

Virtual firewall with UTM for next-generation security

vFirewall

Intelligent, consistent network security is no longer something to wish for, despite maximum flexibility and low operating and maintenance costs at the same time: Operated in cloud scenarios or conventional networks, the next-generation firewall (NGFW) LANCOM vFirewall offers the same security and functionality as the hardware-based LANCOM R&S®Unified Firewalls. It has no conventional hardware to take up space. The LANCOM vFirewall simply operates in a virtualized environment based on a hypervisor such as VMware ESX, Oracle VirtualBox, Microsoft Hyper-V, or KVM. The flexible licensing model allows your virtual firewall to "grow" with your needs in terms of UTM performance and network size.

- → Next-generation IT security through UTM "engineered in Germany" and guaranteed freedom from backdoors for protection against spam, viruses and malware as well as cyber attacks
- \rightarrow State-of-the-art security techniques such as R&S@PACE2 Deep Packet Inspection and SSL Inspection
- → Preventive security against as yet unknown threats through integrated Sandboxing and Machine Learning
- → Custom application and filter rules for increased security via Application Management and Content Filter
- → Virtual, software-based firewall for operation with VMware ESX, Oracle VirtualBox, Microsoft Hyper-V or KVM
- → Intuitive network visualization for easy implementation of security and compliance requirements
- → Convenient firewall management via intuitive Web interface, LANCOM Management Cloud, or LANCOM R&S®UF Command Center
- → Operation in a high-availability cluster (HA cluster) possible without additional costs or licenses
- → Runtime-based licensing model (1 or 3 years) in sizes S to XL



Our security pledge: next-generation security with UTM

With threats to networks constantly growing, trusted security is anything but a given. As the keystone of network security, next-generation firewalls (NGFW) combine common security mechanisms with the latest generation technologies. In the triad of security, compliance, and usability, the top priorities are effective protection of your network and maximum prevention against threats that are not yet known – this promise applies without restriction to all LANCOM R&S®Unified Firewalls and the LANCOM vFirewall. They are developed in Germany, are guaranteed to be free of hidden access options (backdoors), and thus bear the trust mark "IT Security made in Germany".

Always and everywhere available

The LANCOM vFirewall is deployed with just a few clicks thanks to instant and anywhere deployment: At any location around the world, wherever a firewall is required, it is created automatically – without any shipping or hardware installation. Be it in a lab environment, in your own server room or data center, or in the cloud.

Flexible size

Thanks to its flexible and scalable licensing model, the LANCOM vFirewall can simply "grow" with your needs and thus optimally adapt to your individual network requirements. For this purpose, licenses in sizes S to XL are available.

Fast recovery

The LANCOM vFirewall is easily and fully backed up to any storage medium at any time. This means that even in the event of server hardware failure, your firewall can immediately be restarted on another machine, so avoiding lengthy outages.

| | LANCOM vFirewall - S | LANCOM vFirewall - M | LANCOM vFirewall - L | LANCOM vFirewall - XL |
|--|----------------------|----------------------|----------------------|-----------------------|
| Cores | 1 | 2 | 4 | 16 |
| RAM | 4 | 8 | 16 | 64 |
| Max. recommen- ded number of users * | 20 | 100 | 200 | 500 |
| VLAN | 16 | 32 | 64 | 256 |

