LCOS LX 6.14

Addendum

11/2023

Contents

Copyright

LANCOM Systems GmbH

Adenauerstr. 20/B2

52146 Würselen, Germany

Germany

www.lancom-systems.com

1 Addendum to LCOS LX version 6.14

This document describes the changes and enhancements in LCOS LX version 6.14 since the previous version.

2 Radio Resource Measurement in accordance with IEEE 802.11k

As of LCOS LX 6.14 benefit from an improved Wi-Fi user experience in existing environments: By using Radio Resource Measurement in accordance with IEEE 802.11k, detailed data is collected on neighboring access points and roaming operations are optimized.

In LANconfig you will find the following new settings under **Wireless-LAN** > **WLAN-Networks** > **Network**.

RRM

The IEEE 802.11k standard describes a way to inform WLAN clients about potential roaming destinations, i.e., other access points of the same SSID within range (Radio Resource Measurement). This information to the client is provided by the "Neighbor Report" defined in the standard. Activate this option here.

2.1 Additions to the Setup menu

2.1.1 RRM

The IEEE 802.11k standard describes a way to inform WLAN clients about potential roaming destinations, i.e., other access points of the same SSID within range (Radio Resource Measurement). This information to the client is provided by the "Neighbor Report" defined in the standard.

SNMP ID:

2.20.1.35

Console path:

Setup > **WLAN** > **Network**

Possible values:

No

Radio Resource Measurement disabled.

Yes

Radio Resource Measurement enabled.

3 LANCOM UUID for combining multiple SSIDs into one access point

LANCOM-UUID verwenden

All current LANCOM access points are multi-SSID-capable. This means that they can offer different "virtual" access points to several WLAN clients at the same time.

In addition, for devices with two or more radio modules (dual radio), the BSSIDs of the logical networks refer to the corresponding radio module, but the MAC addresses of the two radio modules are completely independent of each other. This means that logical networks with different BSSIDs cannot be uniquely assigned to a device.

For network monitoring and planning, however, it is useful to be able to assign the logical networks to the corresponding devices (or radio modules) using tools such as Ekahau Site Survey.

LANCOM access points have a UUID (Universally Unique Identifier), which is calculated from the device type and serial number and can uniquely identify the device in the network. However, encryption during UUID generation means that it is not possible to identify the device or serial number.

You can switch the transmission of the UUID on or off. This is possible in the device configuration with LANconfig under **Wireless LAN** > **General**.

Include LANCOM UUID

> Configures whether an access point transmits its UUID. The LANCOM UUID is used, among other things, as an Ekahau extension for combining multiple SSIDs into one access point.

3.1 Additions to the Setup menu

3.1.1 Include-UUID

Configures whether an access point transmits its UUID. The LANCOM UUID is used, among other things, as an Ekahau extension for combining multiple SSIDs into one access point.

SNMP ID:
> 2.20.14

Console path:
> **Setup** > **WLAN**

Possible values:

> **No**
> > UUID not transferred.
> **Yes**
> > UUID transferred.

Default:

No

4 Configuration of external antenna connections

As of LCOS LX 6.14, access points with external antenna connections can switch them on and off individually.

In LANconfig you will find the following new settings under **Wireless-LAN** > **WLAN-Networks** > **Radio-Settings**.

Antenna-Mask

ⓘ Only devices with external or detachable antennas have the antenna mask settings.

This setting helps when using WLAN antennas with a different number of streams from the access point (e.g. antenna with two streams, connected to an access point with four streams). This can be used to deactivate the ports on the access point side that are not connected to an antenna.

4.1 Additions to the Setup menu

4.1.1 Antenna-Mask

ⓘ Only devices with external or detachable antennas have the antenna mask settings.

This setting helps when using WLAN antennas with a different number of streams from the access point (e.g. antenna with two streams, connected to an access point with four streams). This can be used to deactivate the ports on the access point side that are not connected to an antenna.

SNMP ID:

2.20.8.17

Console path:

Setup > **WLAN** > **Radio-Settings**

Possible values:

All (0x0)

If no bit of this mask is set, then all antennas are active.

Antenna-1 (0x1)

Bit 1 controls antenna 1.

Antenna-2 (0x2)

Bit 2 controls antenna 2.

Antenna-3 (0x4)

Bit 3 controls antenna 3.

Antenna-4 (0x8)

Bit 4 controls antenna 4.

Default:

All (0x0)