HYPER INTEGRATION!

LANCOM Management Cloud

SECURE. **NETWORKS.**

- **Automated**
- **Software-defined**
- **Hyper-integrated**

LANCOM
Systems

SECURE. **NETWORKS.**

Challenge
Digitalization

A fully functional network is the heart of any business.

And yet installing and managing it is highly complex. The shortage of skilled manpower makes things worse, as qualified network specialists are hard to find. At the same time, the conventional manual configuration is a time-consuming, error-prone, and thus very costly task.

Wouldn't it be great if there were an intelligent, higher instance that automates and controls the entire network from a central location? A kind of hyper-intelligence that networks all of the key components, dynamically responds to any new requirements, and which is also secure.

What sounds like a future scenario is here today.

Welcome to the **LANCOM Management Cloud**

The LANCOM Management Cloud is the world's first hyper-integrated management system that intelligently organizes, optimizes, and controls your entire network architecture in terms of its WAN, LAN, WLAN, and Security. State-of-the-art software-defined technology (SD-WAN, SD-LAN, SD-WLAN, SD-SECURITY) drastically simplifies the provision of integrated networks and makes the manual configuration of individual devices a thing of the past. The system adapts dynamically to your requirements, it is future-proof, and offers maximum security.

Maximum agility and versatility

State-of-the-art security

Radical time and cost savings

Highly automated multi-service networks of the highest quality

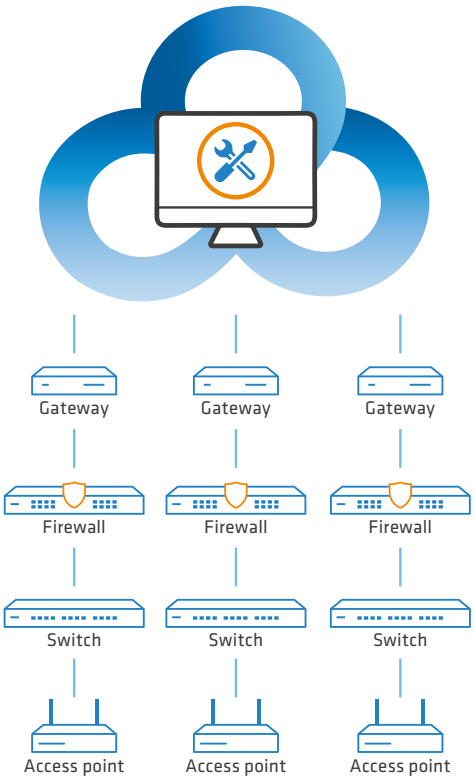
LANCOM
Management Cloud
SDN
Project
Dashboard: Wi-Fi / LAN
Location: Würselen
Dashboard
Networks
Locations
Devices
Project specifications
Management
Device Count
Online
26
100%
Offline
0
0%
Wi-Fi Users
Count
54
Mbps
0.33
2.4 GHz
36
5 GHz
18
Wi-Fi Networks
SSIDs
1
2.4 GHz
1
5 GHz
1
Locations Overview
3. OG
Wi-Fi clients (2.4 GHz + 5GHz)
Wi-Fi Users
Hour
Day
Week
Top Applications
Wi-Fi Throughput (Mbps)
Wi-Fi Users
Name
SSID
Signal
Client IP
Client MAC
AP name
Frequency
android-7bac5e8634d0c8b6
LANCOM-VISITOR
52%
192.168.2.249
f8:dfa8:7c:ae:bb
lc-e321_lc-cloud
2.4 GHz
Galaxy-S8
LANCOM-VISITOR
64%
192.168.2.177
8c:f5:a3:fb:bf:77
lc-e321_lc-cloud
2.4 GHz
Galaxy-S8
LANCOM-VISITOR
65%
192.168.2.242
30:07:4d:f1:69:24
lc-e326_lc-cloud
2.4 GHz
Galaxy-S6
LANCOM-VISITOR
67%
192.168.2.186
2c:0e:3d:c0:79:6b
lc-e326_lc-cloud
2.4 GHz
HUAWEI_Mate_10_Pro-cc6722
LANCOM-VISITOR
58%
192.168.2.185
74:d2:1d:c1:f5:f7
lc-e386_lc-cloud
5 GHz
KB-iPhone
LANCOM-VISITOR
88%
192.168.2.99
70:48:0f:76:a8:6e
lc-e386_lc-cloud
2.4 GHz
android-a8e59713a04e6abe
LANCOM-VISITOR
75%
192.168.2.82
40:40:a7:3c:eb:0e
lc-e386_lc-cloud
2.4 GHz
Galaxy-S8
LANCOM-VISITOR
59%
192.168.2.203
04:d6:aa:7f:b1:22
lc-e386_lc-cloud
2.4 GHz
HUAWEI_P8_lite
LANCOM-VISITOR
55%
192.168.2.247
88:28:b3:dd:02:37
lc-e386_lc-cloud
2.4 GHz
1 2 3 4 5 6
HDMI

Holistic
network orchestration

Hyper Integration means:
Fully automated configuration

LANCOM has made the manual configuration of individual devices a thing of the past – software-defined technology (SD-WAN, SD-LAN, SD-WLAN, SD-SECURITY) now delivers fully automated network orchestration. All the administrator has to do is specify the framework conditions for the network's design and security policies.

Auto-configuration and zero-touch deployment implement an automated rollout with maximum security. Complex network configurations, previously the cause of intense manual effort by certified IT professionals, is now reduced to just a few minutes and a few clicks!



