Experience in networking

More than fifteen years of experience backup our know-how in networking and network security. The knowledge and the skills that we have gained have made LANCOM into a quality brand for network components. Professional users who value stable and secure network operations have wisely placed their trust in LANCOM. Investments in networking infrastructure should provide capacity for future expansion and technological innovation. For this reason, LANCOM devices are conceptualized to offer a wealth of functions and potential for upgrading, and all of that with an optimal price-performance ratio.

LANCOM – Quality Made in Germany

Our products are designed to meet the specific needs of the European markets, which is supported by the fact that LANCOM products are developed and manufactured primarily in Germany. Our operating system LCOS (LANCOM Operating System) is a proprietary development. This gives our customers the assurance that specialized requirements and upgrades can be integrated quickly. Similarly, even those customers with older devices continue to benefit from regular free software updates. This demonstrates just how hard we are working to protect our customers' investments and how much we value the security of their networks.

Made in Germany

“Connecting your business”

This is our daily business and our promise to you.
You can rely on it.

For wireless LAN, site connectivity or mobility – solutions from LANCOM Systems are changing our lives with lasting effect. They speed up processes, optimize procedures in businesses and in public life, and they provide secure accessibility. On top of that, they help significantly to reduce costs in all sorts of areas.

Our high-quality product portfolio offers customized solutions for companies and institutions requiring secure, fast, and flexible communications with high availability.

We are the leading German specialist for network connectivity, mobile data access and wireless LAN.

LANCOM Systems

On the following pages we present some examples of our key solution areas:

Network Connectivity with LANCOM
Comprehensive and professional network design.

Secure networking wherever you are.

A typical working day: You and all your colleagues are connected to the company network and have secure, high-speed access to the Internet.

It's later in the morning and the wired Internet connection fails. Even though DSL is down, your router shifts to LTE/4G or UMTS/3G cellular networking to maintain a secure Internet connection.

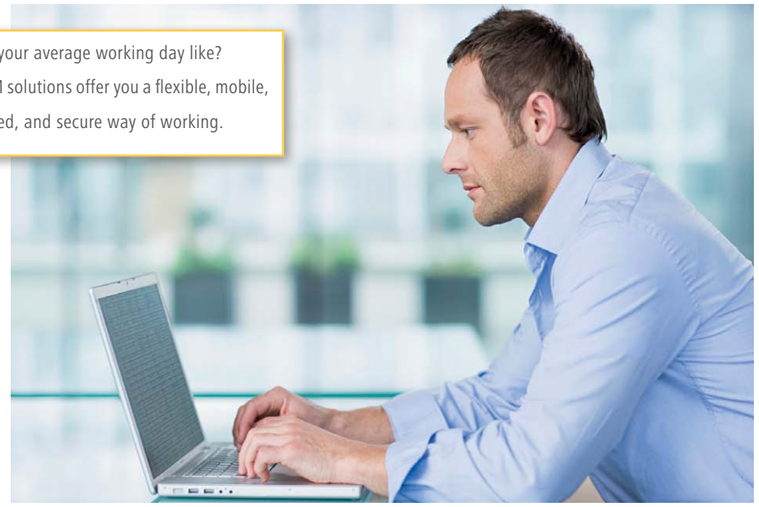
At last, your confidential CAD drawings are complete. Satisfied with the results, you send them over a secure virtual private network to your colleagues. No matter whether they are in the office next door or on the other side of the world.

You are on the move through your company's production facilities. It's noisy, dusty, hot, and there are machines all over the production hall. Even in this harsh environment, your mobile device has full access to the Internet and to the company network using VPN technology.

In the following conference, everybody's laptops are still connected to the network via wireless LAN. Your colleague in America is connected by video phone.

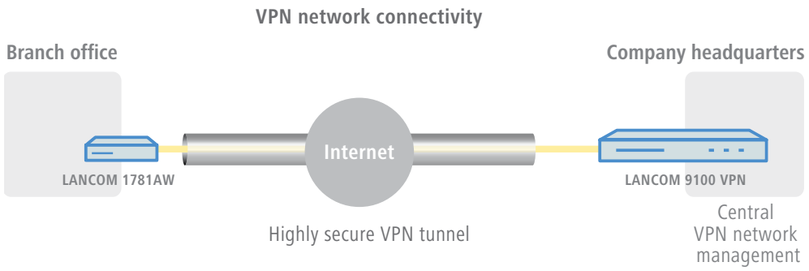
The afternoon has come and you are working from home. Here, too, you have access to your company's intranet, you can place internal calls, and you can edit documents in the company database, just as if you were in the office.

What is your average working day like? LANCOM solutions offer you a flexible, mobile, networked, and secure way of working.



VPN with LANCOM: A multitude of options for site-to-site connectivity and home offices

Cost-efficient communications and the secure exchange of confidential data is just a sample of the functions available when company sites are inter-connected over a secure data channel (VPN). The VPN concept exploits the wide availability of the Internet and adds all aspects of security. Leased lines are no longer required and it offers geographical flexibility. VPNs are suitable for all sizes of business and allow branch offices, home offices, and mobile staff to be connected securely.



Your success is in our best interests.
Our outstanding products, solutions, and services should not just satisfy you, they should inspire you!

IPv6

We actively help you to keep up with current trends:
LANCOM customers have the exclusive opportunity to thoroughly test the new IPv6 address standard, even before its widespread introduction by ISPs. As of LCOS version 8.61, current LANCOM routers, access points (802.11n), and WLAN controllers support both address standards, IPv4 and IPv6 ("dual stack").

Your company – your network
LANCOM offers solutions for challenging scenarios as such:

- Secure site and branch-office connectivity
- Wired or wireless Internet access
- Comprehensive management of network environments
- Mobile access to company networks
- Home-office connectivity
- Integration of production and logistics for real-time data acquisition

Connecting your business. You can rely on us.

