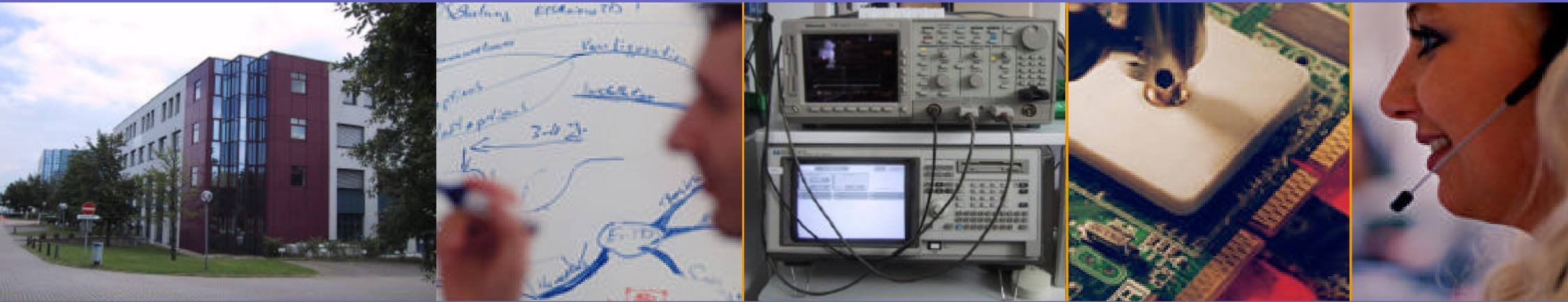# LANCOM Systems

Connecting your Business

LANCOM Firmware Version 3.10

July 2003

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www.lancom.de

LANCOM
Systems

LANCOM Systems

Connecting your Business

Firmware Version 3.10

On the following pages we would like to give an overview of the new features and enhancements of this new LANCOM Software.

Release notes of previous versions can be found in the documentation area on the LANCOM CD.

► Supported LANCOM models: 800, 1000, 1100, 2000, DSL/10, DSL/I-10, DSL/1610, DSL/I-1611, 821, 1621, 4000 Series, 6000 Series, Wireless L-11/IL-11, 7011 VPN

► Also for ELSA LANCOM and Telekom T-Octopus LAN R800, T-Octopus LAN R1600 VPN

Firmware
3.10

LANCOM

LANCOM Systems

Connecting your Business

Firmware Version 3.10

▶ Dynamic DNS

▶ DSL over LAN

▶ Quality of Service

▶ Scheduled Events

▶ Other Highlights

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Dynamic DNS

What is ‚Dynamic DNS'?

Dynamic DNS- (‚Domain Name Service') services address issues arising from dynamic IP addresses, which are typically used by most standard broadband lines.

With such lines, a new IP address is assigned...

