Information on the

LMC Software Release 1.00.3.19.3.0

LANCOM Systems GmbH
Adenauerstrasse 20 / B2
52146 Wuerselen
Germany

Internet: http://www.lancom-systems.com

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1. Introduction

The LANCOM Management Cloud (LMC) is the new benchmark for innovative, future-proof and automated network management and monitoring. By leveraging software-defined networking, the LMC is a solution that makes even complex networking scenarios easy to manage by significantly reducing the amount of work and the costs involved.

The LMC Public Cloud is available at https://cloud.lancom.de and is regularly updated with new features and bug fixes.

This document describes the new features of the LMC software release 1.00.3.19.3.0, as well as the changes to the previous release.

2. New features, changes, and history

LANCOM Management Cloud 1.00.3.15.50.0 ► 1.00.3.19.3.0 / 20.02.2018

New Features

> The active and inactive services (e.g. SSH, HTTP, SNMPv2) of a device are now shown in the individual device monitoring, including additional information about the ports and interfaces on which the services are accessible. It is possible to filter and sort for all properties.
> The DHCP clients table is now shown for devices with enabled DHCP server in the individual device monitoring. It is possible to filter and sort for all properties.
> Devices which are added to a project can now be allocated to a site, depending on their internal IP address. Provided that a unique IP subnet has been allocated to each site, the device's site can be determined by its allocated IP address.

Further improvements

> On the site selection dashboard it is now possible to search for a particular site.
> The selected site on the dashboard is now saved when leaving the dashboard.
> The selected map view (street / satellite) is now saved when leaving the dashboard.
> The name of a network can now be changed.
> The name of a site can now be changed.
> Miscellaneous detail improvements for the user interface

Bug fixes

> Miscellaneous internal performance- and stability improvements in the monitoring section
> Inconsistencies between the dashboard widgets for Wi-Fi users and Wi-Fi throughput have been fixed.
> The VPN dashboard displayed an inaccurate number of VPN connections in particular cases.
> The selected amount of devices which have to be shown in the device list is now stored properly.
> After having successfully added a license key to the license pool, the corresponding dialogue closes without problems.
> An issue with the display of the automatic port labeling in the individual device monitoring for switches has been fixed.

LANCOM Management Cloud 1.00.3.11.0.0 ► 1.00.3.15.5.0 / 30.01.2018

New Features

> Local configuration changes on the devices are now reported to the LMC (as from LCOS v10.12 RU4). From within the LMC there are options to apply these changes to the configuration, to inform about the changes, or to actively reset the changes on the device.
> The management of subnetworks at each location now allows the manual specification of networks of your choosing in addition to the subnets that are assigned from the central pool.

Further improvements

> Devices can now be restarted from the LMC.
> Installing a new firmware version no longer leads to an automatic rollout of the configuration.
> The display of the previous week's monitoring data on the dashboard has been modified.
> Responsive design and optimizations for the detailed configuration of devices
> Members and viewers can now see whether devices in the device list are operating the current firmware.
> Improved user feedback when too many attempts were made to add a device with the wrong PIN.
> Users can now remove themselves from an organization/project, unless they are the last-remaining administrator.
> If an individual device configuration has been set with a sender interface for communications with the LMC, this is no longer overwritten by the Smart Config.

Bug fixes

> Modified site locations are stored accurately again.
> An issue was solved which caused the device configuration status in the device list to remain on "updating".
> Miscellaneous bugfixes for dashboard and device monitoring

LANCOM Management Cloud 1.00.3.8.0.0 ► 1.00.3.11.0.0 / 14.12.2017

New Features

> Comfortable configuration of a simple hotspot via the LMC
> In the new area "Project specifications" general settings can be configured project-wide (e.g. main device password, band steering, hotspot, ...).
> A new color marker in the device list shows if the device is running the current firmware, or if a new firmware is available.
> A link to the LANCOM knowledgebase was placed In the info area.

