

NETWORK MANAGEMENT POLICY (“POLICY”)

I. OVERVIEW

Eutelsat’s network (the “Network”) is a shared and best effort Network; at any given time, subscribers within a given geographic area must share available network capacity. Eutelsat aims to provide each subscriber with a “fair share” of that capacity, while providing all subscribers with a high-quality online experience.

To achieve these goals, Eutelsat employs Network management practices designed to prevent any subscriber from placing a disproportionate demand on Network resources. Certain of these practices are used only when the Network is congested; others are used more generally.

Traffic levels on the Network are usually below a congestion point that would have a significant impact on the user experience. Eutelsat has designed its Network carefully to achieve this result. At Other times, however, simultaneous transmissions from multiple subscribers may result in a total demand for capacity exceeding that available on the Network, resulting in congestion (“Congestion”). During these times, Eutelsat’s Congestion management practices, as further described in part II below, will be applied first to the Service Accounts having already used more than 50% of the volume of traffic included in their Consumption Profile (with the exception of the Service Class “tooway Extra 2014”, which is regulated by a specific policy further described in part III below), striving to treat traffic in a manner that minimizes adverse impacts on the user experience while preventing a subscriber from exceeding his or her “fair share” of available capacity.

The goal of these measures is for subscribers, on the whole, to enjoy a better overall service experience than they otherwise would without these practices.

II. CONGESTION MANAGEMENT PRACTICES

A. Congestion Management Overview

Under normal traffic conditions, it is not necessary for Eutelsat to employ Congestion management practices. That said, while Network capacity is abundant, it is not unlimited. Stated differently, the Network can be expected to experience some level of Congestion, necessitating the application of Congestion management practices described in this Policy. Eutelsat manages its Network to minimize the adverse impact that Congestion may have on the user experience. Congestion typically occurs in the link between the subscriber terminal and the gateway earth station via the satellite. In order to determine if the link is congested, Eutelsat continuously monitors the traffic load in each spot beam channel. If the instantaneous traffic load exceeds the available capacity of the spot beam channel, Eutelsat implements the Congestion management algorithm described below.

B. Mitigating the Impact of Network Congestion on the User Experience

Internet traffic is “bursty” in nature; traffic flows generally are not continuous, but rather are characterized by “bursts” of data. On occasion, simultaneous transmissions from multiple subscribers in a given spot beam channel result in a total instantaneous demand for capacity exceeding, on a temporary basis, the capacity available within the channel. On such occasions, the Network can experience Congestion. Congestion most typically occurs during the Network’s “peak” usage hours which generally can be expected to be from about 17:00 to 00:00 local time at the subscriber location, depending on the day of the week (“Peak Hours”). Congestion may also occur during certain periods when usage is “unmetered” (such as the “night free zone”).

Congestion, and the resulting transmission delay, impacts the user experience with respect to some types of applications more than others. For example, a delay in the rendering of a web page may be noticeable to a subscriber waiting for the content to appear on his/her screen. On the other hand, a subscriber downloading a bulk file (e.g. a software update) may be less impacted if the download takes longer during Congestion than it otherwise would, since the subscriber may already know that the download requires some time to complete.

Eutelsat’s goal is to manage its Network to minimize the impact of Congestion on traffic. To accomplish this objective, Eutelsat’s Congestion management algorithm is designed to reduce the traffic load, while giving a preference to (i.e. having a lesser effect on) services and applications that require less transmission bandwidth such as web page browsing and email. During periods of Congestion, bandwidth intensive applications such as video streaming and file downloading may be slowed more than other applications. As a result, the quality of video streaming may be reduced and/or buffering may occur. In addition, file downloads may take longer to complete during periods of Congestion. Under more severe Congestion, all applications may need to be slowed, and in those instances, the time to download web pages may take longer.

Eutelsat operates as a “mere conduit”. Despite the fact that Eutelsat is in no way involved with the information transmitted through the Network, following a specific request of a Public Authority, Eutelsat may block the access to specific URLs.

Eutelsat does not intentionally block any particular form of traffic (unless explicitly specified in the characteristics of a given service profile), but may block certain TCP/UDP ports and/or specific protocols that it reasonably believes may represent a security threat to the Network.

C. Heavy Users

A “Heavy User” is a user (or a small group of users) consuming a disproportionate amount of a Network’s resources. Eutelsat will monitor both overall Network performance and individual resource consumption to determine if any user is a Heavy User that could potentially disrupt or degrade the Network and/or its usage by other users.

Eutelsat reserves the right to immediately restrict, suspend or terminate Heavy Users’ Service Accounts without further notice.

III. TOOWAY EXTRA 2014 POLICY

The “tooway Extra 2014” Service Class provides uncapped web browsing and email and is subject to specific usage conditions, in order to ensure that all users have equitable access to the Network and that heavy usage by a small number of users does not negatively impact the Network performance for all users.

The following table shows what happens when a user reaches 35 GB of generated traffic volume (both upload and download traffic are considered, traffic generated between 00:00 and 06:00 local time is not accounted) during an accounting cycle:

	Generated Volume/cycle (upload + download excluded traffic generated between 00:00 and 06:00, local time)	Service limitations
A	≤ 35 GB	None
B	> 35 GB and ≤ 100 GB	Limitations applied during periods of Congestion and

		during Peak Hours
C	> 100 GB	Only web and email fully enjoyable

A: when generated volume in an accounting cycle is less than or equal to 35 GB, no service limitation is applied.

B: when generated volume in an accounting cycle exceeds 35 GB but is less than or equal to 100 GB

- (i) During Peak Hours, where usually the Network is under more severe Congestion, only web and email will be provided and any other protocol than web browsing and email will be blocked
- (ii) During periods of Congestion, Eutelsat’s Congestion management algorithm may reduce traffic load giving a preference to (i.e. having a lesser effect on) services and applications that require less transmission bandwidth such as web page browsing and email. During periods of Congestion, bandwidth intensive applications such as video streaming and file downloading may be slowed more than other applications: as a result, the quality of video streaming may be reduced and/or buffering may occur. In addition, file downloads may take longer to complete during periods of Congestion.

C: in any case, when generated volume in an accounting cycle is more than 100 GB, only web browsing and email will be provided and any other protocol than web browsing and email will be blocked.

IV. WEB BROWSING AND EMAIL

In order to be certain to fully enjoy, when experiencing service limitation, web browsing and email, user needs to follow all of the guidelines below (otherwise no service will be available):

- Virtual Private Network (VPN) and remote access software must be turned off;
- A web browser application has to be used. Only static (non-video, non-music) content viewed within a web page application qualifies as web browsing and/or email. Content viewed in other applications may not be considered web pages or email (e.g. Android, iPhone or iPad apps other than web browsers);
- Web Browser URLs must begin with http:// or https://. This means ftp:// and other types of sites that launch external applications will not be classified as web traffic;
- Email attachments must be 10 MB in size or less.