

NEW HOPE TELEPHONE COOPERATIVE

BROADBAND INTERNET SERVICE DISCLOSURES

FCC regulations¹ require persons providing broadband Internet services to publicly disclose various pieces of information. New Hope Telephone Cooperative provides this information about our broadband Internet access services with this document. We refer to our broadband Internet access services as “High Speed”, or “High Speed Internet”. The technology we use to provide “High Speed” is Fiber-To-The-Home (FTTH). We welcome questions or comments about this information. You may contact Internet Technical Support at (866) 620-7381.

NETWORK PRACTICES

General Description

We provide a variety of Internet offerings to our residential and business customers. We provide the service over our broadband network and through third party fiber optic lines connecting to the Internet. We also contract outside our company for certain network monitoring and management services. We monitor our network and traffic patterns and make changes we deem necessary to manage and improve overall network performance. We use reasonable, nondiscriminatory, network management practices to improve overall network performance to ensure a high-quality online experience for all users. Our network management practices do not target any specific content, application, service, or device. As network management issues arise and as technology develops, we may employ additional or new network management practices. We will update these disclosures as necessary.

Related Documents and Disclosures

Use of our Internet is also governed by:

- New Hope Telephone Cooperative Internet Acceptable Use Policy, available at:
 - http://www.newhopetel.net/Files/NHTC_Internet_Acceptable_Use_Policy.pdf
 - New Hope Telephone Cooperative Business Office, 555 Battlefield Rd., Fort Defiance, VA 24437
- New Hope Telephone Cooperative Internet Rules and Regulations, available at:
 - http://www.newhopetel.net/Files/NHTC_Internet_Rules_and_Regulations.pdf
 - New Hope Telephone Cooperative Business Office, 555 Battlefield Rd., Fort Defiance, VA 24437

Congestion Management Practices Used

Network Monitoring

We regularly review traffic statistics showing changes in network traffic and congestion. We use this information to plan increases in bandwidth, port additions, or additional connectivity to the Internet.

Types of traffic affected

Our congestions management practices do not target any specific content, application, service or device.

¹ Code of Federal Regulations, Title 47, Part 8 – Preserving the Open Internet, §8.3 – Transparency

Purposes of Congestion Management Practices

Our High Speed Internet network is a shared network. This means that our customers share upstream and downstream bandwidth at some level. The goal of our congestion management practices is to enable better network availability and speeds for all users. Our congestion management practices serve to:

- Help us adapt and upgrade our network to maintain or improve network performance as demand for our High Speed Internet increases.
- Help us adapt and upgrade our network to maintain or improve network performance as demand for higher bandwidth applications increases. Some examples of higher bandwidth applications are gaming, streaming movies, and streaming high definition video.

Congestion Management Criteria

Network Monitoring

Our network monitoring provides data to help us plan upgrades to our network, equipment, technology, and connectivity to the Internet. As demand for our Internet service increases, and as demand for higher bandwidth applications increases, we monitor effects on network performance and plan upgrades as we deem necessary. We have not established specific criteria to govern our upgrade decisions.

Effects on End User Experience

Because our broadband Internet network is a shared network, periods of high network demand may result in Internet traffic congestion. End users may experience reduced bandwidth or speed during these times.

Typical Frequency of Congestion

While we strive to reduce all congestion on our network, congestion may increase during periods of peak demand for higher bandwidth applications. These periods of peak demand tend to occur in the evenings.

Application-Specific Practices

This section discloses any application-specific practices we use, if any.

Management of Specific Protocols or Protocol Ports

We do not block ports unless our network comes under attack from viruses or other “malware.” In such cases, a third party provider may block that specific port until the attack ceases, at which time they remove the block.

Modification of Protocol Fields

Not applicable.

Applications or Classes of Applications Inhibited or Favored

Not applicable.

Device Attachment Rules

This section addresses any limitations on attaching lawful devices to our network.

General restrictions on types of devices to connect to network

We place no general restrictions on lawful devices that a customer may connect to our network, so long as the device is:

- compatible with our network
- does not harm our network or other users

Our High Speed Internet service works with most types of PCs and laptops including Macs, and other Internet compatible devices like game systems and Internet-enabled TVs. If a wireless router is connected to our High Speed Internet service, wireless Internet compatible devices including computers, tablets, smartphones, and other devices can connect to our network. If a customer or potential customer believes they have an unusual configuration, our customer service department will help determine if there is a compatibility problem.

FTTH Equipment

To use our High Speed Internet service delivered via FTTH, customers must have an ONT (Optical Network Device) and a Router/Gateway. The customer connects a computer or other Internet enabled device to the Router/Gateway through a Network Interface Card (NIC) for a wired connection. Our Router/Gateway's can also transmit a Wi-Fi signal for connecting wireless devices to our network. New Hope Telephone Cooperative provides the ONT and Router/Gateway necessary to connect to our network. There is no charges for this equipment and they remain the property of New Hope Telephone Cooperative.

