LANCOM Active Power Control

Objectives of Active Power Control (APC)

LANCOM Active Power Control (APC) is a software solution that provides LMC administrators with tools to efficiently monitor, manage, and optimize the energy consumption of LANCOM network equipment—directly from the LANCOM Management Cloud.

APC pursues two goals: First, to offer a central platform that enables administrators to configure the energy-saving functions of the devices as needed. Second, to provide detailed insights into project energy consumption, broken down by sites and device types, to facilitate informed decisions about the network's energy management.
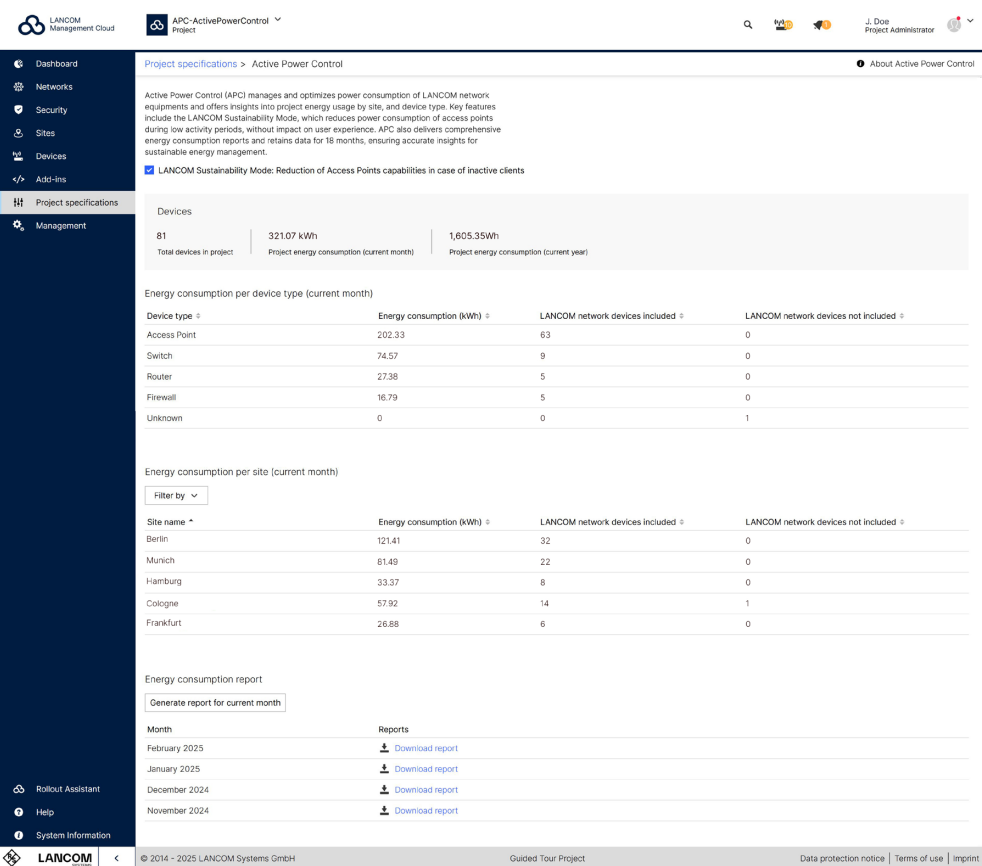

Figure 1:
Overview of energy consumption

Intelligent energy-saving function for access points

APC offers the energy-saving feature "LANCOM Sustainability Mode". This mode intelligently reduces the number of antennas used by access points during periods of low client traffic, both for transmission and reception. This lowers power consumption without compromising performance, ensuring that the connection to the access point is maintained at all times and that the Wi-Fi range remains unaffected. All configured SSIDs continue to be broadcast.

Newly created projects have the LANCOM Sustainability Mode enabled by default. To deactivate the energy-saving feature, the corresponding option can be deselected.

(i) Note: Any change automatically triggers the creation of a new configuration, applicable for all compatible access points in the project.

