



Understanding 95th Percentile Billing

What exactly is the 95th Percentile?

The 95th percentile is a mathematical calculation widely used to determine billing rates for Internet connections that are provided as "burstable" (variable rate) bandwidth. Essentially, network data samples are collected every five minutes, for a total of 8640 five minute samples, over a 30 day period.

At the end of each billing cycle these readings are sorted and the top 5% or 432 samples of these readings are removed. The next highest reading (called "the 95th percentile") is the rate that you are billed at.

In many cases usage may be minimal, with all usage falling within the top 5% of the readings. In this case, you are billed for your minimum monthly fee.

Here is a simple example that illustrates what we mean:

Over a period of 500 minutes, 100 readings are taken of both incoming and outgoing traffic. Assuming the billing period is also 500 minutes, then top 5% (the top 5, in this case) are ignored, and you are billed at the value of the 95th reading.

If the top 10 readings of this set of 100 were:

Top 10 Entry	Reading	Comment
100	22 Mbps	Ignored (top 5%)
99	19 Mbps	Ignored (top 5%)
98	17 Mbps	Ignored (top 5%)
97	16 Mbps	Ignored (top 5%)
96	15 Mbps	Ignored (top 5%)
95	14 Mbps	** Your "95th Percentile" Billing Rate Entry
94	13 Mbps	
93	13 Mbps	
92	12 Mbps	
91	10 Mbps	

In this case, even though you sometimes sustained traffic at speeds as high as 22 Mbps, you would only be billed using the 14 Mbps entry.