



**SIEMENS**

Global network of innovation

WLAN and Voice over WLAN  
for industry and the office.

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# Siemens has it all.

## **Single-source supply.**

Siemens is the only supplier of single-source solutions embracing wireless infrastructure, user applications and terminal devices. Only these end-to-end solutions offer a high return on investment, lower total cost of ownership and enable unproblematic implementation and realisation.

## **An experienced partner with a versatile and innovative product range**

Siemens has comprehensive know-how and is the leading supplier of products to a large number of industrial sectors. Siemens therefore has the ability to realise horizontal and vertical applications and processes in a wealth of industries, for example medical technology and pharmaceuticals, automotive, food, power supply and logistics.

## **Maximum user-friendliness.**

Siemens is the leader when it comes to developing WLAN technology and offers a seamless convergence of speech and data applications for use on the move, and boasts a uniform user experience. As a result, even mobile users do not have to forego access to information sources of every kind and all the performance features of a desktop solution.

## **A 24-hour on-site service – worldwide.**

We have experts working to serve you in more than 160 countries. Our qualified engineers endeavour to remedy faults as quickly as possible and before stoppages occur.

## **Siemens – global network of innovation.**

Our mission is to develop integrated, innovative and future-proof solution concepts for industries of every kind. Our promise is to demonstrably increase your efficiency and productivity.

## Mobility without boundaries.

When people talk about mobile communication today, they are no longer referring simply to telephoning using a mobile phone or sending an e-mail via a PDA. Mobile access means much more than that: accessing a server and networks from any location and having total freedom of movement whilst doing so is the new mobility of the 21st century. The key to future market success therefore lies in the ability to provide information and access to information regardless of the time and the location. Mobile systems interconnected with one another via wireless data networks (wireless LAN) ensure the availability of speech and data of every kind and the enhanced efficiency of processes. Straightforward and flexible access via mobile terminal devices – wireless communication now affords these advantages even for application areas where this was, until recently, inconceivable on account of exacting requirements. Siemens now offers an ideal product portfolio for this: Industrial Mobile Communication – communications products and accessories which give industry access to wireless communication. These products simplify maintenance work, reduce service costs and downtimes and enable the optimal use of personnel resources.



# Siemens WLAN makes processes faster and more efficient. Take a look for yourself.

## The situation in a logistics centre – without Siemens WLAN:

John is a freight dispatcher and is responsible for shipments that are high-priority or particularly large. He monitors the movements of freight in the logistics centre and at the docks. As a result, he is usually on the move and therefore difficult to reach. In the event of damage to consignments, it takes a while until John is informed and reaches the site. He also has to go to his office to fetch the relevant documents and a camera, which he needs to take photographic evidence of the damage. He can only report on events to the customer and the insurance company once he is back in his office. All this can take some two hours, which is much too long.

## The future has begun. Optimised processes with Siemens WLAN – and in logistics, too:

Thanks to Siemens WLAN, the widest possible variety of communication methods and applications harmonise perfectly and enable mobility without restriction. Using his powerful tablet PC, John is “online” at all times and able to exchange speech and data via a WLAN connection with his HiPath Communication Center. Even if he is on the move for much of the time, he is always reachable. Regardless of whether particularly lightweight devices such as

optiPoint WLAN telephones, robust but compact devices like MOBIC to the IP65/67 access points are used, Siemens WLAN enables not only communication on a par with that offered by wired systems, but also allows process-critical data to be handled within the context of industrial automation.

- 9.19 A colleague calls John at his office telephone number and is connected directly with John’s WLAN headset: “One of your consignments is damaged.”
- 9.20 John immediately starts his location and asset management application and a few minutes later arrives at the location of the damaged goods.
- 9.47 “There’s nothing that can be repaired; it’s a total write-off.” He takes a few photographs using his set-top camera. After starting his PC directory service, he is able to inform the customer directly. All the documentation is then sent immediately and directly via the WLAN to the insurance company and his manager.

Using Siemens WLAN technology it was possible to deal with this matter involving damaged goods in the shortest possible time.

## Siemens IWLAN – for data communication in industrial processes.

Siemens WLAN is installed in the company’s premises but can also be used in the outside areas. As a result, wireless speech and data transmission is possible throughout the site. For example, freight dispatchers are involved in problem solutions together with other departments. While they are on the move – carrying out inspections or solving a problem – they use tablet PCs that are connected via WLAN to their workplace. An Industrial Wireless LAN (IWLAN) is installed in the logistics centre – and in the warehouses, office buildings and outside – for automatic monitoring of the fork-lift truck system, for example.

