

## **Harlan Municipal Utilities Network Management Practices Policy**

Pursuant to the Federal Communications Commission's newly enacted Open Internet Rules found in Part 8 of Title 47 of the Code of Federal Regulations, the policies of Harlan Municipal Utilities ("HMU") regarding network management practices, performance characteristics, and commercial terms are provided in entirety so that our current customers, prospective customers, third-party content providers and other interested parties can make informed choices regarding the broadband Internet access services offered by HMU, and the extent our network management practices may affect those services.

In the interest of providing the best online experience possible for all of our customers, HMU utilizes reasonable network management practices tailored to achieve legitimate network management purposes. Because bandwidth is a limited resource for broadband Internet service providers, it is essential that we reasonably manage our network to promote the use and enjoyment of the Internet for all of our customers. By engaging in reasonable and responsible network management, HMU prevents our customers from being subjected to the negative effects of spam, viruses, security attacks, network congestion, and other risks that threaten to degrade service. The network management practices employed by HMU are consistent with industry standards.

**Congestion Management** - HMU does not employ any congestion management tools, practices and/or software on network traffic.

**Application-Specific Behavior** - HMU does not make use of any application-specific network management practices. We do not favor, modify, inhibit, rate control or block any specific protocols, protocol ports or fields, or any applications or classes of applications. To ensure optimal network performance, HMU engages in bandwidth utilization monitoring.

**Device Attachment Rules** - In order for a device to be approved for use on the HMU network, the device must conform to publicly available industry standards and be non-harmful to our network.

**Security** - HMU offers its customers unrestricted access to all of the lawful content, services, and applications available on the Internet. We do not restrict network traffic by either protocol or application. HMU uses industry standard tools and generally accepted best practices and policies to protect our customers from spam, phishing, and other unwanted or harmful online content and activities. In the instances where these tools and policies identify online content as harmful or unwanted, the content may be prevented from reaching customers, or customers may be permitted to identify or inspect content to determine if it is harmful or unwanted.

The security measures employed by HMU to prevent the spread of viruses, malware, spam, harmful and unwanted content or other threats to consumers do not prevent end-users from running certain applications.

**Performance Characteristics** - HMU offers broadband Internet access via cable modem or Fiber-to-the-Premise (“FTTX”). Both are wireline transmission technologies that transmit data over fiber optical cable and/or coaxial cable.

HMU’s customers are able to select a desired maximum speed, also known as capacity. The advertised speed of our Internet service is the maximum speed achievable with the technology utilized by HMU and the configuration chosen by the end user. While the maximum selected speed is attainable with the given technology, several factors may affect the actual speed of HMU’s Internet service offerings, including, but not limited to, the end user’s computer, modem or router, local or ‘in house’ activity, applications used during peak usage periods, and other Internet traffic.

Based on internal testing, the mean download and upload speeds for a modem configured to DOCSIS 2.0 3MB service are 2.82MB download and 1.6MB upload. For a modem configured to DOCSIS 2.0 6MB service, the average download was 5.7MB and the same 1.6 MB upload speed. One DOCSIS 3.0 test modem configured to 20 MB was also used. Download speed averaged 18.67MB and upload was 2 or 4MB depending on the configuration. Other service levels and speeds are available at additional cost. See Appendix A for testing details. HMU’s internal testing established a mean round trip latency of 50ms. Results were derived from the average of 20 ping tests to five sites: Google.com, Netflix.com, Yahoo.com, hotmail.com and USA.gov.

The actual speeds achieved with HMU’s Internet service offering make our Internet service suitable for real-time applications, such as streaming video, gaming and Voice over Internet Protocol (“VoIP”) for services like magicJack.

HMU offers the following:

- Local voice service
- Video services traditionally known as Cable TV

While both services share the same capacity used for Internet services, neither service should have a significant effect on the last-mile capacity available for, and the performance of, broadband Internet access service.

## Commercial Terms

**Pricing** - In order to meet the usage and budgetary needs of all of our customers, HMU offers a wide selection of broadband Internet access plan options, bundled service choices, and ala carte alternatives. HMU may offer promotional pricing on occasion.

To see our current pricing on broadband Internet access service, please visit our website <http://www.harlannet.com/Internet.htm> or call 712-755-5182 to speak with a customer service representative.

