

ILL BURSTABLE BANDWIDTH SOLUTION

Market Trends

Need for Sustained Bandwidth

*Hybrid workplace is here to stay: Estimated 48% of workers continue to work remotely

Migration of Workload to the Cloud

**95% of the business workloads will move to the cloud by 2025

Increased VPN Usage for Security

VPN usage for company security updates has increased by 124% since and post pandemic



*Gartner, 9 Future of Work Trends Post-COVID-19, Mary Baker, June 8, 2020 ²Winnie, 2020 ³Insight, 2020

*<https://www.forbes.com/sites/danielnewman/2022/07/31/the-future-of-work-more-hybrid-more-collaborative-more-automated/?sh=3e654b369c46>

**<https://www.dataversity.net/burstable-bandwidth-preparing-for-tomorrow/#>

Business Challenges

- Unexpected surge in monthly traffic
- Low bandwidth impacts business operations
- Unaware of traffic burst need in certain client applications
- Periodic traffic congestion, low speeds
- Unpredictable fluctuations in network traffic
- Impact on UX based on bandwidth and traffic congestion



Introducing TTBS ILL Burstable BW Solution



Supports need for flexible and optimal connectivity during high-demand consumption



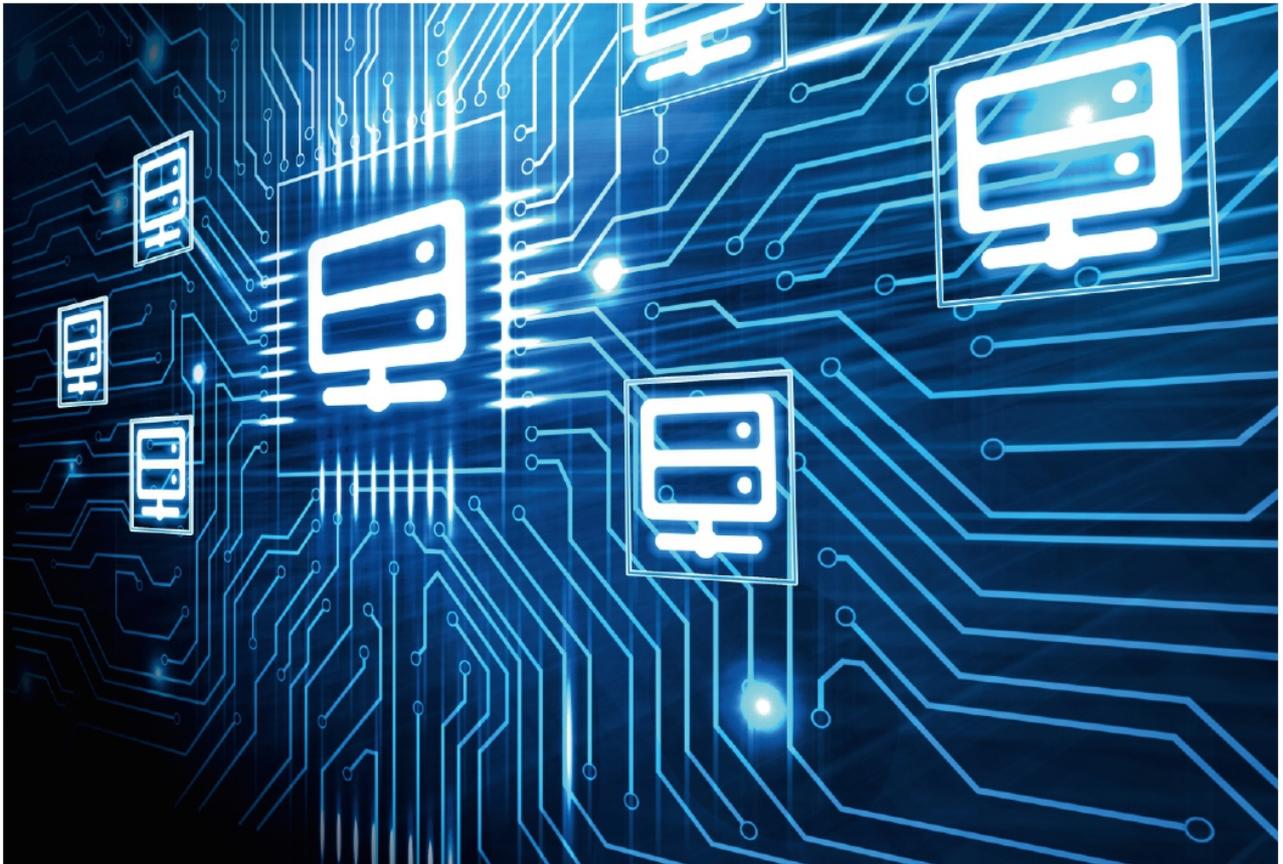
Provides expandable connectivity to scale bandwidth as and when needed



Helps businesses stay seamlessly connected by compensating for the unpredictability of BW requirement



Provides additional capacity to handle data volume without any last mile connectivity modification



Key Customer Benefits



Burst = Up to 2X of Committed Bandwidth

Burstable bandwidth within specific limits



24/7 Technical Support

Receive fast, prioritized support for your organization through TTBS



Track Utilization in Real-Time

Access web portal for management and customized usage report



Target Segments and Use Cases



IT/ITES

- Scheduled requirement for high bandwidth
- Unexpected BW requirement based on projects



GOVERNMENT

- Unexpected BW requirement based on events
- Official document/data uploads



EDUCATION

- Unexpected increase in application users
- Document server uploads for data/repository



BFSI

- Regular high traffic days during the month
- Financial document/data uploads



DATA CENTRES, CO-LOCATION

- Unexpected BW required for projects
- ERP application data upload



HEALTHCARE

- Intermittent BW demand based on users
- Document/patient data uploads



95th Percentile Billing Process

Committed bandwidth is the bandwidth that user will get every time ie. guaranteed bandwidth.

