Information about product data and data related to connected services pursuant to Art. 3 II EU Data Act

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1. Connected products pursuant to Art. 2 No. 5 EU Data Act

LANCOM Systems provides numerous ways to access the data generated by the devices and offers secure access paths, standard protocols, and programming interfaces for this purpose.

The following overview contains lists of this data depending on the operating system of your LANCOM products.

Further information on the respective applications, statistics, functions, and protocols can be found in the corresponding product documentation, reference manuals, and LANCOM Knowledge Base articles, among other places.

LANCOM devices with LCOS firmware

In general, almost all data collected by LANCOM devices can be read out via SNMP. The corresponding MIB[1] is available for download from LANCOM Systems together with the related menu reference documentation.

Tabular overview of the available usage data in devices with LCOS firmware:

Data type	Data format	Estimated scope	Real-time data generation	Storage location	Storage period	Access options for the user
Latest admin logins	Table	< 1 MB	No	RAM, flash memory	Persistent	CLI table: '/Status/Last-Admin-Logins' and via WEBconfig and SNMP
Event log	Table	< 1 MB	No	RAM, flash memory	Persistent	CLI table: '/Status/Config/Event-Log' and via WEBconfig and SNMP
Syslog	Table	< 3 MB	No	RAM, flash memory	Persistent	CLI table: '/Status/Syslog/Last-Messages' and via WEBconfig and SNMP
Console history	List	< 1 MB	No	RAM, flash memory	Persistent	CLI command: 'history'
RADIUS accounting	Table	< 1 MB	Yes	RAM, flash memory	Persistent	CLI table: '/Status/TCP-IP/RADIUS-Server/Accounting/Accounting-Total' and via WEBconfig and SNMP

1 A Management Information Base (MIB) is a machine-readable collection of structured information that SNMP uses to monitor and manage network devices. It defines objects and their properties that are provided by devices, enabling their status and performance to be queried and monitored.

Data type	Data format	Estimated scope	Real-time data generation	Storage location	Storage period	Access options for the user
GPS information (only devices with GPS)	List	< 1 MB	Yes	RAM	Not persistent	CLI table: '/Status/GPS' and via WEBconfig and SNMP
Volume budget	Table	< 1 MB	Yes	RAM, flash memory	Persistent	CLI table: '/Status/Charging/ Volume-Budgets' and via WEBconfig and SNMP
Automatic firmware update	Table	< 1 MB	No	RAM, flash memory	Persistent	LI table: '/Status/Automatic-Firmware-Update' and via WEBconfig and SNMP
Netflow	Data export		Yes	RAM, flash memory	Persistent	Data export to external monitoring systems
Bootlog	specific log	< 1 MB	No	RAM, flash memory	Persistent	CLI command: 'show bootlog' and via WEBconfig
Phone calls (VCM) (Voice Call Manager must be available on the device)	Table	< 1 MB	No	RAM, flash memory	Persistent	CLI table: '/Status/Voice-Call-Manager/ Calls'
Device temperature limits	Table	< 1 MB	No	RAM, flash memory	Persistent	CLI table: '/Status/Temperature-Monitor/ Extremes' and via WEBconfig and SNMP
Layer 7 app detection	Table	< 1 MB	Yes	RAM, flash memory	Persistent	CLI table: '/Status/Layer-7-App-Detection' and via WEBconfig and SNMP
Wi-Fi module information (only Wi-Fi devices)	Text files	< 1 MB	No	Flash memory	Persistent	SCP download of the files 'wlandata0' or 'wlandata1' ('/Status/File-System/ Contents')
iPerf	Table	< 1 MB	No	RAM, flash memory	Persistent	CLI table: '/Status/iPerf' and via WEBconfig and SNMP
Fidelio/PMS accounting (PMS option must be activated)	Table	< 1 MB	Yes	RAM, flash memory	Persistent	CLI table: '/Status/PMS-Interface/ Accounting' and via WEBconfig and SNMP
Recently used DHCPv4 servers	Table	< 1 MB	No	RAM, flash memory	Persistent	CLI table: '/Status/DHCP-Client' and via WEBconfig and SNMP

