



March - May 2023



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ISSUE HIGHLIGHTS

The 3rd issue of aerOS newsletter presents the project activities during the period March - May 2023. This specific issue focuses on the communication and dissemination activities, EUCloudEdgeIoT Concertation and Consultation, the project deliverables (recent and upcoming,) and the IWAPS 2023 co-organised workshop.

aerOS trimester activities in numbers:

- 2 Publications
- 3 Presentations and Workshops
- 3 Co-organised Workshops and Call for Papers Opportunities
- DEFEA 2023
- EUCloudEdgeIoT Concertation and Consultation Meeting
- 2 Period Deliverables
- 3 Upcoming Deliverables
- IWAPS 2023 co-organised workshop



Communication & Dissemination Activities

Publications

Z. Shu, H. Feng, T. Taleb, and Z. Zhang by ICTFICIAL Oy "Novel Combinatorial Multi-Armed Bandit Game to Identify Online the Changing top-K Flows in Software-Defined Networks, Elsevier Computer Networks" Access the paper online here:

<http://mosaic-lab.org/uploads/papers/6fa449ad-7848-4db5-889f-f81f790b516d.pdf>

C. Wang, R. Li, X. Wang, T. Taleb, S. Guo, and V. C. M. Leung by ICTFICIAL Oy "Heterogeneous Edge Caching based on Actor-Critic Learning with Attention Mechanism Aiding", IEEE Transactions on Network Science and Engineering. Find the paper online here:

<http://mosaic-lab.org/uploads/papers/e13c7342-6446-471a-97dc-1400b5a53bb4.pdf>

Presentations and Workshops

Our Technical Manager, Harilaos Koumaras from NCSR DEMOKRITOS, presented on 27th of April "aerOS: A Meta Operating System for the IoT-Edge-Cloud Continuum" during International Conference on Internet of Things (ICIOT), 2023. In case you are interested, you may learn more here: <https://www.iciot.in/>

aerOS project participated at the "EU Cloud-Edge-IOT Skills Demands for Adoption" co-organised workshop in May. As project we participated in the following sessions:

- **Session 1:** Data driven cognitive production line
Presenter: Pablo Patús Díaz, aerOS Project.
Facilitator: Golboo Pourabdollahian
- **Session 3:** Smart-edge services for the port continuum
Presenter: Eduardo Garro Crevillen, aerOS project. Facilitator: J E Álvarez, Expert: Rudolf Susnik





aerOS Co-organised Workshops & Call for Papers Opportunities



aerOS co-organises the 7th Workshop on Internet of Things – Enablers, Challenges and Applications (IoT-ECAW’23) in Warsaw, Poland, 17–20 September 2023 (organized within the 18th Conference on Computer Science and Intelligence Systems-FedCSIS 2023 (IEEE: #57573), 16th International Workshop on Computational Optimization (WCO’23), Track 3). Find out more here: <https://assist-iot.eu/2023/04/10/assist-iot-ecaw23-call-for-papers/>



aerOS co-organises Minitrack (HICSS57) by aerOS in the Cognitive Cloud Continuum Ecosystems: Theory and Practice, Honolulu, Hawaii, will take place in January 3-6, 2024 – part of the Hawaii International Conference on System Sciences (HICSS)), Honolulu, Hawaii, January 3-6, 2024. **Deadline submission: June 15, 2023.** More information about the workshop here: <https://assist-iot.eu/2023/04/17/assist-iot-minitrack-in-hicss57-call-for-papers/>

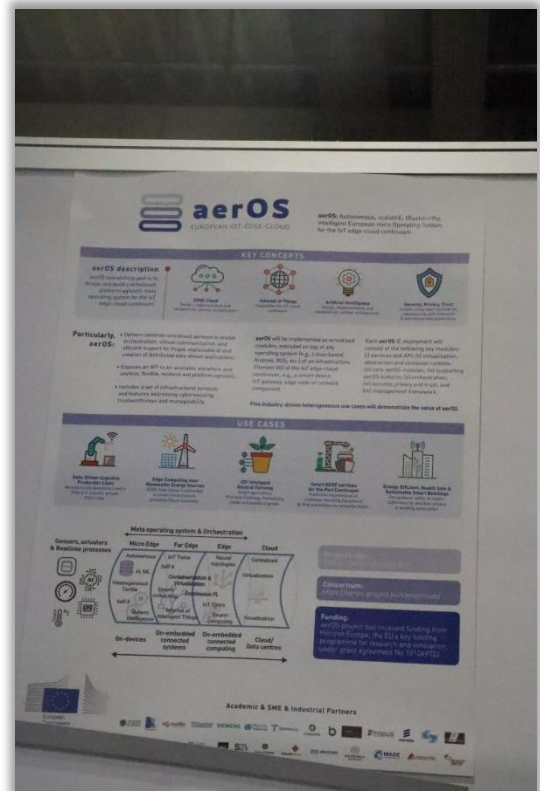


IEEE International Conference on IMAGING SYSTEMS & TECHNIQUES 2023. This year, scientists and engineers from all over the world will meet to explore the design principles, development and applications of new imaging technologies and computer visualization techniques. The use of machine learning and artificial intelligence to analyze and interpret imaging data is rapidly changing the global economy, experiencing an unparalleled integration of science and technology with artificial intelligence and big data; let us see this event as unique opportunity not only to exchange and disseminate knowledge but also bridge multidisciplinary areas like engineering and science with health science, robotics, quantum neuromorphic cognition, exploration of Space and Industry 4.0.; generating new knowledge while establishing global collaborative multidisciplinary opportunities, by tightening collaborations among industry, academia, and healthcare industry. **Deadline submission: June 5, 2023.** Find out more here: <https://ist2023.ieee-ims.org/>



aerOS in DEFEA 2023

InQbit and INFOLYSiS partners were at **DEFEA 2023** promoting our project with communication material! DEFEA took place on 9-11 May 2023, at Athens Metropolitan EXPO. DEFEA was addressed to several sectors such as defence and Security. At Defence Exhibition Athens top Greek defense industry manufacturers and the most important international companies presented the latest technologies and cutting-edge defence systems. You may find out more here: <https://defea.gr/>



