Feature Notes

LCOS 9.18 RU1

LCOS 9.18 RU1

New power for your LANCOM access points!

With the new LCOS version 9.18 RU1 you receive a true power package for the best Wi-Fi experience for users and administrators.

Benefit from noticably more performance, robustness, and range - or in short: maximum Wi-Fi quality!

And there is more: Upgrade your LANCOM access points with innovative functionalities such as the highlight features Adaptive RF Optimization and Airtime Fairness.

LCOS 9.18
[LANCOM OPERATING SYSTEM]

The next step for LANCOM Active Radio Control

With the intelligent Wi-Fi optimization concept LANCOM Active Radio Control (ARC) you can sustainably improve your radio field!

LANCOM Active Radio Control

NEW

Adaptive RF Optimization

Dynamic selection of the optimal Wi-Fi channel

NEW

Airtime Fairness

Improved utilization of the Wi-Fi bandwidth

Already included in previous LCOS versions:

The next step for LANCOM Active Radio Control

LANCOM Active Radio Control

Adaptive RF Optimization

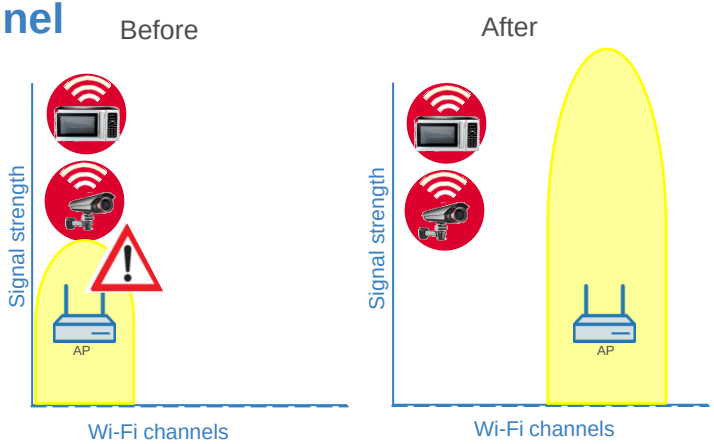
Dynamic selection of the optimal Wi-Fi channel

Improved Wi-Fi throughput in the radio field as the access point dynamically selects the best quality Wi-Fi channel in the event of interference.

Adaptive RF Optimization

Dynamic selection of the optimal Wi-Fi channel

- Access point continuously scans the channel for sources of interference
- If serious sources of interference are recognized in the radio field which no longer enable normal operation, the access point dynamically switches to a better channel
- The channel change takes place during operation without the intervention of the administrator



Operational mode channel Configuration	When will channel changes take place?	
Static	- - -	
Automatic	When the access point starts up	✓ recommended
Dynamic	After the identification of serious interferences in the current channel	✓ recommended

LANCOM Systems

The next step for LANCOM Active Radio Control

LANCOM Active Radio Control

Airtime Fairness

Improved utilization of the Wi-Fi bandwidth

Better Wi-Fi performance due to an efficient use of the available bandwidth thanks to a fair distribution of the Wi-Fi transmission times among the active clients.

Airtime Fairness

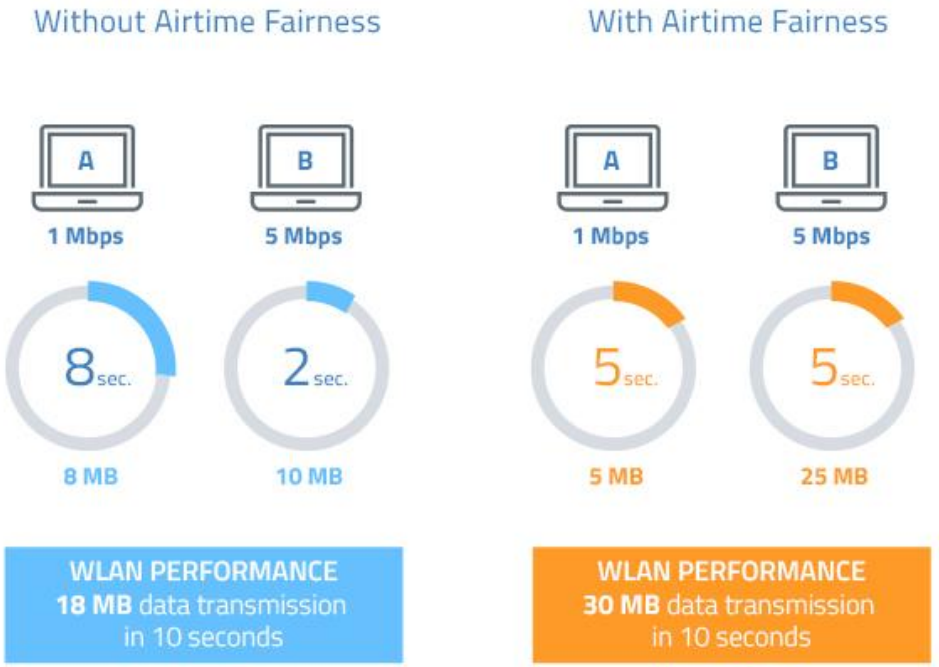
Example:

