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## Press Brief

### **Update on FieldComm Group Technologies and Alignment with NAMUR Open Architecture and Industrie 4.0**

November 8<sup>th</sup> 2017 - Bad Neuenahr, Germany – Today, at the 2017 NAMUR General Assembly Mr. Ted Masters, President and CEO, FieldComm Group and Mr. Thoralf Schulz, Chairman, FieldComm Group presented an update on FieldComm Group technologies and their alignment with NAMUR recommendations and Industrie 4.0. Below is a summary of the press conference:

#### Key Highlights:

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- Devices and systems using the FDI standard are in development. Device packages are undergoing conformance testing and registration at FieldComm Group. First registered FDI hosts and devices will be ready to order from our member companies in 2018.
- As part of a foundation and supplier consortium, FieldComm Group will assure conformance of emerging devices that use the new 2-wire Ethernet standard in development at the IEEE 802.3 committee. This standard enables high speed communications to field devices.
- FieldComm Group and the OPC Foundation have agreed to jointly create Process Automation information models using FieldComm Group's working group processes. These information models are a key component of conformance with NAMUR open architecture, NAMUR Ethernet, and Industrie 4.0 requirements.

#### In-Depth:

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FieldComm Group began operations in January 2015 as a new entity which combined the assets and membership of the former Fieldbus Foundation and the former HART Communication Foundation.

In June of that year ownership of the Field Device Integration (FDI) standard was transferred from a consortium of Process Automation systems suppliers to both FieldComm Group and PROFIBUS/PROFINET International.

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FieldComm Group, with more than 340 global members, is the owner and driver of major process automation industry standards.

### FDI Technology Update

With the assistance of many member companies and over 120 active members of the Integration Working Group, all elements of FDI that are required to bring products to market are now complete, including:

- Specifications
- Integrated Development Environment
- Host and device conformance testing tools
- Registration procedure
- Multivendor Demonstration system for Member and End User training

During the past two years FieldComm Group and PROFIBUS/PROFINET International have completed 3 plug-fests where devices from 18 suppliers, representing 6 protocols were evaluated for interoperability with 9 different FDI host platforms.

FieldComm Group's test lab in Austin, Texas is currently testing initial device packages and expects to award registration of first devices prior to the end of 2017. Additional device packages and hosts will be registered in 2018.

To provide users and systems with easier access to the latest registered device packages, FieldComm Group is building an online repository for device packages. When complete, users will be able to find and download packages, and systems will be able to subscribe to automatic updates via the repository package, much like Windows PC's are updated today.

FDI is also an ideal technology to foster device to cloud applications. At right is a depiction of how FDI Device package information moves seamlessly from device to cloud via FDI servers.

During the NAMUR general assembly, as part of demonstration of the NAMUR Open Architecture a multi-vendor/multi-protocol device to cloud, demonstration of FDI and OPC UA will be presented as shown in the slide below:

