Tejas Enables a Seamless Network Transformation to IP-MPLS Infrastructure for a Utility Major

As one of India's major integrated power utilities, the client has been operating for over a century and has built a diversified portfolio across thermal, hydro, solar, and wind generation. The organization serves a large customer base across both urban and rural regions and has been steadily investing in smart energy initiatives. This shift is supported by a digital infrastructure designed to provide real-time operational visibility and more efficient network management.

As part of this modernization effort, the utility is deploying a next-generation communication network to consolidate operational and business services. In its recent network upgrade, the client sought to migrate to an IP/MPLS–based architecture to support mission-critical applications such as SCADA, distribution automation, and integrated surveillance systems.

Challenges

- Transition from legacy transport network to scalable IP-MPLS network suitable for modern utility applications such as smart grid automation, IoT, and real-time analytics

- Looking for a trusted solution provider who can support a wide range of networking technologies in wireline and wireless

Solutions

- Tejas has been a reliable partner in providing utility solutions over the years. For the current requirement, following a thorough evaluation of multiple options, Tejas was selected based on the optimal alignment of its solution with project needs.

- The TJ1400P series, an IP-MPLS-based compact routing platform, has been chosen for its high-density interface capabilities and robust 60Gbps full duplex packet fabric configuration.

- To enable seamless management across multiple technologies, the Tejas Unified Network Management System (NMS) was deployed
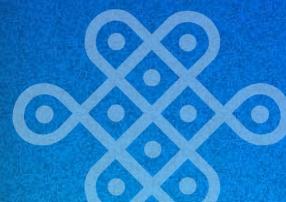
Results

- The project has been designed with two streams — one focusing on new IP/MPLS routing deployments and the other on the systematic transition from existing technologies to IP␣MPLS.

- Achieved improved fault tolerance and network resilience through MPLS-based traffic engineering

- Prioritized traffic handling, ensuring better Quality of Service (QoS)

- The architecture is built for easy scalability, supporting growth in end-points, sensors, and bandwidth demand

- Operational simplification and cost-efficiency

Key Value Propositions

- Tejas offers multiple space-efficient routing platforms enabling flexible deployment across core, aggregation, and edge layers

- Advanced MPLS features support secure VPNs, traffic prioritization, and efficient bandwidth utilization, ensuring QoS and SLA compliance.

- Temperature-hardened options for outdoor cabinet installation

- High path resiliency—ensure sub 50ms protection with MPLS-TE Fast Re-Route (FRR)

- In-house design and manufacturing backed by global standards, offering cost-effective solutions with strong local support and customization capabilities.
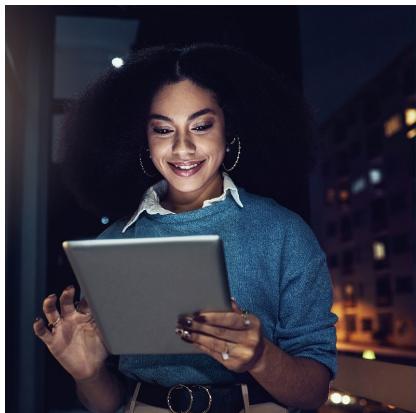
Tejas Networks

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