E-Lighthouse Network Planner (ENP): Shaping the Future of Network Planning

Innovative Multilayer Solutions for Complex Network Challenges

Who we are?

Founded in 2017 by senior telco industry + academia members, stemming from internationally recognized R&D group in network planning in Cartagena (Spain).

Understand the network and the customer needs	✓Specialists with >25 years in IP & transport planning will understand your needs. We speak the “planning language”
R&D is our DNA	✓Our founders sum >40 years of research expertise in network optimization. Strong presence in R&D projects
Network planning & optimization & analysis	✓We leverage on our unique software for network optimization & planning, built on top of >25 years of international expertise

Core objectives

Our vision

- Lead the industry by providing cutting-edge network planning tools for telecom innovation.

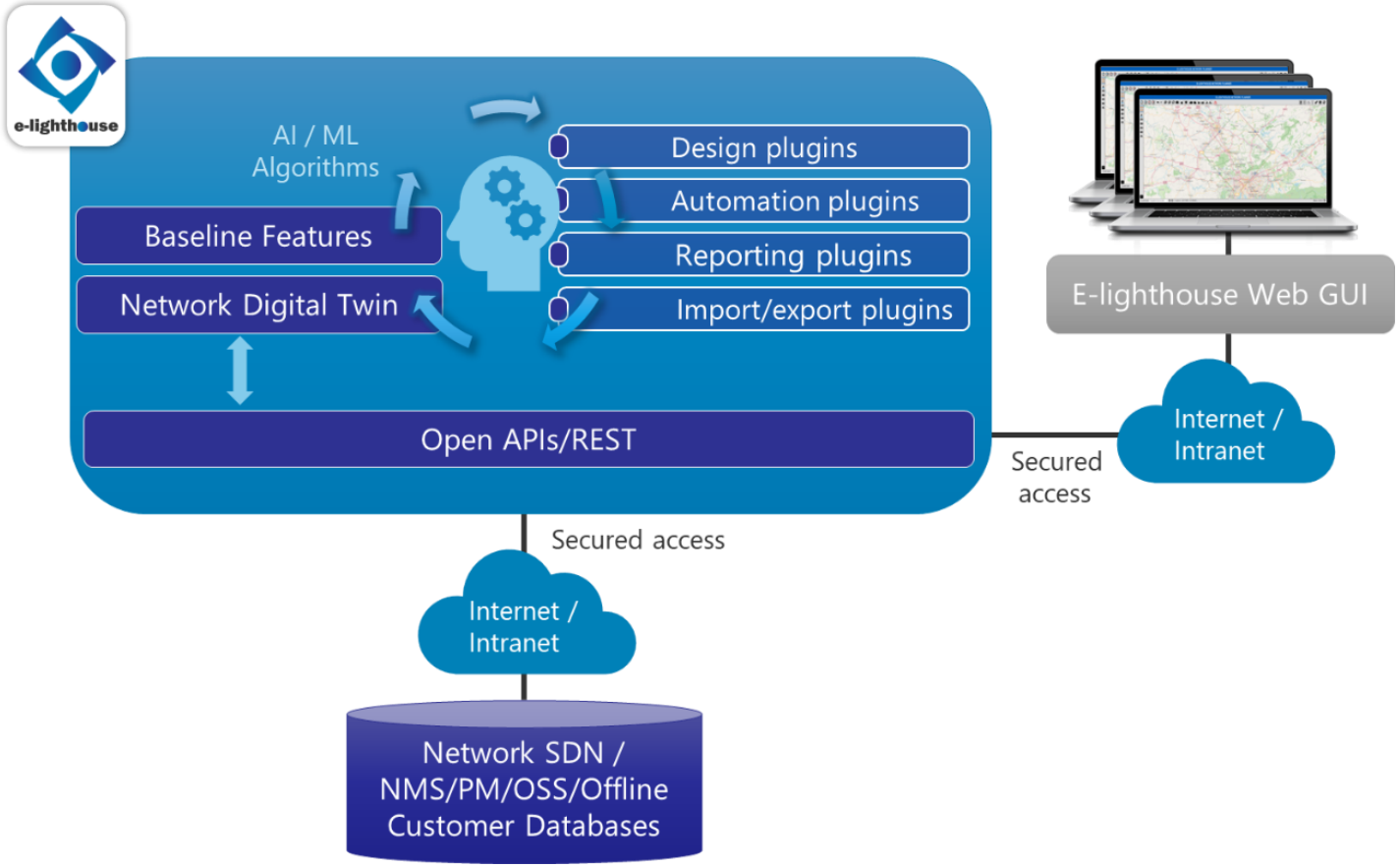
Our mission

