



CELTIC-NEXT Proposers Day



7th of September 2022, Online via WebEx

Pitch of the Project Proposal

Cost Efficient Resilient Networks



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Teaser

What is the main benefit of the idea/proposal?

- Achieve **better resilience** and **fewer power network outages**

What makes the added value?

- A hybrid **public / private** approach which leverages **existing communications networks** providing resilience **at lower cost** than traditional approaches
 - Control of QoS remains with the utility

Why should I participate in the project?

- Low cost resilience allows **new applications** in Critical National Infrastructure
- New learning in combing networks in novel ways with graceful degradation

Organisation Profile



Very short info about the profile of your organisation

PNDC is a research and testing hub founded by government, industry and academia which advances innovative ideas into business as usual for our members.

We provide this through a rich research programme with a highly skilled post-doctorate team, alongside one of the world's most unique and comprehensive testing sites, with state-of-the-art assets in a real-world environment.



Proposal Introduction

Short info what the idea/proposal is about (vision, motivation, content, please include a picture describing your idea)

Vision: Combine public networks, with spot private network provision where necessary / cost effective, and use over the top services across multiple networks

Motivation: provide resilience while maintaining security



Proposal Introduction



Short info on expected outcome, impacts, schedule typical project duration 36 month

Key outcomes:

- Assessment of the resilience of public network infrastructure under differing scenarios
- Investigation of the minimum network requirements for utility network operation
 - Demonstration of QoS maintenance in failover situations
- Study of graceful degradation options in Critical National Infrastructure (CNI) networks
- Evaluation of cost and resilience trade-offs between different levels of public and private network provision
 - Pilot in diverse case study locations

YIELDING

- reduced capital and operating costs for different levels of resilience



Partners



Existing consortium, involved countries.

Expertise, profiles and types of partners you are looking for.

PNDC has a unique combination of power and comms experience, with specialisms in 5G, resilience and security. We have 2 private 5G networks currently being deployed using both 5G providers permitted to supply UK CNI networks:

- ❖ Nokia: 3.8 - 4.1 GHz 3GPP N77, private network band, up to 100MHz channels
- ❖ Ericsson: 3.5 GHz 3GPP N78, public mobile network band, 50MHz channels

PNDC is seeking:

- ❖ utilities interested in private 4G or 5G networks for control
- ❖ mobile network operators interesting in providing services to the energy sector



Contact Info



For more information and for interest to participate please contact:

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Presentation available via:



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