9. Technology

Headlines

• There are an estimated 2.75 billion internet users in the world, representing 38.8% of the global population. Three quarters of people in the developed world use the internet, compared to less than a third in the developing world.

• In West Sussex, 87.0% of the over-16 population have used the internet – higher than the UK average of 85.8%, but below the average for the South East at 88.8%.

• In April 2012 there were 18.749 million fixed residential broadband connections in the UK with BT being the largest provider, having 30% of the current market.

• Of the 76 telephone exchanges in West Sussex, 96% are enabled for ADSL Max broadband, with speeds up to 8Mbit/s. 43% of exchanges are ADSL2+ enabled, which allows for speeds up to 24Mbit/s. Fibre optic broadband is currently being rolled out across West Sussex and is currently available from 34% of exchanges. However, there are large areas of rural West Sussex that have low broadband speeds, and three exchanges that currently have no broadband coverage.

• Government departments made more than 1.8 billion transactions during 2012, with HM Revenue & Customs (HMRC) accounting for 978 million of these and local government accounting for 572 million. More than 90% of HMRC transactions were made via digital channels, compared to less than 1% of Department for Work and Pensions (DWP) transactions.

• Residents surveyed were most likely to use the West Sussex County Council website for renewing library books, reporting a highway fault or applying for a school place. The majority of respondents would be prepared to use the website to carry out a variety of transactions in the future.

• Take up of a range of connected devices has increased in the UK. More than half of the population – 51% - now own a smartphone, most commonly an iPhone (21%) or Android powered smartphone (20%). Half (50%) of UK households own a home games console, and 27% own a portable games console, while e-readers have also increased to 22% ownership.

• 45% of people in the UK use social networking sites, rising to 77% of people aged 15 to 24. Facebook remains the most widely used social network, with 19.1 million people accessing Facebook on their mobiles in 2013, followed by 7.7 million accessing Twitter.
Technology - Internet

Description

The internet is a global system of connected networks – a network of networks – that uses a standard protocol for communication in order to serve billions of users worldwide. Networks of all types, be it public, private, business, academic or government, are linked electronically to provide information, communication and services to users of each constituent network.

In the UK, internet use is now widespread in the home, at work, in education and increasingly whilst on the move. The number of devices connected to the internet is rising rapidly, with mobile forms of internet access – such as smartphones and tablets – showing the fastest increase. Recent estimates put the number of wirelessly connected devices at 10 billion, which could triple in size to 30 billion by 2020. Such widespread use has led to changes in the lifestyles of many people, while the internet now underpins a significant proportion of the economy in West Sussex.

Performance

Global estimates from the International Telecommunications Union (ITU) put the number of individual internet users at 2.75 billion in 2013, more than double the number estimated in 2007. The 2013 estimate represents 38.8% of the entire population of the world. There is a significant gap between internet use in the developed world and the developing world, with more than three quarters of people in the developed world (76.8%) users of the internet, compared to less than a third (30.7%) of people in the developing world.

Europe has the highest proportion of internet users, at 74.7% of the population in 2013 (note that not all of Europe is considered as ‘developed’ – classifications are those used by the UN). This is followed by the Americas (North & South) with 60.8% of the population using the internet, and the CIS region (former USSR countries including Russia) with 51.9% of the population using the internet. By contrast, less than one in six people (16.3%) in Africa are internet users, with Africa also showing the slowest rate of growth in internet users since 2005.

Across the UK, an estimated 85.8% of the over-16 population have used the internet, rising to 88.8% of the population in the South East. In West Sussex, 87.0% of the over-16 population have used the internet – higher than the UK average, but below the average for the South East. Brighton & Hove has the highest proportion of internet users in the UK, with 95.0% of the over-16 population of Brighton & Hove having used the internet. In West Sussex, 12.6% of the population over the age of 16 have never used the internet, equating to 83,000 people.
There are clear patterns to internet use by demographic, with 88.1% of over-16 males having used the internet across the UK, compared to 83.6% of females. Over 99% of all 16-24 year olds have used the internet, while just 34.3% of those over the age of 75 have used the internet.

