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| ETSI_logo_Office_Colour_Small | ***STF 547 – Progress Report for ETSI*** |
| **Presented to ETSI meeting** | **Author:**  | Emmanuel Darmois  |
|   |   | **Date:**  | 30/11/2018  |
|   |   | **Version** | 1.0 |
| **Doc ref** |   | page 1 of 4 |

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| **STF** | **547** |  | **STF leader** | Emmanuel Darmois |
| **TB/WG** | **SmartM2M** |  | **TB responsible** | Enrico Scarrone |
|  |  |  | **STF Assistant** | Thierry Comont |

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| **STF title:** |  A coordinated approach for Security/Privacy and (Semantic) Interoperability of standardised IoT Platforms |

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| **Milestone** | **C** |  | **Status** | **Covers the period until (cut-off date)** | 30/11/2018 |
|  **Template** |
| **Objective** | Progress report approved during ad-hoc meeting D5 initial draft |
| **Achieved** | Yes | *”* |
| **Remarks** |   |

**Achieved dates**

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| --- | --- | --- | --- | --- | --- |
| **Template** | **Draft report** | **TB approval** | **ETSI approval** | **Sent to EC** | **EC approval** |
| 04/05/2018  | 30/11/2018  |   |   |   |   |

**Activities carried out by the STF in the period** **from 01/10/2018 to 30/11/2018.**

# Executive summary

The STF 547 has officially started on March 2nd, 2018. It has the main following characteristics:

* The project is structures in 9 main technical tasks;
* The expected results consist of: 6 Technical Reports, other reports and a final delivery workshop;
* The delivery of the results is aligned with 10 Milestones (from A to J).

The present document reports on the work in STF 547 since the completion of Milestone B (September 30th, 2018) to the completion of Milestone C (November 30th, 2018).

The STF has provided the following deliverable as initial draft:

* TR 103 537 (D5) Plugtests preparation on Semantic Interoperability.

The work is progressing in line with the Project Plan and the contractual Milestones. In particular, the third Milestone (Milestone C) has been reached with the above-mentioned deliveries.

No reason to change the plan, the resources or the experts is foreseen at this moment.

# Introduction

The STF 547 has officially started on March 2nd, 2018. It has the main characteristics:

* The project is structured in 9 main technical tasks (T2 to T10);
* The expected results consist of:
	+ 6 Technical Reports (D0 to D5)
	+ Other reports including a report (R1) on " Supporting the integration and coordination among the different domains in AIOTI"
	+ A final delivery workshop to be held at the end of the STF in October 2019;
* The delivery of the results is aligned with 10 Milestones (from A to J).

The present document reports on the work in STF 547 since the completion of Milestone B (September 30th, 2018) to the completion of Milestone C (November 30th, 2018).

The STF has provided the following deliverable as initial draft:

* TR 103 537 (D5) Plugtests preparation on Semantic Interoperability.

The Operational Plan (OP) which has been delivered to the STF Steering Committee in version 1.0 before Milestone A has been updated and will continue to be updated on a regular basis during the life-time of the STF.

# Contractual milestone

The present document reports on the work in STF 547 since the completion of Milestone B (September 30th, 2018) to the completion of Milestone C (November 30th, 2018).

Milestone C is conditioned by the following element of the work progress:

Initial Draft of TR 103 537 (D5). This early draft has been produced in version 0.0.1 and uploaded on the SmartM2M portal on November 29th, 2018.

These report will be discussed at SmartM2M #48 on December 11-13th in Sophia-Antipolis, in particular regarding the approach taken.

Given the conformance of the deliveries made to TC SmartM2M with what has been requested to be provided by the STF, the STF team considers that Milestone C has been reached.

# Progress of the work

The work is progressing in line with the Project Plan and the contractual Milestones. No reason to change any of these is foreseen at this moment.

# Assessment of technical risk, difficulties encountered/expected, unresolved issues

At the time of writing the present report, no major technical difficulty has been encountered.

# Proposed changes in the STF work plan

None.

# Resources requirements

None.

# Changes in the STF Team

The team is composed of ten experts that have been recruited to start the work on March 2nd 2018.

In the course of November, Guido Sabatini (in charge of the administrative aspects for DigitalSME) has left DigitalSME and has been replaced in the same position. This change has no impact on the technical work.

# Meetings/events attended on behalf of the STF

The following "Ordinary call on feedback" meetings with SmartM2M have been held on-line:

* None.