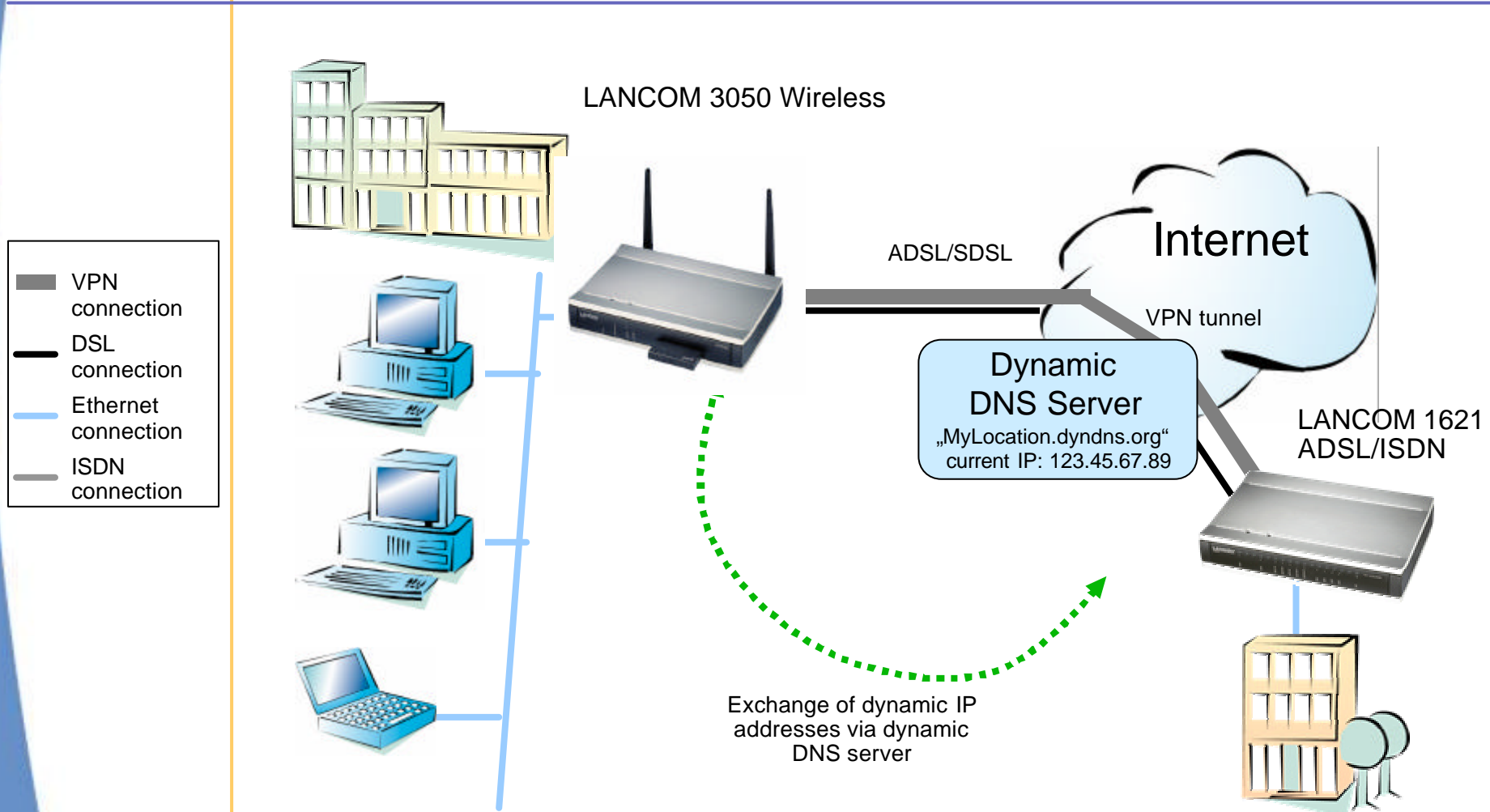▶ Each new dial-in

▶ With flat rate tariffs typ. each 24 h

The following applications based on known IP addresses are enabled (besides other methods such as e.g. ISDN) by Dynamic DNS services then:

▶ Remote Management

▶ VPN network couplings and VPN remote access

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Dynamic DNS

LANCOM 3050 Wireless

Internet

ADSL/SDSL

VPN tunnel

Dynamic
DNS Server
„MyLocation.dyndns.org"
current IP: 123.45.67.89

LANCOM 1621
ADSL/ISDN

Exchange of dynamic IP
addresses via dynamic
DNS server

Legend:

VPN connection	
DSL connection	
Ethernet connection	
ISDN connection	

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Dynamic DNS Highlights (1)

Ease of use means

▶ Tailored input sets for well-known Dynamic DNS provider

▶ Skripts to update the current IP address

▶ Takes care of refresh-contraints such as minimum update interval (e.g. 5 minutes) and maximal inactivity period (e.g. 28 days)

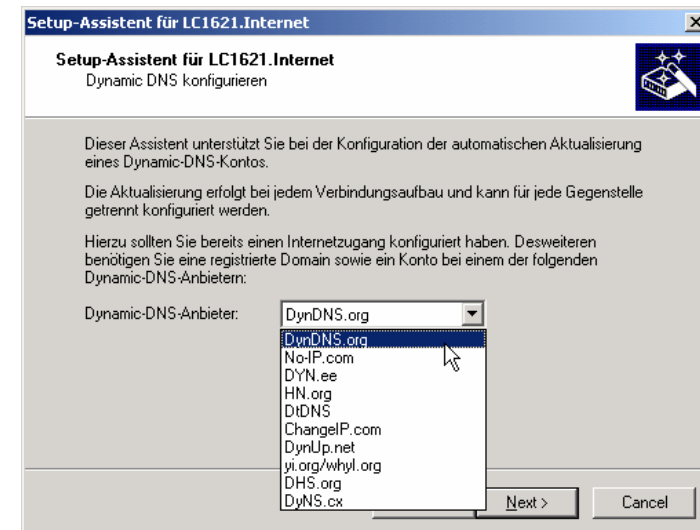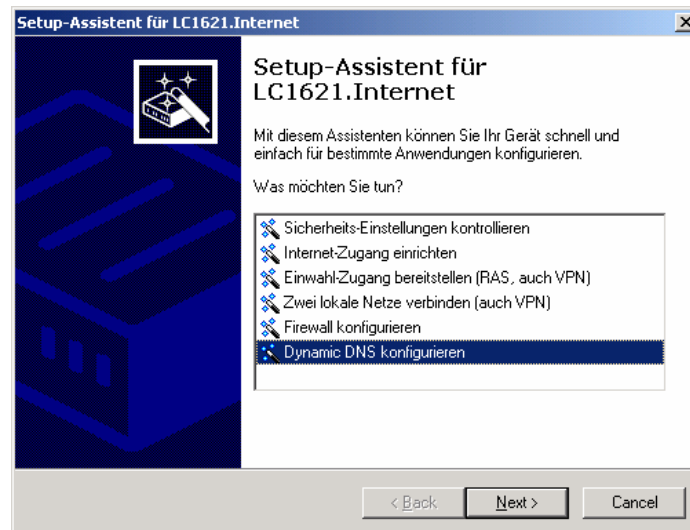▶ Can be adopted for other dynamic DNS provider

New LANconfig Dynamic DNS Wizard

Dynamic DNS functions can be set up easily with the new LANconfig setup assistant.

