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Overview of LANCOM software version 7.7 June 2009

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LCOS 7.7
[LANCOM OPERATING SYSTEM]

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Highlights (1/2)

LCOS 7.7 *[LANCOM OPERATING SYSTEM]*

The LANCOM operating system LCOS and the corresponding management tools regularly provide **free** new functions to all current LANCOM routers, access points and gateways.

These are the main new functions and improvements:

- **VDSL support** – Now the wizard for Internet access allows to set up VDSL for triple and double play with VLAN settings and activation of IGMP Snooping
- **VPN hardware acceleration** – With LCOS 7.7 all VPN routers of 1700 and 1800 series get the hardware acceleration for VPN for free. The significant increase in encryption performance relieves the CPU and lets professional routers meet the multiple demands of most current networks
- **Public Spot** – Public Spot operators benefit from a new budget management that offers increased flexibility of traffic. The Public Spot wizard is optimized for enhanced efficiency in day-to-day business

Highlights (2/2)

LCOS 7.7

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- **TACACS+** – Comprehensive implementation of TACACS+ for authentication, authorization and accounting allowing to login with LANconfig, WEBconfig or Telnet/SSH. The centralized access control provides efficient management of large installations
- **BFWA** – Broadband Fixed Wireless Access for LANCOM Access Points offers WISPs to subdue rural areas with point-to-point wireless links in 5.8 GHz band at up to 4 Watts over long distances*

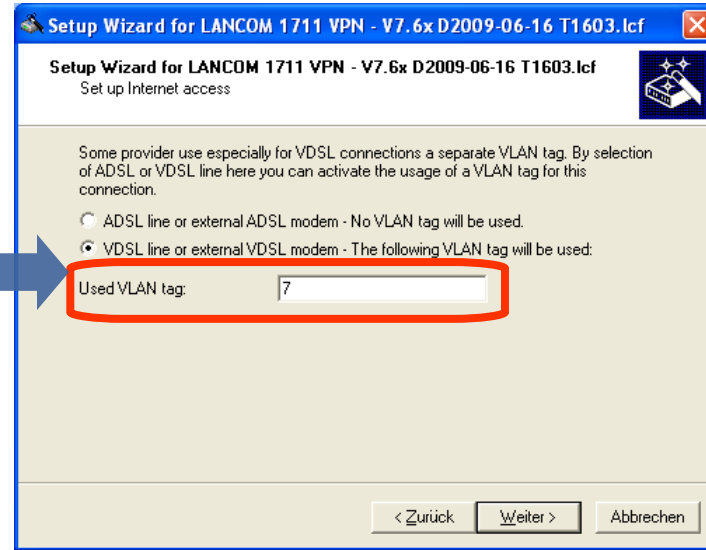
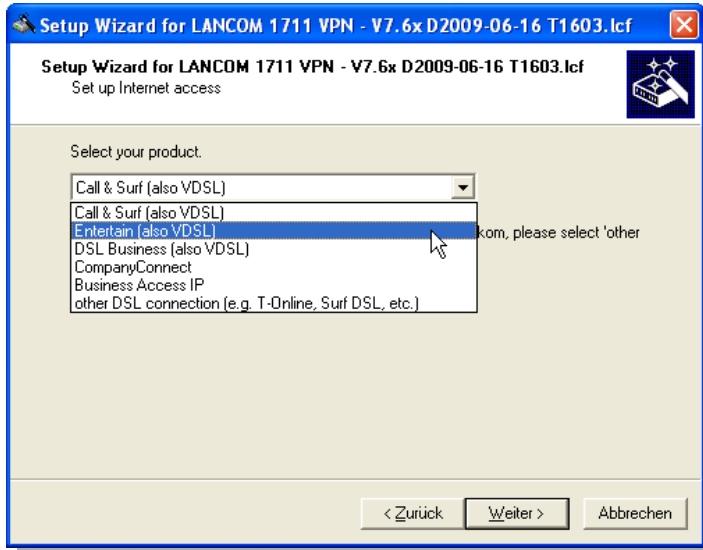
* The use of BFWA is subject to country specific regulation

Other improvements

- **IEEE 802.11n** – Enhanced WLAN performance and stability for clients and point-to-point links
- **LANmonitor** – Performance monitor with graphs for throughput, CPU usage, memory consumption. DHCP table with view of current leases
- **U-APSD** – Better standby time with Automatic Power Save Delivery for Voice over Wireless
- **IGMP snooping** – Directed switching of multicasts in LAN and WAN
- **Draeger validation** – Suitability of LANCOM Access Points for wireless patient data transmission
- **RADIUS accounting** – Accounting with time and traffic budgets
- **RADIUS server** – Extension of user accounts with switchable multi-login, expiration at relative or absolute date, time and traffic budgets as well as restriction to service type
- **Extended temperature range** – L-305/310 with broader field of application due to temperature dependent interface speed limit
- **UMTS/LANconfig** – Upload of UMTS module firmwares for LANCOM 1751 UMTS