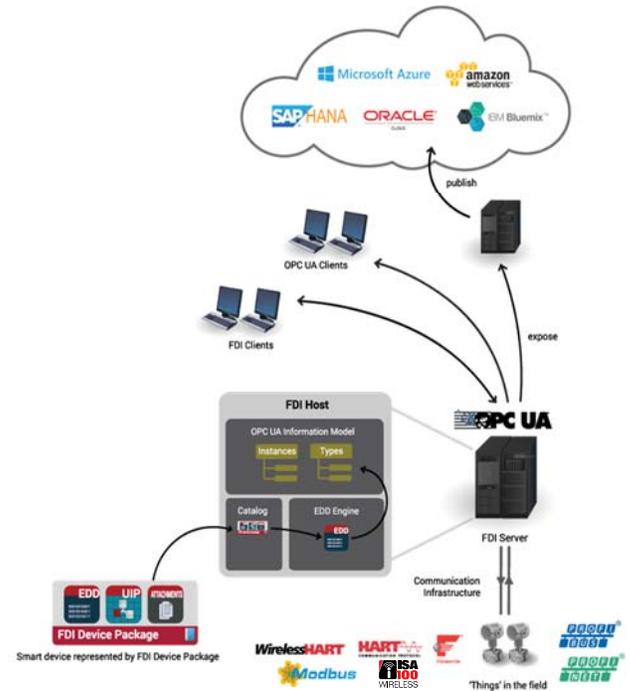


Figure 1: Device to Cloud integration

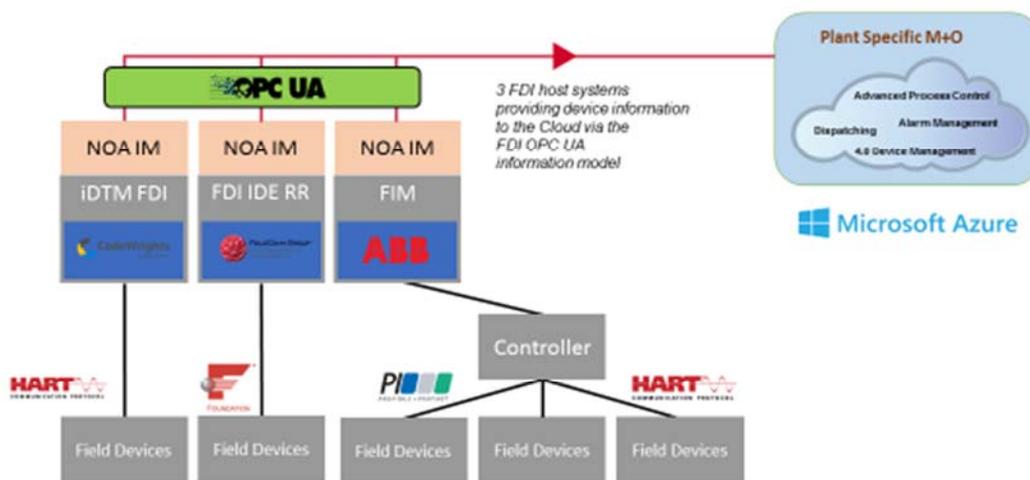


Figure 2: Implementation of the NAMUR Open Architecture with FDI

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## Partnering Update

During 2017 FieldComm Group has strengthened its partner relationships with other foundations that have a strong process automation focus. In particular, the Profibus/Profinet International organization, the OPC Foundation and the ODVA.

### *Foundations team with Advanced Physical Layer Consortium to further Ethernet to the Field*

The IEEE 802.3cg working group is actively engaged in development of a 2-wire Ethernet physical layer standard, also known as Advanced Physical Layer (APL). Two wire Ethernet provides a means to deliver much higher data rates between field devices and systems without significant investment in physical plant infrastructure (i.e. new wiring). Successful deployment of this technology requires cooperative engagement between leading suppliers and technology foundations. FieldComm Group will be responsible for conformance testing of this exciting new technology as products become available later this decade.

### *Information Modeling for Process Automation Devices and Systems*

Today we are pleased to announce the completion of a Memo of Understanding with the OPC Foundation to use FieldComm Group's working group structure to create specifications, tools and standards for process automation specific companion standards to OPC UA technology (see associated press release).

## Existing Technologies

### *WirelessHART*

Over 30,000 networks have logged over 3 billion operating hours using WirelessHART technology. The savviest end users have moved beyond small pilots and are now procuring and deploying large installations. WirelessHART adapters, gateways and instruments are all available from multiple suppliers.

### *HART and HART-IP*

With over 4 million HART devices deployed worldwide, digital connectivity of HART devices is on the upswing. The chart below highlights the increasing digital connectivity of HART devices. While HART is still principally used for occasional connectivity for configuration and maintenance via handhelds, we are seeing noticeable increases in HART devices permanently digitally connected to process automation systems. New facilities such as this year's Plant of the Year awardee, the Shell Prelude, illustrate this trend. (See our press release on [www.fieldcommgroup.org](http://www.fieldcommgroup.org))

**How connected are your digital protocols?**

"Which of these statements describes your usage. (Please check all that apply.)"	HART	
	2016	2017
Permanently for real-time process systems	36%	44%
Occasional via handheld	59%	61%
Occasional via PC	41%	34%
Permanently for off-line activity	23%	17%
Permanently for real-time enterprise systems	10%	12%

← 20% YoY Increase

Source 1: CONTROL Magazine Supplement 2017

*FOUNDATION Fieldbus*

FOUNDATION Fieldbus is an extremely rich technology that allows incredible flexibility in configuration and deployment. Current efforts are focused on improving ease of use.

For example, to simplify configuration and deployment, predefined application templates for devices are being used by sophisticated end users. The Shell Prelude project uses over 8,000 FOUNDATION Fieldbus devices including 2,500 valve positioners. Using device templates ensures uniformity of device configuration, effectively reducing the number of commissioning parameters required to be checked by a factor of 20 and total time savings of 80% for device commissioning and loop checking across all devices that applied user configuration via templates.

To simplify device replacement, the standard now includes capabilities that allow for much easier in-situ replacement by a single engineer. A new backward compatibility standard allows automated replacement of devices without the need to install any new device files (EDDs) or modify existing configurations. Emerging standards allow further simplified exchange of devices, including devices from different vendors through new standardized connection points.

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