A multitude of well-known Dynamic DNS provider is supported directly with preset configurations.
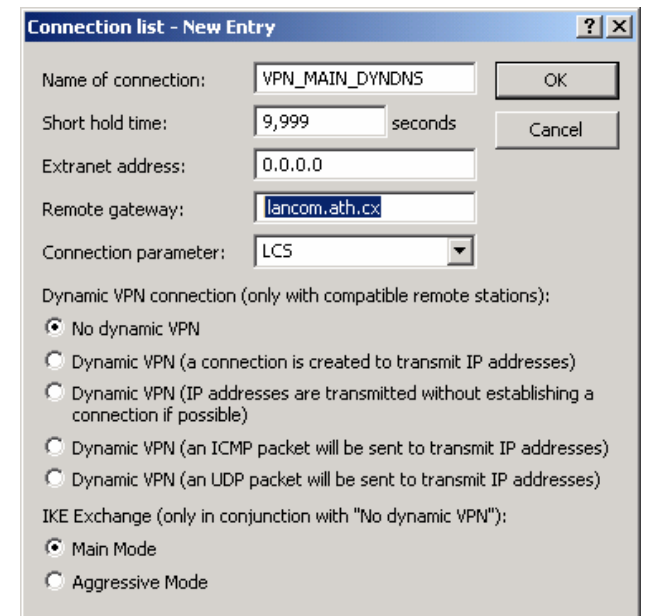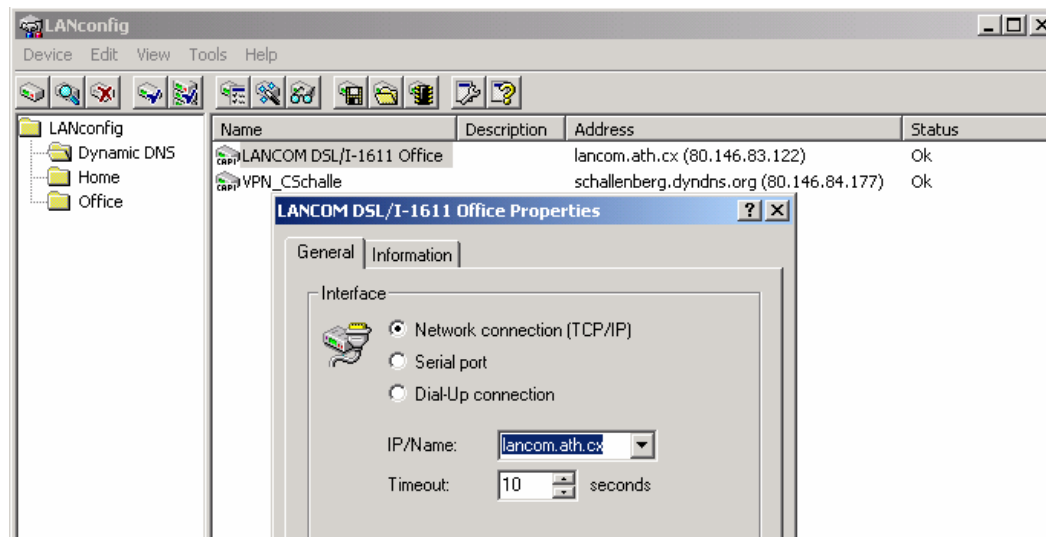
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Dynamic DNS Highlights (2)

Highlights

▶ Enter a static, DNS-resolvable name instead of a static IP address

▶ Enables secure VPN Main Mode connections just if you were using static IPs

▶ Besides IP address updates, execute any LANCOM command line command listed in the new 'Action table' when a connection is being established or cut

DNS-resolvable names instead of static IP addresses

You can enter a DNS-resolvable name at many places where previously only a fixed IP address was accepted. For example, the device's address in *LANconfig* and *LANmonitor* can be entered this way, as well as the *VPN remote site*'s address.

Further connection-state-oriented actions can be entered in LANconfig's new 'Action table' under „Communication / General "

Dynamic DNS vs. Dynamic VPN

LANCOM Dynamic VPN

- ▶ Exchange current IP address via ISDN
- ▶ **Free of charge** when using ISDN D chanel
- ▶ Works even without flat rate tariffs
- ▶ **Extreme reliable** low cost VPNs thanks to ISDN
- ▶ **„State of the Art" – LANCOM against LANCOM only**

Dynamic DNS constraints

- ▶ VPN depends on 3rd party web server availabilty
- ▶ Contract and annual costs for professional users

LANCOM Dynamic DNS

- ▶ Integrated Dynamic DNS client
- ▶ VPN remote site as DNS-resolvable name
- ▶ **For mobile users with VPN client and locations without ISDN**

Dynamic DNS Services Ratings.

