SDN - microgrid reSiIlent Electrical eNergy SystEm

Results

Project Information

SDN-microSENSE
Grant agreement ID: 833955

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H2020-EU.3.7.
H2020-EU.3.7.4.
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DOI
10.3030/833955

Overall budget
€ 10 100 963,21

EU contribution
€ 7 992 462,50

Coordinated by
AYESA ADVANCED TECHNOLOGIES SA
Spain

Deliverables

Documents, reports (6)

Market Analysis, Roadmap and Business Modelling Report

This deliverable has the goal to present the efforts towards understanding the market potential of the SDN-microSENSE solution. Apart from the market characteristics, it will illustrate the factors that will affect the market adoption of SDN-microSENSE solution as well as new and small players (e.g., small generators and prosumers) and business models. The deliverable will provide the
necessary market concept that is required to be clear for the implementation of the SDN-microSENSE solution.

Network Management Processes
This deliverable describes the network management processes of Task 4.2 that aim to optimize the observability of the EPES ecosystem.

Energy-related Personnel & Processes Readiness Evaluation
This deliverable involves the design and development of the methodology and tool for the diagnosis of the readiness level of the energy personne land processes in case of an attack or failure.

SDN-microSENSE Risk Assessment Framework
This deliverable output the final form of the SDN-microSENSE Risk Assessment Framework.

Blockchain-based Energy Trading Framework
This deliverable describes the blockchain-based energy trading framework of Task 4.5.

State of the Art on Cybersecurity Solutions & Technologies in EPES
This report will provide the latest technologies in IT and industrial infrastructure in EPES.

Other (4)

SS-IDPS System
This deliverable will describe the technical and deployment details of the SDN-microSENSE SS-IDPS tool, as a part of the XL-EPDS framework.

ADS and CLS DiscØvery Systems
This deliverable will describe the technical and deployment details of the SDN-microSENSE ADS and CLS DiscØvery tools, as a part of the XLEPDS framework.

XL-SIEM System
This deliverable will describe the technical and deployment details of the SDN-microSENSE SIEM tool, as a part of the XL-EPDS framework.

EPES Honeypots
This deliverable will present the implemented EPES honeypots as a part of the SDN-microSENSE architecture.
The purpose of the website is to keep the public, project participants and the EC informed about the project. The project website has a public part and a restricted part reserved only for the consortium members. The consortium will continuously measure the number of public website visitors and post the latest news in the SDN-microSENSE Blog. Furthermore, the required pages/accounts in social networks (e.g., LinkedIn and YouTube) will also be created.

**Publications**

**Conference proceedings (4)**

*Data visualization in internet of things: tools, methodologies, and challenges*  
**Author(s):** Antonis Protopsaltis, Panagiotis Sarigiannidis, Dimitrios Margounakis, and Anastasios Lytos  
**Published in:** ARES '20: Proceedings of the 15th International Conference on Availability, Reliability and Security, 2020, Page(s) 1-11  
**Publisher:** ACM  
**DOI:** 10.1145/3407023.3409228

*DIDEROT - an intrusion detection and prevention system for DNP3-based SCADA systems*  
**Author(s):** Panagiotis Radoglou-Grammatikis, Panagiotis Sarigiannidis, George Efstathopoulos, Paris-Alexandros Karypidis, Antonios Sarigiannidis  
**Published in:** Proceedings of the 15th International Conference on Availability, Reliability and Security, 2020, Page(s) 1-8, ISBN 9781450388337  
**Publisher:** ACM  
**DOI:** 10.1145/3407023.3409314

*Building a testing environment for SDN networks analysis for electrical grid applications*  
**Author(s):** Toni Cantero-Gubert, Alba Colet, Pol Paradell, J. L. Domínguez-García  
**Published in:** Proceedings of the 15th International Conference on Availability, Reliability and Security, 2020, Page(s) 1-6, ISBN 9781450388337  
**Publisher:** ACM  
**DOI:** 10.1145/3407023.3409230

*Intentional Islanding of Electricity Grids Using Binary Genetic Algorithm*
Peer reviewed articles (1)

The Challenges of Privacy and Access Control as Key Perspectives for the Future Electric Smart Grid

Author(s): Anzhelika Ivanova, Pol Paradell, Jose Luis Dominguez-Garcia, Alba Colet
Publisher: IEEE
DOI: 10.1109/gpecom49333.2020.9247893

Author(s): Anna Triantafyllou, Jose Antonio Perez Jimenez, Alejandro Del Real Torres, Thomas Lagkas, Konstantinos Rantos, Panagiotis Sarigiannidis
Published in: IEEE Open Journal of the Communications Society, 1, 2020, Page(s) 1934-1960, ISSN 2644-125X
Publisher: IEEE
DOI: 10.1109/ojcoms.2020.3037517

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