HMU’s Internet service is priced on a flat monthly fee basis plus any applicable taxes or fees. HMU does not charge end users a usage-based fee for Internet service.

**Privacy Policy** - The various network management tools and techniques utilized by HMU do not monitor, inspect or store the network activity and traffic of its Internet service users. However, to ensure optimal network performance, HMU does engage in bandwidth utilization monitoring. As part of our network management practices, we do not distribute information on network activity and/or traffic to any third party, or use network traffic information for any

non-network management purpose. HMU is required to comply with relevant laws, regulations and governmental requests.

We may collect equipment information to identify the equipment a customer is using on the network, including, but not limited to: equipment type, serial number, settings, configuration and software in order to facilitate network troubleshooting. HMU may also collect performance information to examine the operation of the equipment, services and applications the customer may use on the network, including, but not limited to: IP addresses, URLs, data transmission rates and latencies, location information, security characteristics, and information about the amount of bandwidth and other network resources a customer is using in connection with uploading, downloading or streaming data to and from the Internet.

HMU monitors and collects data regarding network traffic, activity, performance information and equipment information for the sole purpose of reasonable network management purposes.

HMU's network management practices as described in this document are intended solely to provide the best online experience possible for all of our customers by safeguarding our network and its users from spam, viruses, phishing, and other unwanted or harmful online content and activities. Our network management practices are not intended, nor implemented, to block consumers from accessing the content and applications of their choice, deprive consumers of their entitlement to competition, or discriminate against or in favor of certain network traffic. End users with questions, concerns or complaints regarding our network management practices are encouraged to contact HMU Monday-Friday 7:30AM-4:30PM by telephone at 712-755-5182 or in person at 2412 Southwest Ave., Harlan, Iowa 51537.

**Contact Us** - If you have any questions regarding our Network Management Practices Policy or would like to file a complaint with HMU regarding its network management practices, please contact us at:

Harlan Municipal Utilities  
Attn: Jim Gedwillo  
2412 Southwest Avenue  
PO Box 71  
Harlan, Iowa 51537

Phone # 712-755-5182  
Fax # 712-755-2320  
[gedwilloj@harlannet.com](mailto:gedwilloj@harlannet.com)

Further, if you believe that HMU is in violation of the FCC's Open Internet Rules, you may file either an informal or formal complaint with the FCC.

<http://esupport.fcc.gov/complaints.htm>

**Additional Disclaimers** - The Open Internet Rules, as adopted, and HMU's Network Management Practices Policy are not intended to affect, alter or otherwise supersede the legal status of cooperative efforts by broadband Internet access service providers and other service providers that are designed to curtail infringement in response to information provided by rights holders in a manner that is timely, effective, and accommodates the legitimate interests of providers, rights holders, and end users.

Furthermore, the Open Internet Rules, as adopted, and HMU's Network Management Practices Policy do not prohibit us from making reasonable efforts to address the transfer of unlawful content or unlawful transfers of content.

For additional information, please review HMU's Acceptable Internet Use Policy at: <http://www.harlanet.com/Site/PDF/Telecom/AcceptableUsePolicy2B.pdf>

Appendix A:

Speed tests were run at five different external locations. Three tests were run per day. One test was conducted from 6AM – Noon, another test was conducted from Noon-6PM and a final test from 6PM – Midnight. Each location used the same test site portal, [speakeasy.net](http://speakeasy.net), to three or four test points in one of eight US cities. One test location used a 20 MB service, one used a 6 MB service and three sites used the standard 3MB service.

Site #1 with 20 MB service averaged 18.67MB download across all dayparts and end test points. This site used a DOCSIS 3.0 test modem with maximized downstream capabilities. Upstream was initially 2 MB as originally configured and rose to 4 MB with further testing and configuration. As of 11/20/11, DOCSIS 3.0 service is still in the test phase and not commercially available. It is expected to be available in calendar year 2014.

Site #2 with 6 MB DOCSIS 2.0 service averaged 5.7 MB download across all dayparts and end test points.

Sites #3, #4 and #5 with 3MB service averaged 2.82MB download across all dayparts and end test points.

Speed test results from all sites were consistently between 93-95% of subscribed service level. That is, if the modem was configured for 3MB of service, speed test results were routinely in the range of 2.79MB to 2.85MB download.