

# **Bluewave Communications**

## **Network Management Policy**

Bluewave Communications provides this Policy in order to disclose its network management practices in accordance with the FCC's Open Internet Rules. Additional information about Bluewave Communications' other policies and practices concerning broadband service are also available under the Bluewave Communications' Policy Guidelines section of the Bluewave Communications website.

Bluewave Communications manages its network to ensure that all of its customers have access to a safe and secure broadband Internet environment that is fast, reliable and affordable. Bluewave Communications wants its customers to enjoy all that the Internet has to offer, whether it is social networking, streaming videos and music, or communicating through email and videoconferencing.

Bluewave Communications' network management includes performance optimization as well as congestion and security-protocol-management. Such practices are consistent with reasonable network management actions and are intended to improve the overall service performance for customers.

### **Bluewave Communications Network Management Practices**

Bluewave Communications uses various tools and industry standard techniques to manage its network and deliver fast, secure and reliable Internet service. Such management tools and practices include the following:

#### **I. Managing Congestion**

Bluewave Communications constantly (24X7) monitors the connections on its network in the aggregate to determine the network's utilization rate. Bluewave Communications engineers its network to meet customers' traffic requirements. If there is congestion in the network, Bluewave Communications either reroutes internet traffic to alternate facilities or adds network capacity. In the local plant portion of the network serving the customer, Bluewave Communications may split/reallocate coaxial nodes or add fiber or bandwidth capacity. Bluewave Communications may take into consideration real time and non-real time applications in its network management practices to help insure a favorable customer experience. Bluewave Communications may also increase capacity by adding nodes to the coaxial cable network, upgrading a cable modem system to DOCSIS 3.X, adding transport, adding Internet aggregation routers and adding bandwidth.

On the Bluewave Communications network, all customers have online access to all legal services, applications and content. In the unlikely event of network congestion, most Internet activities will be unaffected.

Some customers, however, may experience longer download or upload times, or slower surf speeds on the web if instances of congestion occur.

Customers acting in ways that abuse or threaten the Bluewave Communications network or violate the Company's Acceptable Use Policy, Internet Service Terms and Conditions, or the Internet Service Agreement will be asked to stop any such actions immediately. A failure to respond to Bluewave Communications or to cease any such conduct could result in service suspension or termination.

Bluewave Communications network and congestion management practices are service application-agnostic, based on current network conditions, and are not implemented on the basis of customers' online activities, protocols or applications. Bluewave Communications network management practices do not relate to any particular customer's aggregate monthly data usage.

Bluewave Communications does not prioritize or discriminate against any applications or protocols. Bluewave Communications does not utilize any traffic shaping, prioritization, or resource reservations techniques to prioritize one customer service over another customer in any manner.

## **II. Network Security**

Bluewave Communications understands the importance of securing its network and protecting its customers from network threats and annoyances. The Company promotes the security of its network and customers by providing resources to its customers for identifying and reporting threats such as spam, viruses, firewall issues, and phishing schemes. Bluewave Communications also deploys spam filters in order to divert spam from an online customer's email inbox while allowing the customer to control which emails are identified as spam. For more information please review the Bluewave Communications Spam Policy.

As a normal practice, Bluewave Communications does not block or throttle any protocols, content or traffic for purposes of network management except that the Company may block or limit such traffic as spam, viruses, malware, and denial of service attacks to protect network integrity and the security of Bluewave Communications customers. Bluewave Communications filters ports to reduce the spread of computer-related viruses and protect personal computers from intruder access. If Bluewave Communications suspects traffic originated by a customer is virus related, Bluewave Communications will contact the suspected party. If there is no response from the customer, the customer's service will be suspended until the issue can be resolved.

Bluewave Communications does not currently engage in any application-specific behaviors on its network, except as maybe listed in the Specialized Service section of this policy.

### **III. Monitoring Schedule**

Bluewave Communications automatically monitors its network for performance. Alarms or alerts are generated if network performance is degraded. In addition, traffic is analyzed and trended to insure peak performance. Bluewave Communications adds capacity or reroutes traffic to relieve congestion when identified. Bluewave Communications uses industry standard software tools to check for abnormal traffic flows, network security breaches, malware, and other elements that may damage the network. If a breach is detected or high volume users are identified, Bluewave Communications provides notification to the customer by either email or telephone. If a violation of Bluewave Communications' policies has occurred and such violation is not remedied by the customer, Bluewave Communications will suspend or terminate the customer's service.

