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BROADBAND INTERNET SERVICE DISCLOSURES

Consistent with FCC regulations,¹ FiberNet Monticello ("FiberNet") provides this information about our broadband Internet access services. We welcome questions or comments about this information. You may contact us at 763-314-0100 or email customer@fibernetmonticello.com

NETWORK PRACTICES

General description

We provide a variety of broadband Internet access service offerings to our residential and business customers. We provide the services over our broadband network and through third-party fiber optic lines connecting to the Internet. We also contract with one or more companies 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 service is also governed by:

- FiberNet Internet Acceptable Use Policy, available at fibernetmonticello.com

Congestion Management

We describe in this section network management practices used to address congestion on our network. ••**Network Monitoring:** We monitor our network for utilization trends. We monitor network traffic and congestion on a daily basis. We use this information to plan increases in bandwidth available, port additions or additional connectivity to the Internet. We place no limitations on data usage.

- **Types of Traffic Affected:** Our congestion management practices do not target any specific content, application, service or device.
- **Purposes of Congestion Management Practices:** Our Internet network is a shared network. This means that our customers share upstream and downstream bandwidth. 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 Internet service 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.
 - Help us identify potential bandwidth abusers.
- **Congestion Management Criteria:** 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 to meet advertised speeds.
- **Effects On End-User Experience:** Because our Internet service network is a shared network, periods of high network demand may result in Internet traffic congestion. Our network monitoring practices are continually conducted and adjustments made accordingly to provide end users with the best possible experience.
- **Typical Frequency Of Congestion:** Congestion tends to occur during periods of peak demand for higher bandwidth applications, however, because of continual network monitoring, we are able to make adjustments to ensure that customers are not adversely affected during peak periods. Generally, the frequency of congestion tends to increase from 7 pm – 11 pm, especially on Friday and Saturday nights as well as holidays.
- **Application-Specific Practices:** We do not manage congestion by restricting or managing any specific protocol ports, fields or applications.

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:** While we do not have specific device restrictions, to use our Internet service a customer's computer must meet minimum requirements. Beyond that, our service works with most types of PCs and laptops including Macs. If a customer or potential customer believes they have an unusual configuration, our Internet service department will help determine if there is an equipment compatibility problem.
- **Fiber-to-the-Home Internet Service:** Our fiber-to-the-home service requires connection of a residential gateway device and Optical Network Terminal (ONT) to our network. We provide and install the ONT, and you can obtain a residential gateway device from us.
- **Terrestrial Fixed Wireless Service:** Our terrestrial fixed wireless service requires connection of a residential gateway device to a directional radio antenna that receives a signal from our tower. We install the directional antenna, and you can obtain the directional radio antenna and residential gateway device from us.

Network and End User Security

This section provides a general description of the practices we use to maintain security of our network and end users, including triggering conditions.

- **Practices Used To Ensure Network and End-User Security, Including Triggering Conditions:** In general, we promptly address any event originated by a customer or customer equipment that negatively affects others' use of the network. Our practice is to first contact the customer causing the problem, and if we received no response, we terminate that customer's service until the problem is corrected.

Practices Used To Ensure Network Security:

- **Hostile Port Blocking:** We do not block ports, unless our network comes under attack from viruses or other "malware." In such cases, we block that

specific port until the attack ceases, at which time we remove the block.

- **Virus and Spam Filtering:** We filter all outbound email traffic for viruses and spam. Our inbound virus and spam filtering is performed by a third-party provider. Our contractor performs industry standard virus scanning and prevention techniques on our email platform for mail inbound from the public network. Should an email message be found to contain a virus or other harmful content, the message will be deleted without notification given either to the sender or the intended recipient(s).
- **Misuse of System Resources:** To protect and maintain high availability of all its servers, activities designed to cause harm to or monopolize the resources of any server in our network are strictly prohibited.