The following meetings with TC SmartM2M have been held:

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| **Date** | **Place** | **TB/Orga** | **Event description** | **Reason to attend** | **Expert(s)** |
| 08/10/2018 | On-line | SmartM2M | SmartM2M #47 | Reporting on STF Progress | E. Darmois |
|  |  |  |  |  |  |

The following dissemination meeting has been held:

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| --- | --- | --- | --- | --- | --- |
| **Date** | **Place** | **TB/Orga** | **Event description** | **Reason to attend** | **Expert(s)** |
| 22/10/18 | Sophia-Antipolis | ETSI | ETSI IoT Week | Presentation of the STF view on Security | S. Cadzow |
| 25/10/18 | Sophia-Antipolis | ETSI | ETSI IoT Week | Presentation of the STF view on Privacy | J. Ogunbekun |
| 15/11/18 | Brussels | EC | Workshop on standardisation support to the DEI initiative | Get in touch with stakeholders, inform about work in STF 547, get feedback | J. Koss |
| 23/11/18 | Brussels | European COST Program | Cybersecurity for the Internet of Things (Awareness Meeting) | Collect information in latest advances of the IoT research community on the latest evolutions of Privacy and Security, in particular in terms of guidelines. | E. Darmois |
|  |  |  |  |  |  |

# Meetings/events planned to be attended

At the time of writing this report, the only meetings foreseen are:

* The coordination meetings with SmartM2M;
* Meetings related to the dissemination of STF results.

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| **Date** | **Place** | **TB/Orga** | **Event description** | **Reason to attend** | **Expert(s)** |
| 12/12/18 | Sophia-Antipolis | SmartM2M | SmartM2M #48 | Report on STF Progress | E. Darmois |
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# STF communications, presentations, promotion, inside and outside ETSI, WEB pages etc.

The STF results will be regularly presented to TC SmartM2M. The next meeting with SmartM2M is planned on December 12th, 2018 during SmartM2M #48.

As part of the Task 8 (Supporting the integration and coordination among the different domains in AIOTI), a coordination of the work between AIOTI WG03 and STF 547 has been put in place. This mechanism allows the early identification of opportunities for contributions of STF 547 to AIOTI WG03. The first topics in consideration and contribution are regarding: the impact of 5G on IoT; the evolution of the HLA; the evolution of the “Semantic Interoperability” White Paper; the IOT Gaps; and the follow-up of the work on Platforms Interoperability (done by ETSI in the UNIFY-IoT CSA and by the IoT-EPI).

Two presentations have been made by the STF 547 experts, one on Privacy and one on Security, during the ETSI IoT Week on October 22nd, 2018.

The STF 547 web page is on the ETSI Portal at: <https://portal.etsi.org/STF/STFs/STFHomePages/STF547>

# Technical advice required from the reference Technical Body

Regular meetings will be held with the STF 547 Steering Committee and with the reference Technical Body (SmartM2M). This will be the occasion to get guidance from the Steering Committee and SmartM2M on the direction taken by the work and on possible adjustments.

# Status of the deliverables

The status of the deliverable delivered by the STF is the following:

TR 103 537 (D5) Plugtests preparation on Semantic Interoperability.

 Initial draft (v0.0.1) uploaded on the SmartM2M portal on November 29th, 2018.

 Hyperlink:

 [https://docbox.etsi.org/SmartM2M/SmartM2M/05-CONTRIBUTIONS/2018//SmartM2M(18)048006\_Draft\_-\_DTR\_SmartM2M-103537v0\_0\_1\_TR\_103\_537\_.zip](https://docbox.etsi.org/SmartM2M/SmartM2M/05-CONTRIBUTIONS/2018//SmartM2M%2818%29048006_Draft_-_DTR_SmartM2M-103537v0_0_1_TR_103_537_.zip)

# Next report

The next report is scheduled for: December 30th, 2018.

# Any other business

None.

# Annex A: STF 547 Expert Profiles

The team is composed of ten experts that have been recruited to start the work on March 2nd 2018.

Mahdi Ben Alaya, Sensinov

Dr Mahdi BEN ALAYA is Founder and CEO of Sensinov. He obtained a Ph.D. in systems architectures from the Federal University of Toulouse in France. He is Vice Chairman of the oneM2M Testing Group. He is co-founder and technical manager of the open source project OM2M at the Eclipse foundation. He organized various schools on IoT in France, Taiwan and Korea. He initiated and managed several R&D projects at LAAS-CNRS and Sensinov including H2020-LSP5-AUTOPILOT, ITEA2-USENET and ITEA2-A2NETS. He has authored more than 20 publications in international journals and conferences and more than 40 contributions in M2M standards.

