CORPORATE SERVICES & PARTNERSHIPS POLICY OVERVIEW COMMITTEE REVIEW OF 'HILLINGDON: A WIRELESS AND BUSINESS FRIENDLY BOROUGH'

Cabinet Member	Councillor Jonathan Bianco

Cabinet Portfolio	Finance and Business Services

Officer Contact	Khalid Ahmed, Deputy Chief Executive's Office.

Papers with report	Corporate Services and Partnerships Policy Overview Committee review of 'Hillingdon: A Wireless and Business Friendly Borough'

HEADLINE INFORMATION

Purpose of report	To receive the Corporate Services & Partnerships Policy Overview Committee's report which provides recommendations relating to the introduction of two pilot wireless (wi-fi) schemes in the Borough.

Contribution to our plans and strategies	The review was undertaken to contribute to meeting the commitment in the current Council Plan to explore the possibility of Hillingdon becoming a 'wireless' authority.

Financial Cost	The cost of setting up a pilot scheme in two town centres will range from between £19k to £35k for each town centre, with ongoing costs if operated into a second year estimated to be between £2.5k to £3.5k per town centre, dependent on the specification of the bandwidth and the support times. There is no defined budget for this expenditure within the 2009/10 revenue budget. It is therefore proposed that once the specification and figures are firmed up that a request be made to release the relevant funds from the 2009/10 revenue development and risk contingency.

Relevant Policy Overview Committee	Corporate Services and Partnerships

Ward(s) affected	All

RECOMMENDATION

That Cabinet:

1. **Welcome the report from the Corporate Services & Partnerships Policy Overview Committee and note the general recommendation which is proposing the introduction of two pilot wireless (wi-fi) pilot schemes in Hayes and in Ruislip.**

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2. **Give consideration to the recommendations of the Policy Overview Committee report as reflected below:**

   a) **That the Council's Communications Team be asked to instigate a publicity campaign in relation to the Council introducing pilot schemes for wi-fi into town centres with the intention of encouraging people and businesses into the Borough's town centres.**

   b) **That a full quotation be sought from providers for wi-fi pilots to be run in two town centres; namely Hayes and Ruislip.**

   c) **That a full quotation be sought from providers for a roll out to all LBH town centres.**

   d) **That statistical data be collected for 1 year to see how, when and where the free wi-fi is being used.**

   e) **That subject to the use and operation of the pilot and the roll out costs being acceptable, the scheme is rolled out to all LBH town centres.**

   f) **That the wireless broadband be provided free to use but without service guarantees.**

   g) **That cooperation is sought with The Chimes operators to seek possible joined up implementation for an Uxbridge Town Scheme.**

   h) **That external funding be sought from the Local Government Association, from 2012 Tourism Funds or other possible funders.**

   i) **That work takes place with Business Link to promote wi-fi to businesses in the area.**

   j) **That officers ensure that the scheme be undertaken as part of a wider wireless strategy in the Borough i.e CCTV.**

Reasons for recommendation

The review provided Members with the opportunity to look at how the Council could undertake its community leadership role of supporting businesses in Hillingdon. The evidence gathered during the review suggests that the introduction of wireless into the Borough's town centres will benefit small and medium enterprises and will also encourage people to come into high streets to use the wireless facilities and to spend money in the local economy.

Alternative options considered / risk management

The Cabinet could decide to reject or amend the Committee's recommendations.

Supporting Information

1. The Committee chose 'Hillingdon: A Wireless and Business Friendly Borough' as a review topic in 2008/9 to examine if the Council could do more to support the Hillingdon economy

PART 1 – MEMBERS, PUBLIC AND PRESS

and therefore improve the well being of local residents. The review was timely in view of the challenging economic conditions and the impact this has had on local businesses.

2. The aim of the review was to look at how the Council can undertake its community leadership role of supporting businesses in Hillingdon, which included examining whether establishing wi-fi networks in the Borough's town centres would benefit Hillingdon businesses and residents.

3. The review consisted of witness sessions held in September, October and November 2008 and March and April 2009. Witnesses included experts in the field of wireless technology and representatives from Chambers of Commerce. The review looked closely at the experiences in Norwich and in Islington where wireless schemes have been a great success in terms of offering free wireless to local businesses, residents and visitors. The costs and usage statistics of these schemes, together with the benefits and the lessons learnt from the schemes was considered during the review.

4. The Committee's report (attached) gives full details of the review.

Financial Implications

The estimated cost of providing two pilot wireless (wi-fi) schemes in Hayes and in Ruislip could be in the region of between £19k to £35k for each town centre, with ongoing costs if operated into a second year, estimated to be between £2.5k to £3.5k per town centre. This is dependent on the specification of the bandwidth and support times. Howeve, it should be noted that these estimates are subject to verification and agreement of commercial terms. It has also been assumed that there will be suitable sites to mount the access points in the locations (lamp posts or similar) and power will be available at each, the costs of which are not included in the estimates stated above.

