

IoT Standardization for Digital and Green Transformation: Speaker Presentations from ETSI IoT Week 2022

The ETSI IoT Week 2022 event focused on the theme of “Pursuing the Digital and Green Transformation”. Over 50 speakers from industry, research, universities, cities and other SDOs demonstrated how ICT standards can help reach the UN Sustainable Development Goals (SDGs) and the European Green Deal to an audience from 22 countries around the world.

The event also celebrated the 10th anniversary of the oneM2M partnership project. Various sessions during the week addressed semantics and ontologies, digital twins, IoT and the Edge, IoT and AI, IoT for a better life, including the digital and green transformation and eHealth, and horizontal ETSI IoT standards for the vertical business sectors.

For ease of access, each presentation is accessible via links mapped to the event agenda.

Monday 10 October 2022

[Tutorial on Ontologies, Focusing on SAREF and oneM2M](#)

by Bob Flynn EXACTA and Raúl García-Castro - UPM

Tuesday 11 October 2022

SESSION 1: OPENING SESSION

[Introduction to the ETSI IoT week: the Role and Responsibility of Standardization in IoT](#)

Enrico Scarrone, TIM, ETSI SmartM2M Chair, PC Chair

[The Role of IoT Standards to Help Resolve Security Challenges](#)

Rana Kamill, BT

[HSbooster.eu - How EU Projects and Researchers Can Speed up the IoT Technology Uptake](#)

Nicholas Ferguson, COMMpla

[IOT and the Digital Transformation: EU Perspective](#)

Svetoslav Mihaylov, European Commission DGCONNECT

SESSION 2: DEMONSTRATIONS PRESENTATIONS

Xavier Piednoir, ETSI Technical Expert

[Standardized Device Provisioning and Data Access with oneM2M](#)

Andreas Kraft, Deutsche Telekom IoT GmbH

[Heterogenous, Federated IoT Systems for Public Protection and Disaster Relief Scenarios](#)

Konrad Wrona, NATO C&I Agency

[The IoTAC Software Security-by-Design \(SSD\) Platform](#)

Miltiadis Siavvas, Centre for Research and Technology Hellas

[oneM2M Stacks and Self Energy Consumption](#)

Thierry Monteil, IRIT

[Demonstration of MEC IoT API](#)

Marco Centenaro, Athonet S.r.l.

[oneM2M-based Unmanned Aircraft Data Management Platform](#)

Sungwook Jung, Korea Electronics Technology Institute

[Digital Transformation Using AI-Enabled IoT Based on the oneM2M Standards](#)

Jaeho Kim, Sejong University & KETI

[Managing AI Services with oneM2M and Semantics](#)

Przemysław Ratuszek, Orange

[Demonstrate SAREF-Based Semantic Interoperability In Action](#)

Fabio Coelho, INESC TEC

SESSION 3: IoT AND EDGE COMPUTING FOR GREEN TRANSFORMATION (to be continued in Session 7)

Session Chair: Georgios Karagiannis, Huawei Technologies

[IoT Done Sustainably](#)

Dale Seed, InterDigital, oneM2M TP VC and oneM2M SC convenor Sustainability Committee

[Achieving Sustainability Goals Through SGS IoT Grain Conditions Monitoring Solution](#)

Aleksandar Mitrevski, SGS

[IoT and Edge Computing Carbon Footprint Measurement Methodologies](#)

Sylvie Couronné, Fraunhofer IIS

[NCle a Carbon Emission KPI for any Network Type](#)

Paolo Gemma, Huawei

SESSION 4: Adoption and Usability of Ontologies and SAREF

Session Chair: Laura Daniele, TNO

[AIOTI - Ontology landscape](#)

Martin Bauer, NEC

[EU-IoT and Ontocommons Workshop Ontological Interoperability and Standardization: Recommendations and Application of Ontologies in Cross-Domain](#)

Arkopaul Sarkar, Trust-IoT

[Large Scale Deployment of SAREF-Based Semantic Interoperability Solutions in Interconnect](#)

David Rua INESC TEC

[SAREF for Smart Lifts and its Application to the Vertical Sector.](#)

Mauro Dragoni, Fondazione Bruno Kessler

Wednesday 12 October 2022

SESSION 5: TECHNOLOGIES TO SUPPORT eHEALTH

Session Chair: Marie-Agnès Peraldi-Frati - University Côte d'Azur

[IoT in eHealth – Diagnosis, Therapy, Recovery, Wellness](#)

Scott Cadzow, C3L (Cadzow Communications Consulting Ltd)

[Using a Simple Geolocation Symbolic System in the Framework of E-health](#)

Nel Samama, Institut Polytechnique de Paris / Telecom SudParis

[Challenge and Development - Asynchronous Contact Tracing](#)

Luigi Liquori, INRIA

SESSION 6: THE ROLE OF EDGE IN IoT (to be continued in Session 10)

Session Chair: Dario Sabella, ISG MEC Chair, Intel

[MEC IoT Service: An Overview](#)

Marco Centenaro, Athonet S.r.l.

