours
maxDataSizeInBytes	The maximum size of the report. This value is usually not changed.	Huge. In technical terms, it is Long.MAX
maxReportsToPersist	The maximum number of reports to keep on the device between transmissions	1

2.3.1   App Start Report Data Points

Field Name	Description
Data	List of each application and its launch time in milliseconds.

2.4   Android Battery Status Report

The Battery Status report contains power level, generalized battery health, charge source, and user-editable settings information.

Preloaded App Required No

Size The size of this report depends on the list of battery status measurements.

Permissions Uses Reflections to access APIs.

Triggers This report is generated and transmitted according to the configurable dispatchFrequency below.

API Private

Configurable You can configure the following items for this report:

Name	Description	Default Value
enable	Whether to generate the report	Enabled
collectionInterval	The frequency at which the report generates on the device	15 min
dispatchFrequency	How often to transmit the report to the server	8 hours
maxDataSizeInBytes	The maximum size of the report. This value is usually not changed.	Huge. In technical terms, it is Long.MAX

Name	Description	Default Value
maxReportsToPersist	The maximum number of reports to keep on the device between transmissions	1

2.4.1 Battery Status Report Data Points

Field Name	Description
BatteryStatusItems	The list of values for the Battery Status report measurements. See the BatteryStatus Data Points table below.

2.4.2 BatteryStatus Data Points

The list of values for the Battery Status report measurements.

Field Name	Description
Time	The time in milliseconds when the set of records was collected.
BatteryLevel	The amount of power in the battery. The values are integers ranging from 0, meaning no charge, to 100, meaning full charge.
BatteryStatus	The activity that the battery was performing: * BATTERY_STATUS_CHARGING. * BATTERY_STATUS_DISCHARGING. * BATTERY_STATUS_FULL. * BATTERY_STATUS_NOT_CHARGING. * BATTERY_STATUS_UNKNOWN.
BatteryHealth	A reflection of how well the battery was operating. For example, if the value is BATTERY_HEALTH_OVERHEAT, then the user may be running too many applications with high power consumption. The valid values are: * BATTERY_HEALTH_COLD. * BATTERY_HEALTH_DEAD. * BATTERY_HEALTH_GOOD. * BATTERY_HEALTH_OVERHEAT. * BATTERY_HEALTH_OVER_VOLTAGE. * BATTERY_HEALTH_UNKNOWN. * BATTERY_HEALTH_UNSPECIFIED_FAILURE.

Field Name	Description
BatteryPlugType	The method used to charge the battery: * BATTERY_PLUGGED_AC = Power source is an AC charger. * BATTERY_PLUGGED_USB = Power source is a USB port. * BATTERY_PLUGGED_WIRELESS = Power source is wireless.
BatteryTemperatureInDc	The battery temperature in increments of 1/10th degree Centigrade.
BatteryVoltageInMv	The battery voltage in millivolts.
StatesData	The current state, as defined by the device manufacturer, of various user-editable settings. The presence of this value depends on whether the device manufacturer supports it. To interpret the value, consult the manufacturer's documentation.

2.5   Android Battery Usage Report

The Battery Usage report collects such information as total battery power, power capacity, and power consumed by settings and tools, among other information.

Preloaded App Required No

Size Varies

Permissions None

Triggers This report records data when the charger is connected to or disconnected form the power supply.

API Private

Configurable You can configure the following items for this report:

Name	Description	Default Value
enable	Whether to generate the report	Enabled
dispatchFrequency	How often to transmit the report to the server	8 hours
maxDataSizeInBytes	The maximum size of the report. This value is usually not changed.	Huge. In technical terms, it is Long.MAX
maxReportsToPersist	The maximum number of reports to keep on the device between transmissions	1

2.5.1 Battery Usage Report Data Points

Field Name	Description
ReportStartTime	The date when the report started.
ReportEndTime	The date when the report ended.
DurationOnBatteryInMs	The amount of time in milliseconds that the battery was used.
BatteryCapacityInMAh	The amount of time in milliamperes hours, if available, that the power is estimated to last. If the time is not available, it contains zero.
TotalPowerConsumedInMAS	The amount of time in milliampere seconds that power was consumed.
ComputedPower	The total computed power.
StatsType	The condition of the battery when the measures were taken. Valid values are: 0 = STATS_SINCE_UNPLUGGED. This means that measures were taken since the battery was unplugged, regardless of its charge. 1 = STATS_SINCE_CHARGED. This means that measures were taken since the battery was charged to 100
IsFirstReport	Whether this is the first report generated.
BatteryProcessInfoList	The amount of time and power spent using different networks, tools, and settings, and the number of TCP packets and bytes received. See the BatteryProcessInfo Data Points table below.
BatteryHistoryItemsList	Information from the Battery Status report. See the BatteryStatus Data Points table below.

2.5.2 BatteryProcessInfo Data Points

The amount of time and power spent using different networks, tools, and settings, and the number of TCP packets and bytes received.

Field Name	Description
Name	The system name of the battery process.
DefaultPackageName	The technical identifier, "package name", of the application to which the process belongs, such as "com.facebook.katana".
PowerInMAs	The power consumed by the process in milliamperes per second.
DrainType	The type of component on the device that is responsible for the battery drain: IDLE, CELL, PHONE, WIFI, BLUETOOTH, FLASHLIGHT, SCREEN, APP, USER, UNACCOUNTED, OVERCOUNTED, CAMERA.

