

ACHILLES: Access Control and authentication deLegation for interoperable IoT applications

Athens University of Economics and Business – Research Center (AUEB)

**ΟΙΚΟΝΟΜΙΚΟ
ΠΑΝΕΠΙΣΤΗΜΙΟ
ΑΘΗΝΩΝ**



ATHENS UNIVERSITY
OF ECONOMICS
AND BUSINESS



About us



Mobile Multimedia Laboratory
Department of Informatics
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About us

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The problem

IT IS HARD TO SECURE THE IOT



Vint Cerf, father of the Internet

'Sometimes I'm **terrified**' of the Internet of Things

Why is it hard to secure Things?

- Very limited processing capabilities
 - No public-key encryption
- Can be tampered with
 - Easily accessed
 - Not ideal for storing secrets
- Usually “deployed and forgotten”
- Typical use case scenarios include many Things
 - Hard to manage

A glimpse from the (insecure)... future

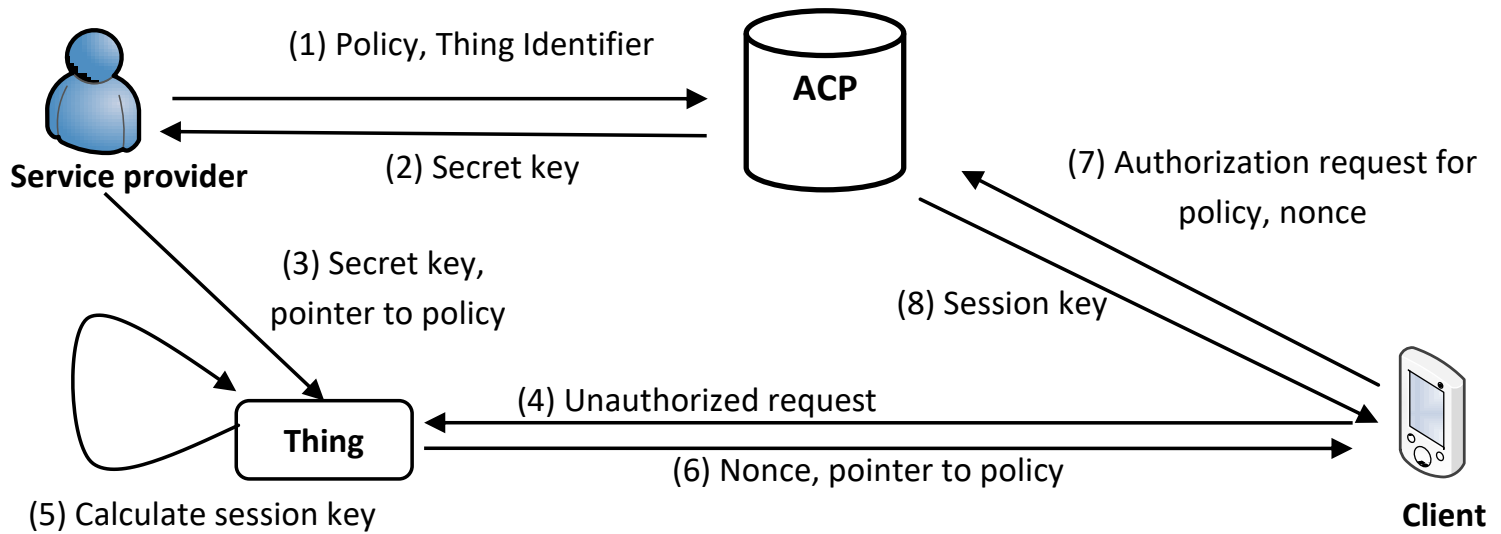
- 19 September 2016
The biggest DDoS in Internet history
 - Caused by a **botnet** of more than 145K Internet *connected cameras and digital video recorders*
- 21 October 2016
Internet Blackout in the US
 - Caused by a similar **botnet**

