

laSalle

Universitat Ramon Llull



NETWORKS

FINESCE Project

Software Defined Utility

Ireland/Barcelona

Ramon Martín de Pozuelo
– FUNITEC

FUTURE
INTERNET
SMART
UTILITY
SERVICES

FINESCE



FUTURE
INTERNET
PPP

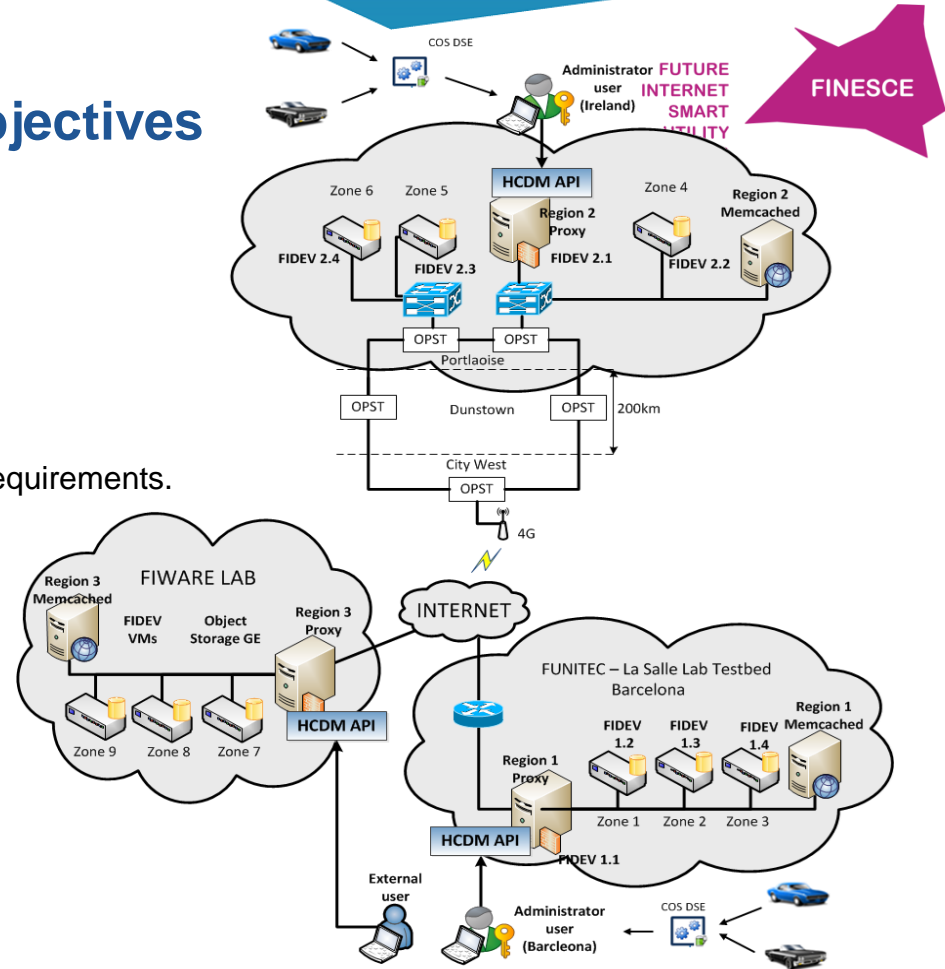
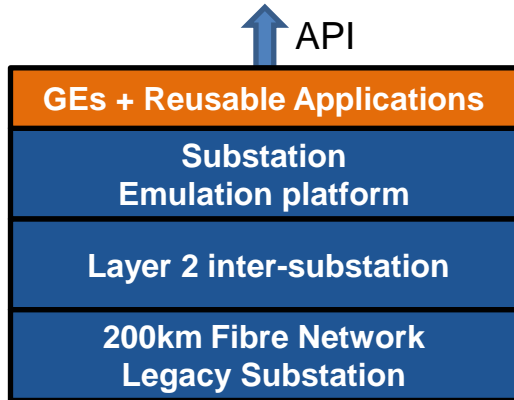


Waterford Institute of Technology

INSTITIÚID TEICNEOLAÍOCHTA PHORT LÁIRGE

Software Defined Utility Trial - objectives

- Objective One:
 - Demonstrate handling of utility Information.
 - Distribution in public & private clouds.
 - Platform for Smart Grid applications.
- Objective Two:
 - Build advanced optical network.
 - Demonstrate support for future and legacy utility requirements.