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VDSL support

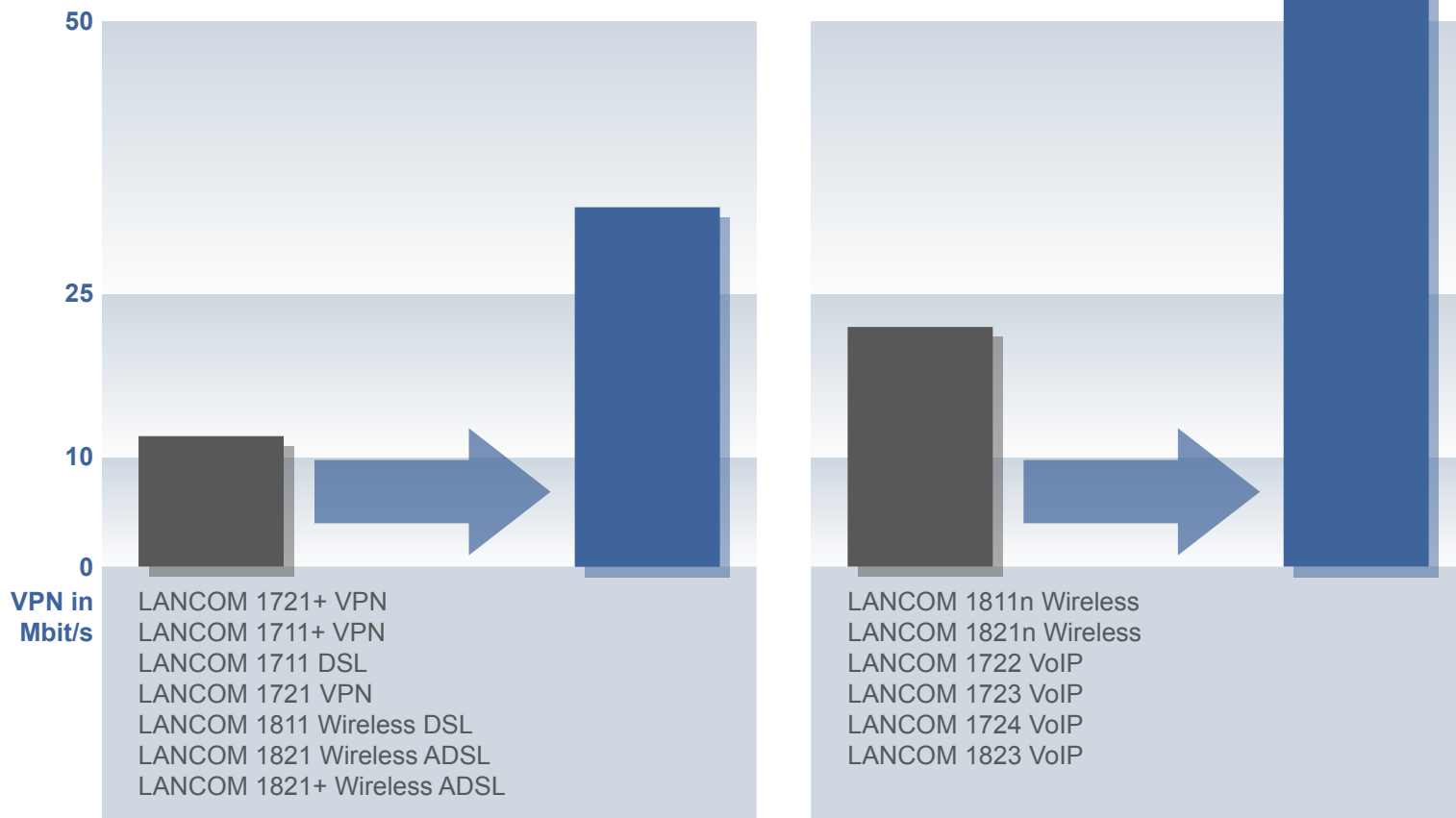


- Updated Internet setup wizard for new **highspeed access***
- Automatic activation of **IGMP Snooping** at lines with **Triple Play** (IPTV)
- Support of **VDSL** with external modems in a separate **dialog**
- Option for **VDSL even for generic line access** (when provider is not listed)
- The **VLAN tag** for prioritized can be set individually

* Illustrated with 'Deutsche Telekom' as example

VPN hardware acceleration

- Automatic activation of VPN hardware acceleration for free



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Public Spot

- Optimized layout for more **efficiency** in day-to-day business
- Flexible budget definition for **broader choice of tariff options**



Access Data Public-Spot

User Name: user38033
Password: jg90s4
Account ends: 06/20/2009 11:12:22

10.1.1.15 - Create Public Spot Account

Step 1 of 2

Please set the time the account shall remain valid for.