There is no defined budget for this expenditure within the 2009/10 revenue budget. It is therefore proposed that once the specification and figures are firmed up that a request be made to release the relevant funds from the 2009/10 revenue development and risk contingency.

EFFECT ON RESIDENTS, SERVICE USERS & COMMUNITIES

What will be the effect of the recommendation?

The Committee's recommendations will provide free wireless for residents, businesses and visitors to the Borough's Town Centres. The introduction of free wireless in town centres will benefit small and medium enterprises and will encourage more people into the Borough's town centres and will boost the local economy.

Consultation Carried Out or Required

The Committee took evidence from experts, Chambers of Commerce and officers who worked on schemes in other local authorities as described in the attached report (see page 10).

PART 1 – MEMBERS, PUBLIC AND PRESS

CORPORATE IMPLICATIONS

Corporate Finance

The costs included in this report are for the set up of these services only and are based on one-year contract estimates. The costs are also subject to survey and can only be confirmed once final details can be provided to contractors who will undertake detailed site surveys. The estimates included assume that there will be suitable sites in place to mount the access points and that there will be power sources available at these sites. The costs of mounting the access points have not been included in these estimates and should there not be suitable sites available these costs, which are to be borne by the Council, could be considerably higher. It should also be noted that, until there has been a detailed site survey undertaken, the reach of this wireless cannot be specified.

Corporate Finance notes that these additional costs should be taken into consideration and analysed once quotations have been received from providers. As stated in the Financial Implications, there is currently no budget included in the 2009/10 budget for this proposal and so funding would have to be requested from the revenue development and risk contingency. However, the request for this funding should only be made once a full estimation of the costs has been undertaken.

Legal

The Council has the power under section 2 of the Local Government Act 2000 to do anything which it considers is likely to promote or improve the economic well-being in the Borough.

The financial costs of setting up two pilot wireless pilot schemes in Hayes and Ruislip are identified in the report and in this respect, it is worth pointing out that section 2[4] of the 2000 Act includes the power for the Council to incur expenditure.

BACKGROUND PAPERS

'Hillingdon: A Wireless and Business Friendly Borough' Review Report of the Corporate Services & Partnerships Policy Overview Committee

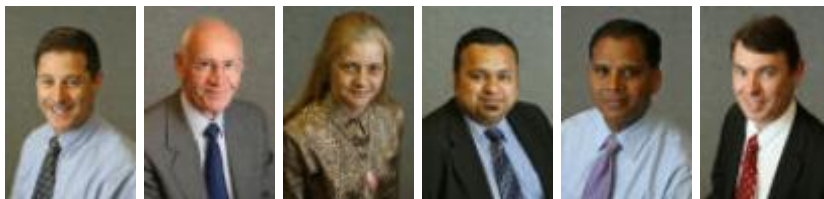**CORPORATE SERVICES & PARTNERSHIPS
POLICY OVERVIEW COMMITTEE**

2008/9

HILLINGDON: A WIRELESS AND BUSINESS FRIENDLY BOROUGH
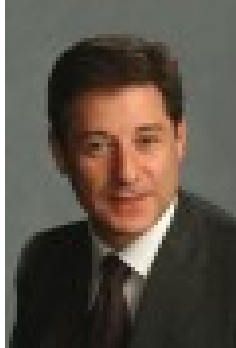
Members of the Committee

Cllr Richard Lewis (Chairman)
Cllr Brian Stead (Vice Chairman)
Cllr Sid Garg
Cllr Elizabeth Kemp
Cllr Robin Sansarpuri
Cllr Michael White

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CHAIRMAN'S FOREWORD

We started this review within the context of an economic downturn which as the review has progressed has turned into an economic recession. This review has therefore been timely and provided Members with an opportunity to look at how the Council can undertake its community leadership role of supporting businesses in Hillingdon.

We have closely examined all the evidence of whether establishing wireless networks in the Borough's town centres would benefit Hillingdon businesses and residents. We have looked closely at the experiences in Norwich and in Islington where such schemes have been a great success in terms of offering free wireless to local businesses, residents and visitors. We have heard evidence from wireless technical professionals and as a result our recommendation is to propose the introduction of two pilot schemes; one in the north and in one the south of the Borough.

The introduction of wireless will benefit small and medium enterprises and will encourage people to come into the Borough high streets to use the wireless facilities, free of charge, as well as to spend money in the local economy. It will provide added value to residents and be the first scheme of its kind in West London.

I would like to thank the witnesses who gave evidence and the officers who supported us during this review.

Corporate Services & Partnerships Policy Overview Committee
Hillingdon: A Wireless and Business Friendly Borough

After consideration of all the evidence presented as part of the review, we have made the following recommendations to Cabinet.