^{*} When all UTM functions are used simultaneously by all users



| Features | Basic License | Full License | Feature description |
|---|------------------|-----------------|---|
| Content Filter | | √ | URL and content filter (incl. BPjM filter) Customizable rules for users Blacklists / whitelists Import / export of URL lists Category-based website blocking (individually definable) Online scan technology Based on HTTP(S) proxy Override function |
| Application Management | | √ | Layer-7 packet filter (DPI) Filter by applications (e.g. Facebook, YouTube, BitTorrent, etc.) Blacklists / whitelists Protocol validation HTTP and IEC 104 decoder R&S®PACE 2 (Protocol and Application Classification Engine) |
| Anti-Virus | | √ | HTTP/S, FTP, POP3/S, SMTP/S, IMAP/S Configurable exceptions Multi-level scanning (local and cloud-based) Sandboxing Fast classification of zero-day threats through Al technologies (machine learning) |
| Anti-Spam | | √ | POP3/S, SMTP/S, IMAP/S Configurable scan levels GlobalView Cloud using Recurrent Pattern Detection (RPD) – spam detection based on the e-mail distribution patterns Blacklists / whitelists Automatic e-mail rejection/deletion |
| DNS Web Filter | | √ | Filter by domain and content (incl. BPjM filter) Blacklists / Whitelists Import / export domain lists Category-based blocking of websites (individually configurable) Online scanning technology Based on DNS |
| IDS (Intrusion Detection System) / IPS (Intrusion Prevention System) | | √ | Protection from DoS, port scans, malware, botnets, exploits, and vulnerabilities More than 40,000 active signatures Configurable exceptions Scans all interfaces |
| Proxies | HTTP VoIP | √ | HTTPS, FTP, POP3/S, SMTP/S, IMAP/S, SIP HTTP (transparent/non-transparent) Reverse proxy Supports Active Directory and local users Time-controlled |
| LAN-/WAN support | √ | √ | Ethernet 10 / 100 / 1,000 / 10,000 / 40,000 Mbps Configurable MTU (Ethernet/DSL) Link aggregation xDSL Multi-WAN (weighted policy-based routing/failover) Load balancing Time restrictions for Internet connections Multiple, dynamic DNS support DHCP DMZ SNAT |
| VLAN | √ | √ | 4,096 VLANs per interface 802.1q header tagging (packet-based tagged VLANs) Compatible with bridging |



| Features | Basic License | Full License | Feature description |
|-------------------------|------------------|-----------------|---|
| Bridge mode | √ | √ | Layer-2 firewall Spanning Tree (bridge ID, port costs) Unlimited number of interfaces per bridge |
| Static routing | √ | √ | Freely configurable Multiple gateways configurable Policy-based routing based on input interface, source IP, output interface, destination IP |
| Dynamic routing | √ | √ | Exterior BGP Internal BGP Announced routes configurable |
| Traffic Shaping | √ | √ | Priority min. / max. bandwidth definable per traffic group (Quality of Service) Traffic grouping based on source application / destination / port / DSCP Different Traffic Shaping profiles selectable per WAN connection |
| Monitoring & statistics | √ | √ | Statistics (IDS/IPS, application control, surf control, antivirus/antispam) Logging to external syslog servers Export as CSV and XLS files SNMP/v2c and v3 Connection tracking Exportable executive report (PDF, HTML, CSV) |
| Administration | √ | √ | Object-oriented configuration Role-based administration IP-based access restriction for SSH and web client |
| Web interface | √ | √ | Self-explanatory functions Convenient wizard for initial setup Overview of the entire network Overview of all active services Browser-based, platform-independent View filtering based on custom tags |
| X.509 certificates | √ | √ | Support of certificates based on RSA / Eliptic Curves CRL (Certificate Revocation List) Multi-CA support Multi-host certificate support Certificate templates import / export via PEM / PKCS12 / DER |
| VPN | √ | √ | User authentication High availability Site-to-site and client-to-site Client configuration packages |
| IPSec | √ | √ | Full-tunnel mode Policybased or routebased IPSec IKEv1 (deprecated, upgrade to v2 strongly recommended), IKEv2 PSK (pre-shared key) / certificates DPD (Dead Peer Detection) NAT-T XAUTH, EAP Download portal for client configuration packages |
| SSL-VPN | √ | √ | Routing mode VPN Bridging mode VPN TCP/UDP Specification of WINS and DNS servers |



| Features | Basic License | Full License | Feature description |
|------------------------|------------------|-----------------|--|
| Backup and restore | √ | √ | Local or remote access Automatic import during installation Automatic and scheduled backups Automatic upload (FTP, SCP) Disaster recovery from USB drive |
| User authentication | √ | √ | Active Directory import Local user administration Authentication via web or client Single sign-on (Kerberos) Multiple logins Captive portal Terminal Server Support (via Remote Desktop IP Virtualization) |
| HA (High Availability) | √ | √ | A second Unified Firewall of the same type is required Stateful failover Active/passive Hot standby |
| | | | |