- Maximize performance and efficiency of telecommunications infrastructures, providing innovative solutions.

E-lighthouse Network Planner (ENP)

Our flagship product, the E-lighthouse Network Planner (ENP), is an advanced tool for network planning and optimization. ENP enables customers to gain comprehensive control of their networks, from the access layer to the core layer, optimizing resources and improving network performance.

Using open REST APIs to collect data and integrate with network systems, ENP leverages powerful AI algorithms within NDT to deploy simulation features, supported by a baseline core and flexible plugins.



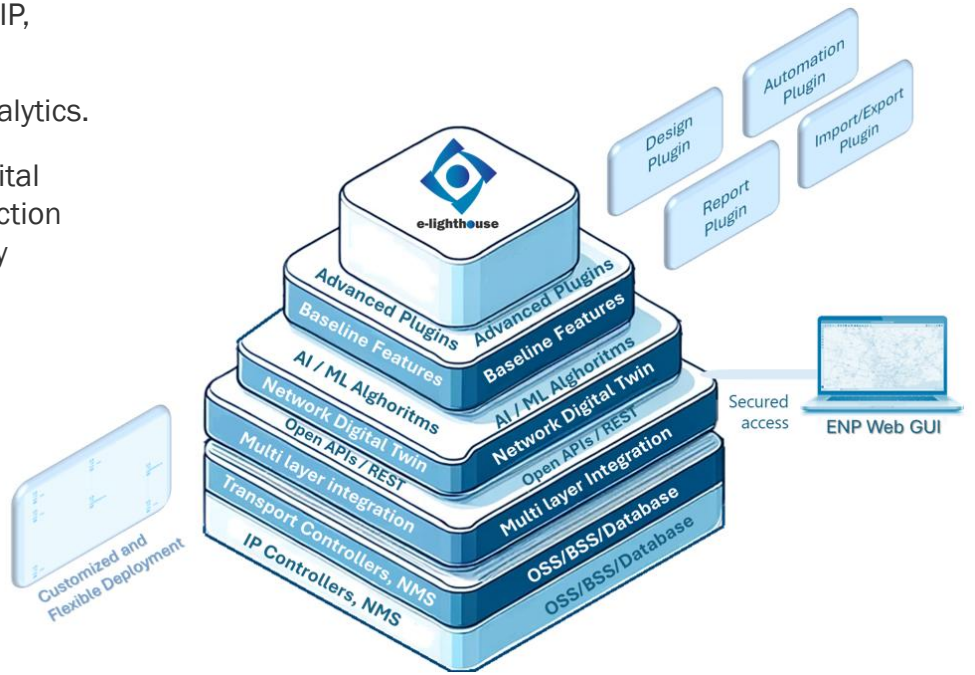
ENP Flexible Plugins Architecture

Baseline Features

- Multilayer interactive views, including IP, OTN and IP over WDM solutions.
- Detailed hierarchical network data analytics.
- “What If simulations” in a network digital twin, enabling network behavior prediction for failures, traffic increasing, topology changes, etc.

