A briefing from BT: helping address the Covid-19 challenge

Overview

BT is committed to playing our part in meeting the challenges we all face as a result of the Covid-19 outbreak. As much of our lives move online, the resilience and capability of our digital networks is taking on greater importance. We need to ensure that the most vulnerable in society can stay connected and those financially impacted are treated fairly and supported appropriately. And we need to support the NHS frontline in treating acute cases of Covid-19 and use our reach to help inform the public about the precautions they should be taking.

This briefing provides some answers to common questions your constituents may be asking and outlines the wide-ranging work BT is doing across all these areas. Please contact us at public.affairs1@bt.com or visit www.bt.com/coronavirus for any further information that you need.

We're supporting your constituents

We are answering every call we can from 45 entirely UK based call centres. Staff are being redeployed from retail stores that are now closed to support on-line chats and enquiries while working from home. We know this is a stressful time and people are worried about their finances – and we know how important internet connectivity is, whether for home-working, home-schooling or to keep in touch with family and friends. We're committed to supporting those who need extra help with their bills and we'll make sure we do what's right for each customer and their individual situation, including mobile only households and those who are self-isolating. We've now introduced a range of specific measures:

- **If a customer contacts us about financial difficulties related to Covid-19, we'll help work out what's best for them.** This could include lowering their bill for a number of months until they get back on track and ensuring they don't get disconnected. If they're on benefits, we will assess whether our existing BT Basic package, which costs £9.95 a month for broadband and line rental, is appropriate.
- **All data caps on fixed line broadband plans will be removed**. Every customer can use the internet to work from home, receive online lessons and stream films as much as they need with no additional charges to their bill.
- **We're also putting flexible measures in place for our one million small businesses customers** across the UK, helping them to change the way they use BT services and navigate the challenges they're facing.

We also know that technology will play a big role in helping everyone get through this crisis. So, we'll continue to teach people the digital skills they need to stay in touch and live life as normally as possible. We have a range of support already in place for parents, children and small businesses to help them adapt to remote living and working.[1]

What specific support are you providing for my most vulnerable constituents?

- **A £5 cap on the cost of any phone calls made by a customer who only has a landline.** Those customers will never pay more than £5 in addition to their line rental each month.
- **Unlimited mobile calls, texts and data for all our customers classed as vulnerable** in our systems, whether on contract or 'Pay as you go'.
- **All other 'Pay as you go' mobile customers will be able to call us free to top up their phones on 150** or do so remotely.

What if a constituent needs a new fixed line broadband connection or a repair in their home?

Openreach has asked its engineers to avoid entering customer premises. A large amount of the work they do can be completed outside and they can often upgrade people or fix problems without entering a

[1] www.bt.com/skillsfortomorrow

customer's property. As such, they have been asked not to complete any work inside a property unless it would leave a vulnerable customer with no form of connection, and it's not possible to provide one by any other means.

Where a rapid repair or new connection is not possible, we will aim to provide alternative connectivity. In the first instance, we will seek to convert their mobile device to provide in-home 'hotspot' connectivity. Where this is not possible, we will aim to provide a 4G mini hub/dongle. We have a limited supply of these devices and, like many other products, there are worldwide supply chain issues with them as a result of Covid-19. But we're doing all we can to build up our stocks.

What about BT Sport?

With live sport on hold for now, BT Sport customers have three options: they can ask us to donate the cost of one month's BT Sport to NHS staff; or claim one month's credit back and we'll add it to their bill; or, if they also have BT fibre broadband, they can take our new flexible TV package and get BT Sport free for three months. More details are available on the BT Sport website.[2]

We're maintaining our network's performance and resilience as demand grows – and providing advice to customers to make the most of their connectivity

Our network has been built to deal with peaks in demand that are significantly higher than we are seeing now. Further information can be found in the annex to this brief. We have noted some wider commentary that customers have experienced slower speeds than they might want. This is likely to be due to local home or service issues other than the capacity of the BT network that pre-date the Covid-19 outbreak. We support and endorse Ofcom's recent advice to consumers on how to address issues within the home that can impact download speeds.[3] That said, we continue to analyse the impact that the demand for broadband and mobile is having on EE and BT customers, and those of other Internet Service Providers who are wholesale customers of Openreach. We will take action to boost capacity of our networks if needed.

We're supporting the NHS and amplifying key public health messages

BT answers every emergency call made in the UK. We're managing unprecedented demand, with call volumes normally seen on New Year's Eve being answered every single day. We are working at pace to deliver connectivity, voice and video communications services to NHS hospitals to help staff collaborate and patients to stay in touch with loved ones and enabling more than 400 NHS organisations to send Covid-19 related information and appointments to patients via SMS. This includes delivering solutions for The Nightingale field hospital at ExCel (where we've installed 1,000 IP enabled phones), St Barts and Royal London Hospitals and NHS Scotland. We're also supporting temporary hospitals being established at Parc Y Scarlets, Llanelli and the Principality Stadium in Cardiff.

Beyond that, we're playing a central role in the Government's communication efforts around Covid-19. We're already delivering anonymised and aggregated data to help them evaluate if public health information is getting through, and whether people's behaviour is changing as a result. We delivered an SMS message to 43 million devices with advice to stay at home and we've given Public Health England (PHE) access to 500 street hubs to publicise information. Even BT Tower has been turned over to broadcasting PHE messages. Beyond that, we are in close touch with the Government on how we can best support the NHS as this time, we are currently exploring several further areas where we hope to contribute to the effort.