Source: Office for National Statistics, Internet Use Statistics 2013 Quarter 1

Figure 9.2: Proportion of population who have used the internet, West Sussex and surrounding counties, 2013

Across the country, the proportion of people who use the internet every day has risen from 35% in 2006 to 68% in 2012. Proportions for other frequencies, such as weekly, less than weekly or never, have all decreased over the same period. The most common use of the internet for adults is sending and receiving emails, with 73% of all adults using the internet for this reason. This was followed by finding information about good and services (67%), and buying goods/services online (67%), while just under half of adults using the internet engage in social networking or bank online.


Figure 9.3: Frequency of internet use by adults (16+) in Great Britain, 2006-2013

Source: Office for National Statistics, Internet Use Statistics 2013 Quarter 1

Figure 9.4: Internet use by age and gender in Great Britain, 2013

Source: Office for National Statistics, Internet Use Statistics 2013 Quarter 1
Technology - Broadband

Description

In West Sussex, current home broadband services are primarily supplied via the telephone network using Asymmetric Digital Subscriber Line (ADSL) technology. Other home broadband options, such as fibre optic or cable services are available in some – but not all – parts of the county. The Government intends to transform the broadband network in the UK by 2015, aiming to provide superfast broadband to 90% of people in each local authority area by 2015 at the latest. Definitions of ‘superfast’ broadband vary; however, the government’s Broadband Delivery UK (BDUK) office defines superfast broadband as a minimum of 20Mbit/s (the minimum downstream speed in megabits per second) in their delivery model. By comparison, the national average for residential broadband speed was 12.0Mbit/s in November 2012 according to Ofcom. Under the BDUK plans, the remaining 10% of ‘hardest to reach’ premises in rural areas should have access to speeds of at least 2Mbit/s.

Widespread access to superfast broadband has the potential to make a real difference to businesses and residents in West Sussex. It is recognised that faster connection speeds can stimulate economic growth by encouraging new businesses to locate here. Additionally, it has the potential to improve the quality of life for residents, for example by facilitating home working, start-up businesses, access to new communication channels such as video conferencing and quicker access to public services.

In addition to fixed home broadband connections there is also widespread provision of mobile broadband across West Sussex, accessible through various devices including mobile phones and ‘dongles’ using 3G (third generation) technology provided via mobile phone signals; therefore the strength of the signal determines the quality of the connection. Mobile broadband provision is limited in some rural areas due to poor 3G coverage. The main providers include 3, Vodafone, O2 and EE (Everything Everywhere, the parent company of Orange and T-Mobile). 4G (fourth generation) mobile broadband is currently being rolled out across the UK, starting in major cities and towns; with a compatible handset downstream speeds of 8-12Mbit/s can be accessed – five times faster than the current 3G downloads. In West Sussex, Crawley and Horsham already have limited 4G coverage, with coverage increasing continually across the county.

Performance

In April 2012 there were 18.749 million fixed residential broadband connections in the UK, with 13% of adults also using mobile broadband and 39% of all mobile phone users accessing the internet. BT currently has the largest share of the market for fixed residential broadband connections with 29.3%.

There are 76 telephone exchanges in West Sussex, of which 73 (96%) are enabled for ADSL Max broadband, with downstream speeds up to 8Mbit/s. Further to this, 33 exchanges (43%) are ADSL2+ enabled, which allows for speeds up to 24Mbit/s. Downstream refers to information sent from the web to a user’s computer, such as loading a webpage or downloading a file. Upstream refers to information sent from the user’s computer to the web, such as uploading – or ‘sharing’ – a photo or video. The majority of home broadband connections have faster downstream speeds than upstream speeds, due to the general trend for more information to be sent downstream than upstream; this is described as asymmetric. A Symmetric Digital Subscriber Line (SDSL) has the same bandwidth upstream and downstream, typically used by residents or businesses that need to send large quantities of data over the web; only 16% of exchanges are Symmetric Digital Subscriber Line (SDSL) enabled in West Sussex.