- Without Airtime Fairness:

  Active clients are granted transmission times one after another – without a targeted partitioning of transmission times

- With Airtime Fairness:

  The available bandwidth is effectively utilized among active clients due to a fair sharing of Wi-Fi transmission times



Airtime Fairness

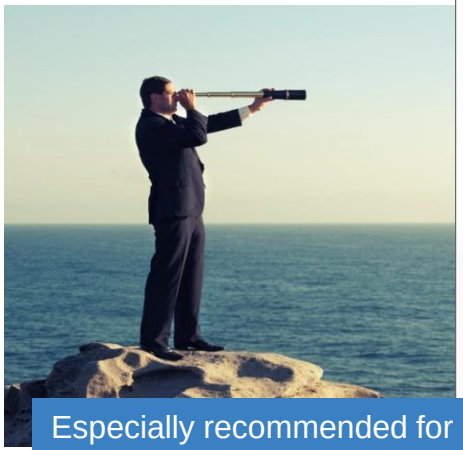
Configuration options at a glance

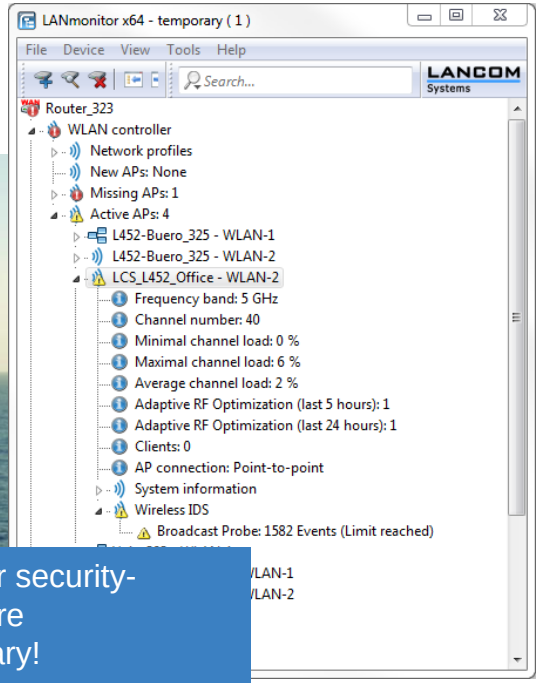
- **Equal Airtime (Default)**
  - Equal distribution of Wi-Fi transmission times among active clients
  - Fast clients can transmit more data at the same time
- **Equal Volume**
  - All clients achieve the same data throughput
  - Slow clients get more time than fast clients
- **Prefer 11n Airtime**
  - Fast clients can be prioritized over slow clients, so finishing their data transmission more quickly

Wireless IDS (Intrusion Detection System)

Early detection of suspicious client behavior

- Detection of attacks or suspicious client behavior in the Wi-Fi infrastructure thanks to the constant surveillance of the radio field
- If an event resembling an attack occurs at a defined frequency, a warning is triggered via e-mail, SYSLOG message, SNMP, or LANmonitor





Especially recommended for security-sensitive environments where logging of events is necessary!