Practices Used To Ensure End-User Security:

- **Hostile Port Blocking:** We do not block ports unless our network comes under attack from viruses or other “malware.” We allow customers to manage their own connections to the Internet without interference due to port blocking by us.
- **Protocol Limitations:** The only protocol we limit is the NetBios protocol, which we block between customers to protect all users of the network. Blocking NetBios prevents customers using Microsoft networking services from viewing files on other customers’ computers. There is no triggering condition for NetBios.
- **Virus and Spam filtering:** We offer customers antivirus software and spam filtering services.

PERFORMANCE CHARACTERISTICS

General Service Description

Our fiber-to-the-home Internet service product includes wiring, an Optical Network Terminal (ONT) and a residential gateway device. Our fixed terrestrial wireless Internet service product includes wiring, a directional radio antenna, and residential gateway device. Through our Internet service products, we serve as a local Internet service provider. Our Internet service products enable residential and commercial subscribers to access all lawful content, applications, and services of their choice available on the Internet.

- **Fiber-to-the-Home Internet Service Technology:** We deliver our fiber-to-the-home service over our fiber optical network. Customers access our network using a residential gateway device. To connect from our network to the Internet, we use equipment called an Optical Network Terminal (ONT) and a residential gateway device that acts as a gateway to the Internet for our customers’ personal computer or routers. This is a shared network, which means that our customers share upstream and downstream bandwidth.
- **Terrestrial Fixed Wireless Internet Service Technology:** We deliver our fixed terrestrial wireless Internet service over our network. Customers access our network using a directional antenna, typically mounted on the roof, and a residential gateway device. We use a high-capacity T-carrier to broadcast the signal from a tower, and the directional radio antenna mounted on the roof of our customers’ home or office receives the signal from the tower. To connect from our network to the Internet, we connect the directional radio antenna to a residential gateway device that acts as a gateway to the Internet for our customers’ personal computer or routers. This is a shared network, which means that our customers share upstream and downstream bandwidth.

Expected and Actual Speeds and Latency

We offer customers a variety of Internet service levels. We provide a description of the expected maximum transfer speeds associated with each service level in Value Guides, available at speakeasy.net/speedtest. We provision all Internet service levels approximately 200 Kb greater than the each level of service to ensure customers generally experience transfer speeds corresponding to the level of service to which they subscribe. We test our network routinely to address any issues concerning network congestion. Our goal is provide the customer with the speeds they have subscribed to.

- **Speed:** The speeds we identify for each Internet access service level are the maximum upload and download speeds that customers are likely to experience. We 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 performance for our cable modem Internet service, fiber-to-the-home, and terrestrial fixed wireless Internet service follows.

- **Fiber-to-the-Home Service:** The FCC has reported that customers of fiber-to-the-home based broadband Internet services receive mean download speeds that are within 114% of advertised speeds during non-peak hours and 113.5% of advertised speeds during peak hours.² In addition, the FCC has reported that these same customers experience average latency³ delays of 17 milliseconds, increasing by an average of 18 milliseconds during peak hours. Our data indicates our fiber-to-the home service latency ranges from 1 to 3 milliseconds.
- **Terrestrial Fixed Wireless Service:** FiberNet fixed wireless-based broadband Internet services receive mean download speeds that are within 95% of advertised speeds during non-peak hours, and 93% of advertised speeds during peak hours. Our data indicates our terrestrial fixed wireless service latency ranges from 1 to 9 milliseconds.
- **Customer Speed Test:** We provide a customer speed test for our customers, available at speakeasy.net/speedtest. Should a customer experience a problem, we will dispatch a service technician within a 24 hour period.

Suitability of the Service for Real-time Applications

Each of our Internet services are 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 us at 763-314-0100 or customer@fiber.net

¹ 47 CFR 8.3 and *In re: Preserving the Open Internet, Broadband Industry Practices, Report and Order*, 22 FCC Rcd 17905 (2010).

² The FCC has defined peak hours measured during “busy hour” as weeknights between 7:00 pm and 11:00 pm local time.

³ The FCC has defined latency is the total length of time it takes a signal to travel from an origination point to the nearest server, plus the time for an acknowledgement of receipt to travel back to the origination point. The nearest server is the server providing the minimum round trip time.