# Paris Session 2022

Challenges in preventing the adoption of a fully packet switched network for utilities.

SC D2 – PS 3 – Question 3.5

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Question 3.5: As packet-switched networks are becoming increasingly adopted as the main technology for power utilities' telecommunications networks, describe some challenges in preventing the adoption of a fully packet switched network for utilities.

• To accomplish a deep **strategic analysis** as well as a rigorous risk assessment focused on both the technology chosen but also the current portfolio of the services and their future evolution.

• The **availability** of the critical services as well as the whole **reliability** of the network is one, if not the most, of the key requirements.
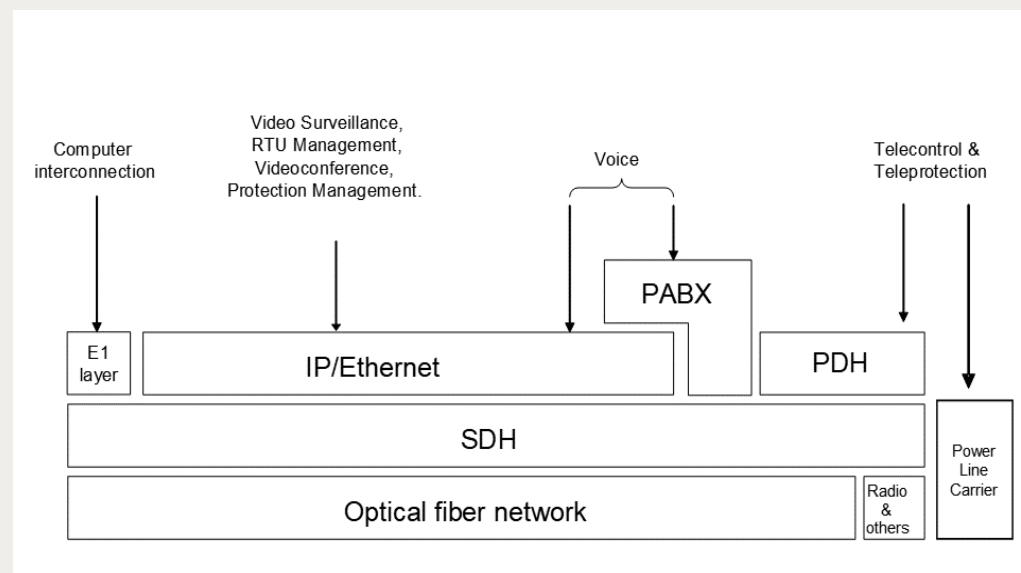
Challenges to deploy a fully packet switch network for utilities

• To provide a reliable source of **synchronization** (IEEE 1588 PTP).

• The implementation of the equipment designed for **sharing the transmission medium** (optical fibre).

• The **life cycle of technology** compared to energy assets.

• The interconnections with **third parties** (typically other utilities, either DSOs or TSOs).
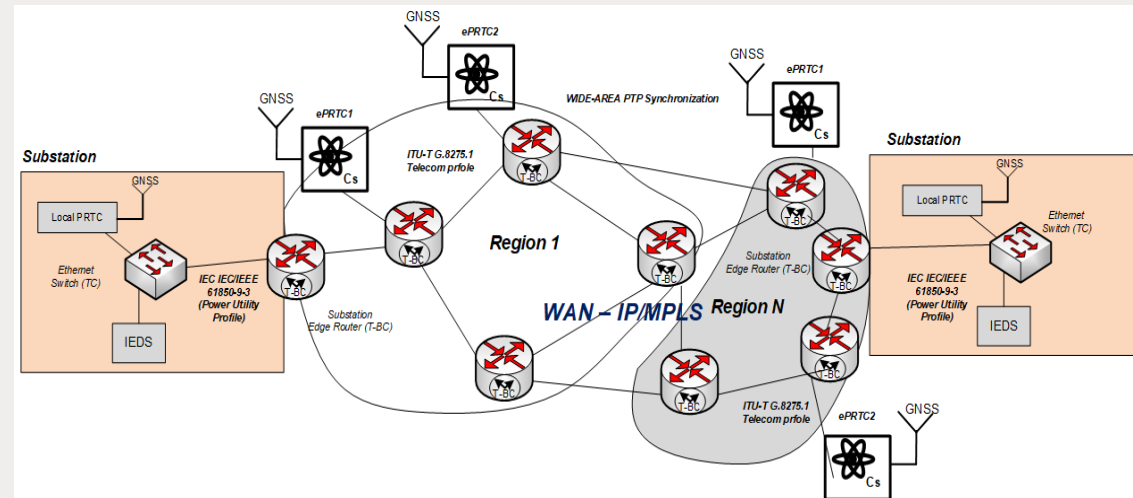
Challenges to deploy a fully packet switch network for utilities

• To meet all **requirements** (delay, path symmetry, jitter) that real time services demand implementing **traffic engineering** tools (MPLS TE, RSVP).

•The **migration of the services** is one of the most important challenges to be solved.

• **Cultural change** that this technological evolution brings.