Fibre optic broadband is currently being rolled out across West Sussex and is currently available from 26 exchanges (34%). Fibre To The Curb (FTTC – also Fibre To The Cabinet) services utilise these exchanges to provide broadband speeds of either 38Mbit/s or 76Mbit/s, with the last portion of the connection – from the cabinet to
Technology - Broadband

the home – provided via metal cabling. BT and Virgin Media also offer Fibre To The Home (FTTH) services in select areas, which allow for downstream speeds up to 160Mbit/s and upstream speeds up to 20Mbit/s.

Across England, there are only four exchanges that are not broadband enabled and three of these are in West Sussex in Sutton, East Marden and Plaistow, while the fourth is in East Sussex. Residents connected to these exchanges do not have access to ADSL broadband services, but may have access to alternative options such as cable or mobile (3G/4G) broadband. There are also large areas of West Sussex that, despite having broadband available, have poor connection speeds due to long line length of copper cables from the exchange or cabinet to the property, or aluminium cabling. In addition there are specific land features that also present some challenges to connectivity including the hills of the South Downs, deep valleys and ancient woodlands.

**Table 9.1: Example download times for different connection speeds**

<table>
<thead>
<tr>
<th>File Type</th>
<th>Size (MB)</th>
<th>ADSL 2Mbit/s</th>
<th>ADSL Max 8Mbit/s</th>
<th>ADSL2+ 24Mbit/s</th>
<th>Fibre Optic 160Mbit/s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single song</td>
<td>5</td>
<td>0:20</td>
<td>0:05</td>
<td>0:02</td>
<td>0:00</td>
</tr>
<tr>
<td>YouTube clip</td>
<td>10</td>
<td>0:40</td>
<td>0:10</td>
<td>0:03</td>
<td>0:01</td>
</tr>
<tr>
<td>Album</td>
<td>100</td>
<td>6:40</td>
<td>1:40</td>
<td>0:35</td>
<td>0:05</td>
</tr>
<tr>
<td>YouTube clip (HD)</td>
<td>200</td>
<td>13:20</td>
<td>3:20</td>
<td>1:05</td>
<td>0:10</td>
</tr>
<tr>
<td>TV show</td>
<td>450</td>
<td>30:00</td>
<td>7:30</td>
<td>2:30</td>
<td>0:25</td>
</tr>
<tr>
<td>Film (low quality)</td>
<td>700</td>
<td>46:40</td>
<td>11:40</td>
<td>3:55</td>
<td>0:35</td>
</tr>
<tr>
<td>Film (full DVD)</td>
<td>4,500</td>
<td>5 hours</td>
<td>1 hour</td>
<td>25:00</td>
<td>3:45</td>
</tr>
<tr>
<td>Film (Blu-Ray)</td>
<td>10,000</td>
<td>11 hours</td>
<td>3 hours</td>
<td>1 hour</td>
<td>8:30</td>
</tr>
</tbody>
</table>

Source: www.uSwitch.com

Source: Sam Knows, UK Broadband Availability, www.samknows.com

Note: * Upstream speed of 2.5Mbit/s for ADSL2+ as specified in Annex M

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**Figure 9.6: Home broadband availability and speed in West Sussex**

- **Downstream speed**
  - 2Mbit/s
  - 8Mbit/s
  - 16Mbit/s
  - 24Mbit/s
  - 50Mbit/s

- **Upstream speed**
  - 0.5Mbit/s
  - 8Mbit/s
  - 2.5Mbit/s

**Key**

- **ADSL**
  - Asymmetric Digital Subscriber Line delivered via copper phone line

- **ADSL Max**
  - Upgraded ADSL that represents the fastest speed available using this technology

- **SDSL**
  - Symmetric Digital Subscriber Line that offers the same speeds down and upstream

- **ADSL2+**
  - Second generation ADSL which requires upgrades to exchanges to allow faster speeds

- **Fibre Optic**
  - Glass fibres carry data to the cabinet (FTTC) or direct to homes (FTTH) at fastest available speeds

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Technology - Broadband

Figure 9.7: BT Openreach superfast fibreoptic broadband enabled exchanges in West Sussex

Source: BT Openreach, June 2013
Government websites are a key access point for public service provision, the main function being for transactional services which allows for the exchange of information, money, goods and services. The Government Digital Service (GDS) provides analysis of all transactional services that local government and other public bodies undertake. Analysis of transactional services undertaken by government departments shows that these departments handle almost two billion transactions every year.