Sort by: Reliability ▾ Reload

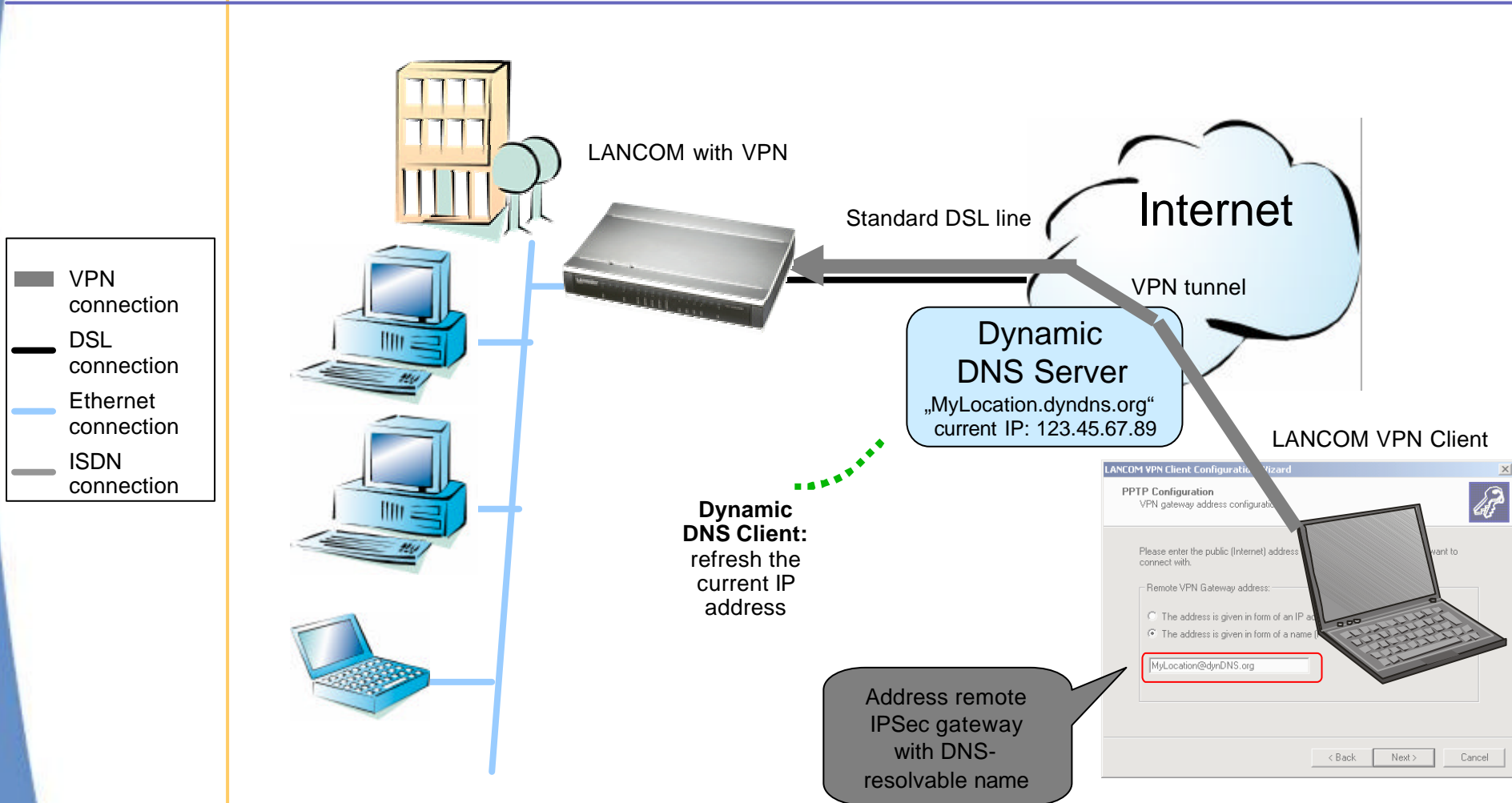| #	Service		Votes	Rating	Rate It
1	DynDNS	Overall:	1823	4.284	Vote
		Reliability:	1190	4.348	
		Features:	1164	4.149	
		Support:	996	4.015	
2	HN	Overall:	568	4.171	Vote
		Reliability:	417	4.312	
		Features:	413	4.165	
		Support:	372	3.901	
3	Yi	Overall:	518	3.847	Vote
		Reliability:	199	4.296	
		Features:	193	4.140	
		Support:	172	3.314	
4	DHS	Overall:	165	3.970	Vote
		Reliability:	111	4.243	
		Features:	110	3.927	
		Support:	86	3.384	
5	No-IP	Overall:	1973	4.349	Vote
		Reliability:	1078	4.206	
		Features:	1087	4.078	
		Support:	943	4.035	
6	ZoneEdit	Overall:	87	4.264	Vote
		Reliability:	87	4.184	
		Features:	88	4.182	
		Support:	77	4.000	
7	DyNS	Overall:	20	3.900	Vote
		Reliability:	18	4.056	
		Features:	18	3.889	
		Support:	17	4.059	
8	DtDNS	Overall:	269	3.967	Vote
		Reliability:	208	4.038	
		Features:	207	3.778	
		Support:	176	3.744	

Source: www.KVTek.com

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Dynamic DNS application example:
Mobile GPRS Intranet access via VPN

LANCOM with VPN

Standard DSL line

Internet

VPN tunnel

Dynamic DNS Server
„MyLocation.dyndns.org"
current IP: 123.45.67.89

LANCOM VPN Client

Dynamic DNS Client:
refresh the current IP address

VPN connection

DSL connection

Ethernet connection

ISDN connection

Address remote IPSec gateway with DNS-resolvable name

LANCOM VPN Client Configuration Wizard

PPTP Configuration
VPN gateway address configuration

Please enter the public (Internet) address... want to connect with.

Remote VPN Gateway address:

The address is given in form of an IP ad...
The address is given in form of a name (...

