IETF Hackathon

GREEN Framework and UseCases

IETF 123
19–20 July 2025
Madrid, Spain

GREEN Framework for Service Level Energy Efficiency

Device/component energy consumption report with information collected directly from the device or PDU connected.
Ways of collecting information across Domains.
VIDEO Streaming End to End Use Case.

ttps://datatracker.ietf.org/doc/draft-stephan-green-use-cases/
https://datatracker.ietf.org/doc/draft-belmq-green-framework/
https://datatracker.ietf.org/doc/draft-petra-path-energy-api/

What got done

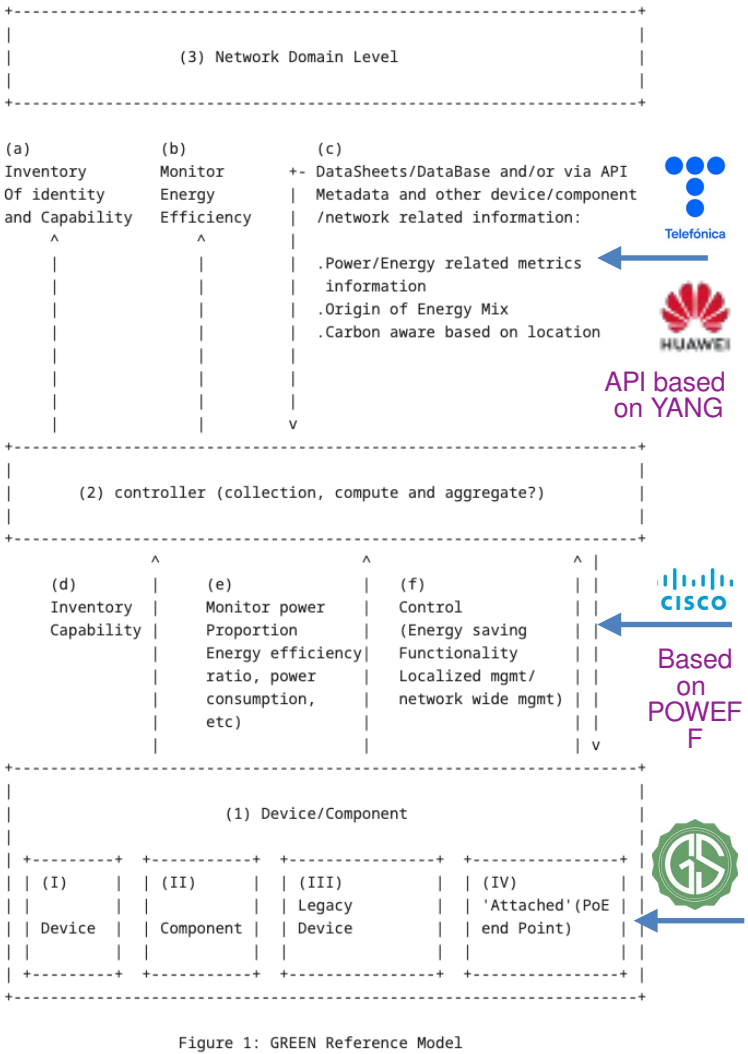
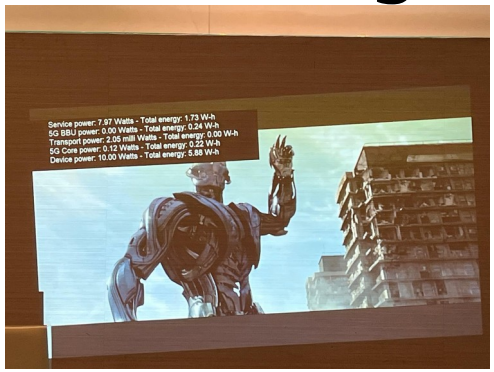
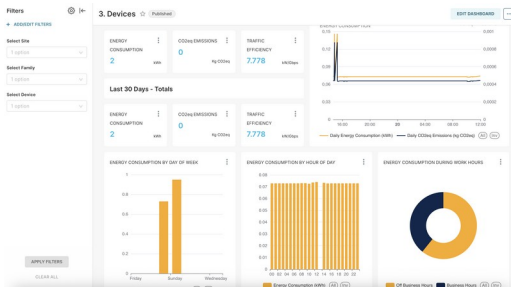
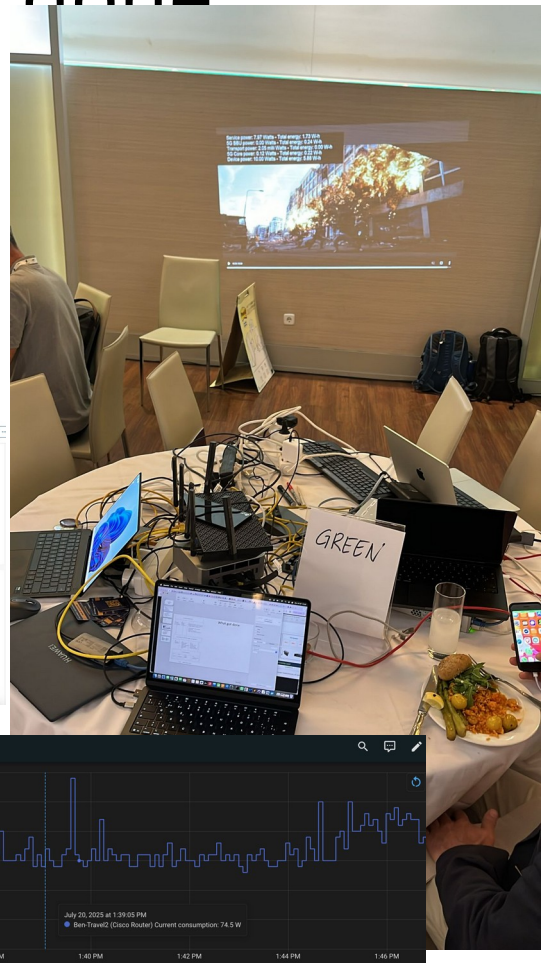
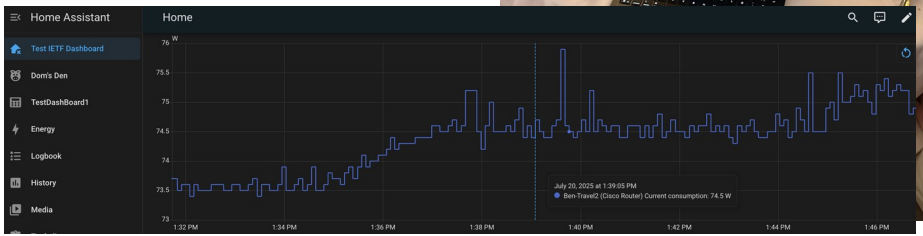


