



## Bandwidth Performance & Capacity Report

**\*\*Location:\*\*** Bhiwandi-OLD-CFA-146-branch, Bhiwandi  
**\*\*Vendor:\*\*** BHARTI AIRTEL LIMITED  
**\*\*Link Type:\*\*** ILL  
**\*\*Business Hours:\*\*** 09:00–18:00  
**\*\*Provisioned Speed:\*\*** 20.0 Mbps

---

### 1. Usage Pattern Analysis

The 20 Mbps link is significantly underutilized, with average usage at only 1.6% of its total capacity. While overall traffic is low, analysis reveals infrequent but extreme traffic bursts that far exceed the provisioned speed, occurring primarily during business hours. For 99% of the time, usage remains below 5.21 Mbps, confirming that the link is mostly idle.

### 2. Capacity Planning Recommendations

This circuit is heavily over-provisioned. Based on sustained usage patterns (95th percentile at 1.34 Mbps), a right-sized plan is needed. We propose the following options for reprovisioning:

- \* **\*\*Conservative:\*\*** 2 Mbps
- \* **\*\*Balanced (Recommended):\*\*** 5 Mbps
- \* **\*\*Aggressive:\*\*** 10 Mbps

We recommend a balanced approach of **\*\*5 Mbps\*\***, which safely covers 99% of all usage with room for growth.

### 3. Performance Risks & Bottlenecks

Despite low average use, the link experienced 79 minutes of congestion where usage exceeded 90% capacity. The primary risk stems from massive, short-lived traffic spikes (peaking at an anomalous 110.80 Mbps). These bursts saturate the connection and can cause application slowdowns, timeouts, and packet loss for users during those brief periods.

### Conclusion

The link should be downgraded to **\*\*5 Mbps\*\*** to align capacity with actual demand, significantly reduce operational costs, and provide sufficient headroom for peak traffic.

## Visual Insights