The hyper-integrated **premium portfolio**

Hyper Integration means:
Routing, switching, Wi-Fi, security

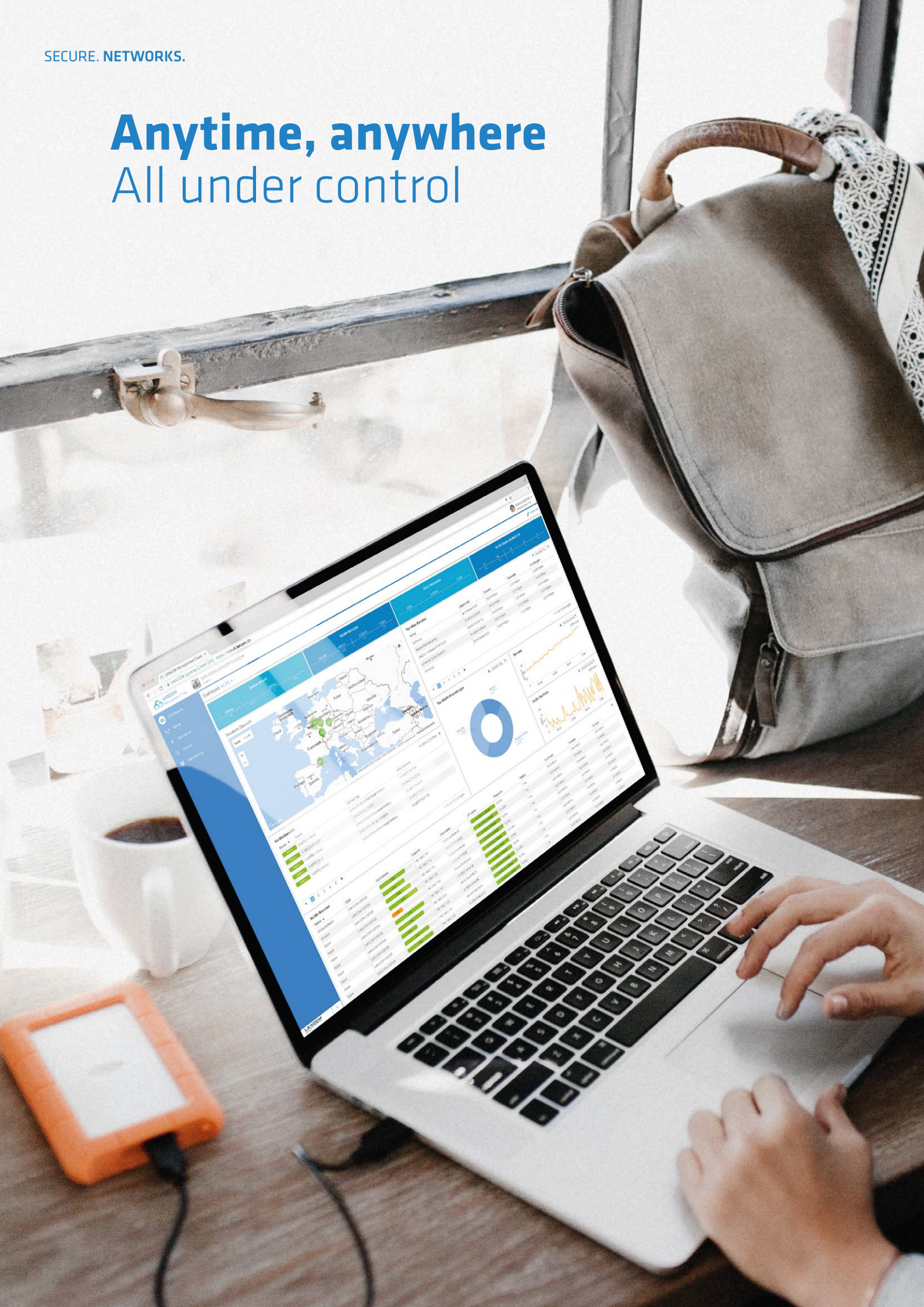
The LANCOM Management Cloud is a holistic system that controls the entire network infrastructure. This is only possible through a perfectly compatible product portfolio: You can quickly and easily transfer all gateways, all routers, all switches, all access points, and all firewalls to the cloud-based network orchestration for a holistic SD-WAN, SD-LAN, SD-WLAN, and SD-SECURITY.

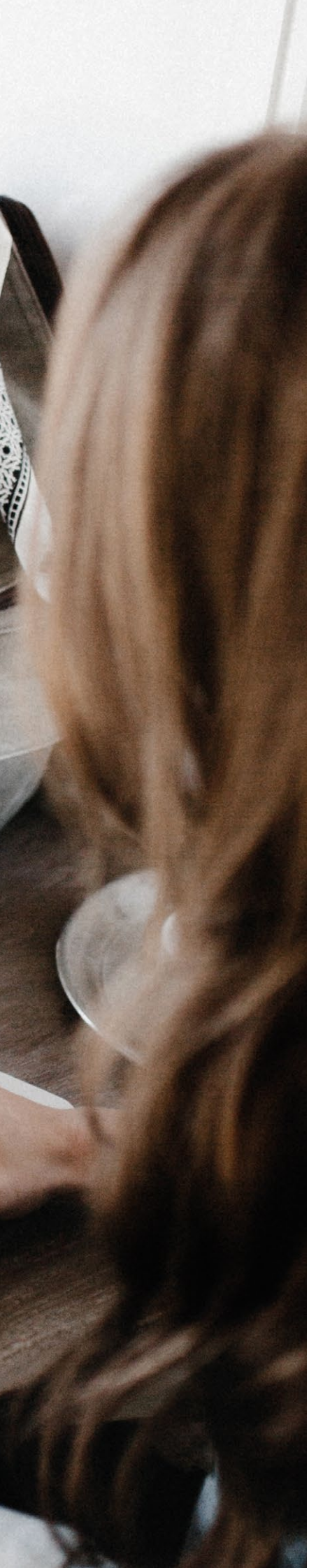
The easiest way into the Cloud

It takes just a few clicks to integrate your devices into the LANCOM Management Cloud – be they new devices or existing infrastructures. You decide whether to switch your entire network over to innovative SD-WAN, SD-LAN, SD-WLAN, and SD-SECURITY, or whether to take it step by step: A gradual transition of your different locations is easy to implement – so take a closer look at the full power of Hyper Integration.

