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Cyber-Security Threats and Threat Actors Training
Assurance Driven Multi-Layer, end-to-end Simulation and Training

MAY 2021 – ISSUE 8
Newsletter

Progress

Platform Integration and Validation: Release of the second version of the integrated THREAT-ARREST platform. Several full-fledged training programmes and scenarios for the different project use cases included. Ongoing testing activities of pilot scenarios' implementation readiness level. TRL 7 "System prototype demonstration in operational environment" successfully reached. All platform requirements addressed in the second version of the platform. Platform quality and technical testing to ensure platform readiness for the second pilot evaluation phase, to follow. In-depth revision of selected training scenarios particularly their implementation across emulation, simulation, and gamification modalities. Further integration of AWARENESS QUIZ game into the platform. Extension of the content of the COVID-19 Quiz. Further improvements of the Botnet Quiz of the Smart Home scenario.

Pilots Implementation and Evaluation: User stories (requirements) as stemmed from the first pilot evaluation, concluded and fully addressed. Detailed timeline for the 2nd pilot implementation stage prepared and shared with partners. All CTTP programs for all pilot domains identified and under development/configuration. Preparations for the arrangements and scheduling of training sessions for the 2nd pilots' deployment. Deployment of event captors for monitoring vulnerabilities in pilots' real networks in progress.

Communication / Standardization

- Initial discussions for the participation of THREAT-ARREST in the [ECHO Federated Cyber Range Marketplace](#)
- Discussions for the creation of a meta-model and the technical federation with KYPO (CONCORDIA H2020 project)
- Registration process with (ISC)^2 "PDI" (Professional Development Institute"), regarding THREAT-ARREST & CTTP Programs evaluation and potential "authoring" for (ISC)^2 in progress.
- Communication with (ISC)^2 PDI Key Executives
- Communication with ISACA Athens Chamber in order to organize THREAT-ARREST demonstration/workshop
- Communication with ISACA Key Executives regarding potential evaluation of THREAT-ARREST & CTTP Programs
- Communication with Cyber Security Alliance (CSA) Key Executives in order to organize THREAT-ARREST demonstration/workshop
- Supporting of [Cyber Ranges and Security Training (CRST)](#) workshop in the IEEE International Conference on Cyber Security and Resilience (IEEE CSR)
- Special Issue on 'Artificial Intelligence Applications in Next Generation Communication Infrastructures Security' on the MDPI Journal Electronics

Innovation / Legal Framework

- ✔ Innovation aspects of the project facilitated by the Innovation Working Group (IWG)
- ✔ Further analysis of the basic legal and security requirements of the platform
- ✔ Interim legal audit regarding free and open source software used in the platform
- ✔ Identification of other key legal action points
- ✔ Legal guidance and recommendations in the context of the discussion on the exploitation of the THREAT-ARREST platform

Publications

J. T. Hounsou, P. B. C. Niyomukiza, T. Nsabimana, G. Vlavonou, F. Frati, E. Damiani, **"Learning Vector Quantization and Radial Basis Function Performance Comparison Based Intrusion Detection System"**, International Conference on Intelligent Human Systems Integration (IHSI), Palermo, Italy, Springer, AISC, vol. 1322, pp. 561-572, February 2021 (DOI: 10.1007/978-3-030-68017-6_83)

M. Smyrlis, G. Spanoudakis, K. Fysarakis, **"Teaching Users New IoT Tricks: A Model-driven Cyber Range for IoT Security Training"**, IEEE Internet of Things (IoT) Magazine, March, 2021

M. Smyrlis, I. Somarakis, G. Spanoudakis, G. Hatzivasilis, S. Ioannidis, **"CYRA: A Model-Driven CYber Range Assurance Platform"**, Applied Sciences – Special Issue on Security management of 5G and IoT ecosystems, MDPI Open Access Journal, vol. 11, issue 11, article 5165, pp. 1-28, June 2021 (DOI: 10.3390/app11115165)

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