



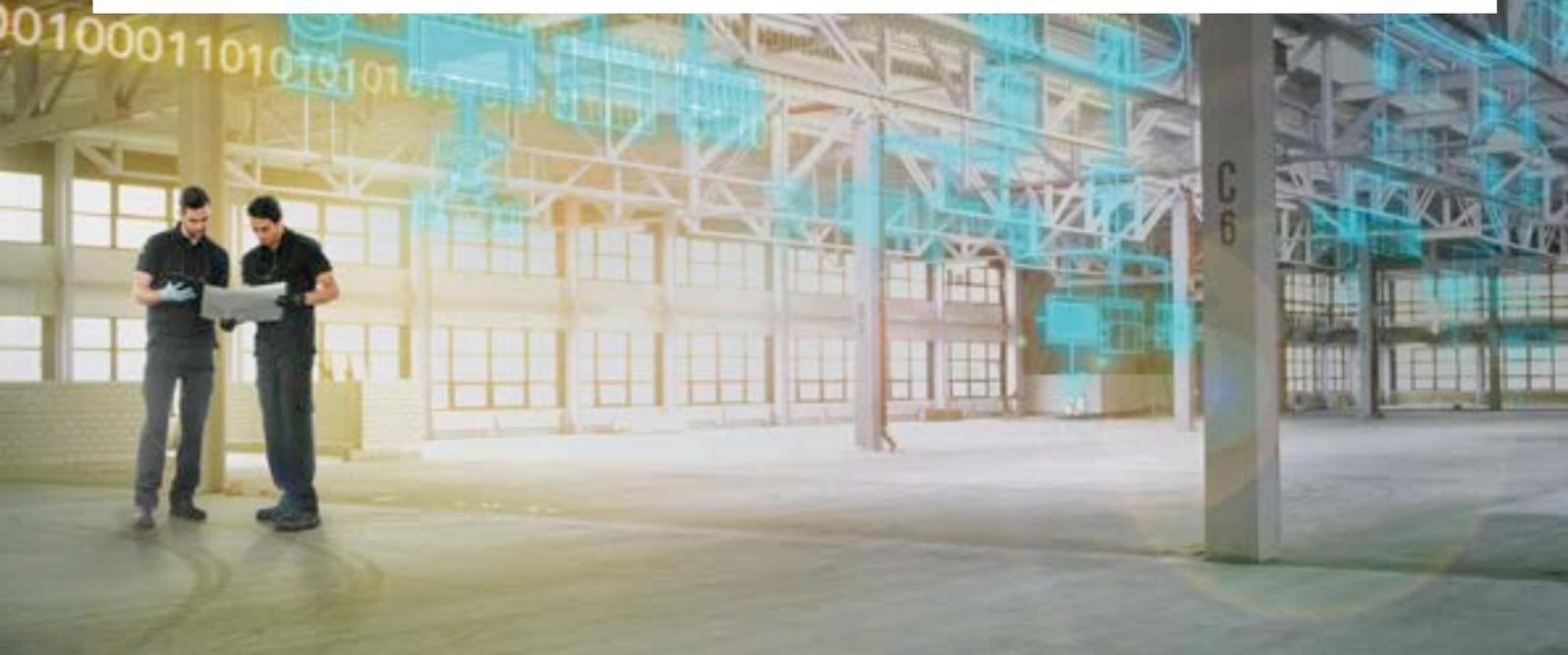
SIEMENS

Ingenuity for life

Supporting communication networks designed for the future

Professional Services for Industrial Networks

[siemens.com/industrial-networks-services](https://www.siemens.com/industrial-networks-services)



Industrial Networks Professional Services from Siemens



Our offer
at a glance

Industrial Networks Professional Services



On-Site Service/
Support



Design and Consulting



Integration
and Deployment



Training Services

Leverage the full potential of your industrial communication networks

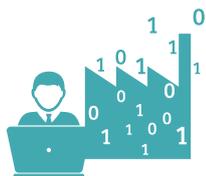
Industrial enterprises are increasingly digitalizing their operations. Processes are becoming more and more integrated at all levels and data volumes continue to grow at exponential rates. Communication networks have never been more important – also for maintaining a competitive advantage in dynamic market environments. Implementing state-of-the-art Ethernet solutions that ensure secure, reliable and flexible communications is one thing. However, leveraging the full potential of today's complex industrial networks definitely also requires expert support. With extensive industry experience in designing and implementing communication networks that stand the test of time, a trusted partner like Siemens or a certified solution partner can back you all the way.

The Siemens Industrial Networks Professional Services difference

Why partner with us? With a market-leading portfolio of rugged, standards-based communications technologies and an in-depth understanding of network designs, we are well positioned to assist you in developing an integrated industrial network solution that precisely suits your needs.

Our extended offering also comprises cutting-edge solutions for automation environments and other mission-critical industry applications, including electrical power, oil and gas as well as transportation.

At Siemens, we have the know-how, the experience and the products to bring your industrial network plans to life – and in full compliance with all regulatory guidelines.



