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## Satellite Broadband Speeds and Data.

Satellite broadband is an ideal solution for both domestic and commercial customers that have either no broadband or a slow or unreliable traditional fixed line solution.

As with all broadband solutions that are shared, speeds are always advertised and described as “up to”, because satellite broadband, in common with nearly all other broadband solutions, is a **contended** service. Contended simply means that it is shared, and consequently when demand is higher for a finite amount of bandwidth, the speeds available for each user will be lower. For some further and useful information when describing this to customers we recommend the Ofcom guidance via the link below:

<http://consumers.ofcom.org.uk/2013/09/internet-traffic-management/>

What does this mean in real terms when you are dealing with your customers?

Firstly, before you sell a satellite system and the associated service you need to qualify the customer’s needs, which involves gaining a clear understanding of what solution (if any) they have and find out their needs and expectations. If this is done diligently and the satellite broadband solution is explained and recommended accordingly, future customer service issues will be minimal if non-existent regarding speeds.

We are aware of some resellers historically having over-promised what satellite broadband systems will do and this has caused them, their customers and us significant and unnecessary issues. Only ‘uncontended’ broadband services of any technology type be it ADSL, Fibre, Wifi or indeed satellite, **guarantee** certain speeds, and these are usually over limited timeslots, such as with the NewsSpotter service we provide to broadcasters. As an indication, the monthly cost of a 1 month **uncontended** solution on satellite would be in the region of €24,000.

### Recent Tooway Congestion Issues

Eutelsat (the network behind the Tooway product), have experienced increased congestion on certain beams in recent months, notably in England and Ireland. This is as a result of customer numbers growing and usage increasing. In response and in order to manage traffic fairly, Eutelsat have been adapting their traffic management techniques in order to share access as fairly as possible. One key development has been the management of very heavy users on unlimited tariffs whose high levels of use particularly at peak times have affected the Tooway service for others. This has broadly two impacts:

- Throttling of heavy users, who may well be dissatisfied as their expectation levels are far too high.
- Improved speeds for non-heavy users as heavy users are throttled or leave the service.

It is important to note that customers on unlimited tariffs who complain about speeds often do so because they feel that they are entitled to unlimited data at the speeds which should only ever have been described as ‘up to’, as above. They do indeed have access to unlimited data, but the network will manage the speed at which they can access it and decide if they need to be throttled back in

order to allow other users to use the service. If this wasn't done, all other users would experience poor service speeds, especially at peak times.

#### Setting Clear Expectations.

Eutelsat have informed us that their service on congested beams will now average 5Mbps download and 2Mbps upload over a 24 hour period. This is borne out by tests we at Europasat have conducted over the past 2 months. Clearly at peak times (usually between 5pm -11pm on weekdays for example) speeds may well be lower and may fall below levels where streaming is possible (c.2.5Mbps at times). However at other times speeds will indeed be up to the 20 Mbps download and 6 Mbps upload advertised, and so the average works out around the stated level.

On SES the 'FUP' sets out the speeds the customers can expect based on their individual amount of data consumed at a given point in time, as well as a 'congestion factor' which describes the 'busyness' of the network at a given moment. So, in a similar way to Tooway, usage and speed is being constantly monitored with a view to optimising the bandwidth available. Avanti operate a similar policy (theirs is known as 'AUP').

In all cases (BT, talktalk, Virgin Media, Eutelsat etc), broadband networks control and adapt these policies as requirements change over time. Customers need to understand the concept of traffic management as explained in the Ofcom report, even though the specific rules about when and how speeds are adjusted are constantly changing rather than 'set in stone'.

#### Key Points

1. Satellite broadband is contended. Please explain what this means to your customers.
2. Networks constantly evolve their policies in line with the constant evolution in the customers on their bases to try to achieve fair access for all.
3. Always described speeds as 'up to' and never as guaranteed.
4. Set expectations correctly on speed. A simple rule of thumb currently for Tooway is 5 Mbps download and 2 Mbps upload, **on average**.
5. It is advisable to assume customers will underestimate their data usage when weighing –up their purchase options. The customer purchasing is usually not the only person who will be consuming the data on the service. Is the purchaser aware of what amounts of data other people and devices will consume when satellite broadband become available? Do they all have the same expectations of speed?