Semantic Low-code Programming Tools for Edge Intelligence

Results

Project Information

SMARTEDGE
Grant agreement ID: 101092908
DOI
10.3030/101092908

EC signature date
23 November 2022

Start date
1 January 2023
End date
31 December 2025

Funded under
Digital, Industry and Space

Total cost
€ 7 353 640,00

EU contribution
€ 7 353 640,00

Coordinated by
CONSORZIO NAZIONALE INTERUNIVERSITARIO PER LE TELECOMUNICAZIONI
Italy

Deliverables

Documents, reports (5)

Design of tools for continuous semantic integration
Design of tools for continuous semantic integration [SAG, M11, Type: R, PU]. This deliverable will detail the first design of the SMARTEDGE components for continuous semantic integration.

Final definition of requirements, architecture, and demo plans
Final definition of requirements, architecture, and demo execution plan [IMC, M12, Type: R, PU]. This deliverable will include the revised and final version of (i) SMARTEDGE technical requirements and system functional specifications; (ii) SMARTEDGE architecture; and (iii) the final demo execution plan.

**Design of low-code programming tools for edge intelligence**

Design of Low-code Programming Tools for Edge Intelligence [TUB, M13, Type: R, PU]. This deliverable will detail the final design of WP5 solutions including semantic-driven multimodal stream fusion, swarm elasticity, adaptive coordination, and crosslayer toolchain for device-edge-cloud continuum.

**Year 1 communication, dissemination, and standardisation plan**

Year 1 communication, dissemination, and standardisation plan [W3C, M12, Type: R, PU]. Plan and report of the activities carried-out during Year 1. This includes creation of the project website; developing strategy plans for initial dissemination., expl., and comm., identification of which SDOs to target.

**Design of dynamic and secure swarm networking**

Design of dynamic and secure swarm networking [UOXF, M12, Type: R, PU]. This deliverable will detail the final design of the WP4 solutions including discovery, swarm formation, security, and in-network operations.

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**Publications**

**Conference proceedings (2)**

**Building a P2P RDF Store for Edge Devices**

**Author(s):** Guo, Xuanchi; Le-Tuan, Anh; Le-Phuoc, Danh  
**Published in:** 2023  
**Publisher:** TBU  
**DOI:** 10.48550/arxiv.2309.09364

**Semantic Programming for Device-Edge-Cloud Continuum**

**Author(s):** Le-Tuan, Anh; Bowden, David; Le-Phuoc, Danh  
**Published in:** Crossref, 2023, ISSN 2643-3303  
**Publisher:** IEEE  
**DOI:** 10.48550/arxiv.2308.10555