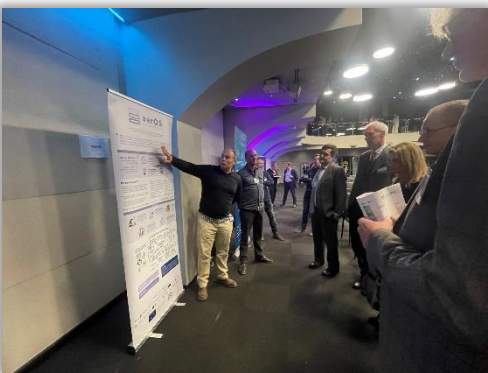
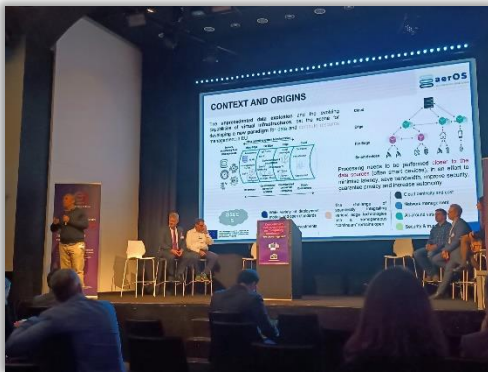
Concertation and Consultation Meeting of EUCLOUDEDGEIoT

Our Project Coordinator, Professor Carlos Enrique Palau from Universitat Politècnica de València UPV and Vasilis Pitsilis from NCSR "DEMOKRITOS" presented insights about our project during **the Concertation and Consultation Meeting of EUCloudEdgeIoT** in Brussels, on 10th and 11th of May 2023 (panel discussion-presentation and poster session).

The first day of the event was concertation oriented. The invited Horizon Europe RIAs which started in 2023 had the opportunity to pitch their projects and introduce the plans for the future, while the more mature Horizon 2020 projects and the Horizon Europe projects started in 2022 discussed their assets, and shared lessons learned and success stories. CSAs such as EU-IoT, SW Forum and HUB4CLOUD also demonstrated the accomplishments of the projects they have supported.

The second day shifted to a consultation, with the goal to bring forward thinking for the next Horizon Europe Work Programme (2025-2027). Research roadmaps were also presented by initiatives such as SW Forum, HiPEAC, NESSI, AIOTI, European Alliance for Industrial Data, Edge and Cloud, INSIDE, FIWARE foundation.

More information available online at: <https://eucloudedgeiot.eu/concertation-and-consultation-on-computing-continuum-from-cloud-to-edge-to-iot/>



Period Deliverables

D2.2 Use Cases manual, requirements, legal and regulatory analysis (1) [M9] – Initial and final version of requirements elicitation, use cases and scenarios definition and legal and regulatory analysis.

D2.4 DevPrivSecOps methodology specification (1) [M9] – Specification of technologies, tools and environment needed to be put in place for instantiation of the DevPrivSecOps approach of aerOS.

Upcoming Deliverables

D2.6 aerOS architecture definition (1) [M12] – Initial and final specifications of the aerOS technical architecture and its components.

D4.1 Software for delivering intelligence at the edge preliminary release [M12] – Initial software components, relationships and building blocks in relationship with the architecture.

D5.1 Integration, evaluation plan and KPIs definition (1) [M12] – Reference 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/>



IWAPS 2023 co-organised Workshop in the context of ARES

The 3rd co-organised International Workshop on Advances on Privacy Preserving Technologies and Solutions will take place from August 29 – September 01, 2023, in Benevento, Italy. IWAPS will be held in the context of the 18th International Conference on Availability, Reliability and Security (ARES 2023). This workshop aims to strengthen security and privacy through research and relevant activities in the models and design of secure, privacy-preserving and trust architectures, investments in cyber-defense, data analyses, fusion platforms, protocols, algorithms, services, and applications for next generation systems and solutions. We especially encourage security and privacy solutions that employ innovative machine learning techniques to tackle the issues of inspecting large data volumes, cyberattacks, and variety problems that are systemic in IoT platforms, theoretical and practical challenges related to the design of privacy-preserving AI systems and algorithms and will have strong multidisciplinary components, including soliciting contributions about policy, legal issues, and societal impact of privacy and affect the cyber risk of the participating entities. You may learn more about the workshop here: <https://www.ares-conference.eu/workshops/iwaps-2023/>



Join The
IWAPS 2023
3rd International Workshop on
Advances on Privacy Preserving
Technologies and Solutions
in conjunction with the 18th
International Conference on
Availability, Reliability and Security

📅 29 August – 1 September
📍 Benevento, Italy
📄 Call For Papers: 31 May

REGISTER NOW

More information:
<https://www.ares-conference.eu/>

The poster features a blue background with a circular inset image of a street in Benevento, Italy. At the bottom right, there is a white icon of a hand interacting with a network of nodes.



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This project has received funding from
Horizon Europe, the EU's key funding
programme for research and
innovation, under grant agreement
No 101069732

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