

Driving Membership through SymbIOTic Connections

Quantifying return on investment (ROI) in terms of a membership organization or association isn't easy. For members of the Industrial Internet Consortium (IIC), now incorporating OpenFog, ROI lies in active participation, the overall experience and a common thread that rises to the surface—"connection." The industrial internet is all about connecting industries to the internet and bringing together the organizations and technologies necessary to accelerate the growth of the industrial internet. Membership empowers this ecosystem to grow.

Woven throughout every working group and task group are activities designed to connect across groups – vertical industry-focused groups to testbeds, liaison organizations to verticals, technology to business strategies, architecture to use cases, technology challenges to special interest groups and end-users to solutions. Forward progress is embodied through delivering technical insights, actionable intelligence and solutions to real-world problems. In order to do this, the IIC relies on initiatives such as those described below.

Combining Forces with OpenFog

On January 31, 2019, the two largest and most influential international consortia in Industrial IoT, fog and edge computing joined forces to work together under the IIC umbrella to drive the momentum of the industrial internet, including the development and promotion of industry guidance and best practices for fog and edge computing. The combined organization offers greater influence to members, more clarity to the market, and a lower-risk path to the future for end users. We will be the center of gravity for the future of Industrial IoT systems across industry verticals.

End User Engagement

In Q3 2018, an End User Leadership Council was formed to share end user insights in implementation challenges and set the vision for the industry. Founding representatives from Boeing, B&R Automation, Bosch Rexroth, Church & Dwight, Deere & Co. and TRUMPF met again in Q1 2019 to continue discussions with IIC leaders around key challenges and opportunities to test IIC-member driven solutions within their own factories.

End User Leadership Council participants may seize opportunities to "test drive a testbed" to apply an IIC testbed to new use cases, showcase their organization as an early adopter and solve an immediate problem with a practical IoT implementation directly on their site. These sorts of

cross-pollination activities being furthered by the End User Leadership Council will benefit end-users and members directly, as well as the industry at large.

Connecting via Industry Events

The IIC's Global Event Series continues to offer world-class knowledge learning opportunities and are often aligned with vertical industries, featuring speakers from around the globe. A [Building Intelligent Infrastructures Forum](#) hosted by SAS on February 15, 2019 at their Executive Briefing Center in Cary, NC showcased Intelligent Transport Systems and Smart Cities, with experts and thought leaders from SAS, Cisco, RIoT, Building Clarity, TCS, LHP Engineering Solutions, RTI, Volvo Trucks, NetApp, Itron and the Town of Cary, NC. Presentations and videos from this event may be viewed [here](#). The next [Global Event Series](#) will be hosted in Cork, Ireland on May 23, 2019.

In addition to the Global Event Series, IIC members can be found at other participating [events](#) such as [Hannover Messe](#), the [Intelligent Transport Systems Forum](#) at IoT World Santa Clara and [IoT Solutions World Congress](#) in Barcelona.

New Liaisons

The IIC collaborates with global standards development organizations, technology and industry-focused consortia, open source communities, regional organizations and government agencies in a variety of ways including:

- Technical exchange such as harmonization of IIoT architectures and exchange of use cases, best practices, results, technical reports and frameworks
- Joint marketing activities
- Joint workshops
- Joint publications

Since the last Journal of Innovation publication, IIC has added a number of new Liaison Members, bringing the total to well over 40 liaisons.

- The [International Data Spaces Association](#) will collaborate with the IIC to improve trustworthiness of IIoT data
- [Linaro](#), an Open-source community with an important role in IIoT market growth will work with IIC to promote the digital economy and preventing industry fragmentation
- [GlobalPlatform](#) will work with the IIC to align efforts to maximize interoperability, portability, security and privacy for the industrial Internet.
- The [Wi-SUN Alliance](#), a global association driving the propagation of interoperable wireless solutions for use in smart cities and smart utilities will work with the IIC to maximize interoperability, portability, security and privacy for the industrial Internet.
- A formal relationship with the [OPC Foundation](#) is a natural fit for the IIC as the **OPC Unified Architecture standard** is widely used in several IIC testbeds.

As an example of testbed progress, the IIC's Track & Trace Testbed has generated requirements for an IIoT standard which would improve the sharing of data from IIoT sensors. These requirements were submitted to the Object Management Group (OMG) who has a nearly 30-year history creating and maintaining IT standards. OMG has begun the process to develop this as a new IIoT standard. To explore the list of our Liaisons and the joint work in process, please refer to the [Liaison Working Group](#) activities page.