MyLocation@dynDNS.org

< Back   Next >   Cancel

LANCOM Systems

Connecting your Business

Firmware Version 3.10

▶Dynamic DNS

▶DSL over LAN

▶Quality of Service

▶Scheduled Events

▶Other Highlights

LANCOM Systems

Connecting your Business

„DSL over LAN" (DSLoL)

Supported hardware

▶ LANCOM ADSL Series: use with integrated Switch

▶ LANCOM L-xx Wireless and IL-xx Wireless with external Switch

Extended possibilities

You would like to upgrade your device with an integrated ADSL modem to SDSL? You would like to upgrade your LANCOM L-11 Wireless to being a Router for the wired LAN and a Access Point for the Wireless LAN as well? Starting with release 3.10, you will find a new „DSLoL" interface – simply plug in and make it happen!
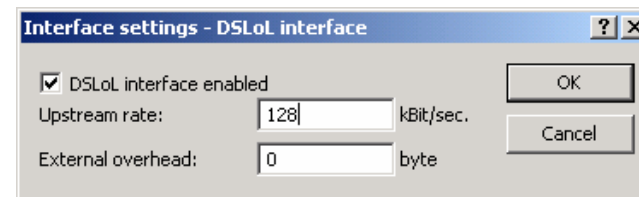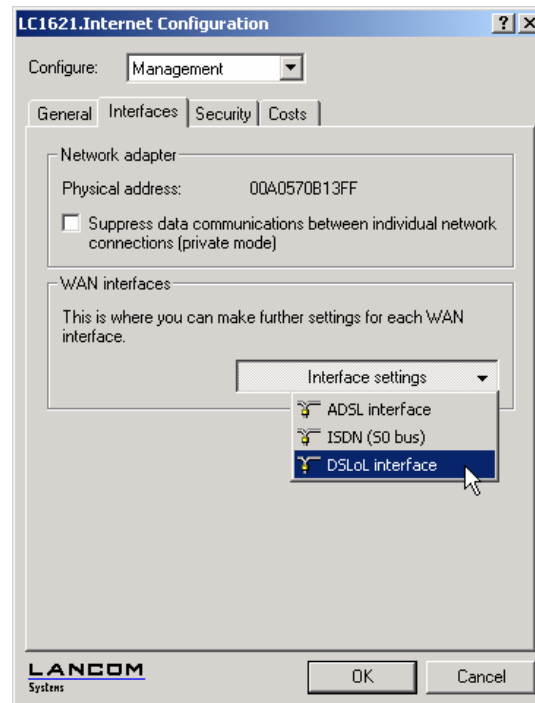
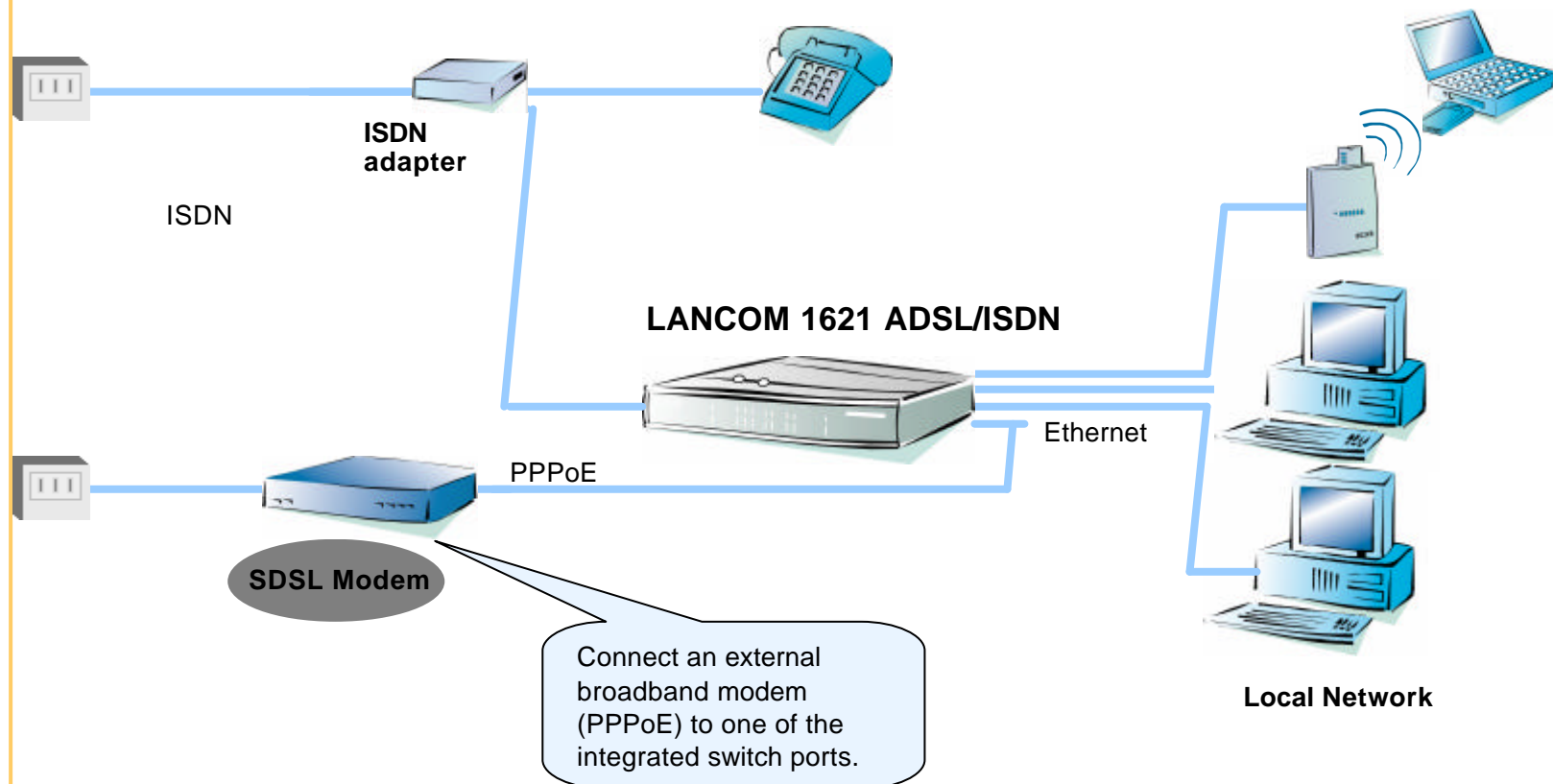*DSLoL Interface in LANconfig under „Management / Interfaces"*