SECURE. **NETWORKS.**

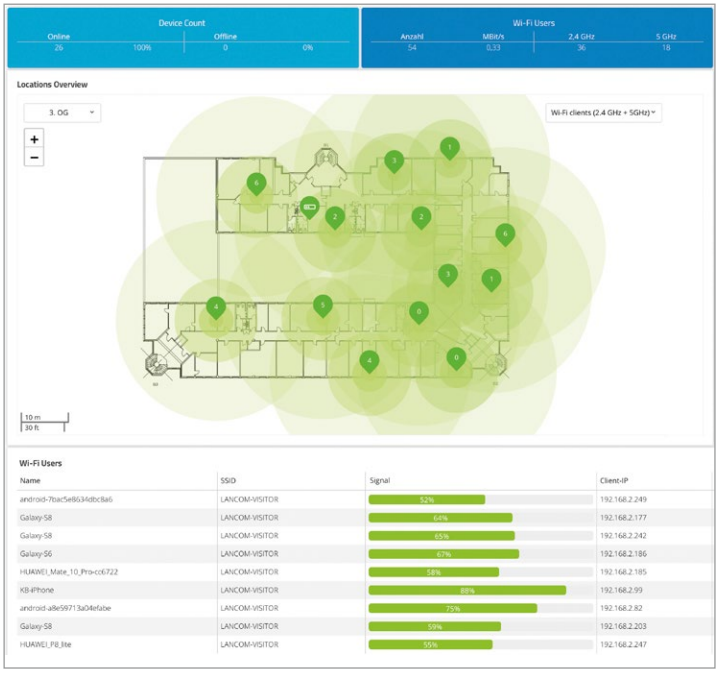
Anytime, anywhere
All under control





Hyper Integration means:
Central management & monitoring

The unique combination of state-of-the-art technology and the LANCOM premium portfolio encompasses all segments of the network infrastructure – the WAN, the LAN, the WLAN, and the security policies active on the network. These help you to create highly integrated, company-wide network scenarios at the click of a mouse: Interconnect your locations, home offices, and field staff, for instance. Define Wi-Fi networks for internal user groups or hotspots for guests. You can ensure maximum network security, for example through the central management of device passwords, content and application filtering, and protection from malware and viruses*. All of this is centrally designed, rolled out, and monitored with just a few clicks – a web browser is all you need. Furthermore, you benefit from around-the-clock monitoring, diagnosis, and troubleshooting. You are constantly aware of any events or errors on the network, which helps with the immediate detection and rectification of problem sources. This saves valuable time and eliminates the need for manual reactive checks on network performance – and ensures that your data is fully protected at all times.



* Integration in 2019

The right solutions **for different needs**

Public Cloud

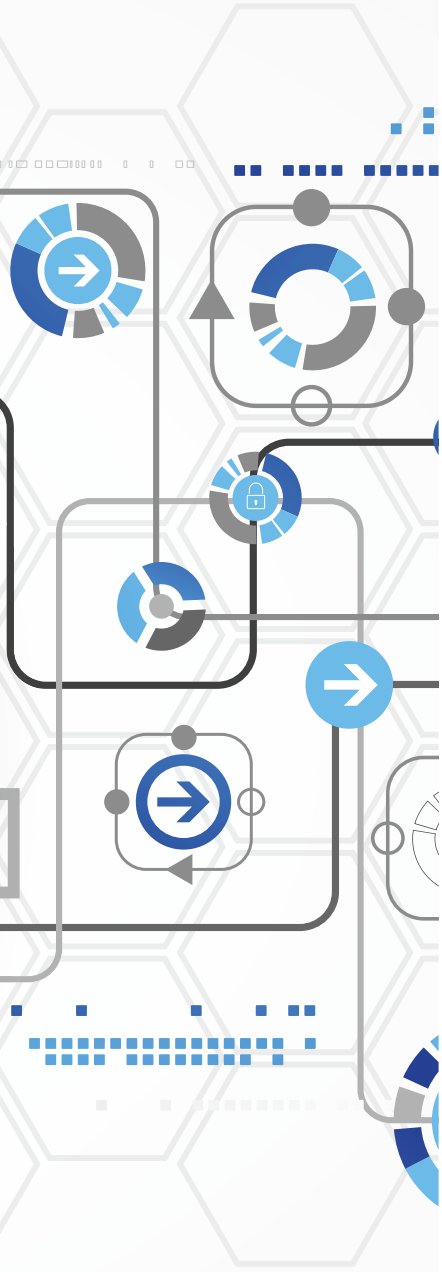
For any scale of installation, hosted centrally and securely in Germany

Private Cloud

For system vendors, service providers, and large enterprise installations

SecurITy made in Germany

TeleTrusT Quality Seal
www.teletrust.de/itsmig



Hyper Integration means:
Public Cloud or Private Cloud

You decide: Either you use the central and securely hosted Public Cloud based in Germany, which offers maximum scalability and data security for installations of all sizes.
Or you host the system yourself on the LMC Private Appliance. This is the ideal solution for observing corporate security policies that requires the operation of a private cloud without missing out on the features and convenience of the LANCOM Management Cloud. It allows companies to operate the LANCOM Management Cloud at their own data center or on-premises, without sharing an infrastructure with other client organizations. The solution package consists of a powerful hardware appliance, an installation service, and software maintenance by LANCOM Systems.

