TILSON
On a Mission

PROJECT ABSTRACT: REGIONAL NETWORK TECHNICAL DUE DILIGENCE

SCOPE

Tilson conducted a technical assessment of a multistate network operator's assets, inspecting outside fiber optic plant and six Colocation (CoLo), Data Center (DC) and Point of Presence (POP) facilities. At each site, Tilson formally and informally interviewed staff about the infrastructure, process and operations, and examined:

- Premise for security and expansion capability;
- Powering, environmental control, fire suppression and redundancy
- Network architecture and key network elements and equipment;
- Outside plant including construction and maintenance practices;
- A sample of inside plant and outside plant fiber strands using fiber optic characterization tests.

To meet the client's aggressive two business day schedule for site surveys, Tilson fielded multiple teams of engineers and fiber optic technicians.

RESULTS

Tilson found the facilities to be well run, well maintained and well-engineered. The network and facilities by and large met or exceeded industry standards with some minor exceptions. Employees were cooperative and knowledgeable. The new transport network overlay was in process, with many segments actively carrying traffic.

Tilson's fiber optic characterization tests revealed a low but mentionable percentage of out-of-spec fusion splicing and incidents of fiber sheath micro and macro bending that add to link loss and increase potential for future failures. Tilson also recommended follow on analysis to provide a more comprehensive assessment of the network and operations.

- Identify a random selection of routes in the network operator's mapping database and perform a broader physical survey. This larger dataset would be used to confirm the accuracy of the limited empirical data gathered during the initial survey and establish a more quantitative assessment.
- Perform a more comprehensive evaluation of one of the data center's operations to assess the processes for disaster recovery, change management, knowledge control and distribution, network monitoring, field management, and troubleshooting as these operations are essential to effective and efficient service.
- Review documentation on recent and forthcoming network transportation hardware purchases to confirm that the operation's deployment plans were consistent across their entire network and not limited to the sites surveyed. Their widespread deployment was critical to the operation's growth strategy by minimizing risk and maximizing reliability and capacity.

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