To: Senior Network Planners
From: Network Performance Analysis Team
Subject: Bandwidth Utilization Report & Recommendations - Surat Sourcing Office (TCL MPLS)
Link Details: 8.0 Mbps MPLS, TCL, Surat Sourcing Office (Business Hours: 09:00–18:00)

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1. Usage Pattern Analysis

The 8.0 Mbps link is significantly underutilized, with average usage at only 1.2% of its capacity. Traffic is concentrated during business hours, but usage patterns are not steady. Instead, the link experiences brief, intense bursts of traffic, which represent the primary network load, while remaining mostly idle otherwise.

2. Capacity Planning Recommendations

The link is severely over-provisioned. Based on sustained usage patterns (99th percentile at 1.51 Mbps), a significant cost-saving downgrade is recommended.
* **Conservative:** 2 Mbps
* **Balanced:** 1 Mbps
* **Aggressive:** 0.5 Mbps
We recommend rightsizing this circuit to a more appropriate **2 Mbps** speed.

3. Performance Risks & Bottlenecks

Despite low average use, the link experienced 101 minutes of congestion. Critically, peak usage spikes reached 21.41 Mbps, exceeding the provisioned 8.0 Mbps capacity by over 2.5 times. These unpredictable bursts create a performance bottleneck, risking packet loss and service degradation during those key moments.

Conclusion

The link is over-provisioned and should be downgraded to **2 Mbps** to align costs with actual demand while safely managing usage peaks.

Visual Insights

2 Hour Average Bandwidth Usage

Bandwidth Usage Distribution