Field Name	Description
UsageTimeInMs	The time in milliseconds that all processes used.
CpuTimeInMs	The time in milliseconds that the CPU used.
GpsTimeInMs	The time in milliseconds that the GPS service used.
WifiRunningTimeInMs	The time in milliseconds that the WIFI service used.
CpuFgTimeInMs	The time in milliseconds that apps in the foreground used.
WakeLockTimeInMs	The time in milliseconds that the wakelock feature used.
TcpBytesReceived	The number of bytes received over TCP.
TcpBytesSent	The number of bytes sent over TCP.
TcpPacketsReceived	The number of packets received over TCP.
TcpPacketsSent	The number of packets sent over TCP.
Percent	The percent of battery power consumed.
NoCoveragePercent	The battery percentage consumed during no network coverage.
TotalCpuPowerInMAs	The total power in milliampere seconds that the CPU consumed.
WakeLockPowerInMAs	The total power in milliampere seconds that the wakelock feature consumed.
MobileDataPowerInMAs	The total power in milliampere seconds consumed by transferring data over the mobile network service.
WifiDataPowerInMAs	The total power in milliampere seconds consumed by transferring data over the Wi-Fi network service.
TotalDataPowerInMAs	The total power in milliampere seconds consumed by transferring data over all networks.
WifiRunningPowerInMAs	The total power in milliampere seconds consumed by the Wi-Fi network service.
WifiScansPowerInMAs	The total power in milliampere seconsd consumed during scanning for Wi-Fi networks.
GpsPowerInMAs	The total power in milliampere seconds consumed by the GPS service.
SensorsPowerInMAs	The total power in milliampere seconds consumed by sensors.
CameraPowerMAs	The total power in milliampere seconds consumed by the camera.
FlashlightPowerMAs	The total power in milliampere seconds consumed by the flashlight.
MobileRadioPowerMAs	The total power in milliampere seconds consumed by the mobile radio.

Field Name	Description
WifiPowerMAs	The total power in milliampere seconds consumed by the Wi-Fi adapter.
UsagePowerMAs	The total power in milliampere seconds consumed by the device.

2.5.3   BatteryStatus Data Points

The list of values for the Battery Status report measurements.

Field Name	Description
Time	The time in milliseconds when the set of records was collected.
BatteryLevel	The amount of power in the battery. The values are integers ranging from 0, meaning no charge, to 100, meaning full charge.
BatteryStatus	The activity that the battery was performing: * BATTERY_STATUS_CHARGING. * BATTERY_STATUS_DISCHARGING. * BATTERY_STATUS_FULL. * BATTERY_STATUS_NOT_CHARGING. * BATTERY_STATUS_UNKNOWN.
BatteryHealth	A reflection of how well the battery was operating. For example, if the value is BATTERY_HEALTH_OVERHEAT, then the user may be running too many applications with high power consumption. The valid values are: * BATTERY_HEALTH_COLD. * BATTERY_HEALTH_DEAD. * BATTERY_HEALTH_GOOD. * BATTERY_HEALTH_OVERHEAT. * BATTERY_HEALTH_OVER_VOLTAGE. * BATTERY_HEALTH_UNKNOWN. * BATTERY_HEALTH_UNSPECIFIED_FAILURE.
BatteryPlugType	The method used to charge the battery: * BATTERY_PLUGGED_AC = Power source is an AC charger. * BATTERY_PLUGGED_USB = Power source is a USB port. * BATTERY_PLUGGED_WIRELESS = Power source is wireless.
BatteryTemperatureInDc	The battery temperature in increments of 1/10th degree Centigrade.
BatteryVoltageInMv	The battery voltage in millivolts.

Field Name	Description
StatesData	The current state, as defined by the device manufacturer, of various user-editable settings. The presence of this value depends on whether the device manufacturer supports it. To interpret the value, consult the manufacturer's documentation.

2.6   Android Bluetooth Report

The Bluetooth report records information on Bluetooth peripherals added or removed from the mobile device.

Preloaded App Required No

Size Varies

Permissions android.permission.BLUETOOTH

Triggers This report is generated and transmitted according to the configurable dispatchFrequency below.

API Public

Configurable You can configure the following items for this report:

Name	Description	Default Value
enable	Whether to generate the report	Enabled
BluetoothConfigurat ion. allowCollecting ExtraBluetooth Devi cesData	Lets the device record such Bluetooth data as device discovery information, connected and disconnected devices, pair and unpair times, and PINs.	Disabled
dispatchFrequency	How often to transmit the report to the server	8 hours
maxDataSizeInBytes	The maximum size of the report. This value is usually not changed.	Huge. In technical terms, it is Long.MAX
maxReportsToPersist	The maximum number of reports to keep on the device between transmissions	1

2.6.1   Bluetooth Report Data Points

Field Name	Description
BluetoothSettings	The last Bluetooth peripheral that was registered on the mobile device. See the BluetoothAdapterExtra Data Points table below.
Devices	Information about each Bluetooth peripheral that is registered on the mobile device. See the BluetoothDeviceInfo Data Points table below.
BTD	Additional information about each Bluetooth peripheral associated with the mobile device. See the BluetoothDeviceInfoExtra Data Points table below.

2.6.2 BluetoothAdapterExtra Data Points

Tells about last Bluetooth peripheral that is registered on the mobile device.

Field Name	Description
LstDisc	The list of Bluetooth peripherals registered on the mobile device. See the BluetoothDiscovery Data Points table below.

2.6.3 BluetoothDiscovery Data Points

The list of Bluetooth peripherals registered on the mobile device.

Field Name	Description
StartTime	The time that the mobile device started the Bluetooth peripheral discovery process.
EndTime	The time that the mobile device finished the Bluetooth peripheral discovery process.
PairedDevices	The list of Bluetooth peripherals paired during the discovery process.
NoofDevicesDisc	The number of Bluetooth peripherals discovered.

2.6.4 BluetoothDeviceInfo Data Points

Information about each Bluetooth peripheral that is registered on the mobile device.

