KWIC Internet Fair Use and Traffic Management Policy

Introduction

This policy explains how we portion out shared network resources for our customers, including wholesale bandwidth and local-level access.

In general, this policy relies on one of the underlying principles of providing internet access, in which a provider aggregates traffic and requests from its subscribers into progressively larger and higher capacity transit lanes until the traffic reaches the provider's main routing resources and proceeds to the open internet.

That principle matters in the context of this policy because the design of every network is based on the concept of sharing, and the performance of every network depends on efficient distribution of its resources. The idea of shared resources means that it is possible for an individual user to experience slow network speeds, resources-induced errors or timeouts, or other symptoms, without actually saturating their own internet connection.

We call this congestion. Stated another way, congestion is what happens when the demands placed on a network exceed that network's fundamental capacity.

The possibility of congestion is why we created this Traffic Management policy.

What is Traffic Management?

Traffic management refers to the strategies we employ in order to ensure all users have equal access to network resources. Traffic management may take one of the following forms:

Service Type Prioritization

We may, at certain times, prioritize the transmission of voice and real-time video throughout our network. This means that services which depend on low latency and uninterrupted connection will be given priority compared to non-real-time operations such as software updates, backups, and file downloads.

Fair Use Bandwidth Limitation

We may limit an individual user's bandwidth if, in our estimation, that user consistently causes a significantly skewed allocation of shared resources. What this means is that a user who downloads large files or opens up multiple parallel connections, or in some other way completely saturate their individual connections for very long periods of time, we may be required to limit that user's bandwidth if the user's activity is causing a decreased quality of experience for other users.

Bandwidth limitation will only take place on network nodes that experience congestion.

How Is Congestion Measured?

We run daily diagnostics on all network links and nodes to determine maximum theoretical capacity of the link or node. In addition, we run extensive real-time monitoring to help us detect when a link or node is approaching capacity.

When such an event occurs, we may apply traffic management as an interim measure to preserve the overall quality of experience for all users, while we plan and carry out the necessary strengthening to permit the affected link or node to perform congestion-free at all times.

Why Do We Use Traffic Management?

We believe in delivering what we sell. If your internet connection is an “up to 50Mbps” connection, then we believe that you should be able to 50 megabits per second whenever and however you want.

However, there are some events that can overwhelm even the sturdiest networks. There might be times when you are competing with other users for some of those 50 megabits. During those times, we use traffic management in order to make sure that the things that *really need to happen right now* happen right now.

What Kind of Traffic is Affected?

The short answer: when a link or node is congested, we prioritize VoIP and real-time video streaming.

The long answer: When a link or node is congested, we apply bandwidth management on protocols that are not real-time-dependent, because those protocols are far less affected by congestion than things like voice and video streaming.

When congestion begins, we apply bandwidth management on these protocols, starting with users who have made the greatest use of shared network resources in the days or weeks prior to the congestion event.

This means that activities like file downloads may be given lower priority, but only until the congestion passes. We only do what’s absolutely necessary to preserve the quality of experience you’ve come to expect from us. This doesn’t mean that your download gets blocked, just that it may go a bit slower during very busy times.

Is Any Usage Data Stored or Recorded?

We do not record or monitor your online activity. We function simply as an intermediary, connecting you to destinations on the internet. We measure things like usage volume, and we run real-time analysis to ensure that real-time applications are not affected by congestion, but we do not inspect any of the content of your online activity.

Are There Any Other Network Management Policies In Place?

Yes. We restrict activity on some internet ports that are typically associated with denial-of-service attacks. We also conduct real-time analysis of traffic patterns to detect and stop attacks of junk traffic that would otherwise interrupt or degrade end-user experience.