Duration

24 Hour(s) ▾

Starting time for account

first login ▾

Validity period: voucher expires after

365 days (max. 10 characters)

Comment (optional)

Guest Room 206 (max. 49 characters)

Print comment on voucher

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Reset

Terminate this Wizard

1 User(s) configured

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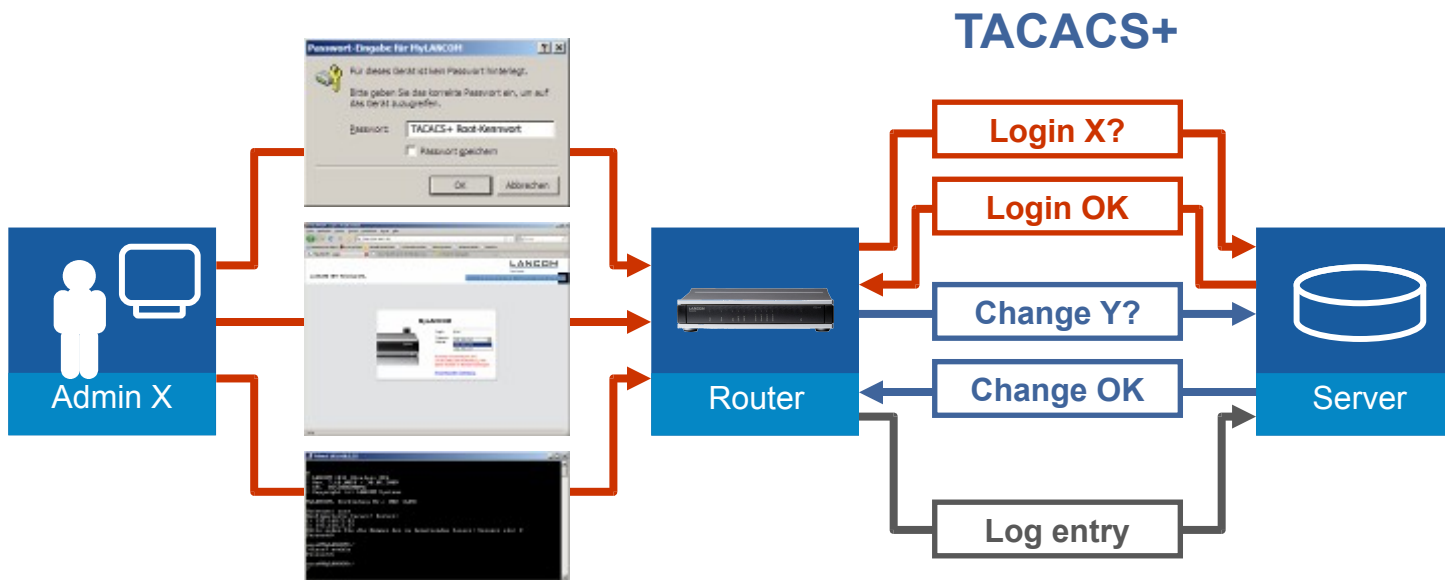
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TACACS+

- Reliable, encrypted protocol for **authentication, authorization and accounting (AAA)**
- Centralized **management of access rights for parameter changes, paths and functions as well as logging**
- TACACS+ login with **LANconfig, WEBconfig and Telnet/SSH**



BFWA – Broadband Fixed Wireless Access

- **Broadband provisioning without admission with WLAN point-to-point for WISPs***
- Utilization of **5.8 GHz** band with up to **4 Watts** transmitter power for **extended range***

