fido ALLIANCE simpler stronger authentication

TeleTrusT Pioneers in IT security. IT Security Association Germany

German/US Expert Meeting

IT Security Association Germany (TeleTrusT) in cooperation with FIDO Alliance

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How to use FIDO tokens to authenticate against an HSM and secure critical infrastructures.

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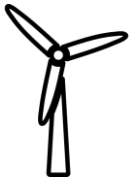
Use Case

- In the management of critical infrastructure, the usage of HSMs is very common. The challenge is to find an easy method to secure the access and enable ease of HSM configuration using multifactor authentication.
- In today's HSMs smart cards and pin pads are common for multifactor authentication.
- With FIDO tokens we can overcome the limitations to carry around a huge device at a fraction of the cost.
- This talk will show an implementation of FIDO authentication for the use case mentioned above and will provide a short live demo.

HSM Authentication today

- User name password
- Smartcard + PINpad
- Tablets
- Vendor specific FIDO compliant authenticators

Entities: Conceptual Overview



Non-CIP

Itron IntelliSOURCE

CIP

Itron IntelliCOP

Itron IntelliCOP Policy Service

Policy Management
Enforce Rules
Operator User Control

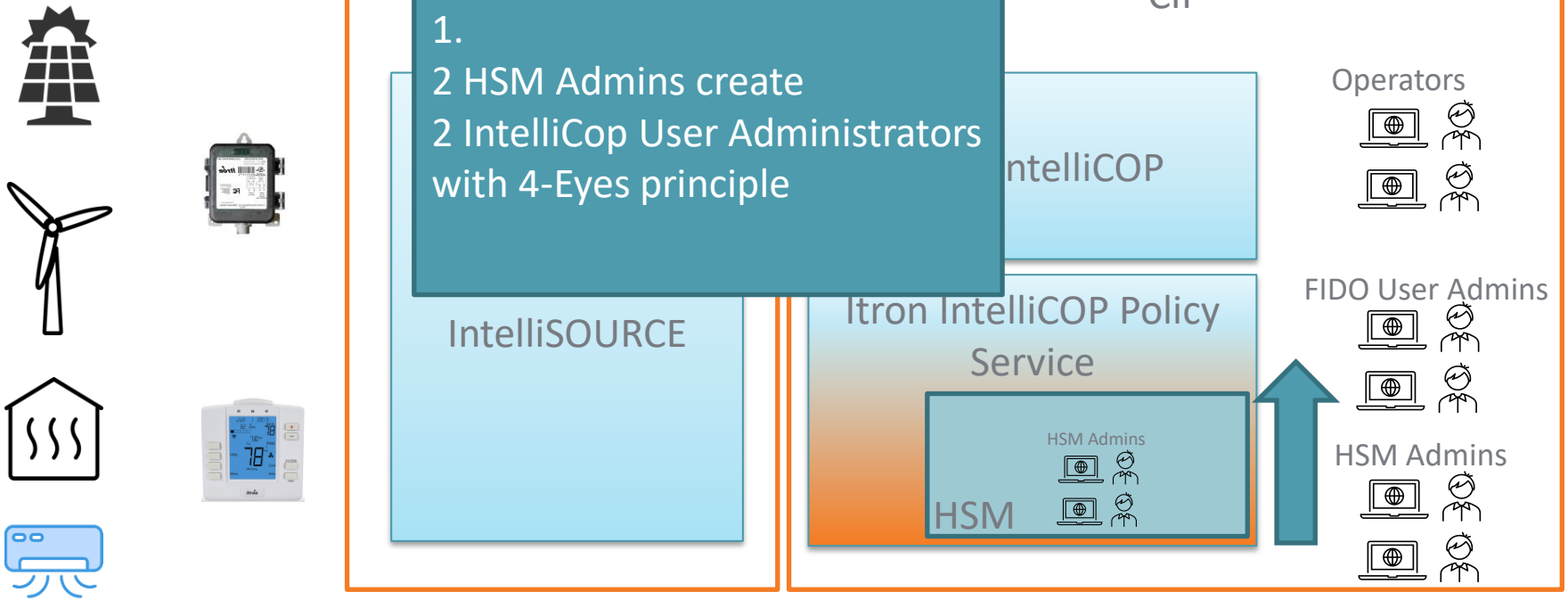
HSM

Operators

FIDO User Admins

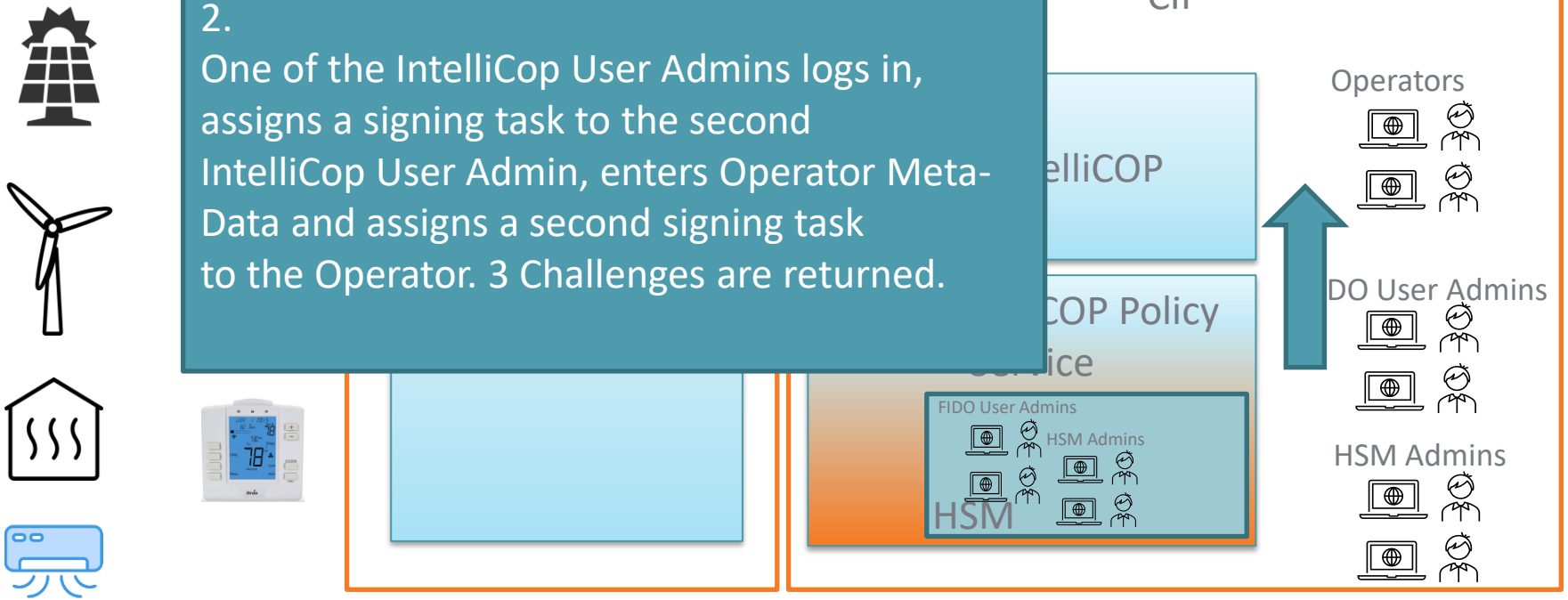
HSM Admins

Initialization Flow