Further improvements

> The "add device" dialogue has been reworked and shows now where to find the needed information (S/N+PIN).
> A message is now saved to the device log, if a device could not retrieve a new firmware from the LMC successfully.
> VPN dashboard: VPN connection lines are now selectable and show the connection status and containing networks.
> VPN dashboard: Reworked information overview when selecting a location.

Bug fixes

> The device detail view on the floor plans shows the picture of the device in correct size again.
> In some cases device remained on the floor plan after deleting them from the location.
> The 5-GHz Wi-Fi coverage is only shown on the floor plan for devices which do actually broadcast a 5-GHz network.
> An issue when configuring dual radio 11ac access points has been fixed.
> Issues when configuring LANCOM 883 and LANCOM 884 devices have been fixed.
> Several internal bug fixes and performance improvements

LANCOM Management Cloud 3.6.3.0 ▶ 1.00.3.8.0.0 / 29.11.2017

New Features

> Direct graphical network assignment on switch ports in the switch overview

Further improvements

> Upload of up to 15 floor plans per location (previously 5)
> The login process has been speeded up.

Bug fixes

> A problem with the PoE configuration of the GS-2352P has been fixed.
> Miscellaneous internal bug fixes and stability improvements

LANCOM Management Cloud 3.1.0.0 ► 3.6.3.0 / 12.10.2017

New Features

> **Custom Fields –** Administrators for organizations or projects are now free to define own properties for their organizations / projects.
> Example: an organization administrator can create a property named "customer number" for his organization and the included projects. This property can then be updated with the corresponding numbers.

Further improvements

> 28-port switches do now have their own mask for port determination within the network.
> The LANCOM Management Cloud can now allocate multiple centralized addresses to the branch office routers as alternative VPN endpoints.
> Partner ID and partner status are now shown in the organization management.
> A table with all ports including their designation was added to the single monitoring view for switches.
> The user is informed by e-mail if a device license is about to expired or has already expired.
> When creating networks, a pre-defined color palette is now available.

Bug fixes

> Only the visible devices were filtered in the device list, and not the complete list.
> Picture upload for organizations, projects, and devices was fixed.
> When using the firefox browser one connection was missing in the VPN connection table of the WAN dashboard.
> Error messages could occur when deleting a location, even though the location was deleted successfully.
> LLDP was not always activated on the switch, although it was activated in the project settings (LLDP monitoring requires switch firmware 3.30.0324 RU2).
> Fixed problems with the floor plan display in the safari browser.
> An issue which prevented the pairing of new devices was fixed.
> Miscellaneous internal stability improvements

LANCOM Management Cloud 2.5.2.0 ▶ 3.1.0.0 / 12.09.2017

New Features

> Exclusively for LANCOM partners: As of now, all devices that are newly integrated into the LANCOM Management Cloud get an automatic start-up license valid for 30 days. After the 30 days have expired, a simple online / offline status monitoring is available via dashboard and device overview.
> Exclusively for LANCOM partners: As of now, a live chat with direct access to LANCOM Cloud experts for all questions about the LANCOM Management Cloud is available (accessible via the menu bar).
> Floor plans of buildings can be uploaded for particular locations to place devices exactly on these plans ("Locations > Floor plan"). For placed Wi-Fi devices a rough coverage overview is available on the map incl. channel load and reception quality (dashboard under "Wi-Fi / LAN" > widget "Locations overview").
> Device filter in the Devices overview (name, device type, serial number, IP address, site)
> Particular location information can be filtered on the dashboard.

Further improvements

> Support for the 28-port switches in the "network" area
> Automatic e-mail notification on expiring device licenses

Bug fixes

> Issues while activating the layer 7 detection have been fixed. For a successful activation the configuration has to be rolled out again to the appropriate Wi-Fi devices.
> License management issues have been fixed
> Config service issues have been fixed

LANCOM Management Cloud 2.3.5.0 ► 2.5.2.0 / 18.08.2017

New Features

> Automatic switch port marking per LLDP

Further improvements

> The logging records if users were deleted from the organization / project.
> Devices can now be deleted directly from the LMC from within the project (previously, there was a transfer to an organization necessary).
> The license column in the device list now shows the expiration date, and not the remaining days.
> In the compact device view the selected tab (e.g. detail configuration) is now stored, even if a device from another site is selected.

