

# First Steps in Energy

FOSDEM 2026  
Energy Devroom

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# Mixed background

2003-2007	electronics	university
2008-2016	embedded	startups, ARM
2017-2023	open source	Collabora, KernelCI
2024-now	kernel, energy	freelance

# A steep turn of events

Starting from scratch at FOSDEM 2024

Making connections in the Energy world

Blog posts

...blog posts

...more blog posts

[gtucker.io](http://gtucker.io)



# This is fine

High-voltage electrical grids *are* dangerous

Writing energy-related code is not

Virtual environments

Hardware models

Self-contained libraries



# Find your space

## The Energy sector is deep and wide

Grid simulation

Battery technology

Electric vehicles

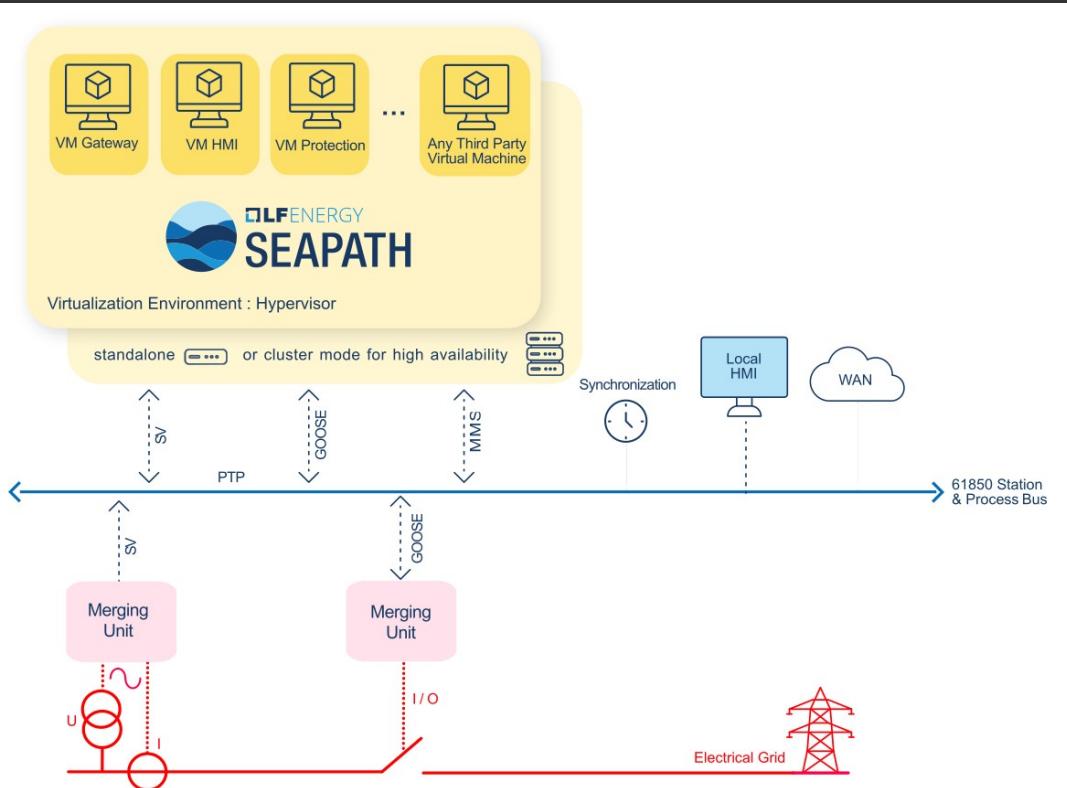
Solar forecasting

**Digital Substations**



# SEAPATH & IEC61850

## Backbone for Digital Substations

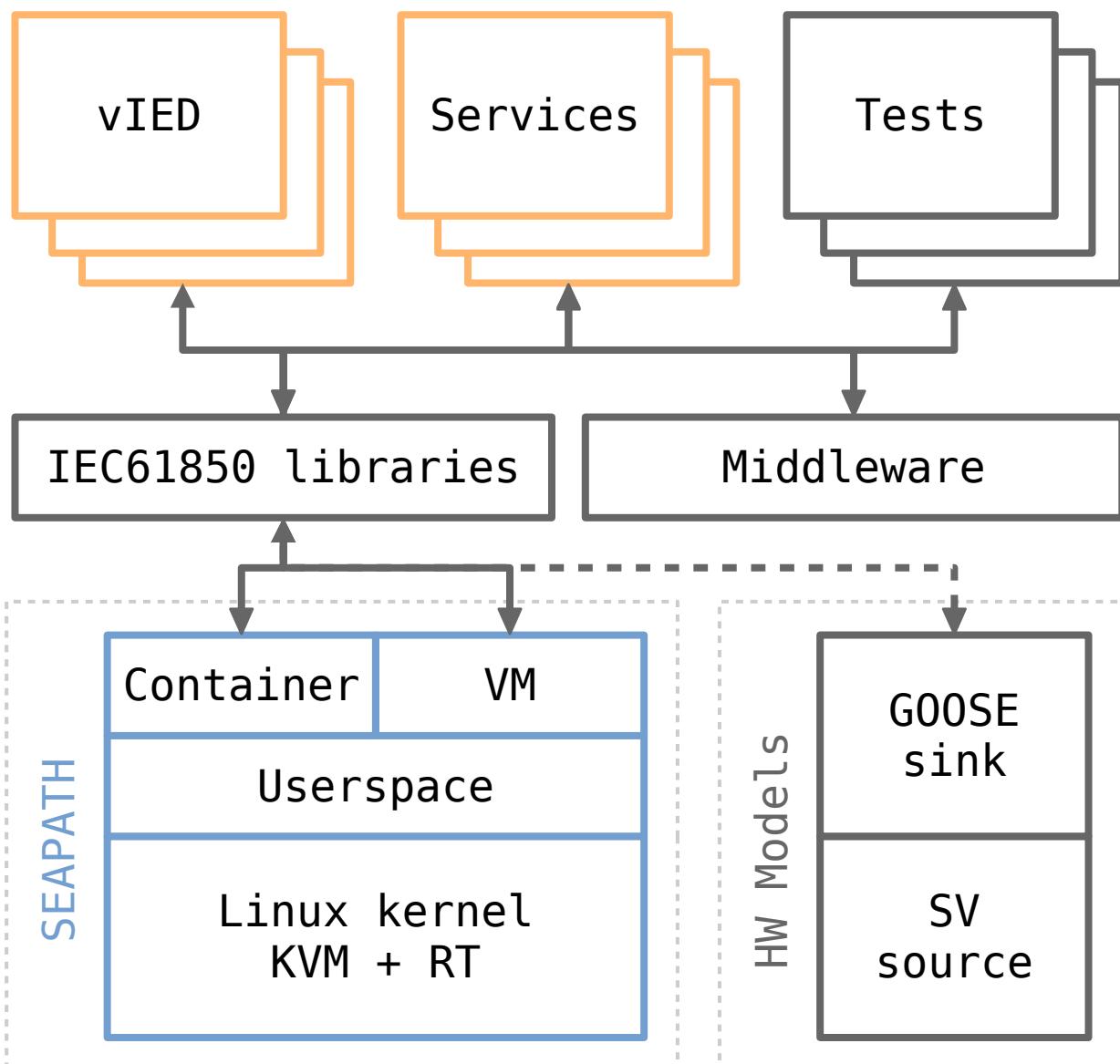


Replace hardware protection

Simplify equipment

Enable new features

Real-time



