

SANDHILL TELEPHONE COOPERATIVE
Broadband Internet Service
Network Management Policy

Sandhill Telephone Cooperative (“Sandhill” or “Company”) provides this Policy in order to disclose its network management practices in accordance with the FCC’s Open Internet Rules. Information about **Sandhill’s** other policies and practices are available at **www.shtc.net** (“Sandhill Website”).

Sandhill manages its network to ensure that all of its customers experience a safe and secure broadband Internet environment that is fast, reliable and affordable. **Sandhill** wants its customers to indulge in all that the Internet has to offer, whether it is social networking, streaming videos and music, to communicating through email and videoconferencing.

Sandhill manages its network for a number of reasons, including optimization, as well as congestion- and security-protocol-management. But, very few of **Sandhill’s** customers are impacted by the protocols and practices that **Sandhill** uses to manage its network.

In addition to this Network Management Policy, patrons may also find links to the following on **Sandhill’s** website:

- **Frequently Asked Questions**
- **Acceptable Use Policy**

Sandhill’s Network Management Practices

Sandhill 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

Sandhill periodically monitors the connections on its network in the aggregate to determine the rate of utilization. If congestion emerges on the network, **Sandhill** will engage in the re-routing of Internet traffic to relieve congestion. In order to reduce instances of congestion, **Sandhill** adds capacity to its network when utilization has reached a level of at least 60% our core and access networks, **Sandhill** may increase capacity by adding FTTH nodes, transport, Internet aggregation routers and bandwidth, as needed.

On **Sandhill’s** network, all customers have access to all legal services, applications and content online and, in the event of congestion, most Internet activities will be unaffected. Some

customers, however, may experience longer download or upload times, or slower surf speeds on the web when instances of congestion do occur on **Sandhill's** network.

Customers whose conduct abuses or threatens **Sandhill's** network or which violates the Company's Acceptable Use Policy or Internet service Terms and Conditions will be asked to stop any such use immediately. A failure to respond or to cease any such conduct could result in service suspension or termination.

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

II. Network Security

Sandhill knows the importance of securing its network and customers from network threats and annoyances. The company promotes the security of its network and patrons by providing resources to its customers for identifying and reporting such threats as spam, viruses, firewall issues, and phishing schemes. **Sandhill** 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.

As its normal practice, **Sandhill** does not block any protocols, content or traffic for purposes of network management except that the company may block or limit such traffic as spam, viruses, malware, or denial of service attacks to protect network integrity and the security of our customers. **Sandhill** also has a port filtering policy aimed at reducing the spread of computer-related viruses and protecting your computer from intruder access.

Except as may be provided elsewhere herein, **Sandhill** does not currently engage in any application-specific behaviors nor does it employ any device attachment rules for its network.

III. Technology

Sandhill's network management employs a variety of industry-standard tools, applications and devices to monitor, secure and maintain its network. Sandhill uses network management software to monitor aggregate traffic usage.

IV. Monitoring Schedule

Sandhill uses network management software to conduct periodic monitoring of the network in order to detect abnormal traffic flows, congestion, network security breaches, malware, loss, and damage to the network. This monitoring is done on a daily basis.

V. Network Performance

Sandhill takes measurements of various components for network performance, analysis of the measurements to determine normal levels, and determination of appropriate threshold values to ensure required levels of performance for its network. **Sandhill** measures such components as mean upload/download speeds, latency, internal testing, and consumer speed tests to gauge network performance. The Company monitors the values of these components to determine the overall performance of the network.

Sandhill makes every effort to support advertised speeds and will dispatch repair technicians to customer sites to perform speed tests as needed to troubleshoot and resolve speed and application performance caused by **Sandhill's** network. **Sandhill** measures availability, latency, and aggregate utilization on the network and strives to meet internal service level targets. However, customer's service performance may also be affected by one or more of the following: (1) the particular websites being accessed; (2) capacity in the public Internet beyond **Sandhill's** network; (3) customer's computer and equipment (including wireless router); and (4) inside wiring at customer's premise.

Sandhill is in the process of developing additional systems that will allow us to measure these indicators out to test points at each major network aggregation site on the edge of our last mile network. Once these systems are developed, **Sandhill** will be able to measure system metrics on a network-wide basis and will disclose the results on its website.

VI. Specialized Services

Sandhill does not currently offer any specialized services. Accordingly, customers' broadband experiences will not be impacted.

VII. Commercial Terms

A description of **Sandhill's** service offerings and rates may be found on **Sandhill's** website at the following link: www.Sandhill.net. **Sandhill's** Privacy Policy may be found on **Sandhill's** website at the following link: www.shtc.net.

For questions, complaints or requests for additional information, please contact Sandhill at 843-658-3434.