Field Name	Description
Id	The Bluetooth peripheral hardware address.
Name	The user-friendly name of the Bluetooth peripheral, assigned by the manufacturer.
DvcCatg	The major category of the Bluetooth peripheral: 0x0000 MISC. 0x0100 = COMPUTER. 0x0200 = PHONE. 0x0200 = NETWORKING. 0x0200 = AUDIO_VIDEO. 0x0200 = IMAGING. 0x0600 = WEARABLE. 0x0700 = PERIPHERAL. 0x0800 = TOY. 0x0900 = HEALTH. 0x1F00 = UNCATEGORIZED.

Field Name	Description
DvcSubCatg	Tells the sub-category of the Bluetooth peripheral: 0x0100 = COMPUTER_UNCATEGORIZED. 0x0104 = COMPUTER_DESKTOP. 0x0108 = COMPUTER_SERVER. 0x010C = COMPUTER_LAPTOP. 0x0110 = COMPUTER_HANDHELD_PC_PD.A 0x0114 = COMPUTER_PALM_SIZE_PC_PDA. 0x0118 = COMPUTER_WEARABLE. 0x0200 = PHONE_UNCATEGORIZED. 0x0204 = PHONE_CELLULAR. 0x0208 = PHONE_CORDLESS. 0x020C = PHONE_SMART. 0x0210 = PHONE_MODEM_OR_GATEWAY. 0x0214 = PHONE_ISDN. 0x0400 = AUDIO_VIDEO_UNCATEGORIZED. 0x0404 = AUDIO_VIDEO_WEARABLE_HEADSET. 0x0408 = AUDIO_VIDEO_HANDSFREE. 0x0410 = AUDIO_VIDEO_MICROPHONE. 0x0414 = AUDIO_VIDEO_LOUDSPEAKER. 0x0418 = AUDIO_VIDEO_HEADPHONES. 0x041C = AUDIO_VIDEO_PORTABLE_AUDIO. 0x0420 = AUDIO_VIDEO_CAR_AUDIO. 0x0424 = AUDIO_VIDEO_SET_TOP_BOX. 0x0428 = AUDIO_VIDEO_HIFI_AUDIO. 0x042C = AUDIO_VIDEO_VCR. 0x0430 = AUDIO_VIDEO_VIDEO_CAMERA. 0x0434 = AUDIO_VIDEO_CAMCORDER. 0x0438 = AUDIO_VIDEO_VIDEO_MONITOR.. 0x0440 = AUDIO_VIDEO_VIDEO_CONFERENCING. 0x0448 = AUDIO_VIDEO_VIDEO_GAMING_TOY. 0x0700 = WEARABLE_UNCATEGORIZED. 0x0704 = WEARABLE_WRIST_WATCH. 0x0708 = WEARABLE_PAGER. 0x070C = WEARABLE_JACKET. 0x0710 = WEARABLE_HELMET. 0x0714 = WEARABLE_GLASSES. 0x0800 = TOY_UNCATEGORIZED. 0x0804 = TOY_ROBOT. 0x0808 = TOY_VEHICLE. 0x080C = TOY_DOLL_ACTION_FIGURE. 0x0810 = TOY_CONTROLLER. 0x0814 = TOY_GAME. 0x0900 = HEALTH_UNCATEGORIZED. 0x0904 = HEALTH_BLOOD_PRESSURE. 0x0908 = HEALTH_THERMOMETER. 0x090C = HEALTH_WEIGHING. 0x0910 = HEALTH_GLUCOSE. 0x0914 = HEALTH_PULSE_OXIMETER. 0x0918 = HEALTH_PULSE_RATE. 0x091C = HEALTH_DATA_DISPLAY. 0x0500 = PERIPHERAL_NON_KEYBOARD_NON_POINTING. 0x0540 = PERIPHERAL_KEYBOARD. 0x0580 = PERIPHERAL_POINTING. 0x05C0 = PERIPHERAL_KEYBOARD_POINTING.

Field Name	Description
IsConnected	Whether the Bluetooth peripheral is connected to the mobile device.
RSSI	The Received Signal Strength Indicator (RSSI).

2.6.5   BluetoothDeviceInfoExtra Data Points

Tells the type, pairing method, and action times of the Bluetooth peripheral registered on the mobile device.

Field Name	Description
DvcTyp	The type of Bluetooth peripheral: 1 = DEVICE_TYPE_CLASSIC, 2 = DEVICE
PinReq	The method used by the Bluetooth peripheral to pair with the mobile device: 0 = PAIRING_VARIANT_PIN. 1 = PAIRING_VARIANT_PASSKEY_CONFIRMATION.
Times	The times that various actions occurred for the Bluetooth peripheral. See the BluetoothDeviceInfoExtra.BluetoothTimes Data Points table below.

2.6.6   BluetoothDeviceInfoExtra.BluetoothTimes Data Points

The times that various actions occurred for the Bluetooth peripheral.

Field Name	Description
Conn	The time that the Bluetooth peripheral was connected to the mobile device.
Disconn	The time that the Bluetooth peripheral was disconnected from the mobile device.
Pair	The time that the Bluetooth peripheral was paired to the mobile device.
UnPair	The time that the Bluetooth peripheral was unpaired from the mobile device.

2.7 Android Crash Report

The Crash report contains information about apps that suddenly stop functioning.
Preloaded App Required Yes
Size Varies
Permissions Available only when the Asurion support app has been preloaded on the device, not when the support app has been downloaded by the device user.
Triggers This report is generated and transmitted according to the configurable dispatchFrequency below.
API Public
Configurable You can configure the following items for this report:

Name	Description	Default Value
enable	Whether to generate the report	Enabled
dispatchFrequency	How often to transmit the report to the server	8 hours
maxDataSizeInBytes	The maximum size of the report. This value is usually not changed.	Huge. In technical terms, it is Long.MAX
maxReportsToPersist	The maximum number of reports to keep on the device between transmissions	1

2.7.1 Crash Report Data Points

Field Name	Description
Time	The time of the crash.
Pid	The process identification of the app causing the crash.
Description	The description of the crash.
Process	The name of the process that caused the crash.
CallStacks	The part of the app, also known as call stack, and the associated data that caused the crash. See the DynamicDataAndCallStack Data Points table below.
Signature	Information from the part of the program that caused the crash.
Recurrences	The number of times that the crash occurred.
Make	The manufacturer or vendor of the device.
Model	The model name of the device as defined by the manufacturer or vendor.