Gaining a clear overview

Creating a customized industrial network solution starts by doing the groundwork – with an on-site visit, a thorough assessment of the existing network, identification of potential performance issues and specification of the needs. Conducted together with the client, the Industrial Network Audit can significantly reduce time and costs as well as ensure a smoother project implementation.

Industrial Network Audit

The documented audits and certifications frequently include information on:

- Existing network architectures
- Device inventory
- Suggestions for improvements

Benefits

- Continuous network monitoring and supervision
- Event anticipation and resolution prior to occurrence
- Troubleshooting
- Pinpoints network weaknesses offering potential for optimization





Working out the details

In the next step, we conduct a thorough analysis of the existing network and infrastructure performance. As part of our Network Design Services and our Radio Frequency (RF) Planning and Site Assessment, we explore network improvement options in technical consultations together with the client before developing a solution designed specifically to meet the required needs.



Network Design Services

Whether for a new or existing network, an expansion or optimization, no matter the scale, our qualified experts can assist you in making it happen.

- Definition of parameters: network segmentation, redundancy protocols in layer 2 and 3, IP plan and routing protocols
- Creation of wiring diagrams and network port assignments
- Definition of firewall rules and cyber security components

Benefits

- Proper network implementation
- Elimination of ad hoc configurations
- Documented network design

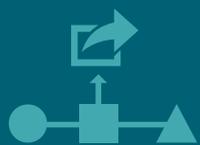
Radio Frequency (RF) Planning and Site Survey Services

To successfully engineer a network implementation, expansion or modernization, it helps to get a clear picture of how well the current wireless network is performing.

- Definition of RF coverage
- Frequency assignment to avoid interferences
- Assess RF interference in the area
- Infrastructure consultation and support
- Confirmation of physical location and surrounding
- Fine-tuning of RF design specifications
- Optimization of RF performance environment
- Analysis of structural surrounding conditions

Benefits

- Simulation of RF coverage
- Documented radio channel planning
- Overview and documentation of coverage prior to implementation
- Elimination of ad hoc configuration
- Consultation and support with frequency planning
- Verification of radio channel planning
- Avoidance of interference
- Detailed bill of materials for installation to avoid scope gaps



Putting it into place

Failure of critical communications equipment is one of the worst nightmares for any industrial operation. Minimizing the likelihood of a network malfunction and quickly getting it up and running again is what our Pre-Configuration & Testing measures and our Implementation Services are all about

Pre-Configuration & Testing Services

Our certified experts pre-configure and thoroughly test hardware prior to deployment.

- Creation of configuration files for upload to network components
- Pre-configuration of hardware according to project specifications prior to delivery
- Factory Acceptance Testing (FAT) of equipment prior to delivery

Benefits

- Reduction of on-site installation time
- Correct network operation even before hardware delivery
- Baseline configuration prior to on-site testing



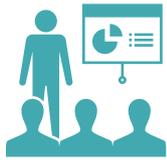
Implementation Services

Quickly getting your industrial network up and running securely and reliably is another area in which our professionals excel in.

- Configuration of hardware according to project specifications
- Equipment testing
- Installation and commissioning of SCALANCE and RUGGEDCOM network components through qualified partners and subcontractors

Benefits

- Fast, accurate on-site project implementation based on years of experience, training and certification



Bringing it to life

Once implemented, it is important that the plant staff is quickly trained on properly operating and maintaining the new network. Given the complexity of modern enterprise-wide networks, it is essential to have an understanding of the “big picture.” The interconnections between production and IT systems are thoroughly analyzed in the standard trainings we offer, which include certifications and customized courses (workshops).



Standard and Customized Courses

Our standard training services cover three areas of expertise and are designed to provide participants both operations-specific knowledge as well as hands-on experience.

- Switching and Routing in Industrial Networks
- Wireless LAN or WiMAX in Industrial Networks
- Security in Industrial Networks

Upon request, our experts will also tailor course content to meet specific objectives.

Benefits

- Gain industrial network expertise
- Proficiency in latest tactics and technologies
- Real-life learnings
- Increased network security, reliability and flexibility

Learn more at
[siemens.com/industrial-networks-education](https://www.siemens.com/industrial-networks-education)

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Security information

Siemens provides products and solutions with industrial security functions that support the secure operation of plants, systems, machines and networks.

In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a comprehensive, state-of-the-art industrial security concept. Siemens' products and solutions only form one element of such a concept.

Customers are responsible for preventing unauthorized access to their plants, systems, machines, and networks themselves. Systems, machines, and components should only be connected to the company network or the Internet if necessary and even then only to the extent required, and with appropriate protective measures in place (e.g. use of firewalls and network segmentation).

In addition, you should inform yourself about Siemens' recommendations on appropriate protective measures. You can find more information about Industrial Security by visiting

<http://www.siemens.com/industrialsecurity>

Siemens' products and solutions undergo continuous development to improve their security. Siemens strongly recommends applying product updates as soon as they become available and always using the latest product versions. Use of product versions that are no longer supported, and failure to apply latest updates may increase customer's exposure to cyber threats.

To ensure that you are always informed about product updates, subscribe to the Siemens Industrial Security RSS feed at

<http://www.siemens.com/industrialsecurity>