

Technical Traffic Management Policy:

What is Northwestel's Internet traffic management policy?

Northwestel manages Internet traffic on small portions of our network during peak utilization to ensure our customers have the best Internet experience possible. This is known as our Internet Traffic Management Policy (ITMP).

Why is Northwestel applying traffic management policies?

Northern Canadians are relying on the Internet for more and more of their communications and entertainment needs. At Northwestel, we've experienced this phenomenal growth in Internet traffic first hand as customers enjoy increasing amounts of video streaming services and interactive content online. We understand that our customers want, and deserve reliable access to high quality Internet service and to meet that demand we invest heavily in our networks every year.

Despite our best efforts there are instances where network demand, in some communities, could exceed capacity. To ensure all users have the best experience possible, Northwestel will temporarily manage specific Internet traffic during peak periods of use in an effort to deliver bandwidth fairly to all our customers and their time sensitive applications.

How does this ensure a customer has the best online experience possible?

Internet traffic management brings balance to the network to ensure all users have fair and equitable access during peak times of use. This solution protects and improves the performance of real-time applications (video streaming, web browsing, and online games) by reallocating bandwidth from less time sensitive applications (software updates and peer to peer file sharing).

Does this change impact me?

Most customers will not experience any change at all. This policy may only impact a small number of customers in communities if demand for Internet usage is greater than the available network capacity.

Only at times of peak congestion will certain applications notice a reduction in speed of up to a 20% as we allocate network capacity to time sensitive applications.

What type of Internet traffic is subject to management?

These traffic management measures impact only those Northwestel Internet customers who are using common peer-to-peer (P2P) file sharing applications or performing software updates while the network is at peak capacity. Customers using P2P file sharing applications may experience an increase in duration time to download and upload files during these peak usage periods. These customers may consider running their P2P file sharing application longer to complete their P2P uploading or downloading

activities or consider using P2P file sharing applications during the off-peak periods when there is no traffic management.

Traffic management will not impact customers using other Internet applications or services.

What types of Internet traffic will benefit from traffic management?

Through the use of traffic management, additional network resources will be allocated to time sensitive applications. This solution will ensure that all our customers get fair use of the Internet during peak periods. As a result, many types of online experiences will be improved, such as the following common “real-time” applications:

- Browser Applications (Internet Explorer, Safari, Firefox)
- Email Applications and Instant Messaging (Outlook Express, Outlook, WebMail)
- Internet Radio
- VoIP
- Streaming video, etc.

Is Northwestel blocking Internet access or monitoring customer’s online activities?

No. Northwestel does not block any type of Internet traffic or application, nor do we proactively monitor the content of customer communications or activities on the Internet.

Internet traffic management is based on the requirement to optimize network bandwidth resources, not on the content for which these resources are used.

How does Northwestel manage Internet traffic without monitoring online activity?

During peak periods, Northwestel uses Deep Packet Inspection (“DPI”) to identify peer-to-peer (“P2P”) file sharing traffic. DPI is a technology used in the industry to examine the types of traffic (but not the content) going across a network. P2P file sharing traffic is less time sensitive than other real-time sensitive applications, such as web browsing or video streaming. Because P2P file sharing applications are less time sensitive, they can be slowed when Internet traffic becomes congested during peak periods without interrupting use of the service.

When we use DPI as part of our traffic management measures during peak periods of Internet usage, we do not examine the actual content of traffic nor do we collect any personal information as part of the process.

Northwestel also has the right to implement other technical traffic management policies to prevent malicious activity such as denial of service attacks or the spread of Trojan viruses.

When will Northwestel implement technical Internet Traffic Management Policies (ITMPs)?

Northwestel will introduce technical ITMPs during peak periods of utilization beginning June 15, 2016.