Field Name	Description
OsVer	The version of the operating system, such as "5.0".
AppName	The user-familiar name of the application that caused the crash.
AppVersion	The version of the application that caused the crash.

2.7.2 DynamicDataAndCallStack Data Points

The part of the app, also known as call stack, and the associated data that caused the crash.

Field Name	Description
DynamicData	The data associated with the part of the app that caused the crash.
CallStacks	The part of the app that caused the crash.

2.8 Android Data Usage Report

The Data Usage report provides the data usage information such as bytes received and transmitted over mobile and Wi-Fi networks for each application.

Preloaded App Required No

Size The size depends on the applications launched and using the networks.

Permissions android.permission.ACCESS_NETWORK_STATE, android.permission.ACCESS_WIFI_STATE

Triggers When the network is changed from Wi-Fi to mobile, mobile to Wi-Fi, no network to mobile, no network to Wi-Fi. The network usage info is collected every one hour and is based on the configuration set by the application.

API Public

Configurable You can configure the following items for this report:

Name	Description	Default Value
enable	Whether to generate the report	Enabled
dispatchFrequency	How often to transmit the report to the server	8 hours
maxDataSizeInBytes	The maximum size of the report. This value is usually not changed.	Huge. In technical terms, it is Long.MAX
maxReportsToPersist	The maximum number of reports to keep on the device between transmissions	1

Name	Description	Default Value

2.8.1 Data Usage Report Data Points

Field Name	Description
LastDeviceBootTime	The number of bytes that the application received over the mobile network.
TotalBytesReceived	The time that the device was last powered-on.
TotalBytesTransmitted	The total number of bytes received over wifi, mobile, and other networks.
MobileBytesReceived	The number of bytes transmitted over wifi, mobile, and other networks.
MobileBytesTransmitted	The number of bytes that the application transmitted over the mobile network.
AppsUsageData	AppsUsageData reports the number of bytes that each application receives and transmits over Wi-Fi, mobile, or other networks. See the DataUsage Data Points table below.

2.8.2 DataUsage Data Points

AppsUsageData reports the number of bytes that each application receives and transmits over Wi-Fi, mobile, or other networks.

Field Name	Description
PackageName	Package name of the application.
BytesReceived	The number of bytes received over wifi, mobile, and other networks.
BytesTransmitted	The number of bytes transmitted over wifi, mobile, and other networks.

2.9 Android Network Usage Report

The NetworkUsage Report provides the network usage information such as bytes received and transmitted over mobile and Wi-Fi networks for each application.

Preloaded App Required No

Size The size depends on the applications launched and using the networks.

Permissions android.permission.ACCESS_NETWORK_STATE,
android.permission.ACCESS_WIFI_STATE

Triggers When the network is changed from Wi-Fi to mobile, mobile to Wi-Fi, no network to
mobile, no network to Wi-Fi. The network usage info is collected every one hour and is based on the
configuration set by the application.

API Public

Configurable You can configure the following items for this report:

Name	Description	Default Value
enable	Whether to generate the report	Enabled
collectionInterval	The frequency at which the report generates on the device	60 min
dispatchFrequency	How often to transmit the report to the server	8 hours
maxDataSizeInBytes	The maximum size of the report. This value is usually not changed.	Huge. In technical terms, it is Long.MAX
maxReportsToPersist	The maximum number of reports to keep on the device between transmissions	1

2.9.1   Network Usage Report Data Points

Field Name	Description
SinceTime	Time in milliseconds since the report was last sent.
DeviceMake	The manufacturer of the device.
DeviceModel	The end-user-visible name for the device.
OSVersion	The user-visible Android version, such as "5.0".
AppsUsageData	AppsUsageData reports the number of bytes that each application received and transmitted over Wi-Fi, mobile, or other networks. See the NetworkUsage Data Points table below.

2.9.2   NetworkUsage Data Points

AppsUsageData reports the number of bytes that each application receives and transmits over Wi-Fi,
mobile, or other networks.

Field Name	Description
PackageName	The unique identifier for an application, also known as the package name, assigned by the application creator, such as "com.facebook.katana".
ApplicationName	The name of the application, such as "Facebook".
MobileBytesReceived	The number of bytes that the application received over the mobile network.
MobileBytesTransmitted	The number of bytes that the application transmitted over the mobile network.
WifiBytesReceived	The number of bytes that the application received over the Wi-Fi network.
WifiBytesTransmitted	The number of bytes that the application transmitted over the Wi-Fi network.
OtherBytesReceived	The number of bytes that the application received over a network other than mobile or Wi-Fi.
OtherBytesTransmitted	The number of bytes that the application transmitted over a network other than mobile or Wi-Fi.

2.10   Android Overview Report

The Overview report collects mobile operator, storage, user-defined accounts, and the user's Google identifier from the device.

Preloaded App Required No

Size 500-600 bytes

Permissions android.permission.GET_ACCOUNTS

Triggers This report is generated and transmitted according to the configurable dispatchFrequency below.