Hyper Integration means:
New licensing possibilities

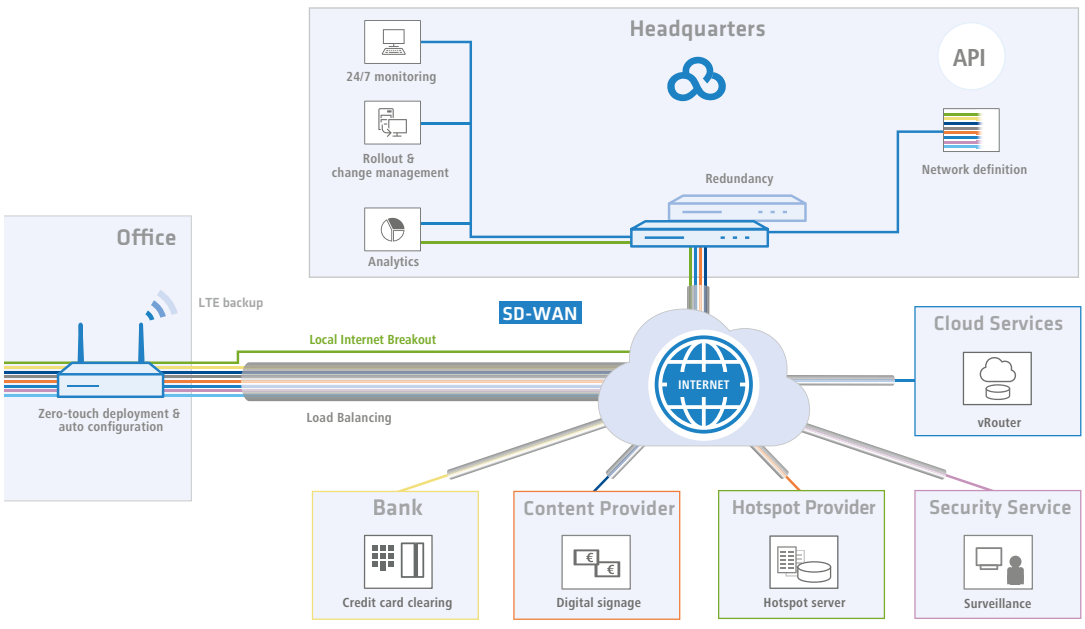
IT networks are often implemented using the conventional, static CAPEX model, i.e. the system vendor is involved in the planning of the network and the necessary hardware is then procured and put into operation. Later changes or upgrades are laborious and require the on-site presence of network specialists. In contrast to this static approach, the LANCOM Management Cloud not only makes your network agile, future-proof and easily expandable: it also provides license models that are billed as operating costs (OPEX) and that flexibly adapt to your requirements.

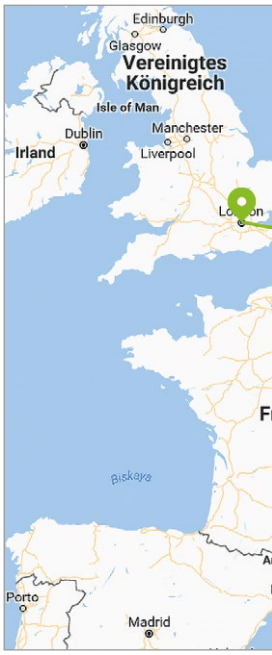
SECURE. **NETWORKS.**

SD-WAN

A software-defined wide-area network (SD-WAN) automatically and dynamically uses any type of wide-area network (WAN) for your site connectivity. The core element here are highly automated multi-service networks, which are realized via inexpensive Internet connections, so making expensive MPLS connections no longer necessary. New locations are installed automatically, securely networked with one another, and new applications are created and rolled out with just a few clicks. Backup, load balancing, and redundancy are supported as a matter of course. Software-defined WAN is replacing the conventional, static, and manually configured network infrastructures, and it is drastically reducing IT costs.

SD-WAN application scenario

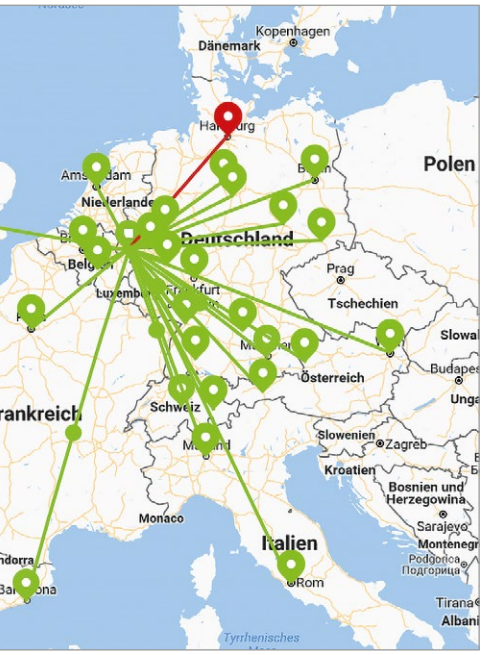




SD-WAN

vROUTER

(LANCOM VIRTUAL ROUTER)



+ Create new network

STATUS	NAME	IP RANGE	VLAN	INTERNET	VPN	HOTSPOT
Active	Alarm	10.6.0.0/16	6	✓	✓	–
Active	Intranet	10.8.0.0/16	8	✓	✓	–
Active	Hotspot	10.100.0.0/16	100	✓	–	✓
Active	Digital Signage	10.2.0.0/16	2	✓	✓	–
Active	ERP	10.1.0.0/16	untagged	✓	✓	–
Active	Voice	10.5.0.0/16	5	✓	–	–
Active	Management	10.3.0.0/16	3	–	✓	–
Active	DevOps	10.7.0.0/16	7	✓	✓	–
Active	Procurement	10.4.0.0/16	4	✓	✓	–

