

Lancom Options

*VoIP Basic - VoIP Advanced - UMTS/VPN - Public Spot
Rack Mount - Modem Adapter - Dynamic VPN*

VoIP Basic Option

- VoIP upgrade for all "VoIP ready" LANCOM routers
- SIP proxy for registration with providers and upstream VoIP PBXs
- SIP/ISDN gateway with transparent transition between SIP and ISDN
- Intelligent call routing based on the telephone number, domain or line
- Number translation for internal and external MSNs
- For up to 4 VoIP



The LANCOM VoIP Call Manager upgrades LANCOM routers with powerful Voice over IP functions which offer professional data and voice communications.

VoIP Advanced Option

- VoIP upgrade for all "VoIP ready" LANCOM routers
- SIP proxy for registration with providers and upstream VoIP PBXs
- SIP/ISDN gateway with transparent transition between SIP and ISDN
- Intelligent call routing based on the telephone number, domain or line
- Number translation for internal and external MSNs
- For up to 32 VoIP subscribers

Available as the VoIP Basic Option and VoIP Advanced Option, the Call Manager is suitable for all current devices labeled as "VoIP ready". Along with internal and external VoIP communications, these options enable the ISDN interface to be used for switching telephone calls between internal VoIP subscribers and the public telephone network.

More flexibility.

The VoIP Call Manager supplements LANCOM routers with the functions SIP proxy, SIP/ISDN gateway and call router. These features enable a seamless transition between ISDN telephony and Voice over IP in a huge diversity of scenarios. For instance, various accounts at SIP providers can be used on a shared basis, and upstream VoIP PBXs can be integrated, too. By way of the router's ISDN interface, the Call Manager enables SIP terminal equipment to call ISDN subscribers in the public ISDN telephone network. The automatic number translation and the conversion between SIP and ISDN are completely invisible to the user, and migration paths can be planned flexibly.

More quality.

The VoIP Call Manager can optionally intervene in the negotiation of voice compression for VoIP connections. This allows certain coding methods to be dropped in favor of other methods which offer better quality or optimize the use of available bandwidth. In combination with the excellent Quality of Service functions, the best possible voice quality can be achieved. The availability of telephony can be assured both by the all-round redundancy functions of the LANCOM router and by reverting back to the alternative ISDN lines, if necessary. This ensures that, even when using VoIP, levels of availability can be guaranteed to satisfy professional scenarios.

More Benefits.

The VoIP Call Manager provides professional levels of redundancy and security from eavesdroppers—benefits which are based upon the VPN and load-balancing functions in LANCOM routers.

All functions are integrated into the central management functions. Configuration and monitoring of the voice functions are fully integrated into LANconfig and LANmonitor and can also be accessed via SNMP, SSH, Telnet and the web interface. This provides uniform management of PBX and IP components, which leads to a reduction in administration effort overall.

Options

UMTS/VPN Option

- Broadband access via UMTS with 6-times the speed of ISDN
- Translates UMTS/GPRS to WLAN/LAN
- 5 VPN channels included
- Back-up alternative to ISDN
- Integrated DSL interface, router and firewall



The LANCOM UMTS Option transforms the WLAN routers LANCOM 3050 Wireless or LANCOM 3550 Wireless into communication all-rounders. The option and a UMTS card from leading operators of mobile telephone systems is expected to be available as of late May.

The combination of UMTS, WLAN, DSL and VPN opens up a completely new range of possibilities in enterprise connectivity—for example, mobile conference rooms that are connected via UMTS and offer

Internet access over WLAN or access to the company network via VPN. As a back-up connection for site coupling, UMTS is cheaper and faster than the conventional alternative, ISDN. Furthermore, it is significantly less prone to failure as there are no cables which are at a risk from construction works. Apart from that, UMTS is able to bridge the "last mile" for customers who do not have access to an equivalent broad-band connection.

The UMTS card is simply operated in the CardBus expansion slot of the LANCOM 3550 Wireless. The device automatically switches Internet access between UMTS and GPRS depending on availability. The LANCOM WLAN router offers VPN encryption as an optional extra so that IPsec-encrypted corporate connections can be realized with UMTS.

Supported hardware:
- WS/3050 Wireless
- WS/3550 Wireless

Public Spot Option

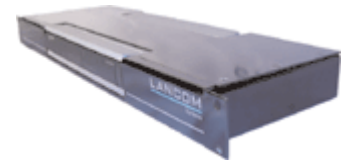
- Web-based user authentication for wireless LANs
- RADIUS AAA support
- SNMP-capable (MIB-II, private MIB)
- Professional management tool
- Software option for all LANCOM access points



The LANCOM Public Spot Option is the ideal solution for public wireless LANs because wireless LANs corresponding to the Wi-Fi standard (IEEE 802.11b) are well suited for corporate networks and wireless home networking. However the standard does not provide any mechanism of single user authentication and accounting for public access services. This drawback is removed by the Open User Authentication (OUA), the core component of the LANCOM Public Spot Option.

