

## **TWR Communications' Internet Management Practices**

Pursuant to the Federal Communications Commission's Open Internet Rules found in Part 8 of Title 47 of the Code of Federal Regulations, TWR Communications provides this statement regarding the high speed internet services provided by TWR Communications, its network management practices, service performance, and terms of service so that our current customers, prospective customers, third-party content providers and other interested parties may make informed choices regarding the high-speed internet access services we offer.

### **TWR Communications' Internet Access Services**

TWR Communications offers several high-speed internet access service options that provide the capability of connecting to the internet. Such services are provided via TWR Communications' terrestrial, fixed wireless network. Customers have the ability to choose from several different speed tiers to best meet their needs. To help determine which level of service is most suitable based on users' particular needs, preferences and budgets, call 301-777-2692 for current product descriptions and pricing.

### **Network Management**

TWR Communications does not discriminate against lawful internet content, applications, services, or non-harmful devices. TWR Communications uses the following measures to further its commitment to providing optimal internet service to customer, subject to reasonable network management practices:

- **No Blocking.** TWR Communications does not block or otherwise prevent access to legal content, applications, services, or non-harmful devices.
- **No Throttling.** TWR Communications does not impair or degrade lawful internet traffic on the basis of content, applications, services, or non-harmful devices.
- **No Affiliate or Paid Prioritization.** TWR Communications does not directly or indirectly favor some lawful internet traffic over other lawful internet traffic in exchange for consideration of any kind, monetary or otherwise.

TWR Communications manages its High Speed Internet Network to deliver the best possible internet experience to all of its customers. TWR Communications uses various tools and techniques to manage its network, deliver its service, and ensure compliance

with the Acceptable Use Policy. Without effective network management, customers would be subject to the negative effects of spam, viruses, security attacks, network congestion, and other risks or degradations of the service. Network management activities may include identifying spam and preventing its delivery to customer email accounts, detecting malicious network traffic and preventing the distribution of viruses or other harmful code or content and using other tools and techniques that TWR Communications may be required to implement in order to meet its goal of delivering the best possible high-speed internet experience to all of its customers.

TWR Communications has not established a monthly data usage cap for its customers. We do monitor usage, however, and we regularly review accounts with uncommonly high usage relative to all other accounts to ensure that such accounts have not been subjected to unauthorized access, other security breach, business use or unlawful activity. As part of our review, we may contact account holders to inquire about usage and may take or require actions to correct problems such as security, class of use, or unlawful activity.

### **Content Access**

TWR Communications provides its customers with full access to all lawful content, services, and applications and is committed to protecting customers from spam, phishing, and other unwanted or harmful online content and activities. TWR Communications uses industry standard tools and generally accepted best practices and policies to help it meet this customer commitment. In cases where these tools and policies identify certain online content as harmful and unwanted, such as spam or phishing websites, this content is usually prevented from reaching customers. TWR Communications limits the number of login, SMTP, DNS, and DHCP transactions per second (at levels far above 'normal' rates) that customers can send to TWR Communications' servers in order to protect them against Denial of Service (DoS) attacks. The exact rate limits are not disclosed in order to maintain the effectiveness of these measures.

### **Application-Specific Behavior**

TWR Communications does not block Peer to Peer (P2P) network traffic or applications like BitTorrent, Gnutella, or others as part of its current network management practice. TWR Communications also does not prioritize any type of network traffic in a preferential manner. In order to protect its customers, TWR Communications blocks a limited number of ports that are commonly used to send spam, launch malicious

attacks, or steal a customer's information.

### **Limitations on Devices that Can Be Attached**

The provided exterior radio device is required for the use of the TWR Communications High Speed Internet Service. This type of radio is available directly from TWR Communications.

TWR Communications does not limit the lawful devices that can be attached to the radio and used with TWR Communications' high-speed services, provided that the user complies with TWR Communications' applicable Acceptable Use Policy and terms of service referenced above under TWR Communications' Internet Access Services.

### **Performance Standards**

TWR Communications provisions its radios and engineers its network to maximize customers' ability to receive the maximum speed levels for each tier of service. TWR Communications, however, does not guarantee that a customer will achieve those speeds at all times. TWR Communications advertises its speeds as "up to" a specific level based on the tier of service to which a customer subscribes. The actual speed a customer experiences may vary based on a number of factors and conditions, many of which are beyond the control of TWR Communications. These conditions include:

- **The performance of a customer's internet connected device**, including its age, memory, processing capability, its operating system, the number of users in a household at a particular moment and the number of applications running simultaneously impacts the speed and performance of your internet service. The presence of any malware or viruses also has an effect on your internet connected device's ability to communicate with the internet. You should make sure that you are running the most up-to-date operating system your internet connected device can handle (with all available patches installed) to maximize your connection speeds.
- **Type of connection between a customer's internet connected device and radio**. If there is a router between your radio and your internet connected device, the connection speed you experience can often depend on the model and configuration of the router. In-home wireless connections may be slower than wired connections. Wireless connections also may be subject to greater fluctuations, interference and congestion.

- **The distance packets travel (round trip time of packets)** between a customer's internet connected device and its final destination on the internet, including the number and quality of the networks of various operators in the transmission path. A customer's connection may traverse the networks of multiple providers before reaching its destination, and the limitations of those networks will most likely affect the overall speed of that Internet connection.
- **Congestion or high usage levels at the website or destination.** If a large number of visitors are accessing a site or particular destination at the same time, your connection will be affected if the site or destination does not have sufficient capacity to serve all of the visitors efficiently.
- **Gating of speeds or access by the website or destination.** In order to control traffic or performance, many websites limit the speeds at which a visitor can download from their site. Those limitations will carry through to a customer's connection.

Latency is another measurement of internet performance that refers to the time it takes for a packet of data to travel from one designated point to another on a network. Since many communication protocols depend on an acknowledgement that packets were received successfully, or otherwise involve transmission of data packets back and forth along a path in the network, latency is often measured by round-trip time. Some applications are particularly sensitive to latency, such as some high-definition multiplayer online games. 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 internet connected device and the ultimate internet destination (as well as the number, variety, and quality 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.

Below is information regarding the expected and actual mean speed and latency of our internet service offerings, based on internal testing:

## Residential Service

Service Tier	Download Rate	Upload Rate	Latency
Silver	7.9 Mbps	1.9 Mbps	15 ms
Gold	15.8 Mbps	3.9 Mbps	15 ms
Platinum	23.8 Mbps	5.8 Mbps	15 ms

## Commercial Service

Service Tier	Download Rate	Upload Rate	Latency
Silver	15.8 Mbps	3.9 Mbps	15 ms
Gold	23.8 Mbps	5.8 Mbps	15 ms
Platinum	31.7 Mbps	7.7 Mbps	15 ms

## Customer Information Privacy and Security

TWR Communications maintains the privacy and security of all customer network traffic as described above and in accordance with the TWR Communications privacy policy.

## Additional Information

For more information or to file a complaint about TWR Communications' network management practices please contact [wireless@twrcommunications.com](mailto:wireless@twrcommunications.com)

If any information found within our policies and agreements located on [www.twrcommunications.com](http://www.twrcommunications.com) are inconsistent with this network management disclosure, this disclosure takes precedence.