

Craw-Kan

Terms of Service, Network Management Practices and Performance Standards

General Information

In this document, the terms "you" and "your" refer to customers of Craw-Kan Telephone Cooperative, Inc. Internet Access Service. The terms "we" and "our" refer to CRAW-KAN TELEPHONE COOPERATIVE, INC. and Craw-Kan Telephone Cooperative, Inc. Internet Access Service.

Definitions

Service – Internet access purchased from CRAW-KAN TELEPHONE COOPERATIVE, INC. This includes: (1) connectivity from your equipment at your premises to the Internet equipment at Craw-Kan Telephone Cooperative, Inc. office;(2) connection of Craw-Kan Telephone Cooperative, Inc. equipment to the Internet; and (3) Craw-Kan Telephone Cooperative, Inc. equipment that is used to route and manage your traffic to and from the Internet and to provide you with services such as e-mail, web surfing, file transfer, Internet video, and others.

Bandwidth – The amount of data per second. This may be thought of as the "pipe" that carries Internet traffic.

Bandwidth Capacity - The amount of bandwidth that we or another network provider makes available for your use, such as the amount of data that can be sent over a wire or fiber optic system.

Bandwidth Demand - The amount of bandwidth that a customer wants to use.

Congestion – A situation where the total bandwidth demand (in bits of information per second) on a component of the Internet, including on any part of our network, exceeds the bandwidth capacity of that component to such an extent that traffic flow and service experiences degradation. Congestion is usually of a transitory nature; however, in some cases, such as an extremely popular website, it may last for a significant period.

Degradation of Service - Less than optimal performance of Internet services. This may appear to you as slow response on web sites and e-mail or distorted or frozen video.

Nominal Bandwidth – The bandwidth of the service package you purchase. This is your maximum allowed bandwidth.

Terms of Service and Network Management Practices

The bandwidth you purchase (your service package or nominal bandwidth) is the MAXIMUM bandwidth available to you. Unless you have purchased a Committed Bandwidth service that specifically guarantees a fixed bandwidth, such as a T-1 circuit, it is not a guaranteed bandwidth. CRAW-KAN TELEPHONE COOPERATIVE, INC. will make its best effort to transmit your data in a timely fashion; however, CRAW-KAN TELEPHONE COOPERATIVE, INC. does not guarantee you that you will be able to use your entire nominal bandwidth at any given time. This is referred to as "best effort" service.

CRAW-KAN TELEPHONE COOPERATIVE, INC. strives to make your total nominal bandwidth available for you to use within our network. CRAW-KAN TELEPHONE COOPERATIVE, INC. cannot control bandwidth available, congestion, or service quality on those parts of the Internet beyond our network.

When other customers use our network, you may not be able to use your maximum nominal bandwidth because all customers share total bandwidth capacity at some points on our network and on the Internet. If the bandwidth demand of all customers at that network location exceeds the bandwidth capacity provided, you may not be able to use your entire nominal bandwidth. All services other than Committed Bandwidth services are "shared services" used by many customers.

We size our Internet services by the bandwidth of all our customers, including your service, based on best-of-breed engineering practices. Service is provided equally to all customers, and every customer's data has an equal chance to be served.

On a downstream basis (Internet to customer), service is provided equally to all customers, Internet services, protocols, and sources or destinations on the Internet such as websites, e-mail servers, etc.

Due to limited bandwidth capacity on an upstream basis (customer to Internet), service is provided equally to all customers, protocols, and sources or destinations on the Internet such as websites, e-mail servers, etc. Service is not prioritized by customer or source or destination on the Internet. No services, protocols, or legal sources and destinations on the Internet are blocked under any circumstances. Any effects on service may only be noticeable in times of significant congestion.

CRAW-KAN TELEPHONE COOPERATIVE, INC. may block any service, protocol, source, or destination that CRAW-KAN TELEPHONE COOPERATIVE, INC. determines to be illegal or a threat to life, property, or national security, or if ordered to block or otherwise modify your data by law enforcement agencies, or court order.

At this time, CRAW-KAN TELEPHONE COOPERATIVE, INC. does not implement network management techniques when congestion occurs; however, in times of congestion on Craw-Kan Telephone Cooperative, Inc. network, CRAW-KAN TELEPHONE COOPERATIVE, INC. may, at its sole discretion, implement reasonable network management techniques to protect the services of all of Craw-Kan Telephone Cooperative, Inc. customers so that each customer has adequate service quality. CRAW-KAN TELEPHONE COOPERATIVE, INC. will not implement network management if degradation of service is caused by congestion on portions of the Internet outside of Craw-Kan Telephone Cooperative, Inc. network. CRAW-KAN

TELEPHONE COOPERATIVE, INC. will notify our customers on this website of changes to our network management policy.

Devices & Software that may be Attached to Craw-Kan Telephone Cooperative, Inc. Internet Access Service

There are no restrictions on types of devices you may connect to Craw-Kan Telephone Cooperative, Inc. network other than that they must be approved by the Federal Communications Commission (FCC) for use in the United States telecommunications network. You may not connect any equipment to Craw-Kan Telephone Cooperative, Inc. network that is not approved by the FCC. Most commercially available equipment such as modems, routers, and PCs are approved. All equipment approved by the FCC will have a label stating that it is approved and what the type of the approval is. This information is also found in the user's manual or printed instructions that are provided with the equipment and may be found online at the manufacturer's website. You should read this label whenever you buy any equipment you wish to connect to Craw-Kan Telephone Cooperative, Inc. network. If you have questions about any particular equipment, please call us at 620-724-8235.