Data type	Data format	Estimated scope	Real-time data generation	Storage location	Storage period	Access options for the user
DSL connection history (only devices with xDSL modem)	Table	< 1 MB	No	RAM, flash memory	Persistent	CLI table per modem, e.g.: '/Status/xDSL/VDSL1/Connection-history' and via WEBconfig and SNMP
Overview of available WWAN networks (only devices with mobile radio)	Table	< 1 MB	No	RAM, flash memory	Persistent	CLI table per modem, e.g.: '/Status/Modem-Mobile/Network-List' and via WEBconfig and SNMP
WWAN EIDs (only devices with mobile radio)	List	< 1 MB	No	Flash memory	Persistent	CLI command: 'show sysinfo'
Wi-Fi crash log (only Wi-Fi devices)	Dump file	< 1 MB	No	Flash memory	Persistent	SCP download of the files 'wlanerrordata0' or 'wlanerrordata1' ('/Status/File-System/Contents')
Debug information on blocked LCOS jobs	Text file	< 1 MB	No	Flash memory	Persistent	CLI command: 'show bootlog' and via WEBconfig

LANCOM devices with LCOS LX firmware

In general, almost all data collected by LANCOM access points can be read via SNMP. The corresponding MIBs[1] are supplied from LANCOM Systems for download together with the related firmware, depending on the device model.

Tabular overview of the available usage data in devices with LCOS LX firmware:

Data type	Data format	Esstimated scope	Real-time data generation	Storage location	Storage period	Access options for the user
General log file	Text file with general log information	1 MB	Yes	RAM, flash memory	Ring buffer with 1024 lines	CLI command: 'show diag logs'
Wi-Fi client information	Table	< 1 MB	No	RAM	Not persistent	CLI table: '/Status/WLAN/Station-Table' and via WEBconfig and SNMP
List of the broadcast Wi-Fi networks and their configuration	Table	< 1 MB	No	RAM	Not persistent	CLI table: '/Status/WLAN/Interfaces' and via WEBconfig and SNMP
Information on wireless radio	Table	< 1 MB	No	RAM	Not persistent	CLI table: '/Status/WLAN/Radios' and via WEBconfig and SNMP
Information on neighboring IAPP-enabled access points	Table	< 1 MB	No	RAM	Not persistent	CLI table: '/Status/WLAN/IAPP-Table' and via WEBconfig and SNMP
Status information on client management	Table	< 1 MB	No	RAM	Not persistent	CLI table: '/Status/WLAN/Client-Management' and via SNMP
Information about clients of broadcast hotspot networks	Table	< 1 MB	No	RAM	Not persistent	CLI table: '/Status/WLAN/Hotspots/Hotspots' and via SNMP
Wireless Distribution System (WDS) status information	Table	< 1 MB	No	RAM	Not persistent	CLI tables: '/Status/WLAN/WDS', '/Status/WLAN/WDS/Links' and via SNMP
IP configuration status, LAN port status	Table	< 1 MB	Yes	RAM	Not persistent	CLI tables: '/Status/IP-Configuration', '/Status/LAN' and via WEBconfig and SNMP

1 A Management Information Base (MIB) is a machine-readable collection of structured information that SNMP uses to monitor and manage network devices. It defines objects and their properties that are provided by devices, enabling their status and performance to be queried and monitored.

Data type	Data format	Esstimated scope	Real-time data generation	Storage location	Storage period	Access options for the user
Status of bridge interfaces, bridge forwarding table including addresses of connected clients	Table	< 1 MB	No	RAM	Not persistent	CLI tables: '/Status/Bridge' and via SNMP
Detected BLE clients	Table	< 1 MB	No	RAM	Not persistent	CLI tables: '/Status/LBS/BLE-Scan-Results' and via WEBconfig and SNMP
Information about the connected ESL server	Table	< 1 MB	No	RAM	Not persistent	CLI table: '/Status/IoT/Wireless-ePaper' and via WEBconfig and SNMP
Status of L2TP tunnels/ connections	Table	< 1 MB	Yes	RAM	Not persistent	CLI tables: '/Status/L2TP/ Ethernet', '/Status/L2TP/ Endpoints' and via WEBconfig and SNMP
Mounting position of the AP (only for models with accelerometer)	Table	< 1 MB	Yes	RAM	Not persistent	CLI scalars: '/Status/ Hardware-Info/ Mounting-Type', '/Status/ Hardware-Info/ Mounting-Angle' and via WEBconfig and SNMP
Information about automatic firmware updates	Table	< 1 MB	No	RAM	Not persistent	CLI table: '/Status/Automatic-Firmware-Update' and via WEBconfig and SNMP.
Status information for the LMC client	Table	< 1 MB	Yes	RAM	Not persistent	CLI table: '/Status/LMC' and via WEBconfig and SNMP
Status information from the SNMP service	Table	< 1 MB	Yes	RAM	Not persistent	CLI table: '/Status/SNMP'
Status information about the rollout agent	Table	< 1 MB		RAM	Not persistent	CLI table: '/Status/ Rollout-Agent' and via SNMP
Connected USB devices	Table	< 1 MB	Yes	RAM	Not persistent	CLI table: '/Status/USB/Devices' and via WEBconfig and SNMP
Syslog	Table	< 1 MB (provides the last 500 lines of the syslog)	No	RAM, flash memory	Not persistent	CLI table: '/Status/Syslog/ Last-Messages' and via WEBconfig and SNMP