Design/optimization plugins

- Brown/Greenfield IP/MPLS design
- Brown/Greenfield OTN/DWDM design
- DWDM signal impairments estimation
- DWDM spectrum assignment
- Brown/Greenfield multilayer design



Reporting/automation plugins

- Network health, resilience & KPI reports
- DWDM spectrum analysis
- BOM/BOQ generation reports, supporting capacity plan use cases.
- Rule based design automation

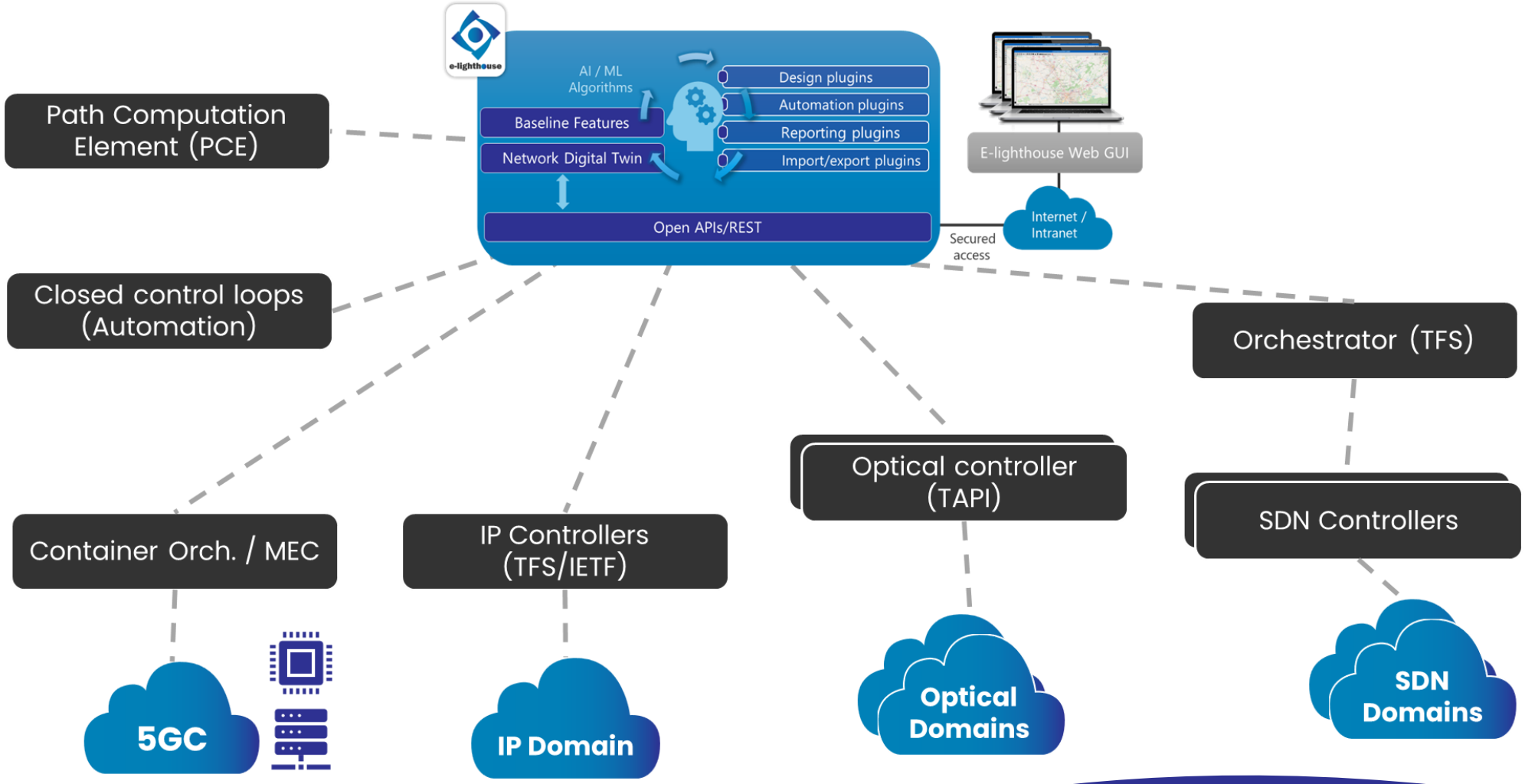
Import/export plugins

- Importing plugins to retrieve information from customer systems, e.g. inventory, performance management tools, offline databases, opensource tools.
- Exporting plugins to produce the information in the appropriate format to feed other tools in your workflows