API Private

Configurable You can configure the following items for this report:

Name	Description	Default Value
enable	Whether to generate the report	Enabled
dispatchFrequency	How often to transmit the report to the server	8 hours
maxDataSizeInBytes	The maximum size of the report. This value is usually not changed.	Huge. In technical terms, it is Long.MAX
maxReportsToPersist	The maximum number of reports to keep on the device between transmissions	1

2.10.1   Overview Report Data Points

Field Name	Description
AndroidId	A 64-bit number (as a hex string) that is randomly generated when the user first sets up the device and remains constant for the lifetime of the device.
GcmRegistrationId	The identifier used to generate a notification sent by the Google Cloud Messaging (GCM) service.
Accounts	A list of the types of accounts registered on the device. Types of accounts could be photos, video, email, and so on. See the Account Data Points table below.
OsVersion	The operating system and its version and codename running on the device. See the OsVersion Data Points table below.
Telephony	The network technology that the device is using and country and operator identifiers. See the Telephony Data Points table below.
Storage	The location and size of storage directories on the device. See the StorageInfo Data Points table below.
Culture	The language configured on the device.
Make	The manufacturer of the device.
Model	The end-user-visible name for the device.
AppPackageName	The technical identifier, the "package name", of the application, such as "com.facebook.katana".
AdvertisingId	The identifier assigned by Google Play services.

2.10.2   Account Data Points

Lists the types of accounts registered on the device. Types of accounts could be photos, video, email, and so on.

Field Name	Description
Type	The kind of account, such as photos, video, email, and so on.

2.10.3 OsVersion Data Points

Information about the operating system and its version and codename running on the device.

Field Name	Description
OsVersionRelease	The version of the operating system, such as "5.0".
OsVersionIncremental	The particular build of the version of the operating system.
OsVersionCodename	A human-specified name for the operating system. If the operating system is a release or production build, then the value is "REL".
OsVersionSdk	The user-visible SDK version of the framework.

2.10.4 Telephony Data Points

The network technology that the device is using and country and operator identifiers.

Field Name	Description
PhoneType	The network technology that the device is using: GSM, CDMA, or IMS (Session Internet Protocol).
NetworkType	Indicates the network type for current data connection, such as Wi-Fi or mobile.
NetworkOperatorNumericName	The mobile country code + mobile network code (MCC + MNC) of the current registered operator.
NetworkOperatorName	The alphabetic name of the current registered operator.
NetworkCountryIso	The International Organization for Standardization (ISO) country code equivalent of the current registered operator's mobile country code (MCC).
IsRoaming	Indicates whether the device is currently roaming on this network.
SimOperatorNumericName	The mobile country code + mobile network code (MCC + MNC) of the provider of the Subscriber Identity Module (SIM). 5 or 6 digits separated by a period.
SimOperatorName	The Service Provider Name (SPN).
SimCountryIso	The International Organization for Standardization (ISO) country code equivalent for the Subscriber Identity Module (SIM) provider's country code.

2.10.5   StorageInfo Data Points

The path and size of internal and external storage resources.

Field Name	Description
InternalStoragePath	The directory location of the internal storage on the device.
InternalStorageAvailable Bytes	The available internal storage space on the device.
InternalStorageTotalByte s	The total internal storage space on the device.
ExternalStoragePath	The directory location of the external storage path on the device, such as to an SD card.
ExternalStorageAvailable Bytes	The available external storage space on the device, such as on an SD card.
ExternalStorageTotalByte s	The total external storage space on the device, such as on an SD card.
SystemStorageTotalBytes	The total space used by the Android operating system.

2.11   Android Settings Report

The Settings report contains the basic user-enabled settings for the device.
Preloaded App Required No
Size 350-500 bytes
Permissions android.permission.ACCESS_WIFI_STATE,
android.permission.ACCESS_COARSE_LOCATION,
android.permission.ACCESS_FINE_LOCATION, android.permission.CHANGE_WIFI_STATE,
android.permission.BLUETOOTH, android.permission.READ_SYNC_SETTINGS
Triggers This report is generated and transmitted according to the configurable dispatchFrequency
below.
API Public
Configurable You can configure the following items for this report:

Name	Description	Default Value
enable	Whether to generate the report	Enabled
dispatchFrequency	How often to transmit the report to the server	8 hours
maxDataSizeInBytes	The maximum size of the report. This value is usually not changed.	Huge. In technical terms, it is Long.MAX
maxReportsToPersist	The maximum number of reports to keep on the device between transmissions	1

2.11.1 Settings Report Data Points

Field Name	Description
Bluetooth	Information about the Bluetooth adapter on the device. See the BluetoothAdapter Data Points table below.
Wifi	Information about the Wi-Fi adapter on the device. See the WifiAdapter Data Points table below.
AutoSync	The master setting that tells whether to dynamically keep all account data up to date with its server: * If this setting is disabled, no syncing will happen with any account. * If this setting is enabled, the user controls syncing per account.
Screen	Information about screen settings on the device. See the Screen Data Points table below.
GPSEnabled	Whether general Global Positioning System (GPS) location services are available to applications. For example, if this setting is disabled, maps applications cannot give directions.
IsMobileDataConnected	Whether data is being exchanged on the mobile network.
IsMobileDataRoamingEnabl ed	Whether data can be exchanged on the mobile network when the device is on roaming. For example, if this setting were disabled, a radio application would be able to run only on the enabled Wi-Fi network.
IsMobileDataEnabled	Whether data can be exchanged on the mobile network. For example, if this setting were disabled, a radio application would be able to run only on the enabled Wi-Fi network.
IsRoaming	Whether the device is currently operating on a different carrier network from its standard carrier.
IsGoogleLocationServiceE nabled	Whether Google Location Services is enabled. This is different from GPSEnabled location services, giving access to more location-based information about what is happening on the device or in an application.
UnknownSourcesEnabled	Whether applications can be installed from user-defined sources, such as the internal device storage, storage device (SD) card or computer.
hasEnrolledFingerprints	Whether the user enrolled for fingerprint authentication.

