

SPS IPC Drives 2018, Hall 11

## Siemens supports OPC Foundation Initiative to extend OPC UA, including TSN down to the field level

- **Active support of OPC UA and Time-Sensitive Networking (TSN) technology**
- **Commitment to driving OPC UA with TSN forward within the OPC Foundation**
- **Comprehensive support of the OPC Foundation with Profisafe domain know-how for functional safety communication based on OPC UA**
- **Profinet based on TSN as mainstream solution at the field level**

Siemens welcomes the initiative previously published by the OPC Foundation to further enable OPC UA adoption throughout industrial automation by extending standardization and harmonization activities for OPC UA, including TSN-enabled Ethernet networks at the field level. Siemens, as a founding and board member of the OPC Foundation, is a strong supporter of the OPC UA technology and has been active in core standardization working groups for many years.

Siemens has extensive experience and a long history in the development and standardization of industrial communication systems. Siemens is actively participating in all relevant standardization bodies like IEEE, IEC, IETF, PI, OPC F, and many more not only as editor but also even as the convener and lead of the whole working group.

The latest example of Siemens leadership is the foundation of the international IEC/IEEE 60802 standardization group by Siemens. This group will standardize the so called "TSN Profile for Industrial Automation (TSN-IA Profile)" to ensure a multivendor converged TSN network approach for industrial automation where different applications and protocols like OPC UA, PROFINET, EtherNet/IP, etc. can share the same TSN network infrastructure. Additionally, an appropriate set of IEEE

basic standards will be selected to run the different protocols on one and the same hardware base.

Siemens shares the vision of the OPC Foundation to extend the scope of OPC UA down to field level communication and is looking forward to contributing in standardization activities in the upcoming working groups of the OPC Foundation concerning information models for devices, necessary adaption of OPC UA core standards, application profiles, etc.

Use cases which have not been well addressed in today's industrial communication systems so far, like multi-vendor controller-to-controller communication or vertical communication from devices to upper systems via OPC UA, will be adopted first by the market. Therefore, joint working groups between PI and OPC F members were started several months ago. These working groups are addressing topics such as the standardization of Safety over OPC UA based on Profisafe mechanisms for controller-to-controller communication, and the mapping of Profinet into the OPC UA information model for multiple use cases, e.g. asset management and diagnostics. Customers can shortly benefit from these features without waiting for TSN by simply running the OPC UA protocols on existing PROFINET network installations. The PI organization contributes its technology expertise to the OPC Foundation, e.g. by opening the Profisafe mechanisms to be used via OPC UA and extending the respective rights to OPC Foundation members.

Field device level communications with cyclic IO communication, motion control and safety, will need an established ecosystem with stack providers, certification procedures, tools, and many more. Organizations like PI, ODVA, and others have put effort into completeness and quality of specifications, conformance testing, maintaining a vendor and user community, and we expect a similar approach with the new OPC Foundation setup.

Siemens bears high responsibility towards its installed base and therefore will continue in innovating Profinet to protect our customers' investments and to bring Profinet based on TSN to the next level. The converged TSN network and common hardware platforms for Profinet and OPC UA enable a smooth migration into the new TSN world. In addition, we ensure that with OPC UA including TSN, the fundamental principles in field device communication, engineering workflows, conformance testing, diagnostics, etc. will stay unchanged.

In the end, our customers will decide if and where to use OPC UA technology or Profinet technology for their individual applications.



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This press release and a press picture are available at

[www.siemens.com/press/PR2018110079DFEN](http://www.siemens.com/press/PR2018110079DFEN)

For further information, please see [www.siemens.com/opc-ua](http://www.siemens.com/opc-ua)

More information on Siemens at the SPS IPC Drives 2018 is available at

[www.siemens.com/sps-ipc-drives](http://www.siemens.com/sps-ipc-drives) and [www.siemens.com/press/sps2018](http://www.siemens.com/press/sps2018)

**Contact for journalists:**

Andreas Friedrich

Phone: +49 (1522) 2103967; E-mail: [friedrich@siemens.com](mailto:friedrich@siemens.com)

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