Energy consumption overview and calculation methods

APC provides a comprehensive overview of energy consumption and enables analyses at various levels, such as by project, site, and device type. Monthly and yearly views of energy consumption help identify trends and opportunities for improvement.

Widgets offer a quick overview of key energy consumption metrics, while detailed reports in Excel format can be downloaded for deeper analysis. These reports include only LANCOM devices with an active connection to the LMC, ensuring that the data accurately reflects the current operational status of the network.

APC distinguishes between different measurement methods. The most accurate measurements come from devices with an integrated power meter, where energy consumption is recorded at a sampling rate of one minute. For devices without an integrated power meter, energy consumption is estimated based on the idle power consumption and the measured online time of the devices. Older models that have neither measured nor estimated power data are recorded with a consumption of 0 kWh. A list of compatible devices can be found in the appendix.

Additionally, energy data is stored for 18 months, even if a site or device is deleted, to ensure the accuracy of reports at the project level.

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> (i) Note: For simplicity, the energy consumption widgets display only the values for the current month and exclude data from unassigned devices as well as from deleted sites. However, all details remain fully visible in the Excel monthly consumption reports.

Detailed device data and visualizations are available in the energy consumption reports for more in-depth analysis.
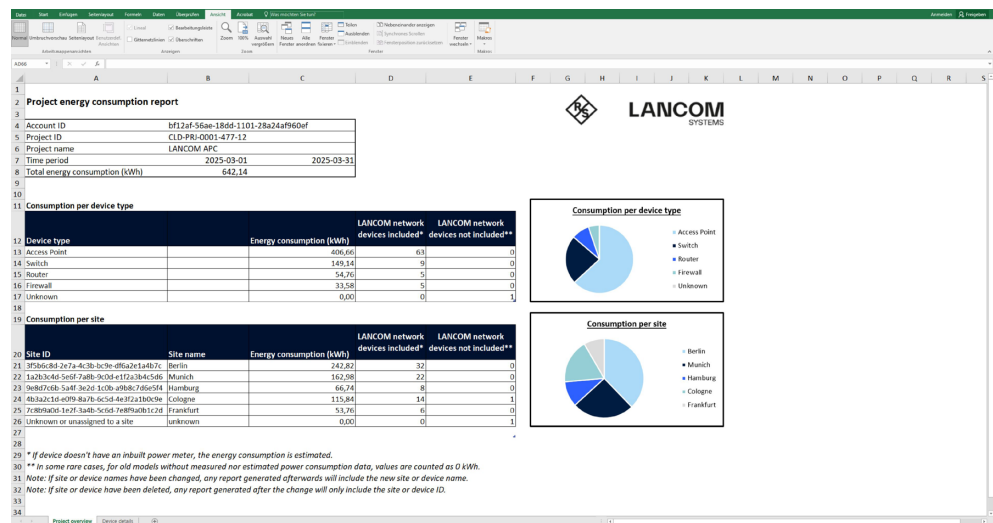

Figure 2:
Energy consumption report

Stay tuned

With Active Power Control, companies can maintain control over their network's energy consumption. By leveraging features such as the LANCOM Sustainability Mode and accessing detailed insights into energy consumption, significant progress can be made towards more sustainable and cost-efficient operations.

Future enhancements will further improve the ability to effectively manage energy consumption and provide additional innovative functions. Look forward to future updates with additional energy-saving features, deeper insights into energy reports, and new energy-saving models.