2.11.2   BluetoothAdapter Data Points

Information about the Bluetooth adapter on the device.

Field Name	Description
Mac	The Media Access Control (MAC) address to which the network connects to the device.
State	The operational state that the Bluetooth adapter is in: 10 = STATE_OFF. 11 = STATE_TURNING_ON. 12 = STATE_ON. 13 = STATE_TURNING_OFF. 14 = STATE_BLE_TURNING_ON 15 = STATE_BLE_ON. 16 = STATE_BLE_TURNING_OFF.
ScanMode	Whether the device is discoverable by other Bluetooth devices: 20 = SCAN_MODE_NONE. 21 = SCAN_MODE_CONNECTABLE, 23 = SCAN_MODE_CONNECTABLE_DISCOVERABLE.

2.11.3   WifiAdapter Data Points

Information about the Wi-Fi adapter on the device.

Field Name	Description
IsConnected	Whether the device is connected to the Wi-Fi network.
IsEnabled	Whether Wi-Fi is enabled on the device.
IsDiscovering	Whether the discovery process is searching for Wi-Fi networks or simply has the results of the process. * If enabled (IsEnabled) is enabled, and discovering (IsDiscovering) is True, it means that the device is searching for Wi-Fi networks. * If discovering (IsDiscovering) is False, it means that an access point scan has completed and results are available from the supplicant.

2.11.4   Screen Data Points

Information about the screen settings on the device.

Field Name	Description

2.12 Android Storage Report

The Storage report contains the amounts and locations of directory storage available and used on the device.
Preloaded App Required No
Size 1028 Bytes
Permissions android.permission.READ_EXTERNAL_STORAGE, android.permission.WRITE_EXTERNAL_STORAGE
Triggers This report is generated and transmitted according to the configurable dispatchFrequency below
API Public
Configurable You can configure the following items for this report:

Name	Description	Default Value
enable	Whether to generate the report	Enabled
dispatchFrequency	How often to transmit the report to the server	8 hours
maxDataSizeInBytes	The maximum size of the report. This value is usually not changed.	Huge. In technical terms, it is Long.MAX
maxReportsToPersist	The maximum number of reports to keep on the device between transmissions	1

2.12.1 Storage Report Data Points

Field Name	Description
GeneralStorageInfo	Overall storage information on the device. See the StorageInfo Data Points table below.
Directories	The list of directories on the device. See the DirectoryInfo Data Points table below.

2.12.2 StorageInfo Data Points

The path and size of internal and external storage resources.

Field Name	Description
InternalStoragePath	The directory location of the internal storage on the device.
InternalStorageAvailable Bytes	The available internal storage space on the device.
InternalStorageTotalByte s	The total internal storage space on the device.
ExternalStoragePath	The directory location of the external storage path on the device, such as to an SD card.
ExternalStorageAvailable Bytes	The available external storage space on the device, such as on an SD card.
ExternalStorageTotalByte s	The total external storage space on the device, such as on an SD card.
SystemStorageTotalBytes	The total space used by the Android operating system.

2.12.3   DirectoryInfo Data Points

DirectoryInfo consists of paths, sizes, and categories of directories on the device.

Field Name	Description
Path	The path of the directory on the device.
SizeInBytes	The size of the directory on the device.
CategoryName	The name for the type of items in the directory: Music, Movies, Pictures, Downloads, Ringtones.

2.13   Android Wifi Report

The Wi-Fi report tells about the Wi-Fi networks found, which network is in use, security, and signal strength.
Preloaded App Required No
Size Varies
Permissions android.permission.ACCESS_NETWORK_STATE,
android.permission.ACCESS_WIFI_STATE
Triggers When the network is changed from Wi-Fi to mobile, mobile to Wi-Fi, no network to mobile, no network to Wi-Fi. The network usage information is collected every one hour and transmission is based on the configuration set by the application.
API Public
Configurable You can configure the following items for this report:

Name	Description	Default Value
enable	Whether to generate the report	Enabled
dispatchFrequency	How often to transmit the report to the server	8 hours
maxDataSizeInBytes	The maximum size of the report. This value is usually not changed.	Huge. In technical terms, it is Long.MAX
maxReportsToPersist	The maximum number of reports to keep on the device between transmissions	1

2.13.1   Wifi Report Data Points

Field Name	Description
WifiSettings	Information about the Wi-Fi adapter on the device. See the WifiAdapter Data Points table below.
AvailableNetworks	The list of Wi-Fi networks found, which network is in use and its security and signal strength. See the WifiNetwork Data Points table below.

2.13.2   WifiAdapter Data Points

Information about the Wi-Fi adapter on the device.

Field Name	Description
IsConnected	Whether the device is connected to the Wi-Fi network.
IsEnabled	Whether Wi-Fi is enabled on the device.
IsDiscovering	Whether the discovery process is searching for Wi-Fi networks or simply has the results of the process. * If enabled (IsEnabled) is enabled, and discovering (IsDiscovering) is True, it means that the device is searching for Wi-Fi networks. * If discovering (IsDiscovering) is False, it means that an access point scan has completed and results are available from the supplicant.

2.13.3   WifiNetwork Data Points

The list of Wi-Fi networks found, which network is in use, security, and signal strength.

Field Name	Description
Name	The identifier assigned to the network.
SignalStrength	The strength of the signal in dBm.
SignalLevel	A number representing the quality of the signal: 4 = Excellent. 3 = Good. 2 = Fair. 1 = Poor.
Security	The type of security, such as WEP, configured for the network.
IsSecure	Whether the network has security configured.
IsCurrent	Whether the network is currently in use.

