**SHIELD**

**Project ID:** 700199  
**Funded under:** H2020-EU.3.7. - Secure societies - Protecting freedom and security of Europe and its citizens

### Securing against intruders and other threats through a NFV-enabled environment

**From** 2016-09-01 to 2019-02-28 | [SHIELD Website](#)

### Project details

<table>
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<tr>
<th>Total cost:</th>
<th>Topic(s):</th>
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<tr>
<th>EU contribution:</th>
<th>Funding scheme:</th>
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<tbody>
<tr>
<td>EUR 3 607 245</td>
<td>IA - Innovation action</td>
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<th>Coordinated in:</th>
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<tr>
<td>Greece</td>
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### Objective

Nowadays, cybercrime is one of the most relevant and critical threats to both the economy and society in Europe. Establishing efficient and effective ways to protect services and infrastructures from ever-evolving cyber threats is crucial for sustaining business integrity and reputation as well as protecting personal and sensitive data.

To that end, the SHIELD project proposes a universal solution for dynamically establishing and deploying virtual security infrastructures into ISP and corporate networks. SHIELD builds on the huge momentum of Network Functions Virtualisation (NFV), as currently standardised by ETSI, in order to virtualise security appliances into virtual Network Security Functions (vNSFs), to be instantiated within the network infrastructure using NFV technologies and concepts, effectively monitoring and filtering network traffic in a distributed manner. Logs and metrics from vNSFs are aggregated into an information-driven Data Analysis and Remediation Engine (DARE), which leverages state-of-the-art big data storage and analytics in order to predict specific vulnerabilities and attacks by analysing the network and understanding the adversary possibilities, behaviour and intent.

The SHIELD virtual security infrastructure can either be used by the ISP internally for network monitoring and protection, but it can also be offered as-a-service to ISP customers; for this purpose, SHIELD establishes a “vNSF Store”, i.e. a repository of available virtual security functions (firewalls, DPIs, content filters etc.) from which the ISP customers can select the ones which best match their needs and deploy them to protect their infrastructure. This approach promotes openness and interoperability of security functions and offers an affordable, zero-CAPEX security solution for citizens and SMEs. Moreover, SHIELD services can be easily scaled up or down, configured and upgraded according to customers’ needs, as opposed to security solutions based on monolithic hardware.

### Related information

<table>
<thead>
<tr>
<th>Report Summaries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Periodic Reporting for period 2 - SHIELD (Securing against intruders and other threats through a NFV-enabled environment)</td>
</tr>
</tbody>
</table>
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Activity type: Private for-profit entities (excluding Higher or Secondary Education Establishments)  
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Activity type: Higher or Secondary Education Establishments  
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EU contribution: EUR 216 405

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EU contribution: EUR 298 843,13

EU contribution: EUR 344 671,25

EU contribution: EUR 115 189,38

EU contribution: EUR 182 006,25

EU contribution: EUR 273 555,63

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