Let's add a
trusted third
party

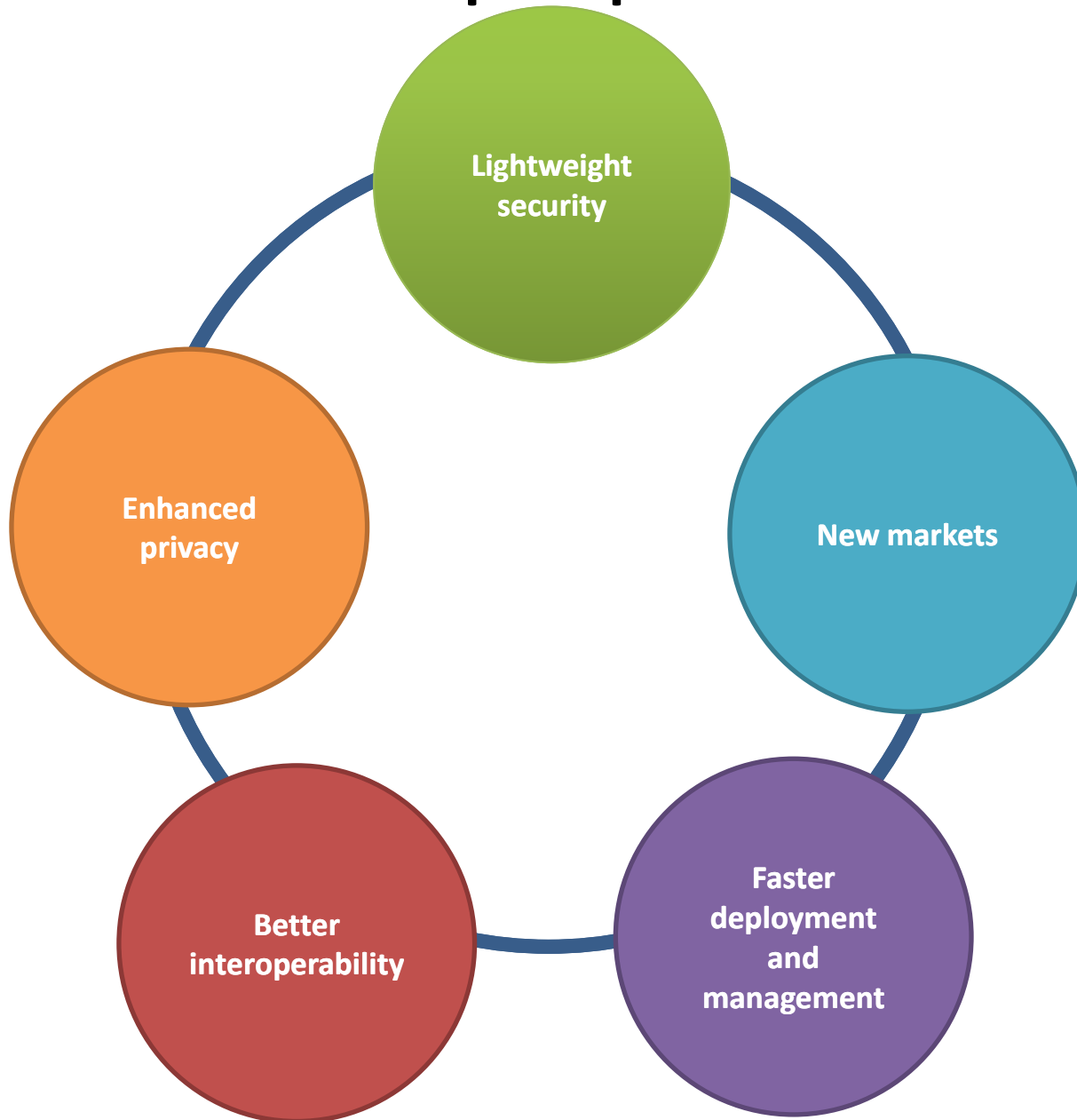
OUR SOLUTION



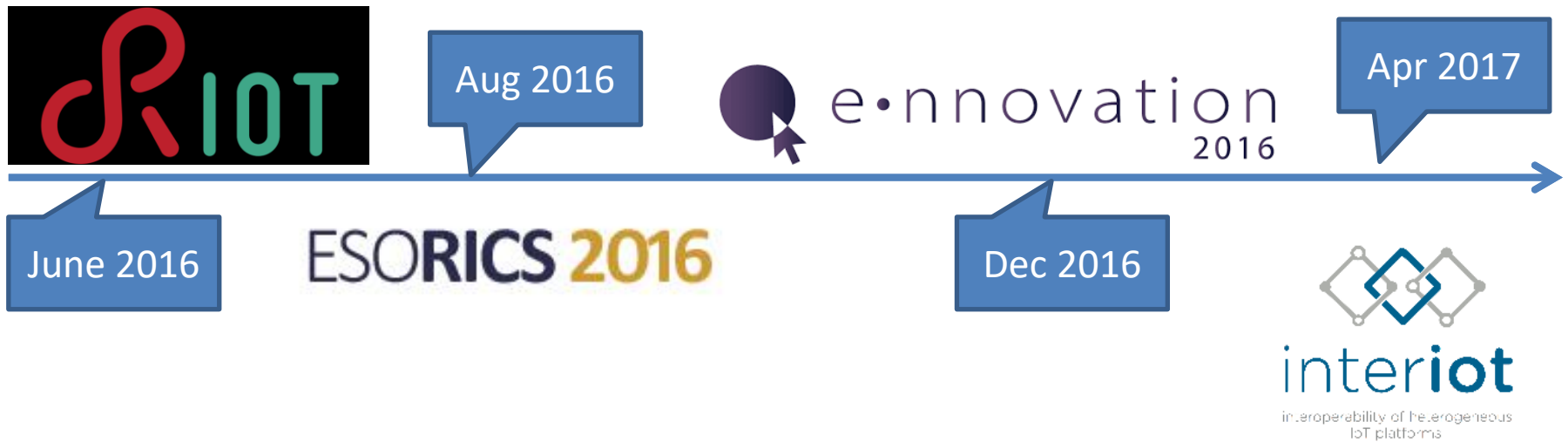
Solution overview



Value proposition



Solution background



Objectives within INTER-IoT

**Integrate existing
user management systems**

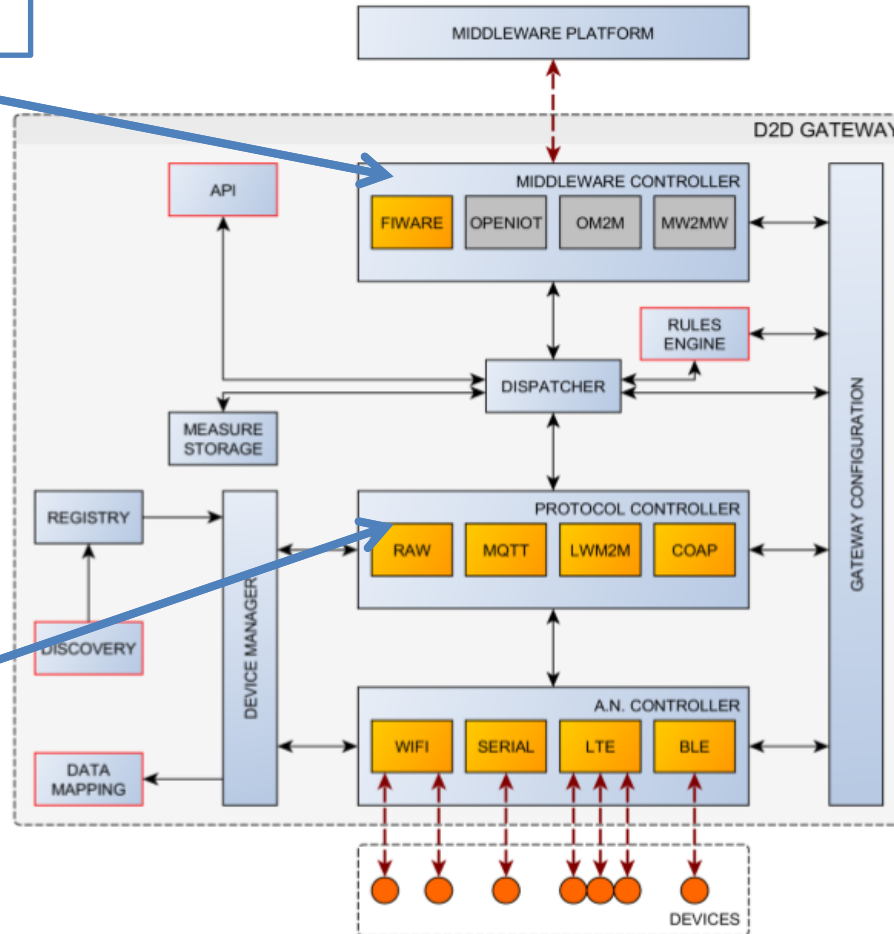
**Facilitate
Thing configuration & security
management**

**Facilitate
interoperability,
innovation &
B2B services**

**Provide tools & APIs for
creation & access of protected
resources**

Interaction with INTER-IoT

ACHILLES component for remote platforms



ACHILLES component for local Things

Business potential

- Customer segments
 - Developers
 - Integrators
 - Providers
- Revenue streams
 - Support fees
 - Premium services
 - Licensing fees

Time plan

Work packages

N°	WP name	Starting Month	Ending Month
WP1	Architectural specification	1	14
WP2	Integration and experimentation	4	18
WP3	Dissemination and exploitation	1	18
WP4	Project management	1	18

Deliverables

N°	Deliverable name	Type	Delivery
D1.1	Use cases and integration plan	Report	M4
D2.1	First version of the platform	Software	M6
D2.2	Second version of the platform	Software	M17
D2.3	Final evaluation and review	Report	M18
D3.1	Business model and exploitation plan	Report	M1
D4.1	Project management report	report	M18

Thank you

<https://mm.aueb.gr/achilles>

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