

Fair Access Policy & Congestion Management

Find out how your data and traffic is managed in order to provide a balanced level of service for all customers – what we call fair access policy or FAP for short.

No matter where you buy your satellite broadband service, it is usually the satellite operator that manages the traffic on their satellite. After all, they have usually invested several hundred million euros in the satellite so it is their job to manage it efficiently.

Most of our packages are sold with a fixed amount of monthly data but even those packages with uncapped data limits are still included within the FAP. The satellite operator is responsible for managing the collective data that all customers are downloading or uploading. To help them do this to share the satellite across all users fairly, they may apply a FAP and/or Congestion Management policy.

Summary – What is a Fair Access Policy ?

When any broadband network is busy (congested), if no action is taken, all users will see their speeds reduced as the total network capacity is shared across all active users. If network management did not take place, those users that have already consumed a high proportion of their monthly data allowance would still receive the same performance as a very low user ie. someone that has used only a small proportion of their monthly data allowance.

It is therefore most common that if there is a need to manage traffic during busy periods, higher data users* will be given a lower priority than lower users when the network is busy – this is commonly referred to as a Congestion Management and the rules by which the Congestion Management is applied we call the Fair Access Policy. * - this is usually measured proportionately to the monthly data allowance. For example, a customer that has used 5GB of a 10GB package will be treated in the same way as a customer that has used 20GB of a 40GB package.

Hence, the purpose of the FAP is straightforward – to share the available satellite broadband network fairly across all customers. This means that the lower use customers will see faster speeds than those customers that have already enjoyed a share of the available network and whose speeds will slow down.

Tooway services

This section covers the Tooway consumer packages.

Description	Tier 1	Tier 2	Tier 3	Tier 4	Special Promotion
2015	Tooway 10GB	Tooway 25GB	Tooway 40GB	Tooway Extra	Tooway Infinite
Monthly Data Allowance	10GB	25GB	40GB	40GB/100GB / Uncapped*	Uncapped*
Uncapped Overnight Allowance	No	Yes	Yes	Yes	Yes
Congestion Management	Initially applied to customers that have exceeded 50% of their monthly data allowance			None to 40GB	No
Specific Peak-time restrictions (17:00 to 00:00)	No	No	No	Above 40GB only email & web browsing allowed	No
* - Special Restrictions	No	No	No	Above 100GB only browsing & email traffic is allowed	Above 100GB if Congestion Management required, speeds maybe restricted down to 3/1Mbps

Definitions

Monthly Data Allowance – the amount of data allocated to the service during the monthly cycle (normally running from the anniversary date of the original installation)

Uncapped Overnight Allowance – where this service is included within any package, all traffic uploaded or downloaded during the local hours 00:00 to 06:00 is EXCLUDED from the Monthly Data Allowance measurement or measurements for Congestion Management. During these hours, the service is provided on a best endeavours basis ie. there is no Congestion Management and available bandwidth is shared amongst all active users.

Congestion Management – see more detailed explanations below.

Peak-time – 17:00 to 00:00 local time – considered to be the busiest period of usage and the period most likely to see Congestion Management applied.

Managing the satellite broadband network – Congestion Management

Eutelsat Broadband, the satellite operator that delivers the Tooway™ services, operates traffic management across their Tooway product range. There are Congestion Management policies in place that set thresholds on usage within the monthly data allowances above which a customer will be prioritised for Congestion Management. This means that they should expect to see their service slow down, especially at peak times, in order to allow fair access to other lower users.

You can always check your status (ie. whether your service is being impacted by FAP) via the Customer Portal.

Eutelsat is proactive in managing customer traffic to ensure that, when necessary, the resources of the satellite are shared on a fair basis (“Congestion Management”). When Congestion Management applies, certain customers will see the impacts of the FAP being applied at times when the network is busiest.

We often receive questions about the FAP and Congestion Management so we have set-out the information below to help you.

1.1. Congestion Management Policy (“CMP”)

The sole purpose of the CMP is to ensure that during times of heavier network usage, those customers on specific packages as specified in the table above that have **already used more than 50% of their monthly data** will be the first to see bandwidth intensive applications such as video streaming and file downloading slowed more than other applications during busiest times. This is done to allow those with lower usage a fair opportunity to use the available system resources.

The application of the CMP is one key of the overall traffic management that Eutelsat manages. This allows them to best manage the available bandwidth on any spot-beam..

1.2. Modification of traffic management policies over time

In order to deliver fair network access, the satellite operator monitors the network usage under any spot-beam on a dynamic (real-time) basis also factoring historic usage patterns in order to manage the available beam bandwidth fairly across all users.