Figure 1: GREEN Reference Model









What did we learn?

“Dynamic modeling” being able to load new models dynamically to adapt to the network domain of the devices.

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Baseline of power consumption, increases with device load, network traffic.

Participants

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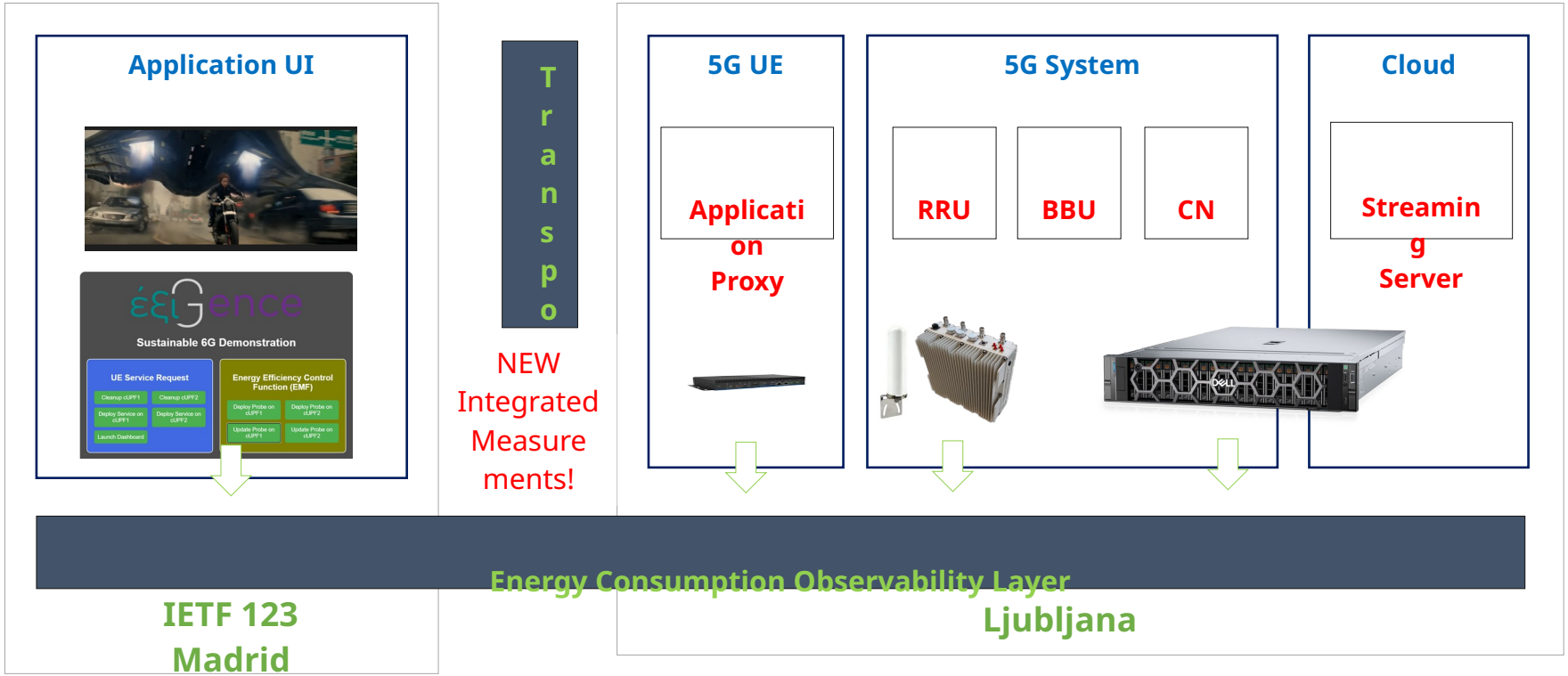
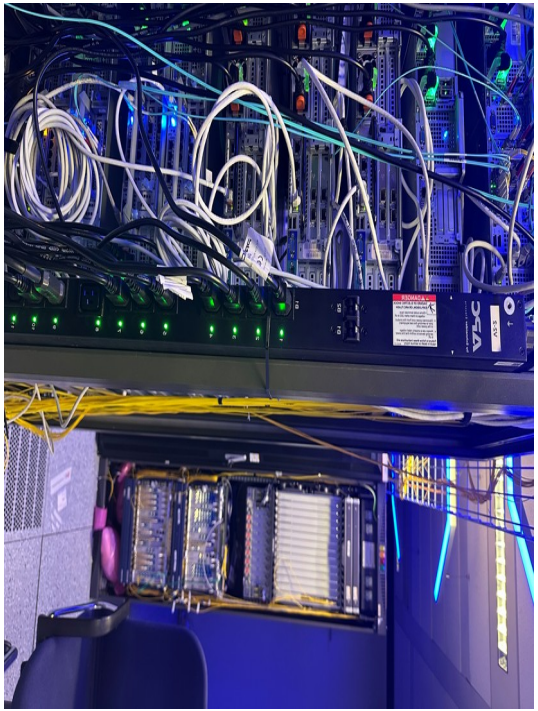
Architecture of the Video Streaming

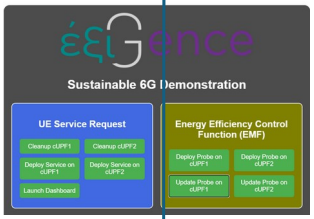


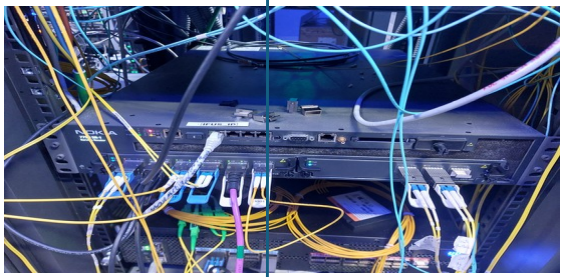
New hackathon outcomes: yang model for EC exchange, transport router measurements, EC testing of the cisco router



Telefónica

Application UI





https://projectexigence.eu/