In August 2012 West Sussex County Council ran a public survey entitled ‘Every Pound Counts’, which included a number of questions on the types of transactions people would be happy to carry out via the WSCC website. The results showed that the majority of respondents would be happy to carry out almost any transaction via the County Council’s website, from renewing a library book to applying for a Blue Badge.
Technology - Transactions on Government Websites

Performance

The highest number of transactions last year (2012 calendar year) was undertaken by the HMRC, with almost a billion transactions alone, followed by all local government authorities combined with a total of 572 million transactions each year. The single biggest source of transactions for HMRC was Stamp Duty Reserve Tax (SDRT), paid on electronic share transactions, with 438 million transactions in the last year. A further 182 million of HMRC transactions were banking payments, including those issued by HMRC. The biggest individual source of transactions for local government was libraries, with 65 million transactions, followed by rubbish & recycling with 53 million transactions.

Digital take-up of services varies significantly across departments, from 100% of Cabinet Office transactions completed through digital channels (e.g. online, e-mail) to 0.8% of Department for Work and Pensions (DWP) transactions completed through digital channels. DWP also has the highest total cost associated with providing their transactional services, whereas 90.3% of HMRC transactions are completed through digital channels, resulting in a much lower cost of service despite the high volume of transactions.

The majority of respondents to the ‘Every Pound Counts’ survey said they would be happy to carry out most transactions via the website. For those respondents who use each service, renewing a library book was the most likely to be done through the website, with 47% saying they already use the website for this and a further 45% prepared to do so in future. Reporting highway faults and applying for school places each had 29% of respondents already using the website and more than 60% prepared to do so in the future. Requesting non-emergency social care support had the highest proportion of respondents who would not be prepared to use the website, at 19%.

Generally, most people would be happy to conduct all of these transactions online, either through the website or via a smartphone application (app). More than three quarters (79%) of respondents would be prepared to request non-emergency social care support online, rising to 9 out of every 10 people who are prepared to carry out other types of transactions online. However, there was little appetite for the use of smartphone apps to carry out these transactions; instead, the majority said they would use the website.

The O2 Digital Community Study, carried out in 2013, has shown that almost half (48%) of people in the UK say they would like to use the internet, mobile apps, or social media for paying things like council tax or getting information on local services. However, it was found that just 7% of those surveyed have used these technologies to communicate with a local authority in the last 12 months.

Worldwide, more than 550 public sector organisations, including West Sussex County Council, use GovDelivery to provide digital communications over multiple channels – including email, SMS, social media, and RSS feeds. These communications include safety alerts, information about tax, licensing, upcoming events, highways updates and leisure opportunities. In the UK, over 1.4 million users are subscribed to receive government email alerts via GovDelivery.
Technology - Council Websites

Description

Council websites are often the first point of contact between County or District councils and the public, and as such receive a significant amount of web traffic on a daily basis. The websites act as a source of information, advice and guidance, as well as allowing some transactions (such as making a council tax payment) to be conducted online. West Sussex County Council and Chichester District Council (CDC) utilise Socitm to monitor website performance, while Adur & Worthing Councils use Siteimprove; both of these services publish data on a regular basis. Other districts monitor their website performance internally.

Performance

During 2012, the West Sussex County Council website (www.westsussex.gov.uk) had 7,846,384 individual page views, an increase of 15.7% from the previous year. The busiest day was 11th June with 63,665 page views – mainly due to the flooding and adverse weather conditions experienced on this day. Your Space West Sussex, which provides information and advice to young people and is also maintained by the County Council, received 223,429 page views during 2012, an increase of more than 65,000 (41.2%) on the previous year. The start of the school year was the busiest period, with 5th September (1,461 views) being the busiest day.