Craw-Kan Telephone Cooperative, Inc. Internet access service is designed to function with accepted industry standard interface software such as provided by Microsoft, Apple, and others. If you use a type of software not widely used in the worldwide Internet, you may experience some problems with

compatibility between your software and Craw-Kan Telephone Cooperative, Inc. Internet access service. If you have any questions, please call us on 620-724-8235, and we will try to help you resolve this problem. It is the customer's responsibility to assure that their software and operating interfaces conform to industry accepted specifications.

Network Security

CRAW-KAN TELEPHONE COOPERATIVE, INC. uses the latest industry-best-practices to maintain integrity and security of its network. This may include security protections that interfere with some types of customer traffic. If you believe your services are being disrupted by our security systems, please contact us on 620-724-8235.

CRAW-KAN TELEPHONE COOPERATIVE, INC. provides a level of protection for your computers from spam, viruses, and other malicious or unwanted items. While CRAW-KAN TELEPHONE COOPERATIVE, INC. strives to provide the best protection possible for your computer, we make no guarantees that we can prevent all malicious or unwanted items from accessing your computer. It is the customer's responsibility to protect their computers and other devices from unwanted or harmful items. It is very strongly recommended that you provide your own virus and malware protection, spam filtering, and firewall software. Solutions are available on the CRAW-KAN TELEPHONE COOPERATIVE, INC. website.

Use of Craw-Kan Telephone Cooperative, Inc. Services for Real-Time Applications such as Streaming Video

The Best Effort services above may be suitable for real-time applications if the customer has purchased adequate bandwidth for that service. Disruption during times of congestion, if any, which you experience will be minimized if you purchase adequate bandwidth for the services you wish to use. However, since there are occasionally conditions of extreme congestion at various points in the Internet, including Craw-Kan Telephone Cooperative, Inc. network, unless you have purchased a Committed Bandwidth service that specifically guarantees a fixed bandwidth, such as a T-1 circuit,

CRAW-KAN TELEPHONE COOPERATIVE, INC. does not guarantee that your service will never be degraded.

Note that bandwidth requirements will differ by real-time application. For example, video such as that offered by various services such as YouTube may require somewhat less total bandwidth than entertainment quality streaming video. Bandwidth requirements may also differ among providers.

Privacy of Customer Information

CRAW-KAN TELEPHONE COOPERATIVE, INC. inspects packets of data you send or receive over our network to allow us to route and, where applicable, prioritize data. We inspect only the packet headers which tell us where to send your data and the type of data it is, i.e.: web surf, video, file transfer, etc.

CRAW-KAN TELEPHONE COOPERATIVE, INC. does not examine the content of your data, i.e.: the data which you send or receive, such as the messages from and to e-mail addresses of your e-mail, which web sites you visit, the sources of your video, or the contents of files you send or receive.

CRAW-KAN TELEPHONE COOPERATIVE, INC. does not store your data, or sell or reveal it to any third parties.

CRAW-KAN TELEPHONE COOPERATIVE, INC. may provide any of your data, both on an active, real time basis and stored data such as your billing records, to law enforcement under appropriate legal orders if law enforcement requests your information in matters dealing with illegal acts or a threat to life, property, or national security.

Performance Standards

Service Description - Asymmetric Digital Subscriber Line (ADSL) copper service is utilized to deliver triple play services to all member territories.

Service Description	Technology	Advertised Speeds	Actual Speeds	Expected Latency	Actual Latency	Applications
Internet 1.2	Asymmetrical DSL	1200 kbps downstream / 512 kbps upstream	1200 kbps downstream / 512 kbps upstream	30-50ms	48-52ms	E-mail
Internet 10	Asymmetrical DSL	10000 kbps downstream / 1000 kbps upstream	10000 kbps downstream / 256 kbps upstream	30-50ms	48-52ms	Email, Web Browsing, One Device Streaming Audio& Video
Internet 50	Asymmetrical DSL	50000 kbps downstream / 15000 kbps upstream	50000kbps downstream / 256 kbps upstream	30-50ms	48-52ms	Email, Web Browsing, Multiple Devices Streaming Audio & Video

Service Description - Fiber to the Home (FTTH) broadband service uses glass cables to deliver triple play services to some member and all non-member territories.

Internet 10	Fiber to the Home	10000 kbps downstream / 1000 kbps upstream	10000 kbps downstream / 1000 kbps upstream	20-50ms	48-52ms	Email, Web Browsing, One Device Streaming Audio& Video
Internet 50	Fiber to the Home	50000 kbps downstream / 15000 kbps upstream	50000 kbps downstream / 15000 kbps upstream	20-50ms	48-52ms	Email, Web Browsing, Multiple Devices Streaming Audio & Video
Gigabit	Fiber to the Home	1000 mbps downstream / 1000 mbps upstream	1000 mbps downstream / 1000 mbps upstream	13-25ms	48-52ms	All Current Internet Applications On Multiple Devices

* Actual performance based internal testing.

Impact of Specialized Services - CRAW-KAN TELEPHONE COOPERATIVE, INC. offers IPTV and Voice over our existing residential copper infrastructure and residential fiber to the home infrastructure. These services are independent and do not disrupt each other as bandwidth is allotted to compensate for overhead.

Maintenance Window and Emergency Maintenance

We reserve the right to perform required systems and network maintenance, as needed and without prior notice, between 11:59PM and 4:00AM as needed. This maintenance could cause intermittent service outages. We also reserve the right to perform emergency maintenance and repairs outside of this window if required. We are not responsible for loss of income or other damages incurred while performing scheduled maintenance or unscheduled emergency maintenance. While we strive to achieve 100% network uptime with no outages, this is not guaranteed or promised.

Contact Us

If you have questions or comments regarding our network management policies or practices, please contact us at 620-724-8235 or www.ckt.net.