Data type	Data format	Esstimated scope	Real-time data generation	Storage location	Storage period	Access options for the user
Overview of nearby Wi-Fi networks	Table	< 1 MB	Yes	RAM	Not persistent	CLI tables: '/Status/WLAN/Environment-Scan-Results', '/Status/WLAN/Competing-Networks' and via WEBconfig and SNMP
Information about the device's power supply	Table	< 1 MB	Yes	RAM	Not persistent	CLI table: '/Status/Hardware-Info/Power' and via WEBconfig and SNMP

LANCOM devices with LCOS SX firmware

In general, almost all data collected by LANCOM switches can be read out via SNMP. The corresponding MIBs[1] are supplied from LANCOM Systems for download together with the related firmware, depending on the device model. There are numerous SNMP-based monitoring solutions, such as PRTG or Nagios. The data sent to the LMC when using the LANCOM Management Cloud can also be read via SNMP. All data points that potentially apply to the EU Data Act and are already included in the MIB are not explicitly listed here.

Persistent data can be retrieved using the following commands:

→ LCOS SX 4.xx: <show eventlog>, <show tech-support>, <show bootlog>

→ LCOS SX 5.xx: <show tech-support>

Tabular overview of additional usage data in devices with LCOS SX firmware:

Data type	Data format	Estimated scope	Real-time data generation	Storage location	Storage period	Access options for the user
Software and firmware update data eventlog	Text file with general log information	< 1 MB	Yes	Flash memory	Ring buffer	CLI command: ‚show eventlog'
Diagnostic and troubleshooting data bootlog	Text file with general log information	< 1 MB	Yes	Flash memory	Ring buffer	CLI commands: ‚show bootlog', ‚show tech-support'

1 A Management Information Base (MIB) is a machine-readable collection of structured information that SNMP uses to monitor and manage network devices. It defines objects and their properties that are provided by devices, enabling their status and performance to be queried and monitored.

LANCOM devices with LCOS FX firmware

This chapter provides an overview of the data processed by LCOS FX, how it is stored, and how users can access it. First, here is some general information about data formats, data storage, and access options. The type, amount, and effective storage duration of the data collected depend primarily on the user configuration and the exact conditions of use of the device. If external systems are used for storage, no statements can be made about them.

Explanations of data formats and associated implications

Unless otherwise specified in the overview of the processed data, the following implications apply to the data formats listed:

Data format	Description / Features	Estimated scope	Storage location	Storage period
Journal	Linux system log. Discarded upon reboot. Allows data to be retrieved in various output formats (e.g., plain text, JSON). Older data is discarded in favor of newer data.	Up to approx. 100 MB	RAM, disk	Approximately 1 to infinite days. Depending on the amount of data regularly collected. Depending on the configuration and use of the device, old data will be deleted sooner or later (except for audit logs), but no later than when the firmware is updated to a new major or minor version.
Table	PostgresSQL database. Discarded during upgrade/ reinstallation. The hard disk size depends on the device. Storage duration is unlimited. Alert and audit log entries also contain the associated metadata in structured form.	Regular: up to approx. 7 GB Exceptional cases: up to approx. 14 GB In case of error: All free hard disk space	RAM, disk	Approximately 1 to infinite days. Depending on the amount of data regularly collected. Depending on the configuration and use of the device, old data will be deleted sooner or later (except for audit logs), but no later than when the firmware is updated to a new major or minor version.
Statistics	Depending on the user's firewall configuration, certain events can be included in anonymous or IP-specific statistics. These can then be accessed via the API or the web client.	Configuration-dependent KB to MB	RAM, disk	Last 24 hours: aggregated per hour, last 4 weeks: aggregated per day, last 12 months: aggregated per month.
Config	Configuration file, mostly JSON	Typically < 1 MB	RAM, disk	Unlimited
Log file	Log files stored separately in the file system. Typically rotated by logrotate (regularly: daily or when 50 MB is reached, retaining 7 logs). No standardized format.	Typically < 350 MB	Disk	Unlimited until major/minor version upgrade

Explanations regarding access options

This table explains the possible types of access to the data collected.