Harm Jan Arendshorst, iLabs

Harm Jan Arendshorst passion is to build a trustworthy internet of everything for the wellbeing of people and planet. He is the founder and CEO of iLabs Technologies (iLabs), which is a Start-up SME founded in June 2017 in Amsterdam. iLabs provides Applied Research and State of the Art Systems and Services in IoT Security and other digital ecosystems. Harm Jan is member of ETSI and is co-chair of the IoT Security taskforce at AIOTI.

Harm Jan was the Global Lead for IoT Security and International Strategy at Verizon and member of the Board of Directors of Trust in Digital Life. He also is a member of the Open Identity Exchange and is co-founder of the iLabs Zapplied Institute that offers dynamic security certification and continuous assurance. He has been speaking at leading events like the Mobile World Congress, ITU Telecom World, Mobile Payments Summit and ETSI Security Week.

Scott Cadzow, Cadzow Communications Consulting

Scott Cadzow has over the past 20 years become a recognized standards development expert, primarily for security standards, in a number of international standards development organizations including ETSI, ITU-T and ISO. In ETSI Scott is or has been the rapporteur for the TETRA security specifications, the suite of guidance documents for effective security standards development (covering Common Criteria, risk analysis, and security requirements engineering) in technical bodies MTS and TISPAN, and has acted as an expert to a number of Specialist Task Forces in RRS, TETRA, TISPAN, HF, MTS, eHEALTH and AT-D. He has served as chairman of the ETSI ITS Security group and as vice-chairman of each of ETSI Project TETRA WG6 (Security), TETRA Security and Fraud Prevention Group (SFPG), and of the ETSI Lawful Interception group. Scott has contributed to reports from ENISA on network resilience, supply chain integrity and on measures to counter internet bullying. More recently Scott has been involved in a number of projects under the FP7/CIP/H2020 umbrella looking at security and privacy aspects of smart cities. This has led Scott to take a wider view at the whole interoperability conundrum and to address the need to look more deeply at the problems we will face with the IoT and dynamic self-configuring equipment. Scott is a founding member of the proposed ETSI ISG on Secure AI and has published a number of papers since 2016 on the identification of machine ethics for autonomous machines and has been a regular speaker at conferences on topics relating to security, machine ethics, privacy and society.

Emmanuel Darmois, CommLedge (STF Leader)

Emmanuel Darmois has over thirty years of experience in various positions in academics and in the ICT industry, starting as a Computer Science professor and researcher in Artificial Intelligence. For over 20 years, he has been working with Alcatel-Lucent in various positions in Research, R&D and operational business. In his last position, he has been as VP Standards.

He has been ETSI Vice-Chairman of the Board, and chair of the Operational Coordination Group from November 2011 to November 2017. He has been active in Smart Grids (as convener of the Methodology work group in the Smart Grids Coordination Group), Cloud Computing (as coordinator for the Cloud Standards Coordination initiative and STF 486 leader). Recently, in the field of IoT, he has been an expert in STF 505, STF 535 and in CREATE-IoT, one of the Coordination and Support Actions (CSA) related to the IoT Large Scale Projects of the European Commission.

Joachim Koss, JK Consulting & Professional

Joachim Koss is looking back to more than 33 years of professional experience from telecommunications business units in Siemens, Cinterion Wireless Modules and Gemalto M2M GmbH, where he held various management positions in HW/SW Engineering, International Project and Process Management, Conformity Testing and Approval, IPR Management and Standardization. Today he is an independent consultant at JK Consulting & Projects, which provides consulting services and project support within the scope of M2M/IoT. For 6 years Joachim Koss was a member of the ETSI Board, served as a Vice Chairman of the ETSI Technical Committee Machine‐to‐Machine communications for 4 years and for 2 years as a Vice Chairman of the Technical Plenary of the oneM2M Partnership Project. He lead the ETSI Specialist Task Force (STF) on IoT Standards landscaping and gap analysis for the European Commission, a successful project of 17 months duration. Presently he works as an expert in the ETSI STF 547 on Security/Privacy and Semantic Interoperability of Standardised IoT Platforms.

Jumoke Ogunbekun, Ex2 Management

Jumoke Ogunbekun is a strategy consultant involved in Telecom standards for over 15yrs, participating in 3GPP, OneM2M and SmartM2M standards bodies. She has been the rapporteur for ETSI M2M Smart Grid Technical Report and currently the rapporteur for SmartM2M Smart Cities Technical Report. She is employed by Fujitsu, where she advises on strategic directions in the Smart technology area. She has a degree in Electrical/Electronic Engineering and Masters in Satellite Communication. She is also a certified Project Manager and lecturer in PMP-PMI, Prince2 and Agile Methodologies.