RECOMMENDATIONS

Recommendation 1 – That the Council's Communications Team be asked to instigate a publicity campaign in relation to the Council introducing pilot schemes for wi-fi into town centres with the intention of encouraging people and businesses into the Borough's town centres.

Recommendation 2 - That a full quotation be sought from providers for wi-fi pilots to be run in two town centres; namely Hayes and Ruislip.

Recommendation 3 - That a full quotation be sought from providers for a roll out scheme to all LBH town centres.

Recommendation 4 - That statistical data be trapped for 1 year to see how, when and where the free wi-fi is being used.

Recommendation 5 - That subject to the use and operation of the pilot and the roll out costs as acceptable that the scheme is rolled out to all LBH town centres.

Recommendation 6 - That the wireless broadband be provided free to use but without service guarantees.

Recommendation 7 - That cooperation is sought with The Chimes operators to seek possible joined up implementation for an Uxbridge Town Scheme.

Recommendation 8 - That external funding be sought from the Local Government Association, from 2012 Tourism Funds or other possible funders.

Recommendation 9 – That work takes place with Business Link to promote wi-fi to businesses in the area.

Recommendation 10 - That officers ensure that the scheme be undertaken as part of a wider wireless strategy in the Borough i.e CCTV.

INTRODUCTION

At the Corporate Services & Partnerships Policy Overview Committee on 24 July 2008 we initially agreed to undertake separate reviews into Wireless Town Centres and support to businesses. However after further consideration we decided that the reviews should be combined and officers were asked to provide a scoping report which encompassed wireless with a 'business friendly' Borough. The scoping report was updated after each witness session.

What is wireless (wi-fi)?

Wireless is a local area network that uses high frequency radio signals to receive data. It can cover wide areas, is more cost effective to deploy than fixed line communication.

Wireless town centres

The purpose of our review was to examine how the Council could support businesses in Hillingdon and whether the establishment of wireless networks within the Borough's town centres would benefit businesses and residents.

For the meeting on 24 July 2008, the Head of ICT produced the following briefing note for us to consider which provided the context to the review:

1.1   In the course of the last 5 years there has been considerable progress within the ICT industry in bringing to market products and services that are based on, often mobile, wireless technologies. These products and services most frequently manifest themselves as work and lifestyle support enabled by the rapid speed of communication and access to often significant quantities of information. Importantly however the services and connectivity are location independent. Work is becoming established as "something that people do" rather than a place that people go to. Those who choose to use mobile technologies to enhance their lifestyle are frequently transacting, communicating, sharing and researching as an important and normal part of the way they conduct their lives.

1.2   Like any computerised device, regardless of size and capacity, mobile devices rely on, and are as good as, the infrastructure that they connect to. The best devices and services are worth little however if the infrastructure is either not there or is insufficient to meet demand. There are significant potential opportunities to the Council, residents, businesses and visitors to Hillingdon if they are able to access wireless technologies within the Borough. For the Council itself the ability to improve processes, productivity, energy use, efficiency and its use of resources through technology enabled working using wireless infrastructure is available. This may manifest itself in solutions

such as mobile working/real time communication for staff working in the field and also in areas such as the possible replacement of infrastructure for the Council's CCTV estate as well as eased mobility within buildings.

1.3 Externally existing services such as CCTV may be run more efficiently and effectively by utilising a wireless network. For example in Westminster, a CCTV and noise monitoring scheme utilises the much lower cost backhaul bandwidth available from WiFi. CCTV can also be used for traffic management and congestion control, automatically sending messages to public displays on the roadside. For residents ease of access to sources of information and services there are numerous potential benefits. For instance public transport, real-time passenger information can be sent automatically to locations such as bus stops and bus stations, keeping passengers informed without the need for worker input. Availability of wireless beyond the confines of Council buildings, and there has been a growth of "hot spots", enables the transacting, communicating, sharing and researching mentioned above.

1.4 The Committee has a number of options on which it could base review work:

i) Is there an ultimate aim to make Hillingdon a "Wireless Borough" where commerce, work, communication, study and leisure are all enhanced. The offerings arising from the developing use of technology to both support these activities and give real life and lifestyle opportunities could help sustain Hillingdon as a Borough of choice and significantly aid the Council's community and sustainability objectives.

ii) Potentially enhancing services and opportunities by investigating offering free or low cost connection within designated hot spot areas as a low risk way of both investigating possibilities and offering an opportunity for a pilot scheme. This is certainly where the successful, limited, initial schemes have been within the UK and they present a comparatively low risk starting point. It is however also important to remember that the provision of citizen access wireless networks is still very much a developing area in the UK and there is as yet comparatively little best practice or learning available.

iii) Wireless access and availability could be considered in the context of "digital inclusion". There are clear and well researched links between "digital exclusion" and "social exclusion" and access to wireless broadband technologies at affordable prices can provide opportunities in engaging individuals who might otherwise become consumers of costly local services because of negative social activity.

iv) Many of today's services are offered using "3g" and enhanced variants of 3g technologies but it Is possible that wi-max may become an established product and broadly available part of the next phase of wireless developments, the Committee could look to provide a review of the available technologies, what is planned and how these might be brought to bear on

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both Council services and opportunities for residents, businesses and visitors to the Borough.

v) In terms of joining up thinking and thought leadership within the Council there are potential links to major HIP programmes including BS21, mobile and flexible working and organisational development and performance. The Committee could look at the available opportunities within these and other areas.

vi) Such mobile services and opportunities might be best considered and/or developed with other partners including both private and public sectors. The Committee might consider that a review could include an assessment of these opportunities.