Industrial Wireless LAN is the industrial version of WLAN with data rates of up to 54 Mbit/s. IEEE 802.11 is now the recognised standard around the world and has been expanded so as to include important features to ensure its compatibility in industrial applications. This protects investments made in the wireless network and enables shared operation of IWLAN products and standard Office components in one wireless network. IWLAN’s applications in industry can be measured in terms of three criteria: it is dependable, robust and secure.

- The dependability of wireless communication is ensured by its ability to reserve a data rate and cyclical wireless communication.
- Its robust construction, which is dust- and splash-proof and an IP65 class of protection, allows it to be installed at the optimal location in terms of wireless technology, even outside of the control cabinet.
- The use of the latest security mechanisms such as WPA and IEEE 802.11i means that unauthorised access to wireless networks is virtually impossible.

And the use of RCoax – a special leaky wave guide – as an antenna enables defined radiolink hops to be established, even where there are blind corners and hard-to-access areas.



# Siemens WLAN – an overview of all the advantages.

Siemens WLAN gives companies the wherewithal to exploit all the benefits of truly mobile communication. And new, innovative solutions for business processes. Integrated, vertical solutions give employees permanent access to centrally provided data and unimpeded mobility throughout the site through uninterrupted relaying. Using applications such as HiPath OpenScape and HiPath ProCenter Agile, Siemens enables with HiPath – Total Business Communications access to presence information and localisation functions. Only convergent speech/data networks enable voice over wireless LAN in conjunction with greater productivity alongside a lower cost of ownership compared to exclusively wireless communication solutions.

Industrial products from SIMATIC NET are also tapping into the benefits of mobile communication for industrial applications. Industrial wireless LAN products offer a particularly dependable wireless connection and have a robust construction. Only Siemens WLAN is a wireless LAN architecture that from the very beginning was developed to provide maximum flexibility, scalability, ease of operation and better user services.

**Flexible applications**

- Controllers and access points can be installed anywhere in the network
- Wholly flexible Layer 3 architecture
- Numerous SSIDs and policies can be supported

**Dependable data transmission**

- The opportunity to reserve a data rate and cyclical wireless communication for individual users with time-critical requirements

**Seamless roaming**

- Rapid transmission of seamless speech and data access throughout the whole company
- Rapid roaming enables a mobile user to be relayed to the nearest access point within just a few milliseconds

**Security – wireless alongside fixed-line situations**

- Uncompromising security – integration into existing company security systems
- The latest security mechanisms such as WPA and IEEE 802.11i prevent unauthorised access

**Robust construction for use in industry**

- Dust- and splash-proof housing with high resistance to vibration and shaking
- Extended temperature range (-20 °C with dew) for outdoor use

**Scalability**

- Simplifies company development, with dynamic adaptation options for a growing number of access points and mobile users