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DSLoL with LANCOM ADSL Series (1/2)

Features

- „DSL over LAN":
  Connect an
  external
  broadband
  modem or router

- Ideally suited for
  customers
  demanding more
  upstream
  bandwith by
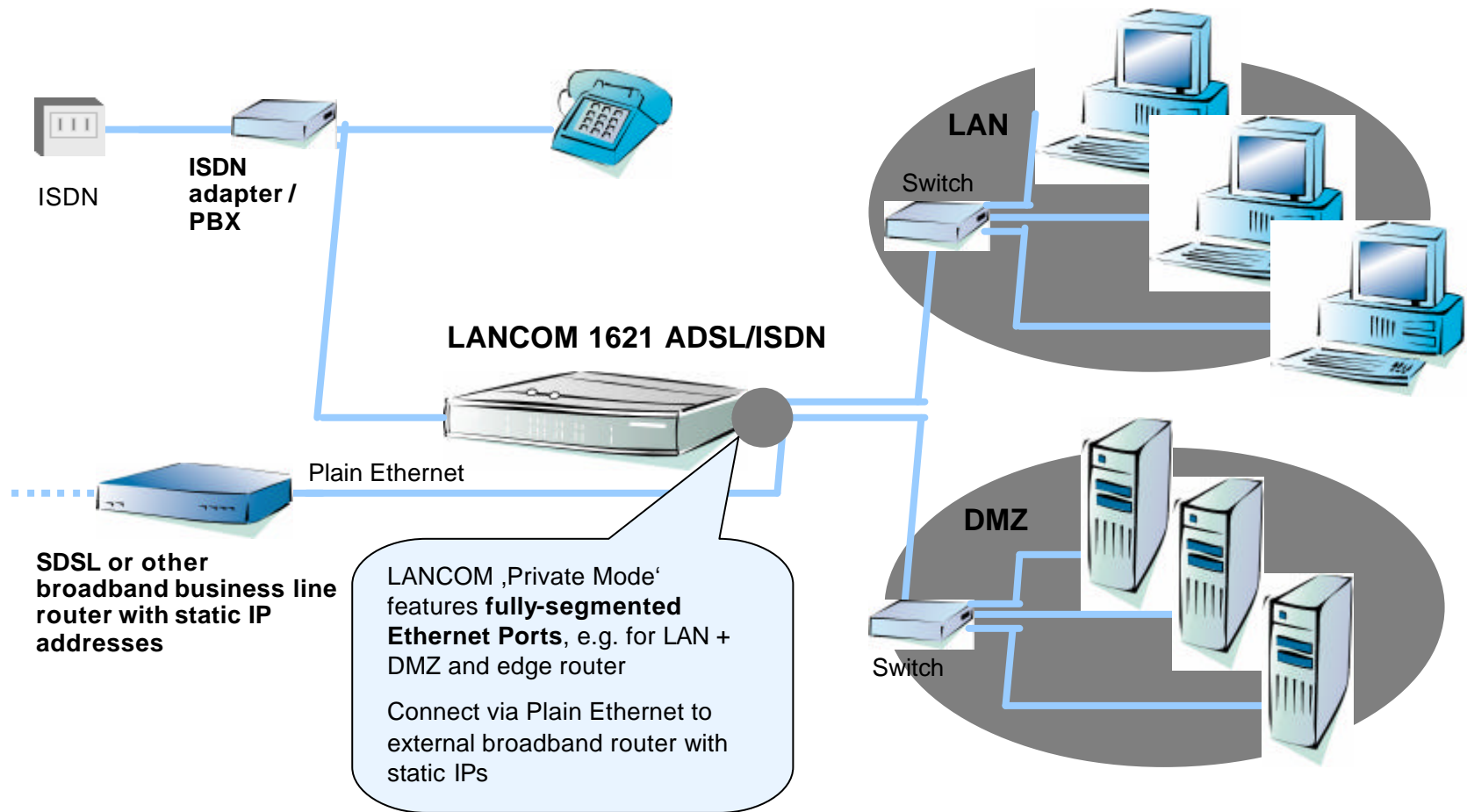 SDSL

- LANCOM 821
  ADSL/ISDN and
  LANCOM 1621
  ADSL/ISDN

ISDN adapter

ISDN

LANCOM 1621 ADSL/ISDN

PPPoE

Ethernet

SDSL Modem

Connect an external
broadband modem
(PPPoE) to one of the
integrated switch ports.