Professional site connectivity

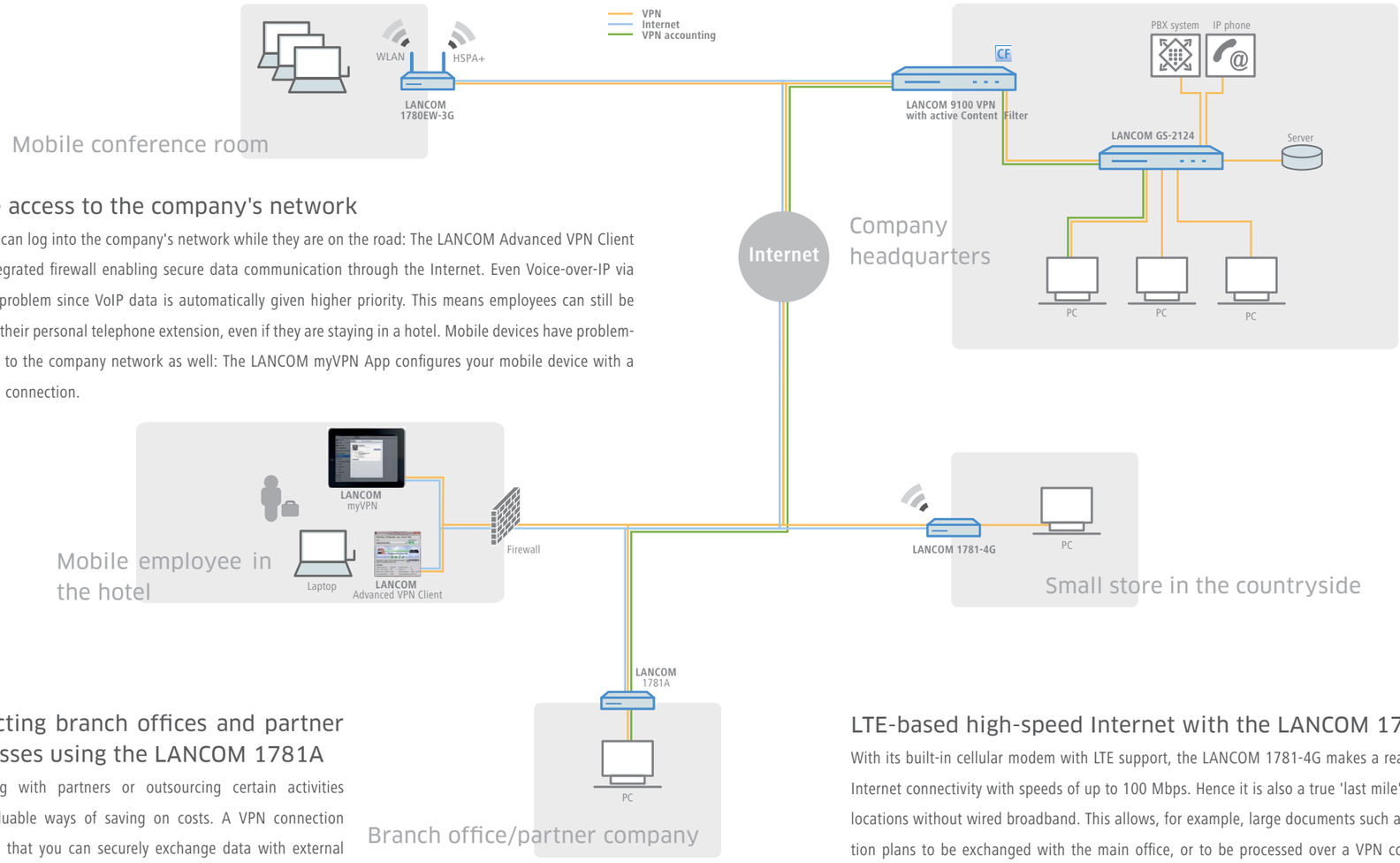
For main and branch offices and traveling employees

The mobile conference room – Instant setup with the LANCOM 1780EW-3G

The LANCOM 1780EW-3G is ideal for conferences away from the office and for setting up temporary networks. Thanks to its integrated HSPA+ module and 802.11n wireless LAN, all it needs is a power supply and the LANCOM 1780EW-3G is able to provide secure Internet access from any location and to connect to company networks over an IPSec VPN. And even if IPSec VPN should be blocked in the cellular network, data can still be exchanged securely using an IPSec-over-HTTPS connection.

LANCOM central-site gateways – The high-performance basis for your infrastructure

For years now, companies have established sites around the world and are operating business-critical applications online. The necessary VPN site connectivity demands a powerful center for network management. You can implement complex and secure high-performance network structures using central-site gateways. Depending on the model, you can run up to 1,000 IPSec VPN connections in parallel, and thanks to high IPSec throughput and generously dimensioned hardware, data transmission is not only secure but fast and dependable as well.



Mobile access to the company's network

Employees can log into the company's network while they are on the road: The LANCOM Advanced VPN Client has an integrated firewall enabling secure data communication through the Internet. Even Voice-over-IP via VPN is no problem since VoIP data is automatically given higher priority. This means employees can still be reached at their personal telephone extension, even if they are staying in a hotel. Mobile devices have problem-free access to the company network as well: The LANCOM myVPN App configures your mobile device with a secure VPN connection.

Connecting branch offices and partner businesses using the LANCOM 1781A

Cooperating with partners or outsourcing certain activities can be valuable ways of saving on costs. A VPN connection guarantees that you can securely exchange data with external partners. You do not have to worry about sensitive information being intercepted, such as when payroll data is sent to the accounting company.

As one of the first German vendors, LANCOM has developed a business router with full LTE capability: the LANCOM 1781-4G. With this device high-speed broadband Internet with up to 100 Mbps is available not only in locations without wired DSL, but also in city centers - depending on the development of the cellular networks.

LTE-based high-speed Internet with the LANCOM 1781-4G

With its built-in cellular modem with LTE support, the LANCOM 1781-4G makes a reality of wireless Internet connectivity with speeds of up to 100 Mbps. Hence it is also a true 'last mile' alternative for locations without wired broadband. This allows, for example, large documents such as brochures or construction plans to be exchanged with the main office, or to be processed over a VPN connection. The LANCOM 1781-4G supplies everything that a modern enterprise network needs: e.g. comprehensive Quality-of-Service capabilities and an object-oriented firewall.

For more information please visit our LTE microsite under **www.lancom.eu/lte**.

Network virtualization with LANCOM

Example: A chain-store branch

Multipurpose network infrastructure

Chain-store branches such as supermarkets are ideal candidates for network virtualization due to the amount of applications that are used: Telephone calls with the main office and the enterprise-resource planning system are connected directly to the server based there. Increasingly popular today are electronic displays for advertising which are updated online by external service providers. Electronical payments using a cash card is available just about everywhere. This requires online access to different banks. Instead of requiring dedicated infrastructure for every application and different Internet access accounts, all of the data can be redirected over VLANs and VPN.