The WSCC website averaged 150,540 unique visitors per month between April 2012 and March 2013, peaking in January 2013 with 223,999 unique visitors. Chichester District Council averaged 38,865 unique monthly visitors, peaking in July 2012 with 45,870, while Adur & Worthing Councils had an average of 36,745 unique visitors per month between November 2012 and March 2013 (data collection began in October 2012).

For WSCC website users who completed a Socitm website feedback survey, more than a third were over the age of 60, with most of these (32.0%) in the 60 to 79 year age range. A total of 47.2% of website users who completed a survey were between the ages of 40 and 59 years, while users below the age of 30 made up a very low proportion – just 7.3%. Under two thirds (64.7%) of website users who completed a survey were female.

Source: Socitm Council Website Performance Service; Siteimprove, 2013

Figure 9.10: Unique monthly visits to council websites, April 2012 to March 2013

![Graph showing unique monthly visits to council websites, April 2012 to March 2013.]

Source: Socitm Council Website Performance Service; Siteimprove, 2013

Figure 9.11: Age and gender profile of WSCC website users between April 2012 and March 2013

![Graph showing age and gender profile of WSCC website users between April 2012 and March 2013.]

Source: Socitm Council Website Performance Service
Information and communications technology affects almost every aspect of our lives, with penetration levels of many different devices increasing annually; for example, the number of mobile phones in Europe has now surpassed the number of people. With the development of smartphones, increased access to the internet on the go has become the norm, with people demanding faster and better connections through new 4G networks and existing 3G networks.

The term ‘smartphone’ generally refers to multi-functional devices with advanced computing power and connectivity; common features include media players, web browsers, digital cameras, the ability to download software applications and often a high resolution touchscreen display. The most popular examples include the Apple iPhone and devices running Google’s Android operating system.

### Performance

The proportion of people who own a mobile phone has now reached 94% across the UK, up 2% over the last five years, with the rate of increase slowing as the market reaches saturation. In contrast, the proportion who have a landline phone has declined, down from 87% in 2009 to 84% of people in 2013.

Three quarters of the population have a broadband connection, and just under half now have access to the internet on their mobile phone. Internet access via mobile has doubled over the last four years, from 21% in 2010 to 49% in 2013, increasing by around 10% per year – equivalent to 6 million more mobile internet users every year.

Driving the increase in mobile internet use is the rapid growth in smartphone ownership seen across the UK. This has jumped from 27% of the population in 2011 to 51% in 2013, with smartphones now accounting for almost three quarters (74%) of all mobile phone sales. Although the price of high-end handsets has remained high – and in some cases increased – the technology has filtered down to lower cost handsets which provide many of the same features, but at a lower level of performance.
Despite the growth in mobile phone ownership, both mobile-originated and total voice call volumes have been in decline since 2011. This can be interpreted as a result of the gradual transition from older, voice-only mobile phones towards web-enabled smartphones which offer multiple forms of communication in addition to voice calls. The most popular alternative to voice calls is mobile messaging, also known as text or SMS messaging. 81% of people in the UK use text messaging (SMS) to communicate, with this proportion relatively stable over the last three years.

The proportion of people using various web-based forms of communication has increased over the last three years, with mobile instant messaging showing the fastest rate of increase – up from 12% of the population in 2011 to 24% in 2013. Mobile instant messaging differs from SMS text messaging in that it utilises a mobile internet connection rather than sending messages over existing voice optimised networks. The most popular applications for mobile instant messaging include WhatsApp and BlackBerry Messenger (BBM). In 2013, 78% of the population communicate by email, 54% via social networking sites and 28% use Voice over IP (VoIP) services such as Skype. The latter again provides a similar function to traditional voice calls, but instead utilising an internet connection to allow conversations to take place, which offers advantages in cost and security.

