

# NETWORK MANAGEMENT DISCLOSURE

Beaver Valley Cable Co ("BVC") is required by the Federal Communications Commission ("FCC") to provide the following information regarding its mass market retail broadband Internet access services, including information regarding the commercial terms of its service offerings, the performance characteristics of its services, and the network management practices that it employs.

This disclosure is intended to provide information sufficient for consumers to make informed choices regarding the use of such services and for content, application, service, and device providers to develop, market and maintain internet offerings that may use BVC's network to reach end-users. This disclosure incorporates and includes our "Acceptable Use Policy" ("AUP"), available at [www.beavervalleycable.com/about](http://www.beavervalleycable.com/about).

This statement relates solely to that portion of BVC's network devoted to providing mass market retail broadband Internet access service to its customers. Other portions of the network may be used to provide cable service, phone service, or other information.

BVC reserves the right to alter its policies and network management practices at any time, and the information contained in this Internet Disclosure Statement may change accordingly.

**Service Description:** BVC provides what is known as "fixed broadband" Internet access service that is designed to provide the capability to transmit data to and receive data from all or

substantially all Internet end points via its hybrid fiber-coax network. BVC offers multiple packages of broadband Internet access service for residential or commercial use with varying targeted speeds, features and data usage limitations that may affect the suitability of such service for real-time applications. The features, pricing and other commercial terms of BVC's service offerings are modified from time to time. Each package is priced to reflect the particular speed, features and bandwidth limitations of that package.

**Pricing and Fees:** The current pricing and other terms and conditions of BVC's packages of broadband Internet access service can be found on BVC's website at [www.beavervalleycable.com](http://www.beavervalleycable.com) and or by contacting BVC's customer service center at 1-570-247-2512. Information regarding any additional fee that may be applicable can be found on this page.

**Performance Metrics:** The FCC requires BVC to disclose information regarding the targeted and actual speed and latency of its broadband Internet access service offerings. As described above, BVC offers multiple packages of broadband Internet access service for residential or commercial use with varying targeted upload and download speeds. The targeted speed that users may achieve—the maximum speed enabled by the firmware in the customer's modem and the package purchased by that customer—will vary depending on which particular package the user selects.

The FCC also requires that BVC describe the actual throughput speeds that customers can expect to experience with their service.

Although BVC engineers its network to deliver speeds up to the targeted speed, the actual speed that a user will actually experience at any given time depends on a number of factors, some of which are not within BVC's control. Service is always provided on a best efforts basis and speeds or other performance characteristics cannot be guaranteed.

Factors beyond our control that impact actual speeds include:

- The limitations, capabilities and capacities of the customer's computer (including its age, processing capability, operating system, the number of applications running simultaneously, and the presence of any adware and viruses), modem (modem performance may degrade over time, and certain modems are not capable of handling higher speeds), equipment and/or local area network (LAN) devices such as wireless routers;
- Type of connection between a customer's computer and modem. For example, in-home wireless connections between the computer and the router or modem may be slower than wired connections. In-home wireless connections also may be subject to greater performance fluctuations, caused by factors like interference and congestion. BVC recommends that customers confirm that their in-home wireless connections are able to support the speeds that BVC's services deliver. Certain older in-home wireless connections and routers cannot perform at the speeds delivered by BVC's higher speed tiers. Customers can purchase their modem and router at a retail outlet, or they can

lease the necessary equipment from BVC, though even wireless routers leased from BVC are subject to some of the same limitations mentioned above.

- The distance packets travel (round trip time of packets) between a customer's computer and their final destination on the Internet, including the number and quality of the networks of various operators in the transmission path. The Internet is a "network of networks." A customer's Internet traffic may traverse the networks of multiple providers before reaching its destination, and the capabilities of those networks may affect the overall speed of that Internet connection.
- The performance of the content and application providers the customer is accessing, such as a search engine or video streaming site. To control traffic or performance, many websites gate or limit the speeds at which a visitor can download from their site. Those limitations will carry through to a customer's connection.
- The performance characteristics of transmissions over portions of the Internet that are not subject to BVC's control;
- The number and types of simultaneous websites or applications being accessed;
- The number of users in a household at a particular moment, and (viii) other factors in the end-to-end transmission path from a subscriber's residence to the Internet endpoint being accessed; and

- Congestion or high usage levels at the website or destination. When you access a site or particular destination that is being visited by others at the same time, you may experience a slower connection if the site or destination does not have sufficient capacity to serve all of the visitors efficiently at the same time.

