



Network Performance & Capacity Report

****Location:**** Ludhiana CFA, Ludhiana

****Vendor:**** BSNL

****Link Type:**** Broadband

****Business Hours:**** 09:00–18:00

****Provisioned Speed:**** 100.0 Mbps

1. Usage Pattern Analysis

The 100 Mbps link is significantly underutilized, with an average usage of only 0.61 Mbps (0.6% of capacity). Usage is tenfold higher during business hours (1.39 Mbps) compared to off-hours but remains exceptionally low. While data shows a slow increasing trend, overall utilization is negligible, indicating a substantial mismatch between provisioned capacity and actual demand.

2. Capacity Planning Recommendations

The link is heavily over-provisioned. Based on sustained usage (95th percentile at 3.18 Mbps), a right-sized circuit is recommended.

* ****Conservative:**** 3.8 Mbps

* ****Balanced (Recommended):**** 5 Mbps

* ****Aggressive:**** 115 Mbps

A balanced target of ****5 Mbps**** would comfortably handle current demand while providing a 15% buffer for future growth.

3. Performance Risks & Bottlenecks

Despite low average traffic, the link experiences brief, intense bursts that saturate the connection. Peak usage was recorded at 104.52 Mbps, exceeding the provisioned capacity. These infrequent events (9 minutes total) create temporary congestion and performance degradation, representing the primary risk on this otherwise idle circuit.

Conclusion

The link should be downgraded to a ****5 Mbps**** plan to align with actual usage and optimize costs, while still accommodating performance bursts.

Visual Insights

