

ESTIMED - HACKATHON #1

Organization Committee	<ul style="list-style-type: none"> • 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	<p>Title: Enabling Innovative UCs based on oneM2M and MEC deployments</p> <p>Scope</p> <p>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:</p> <ul style="list-style-type: none"> • Motivation and Background; • Challenges to address; • Introduction to the idea. <p>Track #1: How combining oneM2M and MEC addresses the identified challenges (High level architecture and services);</p> <p>Track #2: UI/UX demo for the proposed service, both service and solution oriented (this might even include the instances of oneM2M/MEC platforms).</p> <p>Option #2: The workshop will provide below information to participants:</p> <ul style="list-style-type: none"> • 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). <p>Track #1: bring innovative use cases that solve specific problems using oneM2M and MEC (IoT and Edge Computing).</p> <p>Track #2: how combining oneM2M and MEC addresses the identified challenges (High level architecture and services);</p> <p>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).</p>
Educational Material (oneM2M and ETSI MEC related)	<p>ETSI MEC</p> <p>MEC Tech Series https://mecwiki.etsi.org/index.php?title=MEC_Tech_Series</p> <p>MEC Wiki https://mecwiki.etsi.org/index.php?title=Main_Page</p> <p>Applications Development http://mec-platform2.etsi.org:9999/notebooks/work/notebook/MEC%20application.ipynb</p> <p>MEC Sandbox Deployment https://try-mec.etsi.org/</p> <p>Tutorial on joined CAPIF and MEC application development http://mec-platform2.etsi.org:9999/notebooks/work/notebook/CAPIF_And_ETSI_MEC_Tutorial.ipynb</p>

	<p>oneM2M</p> <p>Notebook Lectures https://wiki.onem2m.org/index.php?title=OneM2M_Tutorials_using_Jupyter_Notebooks</p> <p>Lectures https://www.youtube.com/@Onem2mOrg</p> <p>Recipes https://recipes.onem2m.org/</p> <p>ACME Source Code https://github.com/ankraft/ACME-oneM2M-CSE</p> <p>Mobius Source Code https://github.com/loTKETI/Mobius</p> <p>tinyIoT Source Code https://github.com/seslabSJU/tinyIoT</p> <p>Note: location for making the material available to be considered (e.g., ESTIMED project website, ETSI promotional website, etc.).</p>
Type of Event (e.g., remote, f2f)	F2F (including remote access if needed).
Hosting	<ul style="list-style-type: none"> • Option 1: ETSI premises. • Option 2: By another sponsor company/organization (Eclipse Foundation, Linux Foundation, etc.).
Duration (e.g., days, weeks, months)	<p>Duration: 2-3 days-long event.</p> <ul style="list-style-type: none"> • 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)	<ul style="list-style-type: none"> • Option 1: through the ESTIMED 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Providing a registration website for the event; • Providing a website for promoting the event; • Drafting the event's poster. • Who needs to be involved?
	<p>Examples</p> <p>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</p> <p>oneM2M Hackathon 2024 (Poster Example):</p>

oneM2M INTERNATIONAL HACKATHON 2024

The 4th Annual oneM2M International Hackathon 2024 is a global competition aimed at driving innovation in the IoT ecosystem. Participants are encouraged to explore and develop cutting-edge IoT solutions using the oneM2M global standard, a framework that ensures interoperability and scalability in IoT deployments across industries. Whether you're a seasoned developer or a newcomer to IoT, this hackathon offers the unique opportunity to work with oneM2M technology, gain hands-on experience, and showcase your creativity.

Join Us in Shaping the Future of IoT!

Be a part of the global movement driving the next wave of IoT innovation. Participate in the 4th Annual oneM2M Hackathon 2024, and contribute to creating a more connected, efficient, and innovative world!

Why Participate?

- Real-World Experience**
Solve real IoT challenges with oneM2M standards.
- Mentorship**
Receive guidance from industry experts throughout the hackathon.
- Networking**
Connect with IoT professionals and experts worldwide.
- Showcase Opportunities**
Winning teams can present their projects at global exhibitions.
- Global Recognition**
Get featured across oneM2M's global platforms.

This hackathon is open to anyone with an interest in IoT and technology development. From students and academic researchers to start-ups, enterprises, and individual developers – everyone is invited to join. No prior experience with oneM2M is required; we'll provide technical support and resources to help you get started!

oneM2M Partnership Project

Register Here

Schedule



Registration Period:
September 27th - October 18th 2024
Final Submission Deadline:
November 15th 2024
Final Judging Period:
November 16th - November 20th 2024
Final Results Announcement:
November 21st 2024

<https://www.oneM2M.net/oneM2Mhackathon2024>

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>

Learn to program devices for the Internet of Things in an intensive on-line course, build your own IoT solution and participate in a contest. The winning projects will be awarded with valuable prizes.

Intelligent IoT

VIRTUAL oneM2M Hackathon

Free access*
April 27th to May 18th 2021

You just need your laptop, basic programming knowledge and a great desire to create. You can participate individually or in a team of up to 4 members.
* If you register by April 20th, you will get a free IoT kit

Sign up with your Sejong University e-mail address at:
<https://www.etsi.org/events/1895-eu-korea-intelligent-iot-onem2m-hackathon>
For any further questions, please contact: jssong@sejong.ac.kr