Chapter 3

iOS Telemetry Reports

DataSize Depends on the number and types of reports included, but usually about 2700 bytes.
Triggers

- AMATelemetryNotificationTrigger

  Can be any kind of system or custom notification trigger. This is registered at the app level.
  Ex: A system notification is fired when the user launches the app. The app can tell telemetry
  to listen for this notification and trigger a collection when it is fired.

- AMATelemetryLocationTrigger

  Triggers a collection when the user's location transfers to a different cell tower.

Configurable You can enable (default) or disable collecting the report.

3.1   iOS App Info Report Data Points

The App Info report provides metadata about the app, such as its state and permissions.

Field Name	Description
bundleId	Uniquely identifies each app.
versionNumber	Version number of the app.
appState	Current state of the app: * Active: The app is running in the foreground and receiving events. * Inactive: The app is running in the foreground, but is not receiving events. This might happen because of an interruption or because the app is transitioning to or from the background. * Background: The app is running in the background.

Field Name	Description
locationServicesStatus	Current status of location services permissions: * NotDetermined: The user did not set permissions for this app. * Restricted: This app is not authorized to use location services even if the user did not deny authorization. The user cannot change this status. * Denied: The user explicitly denied authorization for this app or location services are disabled in Settings. * AuthorizedAlways: User granted authorization to use location services at any time, including monitoring for regions, visits, or significant location changes. * AuthorizedWhenInUse: User granted authorization to use location services only when the app is visible to them. The app will be made visible to them if you continue to receive location updates while in the background. The user has not authorized the use of launch APIs.
pushNotificationsEnabled	Whether the user authorized push notification access.
photosAuthorizationStatu s	Current status of photo library permissions: * NotDetermined: The user did not set permissions for this app. * Restricted: This app is not authorized to access photo data. The user cannot change the status, possibly due to active restrictions such as parental controls being in place. * Denied: The user denied this app access to photos. * Authorized: The user authorized this app to access photos.

3.2   iOS Battery Report Data Points

The Battery Report contains information about the charging state and power level of the battery.

Field Name	Description
batteryLevel	A decimal number from 0, meaning no power, through 1, meaning full power, that represents the power level of the battery.
batteryState	The connection state of the device to its power source and charging activity of the battery. The values are: * Unknown: Whether the device is connected to power is unknown. * Unplugged: Power is not connected and the battery is discharging. * Charging: Power is connected and battery power is than 100%. * Full: Power is connected and battery power is 100

3.3   iOS Bluetooth Peripheral Data Points

The Bluetooth Peripheral report contains the list of peripherals and their connection state.

Field Name	Description
peripheralId	The unique, manufacturer-assigned identifier associated with the peripheral.
peripheralName	The manufacturer- or user-defined name of the peripheral.
peripheralState	The connection state of the peripheral: * Disconnected. * Connecting. * Connected. * Disconnecting.

3.4   iOS Bluetooth Report Data Points

The Bluetooth Report contains information about the Bluetooth service.

Field Name	Description
blueToothPeripherals	The list of nearby Bluetooth peripherals and their relationship to the "central" Bluetooth device such as the mobile phone.
bluetoothStatus	The state of the central device. The values are: * Unknown: Update is in process. * Resetting: The connection between the peripheral and the central device was momentarily lost, update is in process. * Unsupported: The device does not support the Bluetooth Low Energy Central/Client role. * Unauthorized: The application is not authorized to use the Bluetooth Low Energy Central/Client role. * PoweredOff: Bluetooth is currently powered-off. * PoweredOn: Bluetooth is currently powered-on and available to use.

3.5   iOS Contacts Report Data Points

The Contacts Report tells whether access to the contacts on the device was authorized and how many contacts exist.

Field Name	Description
contactCount	The total number of contacts on the device. Defaults to 0 if access to contacts is denied.
isAuthorized	Whether access to local contacts is authorized. Valid values are: * 1: Access is authorized. * 0: Access is denied.

3.6   iOS CPUReport Data Points

The CPU report contains information about the Central Processing Unit (CPU) usage.

Field Name	Description
system	Percent of CPU used while running system operations.
user	Percent of CPU used while running apps.
idle	Percent of time that one or more CPUs were idle and the system did not have an outstanding disk input or output request.
nice	Percent of CPU used while running apps with an assigned (technically, "nice") priority.

3.7   iOS Device Motion Reading Data Points

Device motion sensor readings.

Field Name	Description
roll	The roll of the device, in radians.
pitch	The pitch of the device, in radians.
yaw	The yaw of the device, in radians.
rotationRateX	The X-axis rotation rate in radians per second. The sign follows the right hand rule: If the right hand is wrapped around the X axis such that the tip of the thumb points toward positive X, a positive rotation is one toward the tips of the other four fingers.
rotationRateY	The Y-axis rotation rate in radians per second. The sign follows the right hand rule: If the right hand is wrapped around the Y axis such that the tip of the thumb points toward positive Y, a positive rotation is one toward the tips of the other four fingers.

Field Name	Description
rotationRateZ	The Z-axis rotation rate in radians per second. The sign follows the right hand rule: If the right hand is wrapped around the Z axis such that the tip of the thumb points toward positive Z, a positive rotation is one toward the tips of the other four fingers.
accelerationX	X-axis acceleration in G.
accelerationY	Y-axis acceleration in G.
accelerationZ	Z-axis acceleration in G.
magneticFieldAccuracy	Indicates the calibration accuracy of a magnetic field estimate.
magneticFieldX	X-axis magnetic field in microteslas.
magneticFieldY	Y-axis magnetic field in microteslas.
magneticFieldZ	Z-axis magnetic field in microteslas.
gravityX	X-axis gravity acceleration in G.
gravityY	Y-axis gravity acceleration in G.
gravityZ	Z-axis gravity acceleration in G.