It's all about having the right switch

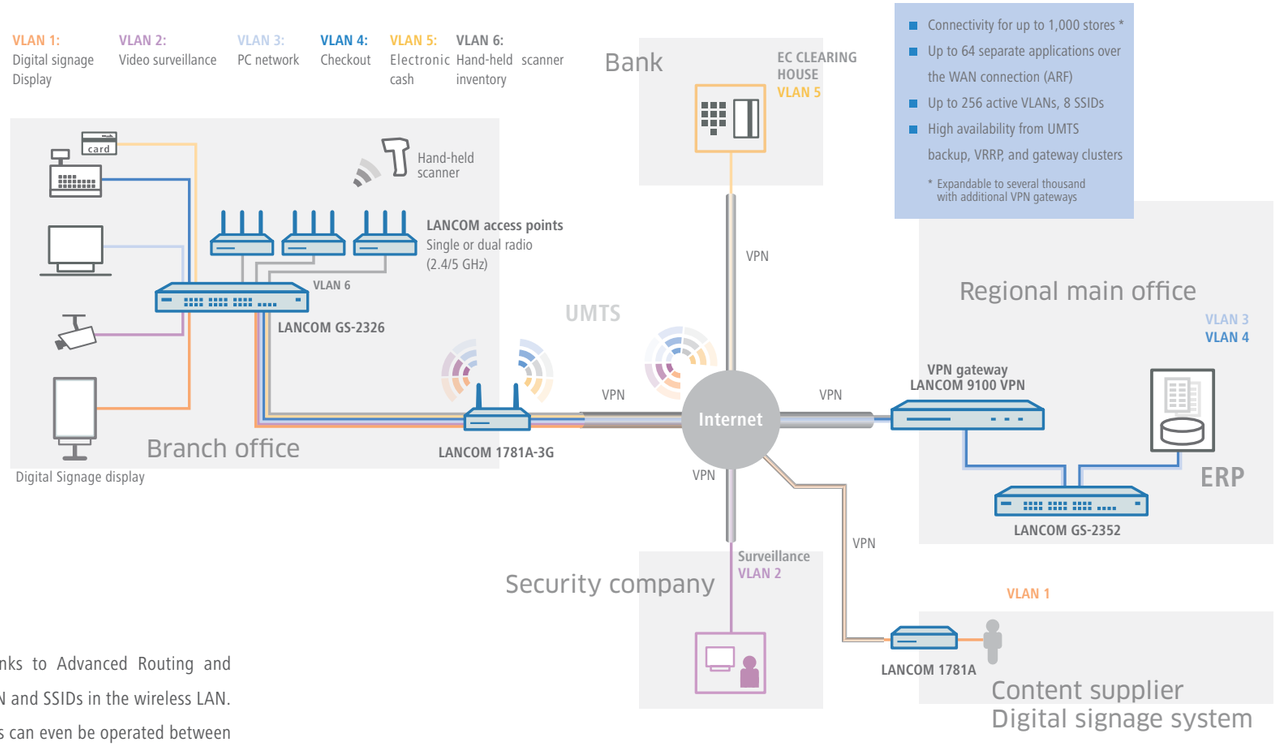
Intelligent switches are required for network virtualization to function within the branch office. These switches have to support VLAN and QoS – otherwise it will be unable to distribute and to prioritize data correctly in the LAN. LANCOM switches can be administred remotely and offer comprehensive security functions. On top of that, they can be flawlessly integrated into the entire network solution (e.g. monitoring via SNMP and management via LANCOM Management System).

Example: Data transfer from checkout systems to EC clearing institutes

When using electronic payments with PIN entry, online contact to the EC clearing institute is mandatory. An IPSec-based VPN ensures that the connections between the check-outs and the ERP at the company headquarters remain completely secure.

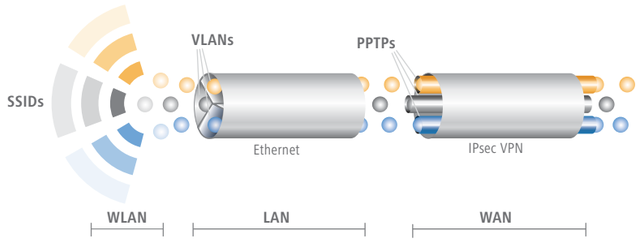
Example: Online updating of electronic displays

External service providers can directly access, monitor, and update the electronic displays by means of VLAN. At the same time, the network owner can rest assured that the service providers have no access to any other data in the company network.



The basis for complete network virtualization: LANCOM routers and switches

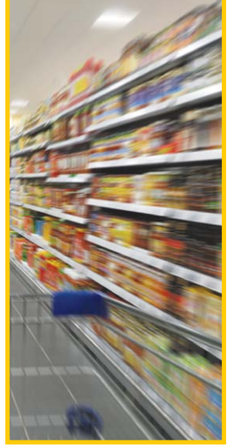
LANCOM routers can manage multiple independent logical networks thanks to Advanced Routing and Forwarding (ARF). These networks can be combined by using VLANs in the LAN and SSIDs in the wireless LAN. Thanks to the implemented tunnel-in-tunnel technology, these virtual networks can even be operated between locations through a VPN connection. This method encapsulates data from different VLANs into a single tunnel and transmits them over the Internet via an IPSec tunnel: Making it possible to completely virtualize an entire corporate network.



PCI DSS Compliance

Did you know?

Unlike EC card data, credit card data is transmitted un-encrypted. To ensure that your personal details remain protected despite this, major credit card companies have established a security standard: PCI-DSS compliance. This standard describes how networks should be designed to ensure that data security is maintained. LANCOM routers and managed switches comply with this specification and they feature an end-to-end implementation of the TACACS+ protocol (AAA). Learn more about this subject in our tech paper on PCI compliance at www.lancom.eu



Indoor wireless LAN solutions

Wireless solutions for companies and institutions.

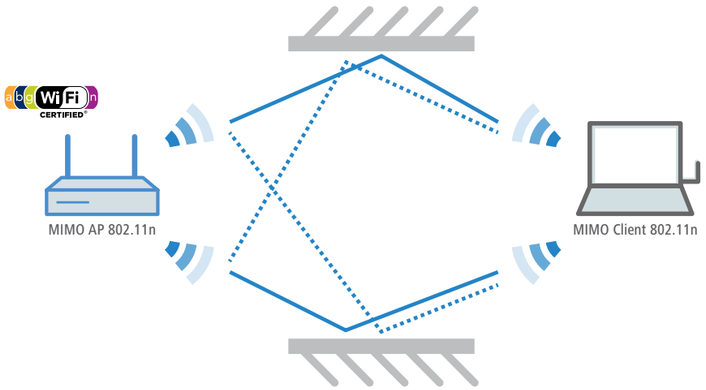
A "Wireless Local Area Network" (WLAN) uses radio to interconnect the computers in your company.

There are obvious advantages to wireless LANs:

More flexibility, more mobility, and convenience at lower cost than wired networks. There is no need of expensive cabling. WLANs can be quickly installed without any changes to the building's construction, and they offer more flexibility for employees than wired LANs. Working at their laptops or PDAs, your employees use the WLAN for full access to the company network or the Internet – whether they are at the neighboring colleague's desk, in a conference room, or even in another building.

Mobility and stability as a matter of course

It is rare for every room in a company building to have a network socket, or one which is optimally positioned. To avoid having cables installed, and yet to guarantee universal access to company networks, wireless LAN is an alternative worth considering. In areas of concentrated use, such as in conference rooms, it is advisable to install components which support high-performance WLAN standards. The wireless LAN standard IEEE 802.11n fits perfectly. The MIMO technology implemented in this standard takes advantage of the reflections of the WLAN signals. What caused problems now helps to provide improved WLAN coverage and higher bandwidths.



Schematic representation of MIMO reflections

Security. Experience. Reliability.

LANCOM wireless LAN solutions offer a multitude of security mechanisms to ensure that your WLAN is fully protected:

- WPA2-AES encryption
- User authentication with 802.1x and RADIUS server
- Network virtualization via SSID and VLAN
- User authentification for guest accounts

Our wireless LAN controllers allow efficient and, if desired, fully automated WLAN management. Access points are configured automatically and RF optimization is continually conducted. The devices also guarantee the network's failsafe system resilience.

