ESTIMED - HACKATHON #1

Organization Committee	• **Alexandr Tardo (CNIT),** alexandr.tardo@cnit.it • **Andreas Kraft (JK Consulting),** andreas.kraft@jk-conpro.de • **JaeSeung Song (Sejong University),** jssong@sejong.ac.kr • **Joachim Koss (JK Consulting),** joachim.koss@jk-conpro.de
Scope and Title	**Title**: Enabling Innovative UCs based on oneM2M and MEC deployments **Scope** ~~**Option #1:**~~ ~~Bringing innovative use cases that can solve specific issues combining IoT (i.e., oneM2M) and Edge (i.e., ETSI MEC). In order to show a feasibility, the participants shall submit a draft UI/UX design (e.g., using Figma). The final deliverable shall include the following items:~~ ~~• Motivation and Background;~~ ~~• Challenges to address;~~ ~~• Introduction to the idea.~~ ~~**Track #1**: How combining oneM2M and MEC addresses the identified challenges (High level architecture and services);~~ ~~**Track #2:** UI/UX demo for the proposed service, both service and solution oriented (this might even include the instances of oneM2M/MEC platforms).~~ **Option #2**: The workshop will provide below information to participants: • intro oneM2M; • intro MEC; • intro STF-685 ESTIMED project; • intro selected use cases; • intro selected MEC/oneM2M open sources (MEC Sandbox, Mobius, ACME or tinyIoT); • intro hackathon (deliver objectives and goals of the hackathon). **Track #1**: bring innovative use cases that solve specific problems using oneM2M and MEC (IoT and Edge Computing). **Track #2**: how combining oneM2M and MEC addresses the identified challenges (High level architecture and services); **Track #3**. develop a prototyping application based on the available oneM2M/MEC configurations. ~~implement services using oneM2M and MEC open sources. Participants will be asked to develop applications by considering the deployment options (A, B, C and D) and then assess those in terms of cons/pros. To support the applications development, the participants will be provided with: i) an oneM2M CSE instance (hosted by ETSI), ii) rPI5s (acting as gateways), and iii) ESP32 (acting as IoT devices).~~
Educational Material (oneM2M and ETSI MEC related)	**ETSI MEC** **MEC Tech Series** https://mecwiki.etsi.org/index.php?title=MEC_Tech_Series **MEC WiKi** https://mecwiki.etsi.org/index.php?title=Main_Page **Applications Development** http://mec-platform2.etsi.org:9999/notebooks/work/notebook/MEC%20application.ipynb **MEC Sandbox Deployment** https://try-mec.etsi.org/ **Tutorial on joined CAPIF and MEC application development** http://mec-platform2.etsi.org:9999/notebooks/work/notebook/CAPIF_And_ETSI_MEC_Tutorial.ipynb

	oneM2M **Notebook Lectures** https://wiki.onem2m.org/index.php?title=OneM2M_Tutorials_using_Jupyter_Notebooks **Lectures** https://www.youtube.com/@Onem2mOrg **Recipes** https://recipes.onem2m.org/ **ACME Source Code** https://github.com/ankraft/ACME-oneM2M-CSE **Mobius Source Code** https://github.com/IoTKETI/Mobius **tinyIoT Source Code** https://github.com/seslabSJU/tinyIoT **Note:** location for making the material available to be considered (e.g., ESTIMED project website, ETSI promotional website, etc.).
Type of Event (e.g., remote, f2f)	F2F (including remote access if needed).
Hosting	• **Option 1**: ETSI premises. • **Option 2**: By another sponsor company/organization (Eclipse Foundation, Linux Foundation, etc.).
Duration (e.g., days, weeks, months)	**Duration**: 2-3 days-long event. • **Option 1**: last week of October (27th-31st) ~~or the first week of November~~. • ~~**Option 2**: second week of September (jointly with ISG MEC/oneM2M plenary meeting in Sophia Antipolis from 8th to 12th of September).~~
Announcement (e.g., where, how)	• **Option 1:** through the ETSIMED project website. • **Option 2:** through ETSI Meeting & Events Department (e.g., website, other communication channels).
Participants (e.g., who, how)	Research organizations (e.g., universities) and/or interested SMEs.
Awards	• Certification of the participation issued by ETSI; • Awards from ETSI director/oneM2M TB/ISG MEC or other organizations e.g., Eclipse/Linux Foundation. Economical awards need to be investigated (using the ESTIMED project budget).
ETSI Role	• Providing a registration website for the event; • Providing a website for promoting the event; • Drafting the event's poster. • Who needs to be involved? **Examples** **ETSI ISG MEC** past hackathon information (events every year from 2018 to 2023, 2025 TBC, for which ETSI was a supporting organisation in every instance): https://mecwiki.etsi.org/index.php?title=Past_events **oneM2M Hackathon 2024** (Poster Example):

Reference website from ETSI **EU-Korea Intelligent IoT Hackathon** (the poster was designed by the ETSI team):
https://www.etsi.org/events/1895-eu-korea-intelligent-iot-onem2m-hackathon