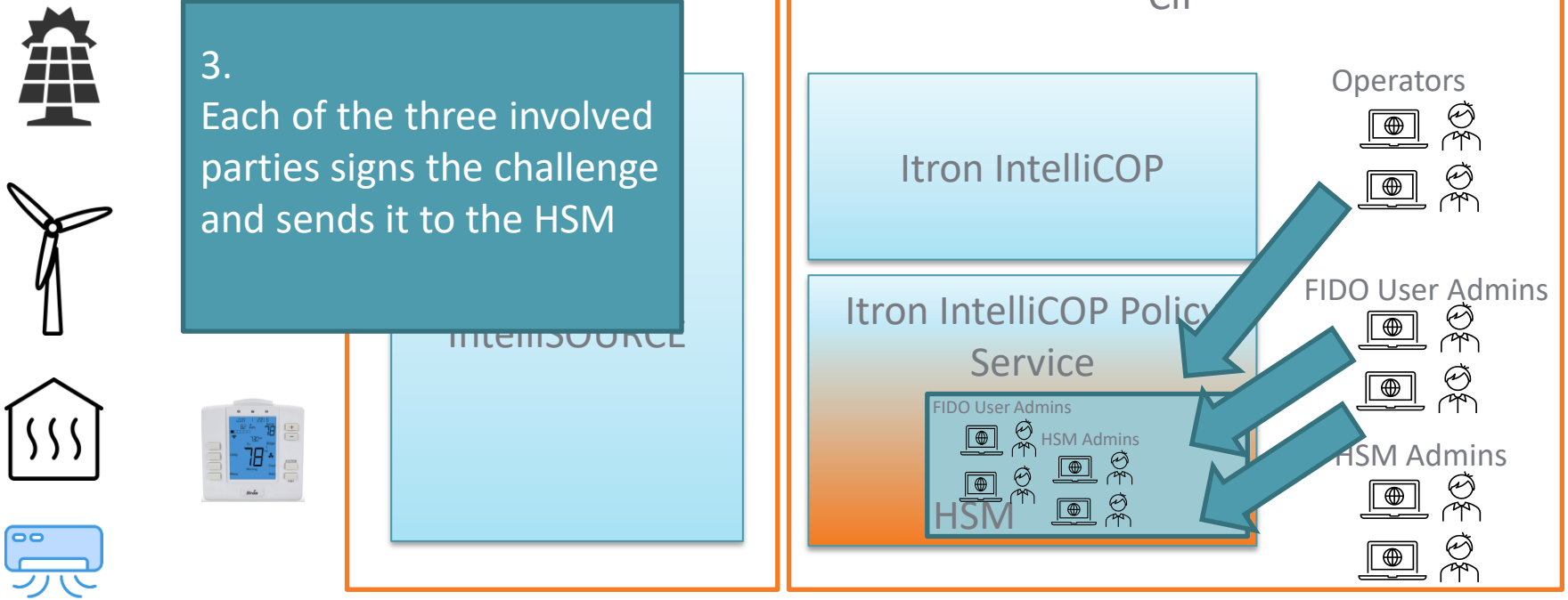


Initialization Flow

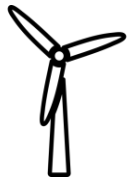
2.
One of the IntelliCop User Admins logs in, assigns a signing task to the second IntelliCop User Admin, enters Operator Meta-Data and assigns a second signing task to the Operator. 3 Challenges are returned.



Initialization Flow



Initialization Flow



4.
The HSM checks the signature challenges and creates the operator as an user at the HSM

Non-CIP

IntelliSOURCE

CIP

Itron IntelliCOP

Itron IntelliCOP Policy Service

FIDO User Admins

HSM Admins

Operators

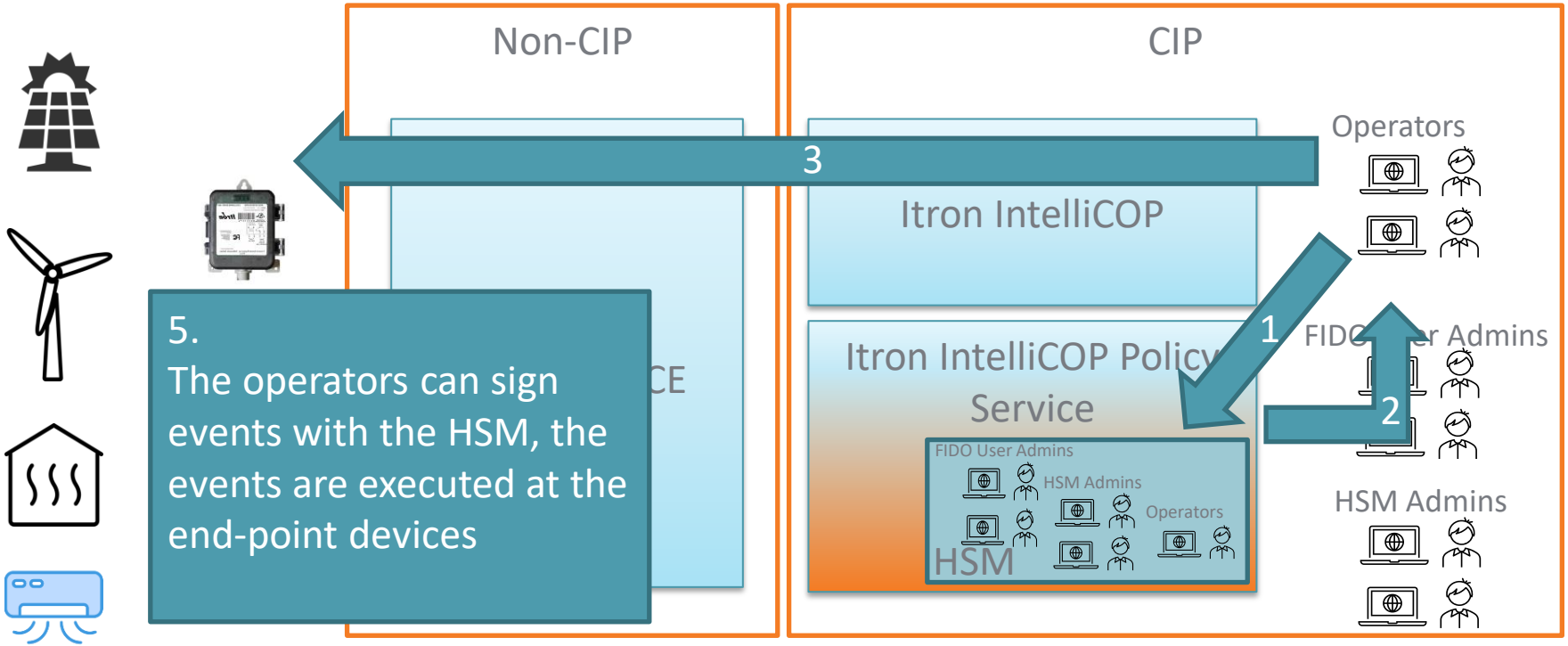
HSM

Operators

FIDO User Admins

HSM Admins

Initialization Flow



Live Demo

- FIDO Demonstrator, test it at our web side