Wireless LAN – Your options

LANCOM offers solutions for challenging scenarios:

- **Connecting mobile devices** to the corporate network
- Free or paid **guest access** for customers or guests who bring their own mobile devices
- **Connecting separate company buildings** over WLAN
- **Connecting mobile machinery** to company networks by WLAN
- **Direct transmission of orders**, e.g. in cafés or restaurants operating handhelds
- **Real-time updates of stock inventories** through WLAN-based recording of goods in and goods out
- **Wireless networking for monument protection**

Your needs, our goal. In close cooperation with you we design and implement customized solutions, and subsequently we continue to support you as a reliable partner.

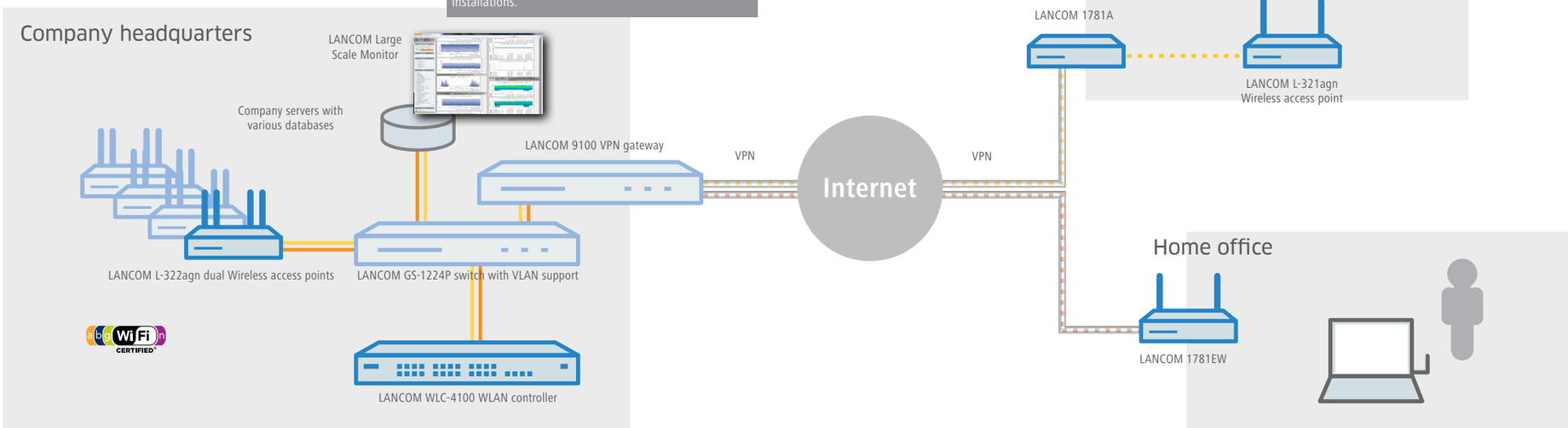
Connecting your business. You can rely on us.

Central wireless LAN management

LANCOM WLAN controllers can automatically configure access points both locally and remotely. The controller's management software can also detect rogue access points and optionally sends an alert to the administrator. WLAN routers at remote sites can be securely managed: If the connection to the controller fails, the local WLAN automatically switches to stand-alone operation.

Smart WLAN controllers provide flexible concepts for a variety of requirements: Performance and operational reliability. These assets can be maximized by breaking-out the payload from the access point directly into the network. At the same time WLAN management data is forwarded to the central controller. An SSID that is dedicated to providing Internet access via WLAN for guests can be securely separated from the network even where VLAN structures are not in use.

Central monitoring with LSM:
The LANCOM Large Scale Monitor provides comprehensive monitoring of all network components. A clearly structured graphical interface facilitates centralized and standardized installations.



Configuring access points at remote sites

It is even possible to manage access points in remote networks with a central controller. The practical significance of this becomes clear when rolling-out new a WLAN infrastructure. The new access points merely have to be connected to an external network with IP access. Configuration is carried out centrally via the controller. This means that WLANs can be rolled-out or upgraded without having trained technicians on site.

Configuring heterogeneous networks

In most cases WLAN environments rely on a mixture of standards and have clients that need support in various different WLAN standards in the 2.4 and 5 GHz frequency bands. Frequently employed in these environments are dual-radio access points such as the LANCOM L-322agn dual Wireless. Each of the two WLAN modules can be individually configured.

Central administration of WLAN routers at home offices

LANCOM WLAN routers at remote locations, such as home offices, can be centrally managed and monitored by a LANCOM WLAN controller. The radio module within WLAN routers with VPN can also be configured and managed from a central controller thanks to LANCOM's "split management". Instead of expert technical personnel having to travel to remote locations, company security policies are being strictly observed across all sites.

Wireless LAN in hospitals

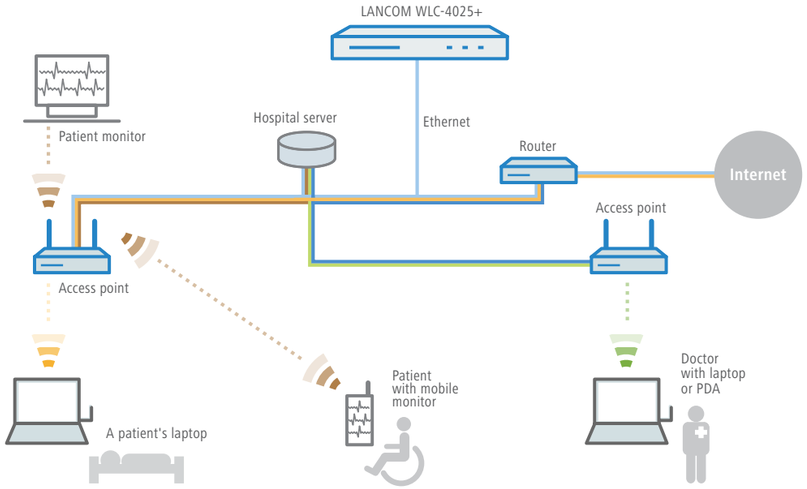
Intelligent network management in hospitals

A huge variety of applications is involved in running a hospital: Patient records are updated electronically in real time while doctors make their rounds. The latest diagnoses and images are transferred while on the move, and these can be simultaneously analyzed by doctors anywhere in the world. Of course, the patient should have fast Internet access as well. LANCOM WLAN controllers manage the network centrally and ensure that it remains available. They allow various applications to run in parallel and ensure that confidential information stays protected.

Wireless LAN in medical environments

LANCOM indoor access points conform to EN 60601-1-2, which is the European standard for electromagnetic compatibility of medical equipment. The indoor devices from the LANCOM L-320 series and the respective WLAN controllers LANCOM WLC-4025+ and LANCOM WLC-4100 have been validated by Dräger, the leading manufacturer of medical technology, being classed as suitable for transmitting patient data with their patient-monitoring systems.

DRÄGER validation:
The L-320 series is suitable for the transmission of patient data from Dräger patient monitoring systems.



Internet for patients

Patients can be provided with mobile Internet access by means of a guest access account. The controller provides the assurance that the patients really do have access to the Internet only and not to confidential patients' records.

