



# LANCOM All-IP Option

## Extension for professional telephony management

The LANCOM All-IP option upgrades your LANCOM router with effective telephony features. These include conventional telephony management with the Voice Call Manager, the secure separation of external and internal networks with the Session Border Controller or, when using a router with ISDN interface, the continued operation of existing ISDN components following the migration to All-IP. The LANCOM All-IP option enhances the functionality of your routers without having to invest in additional hardware.

- Professional telephony features with integrated LANCOM VCM (Voice Call Manager) and SBC (session border controller)
- Supports up to 10 internal phone numbers / ISDN MSNs
- Supports voice and fax connections
- Supports Clearmode for ISDN data connections
- For routers with an ISDN interface: Allows ISDN terminal equipment and ISDN PBXs with an ISDN bus to operate at All-IP connections



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## **Professional telephony with the LANCOM Voice Call Manager**

The LANCOM All-IP Option includes the Voice Call Manager, which enhances LANCOM routers with a comprehensive range of telephony functions. It handles all of the classic tasks of telephony and controls all of the components and functions connected to it. It is configured either by means of a web-based user interface accessed from any browser, or directly by means of LANconfig.

## **For LANCOM routers with an ISDN interface: Operate VoIP terminal equipment and ISDN PBXs**

When upgraded with the LANCOM All-IP option, LANCOM routers equipped with an ISDN interface connect directly to your existing ISDN equipment and ISDN PBX systems. The router then handles the conversion between ISDN and the VoIP-based All-IP network. This cost-effective and professional solution allows you to keep existing ISDN components in Operation.

## **Integrated session border controller**

The LANCOM All-IP Option equips you with the functionality of a session border controller: Among other things this guarantees the reliable separation of internal and external networks, and it provides professional management tools along with the secure encryption of the signaling and voice data.

## **Easy upgrades**

The LANCOM software options turn a simple network into a customized and cost-efficient solution that meets your individual needs. Simply install them on your existing hardware and you upgrade your network with the desired feature. The advantage: No additional hardware components are required. The costs and the administration overhead of the entire network are reduced. Genuine added value comes in terms of the system's future viability, because the options transform a network into a customized and scalable networking solution.



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## VoIP

Number of local subscribers	10 (up to 40 with VoIP +10 Option)
Number of local ISDN subscribers	max. 10
Number of external VoIP numbers	max. 25 (up to 55 with VoIP +10 Option)
Number of simultaneous VoIP connections	Up to 60 external VoIP connections depending on code conversion, echo canceling and load
Number of simultaneous ISDN connections	1 internal ISDN bus with 2 parallel channels. Multi-terminal or system access.
Functionality	Hold/Request, Swap, Transfer, Call Forwarding (CFU, CFB, CFNR), number display/suppression (CLIP, CLIR), suppression of second call (Busy on Busy), immediate outgoing line, hunt groups, call diversion, overlap dialing
Hunt groups	Hunt group cascades, Call diversion, simultaneously or sequentially. Automatic forwarding after timeout or when busy/unreachable
Call router	Central switching of all incoming and outgoing calls. Number translation by mapping, numeral replacement and number supplementation. Configuration of line and route selection incl. line backup. Routing based on calling and called number, SIP domain and line. Blocking of telephone numbers or blocks of telephone numbers. Inclusion of local subscribers into the number range of an upstream PBX. Supplement/remove line-related prefixes or switchboard numbers.
SIP proxy	Up to 25 SIP-provider accounts (up to 55 with VoIP +10 Option), up to 4 SIP PBXs incl. line backup. SIP connections from/to internal subscribers, SIP providers and SIP PBXs. Automatic bandwidth management and automatic configuration of the firewall for SIP connections.
SIP gateway	Conversion of ISDN telephone calls to VoIP calls, and vice versa. Local ISDN subscribers register as local VoIP users, and local ISDN subscribers automatically register as VoIP users at upstream VoIP PBXs/with VoIP providers. Number translation between internal numbers and MSN/DDI
SIP trunk	Call switching based on extension numbers to/from VoIP PBXs/VoIP providers (support of the VoIP-DDI functions compliant with ITU-T Q.1912.5). Mapping of entire VoIP telephone number blocks
Session Border Controller (SBC)	Separation of insecure and secure networks, QoS, management of signaling and voice data, transcoding
Media protocols	RTP, SIPs and SRTP
SIP-Codec support	SIP only: G.711 $\mu$ -law/A-law (64 kbps), G.722, G.723, G.726, G.729, iLBC, PCM (16, 20 und 24 Bit, Mono und Stereo), OPUS, AAC (LC, HE HEv2), MPEG Layer II, ADPCM 4SB. DTMF support (Inband, RFC2833, SIP-INFO)
Fax transmission	Transmission of fax via SIP on the LAN/WAN side with T.38 or G.711. Conversion of SIP fax with T.38 and break-in/break-out at the outside line to ISDN G.711 with service signalisation. Connection and conversion to SIP T.38 or G.711 for SIP or ISDN fax machines. Compatible to SwyxFax on true G.711 SIP lines.
Data transmission	64 kbit/s ISDN transmission via clearmode (RFC 4040)
Autoprovisioning	Automatic network and VoIP integration of LANCOM DECT N510/610 IP base station



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## Scope of delivery

License key	A license key is used to activate the LANCOM All-IP Option on your router. For this purpose, the license key has to be registered at the following website: <a href="https://www.lancom-systems.com/registration/">https://www.lancom-systems.com/registration/</a>
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## Suitable for

LANCOM All-IP License Option	<ul style="list-style-type: none"><li>→ LANCOM 1800EF (EU)</li><li>→ LANCOM 1800EFW (EU)</li><li>→ LANCOM 1800EF-4G (EU)</li><li>→ LANCOM 1800EF-5G (EU)</li><li>→ LANCOM 1800VA-5G (EU)</li><li>→ LANCOM 1800VA (EU)</li><li>→ LANCOM 1800VAW (EU)</li><li>→ LANCOM 1800VAW-4G (EU)</li><li>→ LANCOM 1800VA-4G (EU)</li><li>→ LANCOM 1800EFW-5G (EU)</li><li>→ LANCOM 1650E (EU)</li></ul>
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## Requirements

Software	LCOS & LCMS 9.04 or higher
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## Item number(s)

LANCOM All-IP License Option	61419
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