3.8   iOS Device Motion Report Data Points

The Device Motion report contains information from device sensors.

Field Name	Description
readings	The list of device motion sensor readings.
accelerometerAvailable	Whether the accelerometer is available.
magnetometerAvailable	Whether the magnetometer is available.
gyroscopeAvailable	Whether the gyroscope is available.
deviceMotionAvailable	Whether device motion information is available.

3.9   iOS Device Settings Report Data Points

The Device Settings report contains user-definable settings.

Field Name	Description
deviceLocale	The locale, such as US Enginsh.
timeZoneName	The time zone nam, such as America/Chicago.
isDaylightSavings	Whether the device time zone reflects United States daylight savings time.
utcOffset	The number of hours of offset from UTC time.
touchIdSetup	Whether the user has setup Touch ID.
brightness	Screen brightness level between 0 and 1, where 0 is darkest and 1 is brightest.
systemVolume	Volume level between 0 and 1, where 0 is lowest and 1 is highest. This is independent of whether the device is set to silent mode.

3.10   iOS Itunes Media Report Data Points

The iTunes Media report contains information about audio files stored on the device.

Field Name	Description
audioFileCount	The total number of audio files.
audioSizeCalculationCoun t	The number of audio files included in the total size calculation.
audioFileAssetSize	The sizes of the largest and smallest audio files.

3.11   iOS Location Report Data Points

The Location report contains information about the location of the device.

Field Name	Description
altitude	The altitude of the location. Altitude can be positive, above sea level, or negative, below sea level.
horizontalAccuracy	The horizontal accuracy of the location. The value is negative if the lateral location is invalid.
verticalAccuracy	The vertical accuracy of the location. The value is negative if the lateral location is invalid.
latitude	Latitude.

Field Name	Description
longitude	Longitude.
course	The course of the location in degrees true North, from 0.0 degrees, true North, to 359.9 degrees. The value is negative if the course is invalid.
speed	The speed of the location in meters per second. The value is negative if the speed is invalid.

3.12 iOS Network Report Data Points

The Network report contains information about Wireless Wide area Network (WWAN) and Wi-Fi data usage on the device.

Field Name	Description
wwanReceived	The total number of bytes received on the WWAN since last power-on.
wwanSent	The total number of bytes sent on the WWAN since last power-on.
wifiReceived	The total number of bytes received over Wi-Fi since last power-on.
wifiSent	The total number of bytes sent over Wi-Fi since last power-on.
ssid	The name of the network that the device is using.
isOnWifi	Whether the device is on Wi-fi.
bssid	Router's mac address

3.13 iOS Photos Media Report Data Points

The Photos Media report contains the types of photos and videos, their total number, and storage amount on the device. Because photos and videos can consume so much storage, constructing this report can take longer than available processing time. For this reason, we may have to use the cumulative count and size of items to estimate the total used and available storage.

Field Name	Description
standardImageCount	The total number of standard images.

Field Name	Description
standardImageSize	The cumulative size in bytes of the number of standard images counted.
standardImageSizeCalculationCount	The cumulative number of standard images included in
burstImageCount	The total number of burst images.
burstImageSize	The cumulative size in bytes of the number of burst images counted.
burstImageSizeCalculationCount	The cumulative number of burst images included in
livePhotoImageCount	The total number of live photos.
livePhotoImageSize	The cumulative size in bytes of the number of live photos counted.
livePhotoImageSizeCalculationCount	The cumulative number of live photos included in
standardVideoCount	The total number of standard videos.
standardVideoSize	The cumulative size in bytes of the number of standard videos counted.
standardVideoSizeCalculationCount	The cumulative number of standard videos included in
highFrameRateVideoCount	The total number of high frame rate (slow motion) videos.
highFrameRateVideoSize	The cumulative size in bytes of the number of high frame rate (slow motion) counted.
highFrameRateVideoSizeCalculationCount	The cumulative number of standard videos included in

3.14   iOS Storage Report Data Points

The Storage report contains information about the amount of storage used on the device.

Field Name	Description
freeDiskSpace	Total remaining disk space in bytes.
reportedTotalDiskSpace	Total disk space in bytes.

3.15 iOS System Report Data Points

The System report contains information about the device hardware and operating system (OS).

Field Name	Description
deviceModel	The manufacturer-given name of the device model.
deviceName	The user-given name of the device.
os	The operating system: * iOS. * tvOS. * macOS. * watchOS.
osVersion	The release number of the operating system in the format of
uptime	Total time that the device has been running since last power-on.
hardwareModel	The manufacturer-given name of the hardware.
memoryUsage	The amount of memory in bytes used by applications.
cpuReport	Information from the CPU report.

3.16 iOS Telephony Report Data Points

The Telephony report contains information about the mobile service carrier and carrier settings for the device.

Field Name	Description
carrierName	Carrier-given name of the mobile service carrier.
mobileCountryCode	The mobile country code (MCC), used with the mobile network code (MNC, `mobileNetworkCode`) to uniquely identify a mobile service carrier network.
mobileNetworkCode	The mobile network code (MNC), used with the mobile country code (MCC, `mobileCountryCode`) to uniquely identify a mobile service carrier network.
isoCountryCode	Two-letter code that identifies a country or an area associated with it.
carrierAllowsVOIP	Whether the carrier allows Voice Over IP (VoIP).
radioAccessTechType	Radio Access Technology: * 2G. * 3G. * LTE. * N/A.

3.17   iOS Watch Report Data Points

The Watch report tells whether the device is paired with an iWatch.

Field Name	Description
isPaired	Whether the device is paired with an iWatch.

Chapter 4

References

- White paper: *Data-Driven Personalized Engagement*

- *Asurion Data-Driven Insights Revealed* (under construction)

- *Telemetry Reference*, an online resource for internal use only (under construction)