PROFINET – The Backbone of Industrie 4.0

› Industrie 4.0 and IOT
With its integration for TCP/IP and its standard Ethernet-based technology, PROFINET provides a future-proof architecture that forms the foundation of Industrie 4.0.

› PROFINET@TSN
With TSN (time-sensitive networking), PROFINET’s existing RT/IRT is being expanded by a new IEEE-standardized, real-time capable base. The established PROFINET user perspective of data, parameterization, diagnosis, and profiles – such as e.g. PROFIsafe and PROFIdrive – can continue to be used without change.

› OPC UA integration
Thanks to their open system structure, OPC UA and PROFINET can use the same network and provide the perfect combination for Industrie 4.0 use cases:
• Delivery of asset management and diagnosis information
• Controller-to-controller communication (also fail-safe)
• Vertical communication with MES and cloud connection for big data services

More about PROFINET:
www.profinet.com/technology/profinet
A Solution for Highest Demands

Internationally Leading

› User benefit drives standardization
  New standards and additional support services are developed in close coordination with end users.

› Consistent solutions for the entire system
  PI technologies offer a complete solution, from plug to protocols to security.

› Compatible and innovative
  The continual advancement of standards is based on technologies and future-oriented innovations.

› Local support and global coordination
  With Regional PI Associations (RPAs), PROFIBUS & PROFINET International (PI) provides on-site support in both development and marketing.

Technical Highlights

› Openness means access to data
  TCP/IP communication parallel to I/O real-time communication is the key to easy access to necessary information.

› Flexible adaptation to new challenges
  Topologies and parameters can be adapted to fit each new system or machine.

› Comprehensive diagnosis for quick problem resolution
  The unique diagnostic possibilities of the network and devices make it possible to localize errors quickly and to describe them clearly.

› Safety from the market leader
  The functional safety of the machine or system is established and tested with PROFIsafe.

Real-time, IT and Safety via a Single Cable

Wide Range of Products Available

Global Standard

› Trendsetting with node numbers
  Many manufacturers with different devices are expanding the installed base daily.

› Interoperability through clear standards and certification
  The seamless compatibility of a variety of devices is ensured through suitable quality assurance.

› Easy development of devices through diverse technological support
  Device developers have access to a large selection of integration possibilities and services.