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Digital Economy Bill 2016 Automatic Compensation

Dear Sirs,

In response for your call for inputs on the Digital Economy Bill, and specifically the matter of any sort of automatic compensation relating to broadband (Internet Access) services, please find our detailed response below. We are a small Internet Service Provider offering high quality and specialised services to consumers and businesses throughout the UK. We make use of broadband carriers such as British Telecom and Talk Talk Business to operate broadband circuits and back-haul in order to connect end users to our network.

Overview

In principle, we feel that the idea of compensation for a failure in a service where such failure is the responsibility of the ISP, or some directly contracting supplier makes sense, but only where such suppliers are compelled to provide the same to the ISP. It is also important that the ISP (and carriers that are responsible) have a reasonable time in which to make a repair if a fault happens without being expected to provide compensation.

We feel strongly that *consequential losses* make no sense for a consumer service, and that for a small or large business, the business should understand risks and make necessary business continuity plans themselves. As such a “money back” compensation level should be more than adequate, especially considering the extremely low margins in the industry. To require greater levels would simply mean all broadband pricing increasing to cover insurance for such compensation, which is unlikely to be what most consumers or businesses would wish.

We feel it is important for ISPs to make it clear to customers the nature of the service they offer, and what that means in terms of a definition of a fault or failure of service. It is also important to ensure that customers are aware of time frames for fault repair and any compensation levels that apply. **It is crucial that carriers that are responsible for back-haul and broadband circuits have the same definition of faults and provide at least the same levels of compensation to the ISPs to pass on to end users as it is typically impossible (or even illegal) for the ISP to actually effect the repair of services directly, hence relying on carriers.**

Overall we feel any compensation scheme is ill conceived until such industry wide definitions can be agreed.

Not a generic utility

One common issue we encounter when discussing policy matters regarding “Internet” is the misconception that an Internet access service is in any way like other utility services such as gas, electricity, water, etc.

Internet access is a service which varies massively from provider to provider. The physical access means, the nature of the service itself, the quality of the service, the reliability of the service, are all differences which ISPs can use to differentiate themselves from other ISPs.

It is also important to recognise that a provider may well be providing specialised services which do not even involve conventional Internet access, but using all of the same back haul and access systems.

We hope you will recognise that there are specialist and niche providers that need to be able to operate without imposition of inappropriate mass market constraints. But we understand that where such exceptions apply, providers would be expected to make this clear to potential customers and at a point of sale.

Definition of a fault / failure of service

Of paramount importance in any system of compensation is determining that the service provided is not in fact working as per the contactually agreed definition of the service.

There is currently no agreed standard on the definition of an Internet access service and what constitutes a fault in such a service.

Unfortunately this is a massively complicated issue. We appreciate that following is fairly technical in explaining why this is the case, but that is the point. Unless legislators can understand the issues, it is not sensible to proceed with any idea of automatic compensation.

A consumer may feel that they are buying “Internet”, which they will see as working by means of some simple test cases such as “Can I get to Facebook or Google”? This is obviously an issue as the ISP does not operate Facebook or Google or have any contract with them! This is very much not what the ISP is selling. As an ISP we sell an Internet Protocol access service whereby IP packets will be conveyed to and from the customer in accordance with the relevant technical standards. It is important to realise that Internet Protocol standards do not in any way guarantee that each and every packet will be delivered at all; delivered without delay; delivered in order; or delivered without duplication. A failure of an IP packet to arrive is absolutely not a failure of the IP access service, and indeed, it is the expected and required mechanism by which congestion in any link in the Internet as a whole is managed. It is also crucial to realise that Internet access does not mean the ISP has direct responsibility or control of conveyance of IP packets all of the way to their destination, or for any of the “over the top” services (such as web pages) provided by third parties using IP. Against this reference, almost any customer perceived failure of service will not in fact be a fault.

However, in practice there are a number of aspects of an Internet access service which can be clearly seen to be a fault and should be addressed by the ISP. As an ISP we are very technically capable and include in the service detailed monitoring of the back-haul and access lines (normally broadband via some carrier), including LCP echoes every second of every day on every line. This allows us to assess a wide range of faults which can normally be characterised as packet loss on the link or back-haul when the link is not congested (packet loss is normal when it is), or excess latency on a link or back-haul when not congested (again, this is normal when it is). Other indicators are regular loss of synchronisation at the modem level (characterised by loss of PPP), and synchronisation speeds adapting to significantly lower speeds.