[High Priority Edge Computing Standardisation Gaps and Relevant SDOs](#)

Orfeas Voutyras, Institute of Communications and Computer Systems

[Transparent Access to Edge Computing Services for IoT Applications](#)

Josef Hammer, Alpen-Adria-Universität Klagenfurt

[IoT and Edge Computing as Enabling Technologies for Data Spaces](#)

Antonio Kung, Trialog

SESSION 7: IoT AND EDGE COMPUTING FOR GREEN TRANSFORMATION (continuation of Session 3)

Session Chair: Georgios Karagiannis, Huawei Technologies

[Interconnect - a European Project that Changes the Way Energy is Consumed](#)

Jean-Philippe Pierre , ISEN - YNCREA Méditerranée

[Digital Twin for the Green Transformation: Requirements and Enabling Technologies](#)

Umberto Fattore, NEC Laboratories Europe GmbH

[The European Green Deal and how Edge IoT could accelerate the green transition in Europe and beyond](#)

Svetoslav Mihaylov, EC DG CONNECT

SESSION 8: CONNECTIVITY ENABLING IoT

Session Chair Giulio Maggiore ETSI TC INT chair, TIM

[Car IoT and New Connectivity Perspectives from the SparkLink Alliance](#)

François Fisher, FSCOM, AIOTI Mobility WG Chair

[Mioty - the Future of Sustainable Wireless IoT Communication](#)

Josef Bernhard, Fraunhofer-Institute for Integrated Circuits IIS

[Achieving Optimal Energy and Power Efficiency in IoT Devices with MIPI I3C](#)

Michele Scarlatella, MIPI Alliance

Thursday 13 October 2022

SESSION 9: IoT SECURITY (to be continued in Session 13)

Session Chair: Alex Leadbeater, ETSI TC CYBER Chair, BT

[IoT Security – Standards Development for Vertical Domains](#)

Scott Cadzow, C3L (Cadzow Communications Consulting Ltd)

[Would you Still Trust your IoT Product Supplier from Now On?](#)

Roland Atoui, Red Alert Labs

[Defending Smart Cities against Cyber Attack, Nature and Acts of War](#)

Konrad Wrona, NATO C&I Agency - plus partners

[The IoTAC Software Security-by-Design Platform](#)

Miltiadis Siavvas, Centre for Research and Technology Hellas

SESSION 10: THE ROLE OF EDGE IN IoT (continuation of Session 6)

Session Chair: Dario Sabella, ISG MEC Chair, Intel

[Edge-Native Paradigm: ASSIST-IoT Approach for the Next NG-IoT Decentralized Architecture](#)

Ignacio Lacalle, UPV

[The Role of the Edge in IoT-Based Railway Diagnostic Satellite and 5G Integrated Networks](#)

Lorenzo Santilli, Telecom Italia

SESSION 11: INTEROPERABILITY, KEY TO DIGITAL TRANSFORMATION

Session Chair: Roland Hechwartner, oneM2M Technical Plenary Chair, Deutsche Telekom AG / T-Mobile International Austria

[OneM2M Enabling Interoperability](#)

Roland Hechwartner, oneM2M Technical Plenary Chair, Deutsche Telekom AG / T-Mobile International Austria

[Why Interoperability is Key for Local Authorities to Master Data Sovereignty and ICT Carbon Footprint](#)

Christophe Colinet, Bordeaux Métropole / eG4U

[A Simulation Framework for the oneM2M Standard](#)

Marie-Agnès Peraldi-Frati, University Côte d'Azur

[Device Data Orchestration Using oneM2M](#)

Andre Dias Dutra, Deutsche Telekom IoT GmbH

SESSION 12: DIGITAL TWINS BETWEEN STANDARD AND INNOVATIONS

Session Chair Massimo Vanetti, European Digital SME Alliance

[Internet of Things & Digital Twins: Just a Buzzword or a Challenging Opportunity?](#)

Marco Picone, University of Modena and Reggio Emilia

[Combining Digital Twins with Cognitive Agents and Plausible Reasoning](#)

Dave Raggett, W3C/ERCIM

[An Introduction to oneM2M's Smart Device Template and Data Structures](#)

Andreas Kraft, Deutsche Telekom IoT GmbH

Friday 14 October 2022

SESSION 13: IoT SECURITY (continuation of Session 9)

Session Chair: Alex Leadbeater, ETSI TC CYBER Chair, BT

[Evolving Cellular Connectivity to Meet the Needs of an Expanding IoT](#)

Saïd Gharout, Trusted Connectivity Alliance IoT RSP Working Group, Kigen

[The Security Evaluation Standard for IoT Platforms \(SESIP\): Quantifying the Benefits of Re-Use and Mapping to ETSI EN 303 645](#)

Gil Bernabeu, GlobalPlatform

[IoT Devices Identity Management](#)

Lorenzo Gatti, InfoCert S.p.A.

SESSION 14 : ARTIFICIAL INTELLIGENCE LEVERAGING IoT

Session Chair: Michelle Wetterwald, Netellany/ FB Consulting

[Overview of AI Activities in ETSI](#)

Lindsay Frost, NEC

[Artificial Intelligence, IoT Device Management: the Indispensable Collaboration](#)

Samuel Berlemont, Orange

[Bringing the Power of Standards IoT Platform to AI](#)

JaeSeung Song, Sejong University, oneM2M TP Vice Chair

[Cross-Domain Data Usability in IoT Ecosystem Comprising IoT Devices, Humans and Machines](#)

Michelle Wetterwald, Netellany / FB Consulting