Accessibility	Description
Shell	Data is accessible (after login) via console/SSH. This applies to all data.
Webclient / API	Data can be accessed via web client or API. API documentation is available via the web client (under 'Help') or directly at the URL '/doc/api'.
Ext. syslog	Data may be transferred to external syslog servers set up by the user.
SNMP	If SNMP is enabled, data or a subset thereof can be read via SNMP. Data that can be retrieved via SNMP can also be retrieved by the LMC, even if SNMP is disabled. The corresponding MIBs are available in the firewall license portal under 'Downloads'.
LMC	If configured accordingly by the user, data is sent to the LMC ONELog interface. Possible for alerts from LCOS FX 10.13 RelI onwards. Also possible for general journal from LCOS FX 11.2 RelI onwards.

Overview of data generated

This table provides an overview of the data collected.

Data type	Data format	Estimated scope	Real-time data generation	Storage location	Storage period	Access options for the user
Web client / API session	Table	MB	Yes	See page 9	Unlimited until major/ minor version upgrade	Shell Webclient / API Ext. syslog LMC SNMP
Shell session	Log files	KB to MB	Yes	RAM, Disk	Unlimited until major/ minor version upgrade	Shell, for login events additionally: Webclient / API Ext. syslog LMC
External portal session	Journal Table	See page 9	Yes	See page 9	See page 9	Shell Webclient / API Ext. syslog LMC
Internal portal / UA client session	Journal Table	See page 9	Yes	See page 9	See page 9	Shell Webclient / API Ext. syslog LMC
SSO / Kerberos	Journal Table	See page 9	Yes	See page 9	See page 9	Shell Webclient / API Ext. syslog LMC
Blocked connections	Journal Table statistics	See page 9	Yes	See page 9	See page 9	Shell Webclient / API Ext. syslog SNMP LMC

Data type	Data format	Estimated scope	Real-time data generation	Storage location	Storage period	Access options for the user
E-mail filtering	Journal Table statistics	See page 9	Yes	See page 9	See page 9	Shell Webclient / API Ext. syslog SNMP LMC
Network configuration	Config	KB to MB	Yes	RAM, disk	See page 9	Shell Webclient / API SNMP LMC
Permitted connections	Journal Table Statistics	See page 9	Yes	See page 9	See page 9	Shell Webclient / API Ext. syslog LMC
SICCT proxy[1]	Journal Log files	See page 9	Yes	See page 9	See page 9	Shell
Domains accessed (web traffic)	Journal Table Statistics	See page 9	Yes	See page 9	See page 9	Shell Webclient / API Ext. syslog LMC
VPN connection status	Journal Table Statistics Log files	See page 9	Yes	See page 9	See page 9	Shell Webclient / API Ext. syslog LMC
Interface / Network status	Journal Table Log files	See page 9	Yes	See page 9	See page 9	Shell Webclient / API Ext. syslog SNMP LMC
Reverse Proxy	Table Log files	See page 9	Yes	See page 9	See page 9	Shell Webclient / API Ext. syslog LMC
Mobile radio settings[2]	Config	See page 9	Yes	See page 9	See page 9	Shell Webclient / API
Mobile radio metrics[2]	Journal Config	See page 9	Yes	See page 9	See page 9	Shell Webclient / API
Firmware status	Journal Table Config	See page 9	Yes	See page 9	See page 9	Shell Webclient / API Ext. syslog SNMP LMC
Debug logs[3]	Journal Log files	See page 9	Yes	See page 9	See page 9	Shell
General system logs	Journal Table Log files	See page 9	Yes	See page 9	See page 9	Shell Webclient / API Ext. syslog LMC
Hardware and system monitoring	Mixed	See page 9	Yes	RAM	See page 9	Shell Webclient / API

1 If present in the firmware
2 Only for devices with a mobile radio modem
3 Debug data is only recorded if recording has been manually activated on the shell before.