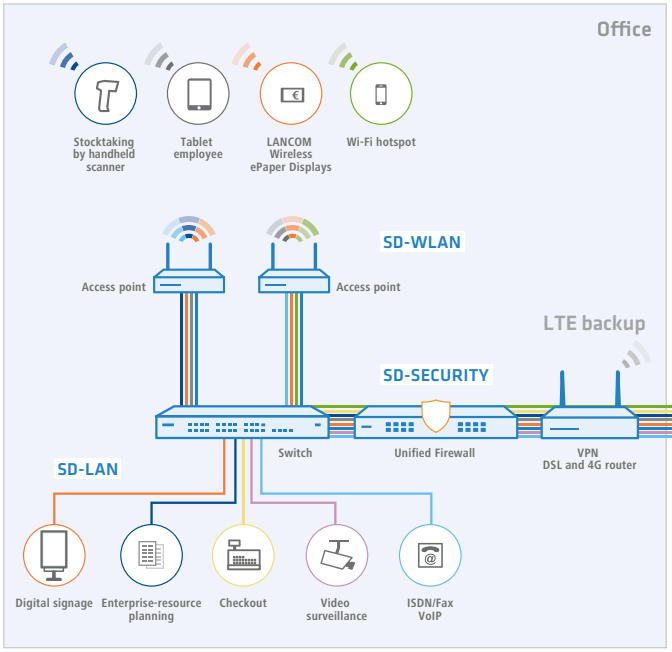
SECURE. **NETWORKS.**

SD-SECURITY

Software-defined security (SD-SECURITY) provides centrally managed cloud-orchestrated IT security for networks. Network-wide or site-specific security policies are configured by a central cloud management system, rolled out to the sites and monitored (cloud-managed security). Apart from LANCOM LCOS-based routers and VPN gateways LANCOM R&S®Unified Firewalls are integrated* into the network providing state-of-the-art protection against cyber attacks, viruses, and malware. For global enterprise customers this protection is alternatively offered via a central cloud-based solution by Zscaler. Furthermore, a central dashboard provides a constant overview of whether security and compliance requirements are being met across the entire network.

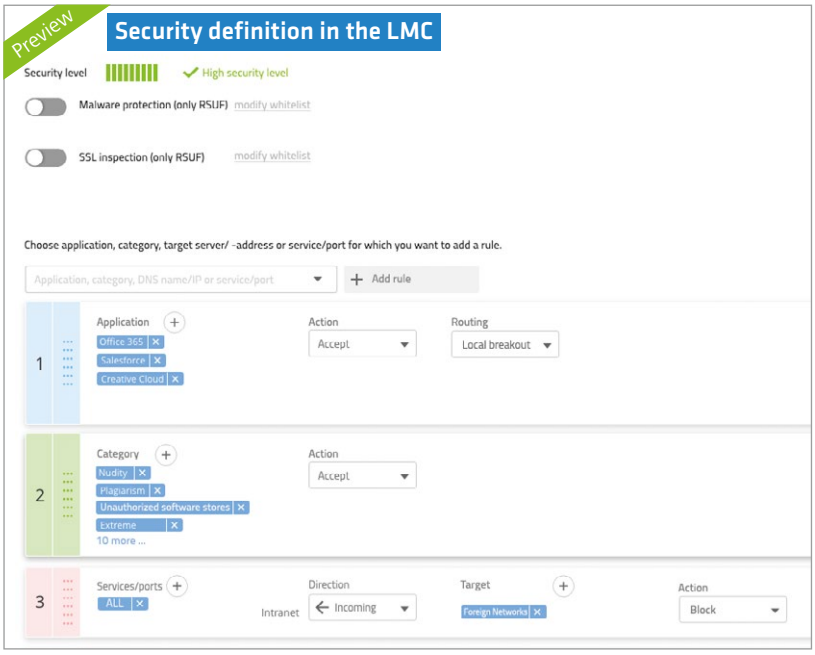
* Integration in 2019

Cloud-managed Security



SecurITy made in Germany

SD-SECURITY



Cloud-based Security by Zscaler**

- Cloud-based firewall features (antivirus, sandboxing, application control, bandwidth restriction)
- No additional security appliances required at the sites
- Real-time cloud updates for continual up-to-date protection
- Data Loss Prevention (DLP)

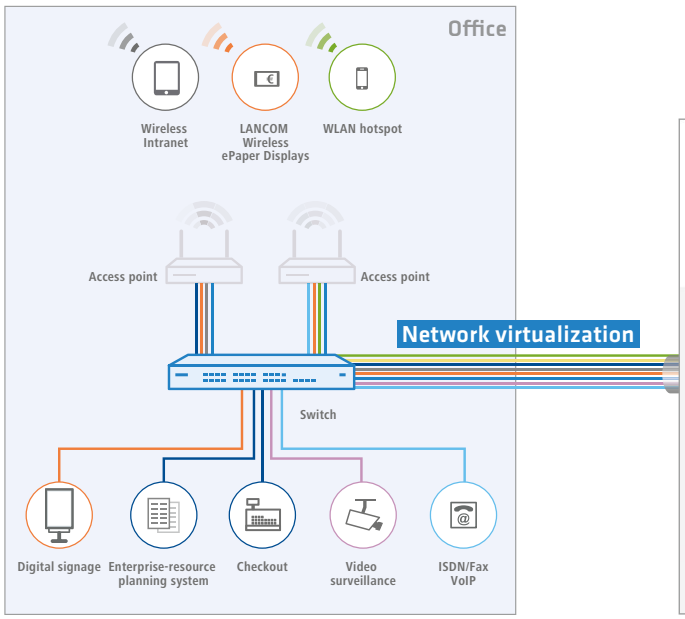
** only for major customers & enterprise projects, separate Zscaler account mandatory