Ipsos Mori produce estimates for take-up of a range of connected devices, including smartphones, tablets and games consoles. In the first quarter of 2013, an estimated 21% of the UK population own an iPhone, closely followed by 20% who own an Android smartphone. Tablet computer ownership is somewhat lower; 16% own an iPad, and 10% own any other type of tablet. Of the three most successful current generation games consoles, the Nintendo Wii is the most popular, with 20% of the population owning one.

Ofcom estimates that overall, half (50%) of UK households own a home games console, and 27% own a portable games console, while e-readers (such as the Amazon Kindle) have also increased to 22% ownership. However, PCs/laptops (including Macs) are still the most common connected device, with more than three quarters of the population owning one.
Description

Social media uses online technologies to allow people to share opinions, views, insights, experiences, and perspectives with each other via a host of online formats including blogs, posts, photos or videos. It is designed to encourage interaction as opposed to traditional media which tended to only deliver content in one direction without any participation from the receiver. One of the main trends in social media is the rise of social networking sites.

Popular social networking sites include Facebook, Twitter, Google+, YouTube, LinkedIn and MySpace; these are only a few of the vast number of sites that are now available online. Through increased ownership of smartphones, social networking sites are becoming even more accessible, with people being able to interact wherever they are including when they are out and about. Social networking has quickly become a normal part of everyday life for people of all age ranges and demographics, and usage continues to increase.

Performance

Across the UK, an estimated 45% of the population access social networking sites. This proportion increases to 77% of 15 to 24 year olds, as well as 69% of 25 to 34 year olds. However, less than a quarter of 55 to 64 year olds access social networking sites, with this proportion dropping to just 2% of those over the age of 75.

Facebook is currently the most popular social networking site, followed by Twitter. Worldwide, there were 1.11 billion active Facebook users in March 2013 and 200 million active Twitter users in February 2013. In the UK, there were more than 33 million Facebook users and 10 million Twitter users in 2012. Facebook also has the most mobile users, with 19.1 million people in the UK accessing Facebook via their mobile phone in April 2013, more than twice as many as Twitter (7.7 million).
Technology - Social Media

Using the estimated ‘reach’ facility found on Facebook, the estimated number of users found in some of the main towns in West Sussex shows that as of June 2013 Crawley had the highest number with 50,000 users, followed by Worthing with 40,000. These figures are estimates based on the number of users claiming to be from a particular town/city. In all but three of the top 20 towns by number of Facebook users, there are more female users than males; Crawley, Southwater and Pulborough were the only exceptions.

A study undertaken by Dean Spurrell at Ashford Borough Council showed that 96% of all councils in England use social media sites to interact with residents by posting news stories and information, and 90% use the sites for advertising events; however only 28% of councils use social media sites to actively engage with residents and only 9% of local authorities claim that they used social media solely for two-way interactive communication. The social networking site that is used the most by councils in England is Twitter, followed by Facebook and YouTube.

However, according to the O2 Digital Community Study, while businesses are taking advantage of digital networks like Facebook, Twitter and mobile apps to communicate with their customers; only 1% of people say they have interacted with their local authority via Twitter and, when they do, 74% are left feeling frustrated by slow response times.

Figure 9.18: Top 15 West Sussex towns by estimated number of Facebook users

<table>
<thead>
<tr>
<th>Town</th>
<th>Estimated Number of Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crawley</td>
<td>50,000</td>
</tr>
<tr>
<td>Worthing</td>
<td>40,000</td>
</tr>
<tr>
<td>Chichester</td>
<td>30,000</td>
</tr>
<tr>
<td>Horsham</td>
<td>24,000</td>
</tr>
<tr>
<td>Littlehampton</td>
<td>15,800</td>
</tr>
<tr>
<td>East Grinstead</td>
<td>14,800</td>
</tr>
<tr>
<td>Bognor Regis</td>
<td>14,000</td>
</tr>
<tr>
<td>Burgess Hill</td>
<td>13,600</td>
</tr>
<tr>
<td>Haywards Heath</td>
<td>13,000</td>
</tr>
<tr>
<td>Lancing</td>
<td>8,000</td>
</tr>
<tr>
<td>Shoreham-by-Sea</td>
<td>7,200</td>
</tr>
<tr>
<td>Midhurst</td>
<td>3,800</td>
</tr>
<tr>
<td>Billingshurst</td>
<td>3,800</td>
</tr>
<tr>
<td>Selsey</td>
<td>2,800</td>
</tr>
<tr>
<td>Steyning</td>
<td>2,600</td>
</tr>
</tbody>
</table>