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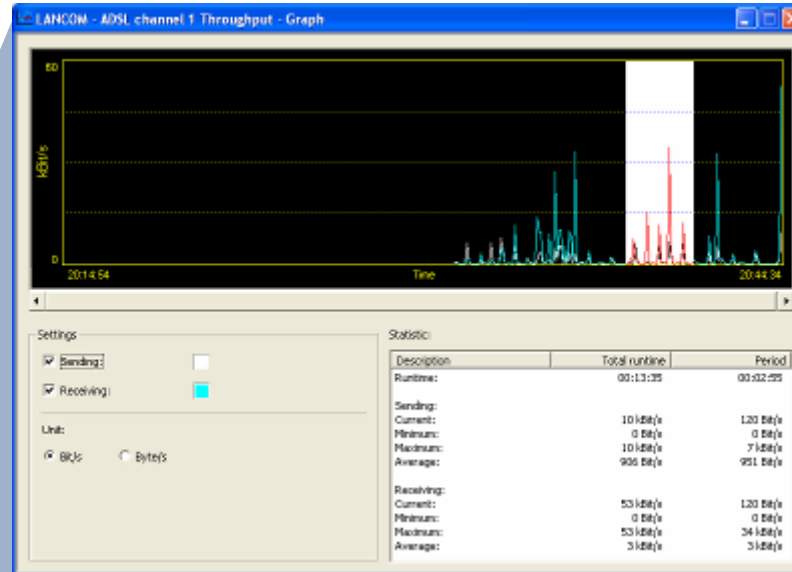
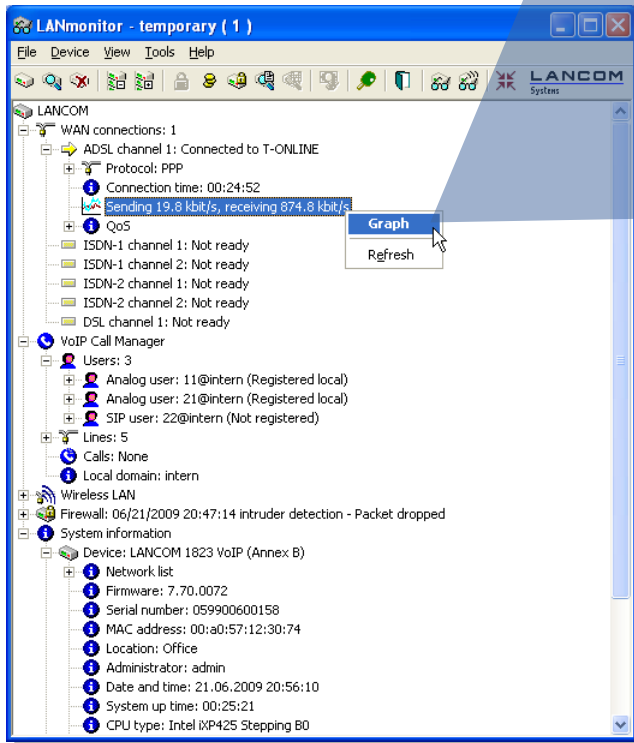
* The use of BFWA is subject to country specific regulation

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LANmonitor – performance monitor

- Icon in LANmonitor as indication for graphic view



- **Graph** with timeline for sent and received data, received and link signal strength, CPU usage, free memory and temperature*

* Temperature display depends on device type

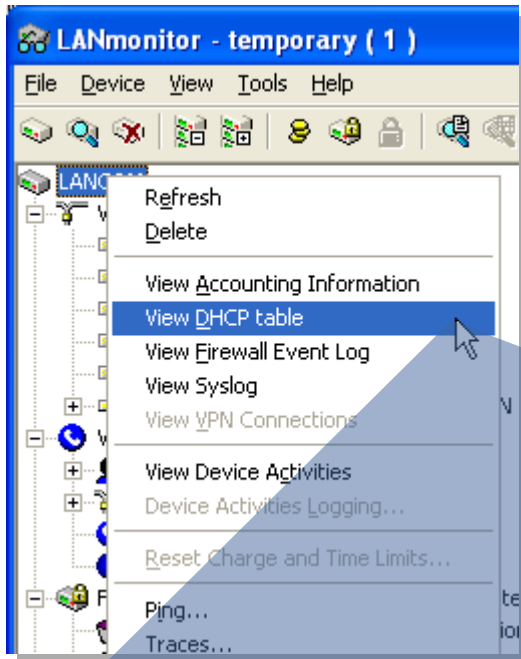
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LANmonitor – DHCP table



- Additional view for **DHCP table** in device's context menu
- List of current DHCP leases with **manual refresh** via ,DHCP' menu

The screenshot shows the 'LANCOM - DHCP' window with a 'View' tab selected. A table displays the current DHCP leases. A 'Refresh' button is visible in the top left corner of the table area, and a 'Close' button is visible in the top left corner of the window.

