An adaptive digital twin for agile services over the computing continuum

MIRANDA

A framework for collaborative cyber-security operations over service supply chains

Make hypothesis, perform analysis, and draw predictions of what could happen in complex, heterogeneous, and interconnected ICT systems

Improved monitoring, detection, analysis, investigation, and response

Concept

MIRANDA develops a Cybersecurity Digital Twin (CDT) to model and capture the security posture of interconnected multi-ownership systems, which is used to detect, hunt, and remediate threats and attacks.

MIRANDA builds adaptive and automated processes for threat hunting, detection of lateral movements, and eradication of the root causes of attacks.
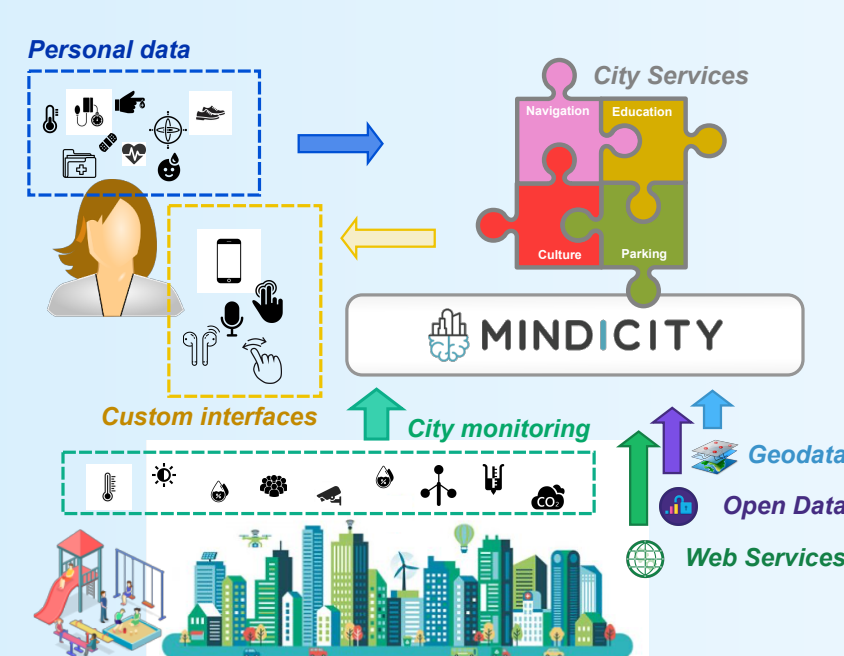
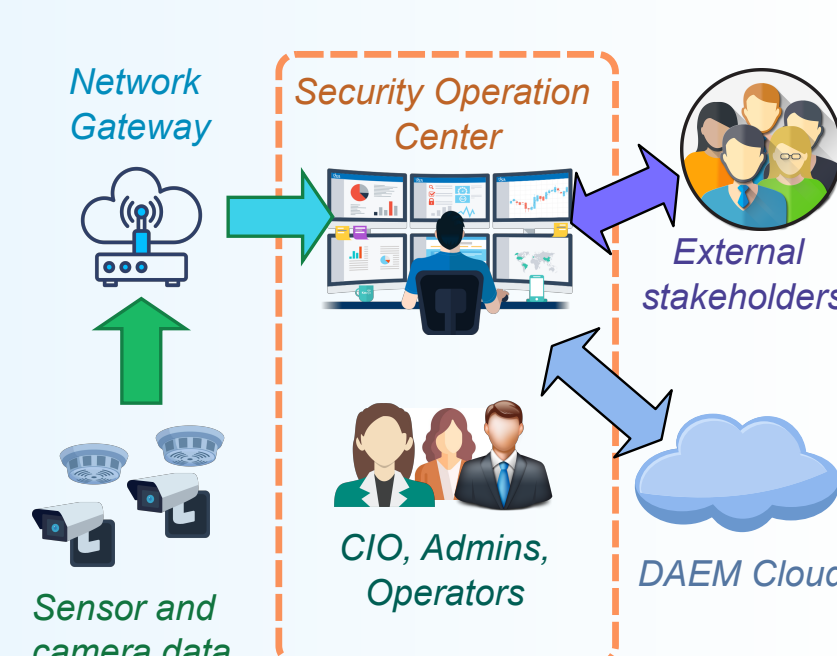

Use Cases

#WolfsburgDigital

A service-oriented ecosystem for collection, processing, and sharing of large bulks of data around the City.

Inclusive Genoa

Urban Intelligence for adaptive services tailored to different generations and abilities of citizens.

Safe Athens

E-Services, public safety, and access to municipal assets for both the administration and the citizens.

Approach

MIRANDA's Cybersecurity Digital Twin is not a plain model of digital assets. It is a combined model of the current execution environment and attacks, which provides pervasive visibility, proactive identification of vulnerabilities and attacks, and adaptivity to ever-evolving environments. These three features will improve existing monitoring, detection, response, and hunting processes.

Consortium

Consiglio Nazionale delle Ricerche · SPACE · ONESOURCE · Stelar security technology law research · Logstail · Politecnico di Torino · NASK · AIT AUSTRIAN INSTITUTE OF TECHNOLOGY · Sphynx · Plaixus · UBITECH ubiquitous solutions · WOBCOM · MINDICITY GRUPPO TIM · CITY OF ATHENS DAEM

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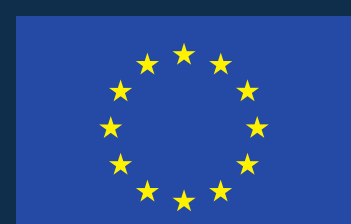**Project coordinator:**
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