Local Network

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DSLoL with LANCOM ADSL Series (2/2)

Features

- „DSL over LAN" maximal functionality together with „Private Mode"

- Ideally suited for VPN customers demanding mor upstream bandwidth

- Local private IP addresses in LAN, multiple public (static) IP addresses in DMZ

- Incl. IP QoS with Traffic Shaping / Limiting for balanced server accesses

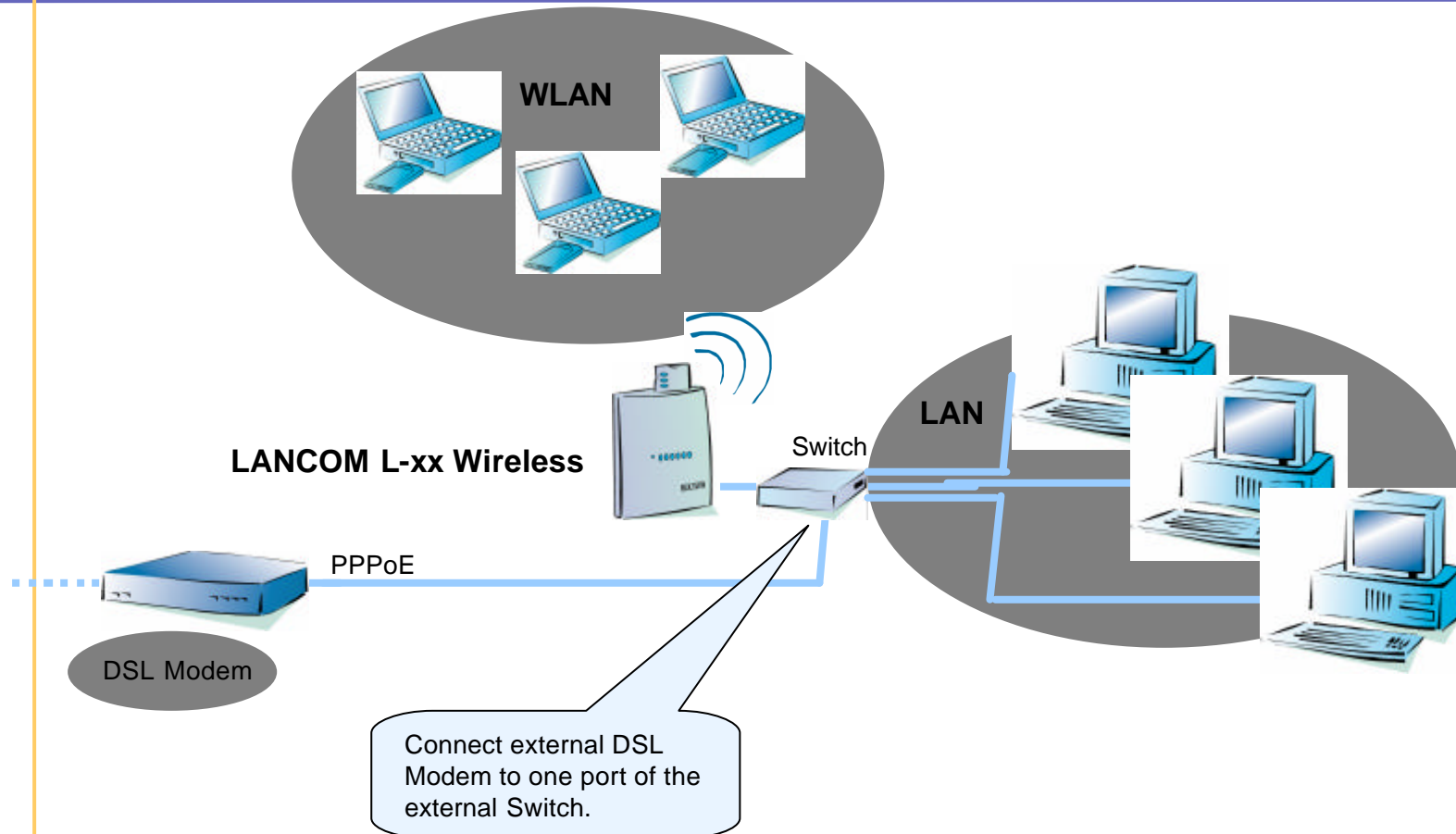- LANCOM 821 ADSL/ISDN und LANCOM 1621 ADS/ISDN

ISDN

ISDN adapter / PBX

LANCOM 1621 ADSL/ISDN

Plain Ethernet

SDSL or other broadband business line router with static IP addresses

LANCOM ‚Private Mode' features **fully-segmented Ethernet Ports**, e.g. for LAN + DMZ and edge router

Connect via Plain Ethernet to external broadband router with static IPs

LAN

Switch

DMZ

Switch

LANCOM Systems

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DSLoL with LANCOM WLAN Access Points

Features

- Used to be either LAN Router or WLAN Access-Point

- Now: complete solution for LAN (Router) and WLAN (Access Point)

- LANCOM L2, IL-2, L-11, IL-11 and L-54

WLAN

LANCOM L-xx Wireless

Switch

LAN

PPPoE

DSL Modem

Connect external DSL Modem to one port of the external Switch.

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Firmware Version 3.10

▶ Dynamic DNS

▶ DSL over LAN

▶ Quality of Service

▶ Scheduled Events

▶ Other Highlights

LANCOM Systems
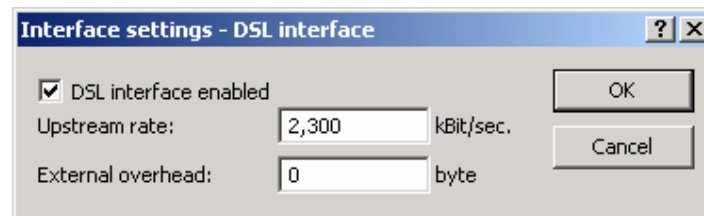
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Quality of Service

QoS also for Ethernet interfaces

All Ethernet WAN interfaces provide now an adjustable upstream speed for the LANCOM Quality of Service functions*.