	MAC-Address	Timeout	Hostname	Type	Networkname
	00:a0:57:12:78:37	07:08:00	VP-100-00A057127837	Dynamic	INTRANET
	00:a0:57:12:78:3d	07:48:00	VP-100-00A05712783D	Dynamic	INTRANET
192.168.253.130	00:04:13:23:8f:7b	07:06:00		Dynamic	INTRANET
192.168.253.180	00:11:25:d7:fb:bb	06:05:00	RBurlaga-NB	Dynamic	INTRANET

U-APSD / WMM Power Save

- **Extension of power saving** according to IEEE 802.11e by **Unscheduled Automatic Power Save Delivery** (equivalent to **WMM Power Save**)
- Negotiation of **service categories** in WLAN and **sleep mode** between predicted packet transmissions **to save power**

- **Better battery standby time** for terminal devices, especially **Voice over WLAN**



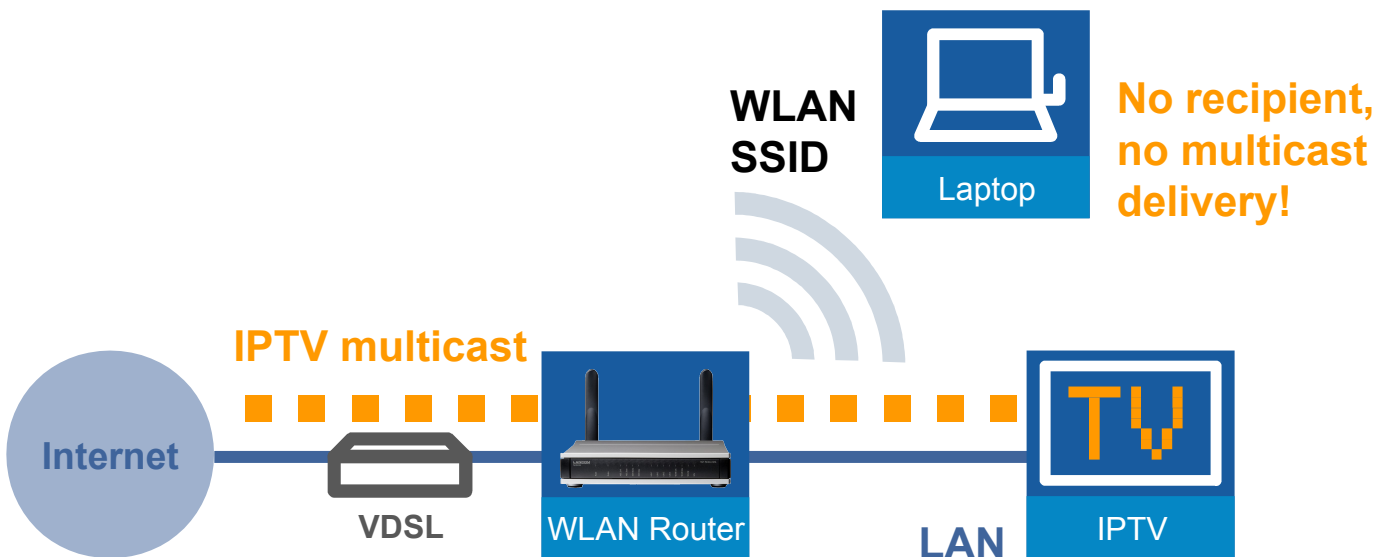
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IGMP Snooping*

- Selective switching of multicasts between SSIDs and interfaces
- Support for **IGMP registration, groups and routerports**
- **Enhanced performance and protection for WLANs** in case of multicast connections (e. g. IPTV)



* For LANCOM WLAN devices only

Draeger validation

- Suitability of LANCOM Access Points for wireless patient data transmission
- Utilization of **multicast connections** in combination with **IGMP snooping**

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More – RADIUS, CLI, UMTS

- **RADIUS accounting:** All counters for accounts can be reset with one command allowing for exact billing, e. g. with CRON job
- **RADIUS server:** Multiple login, relative or absolute expiration, time and traffic budgets, restriction to a service type
- **Telnet/SSH (CLI):** Extension of "mailto" allowing to execute commands and send the CLI output as e-mail attachments
- **UMTS/LANconfig:** Upload of firmwares (upx file type) for UMTS modules of LANCOM 1751 UMTS from within LANconfig

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Service and Support

We wish you every success with your new LANCOM product!

We look forward to your **praise and criticism, suggestions or questions** to info@lancom.de.

The latest information about Service and Support can be found on our Support flyer, our Internet site or from our **Knowledge Base** under www.lancom-systems.de/eu/support.

If the manual and our current support themes in the Internet are of no help to you, then our **Support Hotline** is available to you in Germany on work days from 9:00 – 17:00h under

0900-1-LANCOM (= 0900-1-526266)

(1.24 € / min. from German landlines).

Your LANCOM Systems Team

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