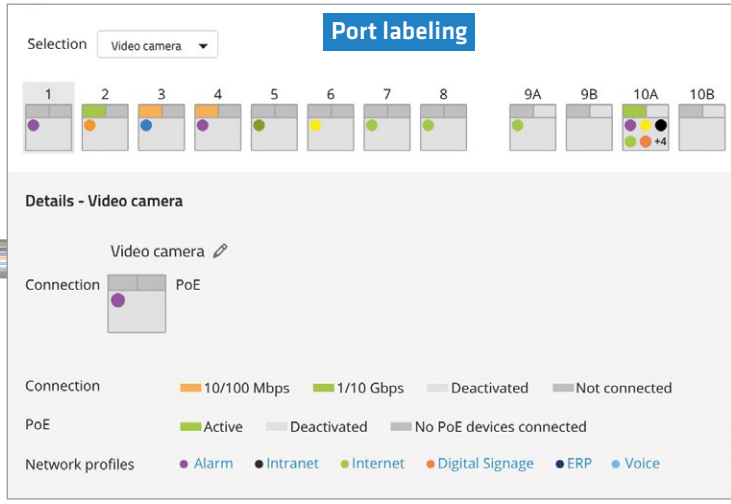
SECURE. NETWORKS.

SD-LAN

Short for software-defined local-area network, an SD-LAN supports the automated, dynamic, and secure provisioning of any type of multi-service network on switch ports. What used to be the extremely time-consuming and error-prone configuration of individual switches is now fully automated. For multi-site switch configurations, the required networks (VLANs) are defined once only, they are then assigned to the desired switch ports and made available by all of the switches on the network. You additionally modify the individual switch configurations with the user-friendly graphical VLAN assignment. An SD-LAN not only saves your valuable time, it completely eliminates manual configuration errors.