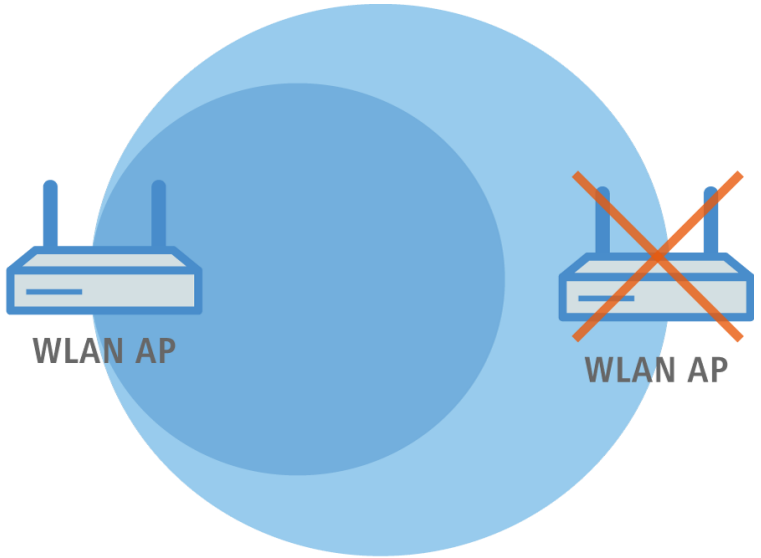
Adaptive Transmission Power

Automatic adjustment of the transmission power for Wi-Fi backup scenarios

- With the help of actual information about the currently active access points, the transmit powers of all available devices can be adjusted in case of failure

→The other access points close the gaps in the radio field

- If disturbances has ceased the original transmission power reduction is used again

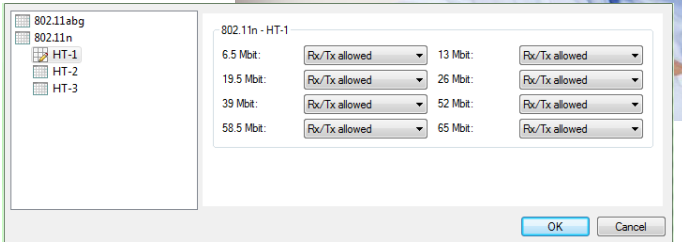


Configurable data rates per SSID

More configuration options – More flexibility

- The predefined data rates for the communication between access points and Wi-Fi clients can now be configured in detail – a real plus in flexibility.

→ Data rates which cannot be used effectively due to environmental conditions can be excluded from operations



Versatile validity of Public Spot access accounts

Definable time units for optimal network utilization

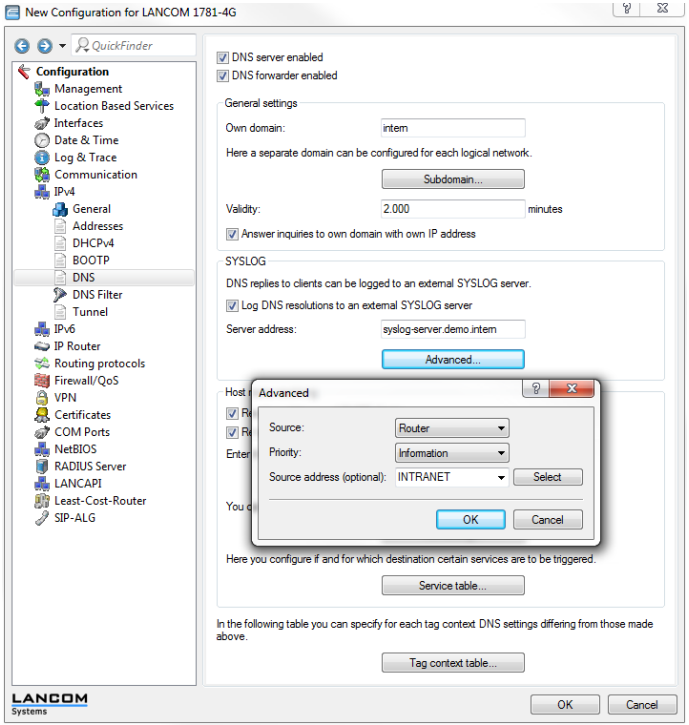
- Vouchers' validity (expiration date) can be set for shorter time periods (days, hours, minutes)
- Booked bandwidth can be displayed on Public Spot vouchers

Ideal for scenarios with a high customer frequency and short dwelling times.

Logging of DNS requests

Analysis of online activities

- DNS requests from clients can be sent to an external SYSLOG server for logging and evaluation purposes



LCOS 9.18 RU1

The LCOS promise

Available at no charge, the operating system LCOS (LANCOM Operating System) is the in-house closed-source firmware for the entire core portfolio of LANCOM Systems GmbH. LCOS is **developed at the headquarters in a BSI-certified High Security Zone** and receives **software updates with new features and improvements several times** a year. Furthermore, the seal of **quality "IT-Security Made in Germany"** (ITSMG) from an independent organization guarantees **freedom from backdoors**. LCOS is constantly subject to a number of quality tests and therefore offers reliability of the highest degree for professional network infrastructures. Thanks to **future-proof hardware** dimensioning, LANCOM products are designed for a **service life of several years** and the support of future LCOS versions. Even for older devices, which no longer support the newest LCOS version, bug fixes for the latest available firmware are provided on demand. This way, LANCOM offers an **investment protection** that is beyond compare.

Thank you

for your attention.