Dimitra Stefanatou, iLabs

Mrs. Dimitra Stefanatou, LLM (F) received a degree in Law from Democritus University of Thrace, in Greece (2004) and a Master 2 in Communication Law from University Paris II-Assas, in France (2007). Dimitra is a member of Athens’ Bar Association (2006-present). For the period 2009-2011 Dimitra worked as an associate at the Hellenic Audiovisual Institute. Following the completion of a traineeship at the European Data Protection Supervisor (EDPS) within the Unit of Policy and Consultation, Dimitra collaborated closely with interdisciplinary groups of experts for highly regarded academic institutions Belgium and in Netherlands, primarily focused on privacy and data protection in the context of EU funded research (2012-2016). More specifically, Dimitra worked on ”FutureID” EU Project as a researcher for the Interdisciplinary Centre for Law and Technology (ICRI) at Katholique University of Leuven and on ”Accountability for Cloud Computing & other Future Internet Services” EU Project as a researcher within Tilburg Institute for Law, Technology and Society at Tilburg University. Currently, Dimitra works as a Senior Legal Counsel at Arthur’s Legal, where she is involved in the initiatives mentioned under Arthur’s profile.

Massimo Vanetti, Digital SME

Mr Vanetti is an ICT engineer with wide experience in the application of ICT technologies in industrial and general business contexts. His professional activities covered several aspects of the design and implementation of innovative complex and interdisciplinary systems and products. He has a remarkable and wide experience in the development of interoperability solutions in industrial contexts, acquired on the field. Since 2016, Mr Vanetti is member of the oneM2M Technical Plenary, nominated by Small Business Standards (SBS) with the support of the European DIGITAL SME Alliance. In this context his work has been appreciated for his industry-related knowledge (mainly for the manufacturing and process industries) whereas most of the experts contributing to oneM2M come from the telecommunication industry.

Arthur van der Wees, iLabs

Arthur van der Wees, LLM studied and obtained his doctorate degree in computer, privacy, IPR and business law at Leiden University. He is founder and managing director of Arthur's Legal, an international law firm with its headquarters in Amsterdam and offices in Brussel, Barcelona, New York and Seoul. Arthur is attorney at law, standardization expert, entrepreneur, strategist and frequent speaker worldwide and has in-depth experience and is well-connected in the world of technology, data, resilience & global business. Arthur is founding member of the Alliance for IoT Innovation (AIOTI), where he is leader of both the Security in IoT and the Privacy in IoT taskforce, and co-chair of the AIOTI Policy WG. He is (co-) author of many publications about smart, IoT, Security and Cloud, including the IERC Handbooks 2016 (Strategic & Legal Challenges in IoT) and 2017 (Security & Privacy in IoT), the Dutch National Smart Cities Strategy, and European Commission's Cloud SLA Standardisation. Arthur is part of the STF 547 on Security and Privacy in IoT. Amongst others, he is co-founder of the CyberChess Institute, and the Institute for Future of Living. Through H2020 CREATE-IoT, Arthur's Legal is activity group leader on trust, security, safety, privacy, legal and accountability topics in IoT in five EU large scale pilots on smart healthcare, smart cities, wearables, smart farming, food safety and autonomous vehicles. Furthermore, he is advisory board member of several H2020 projects in IoT, Security & Privacy.

Michelle Wetterwald, Netellany

Dr Michelle Wetterwald graduated engineer from Telecom Bretagne and doctor from Telecom ParisTech, France. She is the Networking and Mobile Systems expert at Netellany in Sophia Antipolis, South of France. Her domain of interest is the connectivity of mobile devices in wireless networks and the design and standardization of C-ITS and IoT solutions, in partnership with FBConsulting, LU. Her recent projects include STF 547 (Security/Privacy and Interoperability of standardised IoT Platforms), STF542 (definition of a pilot test plan for cooperation of Agri equipment with oneM2M and C-ITS) and STF505 (IoT standardization landscape and gap analysis). She also works as part time lecturer in Engineering schools in Sophia Antipolis and Paris, H2020 technical expert for the EU Commission, and contributes to technical analysis projects for ETSI and SMEs. Previous years saw her coordinate at local and Work Package levels eight European and French collaborative projects. She is author and co-author of 6 patents on early WLAN systems and 50+ papers on advanced wireless networking mechanisms. She is a Senior Member of the IEEE.