Minimum Committed bandwidth means that the subset bandwidth of the port will be used as the basis for calculating your charges each month for the burstable bandwidth service option (whether used or not).

Burstable bandwidth is the maximum bandwidth that the user can draw, if available ie. Burstable bandwidth includes guaranteed bandwidth.

Burstable internet access or burst with 95th percentile billing allows you to increase from the selected base bandwidth up to the specified maximum burstable bandwidth on an as-needed basis when usage spikes.

- **Charges for burstable Service** will be calculated by using the industry standard 95th percentile
- **The 95th percentile measurement** evaluates the regular and sustained use of a network connection and is measured by sampling usage at 5-minute intervals
- **With 95th percentile** where two readings are taken, one outgoing and one incoming, and the highest value becomes the 5-minute utilization sample for that time interval
- **One calendar month** worth of 5-minute utilization samples is arranged in ascending order, and the highest 5% are removed. The highest remaining sample is the 95th percentile value and this value is used for billing purposes
- **The 95th percentile measure** of peak bandwidth will then be compared to the base bandwidth and the incremental usage will be billed at the burst rate in arrears on a monthly basis
- **Charges for burstable service** will be measured, calculated, and accrued on a monthly basis and billed in arrears on a monthly basis

Billing Illustration

95th Percentile Billing Method

- ✓ No of 5 mins samples per hr collected

- ✓ No of 5 mins samples per day

- ✓ No of 5 mins sample for 1 month (30 days)

- ✓ No of sample under Top 5%

- ✓ Highest recorded BW usage of 95th percentile

- ✓ 95th percentile value as per Usage (refer graph)

- ✓ Burstable usage consumption
(95th percentile Value - fixed BW)

- ✓ Burstable per MB BW rate (up to 50 Mbps)

- ✓ Burstable charges for billing period

Sample-Based Calculation

- ✓ 12

- ✓ $12 \times 24 = 288$

- ✓ $12 \times 24 \times 30 = 8640$

- ✓ $8640 \times 5\% = 432$

- ✓ $95\% \times 8640 = 8208$

- ✓ 20 Mbps

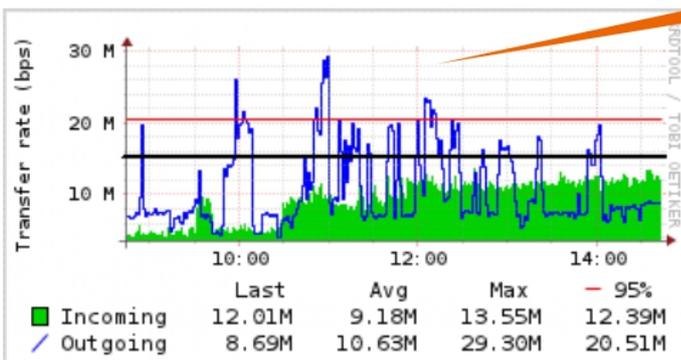
- ✓ $20 \text{ Mbps} - 10 \text{ Mbps} = 10 \text{ Mbps}$

- ✓ Rs 1100/- per MB

- ✓ $10 \text{ Mbps} \times 1100 = \text{Rs } 11000\text{- per month}$

Illustration Only

Example: Fixed BW 10 Mbps and Burstable up to 30 Mbps



95th Percentile Value

* Also called as Usage-Based billing or 95th Percentile Billing

Business Rules

- SLA claims for burstable service is applicable only on fixed/committed BW MRC (Service credits do not apply to Burstable BW service)
- In case of any failure and sample loss, 95th percentile would be calculated based on available samples only
- Burstable BW reports shall be made available via a web portal for fixed and burstable bandwidth services
- Billing frequencies for fixed BW shall be quarterly, half-yearly and yearly. Usage component shall always be calculated monthly and usage charges shall be shared as monthly – arrears only.
- Both fixed and burstable BW usage billing will have the different frequency as opted by the customer. For e.g., if a customer has chosen “Quarterly” frequency, then the fixed billing for the quarter JFM’22 will be done in advance and the usage billing for each month shall be calculated post usage month as arrears in next month. For e.g., if date of activation is 15th Jan’23, then Fixed BW bill shall be JFM’23 will be charged in Feb’23 as advance and usage of 15 days of Jan’23 shall be a component in Feb’22 as arrears, similarly usage of Feb’23 shall be charged in Mar’23 as arrears.



FAQs

Q. How does ILL burstable bandwidth help businesses?

A. Burstable bandwidth acts as a flexible connectivity solution with which the bandwidth offered by TTBS can be boosted to address peak periods of usage, ie unexpected bandwidth demand.

Q. How many bills will the customer get?

A. The customer will get an advance bill for fixed bandwidth and usage bill in monthly arrears as per billing frequency.

Q. Is fixed bandwidth higher than burstable bandwidth?

A. No, burstable bandwidth will always higher than fixed bandwidth. For example, fixed will be 10 Mbps and burstable BW will be 50 Mbps.

Q. How will burstable bandwidth be billed?

A. Burstable bandwidth billing follows the 95th percentile methodology, wherein the 95th percentile usage value is calculated based on bandwidth used over 5-minute period - which is measured at connection point at 5-minute intervals over a one-month period.