This is not an exhaustive list and there may be other opportunities and areas for discussion. The list above is designed to increase awareness of potential and help fuel debate on the scope and subject areas for any review.

After consideration of the issues we asked officers to draft a scoping report looking at the following aspects of the topic:

- The potential benefits for business and people of all ages
- The impact on Hillingdon's Town Centres
- The scope for educational and environmental benefits
- Other related technologies e.g. CCTV
- Extent of existing provision and potential new interest
- Need for indicator of measurable benefit to the community
- Whether a service should be on a paid-for or free basis.

Aim of the review

To review how the Council can undertake its community leadership role of supporting businesses in Hillingdon, including an examination of whether establishing wi-fi networks in the Borough's town centres would benefit Hillingdon businesses and residents.

Terms of reference

1. To examine how the Council supports businesses that are seeking to locate in Hillingdon;

2. To examine how the Council can and should support businesses in challenging economic conditions;

3. To examine whether establishing wireless networks in the Borough's town centres would make Hillingdon a more attractive location for businesses;

4. To examine whether establishing wireless networks in the Borough's town centres would benefit Hillingdon residents;

5. To make recommendations from the above investigations, in particular on whether the Council should establish wireless networks in the Borough's town centres, including reference to:
   a. The costs of establishing such networks;
   b. Whether this is the most appropriate time to make Hillingdon's town centres wireless;
   c. Whether there are alternatives or alternative technologies;
   d. Whether there are commercial opportunities for sponsorship/advertising.

Reasons for the review

It is widely reported that economic conditions are becoming more challenging. This review is therefore timely in that it will seek to examine whether the Council could do more to support the Hillingdon economy and therefore improve the well-being of local residents.

The first part of the review will explore the possibility of the Council establishing wireless networks in the Borough's town centres as such networks operating at no or low cost could encourage businesses and individuals to spend time within the Borough's town centres. Several other authorities are piloting this technology and the review provides the opportunity to learn from similar recent projects elsewhere (notably Islington, Westminster, Manchester, Norfolk and Milton Keynes). The review will contribute to meeting the commitment in the current Council Plan to explore the possibility of Hillingdon becoming a 'wireless' authority.

Key issues

Business support in Hillingdon

1. What are the major challenges facing businesses in Hillingdon? What can and cannot the Council legally do to help business with these?

2. What support does the Council currently provide to business in terms of (a) attracting inward investment and enabling business start-ups, and (b) supporting struggling businesses?

3. What is known about the success of this support? What is working well? What is working less well?

4. How are decisions taken in relation to the priorities for supporting businesses? Is this controversial?

5. What support do businesses want? What do businesses think of the support currently on offer?

6. Are there innovative examples of how other Councils support business?

7. What is the role of partners in supporting business (e.g. the London Development Agency and business groups such as the Chamber of Commerce)? Could the Council's partnership working and coordination with these be improved?

8. Is there potential for increasing the amount of London Development Agency (LDA) funds committed to Hillingdon? Is there scope for accessing a larger amount of external funding from other organisations for supporting businesses in Hillingdon?

9. Are Hillingdon's interests sufficiently represented within West London Business?

Wireless town centres

10. What are 'wireless networks' in town centres? Which town centres would these cover? Would access to the network be free to any user? Is there a demand for such wireless networks?

11. What would be the cost of establishing and supporting wireless networks within the Borough?

12. Is external funding available to develop wireless networks (e.g. from the LDA, EU, or the London Olympic authorities?

13. How could the establishment of wireless networks in Hillingdon's town centres help the economic prosperity of the Borough?

14. How could the establishment of wireless networks in Hillingdon's town centres benefit residents?

15. What has been the impact of establishing wireless networks elsewhere (i.e. Islington, Westminster, Norfolk and Manchester)? Have these delivered the anticipated benefits for residents and businesses? Have any unanticipated problems arisen?

16. Would there be wider benefits of establishing wireless networks in Hillingdon? For example, would such networks make it easier for customers to contact the Council? Would these networks improve the efficiency and/or the quality of the Council's services?

METHODOLOGY

For the review the meetings held in September, October, November, March and April involved witness sessions along with research documentation to help our review.