Bug fixes

> Fixed an issue with unconfigurable switches after claiming.
> Fixed an issue with the automatic logout, if there were unsaved changes left.
> Fixed an issue with writing configuration data to LN-630 devices.
> The current value in history graphs is now consistent (hour/day/week).
> No VPN devices were shown in the WAN dashboard under certain circumstances.
> Fixed an issue with the dashboard widgets for Wi-Fi networks and Wi-Fi standards.

LANCOM Management Cloud 1.00.170710 ▶ 2.3.5.0

New features

> As of now, the Wi-Fi optimization functions Adaptive RF Optimization and Band Steering can be activated under "Management > Settings" (globally for the whole project) and under "Locations > Overview > Wi-Fi Defaults" (per location) for Access Points and WLAN routers in a project.
> From now on, a Wi-Fi SSID which is defined under "Networks > Wi-Fi > Create new SSID", can be activated and deactivated.
> From now on, the roaming optimization functions Opportunistic Key Caching (OKC) and IEEE 802.11r Fast Roaming can be activated while defining a Wi-Fi SSID under "Networks > Wi-Fi > Create new SSID".
> From now on, the SSID broadcast can be suppressed while defining a Wi-Fi SSID under "Networks > Wi-Fi > Create new SSID", so that the respective SSID is no longer automatically visible for clients in the list of the available SSIDs.

Further improvements

> Project IDs and license algorithms are now shown in the organization's project list.
> Single switch ports can be manually labeled in the switch monitoring.
> The current throughput is graphically shown in the switch monitoring for the selected switch port.
> The last known port status is shown in the switch monitoring for switches with "offline" status.

Bug fixes

> Deleting locations failed under certain circumstances
> Miscellaneous bug fixes within the switch configuration
> When rolling out configurations to a bigger amount of devices, these configurations were partially not accepted.
> Log entries for deleted devices were showing a wildcard instead of the device ID.
> Further general issues fixed

LANCOM Management Cloud 1.00.170620 ▶ 1.00.170710

New features

> When generating a new project the admin is asked if the global password distribution should be used.

Further improvements

> The admin table can now be edited when using the individual configuration of switches.
> The reliability of the online/offline status view has been improved.

Bug fixes

> A support problem of the devices L-321agn Wireless R2 and 730-4G has been fixed.
> In the compact view of large projects all devices were listed but only the first four had a configuration status displayed.
> In new projects the area location could not be entered under specific circumstances.
> An unexpected error when deleting a location has been fixed.
> Variables were not resolved correctly for specifc log entries.

Notice

For this LMC release we recommend a firmware update for switches to at least LANCOM Switch OS 3.30 REL (Build 3.30.0204). Without, the monitoring data will not be accepted by the LMC anymore, due to a security check. A later update is always possible in case the monitoring data is already missing.

LANCOM Management Cloud 1.00.170529 ► 1.00.170620

New features

> Networks are displayed per port within the switch monitoring.
> A cloud answer time diagram was added for switches.
> A CPU load diagram was added for switches.

Further improvements

> The information area was extended by further information sources.
> The LMC can now create an offline configuration for cloud-ready devices.
> Internal improvements for tracking calls between micro services

Bug fixes

> Firmware files are now available for "(over ISDN)" and "(over POTS)" routers, too.
> The URL which is sent to the device for upgrading the firmware is no longer compiled wrong, so firmware updates can be done reliably.
> Sorting of the license categories is now alphabetical within the license pool.
> The VPN dashboard's info popover shows always the selected outpost, and not the central site.
> Changes to a site cause the status display of the central site gateway to change to "outdated".
> The VPN dashboard's connection table shows again all VPN connections.
> All variables are now resolved for the log file.
> Status changes are now displayed accurately for recently added devices.
> Some user interface issues were fixed.
> Issues were fixed for the group aggregation of the dashboard monitoring data.
> Fixed an issue in the WAN dashboard's VPN device table.