There are a number of publicly available sources of information regarding actual performance, each of which uses a different methodology and thus may produce different results. One such free speed test site is Ookla Speedtest, available at [www.speedtest.net/](http://www.speedtest.net/). Please note, however, that all speed tests have biases and flaws. Each of these tests measures limited aspects of an ISP's speed and therefore must be seen as a guide rather than definitive measurements of performance. To obtain appropriate results, we recommend that you connect to a speed test server located in your geographic area.

**Data Usage Allowances:** All residential and commercial service tiers include unlimited data. All plans are still subject to reasonable network management.

The usage policy may change as posted to the Beaver Valley Cable Co. website [www.beavervalleycable.com](http://www.beavervalleycable.com). BVC reserves the right to suspend and/or terminate service without notice if, within BVC's sole judgment, a customer has taken any action to prevent BVC from measuring the customer's bandwidth usage.

**Congestion and Network Management Practices:** The bandwidth and network resources used by BVC to deliver its broadband Internet access service are limited and shared among users. While BVC strive to provide sufficient bandwidth to meet the foreseeable needs of its customers, the network may be negatively affected by the rapidly increasing demands of users whose actions strain the ability of the network to meet that demand. Conscious of this, the FCC allows broadband Internet access service providers such as BVC to engage in "reasonable network management practices" to respond to situations such as network congestion or excessive use that can unreasonably burden the network and cause service degradation, including security attacks. BVC's use of certain network management tools and techniques may affect users' Internet performance, such as download and upload times or response times while surfing the Internet or playing games, but such effects typically will be noticeable only for a brief period of time, if at all. BVC's network management tools and techniques do not target or block specific content, applications or services, and instead focus in a content-neutral manner on bandwidth usage in real time, with the goal of providing reasonable and equitable access to the network for all similarly situated customers. To the extent that the use of network management practices may affect the performance or other characteristics of Internet service, they are designed to affect all similarly situated customers equally. BVC's network management tools and techniques instead focus on identifying, anticipating and

avoiding network congestion by monitoring network usage patterns and adjusting or expanding network parameters to resolve any resulting congestion issues.

Specific network management tools and techniques may include detecting and curtailing malicious traffic patterns, preventing the distribution of viruses or other malicious code, measuring subscriber bandwidth usage, prioritizing certain traffic such as network control packets, limiting the aggregate bandwidth available for certain usage protocols, regulating the delivery speed of mass emails, rejection or removal of "spam" or otherwise unsolicited bulk email, detecting and preventing the distribution of viruses and other malware, traffic prioritization and other tools and techniques as BVC may from time to time determine to be appropriate. Additionally, IP traffic sent to customers on ports TCP 25, TCP 80, TCP 443, TCP 445, TCP 1080, TCP 6667-6669, TCP 1433-1434, TCP&UDP 135-139, TCP&UDP 67 maybe blocked for security and network management reasons to minimize customer's computers from being virus infected through well-known vulnerabilities and/or to avoid infected or hostile computers from affecting other users' computers. Customers will also receive a dynamic public IP address acquirable via DHCP or may receive a dynamic private IP's behind Network Address Translation (NAT) via DHCP. Customers that receive NAT'd private IP's will have all inbound ports blocked that aren't opened as a result of an outbound request due to the operation of NAT.

New network management techniques are also being developed on an ongoing basis to address evolving challenges and threats to the network and users, and BVC may elect to use some or all available network management techniques on a temporary or as-needed basis. Other network management tools and techniques may also be employed to allow BVC to comply with various legal requirements, including, but not limited to, providing proper assistance to law enforcement, national security, emergency response and disaster relief authorities.

**No Blocking:** Beaver Valley Cable Co does not block or reduce speed of any specific legal traffic. Upon proper notice and direction from law enforcement authorities, BVC will block access, to the extent practical, to specific websites that provide illegal content such as child pornography.

**No Throttling:** BVC does not degrade or impair access to lawful internet traffic on the basis of content, application, service, user or use of a non-harmful device, subject to reasonable network management as described above.

**No Unreasonable Discrimination:** Beaver Valley Cable Co does not block or rate control specific protocols or applications. Some protocol ports, specifically ports TCP 25, TCP 80, TCP 443, TCP 445, TCP 1080, TCP 6667-6669, TCP 1433-1434, TCP&UDP 135-139, TCP&UDP 67, may be blocked for network security reasons.



**Application Specific Behavior:** BVC does not discriminate against or prevent users of its service from sending and receiving the lawful content of their choice; running lawful applications and using lawful services of their choice; or connecting their choice of legal devices, provided that such applications and services do not harm the network or the provision of broadband Internet access service, cause malicious traffic patterns, facilitate theft of service or the distribution of unlawful content, or otherwise harm or unreasonably impair other users of the service. Similarly, BVC does not impair or degrade particular content, applications, services or non-harmful devices so as to render them effectively unusable, subject to the policies and procedures outlined herein.

