

Broadband Internet via Satellite

Fair Use Policy - What is it?

ASTRA2Connect provides an always-on internet access service, typically for a monthly flat fee. The service is designed to provide a good quality surfing experience with adequate high speed.

As the satellite capacity allocated to the ASTRA2Connect service is shared among all customers, we have to control the access and usage of our broadband services very carefully for the following reasons:

- > A smaller community of end users uses ASTRA2Connect mainly for heavy downloading of content (e.g. videos) from the internet.
- > Without a fair use policy in place these heavy end users would permanently allocate the majority of the resources also during peak usage hours. This would result in a very poor performance for the majority of average customers, who typically use ASTRA2Connect for Internet surfing.
- > In order to give preference to internet surfing during peak usage hours the ASTRA2Connect fair use policy limits the bandwidth for heavy downloading during this period.

Fair Use Policy - How does it work?

Our fair use policy system is a tool to monitor and control ASTRA2Connect network resources with the intention of giving all end users fair access to ASTRA2Connect network resources.

- > It limits the speed for heavy downloading during peak usage hours.
- > It does **NOT** limit the total volume, which an end user is able to download per month via ASTRA2Connect.

How does the fair use policy work?

- > We experience peak usage hours mainly in the late afternoon until early evening hours (e.g. from 5 pm to 10 pm), during working days and the whole day, as well as evening (e.g. from 10 am to 10 pm) during weekends.
- > The ASTRA2Connect fair use policy system continuously monitors the consumed volumes per customer in MBytes.
- > During peak usage hours the fair use policy system reduces the speed for those customers who have already consumed large volumes (in MBytes) during the respective month.
- > The more volume a customer has already downloaded during the month, the more his speed priority is decreased during peak usage hours.
- > During the remaining time of the day (i.e. non-peak hours) the end user's speed priority usually has only limited impact on his access speed.
- > Every month the volume account of all end users is set to zero, i.e. the speed priority is reset to the highest level (1).

Speed priority settings during peak usage hours

The following tables show the priority settings and related speeds during peak usage hours, dependant on the downloaded volume per month for all ASTRA2Connect service packages.

Consumed volume/month	Priority	Resulting max. speed (during usage peak hours)
< 5,00 MB	1	256 kbit/s
< 1,000 MB	2	128 kbit/s
< 1,500 MB	3	96 kbit/s
> 1,500 MB	4	64 kbit/s

Table 1: Priority settings for the 256 kbit/s service package

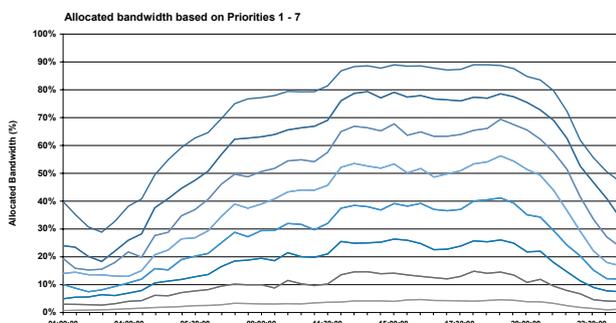
Consumed volume/month	Priority	Resulting max. speed (during usage peak hours)
< 8,00 MB	1	512 kbit/s
< 1,000 MB	2	320 kbit/s
< 2,000 MB	3	160 kbit/s
> 2,500 MB	4	96 kbit/s
> 2,500 MB	5	64 kbit/s

Table 2: Priority settings for the 512 kbit/s service package

The return speeds follow a similar mechanism. The speed priorities given in tables 1, 2, 3 and 4 are subject to change.

The following figure shows how the fair use policy system dynamically allocates the total bandwidth resources of the network dependant on priority settings and time during the day.

- In the morning hours until late evening hours the system allocates the majority of the bandwidth to average customers with high priorities. Heavy users are limited in using the bandwidth.
- During night hours customers with low priorities have access to most of the bandwidth for downloading content.



ASTRA2Connect bandwidth allocation dependant on priority settings during 24 hours of the day.

Consumed volume/month	Priority	Resulting max. speed (during usage peak hours)
< 1,400 MB	1	1,024 kbit/s
< 2,000 MB	2	768 kbit/s
< 2,500 MB	3	512 kbit/s
< 3,000 MB	4	384 kbit/s
< 3,500 MB	5	256 kbit/s
< 5,000 MB	6	128 kbit/s
> 5,000 MB	7	64 kbit/s

Table 3: Priority settings for the 1,024 kbit/s service package

Consumed volume/month	Priority	Resulting max. speed (during usage peak hours)
< 2,240 MB	1	2,048 kbit/s
< 3,200 MB	2	1,536 kbit/s
< 4,000MB	3	1,024 kbit/s
< 4,800 MB	4	512 kbit/s
< 5,600MB	5	256 kbit/s
< 8,000 MB	6	128 kbit/s
> 8,000 MB	7	64 kbit/s

Table 4: Priority settings for the 1,024 kbit/s service package

- In non-peak usage time, a higher maximum speed is granted to heavy customers than stated in the above shown fair use policy tables.

There is another mechanism, which for a limited period of time might affect the speed for your internet connection.

- During peak usage hours you sometimes may experience lower speeds than stated in the above speed priority tables.
- This speed reduction usually is caused by an overload of the network, which typically lasts only for a short period of time, i.e. a few minutes.

We call this phenomenon congestion of the network. A congestion factor of two (2), for instance, means that all end users request twice as much capacity as we can provide at a given time.

Our aim is to provide a good quality broadband experience at the lowest price possible to all our customers. We continuously seek to improve the performance and develop new features for our service.

In case you have any further questions, please do not hesitate to contact your ASTRA2Connect service provider.

Your ASTRA2Connect Team