Network and End User Security

This section provides a general description of the practices we use to maintain security of our network.

Practices Used to Ensure End User Security, Including Triggering Conditions

Hostile port blocking

We do not block ports unless our network comes under attack from viruses or other “malware.” In such cases, a third party provider may block that specific port until the attack ceases, at which time they remove the block.

Virus and Spam filtering

Our third party provider may filter email and website traffic for virus activity and Spam using industry standard virus scanning and prevention techniques. Should an email message be found to contain a virus or other harmful content, we may:

- Notify the sender and/or the intended recipient and quarantine the message.
- Delete the email message without notification. We may terminate service for unlawful activity on our network.

Firewalls

Our Router/Gateways have firewalls. The firewall provides some protection against persons or programs that attempt to gain access to your computers or other connected devices through the Internet. Customers should decide if they desire additional firewall protection for their customer owned equipment.

Practices Used to Ensure Security of the Network, Including Triggering Conditions

Hostile port blocking

Our third party provider may block known hostile ports to prevent unwanted files, browser hacking and virus attacks.

Virus and Spam filtering

Our third party provider may filter email and website traffic for virus activity and Spam using industry standard virus scanning and prevention techniques. Should an email message be found to contain a virus or other harmful content, we may:

- Notify the sender and/or the intended recipient and quarantine the message.
- Delete the email message without notification. We may terminate service for unlawful activity on our network.

PERFORMANCE CHARACTERISTICS

General Service Description

Our High Speed Internet service enables a customer to connect an Internet-enabled device through either a wired or wireless connection. Through our High Speed Internet service, we serve as a local Internet service provider. Our High Speed Internet service enables residential and business customers to access all lawful content, applications, and services of their choice available on the Internet.

Service Technology

We deliver our High Speed Internet service using FTTH technology. Our High Speed Internet is delivered over existing fiber optic lines. Customers access our network using a Router/Gateway and ONT. Our network is a shared network, which means that our customers share upstream and downstream bandwidth.

Expected and Actual Speeds and Latency

Expected Performance

We offer customers a variety of High Speed Internet service levels. A description of the expected maximum transfer speeds associated with each service level is available at <http://www.newhopetel.net/InternetService.aspx>.

Speed

The speeds we identify for each High Speed Internet service level are the maximum upload and download speeds that customers are likely to experience. We provision our ONT's and engineer our network to deliver the speeds to which our customers subscribe. However, we do not guarantee that a customer will actually achieve those speeds at all times. A variety of factors can affect upload and download speeds, including customer equipment, network equipment, congestion in our network, congestion beyond our network, performance issues with an Internet application, content, or service, and more.

Latency

Latency is another measurement of Internet performance. Latency is the time delay in transmitting or receiving packets on a network. Latency is primarily a function of the distance between two points of transmission, but also can be affected by the quality of the network or networks used in transmission. Latency is typically measured in milliseconds, and generally has no significant impact on typical everyday Internet usage. As latency varies based on any number of factors, most importantly the distance between a customer's computer and the ultimate Internet destination (as well as the number and variety of networks your packets cross), it is not possible to provide customers with a single figure that will define latency as part of a user experience.

Actual Speed and Latency Performance

Actual speed and latency may vary depending upon network conditions and other factors. Actual performance of our High Speed Internet in most cases will conform to national wireline broadband Internet speed and latency levels reported by the FCC².

Suitability of the Service for Real-time Applications

Our High Speed Internet service is suitable for typical real-time applications including messaging, voice applications, video chat applications, gaming, and Internet video. If users or developers have questions about particular real-time applications, please contact Internet Technical Support at (866) 620-7381.

Storage of Network Traffic Information

Dynamic Host Configuration Protocol (DHCP) information is a code included in all network traffic that associates that traffic with a particular service sending or receiving the traffic. We do not store DHCP information. Our third party provider may store DHCP information.

Provision of Network Traffic Information to Third Parties

We may disclose network traffic information to third parties solely for purposes of providing and maintain our High Speed Internet service or if required by court order.

Use of Network Traffic Information for Non-network Management Purposes

Not applicable.

Redress Options; Practices for Resolving End-user and Edge Provider Complaints and Questions

End users or edge providers with complaints or questions relating to these disclosures should contact our business office at (540) 363-5277 or via email at questions@newhopetel.com.

Questions. We will endeavor to answer questions promptly via telephone or email.

Complaints. For written complaints, we will provide an initial response in writing within 15 business days of receipt. We will attempt to resolve complaints informally, escalating the matter to senior management if needed.

² See FCC's Office of Engineering and Technology and Consumer Affairs Bureau, *Measuring Broadband, A Report on Consumer Wireline Broadband Performance* in the U.S., OET CGB DOC-308828A1, pp. 4-6 (Aug. 2, 2011) (available at: http://transition.fcc.gov/cgb/measuringbroadbandreport/Measuring_U.S._-_Main_Report_Full.pdf).