Monitoring vital signs

WLAN allows the constant monitoring of the patients' vital signs, whether they are in bed or in the cafeteria.

WLAN simplifies the doctor's rounds

Documentation during the ward rounds can be handled with a notebook, tablet, or PDA. This saves having to update the patient's file later in the day. The controller authorizes the device's access to the network.

Wireless LAN and logistics

Example: Real-time warehouse inventories

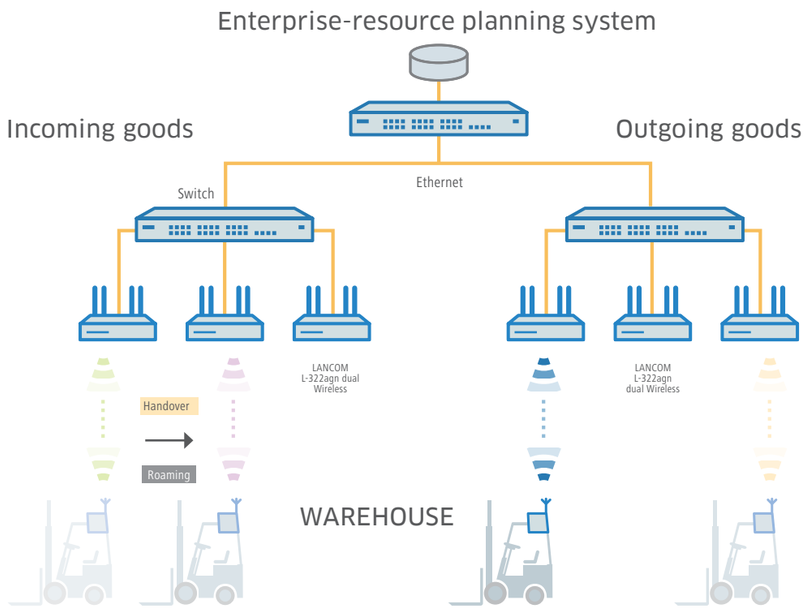
Be it in retail or in the manufacturing trade: It is of decisive importance that competitive companies can optimize their lead times and the flow of materials and goods. Barcode scanners that communicate with enterprise resource planning systems using WLAN enable the movement of goods to be recorded in real time. This provides a constantly updated overview of the goods movements and allows related processes to be planned and executed more efficiently. Ordering materials, dispatching goods, and billing of customers takes place faster.

Access points suitable for warehouses

Warehousing environments frequently require access points to have robust housings which are impact resistant and dust proof. One of our models meeting these requirements is the LANCOM IAP-321. Where different clients are operating in the 2.4-GHz and 5-GHz bands simultaneously, the ideal solution is an access point with two radio modules.

Roaming:
Roaming refers to a client's ability to associate with other cells in the same wireless network (SSID). With regards to wireless LAN, this means that the mobile client identifies the access point offering the best signal strength and associates with it.

Handover:
On behalf of the client, the access point informs the network that a client is associated with it. This is handled by a broadcast featuring the client's sender address (MAC address) to update the network switching information. Using the IAPP protocol, the access point informs its predecessor that a roaming procedure has been concluded.



The terminal on the fork-lift truck moves between the different access points in the warehouse. The handover between the radio cells is communicated by the access points to the network. This method ensures that wireless communications remain uninterrupted while roaming.

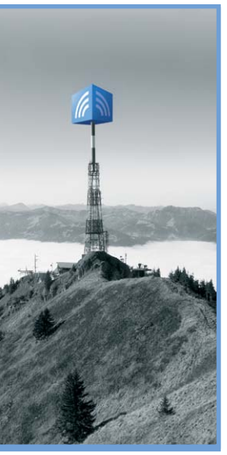
Seamless transfer to outdoor wireless LAN
Outdoor storage areas can also be provided with WLAN coverage.

LANCOM IAP-321:
Access point in full-metal housing with intelligent anti-theft mechanism

Outdoor wireless LAN solutions
Professional networking solutions in the open

Some scenarios present an extraordinary challenge. Especially outdoors.

Extraordinary solutions to extraordinary challenges.



Ski stations that are far away from the chalets but need to be monitored with video cameras. Large campsites where tourists should be able to access the Internet. Or remote outdoor storage areas without wired Internet access still need to be connected to the administration. To solve problems like these we need devices that offer not only the various wireless technologies including 3G and wireless LAN, but which also come with special physical features. The outdoor equipment from LANCOM meets these requirements: Thanks to their robust IP66 outdoor housings and an extended temperature range from -33 to +70°C. They stand up to even the most extreme weather conditions. These devices are especially practical when it comes to versatility of power supply: The integrated universal power adapter in the OAP-3G and OAP-321-3G handles 10 to 28 V and allows to connect to all sorts of power sources, including battery packs and solar panels.

Further detailed information on outdoor applications can be found in our LANCOM Outdoor Wireless Guide under **www.lancom.eu/outdoor**.

2.4 GHz or 5 GHz – which is better, and when?

The 5-GHz frequency range offers distinct advantages regarding range and lower levels of interference from neighboring WLAN users. There are more non-overlapping channels available than in the 2.4 GHz band and, as a consequence, overlapping with neighboring WLAN installations is unlikely, even when several channels are bundled. The higher signal strengths permitted in the 5-GHz range allow greater distances to be bridged with higher data throughput rates. Directional antennas amplify the output signal of the WLAN modules up to the maximum legal value for this purpose. The 2.4-GHz band does not allow the full use of the potential gain from directional antennas because of the low permitted transmission powers. Besides WLAN, this band is also heavily used by other applications such as Bluetooth and video transmitters. The advantage compared to the 5-GHz range is that fixed channels can be used.

Do you want to calculate range and throughput of your installation or the required heights of masts and antennas? Use the LANCOM Antenna Distance Calculator from:
www.lancom.eu/antenna-distance-calculator

Are you...

- a Wireless Internet Service Provider,
- a business with "scattered" company buildings,
- a municipality with insufficient wired Internet connection,
- in the hospitality industry,
- a university or school,
- or a public institution?

Then we have the solutions that meet your networking needs. Even in the open.