First Witness Session: 9 September 2008

- Evelyne Rys – Sales and Business Development Manager at Cisco

Second Witness Session: 15 October 2008

- Tim Halford, Regional Development Manager of Cityspace

Briefing paper from Islington Council on the wireless scheme known as 'technology mile'

Notes of visit to London Borough of Islington to discuss 'technology mile' – 17 September 2009

Third Witness Session: 13 November 2008

- Tony Appleby - BT
- Steve Sandham – BT

Public instruction paper from Islington Council on how to connect to StreetNet from a laptop

Fourth Witness Session: 18 March 2009

Consideration of a report of the direction of the review, the costs of the infrastructure required for a wireless network, details on the CCTV scheme in Hayes Town Centre and the present economic climate

Fifth Witness Session: 8 April 2009

- Tim Walton – Consultant for the CCTV scheme in Hayes Town Centre
- Michael Langan – Hillingdon Chamber of Commerce
- Russell Harris – West London Business (oral submission)
- Andy Stubbs – Uxbridge Town Centre Manager (oral submission)
- Christine Lovett – Manager of Angel Town Centre, Islington (oral submission)
- Ann Carey – Project Officer for the Norfolk Open Link scheme (oral submission)

Paper on summary of "City wi-fi plans under scrutiny", published on BBC News website in May 2007

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"Norfolk Open Link" – East of England Development Agency report – May 2008

EVIDENCE AND FINDINGS

Wireless networks in other cities and town centres

For our first witness session, Evelyne Rys from Cisco provided an overview of wireless networks established in other cities and town centres. Key points raised were:

- The technology to deliver wireless networks is rapidly developing and the content of a similar presentation could be different in six months time.

- There are many potential users of a wireless network including citizens, businesses, and public sector organisations.

- There are a number of drivers for establishing wireless networks, including: internal efficiency and cost reduction; public safety (e.g. video surveillance, noise/pollution/flood monitoring); and economic development and innovation (e.g. wireless hotspots, access for tourists).

- Wireless networks have been deployed in various cities and urban areas. These various projects have had different objectives and therefore differ in terms of technical infrastructure.

- Improving community safety was the driver for the network in Westminster; specifically reducing crime, managing the collection of commercial waste, and streamlining parking management in the busy Soho area. For example, the wireless CCTV cameras identify parking infractions and accumulating trade waste and enable the Council to send the appropriate staff to deal with these.

- The wireless network in Brescia sought to address the low broadband penetration rate in a rural region of Italy. The network covers 1,500 square miles and is available for public sector organisations to use as a shared service.

- The wireless network in Prague, funded by the EU, developed in two phases. The first phase aimed to deliver free public access to non-commercial e-government services, internet for schools and city administrative buildings, and street wi-fi zones. The second phase sought to open up the network through partnerships with private operators.

- Luxembourg is currently developing an ambitious project to install 450 access points by the end of 2009. This will deliver a city-owned open wireless platform that is available to any organisation to use to provide a service.

Lessons learnt

A variety of lessons have been learnt from these projects:

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- The Prague project ran into difficulties as the European Commission does not allow EU funded projects to take business away from private sector service providers. In many countries this restriction also applies to national or local government funded projects.

- Several high profile attempts to establish wireless networks in the USA have failed. For example, the Earthlink project in San Francisco had an unbalanced business model in which the private sector bore all of the risk and the funding commitments. This meant that the public sector authorities had little influence over the project and were unable to prevent the private sector partner leaving the project once it became unprofitable. Therefore business cases for future projects must ensure a balanced level of public and private sector input; both sides will benefit from a well-designed network and therefore both must contribute. It is recommended that the local authority/municipal government is the 'anchor tenant' in the network for this will ensure coverage is not limited to the most profitable hotspots.

- Partners seeking to establish a wireless network must manage public expectations: e.g. as to the limits of speed and coverage. Residents must understand that they need the appropriate technology to use the network even if there is no charge once connected.

- The take-up of outdoor wireless networks has often not been as great as anticipated: people will not use these networks to access the internet on their laptops whilst walking down the street for example. The most common use for these networks is people using their PDA to find a location/business whilst walking through a town/city centre.

- Many projects have extended in terms of scope and complexity during the planning and implementation stages. This is often due to new technology becoming available and potential new uses emerging. It is therefore important to design 'intelligent' networks that can be enhanced at a later date and be extended to use a wider variety of applications than originally planned.

Benefits to residents and businesses of wireless networks

Key points included:

- Wireless networks can help businesses in a variety of ways. Restaurants and shops can use the network to send adverts and discount vouchers to people's wireless enabled devices when in the proximity of these businesses. In addition, people visiting local businesses could use the wireless network to access the internet (and their work emails) whilst in the Borough.