Source: Dean Spurrell, Ashford Borough Council

Figure 9.19: Social networks used by local authorities, 2012

<table>
<thead>
<tr>
<th>Social Media</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twitter</td>
<td>97.5%</td>
</tr>
<tr>
<td>Facebook</td>
<td>93.2%</td>
</tr>
<tr>
<td>YouTube</td>
<td>62.7%</td>
</tr>
<tr>
<td>Flickr</td>
<td>47.5%</td>
</tr>
<tr>
<td>Blogs</td>
<td>28.0%</td>
</tr>
<tr>
<td>Podcasts</td>
<td>7.6%</td>
</tr>
<tr>
<td>MySpace</td>
<td>3.4%</td>
</tr>
</tbody>
</table>

Source: Dean Spurrell, Ashford Borough Council
West Sussex County Council has recently undertaken two surveys about broadband availability across West Sussex. The first was a Residents’ Broadband Survey to ascertain perceptions of home broadband availability between October and December 2010. A second survey was undertaken between January and March 2011 to understand the perception of broadband availability for businesses in the county.

Performance

A total of 2,049 residents responded to the Residents’ Broadband Survey survey. The result of the survey confirm the view that broadband provision in West Sussex is of a poor standard and that this situation severely limits access to services and information by people and businesses. This is particularly the case in rural areas. 22% of respondents living in urban areas felt their internet speed was fast enough, compared with only 7% living in rural areas. In total, 16% of respondents said their internet connection was fast enough for their current needs, whilst 38% of respondents said they would pay more for faster speeds. Currently the majority of residents use the internet to send e-mails, undertake online research or online banking.

From a total of 621 businesses that responded to the business survey, only 10% felt their internet connection was fast enough for their current needs, with a further 32% saying it was just about acceptable. 80% of businesses suggested that the internet is critical to their business with an additional 18% stating it is very useful. Businesses located in rural areas suffer from poor broadband access in particular, with just 5% of those surveyed saying their internet was fast enough.

Businesses suggested the benefits of having access to superfast broadband would include improved customer service (72%), more flexible working (54%), business growth (53%) and higher turnover (36%). 10% suggested that an improved broadband service would bring other benefits, the majority of which focused on a more efficient use of time, and increased productivity.

Table 9.3: Internet activities of West Sussex residents, 2010

<table>
<thead>
<tr>
<th>Internet Activity</th>
<th>Number of respondents</th>
<th>% of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sending e-mails</td>
<td>1,972</td>
<td>96%</td>
</tr>
<tr>
<td>Online research</td>
<td>1,896</td>
<td>93%</td>
</tr>
<tr>
<td>Online banking</td>
<td>1,669</td>
<td>81%</td>
</tr>
<tr>
<td>Shopping</td>
<td>1,631</td>
<td>80%</td>
</tr>
<tr>
<td>Book holidays</td>
<td>1,499</td>
<td>73%</td>
</tr>
<tr>
<td>Watching TV</td>
<td>1,231</td>
<td>60%</td>
</tr>
<tr>
<td>Buying and selling goods (e.g. eBay)</td>
<td>1,157</td>
<td>56%</td>
</tr>
<tr>
<td>Social networking</td>
<td>1,029</td>
<td>50%</td>
</tr>
<tr>
<td>Downloading music and videos</td>
<td>1,018</td>
<td>50%</td>
</tr>
<tr>
<td>Photo sharing</td>
<td>951</td>
<td>46%</td>
</tr>
<tr>
<td>School or college work.</td>
<td>568</td>
<td>28%</td>
</tr>
<tr>
<td>Online gaming</td>
<td>45</td>
<td>2%</td>
</tr>
</tbody>
</table>

Source: West Sussex County Council, West Sussex Residents Broadband Survey
Internet use across the UK is continuing to increase, although the rate of growth has slowed significantly in the past five years as the proportion approaches 90% of the population. In many places, the remaining 10% may be unlikely ever to use the internet – largely through choice rather than a lack of provision. The most common reason given by non-users is a lack of interest or that the internet would not be useful for them, rather than cost or availability limitations.