Of course there are other aspects of the service that could be considered a fault, including failures to correctly route packets within the ISP network, failures to authenticate at a PPP level, and so on. It is questionable whether simple congestion, either in the back-haul network or the ISP network, are faults or not, as congestion is a part of the way Internet Protocol works. It would be impossible to build an un-contended world wide Internet. It would not, in any way, be cost effective for any ISP to build an un-contended network. As such congestion is always a possibility. Each ISP may choose to provide some level of assurances with regard to congestion and network capacity, but there is currently no compulsion to do so, no standard measure for congestion, and no established acceptable levels of congestion. Also, an ISP may choose to manage certain traffic types in order to provide congestion free operation for most customer needs - such policies may be seen as good practice for the overall operation of the service, and essential in cases such as Denial of Service (DoS) attacks. Of course, a DoS attack is something outside the ISPs control and force majeure in contract terms, but could cause wide scale loss or reduction in service to an ISPs customers.

Broadband "speed" is also an issue. In general the forecasts for speed of a service at the time of sale will be an estimate only, and will only relate to the synchronisation of the broadband modem. Some types of fault can lead to lower synchronisation speeds being established. In this context the real criteria for what is, or is not, a fault is a matter of whether the issue can be "fixed". Increases in cross talk due to more wide scale take up of broadband on a cable bundle can reduce synchronisation speeds but not in any way be a fault, or something that can be "fixed". However, customers often do not look at the synchronisation speed itself, but will run a speed test. This will be impacted by a wide range of possible faults and non faults both within and outside the control of the ISP. A slow speed test cannot necessarily be diagnosed to a fault on its own, and sometimes more complex tests such as packet loss and latency, broadband error seconds and synchronisation speeds, and so on, may be necessary. However the end user only really has the speed test as a guide, and this can lead to conflicts with the ISP as to whether compensation should have been paid or not.

I feel that it would be hugely complex to reach any industry wide agreement on what constitutes a fault in an Internet access service, and without this, any compensation scheme is meaningless.

Carrier responsibilities

A key issue is the definition of a fault in the back-haul and broadband access services themselves. These are often provided by a carrier, and we use both BT and TalkTalk carriers, but there are others. The carrier provides the back-haul network, Broadband Remote Access Servers, Broadband Modems in the exchange or cabinet, and connection to copper pairs which are usually maintained by British Telecommunications plc trading as Openreach.

At present the carriers do not have a clear definition of a fault in the service they provide. Both BT and TT tend to try and define the service as being acceptable where the copper pair meets the BT specification for voice calls (SIN349), even though this is not in fact relevant in terms of the contracted service they provide to the ISP. Neither of them accept packet loss or latency on an uncontested line as indicators of a fault. BT did define a per line fault threshold level for synchronisation speed, but even where this breached they still refuse to accept the service as faulty even using their own definition!

The very fact that they do not have a sensible definition of the service they provide and what constitutes a fault is a clear indication of the total impracticability of any view that we could negotiate compensation with them. It simply is not possible.

For any sort of standard compensation to end users for situations where there is a fault in the back-haul and broadband access it is essential that carriers have to work to the same definition as the ISPs and offer the same level of compensation. Without this, the ISPs take all of the risk and

cost with no actual means to improve service or address the faults. ISPs are not allowed to do work to actually effect repairs on the line. The end result being that services are not actually improved, but ISPs simply have to increase prices to cover the compensation they have to pay. If the carriers do have to have the same definition of fault and compensation then this may create an incentive for them to provide a better quality of service, which is clearly in the interests of consumers.

It should also be noted that the lack of a clear definition of service and faults with the carriers is already causing an industry wide issue whereby carriers are charging to fix faults, or worse, charging when engineers fail to find a fault that is later found and fixed. This further highlights the impossibility of any sensible negotiation with the carriers and the requirement for a mandate on the carriers to be part of any new compensation scheme.

Compensation obligations and service definitions have to be mirrored down through the entire value chain, which each party taking responsibility for their value add only, and passing on responsibility for the components they purchase.