Here you enter the transmission speed of your line (e.g. 2300 kBpps with SDSL, or typ. 128-256 kBps with ADSL). The Firewall's QoS rules can now prioritize according packets within this bandwidth, for example for Voice over IP applications.

The *LANCOM* sends datagrams according to their priority at precisely determined time slots, so that an external modem uplink will never get overloaded („time slot scheduler").

Adjustable upstream speed for Ethernet interfaces in LANconfig under „Management / Interfaces / DSL".

*) This function was previously implicitly available for devices with integrated ADSL modem only.

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Firmware Version 3.10

▶Dynamic DNS

▶DSL over LAN

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▶Scheduled Events

▶Other Highlights

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Scheduled Events

Time-controlled actions

The CRON table enables to execute certain actions at certain times. All *LANCOM* command line commands can be entered as execution actions.

For example, one can schedule firewall or bandwith limitations, automatic establishment of connections at predefined times, e.g. weekdays or at certain hours.
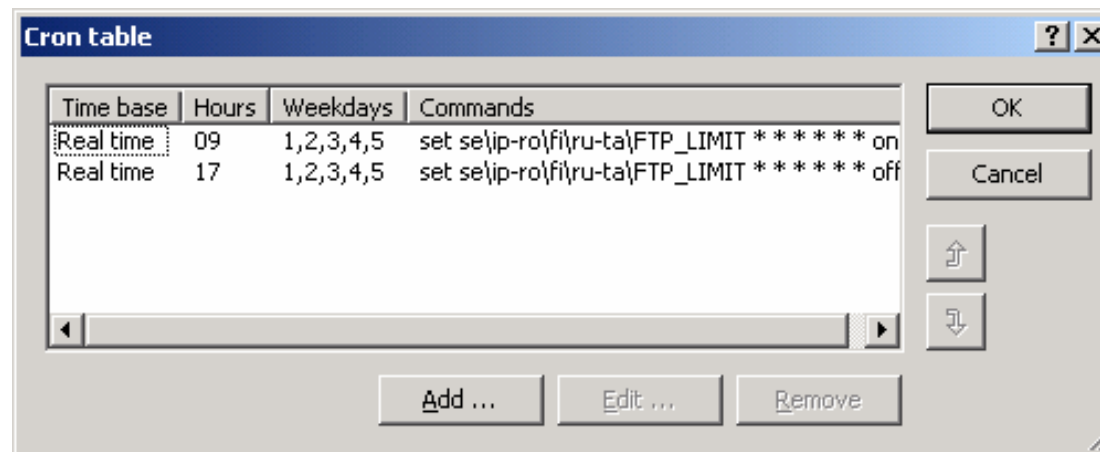
Applications

▶ Scheduled connections or disconnections at predefined times

▶ Time-controlled access rights

▶ Time-controlled bandwidth limitations

▶ Supports the entire LANCOM command line feature set

Cron table				
Time base	Hours	Weekdays	Commands	
Real time	09	1,2,3,4,5	set se\ip-ro\fi\ru-ta\FTP_LIMIT * * * * * * on	
Real time	17	1,2,3,4,5	set se\ip-ro\fi\ru-ta\FTP_LIMIT * * * * * * off	

CRON table: In LANconfig under „Date & Time / General"

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Firmware Version 3.10

▶Dynamic DNS

▶DSL over LAN

▶Quality of Service

▶Scheduled Events

▶**Other Highlights**

LANCOM Systems

Connecting your Business

Other Highlights (1/2)

LANCOM VPN Client and NetBIOS (Windows Networking)

Beginning with Version 3.10, LANCOM VPN Client features detailed settings for Windows networks. Access to shared files or printers can be set individually (depending on the operation system).

Enhanced ADSL linecode

Devices with integrated ADSL modems got an updated linecode for ADSL over ISDN connections (Annex B). This results in an enhanced signal to noise ratio, which is valuable under certain critical line conditions.

Adjustable Wireless LAN transmission power

The radio transmission power can be set manually for devices with integrated 54 Mbps radio cards. This enables operation of high-gain narrow-beam antennas, which would deliver too high gains beyond regulatory conformance themselves. With manual transmission power control, the effectively radiated power can exactly be set to the maximum allowed. Since this manual reduction affects the transmitted power solely, the entire antenna or booster gain is still available for the receive direction.Thus maximum radio link lenghts can be achieved. Another application would be the local restriction of Wireless LANs.

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Other Highlights (2/2)

More flexible Firewall rules

All Firewall rules are separately switchable now, and can be prioritized manually. This supports you when setting up complex Firewall rule sets.

The whole amendment record can be found in the files belonging to the individual firmwares:

▶ „Readme.txt" resp. „Liesmich.txt"

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Service and Support

We wish you all the best with your new LANCOM product!

We'd be happy to receive your feedback – either positive or negative, as well as feature suggestions via email to info@lancom.de.

Please find actual support information on our Internet support site, or in the enclosed support leaflet.

In case your were not able to resolve your questions by reading our manuals, please contact your local distributor for further assistance.

Your LANCOM Systems Team.