aerOS
EUROPEAN IOT-EDGE-CLOUD

Newsletter
Issue 7

March – May 2024

aeros-project.eu

INSIDE THIS ISSUE

ISSUE HIGHLIGHTS

The 7th issue of aerOS newsletter presents the project activities during the period March - May 2024. This specific issue focuses on the communication and dissemination activities, Open Call winners, EUCloudEdgeIoT related activities, the project period and upcoming deliverables and the MetaOS Workshop: Ideas and Strategies for the Future of the Computing Continuum.

aerOS trimester activities in numbers:

- ➢ 3 Publications
- ➢ 4 Presentations
- ➢ 1 Workshop
- ➢ 2 Panel Discussions
- ➢ aerOS Open Call Winners
- ➢ EUCloudEdgeIoT Activities
- ➢ CAMAD workshop 2024
- ➢ 2 Period Deliverables
- ➢ 1 Upcoming Deliverable
- ➢ MetaOS Workshop: Ideas and Strategies for the Future of the Computing Continuum
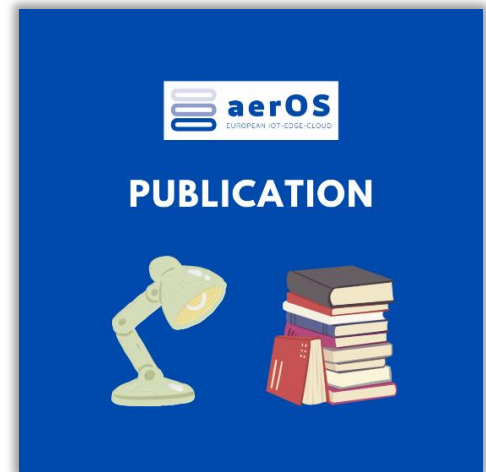
Communication & Dissemination Activities

Publications

aerOS paper entitled, "A Proof of Concept Implementation of an AI-assisted User-Centric 6G Network", by N. Gkatzios (INFOLYSIS P.C.), H. Koumaras (NCSR "DEMOKRITOS"), D. Fragkos (NCSR "DEMOKRITOS"), V. Koumaras (INFOLYSIS P.C), has been accepted at the EuCNC 2024 & 6G Summit, Antwerp, Belgium 2024.

aerOS paper entitled, "How many FIDO protocols are needed? Analysing the technology, security and compliance" is now available. The paper was submitted by InQbit team. Find more information here: https://dl.acm.org/doi/10.1145/3654661.

The aerOS journal paper entitled "Federated Deep Reinforcement Learning for Prediction-Based Network Slice Mobility in 6G Mobile Networks" has been accepted at IEEE Transactions on Mobile Computing. The paper was submitted by ICTFICIAL team.

All public aerOS publications are available at aerOS website:
https://aeros-project.eu/dissemination/publications/

Presentations

Christos Xenakis (InQbit) participated at the Hack 'n' Learn 2024 workshop which occurred at DAIS Center. Over 200 students participated in hands-on cybersecurity labs (web, crypto, pwn) organized by the Hellenic Cyber Security Team, and the Systems Security Lab.

Our project coordinator, Carlos Palau from Universitat Politècnica de València UPV participated in the 3rd Peer Learning Event of the Skills2Scale project in the Czech Republic, hosted by the Technical University of Liberec. During the event, our project coordinator had the opportunity to present the fundamental elements of our project.

Stefan Walser from TTTech Computertechnik AG, presented the paper "Real-time Container Orchestration based on Time utility Functions" at 2024 IEEE WFCS in Toulouse. WFCS is the largest IEEE conference especially dedicated to communications for (industrial) automation systems. Its main aim is to provide a forum for researchers, developers and practitioners to review and discuss most recent trends in the area and share innovative research directions. Find out more: https://wfcs24.inviteo.fr/

Dario La Carrubba from MADE, presented aerOS project, at the Market Pathways for Cloud Edge IoT in the Manufacturing Sector, workshop by EUCloudEdgeIoT. Hosted by VDI/VDE-IT on behalf of the European Commission and the Horizon Europe-funded initiative "The European Cloud, Edge and IoT Continuum," the workshop thoroughly described the current CEI Manufacturing market landscape, examining the innovative developments fostering the green energy transition. The workshop focused on modular CEI infrastructure architectures that promote multi-stakeholder collaboration.
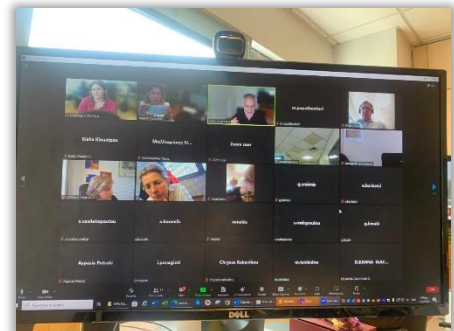

Market Pathways for Cloud–Edge–IoT in the Manufacturing Sector

29 April 2024
9:00– 12:00 CET

Manufacturing

3

Workshop

aerOS project co-organized the "Meta Operating Systems: Innovating the CEI landscape" webinar. This webinar offered a unique opportunity to explore state-of-the-art projects that are redefining the boundaries of edge-to-cloud computing through virtualized, secure, and efficient orchestration mechanisms.