### **IV. Network Management Technology**

Bluewave Communications employs a variety of industry-standard tools, applications and devices to monitor, secure and maintain its network, including the following:

- network graphing solutions
- latency measurement software
- bandwidth and performance measurement platforms

### **V. Service Descriptions**

Bluewave Communications offers broadband service over Cable Modem, Digital Subscriber Line (DSL), and Fiber to the Home (FTTH) facilities. Due to the differences in technology, not all service tiers and bandwidth options are available to every customer. Bluewave Communications offers data transmissions speeds ranging from 1 Mbps to 1 Gig for residential customers and 1.5 Mbps to 10 Gig for businesses. Not all service tiers are available on all technology types.

Service offerings are detailed in the services section of the website [insert link]. There are no data caps for broadband services. The terms and conditions for broadband and internet services are posted on the Bluewave Communications website [link]. All of Bluewave Communications' broadband services are capable of supporting real time applications.

### **VI. Network Performance**

Bluewave Communications broadband services are provisioned as "best effort". Bluewave Communications makes every effort to support advertised speeds and will perform speed tests as needed to troubleshoot and resolve speed and application performance issues that exist on the Company's network. Bluewave Communications measures availability, latency, and aggregate utilization on the network and strives to meet internal service level targets in its network. However, the customer's connection performance is affected by the particular website being accessed, capacity in the public internet beyond the Bluewave

Communications network and the customer’s computer, inside wiring, wireless router, number of devices connected to a customer’s wireless router and other customer - owned equipment.

Bluewave Communications current spends and latency is shown in chart below for residential and business customers.

<b>Bluewave Residential &amp; BusinessTiers</b>						
	<b>Advertised Speeds</b>		<b>Actual Speeds</b>		<b>Latency</b>	<b>Packet Loss</b>
	<b>Download</b>	<b>Upload</b>	<b>Download</b>	<b>Upload</b>		
<b>Basic</b>	75 Mbps	75 Mbps	65Mbs	65Mbps	15ms	-1%
<b>Enhanced</b>	100 Mbps	100 Mbps	85Mbs	85Mbps	15ms	-1%

Customers can test their actual speeds using the speed test found at [www.speedtest.net](http://www.speedtest.net). Bluewave Communications utilizes available systems and processes that allow the Company to measure the performance of the Bluewave Communications controlled network against advertised speeds.

**VII. Specialized Services**

Bluewave Communications does not provide specialized services at this time.

**VIII. Device Attachment Rules**

Bluewave Communications provides DSL modems, FTTH residential gateways and cable modems as part of its broadband services. Customers may attach any industry standard device beyond the residential gateway, DSL modem or cable modem. If Bluewave Communications discovers a customer device is harmful to its network, Bluewave Communications has the right to request that the customer remove such device.

**IX. Other Notices**

In addition to this Network Management Policy, other notices as listed below can be found on the Bluewave Communications web site.

- [Acceptable Use Policy](#)
- [Internet Service Agreement](#)
- [Spam Policy](#)
- [Website Legal Disclaimer](#)
- [Digital Millennium Act of 1998](#)
- [Network Management FAQ](#)

**X. Current Pricing**

Bluewave Communications current pricing is included in the Pricing Appendix and can also be

found by selecting the following link: <http://bluewavenc.net/internet-prices>.

#### **XI. Redress Options**

For questions, complaints or requests for additional information, please contact Bluewave Communications at [<http://bluewavenc.net/customer-care/contact-bluewave/>]

#### Pricing Appendix

##### Bluewave Communications:

##### Business

BUSINESS INET TIER 1 FTTH: 75M x 75M	\$	99.95
BUSINESS INET TIER 2 FTTH: 100M x 100M	\$	109.95

##### Residential

RESIDENTIAL INET TIER 1 FTTH: 75M x 75M	\$	59.95
RESIDENTIAL INET TIER 2 FTTH: 100M x 100M	\$	69.95