New Publication

As organizations connect their systems to the internet, they become vulnerable to new threats, and they are rightly concerned with security. Addressing these concerns requires investment, but determining investment focus and amount is a difficult business decision. The Security Working Group published the [Security Maturity Model \(SMM\) Practitioner's Guide](#), which provides detailed actionable guidance enabling IoT stakeholders to assess and manage the security maturity of IoT systems. Corresponding with the publication of the SMM Practitioner's Guide is an update to the [IoT SMM: Description and Intended Use White Paper](#), which provides an introduction to the concepts and approach of the SMM.

The SMM Practitioner's Guide builds on concepts identified in the groundbreaking IIC [Industrial Internet Security Framework](#) published in 2016 and defines levels of security maturity for a company to achieve based on its security goals and objectives, as well as its appetite for risk. Organizations may improve their security state by making continued security assessments and improvements over time, up to their required level. Additional information and resources associated with the [SMM Practitioner's Guide](#) publication may be researched [here](#). Please also join us for a Webinar, ["Get a True Sense of Security Maturity"](#) presented by the co-authors -- available live, or on demand following the event.

Collaboration Tools

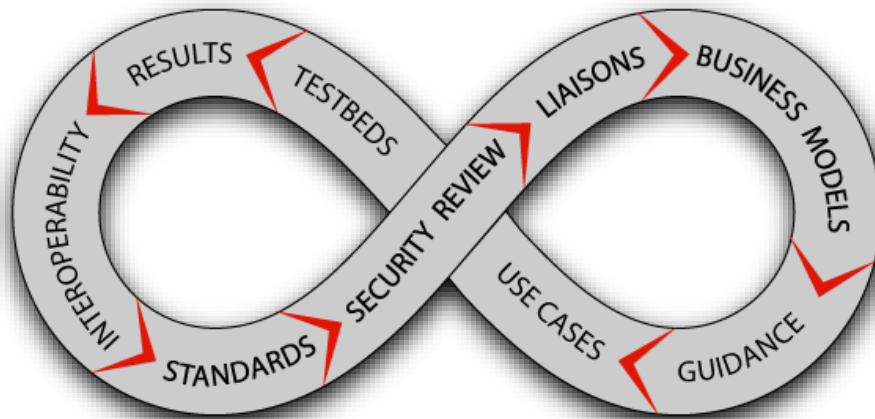
Resource Hub Enhancements

We are committed to providing the best experience for our member organizations, both in providing additional exposure to their products, brands and collaborative bodies of work. In the second half of 2018, we launched the IIC [Resource Hub](#) which represents the body of knowledge and activities driven by IIC members converged into a public resource that arms the world with new tools in the IIoT strategic arsenal. The actionable intelligence and interfaces continue to expand and become more robust every quarter as we add new documents, enhance the explorers and provide insights. Be sure to take advantage of all the [Resource Hub](#) has to offer.

IIC Connect

The well-established "IIC Connect" program is like "match.com" for member companies. The concept is simple: you enter your profile and a quick description of what might interest you. Then,

everyone looks at the profiles and requests meetings. You accept the ones you like; software does some automated scheduling and you have 20-minute networking sessions. It's fast, easy, efficient and fun!



The Industrial Internet Consortium ecosystem is a continuous flow of inter-related activities

Since connecting internet to Industry is the soul of the next Industrial Revolution, the Industrial Internet Consortium, now incorporating OpenFog, continues to evolve very quickly. All of the above brings us back to the value of connections. When you put this all together, a very “SymbIOTic” ecosystem emerges. From end users, to platform vendors, OEM’s and suppliers, systems integrators to consultants and thought leaders – all members play an important role.

As one member eloquently explained, “Perhaps you don’t need cheap sensors, but how about analytics? Middleware? Deep learning? Ad hoc networking? Security? Services? Tools? It’s pretty clear: every IIoT company or technology end-user on the planet should be able to leverage the world’s largest IIoT ecosystem at the Industrial Internet Consortium. Just understanding the amazing mix is great education on the breadth and depth of the IIoT. Every member has the opportunity to make a difference and grow their business.”¹ This could be you! We welcome and encourage new member participation and invite you to join us.

¹ Interested in learning more about how members monetize their IIC Membership in this [Webinar](#).

- Return to [IIC Journal of Innovation landing page](#) for more articles and past editions.

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