Panel Discussions

Vasilis Pitsilis represented aerOS Project at the Panel Discussion "Meta Operating Systems for The Edge Continuum: Current Status, Trends, and Challenges" for MetaOS EU-funded projects with the following participants: , Fulvio Risso (FLUIDOS project), Panagiotis Trakadas (EU Project ICOS), Yiannis Verginadis (NebulOuS), Terpsi Velivassaki (NEMO PROJECT) and Anastasios Zafeiropoulos (NEPHELE). The panel discussion took place in the context of 1st International Workshop on MetaOS for the Cloud-Edge-IoT Continuum (MECC 2024) on April 22nd 2024.

On 22nd of April, Prof. Christos Xenakis (InQbit) had an interesting discussion with the journalists of the hashtag Alpha TV about the new Cybersecurity threats caused by the emergence of AI technologies. aerOS project was represented by Prof. Christos Xenakis

aerOS Open Call Winners

aerOS proudly announces the aerOS OC1 winners! Many thanks to all participants for submitting their proposals! In total 38 Open Call proposals were received from 10 countries, out of which, after a detailed evaluation period,7 Open Call projects have been selected as the winning ones.

Congratulations to the 7 winners!

More details on statistics are provided here: https://aeros-project.eu/open-call-1-winners/

HE-CL4-2021-DATA-01-05

EUCloudEdgeIoT Activities

EUCloudEdgeIoT news digest issues

- Issue 14:
  https://preview.mailerlite.io/emails/webview/185345/117041559036233203?fbclid
- Issue 15:
  https://preview.mailerlite.io/preview/185345/emails/119670502571639820
- Issue 16:
  https://preview.mailerlite.io/preview/185345/emails/122742048668255441

Meta Operating Systems: Innovating the CEI landscape | Slides and Recording available

The event, titled "Meta Operating Systems: Innovating the CEI landscape", was hosted by the MetaOS projects aerOS and FlUIDOS, served as a pivotal gathering for experts in the field of edge-to-cloud computing, presenting an invaluable forum to discuss the advancements and innovations driving the future of the computing continuum. Find the video here: https://eucloudedgeiot.eu/meta-operating-systems-innovating-the-cei-landscape-slides-and-recording-available/

EMPOWERING 6G NETWORKS: FIRST WORKSHOP ON ADVANCEMENTS IN RESEARCH INFRASTRUCTURES, ADAPTIVE FRAMEWORKS AND GLOBAL ARCHITECTURAL EVOLUTION (ATHENA 2024)

aerOS project strongly supports the "Empowering 6G Networks: 1st Workshop on Advancements in Research Infrastructures, Adaptive Frameworks, and Global Architectural Evolution" in the context of IEEE CAMAD. IEEE CAMAD will be hosting Workshops and Special Sessions, bringing together a diverse group of scientists, engineers, manufacturers and providers to exchange and share their experiences. In addition, the conference will also include keynote speeches, panel and demo sessions.

IEEE CAMAD 2024 will be held as a stand-alone event in Athens, Greece on 21-23 of October 2024.

Learn more here: https://camad2024.ieee-camad.org/empowering-6g-networks-first-workshop-advancements-research-infrastructures-adaptive-frameworks-and

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Period Deliverables

D2.5 DevPrivSecOps methodology specification (2) [M21] – Specification of technologies, tools and environment needed to be put in place for instantiation of DevPrivSecOps approach of aerOS.

D2.7 aerOS architecture definition (2) [M21] – Initial and final specification of the aerOS technical architecture.

D5.5 Technical evaluation, validation and assessment report (1) [M21] – Will provide the validation and assessment findings from a technical perspective, covering integration, testing and trial activities.

Upcoming Deliverable

D5.2 Integration, evaluation plan and KPIs definition (2) [M24] – Reference to the document concerning all integration and evaluation activities describing (KPIs/data gathering methods/time plan/partners).

All public aerOS deliverables are available for downloading

at aerOS website: https://aeros-project.eu/dissemination/deliverables/

MetaOS Workshop: Ideas and Strategies for the Future of the Computing Continuum

aerOS Project attended the metaOS workshop by EUCloudEdgeIoT in EU Commission's premises! It was a very fruitful event, where all the metaOS projects participated and had the exchange-to-exchange ideas and activities. The MetaOS workshop explored strategies for the future of computing continuum, focusing on the convergence of cloud, edge, and IoT technologies in the European context. It delved into the challenges and opportunities presented by this convergence, aiming to develop innovative solutions and frameworks for optimizing performance, security, and scalability across the computing continuum .

Find more information here: https://eucloudedgeiot.eu/metaos-workshop-strategies-future-computing-continuum

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Call: WORLD LEADING DATA AND COMPUTING TECHNOLOGIES 2021
Topic: HE-CL4-2021-DATA-01-05
Type of Action: RIA
Duration: 36 Months
Start Date: 1 September 2022