LANCOM Management Cloud 1.00.170509 ▶ 1.00.170529

New features

> Guided tour for organizations
> Added an info section with FAQ, hints & tricks, and tutorial videos

Further improvements

> Significantly faster loading and displaying of device detail configurations.
> License icons in the device list are gray if the project works in license mode "NONE".
> In pairing state, the LMC public can now redirect devices to another private cloud.
> Device-related information can now be hidden from the project log.
> If WLAN SSIDs are defined via smart config, only these are applied to the device. There is no mix of smart config and single device configuration in this case.

Bug fixes

> Fixed an issue where in some cases the time zone was missing when transferring a timestamp. As a consequence, the date was misinterpreted at the recipient.
> No more missing display of device networks and configurations due to failed validation
> Even if DHCP is enabled, gateways with Wi-Fi feature (e.g. LANCOM 1783VAW) won't stop allocating IP addresses.
> Correct license categories are shown for LANCOM LN-17xx and LN-86x.
> Fixed an issue when transferring devices from within an organization.
> Miscellaneous internal bug fixes

LANCOM Management Cloud 1.00.170410 ▶ 1.00.170509

New features

> Licensing of cloud-managed LANCOM devices
> 1-click port configuration for particular switches

Further improvements

> When adding devices to sites, the first router is set as a gateway automatically.
> The centralized device password allocation can be disabled by the project administrator.
> Devices can be passed from the LMC public to the LMC private.
> Support for the new switch models GS-2328*
> Extended switch parameter: SNMP communities
> Improvements for the WAN dashboard
> Improved display of the Layer-7 top applications
> The WAN throughput is now shown separately for up- and downstream.
> Display for multi VPN within the WAN dashboard
> The Switch LMC operation was extended by TRY settings with "try 24h" by default.
> Added support for LMC handover before pairing on the device.
> Device information and monitoring was merged to one single tab for better viewing experience.
> The selection of Wi-Fi frequency bands is now possible during network configuration.

Bug fixes

> When using the auto fill function of a Web browser, the user's LMC login data is no longer entered for Wi-Fi SSID and PSK in some cases.
> The CSV export of the top applications now contains the complete data.
> The timeline of the history graphs now stops moving if a device does not send any data.
> Fixed an issue with aggregating monitoring data.
> Corrected display of the VPN connection state within the WAN dashboard.
> Client names are now displayed similar within the Wi-Fi client table and the top users table.
> Fixed an issue with deleting sites.
> The window for adding devices is now displayed on the iPad, too.
> Fixed an issue with the LMC blink mode on WLC-managed accesspoints
> Optimized DNS request count for accesspoints, routers and WLCs, and DNS caching was added for LMC connectivity on the device.
> Automatically generated Wi-Fi PSKs now consist of 16 characters (previously 8).

LANCOM Management Cloud 1.00.170316 ► 1.00.170410

New features

> Centralized allocation of device passwords to all devices of a project
> Display of failed login attempts for:
>> Device login
>> SNMP login
>> WLAN SSID login

Further improvements

> Display of Internet backup connections within the single device monitoring of routers
> Scripting feature variables can be defined as confidential and are masked on the user interface.
> Immediate activation of new network specifications for all LANCOM devices when changing the IP address range

Bug fixes

> An issue which prevented the configuration of the vRouter was fixed
> General text improvements
> Proper name resolution for top users
> Fixed an issue with a wrong status display within the device list after a location rollout
> Fixed an issue which lead to disabled networks being still active
> If multiple configuration change have been made while a device was offline, all changes are now saved when the device is online again.
> Fixed an issue with a faulty free memory display for switches
> Fixed an issue with editing the VoIP line table
> LTE routers do no longer lose their mobile connection after a configuration rollout.
> Fixed miscellaneous issues within the single device configuration