Outdoor wireless LAN – Applications

The outdoor WLAN range of products from LANCOM includes versatile access points and outdoor antennas for establishing wireless LAN infrastructures in open air environments. For example:

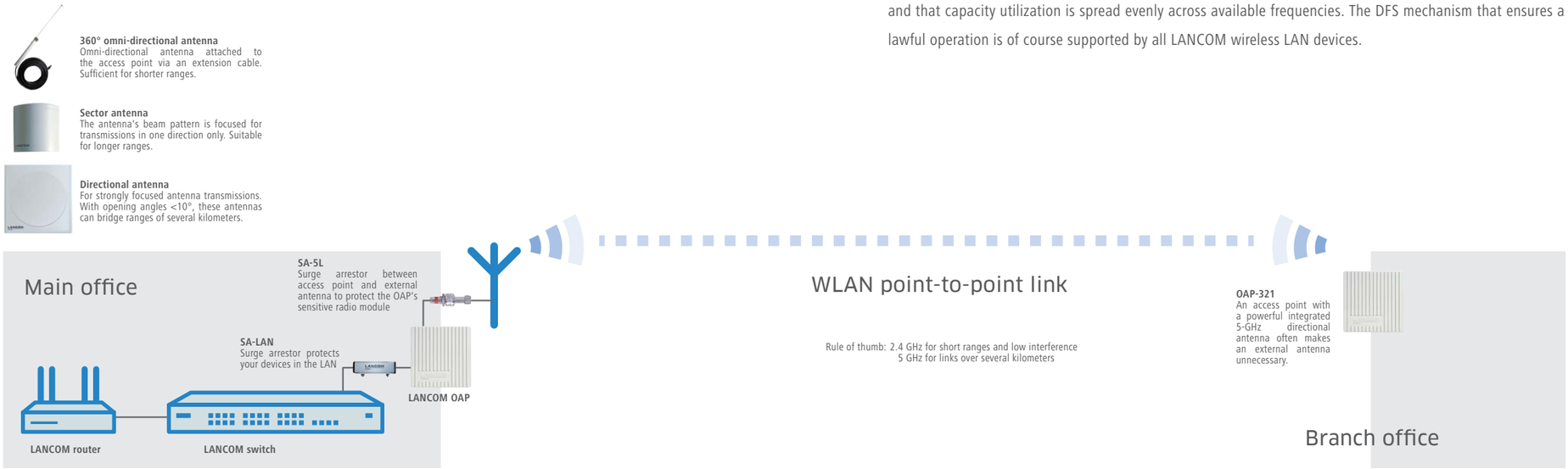
- Point-to-point links over several kilometers to network different company sites.
- Fast wireless Internet access as an alternative to wired solutions.
- Coverage of open areas for wireless Internet access in hotels, restaurants, and educational facilities for guests or students.
- WLAN connectivity between mobile devices and the company server for data acquisition in real time.
- Video surveillance over WLAN using VPN.
- Real-time status monitoring of equipment that is exposed to extreme weather conditions.

Connecting your business. You can rely on us.

Outdoor wireless LAN solutions

Setting up point-to-point connections

LANCOM access points serve not only as central stations in a wireless network, they can also operate in point-to-point mode (P2P) to bridge long distances. For example, they can provide a secure connection between two networks that are several kilometers apart – without direct cabling or expensive leased lines.



Antenna alignment for P2P operations

The precise alignment of the antennas is of critical importance for establishing P2P connections. The more aligned the receiving antenna is located in the "ideal line" of the transmitting antenna, the better is the actual power and the effective bandwidth. If the receiving antenna is outside of this ideal area, significant losses in performance will occur.

Proper surge protection: an important subject for outdoor WLAN

Outdoor wireless LAN installations should always allow for lightning protection: Even when there are no visible phenomena such as thunderstorms or a direct lightning strike, invisible electrical discharges from the atmosphere can still occur, leading to damage or destruction of sensitive wireless LAN modules or other electronic devices.

Further information can be found in the LANCOM Outdoor Wireless Solution Guide under **www.lancom.eu/outdoor.**

Radar systems to be considered close to your wireless link

Outdoor point-to-point links are subject to certain legal constraints. It is vital to avoid interference with radar systems that are active in the 5-GHz spectrum (e.g. meteorological, military). For this reason the European regulatory authority ETSI requires WLAN devices operating at 5 GHz to employ the dynamic frequency selection (DFS) mechanism. This ensures that radar and WLAN systems can co-exist without interfering with one another and that capacity utilization is spread evenly across available frequencies. The DFS mechanism that ensures a lawful operation is of course supported by all LANCOM wireless LAN devices.

When is an external antenna advisable?

In some scenarios the antennas integrated into an access point, or the rod antenna shipped with it, simply do not provide enough performance. One reason can be the distance that must be bridged. Distances of several kilometers require a concentrated signal offered by sector antennas, and for extreme cases a highly concentrated directional antenna with a minimal beam angle may be necessary to amplify the signals from the radio module. Structural conditions could also favor the use of a sector antenna, for example: If an access point cannot be installed in a location with a clear line of sight to its peer, it can be connected to a suitably positioned antenna by means of an extension cable. Find out about the antennas offered by LANCOM under **www.lancom.eu**.

You can also use our LANCOM Antenna Distance Calculator to calculate range and throughput of your installation under **www.lancom.eu/antenna-distance-calculator.**

Stationary links with wireless LAN

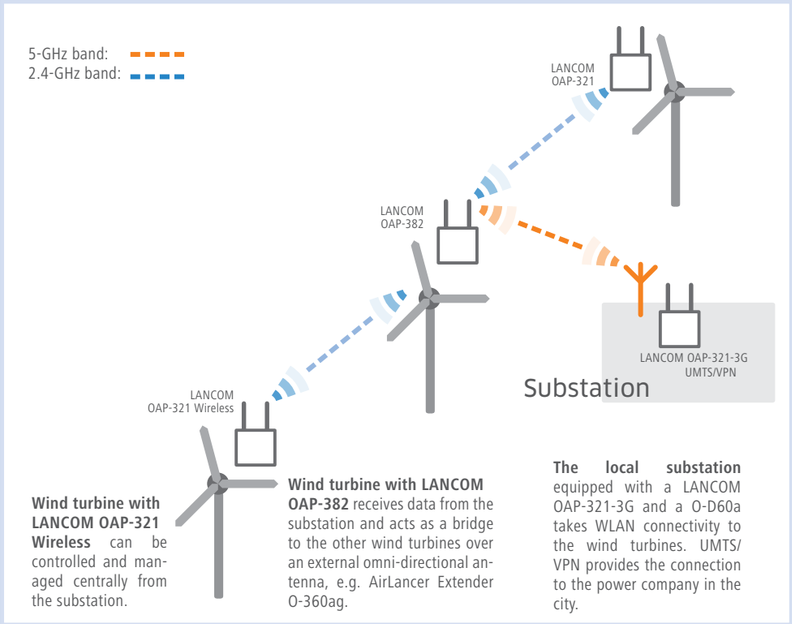
Outdoor WLAN in wind farms and offshore facilities

With the current interest in alternative energy sources, increasing numbers of wind turbines are being erected and wind farms are being extended. However, these wind turbines are exposed to considerable stresses and therefore require continuous monitoring to avoid defects, expensive maintenance work, and to minimize downtime. This applies especially to offshore facilities that can be difficult to reach at some times of the year due to the forces of nature. Continuous monitoring of performance data allows emergent faults to be recognized early on and more serious damage to be avoided. Administration over wireless LAN means that service intervals can be synchronized and closely coordinated.