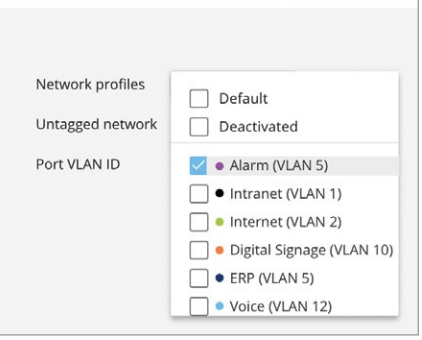
SD-LAN application scenario



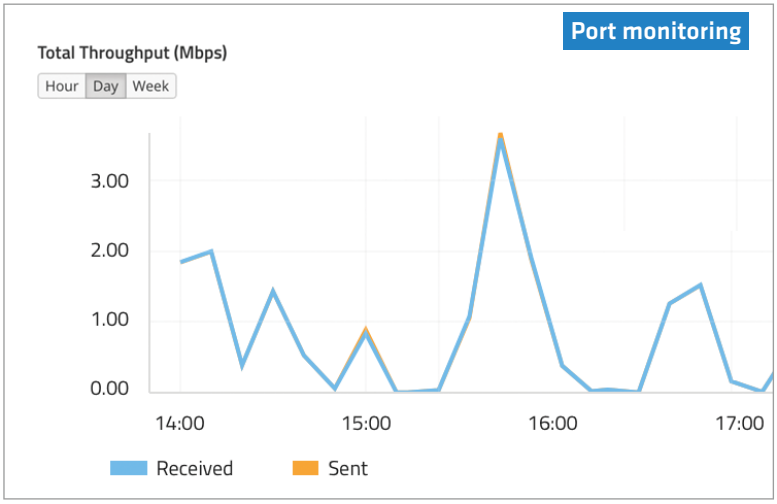


SD-LAN

Graphical VLAN assignment



Port monitoring

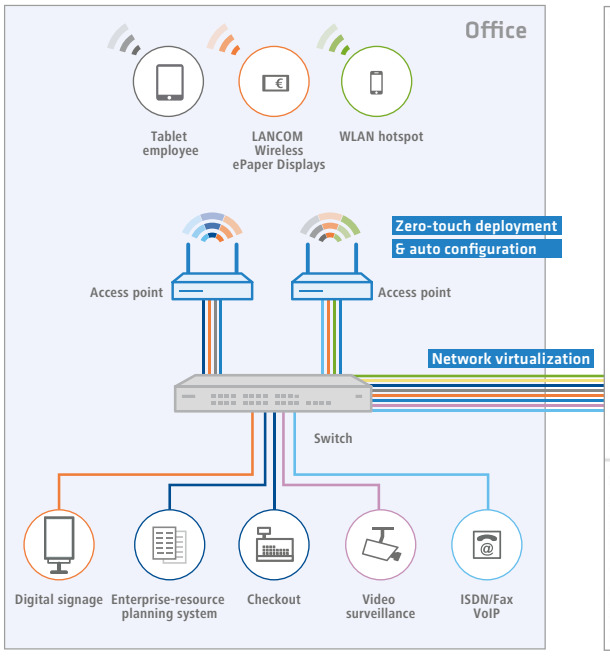


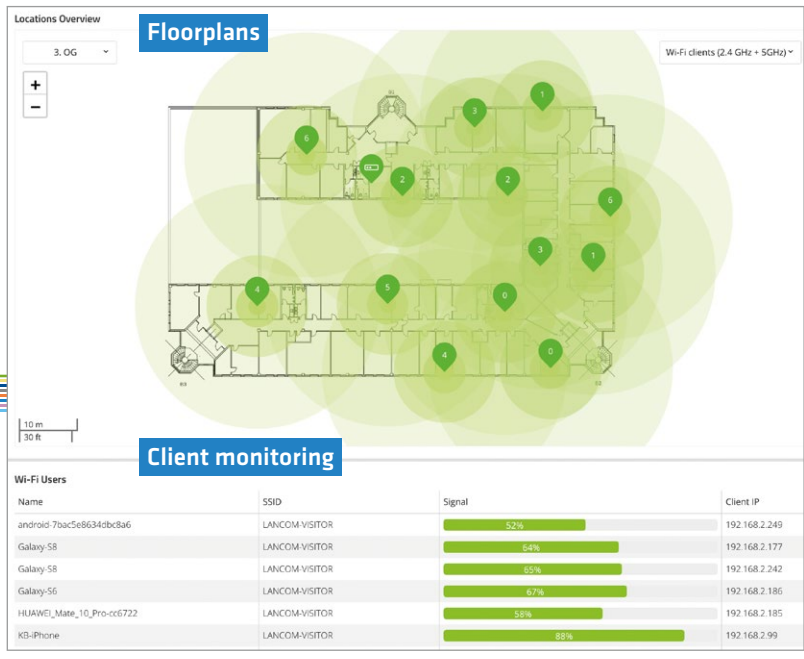
SECURE. **NETWORKS.**

SD-WLAN

A software-defined wireless local-area network (SD-WLAN) combines the features of conventional WLAN controllers and cloud-managed Wi-Fis and supplements these with maximized automation and agility. Additional access points or new applications such as hotspots are easily integrated into the network, taking full account of all network policies relating to VLANs, security, bandwidth management or client management. At the same time, an SD-WLAN offers administrators a graphical all-around view of the Wi-Fi status as well as the application-level and client-level loads on the entire network – prerequisites for proactive, around-the-clock troubleshooting.