| Licenses (Basic) | Description | Item number |
|---|---|-------------|
| LANCOM vFirewall - S Basic License (1 Year) | License for activating the firewall functions of the LANCOM vFirewall (max. 1 core, 4 GB RAM), incl. Support & Updates, runtime 1 year | 55186 |
| LANCOM vFirewall - S Basic License (3 Year) | License for activating the firewall functions of the LANCOM vFirewall (max. 1 core, 4 GB RAM), incl. Support & Updates, runtime 3 years | 55187 |
| LANCOM vFirewall - M Basic License (1 Year) | License for activating the firewall functions of the LANCOM vFirewall (max. 2 cores, 8 GB RAM), incl. Support & Updates, runtime 1 year | 55192 |
| LANCOM vFirewall - M Basic License (3 Year) | License for activating the firewall functions of the LANCOM vFirewall (max. 2 cores, 8 GB RAM), incl. Support & Updates, runtime 3 years | 55193 |
| LANCOM vFirewall - L Basic License (1 Year) | License for activating the firewall functions of the LANCOM vFirewall (max. 4 cores, 16 GB RAM), incl. Support & Updates, runtime 1 year | 55198 |
| LANCOM vFirewall - L Basic License (3 Year) | License for activating the firewall functions of the LANCOM vFirewall (max. 4 cores, 16 GB RAM), incl. Support & Updates, runtime 3 years | 55199 |
| LANCOM vFirewall - XL Basic License (1 Year) | License for activating the firewall functions of the LANCOM vFirewall (max. 16 cores, 64 GB RAM), incl. Support & Updates, runtime 1 year | 55204 |
| LANCOM vFirewall - XL Basic License (3 Year) | License for activating the firewall functions of the LANCOM vFirewall (max. 16 cores, 64 GB RAM), incl. Support & Updates, runtime 3 years | 55205 |
| Licenses (Full) | Description | Item number |
| LANCOM vFirewall - S Full License (1 Year) | License to activate the UTM & firewall functions of the LANCOM vFirewall (max. 1 core, 4 GB RAM), Sandboxing, Machine Learning, AV/Malware Protection, DPI, IDS/IPS, SSL Insp., incl. Support & Updates, runtime 1 year | 55189 |
| LANCOM vFirewall - S Full License (3 Year) | License to activate the UTM & firewall functions of the LANCOM vFirewall (max. 1 core, 4 GB RAM), Sandboxing, Machine Learning, AV/Malware Protection, DPI, IDS/IPS, SSL Insp., incl. Support & Updates, runtime 3 years | 55190 |
| LANCOM vFirewall - M Full License (1 Year) | License to activate the UTM & firewall functions of the LANCOM vFirewall (max. 2 cores, 8 GB RAM), Sandboxing, Machine Learning, AV/Malware Protection, DPI, IDS/IPS, SSL Insp., incl. Support & Updates, runtime 1 year | 55195 |
| LANCOM vFirewall - M Full License (3 Year) | License to activate the UTM & firewall functions of the LANCOM vFirewall (max. 2 cores, 8 GB RAM), Sandboxing, Machine Learning, AV/Malware Protection, DPI, IDS/IPS, SSL Insp., incl. Support & Updates, runtime 3 years | 55196 |
| LANCOM vFirewall - L Full License (1 Year) | License to activate the UTM & firewall functions of the LANCOM vFirewall (max. 4 cores, 16 GB RAM), Sandboxing, Machine Learning, AV/Malware Protection, DPI, IDS/IPS, SSL Insp., incl. Support & Updates, runtime 1 year | 55201 |
| LANCOM vFirewall - L Full License (3 Year) | License to activate the UTM & firewall functions of the LANCOM vFirewall (max. 4 cores, 16 GB RAM), Sandboxing, Machine Learning, AV/Malware Protection, DPI, IDS/IPS, SSL Insp., incl. Support & Updates, runtime 3 years | 55202 |
| LANCOM vFirewall - XL Full License (1 Year) | License to activate the UTM & firewall functions of the LANCOM vFirewall (max. 16 cores, 64 GB RAM), Sandboxing, Machine Learning, AV/Malware Protection, DPI, IDS/IPS, SSL Insp., incl. Support & Updates, runtime 1 year | 55207 |
| LANCOM vFirewall - XL Full License (3 Year) | License to activate the UTM & firewall functions of the LANCOM vFirewall (max. 16 cores, 64 GB RAM), Sandboxing, Machine Learning, AV/Malware Protection, DPI, IDS/IPS, SSL Insp., incl. Support & Updates, runtime 3 years | 55208 |

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