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[2] www.bt.com/sportsupport

[3] www.ofcom.org.uk/phones-telecoms-and-internet/advice-for-consumers/stay-connected

Annex – BT's broadband network: handling additional demand

Can our network handle the increase in demand?

- We are confident that it can. We overbuild our networks to compensate for what consumers want to use the internet for and when they want to use it. Many want to come home from work or school and access high-definition streaming content, video gaming and other bandwidth-hungry applications. In contrast, online conferencing services, even video-calls, consume far less bandwidth.
- In line with this, our network is designed to deal with significant peaks and troughs in activity throughout the day and week, with lots of people going on-line to do similar things at similar times.
- The most intense period of activity is at the end of a normal school and working day, and during big live events. The highest 'peak' we've ever seen is 17.5 Tb/s. During a usual day we see peak usage averaging 5 Tb/s, daytime peaks are now greater, but still well within our network capacity.

What impact has mass home working and school closures had on the broadband network?

- Traffic has increased but we are managing this effectively. Government advice for everyone to work from home where possible was issued on 17th March. Since then, we've seen daytime traffic effectively double. A notable increase, but one we can manage as it is still significantly below the average evening peak we often see. We've also noticed less of a 'peak and trough' pattern of usage throughout the day. Evening peaks have been lower than normal as a result of major sporting events (such as the Champions League) not being held.

- We do expect daytime traffic to continue to grow, but we remain confident that the network can handle demand. That said, we're not complacent. We're monitoring the network closely and collaborating with the other UK networks and content companies. Our Network Operations Centre teams are operating around the clock to identify any issues and resolve them as rapidly as possible. And if more capacity is needed, our engineers are on standby 24/7 to make that happen.

What does this mean for your constituents?

- We do not think their experience is being impacted by the increased traffic on our network.

- Whilst not all your constituents will be served by BT for their broadband connections, across all our brands, we provide connections to about 10 million households. Around 75% of these are customers who have bought access to 'super-fast' speeds of 30 Mb/s or more via a fibre connection to their 'cabinet'- the green boxes at the end of many streets. We refer to this as 'Fibre to the Cabinet' (FTTC). The other 25% use slower copper only lines, known as ADSL. The vast majority of these (95% coverage of the UK) have access to 'super-fast' lines but have so far chosen not to order them.

- An upgrade from ADSL to FTTC would not ordinarily require a home visit from Openreach. However, some new equipment would need to be posted to the address, and some alterations would need to be done at the 'cabinet' nearest to the house concerned. Both these steps require resources and staff impacted by Covid-19, which could lead to the upgrade taking longer than normal.

- In an extreme and unlikely scenario, where all 10 million BT customers are on-line and consuming data at the same time, the average household with an FTTC connection (about 75% of BT customers) can still expect to able to be benefit from simultaneous home working/video conferencing and TV streaming.

How does BT's broadband network compare to those other countries?

- Whilst we are not aware of comprehensive comparative data for different countries' network capacity and performance, one useful comparator is Netflix's performance statistics. On this measure, BT performs better than the best network in all major economies bar US, Spain and Australia.[4]

- The UK is in a very strong position to enable home-working, with more than 95% of premises able to access 'super-fast' broadband or better. We have also shown the network's ability to support millions working and learning from home throughout all of last week with no real issues.

So what might be causing a slow broadband connection for a constituent?

The UK broadband network is a series of connecting 'layers' which each work together to bring internet connectivity into a building. Different parts of these layers are managed by different companies and individuals, but any one of them could impact the experience that an end-user has. A BT customer end user experience can be influenced by factors outside of our direct control:

- **Online services**: This is the content that people access. For example, iPlayer, Netflix or on-line public services like HMRC. Links from the core networks to the servers that these providers own and manage are monitored and can be upgraded if needs be. But the capacity of the link and how many people are accessing it at the same time can impact how fast that content is accessed by the user. Some services, like video conferencing services, are experiencing very rapid growth in users and are carrying much higher volumes of calls than usual. When these services are slow due to the volume of users, simple fixes like starting calls away from 'the hour' (so 10:15 instead of 10:00) or switching off video when not talking can help improve things.

- **The home:** Sometimes, the quality of the Wi-Fi router that your internet provider ('ISP') gives you or where you have positioned the router in your home can impact your experience especially as more people with more devices all try to use Wi-Fi at the same time. If you connect your computer to the internet with a cable, or alternatively ensure the Wi-Fi Router is optimally positioned in your house this can help. Wiring in the home can also be a factor.

- **The 'Last Mile'**: Managed by Openreach for BT and many other service providers. If you live in an FTTC household, the wire running from the green cabinet to your house is dedicated to you, but the length of the wire from cabinet to home can impact speed received. The fibre link from the cabinet to the phone exchange is shared by FTTC customers on that cabinet but has very high capacity to deal with all users' demands. Openreach monitor this and will upgrade if necessary. ADSL households typically be able to get a speed of up to 24 Mb/s and are connected directly to a BT exchange.

- **The Internet Service Provider (ISP):** BT or many other ISPs such as Sky and Talk-Talk. Each ISP makes a commercial decision on what capacity they need to connect to the "last mile" in order to deliver the speed required by their customers. This is monitored by the ISP and is upgradeable.

- **The core network:** In the UK, there are a number of providers of Core network services for small ISPs and many large ISPs build their own e.g. Virgin and BT have large core network services. This network will typically be managed to ensure that there is always enough capacity as described above.

[4] https://ispspeedindex.netflix.com/