Open-Source Stack

— proprietary  
— in progress  
— available

Debugging tools

Developer setup

Ansible config

CoMPAS

# A humbling experience

Learning new tech from scratch

- What's an IED?

...while sometimes feeling ahead of the game

- Yes, I have contributed to the Linux kernel

Listening to others on so many levels

Different industry, companies, culture, people

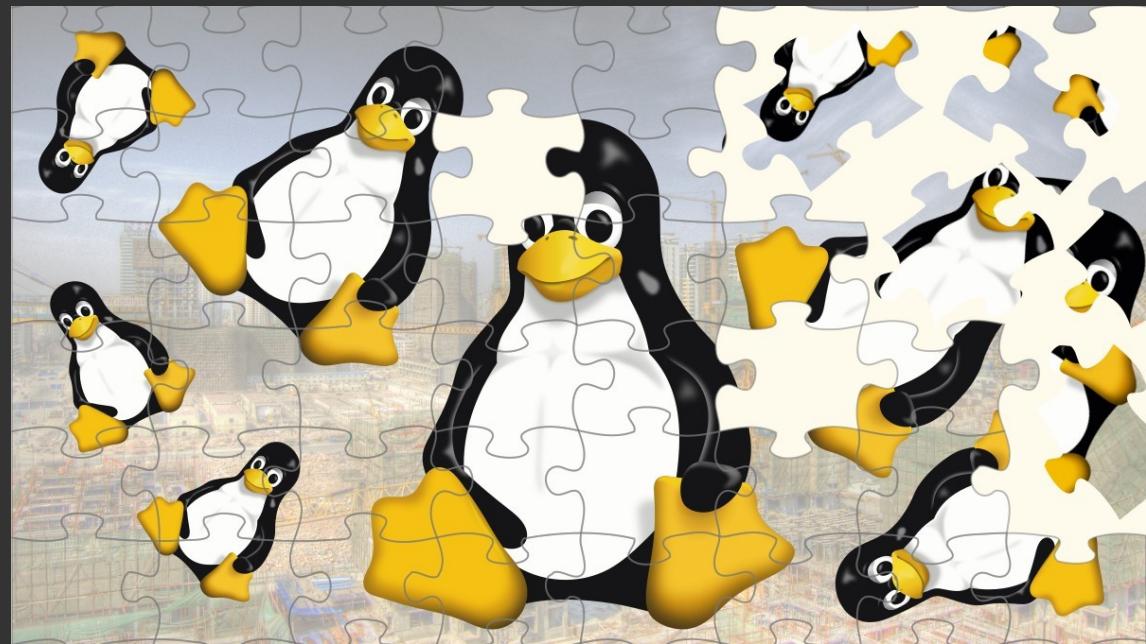
# Cultural gap

Hardware culture is miles away from a Unix shell  
A welcoming and open-minded ecosystem

Physics & Maths

Century-old industry

Recent software history



# Answering the call

You must be interested in Energy and FOSS!

Yes you can ⚡

I went freelance with some fallback options

*How about you?*

Keep moving but don't panic

*The industry has more inertia than you*



★ Thank You ★

FOSDEM Energy Devroom volunteers 2024~2026

Boris, Maxime & RTE / RTE-i

Dan & LF Energy

Fellow Energy hackers

My university teachers

My coach Dave

*My younger self for having a dream 20 years ago*