Real-time status monitoring of wind generators

In many cases it can be advantageous to equip the wind turbines with WLAN and to control the equipment wirelessly from the wind farm's control center. This is accomplished with robust outdoor access points installed on the wind turbines. Data from the wind turbines is captured locally in real time and relayed to the wind farm control center over a mobile phone-based VPN connection. This minimizes the need to have staff on site. The diagram below shows an example of a possible layout for a comprehensive networked solution:

Wireless LAN for wind farm management

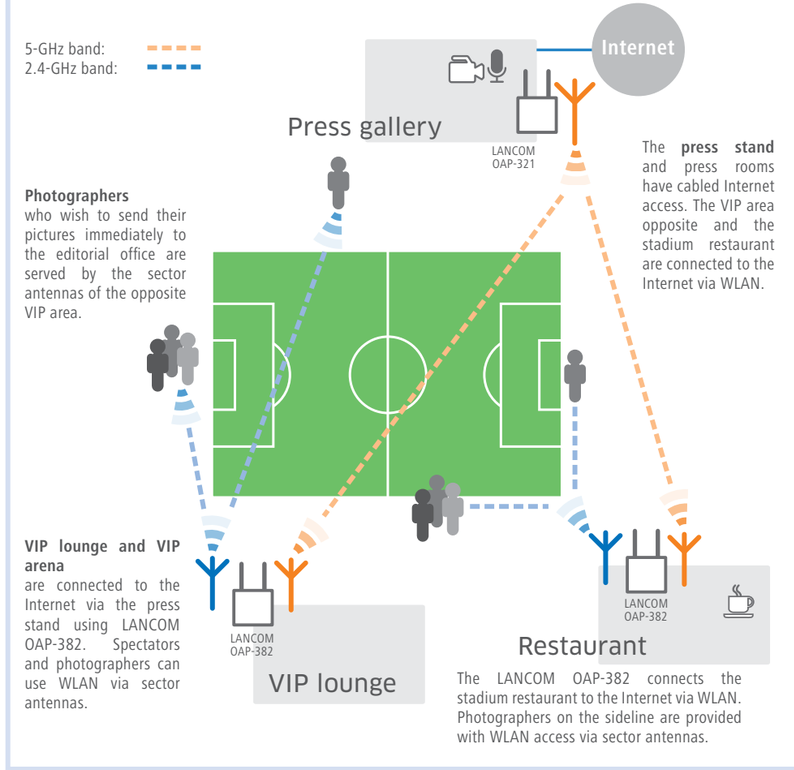


Wireless distribution systems

WLAN in sport arenas

Sport arenas that host large sporting events are increasingly modern and must provide state-of-the-art information transmission. Very often, however, the kind of high-power Internet access that enables real-time reporting by journalists is not available throughout the stadium. In many cases, structural alterations and cable installation are unrealistic and/or uneconomical. More and more frequently users need to be mobile. This is why outdoor WLAN solutions are an ideal way of enabling journalists and photographers to access the Internet. It is possible to offer Internet access via wireless LAN to the spectators. A wireless distribution system allows radio cells to be connected to each other without the need for cabling. This means that large areas can go online without a complex installation. This infrastructure can also be made available to caterers, fast-food outlets, and ticket desks. An online connection to ERP and online ordering systems simplifies administration and speeds up transactions. Replenishment orders can be made directly on site, which guarantees that there are adequate supplies for guest hospitality.

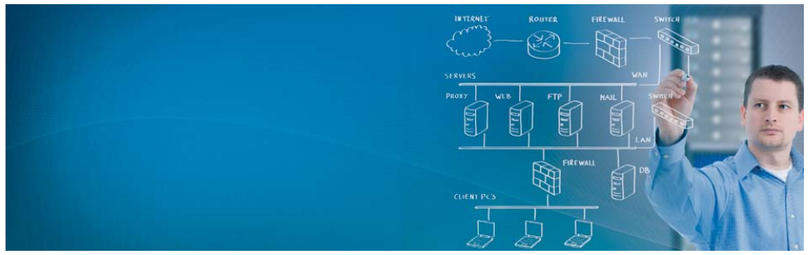
Wireless distribution solutions for sport arenas



LANCOM Management Solutions
Your network. Your management.

Make no mistake about it:

A network solution is only a good solution if it is manageable. The more complex the network, the more important it is to have a comprehensive and clearly structured management of all its components. Years of experience give LANCOM a keen awareness of the needs of today's modern companies for lean network processes. For this reason we offer a software package that offers integrated monitoring and facilitates the creation of configurations that are consistent and efficient.

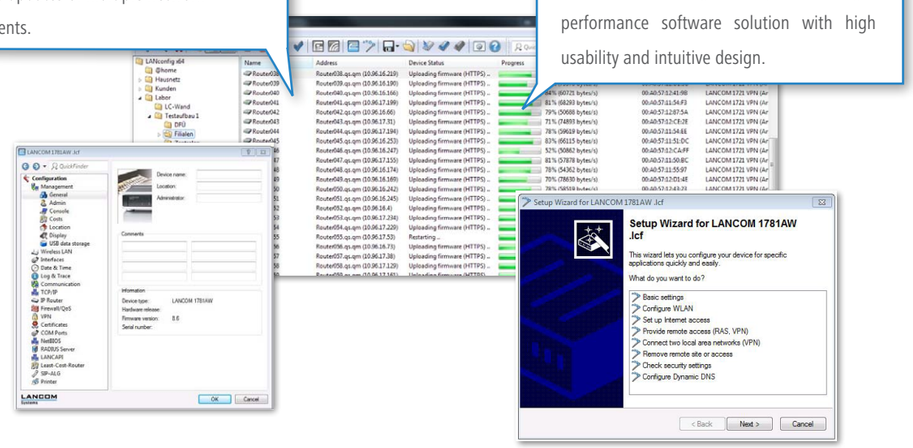


LCMS – LANCOM Management System

LANCOM customers don't just buy a product, but they receive an all-round solution. An important part of this solution package is the free LANCOM Management System LCMS, the management software for all LANCOM routers, access points, and wireless LAN controllers. It offers an easy-to-handle user interface for configuring and monitoring LANCOM devices in both local and remote networks. LANCOM Ethernet and Gigabit Ethernet switches are also integrated into LCMS, have a special firmware and their own web interface, which can be easily accessed with LANconfig.

Easy-to-conduct bulk operations such as firmware updates of multiple network components.

The LANCOM Management System is a high-performance software solution with high usability and intuitive design.

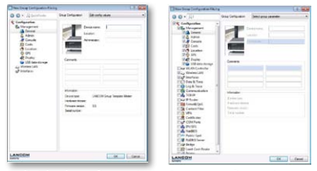


LANconfig

From the easy commissioning of a single device with Installation Wizards to the holistic management of large scale installations: The spectrum of applications for LANconfig is huge.

Dynamic Group Configuration

With Dynamic Group Configuration, multiple LANCOM devices can be configured consistently and comprehensively. The devices must first be grouped together according to predefined characteristics, so they can be jointly configured.



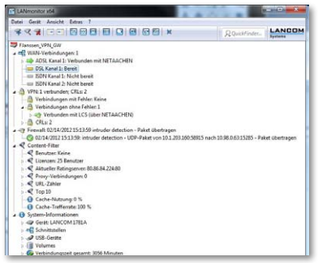
Individual configuration Group configuration

LANmonitor

LANmonitor is the ideal application for a convenient monitoring of networks. It enables all VPN connections to be monitored, the inspection of security-related data, and the listing of accounting information for cost control.