- In relation to demand for, and potential users of, wireless networks, the technology exists to access wireless networks but this has not always been user friendly. The 'i-phone' has revolutionised this sector and 2009 is

likely to see increased access to wireless networks through improved PDAs and devices similar to the 'i-phones'.

- There is a 'chicken and egg' situation in relation to the demand for wireless networks: PDA manufacturers are looking to extend the ownership and usage of their devices, however the low number of wireless networks limits the take-up. At the same time, the fairly low PDA ownership means that it is often difficult to demonstrate demand for a wireless network. Handset manufacturers may therefore be willing to work with public sector organisations seeking to establish wireless networks.

- Existing wireless networks have used 'wi-fi' technology. However, there could be scope to use 'wi-max' technology in future networks. Although wi-max is more powerful than wi-fi, a licence must be acquired to establish a wi-max network. Also, whilst many laptops and PDAs are able to access wi-fi networks, businesses and residents would need to purchase new equipment to access a wi-max network. 'MESH' is another new technology and can deliver wireless networks with a wider reach than previous technology.

- It is possible to secure wireless networks (e.g. through encryption and VPN) to prevent unauthorised use. However, a challenge is ensuring a sufficient quality of service on public access wireless networks: the speed and reliability of the network may suffer as the popularity and usage increases. Networks may require the facility to shut off public access for a short time in order to enable the emergency or public services to have sufficient bandwidth to deal with a specific situation.

- In relation to the health implications of wireless networks, it was noted that no study has proven adverse affects of wireless networks on health. Many cities have undertaken surveys of the exposure levels from wireless networks and these are publicly available.

- 'Datamonitor' estimates that the cost of a municipal wireless network is approximately $100,000 per square mile. Philadelphia's network cost $75,000 per square mile plus 25% run cost per year for the first two years. However, costs will vary according to the size of the network and the geography. BT has deployed several wireless projects in UK cities and may therefore be able to provide UK reference cases to the Committee.

'TECHNOLOGY MILE' – ISLINGTON

At our witness session held on 15 October 2008, we were given a presentation from Tim Halford, from Cityspace who worked with the London Borough of Islington on the wireless scheme called 'Technology Mile'.

The scheme runs for 4km from the Angel along Upper Street and Holloway Road to the Odeon Cinema and provides free wireless internet access to local businesses, residents and visitors to Islington, and is the largest free hotzone in the UK.

These type of areas are regarded as 'canyons of coverage' where the wireless transmitters are located on lampposts below the height of the buildings either side of the street. This creates a linear coverage pattern extending from the Angel to the Odeon. It is possible that at some of the road junctions there is slight coverage at the beginning of the roads, which is the result of signal over-spill.

The hotzone has 20,000 users a month, CCTV utilises the infrastructure used and local businesses benefit from this. Islington has a café style culture and people can use their lap tops and hand held devises to use wi-fi.

Benefits to the community

- The introduction of wireless in Islington is part of Islington Council's social inclusion policy with the next phase being the provision of Wi-Fi coverage to two deprived housing estates. This will bridge the digital divide.

- It will deliver Islington Council's vision of "One Islington", with the four priorities of the vision being regeneration, sustainability, performance improvement and customer focus.

- As part of the A1 Borough Project, improve the look and feel of this crucial route.

- Will aid communication between Islington Council, residents, workers and visitors to Islington.

- Provide opportunities for joint working with local businesses to improve the Borough.

- Meet the e-government agenda by offering as many online services as possible to increase access and reduce inequality.

Funding

The project has been jointly funded by Islington Council and by Cityspace, the urban digital network providers. All the costs of the service are shared through

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this partnership arrangement. Cityspace have match-funded the project by £50,000.

Economic and Social Benefits

Islington is recognised as the sixth most deprived local authority in the area and Islington Council believes that technology has a vital role in reducing both economic and social disparities. By offering free internet access and kit, Islington Council feel this project has gone a long way in closing the gap between the privileged and less privileged groups of the community. People who may not otherwise have had the opportunity are using the technology to access information on benefits and entitlements as well as job vacancies and childcare information. This gateway has opened up new possibilities for economic betterment on both an individual and community level.

With a focus on social inclusion, this project has begun to bridge the digital divide and offer disenfranchised members of the public the opportunity to benefit from emerging technologies and not to be left behind. By taking the technology to the people who stand to benefit the most and crucially giving them the tools to extract those benefits, Islington Council is making real progress in ensuring this vision is shared and owned by residents and partners, and not just the Council. In addition it is providing everyone with the benefits that on-line services can provide e.g. up-to-date information, discounts and e-booking. These online benefits are particularly pertinent to the under-privileged members of the community.

We learnt that it was too early to assess the impact on retailers in Islington in terms of an increase in business, although the cafes and restaurants in the area had seen an increase in custom. Local businesses in the 'technology mile' were using the system and running their business across the network, which helps local businesses, which is an aim of the project.