High speed broadband is already considered a daily essential for many people. As internet content demands more bandwidth, the lack of access to superfast broadband will become an increasing disadvantage, serving to escalate the digital divide. However, most exchanges in West Sussex are expected to start providing superfast broadband before December 2014. Current priorities are upgrading the remaining telephone exchanges with Next Generation Access (NGA) equipment and building new fibre optic lines in the hardest to reach areas, while minimising the impact of these upgrades to the environment.

4G is the next (fourth) generation of mobile broadband networks following on from the existing 3G networks which now cover 99.7% of England. 4G services are already provided in some areas of the UK by several operators, including limited areas of Crawley and Horsham, with coverage expected to increase across the county in the coming years. In February 2013 a total of five operators were allowed to use 800MHz and 2.6GHz frequencies spectrum for the new network standard, and are currently in the process of upgrading their networks to 4G capability.

The West Sussex Better Connected partnership will use government funds (£6.26 million has been secured), match-funded by West Sussex County Council, to attract private sector investment in order to improve the broadband coverage, speeds, technologies and services across the whole county. West Sussex Better Connected aims to provide broadband of at least 2Mbit/s speed everywhere in West Sussex, and access to superfast broadband of at least 24Mbit/s speed to 90% of premises by 2015.

According to the 2013 O2 Digital Community Study, people aren’t getting the best experience when it comes to dealing with their local authority; 83% say information they receive is out of date and 71% say it’s not relevant to them – highlighting the need to do more to meet the needs of the communities they service and deliver accurate, joined up services, from council office, to mobile handset.

West Sussex County Council recently approved the new Digital Strategy, which sets out the Council’s intention to become ‘digital by default’. This means that our interactions with customers, employees and partners will - wherever possible - be delivered online. In designing services for the future, our first thought will be of how we can deliver them digitally. Our digital services should be so straightforward and convenient that all those who can use them will choose to do so whilst those who can’t are not excluded. For those who can’t use digital services, alternative channels and routes to services will be provided, where service users will either be helped to use a digital service or the digital service will be used on their behalf.

In addition, the public sector needs to ensure it uses social media as a two-way tool, rather than just pushing out information. There are many examples of local communities, businesses and individuals using social media in new and innovative ways, which could be utilised to improve service delivery in West Sussex. The County Council intends to engage and understand conversations in social media and, from these, develop the insight needed to inform our policies going forward.
Technology - Further Information

To access other chapters and data from West Sussex Life
www.westsussex.gov.uk/westsussexlife

Ofcom Communications Reports
http://stakeholders.ofcom.org.uk/market-data-research/market-data/communications-market-reports/cmr12/uk/

Office for National Statistics on internet use

UK broadband availability
http://www.samknows.com/broadband/broadband_availability
http://www.samknows.com/broadband/county/West-Sussex

Department for Culture, Media and Sport; Broadband UK
https://www.gov.uk/government/policies/transforming-uk-broadband

West Sussex County Council, Better, Faster broadband
http://www.westsussex.gov.uk/living/better_faster_broadband.aspx

Oxford Internet Institute audit of online behaviours
http://microsites.oii.ox.ac.uk/oxis/

Curious Catherine’s Blog, Facts and Figures
http://curiouscatherine.wordpress.com/

Government Digital Service, Data Driven Delivery
http://digital.cabinetoffice.gov.uk/2012/07/24/data-driven-delivery/

Cabinet Office Transactions Explorer
http://transactionsexplorer.cabinetoffice.gov.uk/