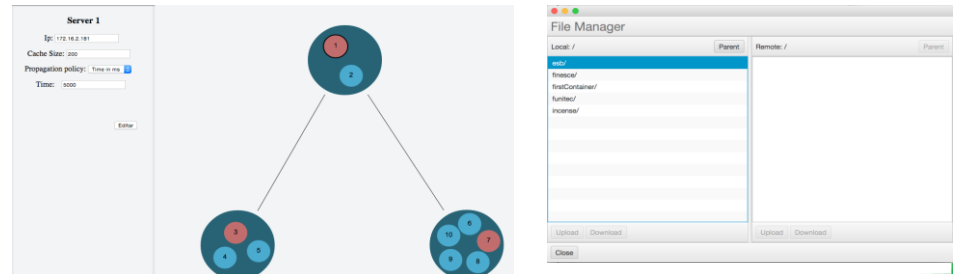
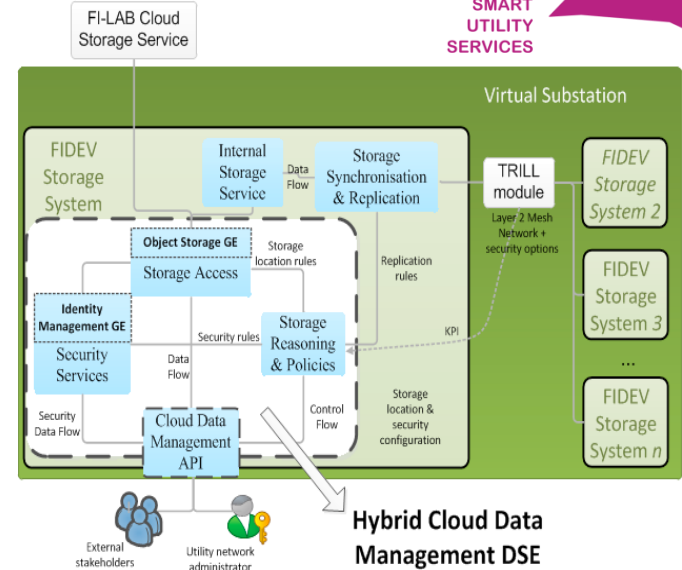


Software Defined Utility Trial - Results

- FIDEVs' integration and interconnection in three sites (Barcelona, Ireland, FIWARE Lab).
 - Manager users (from ESB, WIT or FUNITEC) and external users to public containers.
 - HCDM DSE - A component for the "Software Define Utility": to provide transparent access to the Hybrid Cloud infrastructure for the data management.
 - High business potential.
- Completed built of 200km fibre wrap infrastructure.
- Comparison between TRILL vs VXLAN (NVGRE) vs OpenFlow networking solutions.
- Security functionalities provided by GEs have been tested.
 - Vulnerabilities found and fixed.

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Software Defined Utility Trial - Conclusions

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- HCDM DSE: a good example of the combination of GEs in order to create a flexible service for utilities. It can help SMEs to learn how to use GEs and assess the benefits of the FIWARE ecosystem.
- More efficient, flexible and secure data storage for utilities. Data management nearer the generation and application point for fast operation and latency reduction.
- Tool for secure and easy exchange of data with external stakeholders to learn how to use GEs and assess the benefits of the FIWARE ecosystem.
- GEs allow to develop and integrate complex solutions with multiple components more rapidly and at lower cost.
- It allowed utilities to realize the business potential of flexible, low-cost, software-based approach for managing distribution network of the Smart Grid.