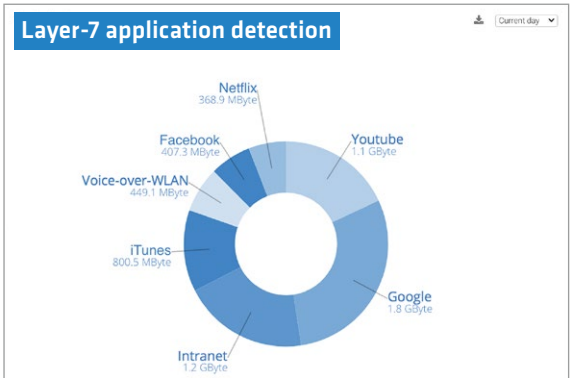
Cloud-managed Wi-Fi





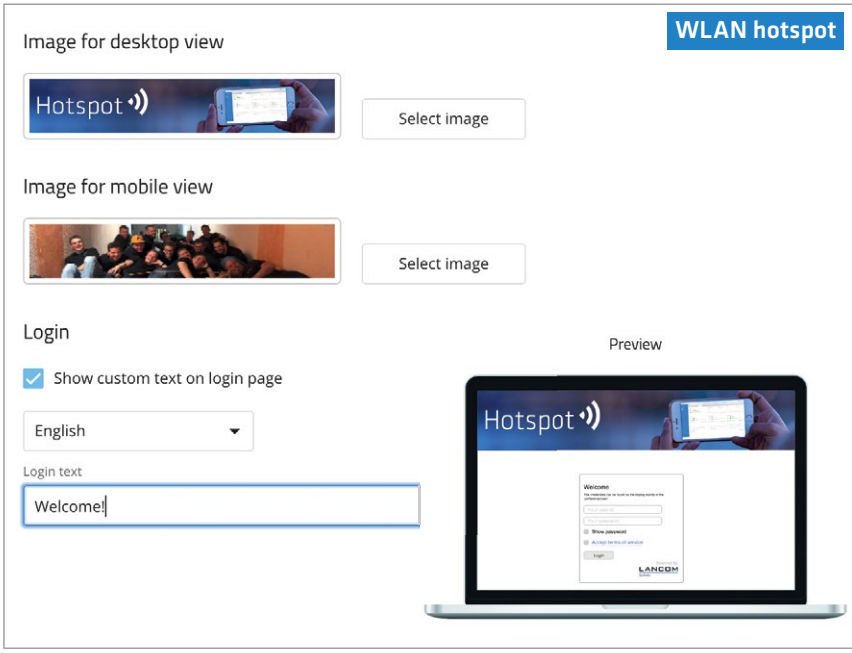
SD-WLAN

Layer-7 application detection



Usage statistics

WLAN hotspot

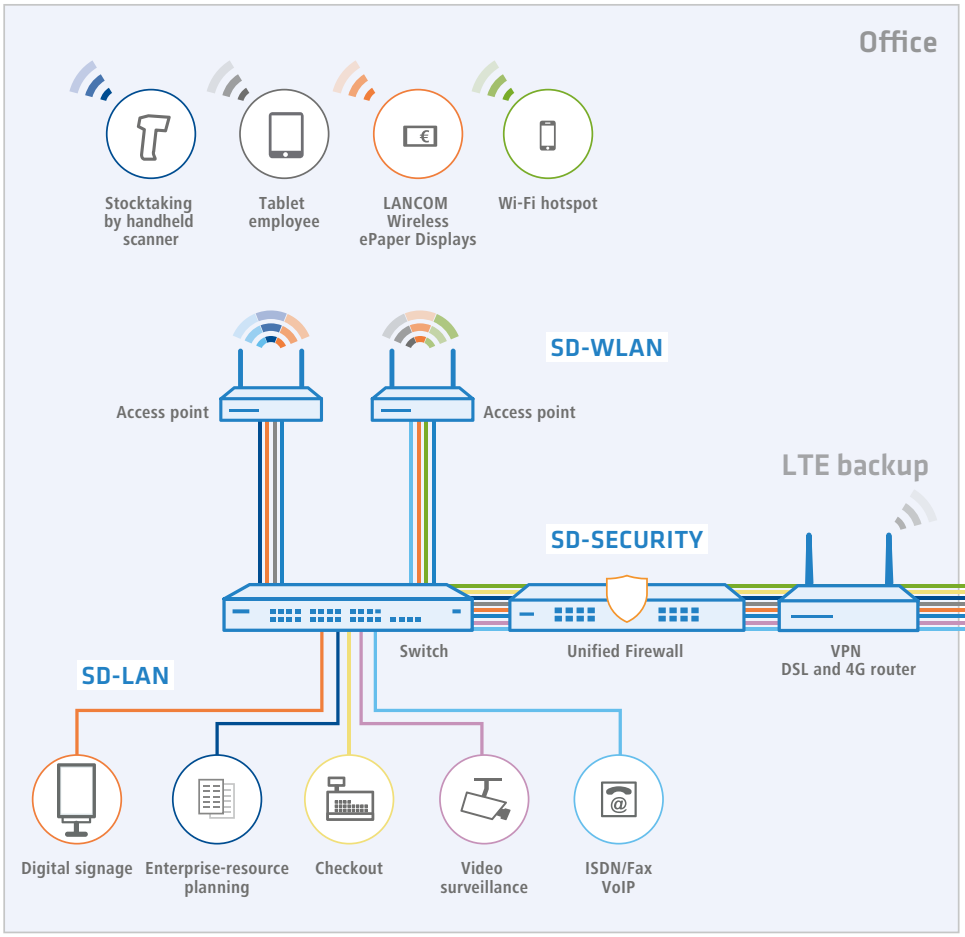


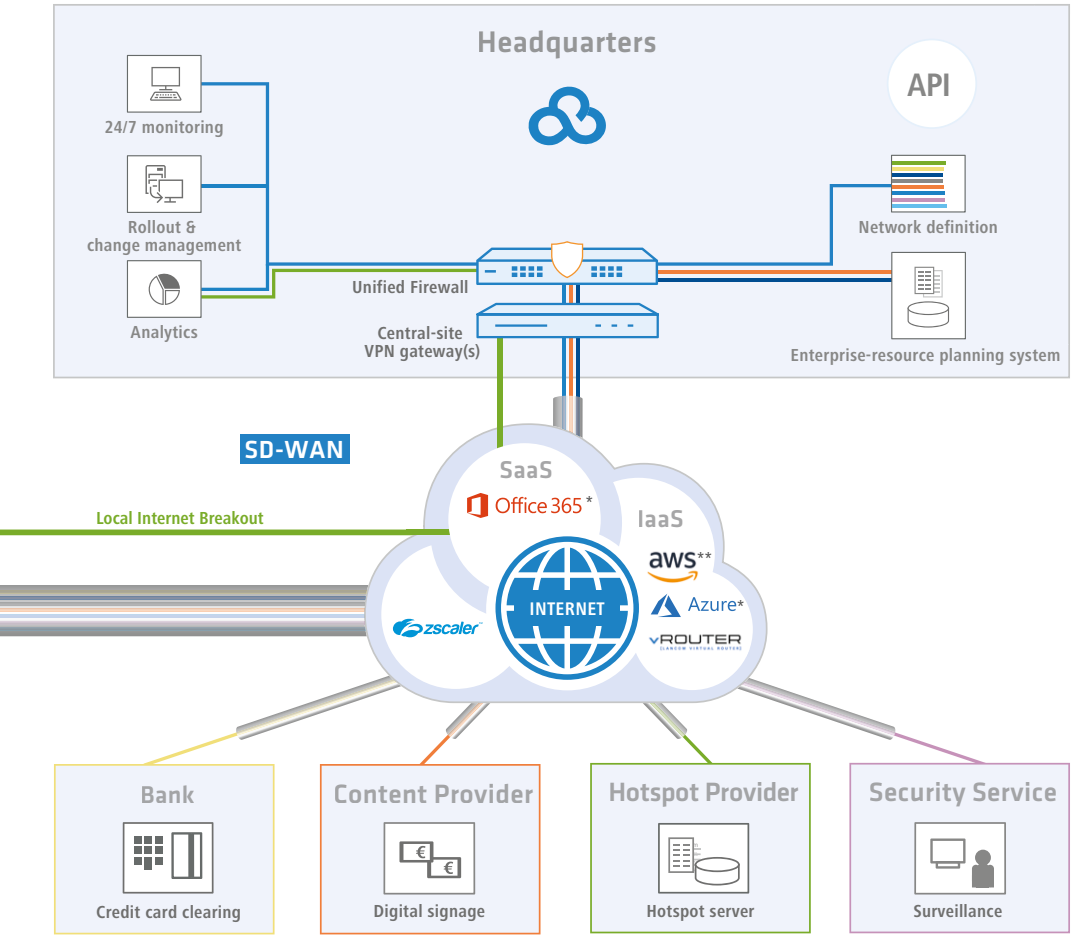
SECURE. **NETWORKS.**

LANCOM Hyper Integration
Software-defined Branch

SD-BRANCH

Hyper Integration meand combining SD-WAN-, SD-LAN-, SD-WLAN, and SD-SECURITY functionalities in one cloud-based management system. Through this, enterprises with many branch offices benefit from maximum automation, security, agiliy, and quality of your network operation. We call this: SD-Branch.





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Head office
LANCOM Systems GmbH
Adenauerstr. 20 / B2
52146 Wuerselen
Germany

Telephone
+49 (0)2405 49936-333

Fax
+49 (0)2405 49936-99

E-mail
sales@lancom-systems.com

Internet
www.lancom-systems.com

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