



NetworkWorldEurope SME Working Group

SME Success Story – October 2022

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Syndesis' success stories concern the development of innovative systems within the framework of international cooperation projects.

Via these activities vertical solutions that utilize advanced wireless technologies are under development.

Syndesis main successful stories concern the vertical areas of cybersecurity, edge computing and healthcare services.

In the area of **the cybersecurity** sector, Syndesis¹ together with NCSR² are participating in the OPENQKD³ project / QKD4IntelligentHealth pilot, to set up a real-world use case applying Quantum Key Distribution technology to demonstrate the secure data transfer of encrypted EHR datasets to remote servers for analysis with AI algorithms.

Syndesis is developing the Qsafely.eu system that is a plug-and-play tool able to secure the exchange and storage of medical data over the cloud in the post-quantum world

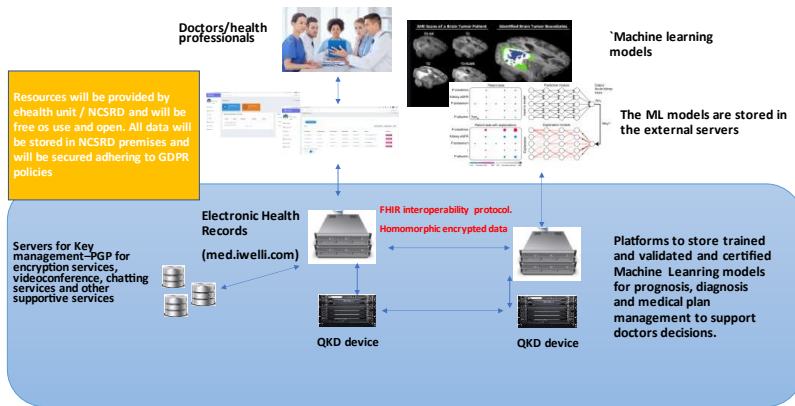
Qsafely tool, contributes to the development of quantum-safe systems by establishing a robust and modular hybrid security framework for increasing the security over the cloud for medical data.

Qsafely aims to protect confidential data by developing new security measures, including homomorphism encryption, PQC cryptography or QKD technology (where available), key distribution and a secret share scheme to divide the medical datasets amongst several cloud service providers.

¹ <https://syndesis.eu/>

² <https://www.demokritos.gr/>

³ <https://openqkd.eu/>



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QSafely.eu : Communicate safely in the post-quantum world

For the **edge computing** sector, Syndesis is participating in the VEDLIOT project /Edge4iwelli⁴ pilot aiming to develop edge computing solutions to support smart home care and independent living. Syndesis is developing these functionalities.

Edge4iwelli addresses the challenges of integrating edge computing systems in a smart home environment to generate home care services for health and wellbeing. Within the realm of the project, Syndesis embeds in the existing iwelli IoT care package (eg. www.iwelli.com/, <https://clinic.iwelli.com/>) edge computing systems and some more advanced AI modules and we will create more secure and more efficient IoT care platform for proofs-of-concept in edge computing, optimization, and machine learning in home contexts.



A Smart Health Mirror will utilize Edge Computing, RGB and IR cameras to monitor unobtrusively vital signs, motions and activity

⁴ <https://vedliot.eu/project/edge4iwelli/>



Syndesis offerings in **healthcare** domain have been also enhanced via the developments through the realm of the running projects Gatekeeper⁵ and Pharaon⁶. Through these projects, the iwelli IoT ecosystem of solutions for digital health and wellness have been enhanced with artificial intelligence algorithms to analyze cardiograms online and with smart FHIR Electronic Health Records that can “understand” the profile of the patient and support doctors’ decision.

Syndesis horizontal solutions for the healthcare domain (collection of data, secure transmission, storage and analysis of the data) are preparing the Healthcare sector for the Post-Quantum Era.

⁵⁵ <https://www.gatekeeper-project.eu/>

⁶⁶ <https://www.pharaon.eu/>