

Orange, Celtic+

project proposal : **On Demand Secure Isolation**

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A Changing World... Today

Customers 'data and devices are part of several
logical third parties networks

each device becomes a
network access point

Networks access points are open
everywhere and no more under
issuer physical security

massive selfcares and
services webisation

Unsecure OPEN OS

How to provide an E2E security continuity over heterogeneous technologies
that are operated by external entities ?

→ How to deliver for every customer a dynamical, adaptative and contextual
security ?

content / service aggregation
UGC*

each user becomes a
content supplier

emerging of BigData technologies,
cloud computing (SaaS, Paas, Naas,
XaaS, ...) and "On Demand services«

Economic & Ecological crisis !!



(*) User-Generated Content

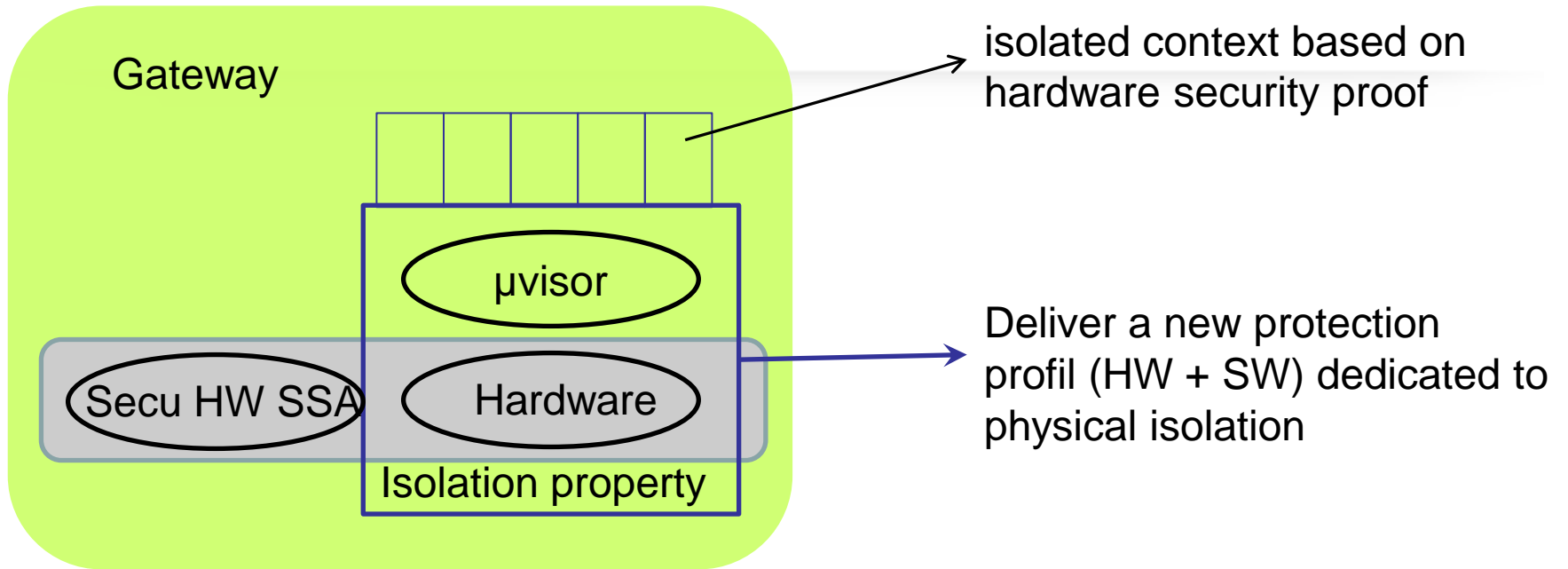
Project Proposal

Aims :

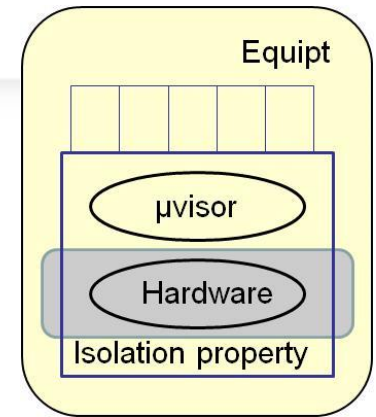
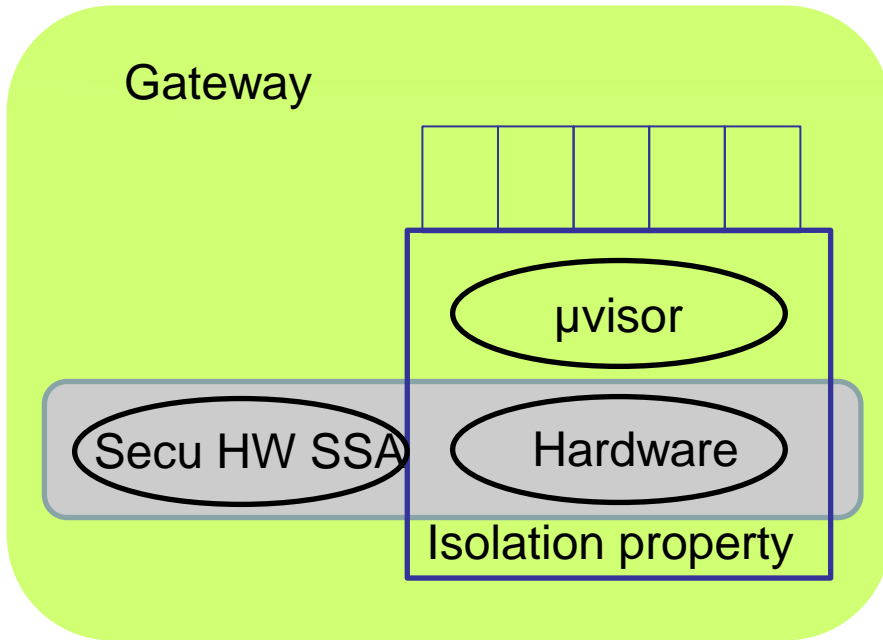
- Simple and elementary security solution versus complex solution
- Business needs : isolation, on demand isolation, with remote evaluation of security level

