

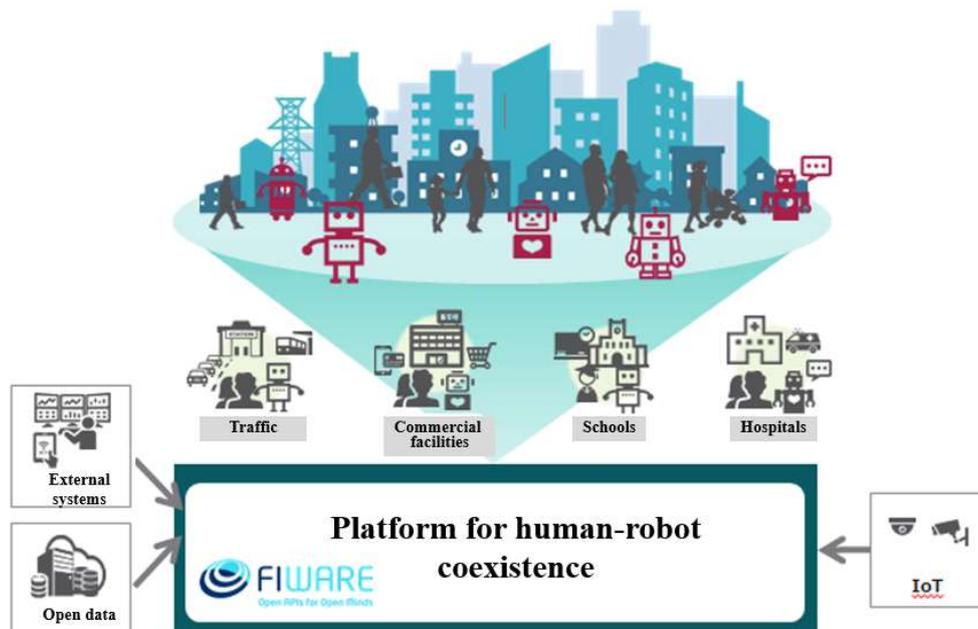
TIS Joins FIWARE Foundation as Gold Member
— Will apply FIWARE to IoT Service Platform
Toward Realization of Human-Robot Coexistence —

TIS Inc. (Head Office: Shinjuku-ku, Tokyo; President: Toru Kuwano; hereafter, “TIS”), a member of the TIS INTEC Group, announces its participation as a Gold Member in FIWARE Foundation e.V (hereafter, “the FIWARE Foundation”^(Note 1)), a non-profit organization. The FIWARE Foundation promotes widespread use of FIWARE^(Note 2) infrastructure software, which is developed and implemented by the Future Internet Public-Private Partnership Program (FI-PPP^(Note 3)), a next-generation Internet public-private initiative program in the European Union. TIS is the second Japanese company to get involved in the FIWARE Foundation.

FIWARE is an IoT service platform with standardized open API^(Note 4) that was developed as open source software (OSS) to encourage companies and local governments that provide public services to utilize data and cooperate on services beyond industry borders. FIWARE is being used by 110 cities and companies in 25 countries, mainly in Europe, for systems to realize smart cities.

TIS will apply FIWARE to data interfacing with robot-to-robot connections as well as data interfacing with robots, IoT, open data and other solution components, and will begin R&D on a platform supporting human-robot coexistence for robot integration services.

Toward Realization of Human-Robot Coexistence



TIS will promote development of an IoT service platform utilizing FIWARE through the AI-robotics subcommittee of the Open Government Consortium (OGC)^(Note 5) of which TIS is a member. OGC will begin joint verification tests with Aizu University in autumn 2018 at the Laboratory for leading-edge ICT in Aizu (LICTiA).

