

Connectivity and Edge Device

Company Core Technology

Background

The intelligent networking of systems and components, known as the Internet of Things (IoT), is an important driver of digitalization in a wide range of sectors. A vital prerequisite for the IoT is the "data highway" between, on the one hand, the various internal entities of an enterprise and, on the other hand, between the enterprise and its customers, suppliers, service providers and any other parties involved in the production process. New digital services and business models can only be implemented on the basis of a powerful and efficient communications infrastructure of this kind.

Importance for Siemens

Connectivity is vital to Siemens in two ways: as part of the products it sells and for its own manufacturing purposes.

The goal is to integrate systems and solutions into the new IoT structures and deliver the greatest possible benefits for Siemens customers by linking the various information sources. The differing requirements in the various application areas also need to be taken into account – coping with significantly higher numbers of network nodes, for example, or ensuring fast, real-time responses within production processes. Digitalization and connectivity from field level to cloud are vital to the future commercial success of Siemens in areas such as process automation, manufacturing or the energy sector.

On top of this, Siemens is a major production company in its own right, and needs to continually optimize its manufacturing structures in order to remain successful in global markets.

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SIEMENS

Ingenuity for life

Success stories and research focus

Siemens has been extremely successful in the field of industrial communication for over 30 years now, setting market standards with products such as real-time Ethernet (Profinet) or security applications via wireless LAN.

Further research is needed into the communication technologies of the future and wired and wireless network architectures. When it comes to reconciling the fast reaction times required in the field (latency) with the benefits of the virtualized cloud platform (edge-to-cloud computing), distributed information processing and decision-making in the IoT are also of crucial importance. The result is an ecosystem that is uniquely capable of creating new digital solutions and concepts by bundling know-how from field level right through to the cloud.

Further information

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