**Failover capability – core to edge**

- High availability with a self-healing topology

**Plug ‘n’ play functionality**

- A manageable network with automatic configuration

**High-performance**

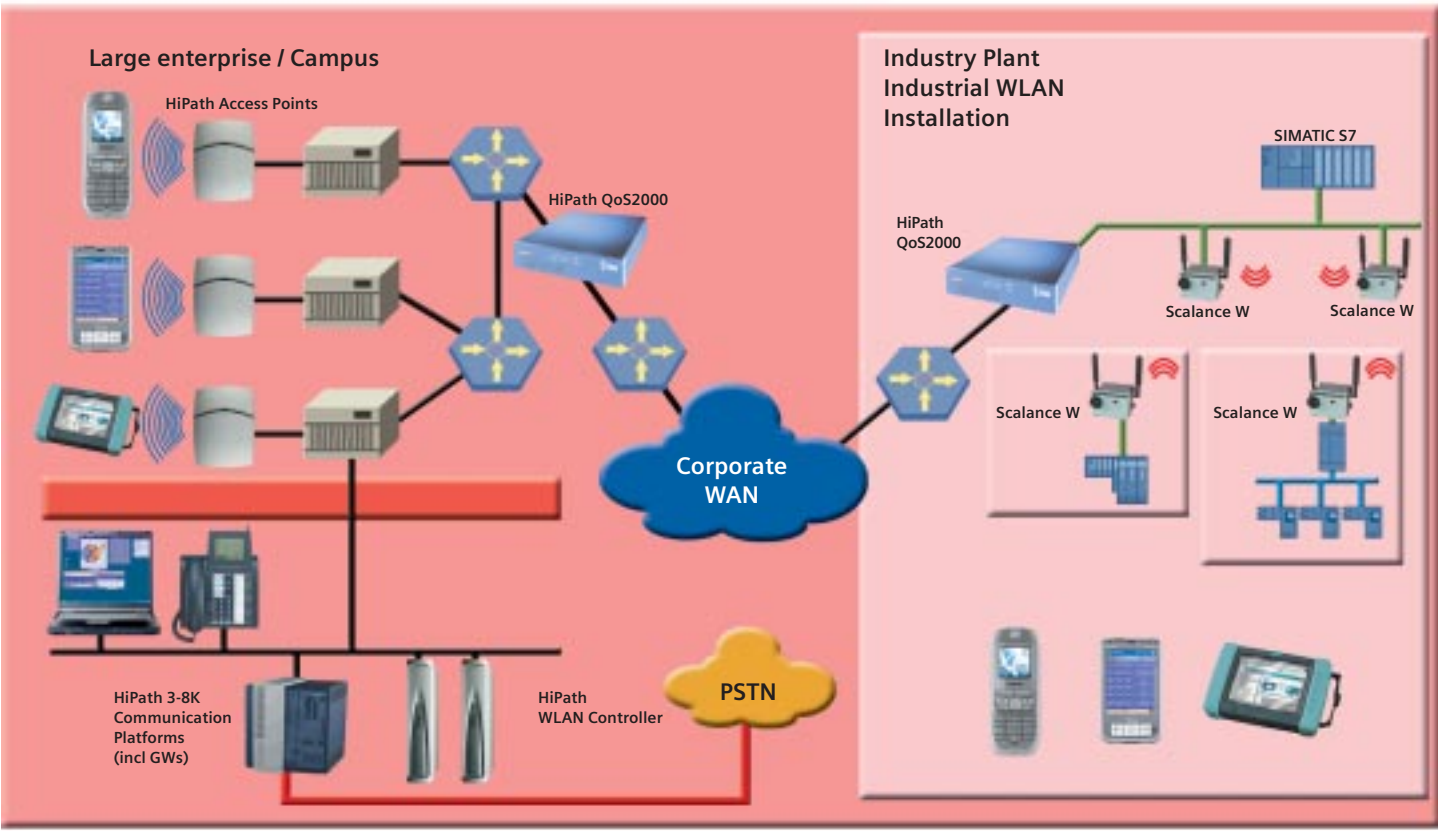
- Controllers operate at the speed of wired solutions

**ROI – a cost-effective infrastructure**

- Integrated support of all major WLAN standards (IEEE 802.11 a/b/g)

**Investment protection**

- Platforms are designed for network expansion
- Access points from other manufacturers can be supported



# Our strengths – your gain.

WLAN and voice over WLAN give companies complete mobility in terms of speech and data communication, enabling access to information via a wealth of different ter-

restrial devices and regardless of the time and the location. IWLAN serves industrial applications, e.g. the automatic monitoring of fork-lift truck systems.

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**Siemens Communications** is one of the world's largest players in the telecommunications industry, active in more than 160 countries. Unique in global comparison, Siemens Communications consolidates experience and competence in every key market segment – mobile or fixed-line telephones for consumers as well as complex network infrastructures, solution packages and applications for enterprises and network operators. In addition to its hardware and software portfolio, Siemens Communications offers comprehensive service along the entire value chain. For each and every customer, anytime, from A to Z.

On this basis Siemens Communications is developing solutions for tomorrow's communication. The road to the future has a name: "LifeWorks@Com", an innovative concept aiming at making communication easier and more effective. Both in business and private life, for every network and every device. Concentrating on what's important for our customers, that's what LifeWorks@Com and Siemens Communications stand for.

More information about Siemens Communications at [www.siemens.com/communications](http://www.siemens.com/communications)

**Siemens Automation and Drives** is a single-source provider of automation, drive, circuit and installation technology. Totally Integrated Automation und Totally Integrated Power enables A&D to offer a universal, integrated range of products and systems for efficiently automating the entire produc-

tion process including power supply and distribution. SIMATIC NET Industrial Communications and its IWLAN products form part of this range.

For further information on Siemens Automation and Drives, please go to [www.siemens.com/automation](http://www.siemens.com/automation)

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D-81359 München

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