**Third Party Services:** BVC may enter into arrangements to provide Internet service to third party establishments (such as coffee shops, bookstores, hotels or libraries) who then may offer such service to their customers, guests or others. Nothing herein is intended to address network management practices, performance characteristics or commercial terms that may be adopted by such third party premises operators in connection with the provision of Internet service to others.

**Device Attachment Rules:** BVC requires customers to connect to its network using a model of modem that BVC's research has indicated is compatible with their equipment and services, and that does not harm the network. Use of a non-approved modem may be subject to service interruption due to network updates or incompatibility. A

DOCSIS 3.0 is required to receive 50Mbps through 100Mbps speeds.

The pace of technological change is rapid and due to customer demand and other advancements, modem models previously compatible may become obsolete. BVC may require customers to replace a non-approved or previously approved modem model with an approved one and reserves the right to discontinue provision of service to any non-approved modem. Customers may choose to lease a modem from BVC or purchase an approved model from a retailer.

**Security:** BVC also employs certain practices to protect the security of their customers and its network from unwanted and harmful activities. These include practices designed to protect BVC's servers against viruses, worms, spyware, and Denial of Service attacks and to prevent spam and identity theft. BVC will employ such practices on a case-by-case and as-needed basis to protect their network and their customers. These practices (which could include limiting traffic to DNS and DHCP servers) could be triggered if BVC detects traffic levels that significantly exceed certain baselines. Further, BVC may also on occasion and for limited periods of time inhibit certain Internet ports that are commonly misused to harm networks. When security measures are employed, they may affect the performance characteristics of service or the ability to access certain websites, but such measures are employed in a manner designed to

have a non-discriminatory impact on all similarly-situated customers. BVC engages in network security measures such as those outlined above to enhance the online experience of their customers. However, no such measures are infallible and we cannot guarantee against security problems.

**Service Termination/Suspension:** BVC reserves the right to terminate and/or suspend service in the event the account is identified as violating the terms and conditions or the acceptable use policy and/or is improperly impacting other users' service. BVC will make a reasonable attempt to contact the customer prior to suspension or termination of service.

**Spam Filtering:** Inbound filtering for BVC email will block email from any source that exceeds their thresholds for email that is sent using identified spam methods. This includes but is not limited to numbers of recipients, number of rejected users and certain header information. These thresholds are dynamic and more data cannot be given without compromising the integrity of BVC's filtering methods.

**Impact of Non-BIAS Services:** The FCC's "open Internet" rules distinguish between mass market retail broadband Internet access services and other non-mass market data service that that share bandwidth capacity with our broadband Internet access service over our last-mile facilities. The FCC calls these services non-BIAS services. For example, Beaver Valley Cable Phone Service shares bandwidth with BVC's broadband Internet access service and

because of its nature sometimes receives network priority and may temporarily impact broadband Internet access service at particular times. If BVC delivers other Internet Protocol based services or any specialized or managed service in the future that impacts Customer internet services, we will provide additional information. BVC also routinely monitors how all its services use bandwidth to minimize any impact on their broadband Internet access service.

As described above, BVC monitors network usage and congestion, and may apply network management techniques to protect the efficient operation of the network and to ensure a quality online experience for all users. Consistent with such practices, BVC may, from time to time, prioritize packets from non-BIAS services over BVC's broadband Internet access service. In general, however, such actions will not adversely affect the provision of broadband Internet access services.

**Privacy Policies:** Your privacy is very important to us. Personal information you provide is governed by BVC's Privacy Policy, which is posted on BVC's Website at [www.beavervalleycable.com/about](http://www.beavervalleycable.com/about) and is subject to change from time to time. Personal information provided by you to BVC is used primarily to provide a customized experience as you use our services, and is only shared with third parties in accordance with BVC's Privacy Policy and consistent with applicable law. BVC reserves the right, as required or permitted by law, to provide

account and user information, including email, to third parties and to cooperate with law enforcement authorities in the investigation of any criminal or civil matter. Such cooperation may include, but is not limited to, monitoring of BVC's network consistent with applicable law.

**For Questions, Complaints and Redress Options:** For immediate assistance with issues or complaints involving your broadband Internet access service, please contact BVC's customer service centers at 570-247-2512. We have agents available 8am to 5pm, Monday - Friday to assist you. You can also contact us by email at [bvcphone@cableracer.com](mailto:bvcphone@cableracer.com) for customer service issues or for technical and network issues. Our mailing address is: Beaver Valley Cable Co; 36150 Route 187, Rome, PA 18837. For information concerning the FCC's formal and informal complaint procedures, please refer to the FCC's website at [www.fcc.gov/guides/getting-broadband](http://www.fcc.gov/guides/getting-broadband).