Large scale faults

As an ISP there is always the possibility of a large scale fault. This could, of course, be within the ISPs own network. Any ISP would make all efforts to rectify such faults promptly, and, of course, plan to minimise risks by use of redundant equipment. The ISP must have a reasonable time in order to rectify such a fault without paying compensation, as compensation may have to be to every single customer.

It is also important to realise that there can be large scale faults which are totally outside of the ISPs control. The Internet as a whole can suffer issues with routing which would affect all customers of an ISP, and many ISPs, but not be something the ISP can actually do anything about. Clearly compensation makes no sense in such cases.

Copper line faults

One of the issues with most broadband services is that the service is dependant on a working copper pair (phone line). This is a more general situation where provision of the service is contingent on some other aspect in some way which is not contracted by the ISP.

In the case of a copper line, there is, for BT at least, a specification (SIN349) which can be used as a reference for determining if the fault is the responsibility of the copper line provider or the broadband provider.

Obviously where some separate issue, such as a failure of the copper line, is the cause of a broadband failure, it needs to be clear that any compensation scheme for the broadband aspect does not apply, and indeed, the ISP providing only the broadband aspect is not even expected to take action to try and rectify the fault - that being the responsibility of the copper line provider.

Consumer equipment

Customer equipment can be the cause of a fault or degradation of service.

One of the key issues we encounter is the use of WiFi. Whilst we sell WiFi equipment, it is, by its very nature, something which depends on the environment. WiFi can be slow and unreliable through no actual fault, perhaps due to local RF interference and even just thick walls.

However, the WiFi is very much not part of the Internet access service that we sell. So any attempt to assess the working of our service has to be done without WiFi being involved. This comes down to a demarcation point for the service we offer, which is basically the master socket. Everything beyond that is the customers responsibility, a fact that needs to be made clear by ISPs, and is highly relevant when considering faults and compensation.

As an equipment provider we also have responsibilities, but these can be limited to replacement, repair or refund, and not consequential losses or compensation.

Another key issue which needs to be considered for any sort of compulsory compensation, or particularly the case where someone may be allowed out of a longer term contract due to a fault, is that faults can be **created** by the end user. Simply disconnected the broadband several times a day would look the same as regularly losing synchronisation due to a fault. Indeed, it can lead to changes in profiles and hence lower synchronisation speeds. Customers are well aware of this, and it could become a standard means by which customers can get compensation or get out of contract, and there would generally be no way for the ISP to prove otherwise.

Internet Access is not “The Internet”

It is important to realise that Internet Access, as a service, is not the Internet itself. The Internet is a large collection of networks and computer systems around the worlds. An ISP sells access only, and does not in any way try to sell the actual services, web sites, and so on. This, again, makes the issue of “fault” and compensation much more complex.

Limits on compensation

A consumer is not running a business and so should not really have any expectation of any sort of consequential losses for failure of a broadband service. It is also the case that consumers often have readily available alternative means of communications, whether by use of mobile, neighbours broadband, or Internet access provided by local businesses, cafes, or libraries.

We feel that the ISP should make it very clear, not only what the customer can expect in terms of service levels, and in fault repair times, but also the level of compensation. It seems totally reasonable that where the ISP has failed, the customer should receive their money back, but we see no reason for the compensation to exceed that level.

Ultimately any enforced additional compensation will simply mean ISPs have to factor a level of insurance in the cost of all Internet access services. We feel that, in the current climate of customers expecting lower and lower prices, that this is not in the customers interests.

Small Businesses

Any business should consider the services they use and the risk of failure and there is no real reasons to consider small businesses to be any different to larger businesses.

Yes, a failure of an Internet access service could be costly to a business. There are many ways for a business to mitigate this including use of high availability services, multiple lines, multiple ISPs, mobile back up, and so on. These are not expensive or difficult even for a small business, and some ISPs, such as ourselves, even offer services especially tailored to providing small businesses with higher availability Internet access for a higher fee.

If consequential losses were to be considered in compensation this would mean ISPs would have to obtain insurance and include that cost in the cost of broadband. It seems far more reasonable that businesses, small or large, that need to maintain Internet access should be able to choose the

extra business continuity measures they feel are appropriate and choose if insurance is appropriate rather than being effectively forced to participate in an ISP insurance scheme.