Data type	Data format	Estimated scope	Real-time data generation	Storage location	Storage period	Access options for the user
Sysweep[1]	Mixed	See page 9	No	Disk	When created manually on the firewall: Unlimited up to major/ minor version upgrade. When provided for error diagnosis: unlimited	Shell Sysweep server if initiated by user
Temperatures	Numbers values	See page 9	Yes	RAM	Seconds	Shell SNMP
Uptime	Numbers values	See page 9	Yes	RAM	n/a	Shell Webclient / API SNMP
Additional hardware data	Mixed	See page 9	Yes	RAM, disk	Maximum up to major/minor version upgrade	Shell SNMP

1 A Sysweep archive can either be created from the shell and is then available on the device's file system, or it can be created by the user via the web client, assigned to a LANCOM support ticket, and transferred to the LANCOM Sysweep server to assist with problem analysis. In the latter case, no copy of the data remains on the device and it is stored on the Sysweep server until further notice. The user can request deletion at any time.

2. Related services pursuant to Art. 2 No. 6 EU Data Act

LANCOM Management Cloud (LMC)

The LANCOM Management Cloud allows authorized users to access API functions for retrieving usage data. You can find a detailed description of this in the LANCOM Systems Knowledge Base.

Tabular overview of the usage data in the LANCOM Management Cloud:

Data type	Data format	Estimated scope	Real-time data generation	Storage location	Storage period	Access options for the user
Customer master record	Table	< 1 MB	No	SQL database LMC	Persistent	LMC WebUI
Operational customer data	Data objects	< 1 MB	Yes	RAM	Not persistent	WebUI (partially), Retrieval via LMC API (see description for accessing API functions)
Access data Infrastructure customers	Data objects	< 1 MB	No	SQL database LMC (encrypted)	Persistent	WebUI, LMC API
LMC device key	Data object	< 1 MB	No	In the device / SQL database	Persistent	LMC API (read only)
Internal device key	Data object	< 1 MB	No	In the device	Persistent	LMC API (read only)
LMC device certificate	Data object	< 1 MB	No	In the device / SQL database	Persistent	LMC API (read only)
LMC device PIN	Data object	< 1 MB	No	In the device / SQL database	Persistent	LMC API (read only)
Customer profile and LMC settings	Table / list	< 1 MB	No	SQL database LMC	Persistent	LMC API, WebUI (partially)
LMC log data	Table / log	> 1 MB	Yes	SQL database (device logs), internal LMC log database	Persistent	LMC API, WebUI (partially)
LMC backups	Specific backup format	> 100 GB	No	Internal E3-comp. memory	Persistent	WebUI
IT backups	Specific backup format	> 10 GB	No	Internal high-availability storage	Persistent	Upon request for restoration in an emergency
Test data customers	Table	< 100 MB	No	SQL database LMC	Not persistent	LMC API, WebUI, data import
Operating and usage data	Data objects	< 1 MB	Yes	RAM / SQL database LMC, Kafka	Persistent, Kafka: Not persistent	LMC API (only customer data, no operating data)

Data type	Data format	Estimated scope	Real-time data generation	Storage location	Storage period	Access options for the user
PIN list support	List	< 1 MB	No	Support Jira / support database	Persistent	In consultation / support case
Help and Troubleshooting database support	Internal database	< 100 GB	No	Support database	Persistent	In consultation / support case
Support / case Information	Internal database (Jira)		No	Support Jira / support database	Persistent	In consultation / support case
Support / internal analysis data support	Internal database (Jira)		No	Support Jira / support database	Persistent	In consultation / support case
Customer analysis data	Table	< 1 MB	Yes	RAM / LMC database	Not persistent / persistent	LMC API

Further information on data owners and communication in accordance with Art. 3 III EU Data Act

LANCOM Systems GmbH, Adenauerstrasse 20 / B2, 52146 Wuerselen, Germany, uses the data as the data owner to improve its own services and products. Enquiries regarding activities under the EU Data Act can be addressed via the service portal.

You have the right to lodge a complaint with the Federal Network Agency as the competent authority for violations of the Data Act.

LANCOM Systems is not the owner of any trade secrets via the connected service or the connected devices.

The duration of the contract with the data owner is based on the actual period of use of the LANCOM Management Cloud, regardless of licensing.

This document does not apply to the LANCOM Management Cloud (Private) operated by third parties.

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