Christine Lovett, Manager of Angel Town Centre gave the review an oral submission at the meeting on 8 April 2009 which read: "I can't tell you very much about this scheme as it is run by Islington Council in conjunction with CitySpace. I know it has been extremely popular with residents in the area but I have no direct evidence that businesses are utilising it to any great degree. This could, of course, be a lack of awareness amongst local managers who change regularly and may not be up to date on what is available to them. I would expect that CitySpace will be able to give you user statistics for the service along the section of Upper Street that is in the BID area but, from my regular contact with local businesses, I have never been made aware of any issues around this subject".

Wireless and the provision of Council services

At the 13 November 2008 meeting, Tony Appleby and Steve Sandham of BT gave Members a presentation on the infrastructure which will be required for

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the introduction of wireless into Hillingdon. The previous work carried out by BT has been for cities such as Birmingham and Westminster, authorities who were anchor tenants of wireless schemes and who ran Municipal Networks for their Council services and for the benefit of the community.

We heard that the major drivers for a city wide broadband wireless network included:
- Transformation of the delivery of services – real time mobile working, telemetry (traffic management, intelligent street side devices) and streamed street side devices.

- For local authorities – the provision of free information zones, tourist and visitor information systems and providing external web access.

- Social Inclusion – the provision of limited and fixed broadband services to those in the community who are socially excluded.

Areas BT were looking at for local authorities included:
- Deploying moveable Wi-Fi video cameras to assist in easing traffic congestion and the issuing of penalty notices – to monitor a new bus station for public safety with images relayed to hand held devices.

- Licensing and Environmental Health officers can update records "on the street" from their hand held devises, integrated into the authority's systems and initiate immediate actions.

- Children's Services can access client information with a Wi-Fi laptop and agree a care package with clients immediately.

- "City Guardians" can access Council information using WI-Fi to help the public and reports issues of concern instantly.

- Walled garden to help citizens and visitors gain free Wi-Fi access to Council public service information.

- Wi-Fi mobile working as part of an overall mobile working initiative, which includes home working.

Infrastructure Costs

According to BT the costs of the provision of the infrastructure for a wireless network varies according to the size of the scheme but capital costs will be around £152,000 for 1.05 sq kms with an annual revenue cost of £16,500. Other cost considerations will be whether existing fibres were used, termination points, the type of internet access etc.

NORFOLK OPEN LINK

Throughout the review we were aware of a successful wireless scheme in Norwich which was pioneered in the summer of 2006. Information was gathered from the project officer who worked on the scheme and this was considered at the meeting held on 8 April 2009.

Norfolk Open Link is a pilot scheme offering free wireless internet access in central Norwich and parts of south Norfolk. The service connects people to the internet using their laptops, personal digital assistants and even some mobile phones. This is making a big difference to local businesses and public sector workers, including midwives and nurses.

The £1.1m, 18 month pilot was backed by the East of England Development Agency (EEDA) and run by Norfolk County Council, with support from a technology company called Synetrix. In Norwich city centre, County Hall and educational establishments such as the university there is wireless access. The Director of Corporate Services at Norfolk County Council has said that the original idea was to use the project as a demonstration, to wireless enable a significant part of the city of Norwich so the Council could begin to see what the benefits were in terms of economic development and the benefit for the public and public service workers.

Infrastructure

For the scheme there were more than 200 antennas positioned around the city, mainly on lamp posts, creating blanket wi-fi coverage for most of the city centre, an area about 8km across, as well as selected places to the south and west. All aerials are high up on lamp posts and buildings so that they are at least 30cm from the user.

The City was one giant hotspot, utilising a mesh network which meant users could get seamless internet access as they wandered the streets. There were more than 1,800 connections in the first week, with 2,500 in the second week and 3,000 in the third week. The network had two speeds – 256Kbps for the public and 1Mbps for public sector workers. The speeds of 256Kbps is slower than that provided in hotspots and users were limited to a one-hour sessions and had to reconnect after 60 minutes.

The main messages from the scheme have been:
- East of England Development Agency makes it easier to do business In and around Norwich
- Effective collaboration between EEDA and the local authority to implement the scheme
- Wireless allows people to work and find information wherever they are
- Ensures all businesses have access to broadband
- Helps businesses to become more productive

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- Connects businesses and individuals in rural areas to fast broadband internet.