The satellite operator is solely responsible for managing the available resources most efficiently. As a result, the criteria that they set and the measures that they apply may change over time if required - they will adapt to changing customer usage patterns.

This does mean that there are no fixed rules for determining Congestion Management Policies on a permanent basis. The satellite operator will review and refine their policies over time as the customer base and the usage habits change, in order to deliver fair access to the services. Heavy User policies and measures used today maybe changed by the satellite operator at any time in the future.

1.3. The impact of traffic management and heavy user groups

As covered above, the impact of Congestion Management is that during busy periods the Heavy Users will receive proportionately less of the available bandwidth in comparison to the other (lower data) users. Lower data users will therefore see the best possible download and upload speeds depending upon the number of live users and way that they are using the network at that time.

The Heavy User groups will see their maximum download and upload speeds reduce. This will also be dependent upon the number of concurrent Heavy Users and the way that they are using the network at that point in time.

Since by definition a Heavy User has been recently assessed as a higher than average user, the transition from high bandwidth use to restricted use may result in a significant reduction in available speeds. During higher use periods where Heavy Users are restricted, if they do continue to seek to use higher levels of bandwidth this is done in competition with other similar Heavy Users so the speeds can slow considerably during periods of Congestion Management.

Traffic management is applied by the satellite operator when they deem it necessary to do so.

1.4. Tooway Extra and Tooway Infinite – uncapped data packages and traffic management

On most Tooway packages there is a capped data limit each month. This means that when that data has been used within each 30-day cycle, the service will effectively stop (ie. have a restricted maximum download restriction of 64 Kbps) until the start of the next data cycle when the monthly data allowance is replenished.

Both Tooway Extra, and the limited availability Tooway Infinite work differently.

Tooway Extra

Tooway Extra has three key data bands on any monthly cycle:-

- Below 40GB – all legal traffic types/end user applications allowed. Customer should sit outside of Congestion Management at all times;
- From 40GB to 100GB – during Peak Hours, only email and web-browsing traffic will be allowed, all other traffic will be blocked. Outside of Peak Hours, all traffic types accessible up to 100GB;
- Above 100GB – only basic browsing and email applications are allowed. There is no ceiling for these allowed traffic types and no specific speed restrictions.

Tooway Infinite

Tooway Infinite has no capped data ceiling or limitations on any (legal) traffic types or end user applications which is why it is limited in numbers of customers per beam in selected countries only.

The only special restriction is that above 100GB during the monthly cycle, IF required, Eutelsat may apply a level of Congestion Management that could see speeds temporarily reduced. In the most extreme circumstances, this could result in speeds being reduced to a maximum of 3Mbps download and 1Mbps upload.

1.5. Overnight uncapped data allowances

As per the table above, all packages from Tooway 25GB upwards, including both Tooway Extra & Tooway Infinite have uncapped overnight data allowances that are not measured in respect of any monthly data allowances or for Congestion Management Policies.

This applies for the period 00:00 to 06:00 local time. During these hours, there is no data cap but all traffic is still subject to the FAP and is currently delivered on a best endeavours basis with all users sharing available bandwidth.

Even if a customer has exceeded their 30 day standard data allowance, they will still be able to access uncapped overnight usage in the 00:00 to 06:00 window if it is included with their package.

1.6. Tooway packages vs Enterprise services

At present, Eutelsat has only introduced Congestion Management criteria on Tooway services which means that Enterprise packages are prioritised over consumer packages within a best endeavours environment

This means that at present, all Enterprise customers are sharing the available bandwidth allocation between the number of active users. Hence, solely linked to the growing number of active Enterprise customers using a spot-beam at any one time, all concurrent users may see headline speeds reduce moving forward. At a point where a small number of heavy user Enterprise customers are reducing the overall network performance as measured across all Enterprise customers, it is reasonable to expect some Congestion Management measures specific to heavy user Enterprise customers to be applied.

1.7. Common Questions

What happens if I exceed my traffic usage, will I be cut off?

No, you will not be cut off but your bandwidth will be restricted until your next monthly cycle.

Can I buy more data if this happens?

Yes — you have two choices. You can upgrade to a higher data package, usually on the same day that you ask us to. Alternatively you can purchase 1GB, 10GB and 50GB data tokens which can be added to you account at anytime.

Can I check how much traffic I am using?

Yes, you check your status through your Tooway modem at <http://checkportal.skylogicnet.com>.

How can I check what download or upload performance I am getting?

Please use <http://speedprobe.skylogicnet.com>. You need to have your computer connected directly with an Ethernet cable to the Tooway modem (ie. not wirelessly through a wireless router). This will show both the upload and download speed of your service and is designed to operate with a satellite broadband service which many speed test services are not.