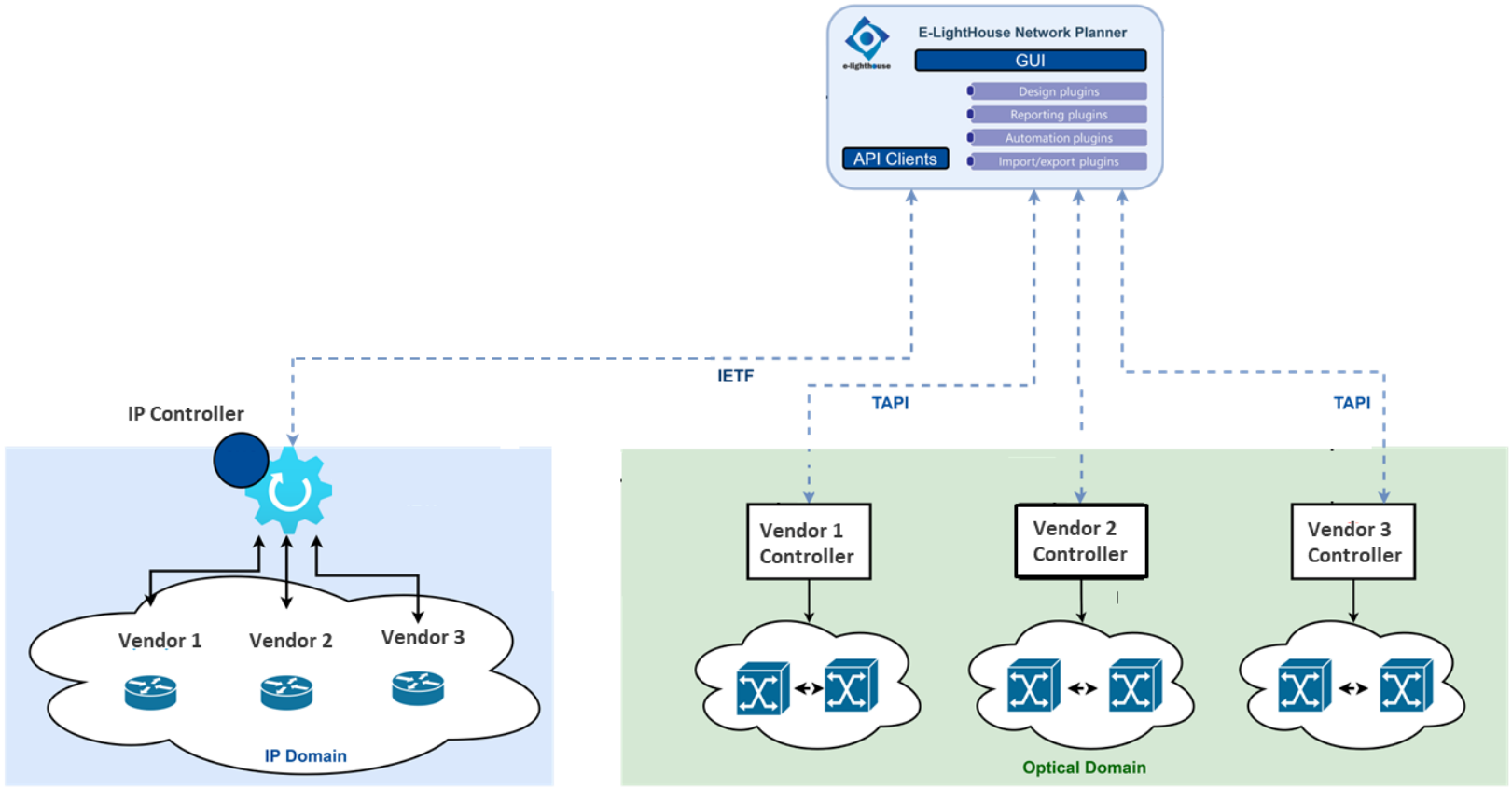
Flexible deployment, unneeded plugins are left out