Rack Mount Option

- Fits with all LANCOM devices in the new housing
- Uses one height unit in a 19" rack
- Easy to mount
- Stable metal carrier



The LANCOM firewalls, routers, VPN gateways and access points fit smoothly into your available network infrastructure. The LANCOM rack mount option enables a space-saving, professional equipment storage for all 19" racks. In your rack merely one height unit is needed to let the LANCOM device, cable and power supply 'disappear'.

Modem Adapter Kit

- Internet access via modem with all of the router functions such as firewall, automatic connection establishment and termination, etc.
- Remote maintenance (e.g. dial-in to international sites)
- Backup connection (e.g. high-availability through GSM/GPRS modem connection)
- Dynamic VPN: IPSec site couplings with dynamic IP addresses



Internationally, analog telephone connections are just as common in the business world as the predominant ISDN connections in Germany. The operation of international networks thus places particular demands on remote maintenance options and for high-availability of the gateways and

thus requires different interfaces than the ISDN common in Germany. Apart from conventional analog telephone lines, mobile telephone networks such as GSM or GPRS may, in certain cases, represent the only way of providing remote maintenance without broadband or other cabled access.

In response to these requirements, most LANCOM models with a serial interface can be extended with an additional WAN interface with the use of analog modems, GSM or GPRS.



The following are required to set up a backup connection over the serial interface: - LANCOM with serial configuration interface from the following list: LCOS as of version 4.12, LANconfig as of version 4.12, or alternatively a web browser or Telnet, Serial configuration cable, Analog modem, Hayes compatible, with access to a suitable analog telephone connection, LANCOM modem adapter kit to connect the modem over the serial configuration cable or alternate adapter with suitable contact assignment

Dynamic VPN Option

- Administration of dynamic IP addresses by LANCOM Dynamic VPN
- Optimum security at low, calculable costs
- Conforms to standards by using IPSec
- Free choice of Internet provider
- Scalable solution, 1– 1000 VPN channels
- Encoding methods Blowfish, CAST, 3DES, DES, AES
- Cross-linking of worldwide locations through the Internet
- Simultaneous and mixed use of all Internet access technologies as, ISDN, ADSL, SDSL, cable or leased line
- Enormous additional cost saving potential by Voice-over-IP in conjunction with VPN/DSL
- Simple set up using LANconfig configuration software, including installation wizards

Whether for the coupling of enterprise locations, the linking of partner companies or the supply of remote access services—Virtual Private Networks (VPN) today offer the economical and, above all, safe transfer of enterprise-critical data over the Internet. Solutions based on IP Security (IPSec) are well established and recognized world-wide in the Internet arena.

Encoding procedures such as DES, 3DES, AES, CAST, Blowfish guarantee system-wide compatibility. At the same time, the LANCOM Dynamic VPN also extends the assigned router with server functionalities such as exchange of codes and authentication of the communication partners. The LANCOM VPN solution provides for additional security with IP masquerading hiding all network actions behind only one IP address.

Revolutionary in the LANCOM Dynamic VPN technology is that fixed IP addresses are no longer needed: The IP addresses of the respective IPSec gateways are exchanged over ISDN before the connection is established. Internet-based VPN connections thereby escape the restriction of fixed and thus expensive IP addresses. Dialup connections using Internet service providers can be selected at any time, which are more flexible and cheaper—and with bandwidths of 64 kbps to 100 Mbps, depending upon the LANCOM model. Additionally, the scalability of the VPN solutions is calculated by varying license rates for a variable number of simultaneous VPN channels. LANCOM Dynamic VPN stands for maximum security, flexibility and economy.

The extension for VPN gateway is available as 5 channels or 25 channel option* for the following products, and/or is already integrated in the equipment:

VPN 5 channel factory-activated **

WS/1611+
WS/1811 Wireless DSL
WS/1711 VPN
WS/1721 VPN
WS/1821 Wireless ADSL

* The number of VPN channels indicates the number of simultaneously active VPN remote sites. The number of configurable remote sites amounts to 25 (VPN-5) resp. 50 (VPN-50).

** Since LCOS Version 3.32 and higher

VPN 25 channel extension option***

WS/1611+
WS/1811 Wireless DSL
WS/1711 VPN
WS/1721 VPN
WS/1821 Wireless ADSL
WS/3550 Wireless AP

*** Activates for LANCOM 1711 VPN, LANCOM 1711 VPN, LANCOM 1811 Wireless DSL and LANCOM 1821 Wireless ADSL also the hardware accelerator.