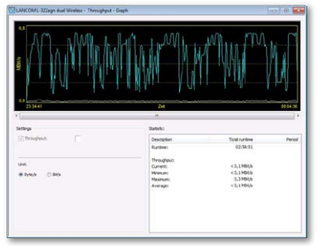
Basic functions of LANmonitor:

- Display of connection and interface statuses
- Transfer rates, protocols, and IP addresses
- Display of software version, CPU load, and memory usage
- Logging of online time stamps and transfer volumes
- Firewall event display and device syslog
- Device activity logging to a file
- Graphical interface for diagnostic traces
- Graphical performance monitoring



WLANmonitor

LANCOM WLANmonitor can centrally monitor the status of a wireless network. It presents information about the entire network in general and detailed information about individual access points and clients.



LANCOM Large Scale Monitor *

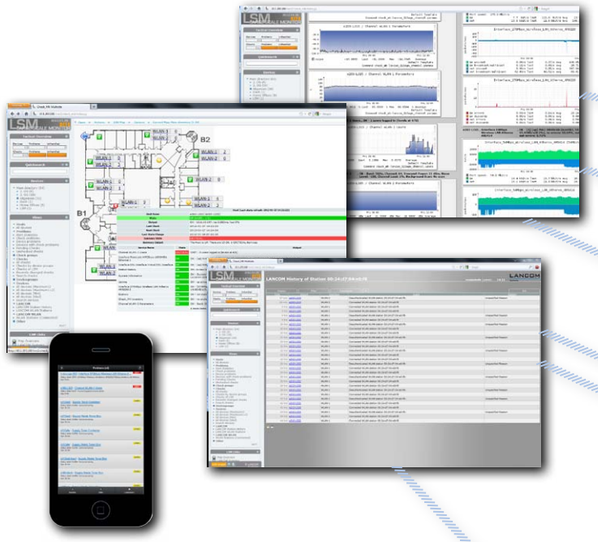
Your network. Your management.

Complex businesses often have an equally complex network infrastructure. Our comprehensive monitoring solution helps you to keep the upper hand:

LANCOM's own monitoring system is ideal for the efficient and structured monitoring of medium to large numbers of routers, access points, and switches. All LANCOM applications can be invoked from LSM.

* Expected availability end Q2/2012

Central monitoring of all components by means of a clear and intuitive user interface.

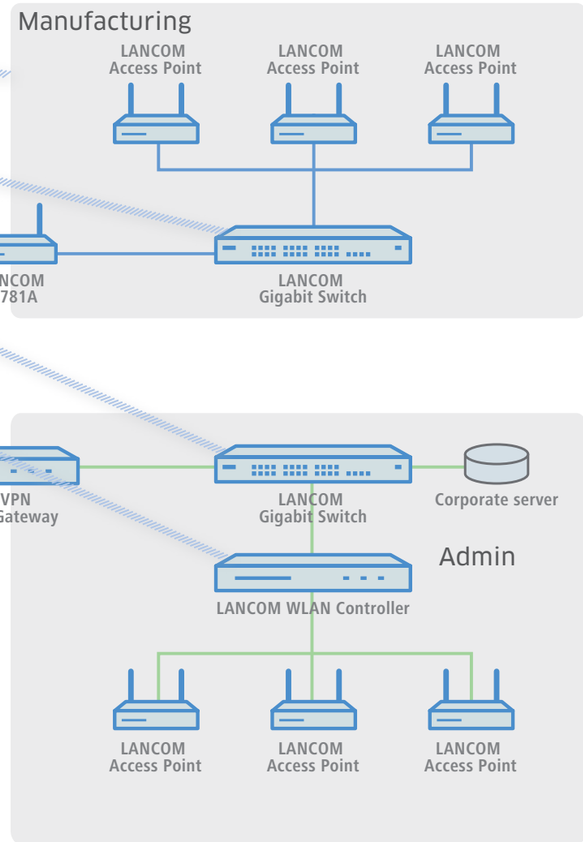


Even the network components of mobile employees, such as those at their home offices, can easily be integrated into LSM.

Everything under control – with LANCOM LSM

The LANCOM Large Scale Monitor is more than just a monitoring tool. It gives you the control of the entire network infrastructure of your company:

The neatly structured web interface GUI provides efficient monitoring of 25 to 1000 LANCOM routers, switches, and access points. Time histories can be displayed and stored seamlessly, as can the uninterrupted roaming profiles of WLAN clients. LANCOM LSM features fully configurable user, role, and rights management along with versatile trigger and alarm functions. All network components and the corresponding access rights can be managed in a convenient folder structure. Even real-time monitoring is no problem: Graphical floor plans with a versatile map-like display with active network components give you the full overview of ongoing network processes at all times. New devices are easily imported from .csv files or network scans.



Production facilities often have a complex WLAN structure with access points that support multiple applications. LSM facilitates the network monitoring and improves the efficiency of work processes.

LSM is installed on the server at a company headquarters. As a result the monitoring of the entire network structure is centralized and convenient.

LANCOM Training & Support
We are here to help you!

How may we help you?

Our LANCOM trainers are coming to you! You can book our LANCOM experts for on-site workshops and training courses at your location. Benefit from our technical expertise as well as from the convenience of personalized on-site training.

With the right training tailored to your needs, we will make you a LANCOM expert for your network.

LANCOM On-site Workshops

We arrange our workshops (with certification by request) at your location. As usual we combine theoretical with practical parts and bring the technical equipment with us.

LANCOM Consulting Day

These subjects are available for your Consulting Day:

- Setup and optimization of your configuration, setup of configuration templates
- Implementation of a rollout
- Interconnectivity between branch offices and the central site via VPN
- Central access point management via WLAN controller (WLC)
- Embedding layer 3 tunneling into the existing infrastructure

Consulting and booking

We will gladly consult you and make you an offer that fits your needs! Contact us via **+49 (0) 2405 49 93 6-220** or **training@lancom.eu**

Support:

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NEW: LANCOM Support Flat Rates

- Dedicated phone number and e-mail address
- Guaranteed response time by the next business day
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  (for installations with up to 20/50/100 LANCOM devices)

LANCOM KnowledgeBase

- A full text search will browse all available documents for key words.

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As a LANCOM partner you enjoy exclusive benefits including our support. The LANvantage partner program offers you the following:

- Preferential support, depending on your partner status
- Dedicated phone number and e-mail address
- Access to extended support hours (for LANCOM Solution Partners)

Reseller Partner LANCOM Systems

Solution Partner LANCOM Systems

LANCOM solutions are more than our first-class and innovative product portfolio. We support you with a comprehensive range of consulting, training courses and services.

For more information on our LANvantage partner program see **www.lancom.eu/lanvantage.**

LANCOM. Connecting your business.

LANCOM Solutions

Network solutions for professional users

- Network Connectivity
- Wireless LAN
- Management
- Services

LANCOM Systems

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