HEIR

Newsletter

Main achievements

HEIR 1st complete version

During the past few months, all HEIR partners worked towards the successful development of HEIR's 1st complete version. This version acts as the initial integrated prototype of the HEIR project and acts as the testbed for the HEIR stakeholders to experience HEIR capabilities and assess the concepts and knowledge conveyed by the project.

HEIR's 1st complete version was successfully deployed in PAGNI's and NSE's local environment. The 1st complete version high-level architecture is presented in Figure 1

More specifically, the 1st complete version integrates the following HEIR Components:

- the Novel HEIR Client, including:
  - the HEIR Network Module
  - the HEIR Exploit Tester, and
  - the HEIR Cryptographic Checker
- the HEIR Vulnerability Assessment
- the SIEM - Threat Detection Module
- the Local RAMA Score Calculator
- the Global RAMA Score Calculator
- the HEIR 1st Layer Visualisation
- the HEIR Interactive Forensics module
- the HEIR Collaboration Privacy -aware framework, including:
  - the Privacy-aware framework, and
  - the HEIR Blockchain-based auditing mechanisms
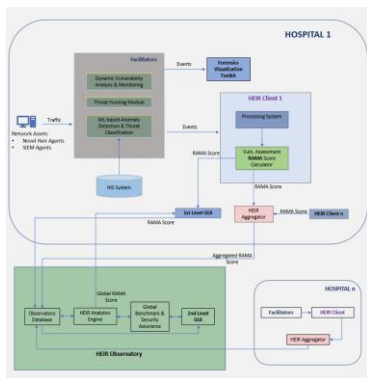- the HEIR Aggregator and
- the HEIR Observatory

1st YouTube Video

HEIR created a video presentation for the NSE/NOKLUS use case. The video is available in HEIR YouTube channel.

Figure 1 HEIR's 1st complete version architecture

Meetings

In these 6 months from our last Newsletter, HEIR organized the following project meetings:

- 1st F2F meeting, Crete, Greece
- 2nd F2F meeting, Paris, France
- 1st physical technical meeting, Athens, Greece
- 3rd F2F meeting, Paris, France, and
- The Demo preparation meeting, Paris, France
- Consortium meetings

Deliverables

The following public deliverables were submitted:

- D2.2 - The HEIR facilitators package: 1st complete version
- D3.2 - The HEIR 1st layer of services package: 1st complete version
- D4.2 - The HEIR 2nd layer of services package: 1st complete version
- D5.3 - HEIR integrated framework intermediate version
- D7.3 - Dissemination strategy and activities, stakeholders' engagement, and business opportunities – P1

Publications

The following publications, were submitted by HEIR partners:

- Norouzian, Mohammad Reza, Xu, Peng, Eckert, Claudia, & Zarras, Apostolis. (2021). Hybroid: Toward Android Malware Detection and Categorization with Program Code and Network Traffic. https://doi.org/10.5281/zenodo.6389838
- Xu, Peng, Zhang, Youyi, Eckert, Claudia, & Zarras, Apostolis. (2021). HawkEye: Cross-Platform Malware Detection with Representation Learning on Graphs. https://doi.org/10.5281/zenodo.5750058
- Xu, Peng, Eckert, Claudia, & Zarras, Apostolis. (2021, March 21). Detecting and Categorizing Android Malware with Graph Neural Networks. https://doi.org/10.1145/3412841.3442080
- Xu, Peng, Eckert, Claudia, & Zarras, Apostolis. (2021). Falcon: Malware Detection and Categorization with Network Traffic Images. https://doi.org/10.5281/zenodo.6389826

For more information about the project deliverables and publications, visit HEIR's ZENODO community: https://zenodo.org/communities/heir_project

Collaboration

HEIR has established connections with AI4HealthSec project by carrying out introductory online meeting with project's presentations and initial discussions and exchange of views. The fields of potential collaboration that were proposed by HEIR and AI4HealthSec include joint meetings, events and activities, exchange of information and cooperation regarding the projects' available communication channels.

Upcoming Events

HEIR will organize (along with AI4HealthSec, and SENTINEL) the International Workshop on Information & Operational Technology (IT & OT) Security Systems (IOSec 2022) that will be held in conjunction with the 17th International Conference on Availability, Reliability and Security (ARES 2022). The workshop will be held in Vienna, Austria between the 23rd to 26th of August 2022.

ARES Conference
International Conference on Availability, Reliability and Security

Vienna, Austria
August 23 – August 26, 2022

International Workshop on Information & Operational Technology (IT & OT) Security Systems (IOSec 2022)

to be held in conjunction with the 17th International Conference on Availability, Reliability and Security (ARES 2022)

Co-organized by

HEIR   AI4HealthSec   SENTINEL

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