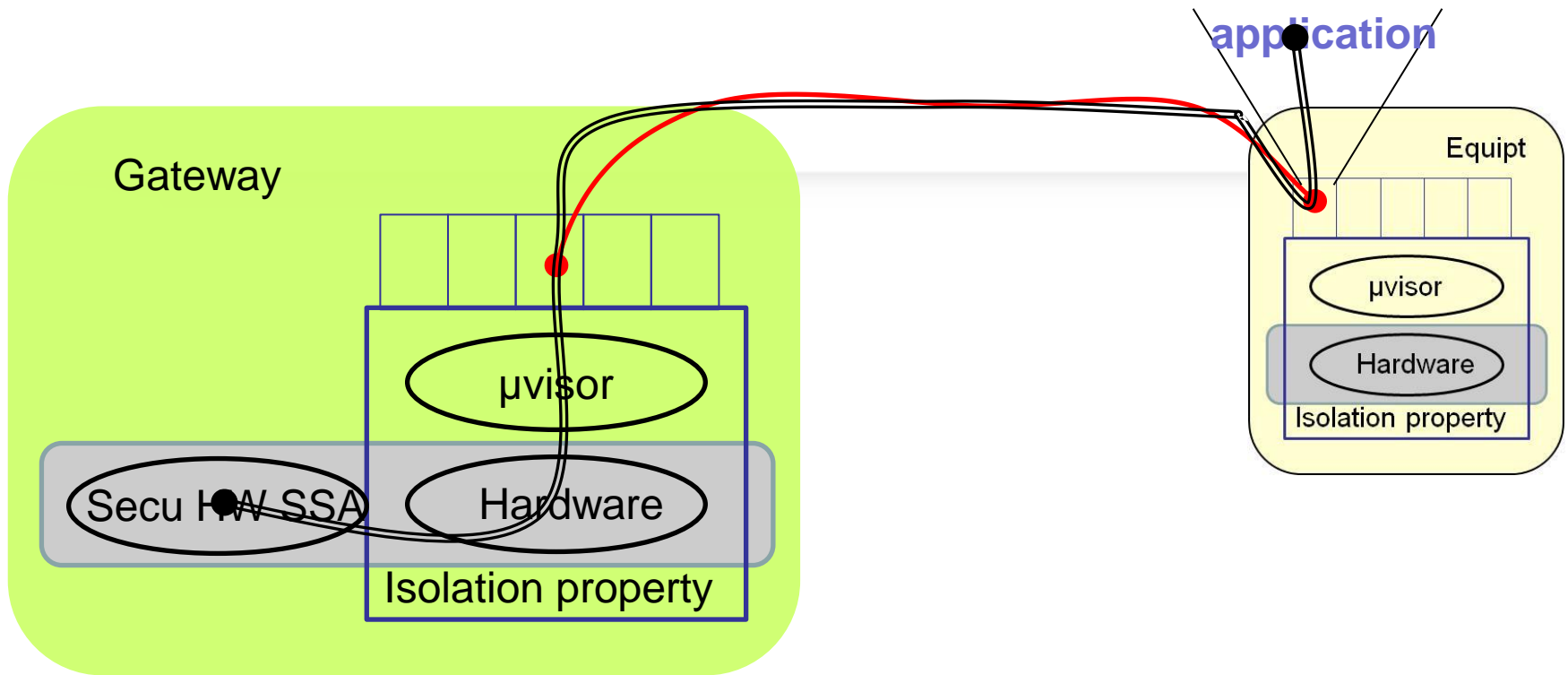
Objectives :

- Propose a scheme to distribute or share security objectives / measures, between components, in an measurable/evaluable way (remotely).
- Define what is an isolation feature and which isolation features we need over a CPU, and a CPU + an elementary software.
- Establish a security model for these isolation features
- Define a security model to allow a protocol to propagate these properties of isolation between 2 platforms (+formal proof)
- Demonstrate concepts through an EAL4+ certification of an application over 2 platforms (E2E security over system of systems ?).



SSA : Additional Security Services





is it possible to propagate “Secu HW SSA” properties to the Equipment thanks to a formal and certified protocol ?

Is it possible to achieve an EAL4+ certification (VAN5) from an application in the Equipment over the security services of the Gateway?

Potential partners

France :

- Orange
- Embedded software and formal proof Labs
- Startup/SME for Silicon design (hardware POC)
- *Potentially Common Criteria laboratories*

Resources needed :

- embedded hypervisor (bare metal)
- formal security models
- protocol definition (+ formal proof)
- Common Criteria/formal security laboratories
- Gateway / equipments suppliers (M2M, IOT, XDSL Box, Network elements....)
- services suppliers (Uses cases)
- others....

-Please feel free to contact, and improve the scope of the proposal.



thank you