Appendix

Devices with internal power meter

Access points

LANCOM LX-7300, LANCOM LX-7500

Devices with estimated power consumption

Access points

LANCOM LX-6200, LANCOM LX-6200E, LANCOM LX-6400, LANCOM LX-6402,
LANCOM LX-6500, LANCOM LX-6500E

LANCOM LW-500, LANCOM LW-600

LANCOM LN-630acn, LANCOM LN-830acn, LANCOM LN-830E, LANCOM LN-830U,
LANCOM LN-860, LANCOM LN-1700, LANCOM LN-1700B, LANCOM LN 1700UE,
LANCOM LN-1702B

LANCOM L-322, LANCOM L-822acn, LANCOM L-862

LANCOM IAP-821, LANCOM IAP-822

LANCOM OAP-821, LANCOM OAP-822, LANCOM OAP-830

Switches

LANCOM CS-8132F

LANCOM GS-2310, LANCOM GS-2310P+, LANCOM GS-2326+, LANCOM GS-2326P+,
LANCOM GS-2328, LANCOM GS-2328F, LANCOM GS-2328P, LANCOM GS-2352,
LANCOM GS-2352P, LANCOM GS-3126X, LANCOM GS-3126XP, LANCOM GS-3152P,
LANCOM GS-3152X, LANCOM GS-3152XP, LANCOM GS-3152XSP, LANCOM GS-3252P,
LANCOM GS-3510XP, LANCOM GS-3528X, LANCOM GS-3528XP, LANCOM GS-3528XUP,
LANCOM GS-3628X, LANCOM GS-3628XP, LANCOM GS-3628XUP, LANCOM GS-3652X,
LANCOM GS-3652XP, LANCOM GS-3652XUP, LANCOM GS-4530X, LANCOM GS-4530XP,
LANCOM GS-4530XUP, LANCOM GS-4554X, LANCOM GS-4554XP, LANCOM GS-4554XUP

LANCOM IGS-3510XUP

LANCOM XS-3510YUP, LANCOM XS-3526YUP, LANCOM XS-3550YUP, LANCOM XS-4530YUP,
LANCOM XS-4554YUP, LANCOM XS-5110F, LANCOM XS-5116QF, LANCOM XS-6128QF

LANCOM YS-7154CF

Routers

LANCOM 730-4G+, LANCOM 730VA, LANCOM 750-5G, LANCOM 883+,
LANCOM 883 VoIP over ISDN, LANCOM 884 VoIP, LANCOM 1640E, LANCOM 1650E,
LANCOM 1780EW-4G+, LANCOM 1781VA, LANCOM 1783VA, LANCOM 1783VAW,
LANCOM 1784VA (over ISDN), LANCOM 1790-4G, LANCOM 1790-4G+, LANCOM 1790EF,
LANCOM 1790VA, LANCOM 1790VA-4G+, LANCOM 1790VAW, LANCOM 1793VA,
LANCOM 1793VA-4G, LANCOM 1793VA-4G+, LANCOM 1793VAW, LANCOM 1800EF,
LANCOM 1800EF-4G, LANCOM 1800EF-5G, LANCOM 1800EFW, LANCOM 1800EFW-5G,
LANCOM 1800EFW-5G, LANCOM 1800VA, LANCOM 1800VA-4G, LANCOM 1800VA-5G,
LANCOM 1800VAW, LANCOM 1800VAW-4G, LANCOM 1803VA, LANCOM 1803VA-4G,
LANCOM 1803VA-5G, LANCOM 1803VAW, LANCOM 1803VAW-5G, LANCOM 1900EF,
LANCOM 1900EF-5G, LANCOM 1906VA, LANCOM 1906VA-4G, LANCOM 1926VAG,
LANCOM 1926VAG-4G, LANCOM 1926VAG-5G, LANCOM 1930EF, LANCOM 2100EF

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Routers

LANCOM IAP-4G+, LANCOM IAP-5G

LANCOM ISG-1000, LANCOM ISG-4000, LANCOM ISG-5000, LANCOM ISG-8000

LANCOM R883+, LANCOM R884VA, LANCOM R903

Unified Firewalls

LANCOM R&S®UF-60, LANCOM R&S®UF-60 LTE, LANCOM R&S®UF-T60,
LANCOM R&S®UF-100, LANCOM R&S®UF-160, LANCOM R&S®UF-200, LANCOM R&S®UF-260,
LANCOM R&S®UF-360, LANCOM R&S®UF-500, LANCOM R&S®UF-760,
LANCOM R&S®UF-1060