New plugins can be developed and existing ones can be tailored to match specific use cases

ENP Systems Integration



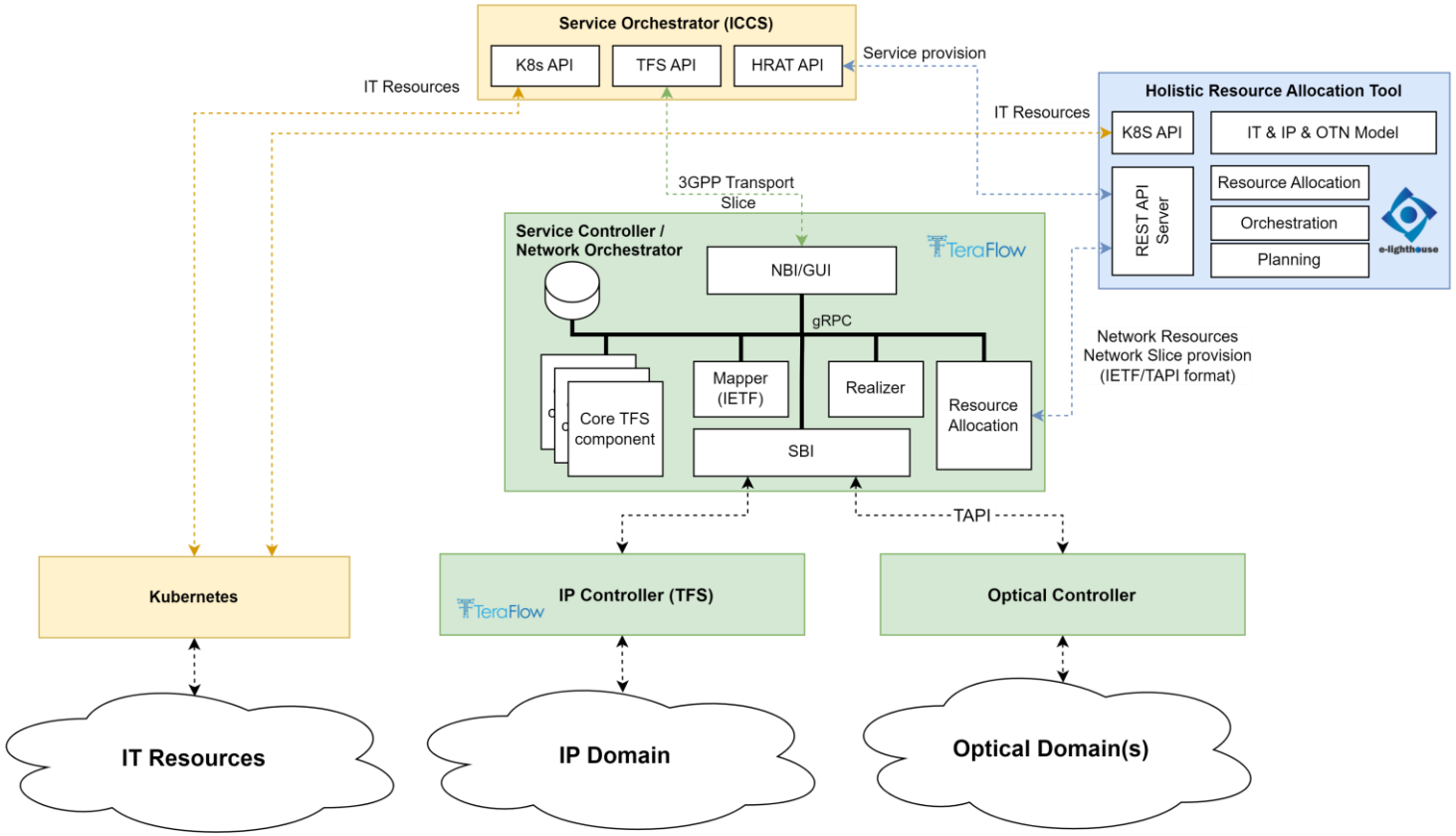
Success Case: Tier-1 Operator Deployment



Achievements (since 2019):

- First ranked by Tier-1 in RFQ network planning benchmark beating current incumbents.
- 20% to 30% CAPEX reduction opportunities were identified.
- PoCs with more than 20 different tests in IP/DWDM core & backhaul networks under single and multilayer topologies.
- On going: network production environment integration pilot.