LANCOM Management Cloud 1.00.170224 ► 1.00.170316

New Features

> For sorting and filtering purposes, the device location is now shown in the device list
> The routes which should be accessed via central site can be defined per network
> WAN throughput is now shown in the single device monitoring
> Access LMC using a mobile device

Further improvements

> The automatic inactivity logoff timer can be configured in the user profile
> Improvements for transmitting table contents of the device- and user list
> VPN connections are now initialized with green dotted lines on the WAN dashboard
> Additional messages added for the account- and device log
> Further general performance improvements

Bug fixes

> The SDN configuration is rolled out accurately to routers with activated WLC option
> Fixed some issues which led to erroneous device status display
> Fixed the VPN connection status display on the WAN dashboard
> Messages in the account- or device log are shown accurately
> Fixed several issues in the VoIP Call Router area for single device configuration
> Further general issues fixed

LANCOM Management Cloud 1.00.170213 ▶ 1.00.170224

New features

Config test mode
> After a new configuration is uploaded, the device checks that it can still reach the LANCOM Management Cloud. If not, the device falls back to the previous configuration.

Simplified operation through predefined default settings:
> When you create a project, a site with the name of the project is created by default
> When you create a project, the network "INTRANET" is created by default

E-mail integration
> When you invite previously unregistered users, an invitation e-mail with instructions is sent automatically to their e-mail address.
> When inviting users to organizations and projects, an e-mail with an invitation link is sent automatically to their e-mail addresses.

Password reset
> The user now has the option to reset the password, if forgotten. To this end, a link is sent to the relevant e-mail address.

Further improvements

> Immediate language switching (DE|EN) for login/registration/password reset
> The Layer-7 application detection can now be turned on and off for each SSID/VLAN in the SDN-Configuration
> Devices now need just one URL to connect to the LMC. All you have to enter is the LMC domain (e.g. cloud.lancom.de)
> LMC and LCOS now use the same policies for secure passwords.
> The gateway at a site now no longer needs to have the first address on the corresponding network
> The invitation link sent by e-mail is now valid for 5 days
> A change of network IP is now displayed in the overview
> Performance improvements
> A number of improvements have been made to the dashboard display

Bug fixes

> A display issue with the top Wi-Fi applications was fixed
> Some naming inconsistencies between the "Cloud" and "LMC" were fixed
> An issue with the display of the current Wi-Fi throughput on the dashboard was fixed
> The Cloud operating mode "only-without-wlc" is now available only for Wi-Fi devices
> An issue with setting the DNS forwarding was fixed
> An issue with the map zoom level on the dashboard was fixed

LANCOM Management Cloud ► 1.00.170213

New features

> Guided tour of the LANCOM Management Cloud
> Widgets in the Wi-Fi dashboard now optionally display the data over the last hour, the last day or the last week
> For sites, it is now possible to select the router that is to act as the gateway

Security
> Users are now logged out automatically after 30 minutes (can be configured for longer).

Improvements & bug fixes

> The overview page for a device now shows when it was incorporated into the organization/project
> Just one LMC domain is required for pairing and claiming. Operators of a Private Cloud are required to ensure that the prefixes pairing.* and control.* are available at their domain
> Organizations and projects now have an ID
> Performance improvements
> Individual device configurations have now been furnished with entries that were missing so far
> Bugs fixed in the SDN-Configuration
> It is now no longer possible for delegated invitations to accidentally create dead organizations and projects
> Issues with project observers entering the areas "Networks", "Sites" and "Devices" were fixed
> Implausible entries in the Wi-Fi dashboard
> "Ghost devices" appeared in empty projects
> The WAN dashboard occasionally stops updating
> An issue with the device and account log was fixed
> Arrangement of the dashboard widget is now back to normal