For reference

“Aizu University signs partnership agreement with AI-robotics subcommittee of OGC — Promote use of robotics, AI and IoT to realize human-robot coexistence” at <https://ogc.or.jp/article/3688> (Japanese only)

TIS is set to present its research results at CEBIT 2018, an international exhibition being held in Hannover, Germany, from June 12 through 15, 2018. (Please see the details at <http://www.cebitt.de/exhibitor/tis/N814570>)

TIS intends to create new solutions and services by combining the FIWARE-based IoT service platform to realize human-robot coexistence with system development and business know-how accumulated across many business segments as well as cloud- and AI-related technologies and insights.

• Background to participation in FIWARE Foundation

The use of robots is increasingly seen as a way to help solve various social issues, particularly the shortage of labor caused by fewer children and more seniors in the population. However, at present, the use of robots has not spread beyond the fields of nursing care and welfare, mainly for monitoring and communications, because humans themselves cannot connect or communicate with robots, much less coexist. .

At TIS, we believe it is possible that humans and robots can coexist if robots are used to complement human capabilities and each fulfills a designated role, and that the use of robots can one day solve social issues across many sectors.

Consequently, TIS has focused on robotics integration—connecting robot technology and ICT technology—and has partnered with research and educational institutions, consortiums and other organizations to promote R&D on advanced technologies.

The objective behind TIS’ participation in the FIWARE Foundation is to expand robot interfacing capabilities with FIWARE. TIS seeks to facilitate wider use of robots by developing platforms that enable robots to interface with IoT and with services in addition to robot-to-robot interfacing, and will make the frameworks available as OSS.

• TIS’ robot business

TIS has pursued activities in robotics integration, including venture investments into SEQSENSE, which is developing autonomous robots, and Unirobot Corporation, which is developing “unibo,” a communication robot. Through its involvement in the FIWARE Foundation, TIS will accelerate R&D on platforms that will lead to human-robot coexistence

and thereby reinforce its robot business.

- Notes:
1. FIWARE Foundation e.V.: Non-profit organization based in Germany and established to coordinate FI-PPP results and promote FIWARE under an industry-led structure. Four founding members are Atos (France), Engineering (Italy), Orange (France) and Telefonica (Spain).
(Please see the details at <https://www.fiware.org/foundation/>)
 2. FIWARE: FI (Future Internet)WARE, next-generation platform software developed by FI-PPP to support smart application development for consumers, citizens, businesses and the public service sector and to reinforce EU's competitiveness in next-generation Internet technology.
(Please see the details at <https://www.fiware.org/>)
 3. Future Internet Public-Private Partnership Program (FI-PPP): A next-generation Internet public-private initiative program in the European Union that runs for five years from 2011 as an ICT project under the EU's Seventh Research Framework Programme.
 4. Open API: API stands for Application Programming Interface, a framework of requirements that govern how one application communicates with another in a system. An open API makes this framework available to all developers.
 5. Open Government Consortium (OGC): A general incorporated association offering advice to government agencies and conducting activities to put such advice into practice. OGC takes a citizen-centric perspective and emphasizes open cloud technology, seeking to realize the world's highest level of e-government and e-local government. The consortium sets up subcommittees and working groups with expert participation to support and encourage the right kind of governmental measures. The consortium itself comprises 35 companies, as of April 2018. The director in charge of the AI and robot subcommittee is Miki Yutani, who is general manager of TIS' Strategic Technology Center.

About TIS Inc.

TIS Inc., a member of the TIS INTEC Group, provides several IT solution services including entrusted development, data center and cloud services. At the same time, TIS is contributing to the growth of clients' businesses with more than 3,000 business partners in various industries, such as financial services, manufacturing, logistics/distribution, public services and telecommunications, by offering global support to companies with a presence mainly in China and the ASEAN region.

For more information about TIS, please go to <http://www.tis.co.jp/>

About the TIS INTEC Group

The TIS INTEC Group comprises 58 IT companies and 20,000 employees. Each company utilizes its field of expertise to provide IT services that support clients' businesses across many industries, including finance, manufacturing, services and public services, both inside Japan and overseas.

*The companies and products named herein are trademarks or registered trademarks of each company.

*The information contained herein is current as of the announcement date. Subsequent information may be different.

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