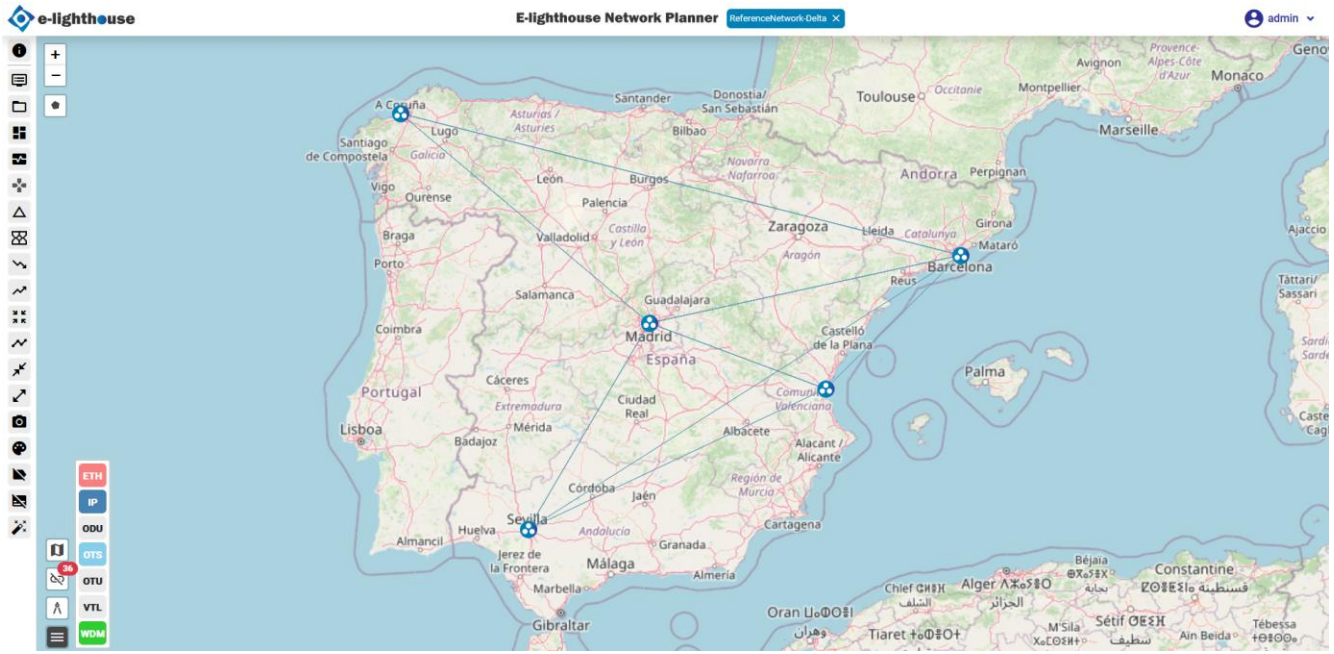
Success Case: ALLEGRO (EU)



Achievements :

- Holistic network service and slice assistance.
- Third-party resource allocation algorithms hub.
- P2MP-oriented solutions
- Multi-layer and multi-domain SDN controller connectivity.
- Direct Teraflow integration and novel TFS-HRAT interface definition to be used as external assisting tool.

Click on the screen to watch our tutorial videos.



e-lighthouse

- Multi-layer visualization
- Network simulation
- KPI analysis & reporting
- What-if analysis
- Network fault-tolerance analysis
- Capacity planning

Thanks for your attention!

Any questions?

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