Key considerations of the Norfolk Open Link scheme

The project officer from Norfolk Count Council who was involved in the wireless scheme in Norwich submitted written evidence to the review on the key considerations to be given to introducing wireless. These are as follows:

- Need to consider state aid implications if using public funds to provide free or subsidised wireless services

- Need to consider implications of Home Office requirements to authenticate identities of users logging onto services, can be technically demanding and expensive to deliver

- Internal ICT teams are unlikely to have necessary skills to provide and manage 'public' wireless network, also may be security implications if use any of corporate ICT infrastructure (e.g. internet pipe) to provide public wireless service

- Wireless equipment hosted on buildings/lamp posts/etc - need to consider access requirements, needs to be high enough so not a target of theft but means that will require specialist kit (i.e. cherry picker) whenever need to do any work on device, can be problem on busy roads where getting street works approval for works is difficult. Note that not all lamp columns are suitable for use in hosting wireless access points (due to factors such as age, condition, structural load, presence of other electrical kit for street Christmas lights, location of fuses, etc) Also considerable variance in cost of installing kit due to different specifications of lamp column. Where kit was installed in buildings there will be issues in getting agreements formalised. Difficulties are using any listed buildings, church towers, etc.

- Post project surveys indicated that many people would consider the availability of wireless networks an important consideration in choosing places where to live, work and study, however also indicated that people not willing to pay high amounts for such services. Many commented that they felt that wireless services in city/urban areas should be provided free to use and funded through other means (existing communication service packages (monthly telephone/mobile/broadband packages), public bodies (free internet access in libraries and other public buildings), premise owners (shopping malls, hotels, cafes, pubs)

- Whilst the project did increase awareness of benefits of using wireless technology to the small medium enterprise business sector (a

representative from Business Link was on the Project Team to co-ordinate communications and activities between project and Business Link initiatives) e.g. flexible and mobile working, there is no hard evidence of business benefit. Working closely with Business Link was important to ensure that the businesses in the areas targeted were aware of the project and encouraged to try it. Business Link could then provide the support to these businesses if they decided that they wanted to know more about how to realise benefits of using ICT to improve their business

- Sustainability - project looked at various business models for provision of wireless services from across Europe and USA, key themes were :-

(i)   Ability to aggregate demand in an area as unlikely that there is enough business to justify several suppliers;
(ii)   Targeted 'hot spots' more effective than wide scale coverage (users don't tend to move about once they connect);
(iii)   Anchor tenant arrangements often an effective means for public sector support and
(iii)   Minimise investment in technology due to high rate of turnover, wireless communications technology is evolving quickly.

OTHER WIRELESS SCHEMES

We were aware that there were organisations who already provided wireless in the Borough's town centres, together with proposals from The Chimes Shopping Centre in Uxbridge to create a "hotzone".

Starbucks and McDonalds

As part of our review unsuccessful attempts were made to invite representatives from both Starbucks and McDonalds to talk about the wi-fi they offer to customers. We noted that Starbucks provided wi-fi access to their customers at a charge, through a partnership with T Mobile.

We noted a press release from McDonalds which provided details on their Openzones which are provided in their restaurants (See Appendix 1).

Wireless and CCTV in Hayes Town Centre

Hayes Wireless CCTV initiative was introduced as a response to an ongoing drug dealing/anti social behaviour issue in the alleyways and access roads behind the shops in some areas of Hayes Town Centre.

The scheme which was completed in December 2008 is the first of its kind in Hillingdon to use wireless technology and is seen as a cost effective method of covering an area that did not really suit traditional CCTV camera systems.

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CCTV system supported by improved lighting and other security measures has only been in operation for a few months, so a proper evaluation has yet to be undertaken. However anecdotal evidence points to a decline in instances of drug dealing and improvements in terms of community safety.

The Hayes CCTV scheme is primarily an 'anti-crime' initiative. There was no intention to deliver wireless access to local retail establishments on the back of this development. Given the CCTV element of the scheme was in the region of £100,000, and only covered a small area of the Town Centre; it is unlikely that the wholesale introduction of wireless technology to Town Centres will be financially viable using this particular, existing, infrastructure.

Tim Walton, the CCTV consultant for the Hayes scheme gave a presentation on the scheme and on its relevance to our review at our meeting on 8 April 2009.

The key points of the presentation were that the initial approach for a CCTV scheme was to use fibre optic circuits which are secure and reliable. The scheme was initially expensive at £20,000 per annum to rent which was economically viable.

The initial trial for wireless CCTV was for Glencoe Road which was 4.5 miles back to the CCTV control centre at the Civic Centre. Permission was received to install wireless transmitters on top of Hillingdon Hospital.

The main lessons learnt from the scheme was
- The scheme took long to plan.
- Height of wireless transmitters is important as well as the choice of equipment.
- Maintenance plan needs to be in place from the start of the scheme to keep the equipment working.

The scheme was a point to point wireless connected network, close to public areas. High quality equipment was used to deliver reliability and performance with a reduced use of BT links.

The key component of the scheme was fixed, tilted zoom cameras with a wireless IP network to support a high bandwidth demand. Interface was to BT Ethernet network.

There were issues with trees which interfered with the wireless link. Point to point or multi point connections gave the best results. Fibre optic circuits would have given marginally better results but wireless had been the most cost effective solution.

Discussion took place on the reliability of the wireless connections and the CCTV cameras and we were assured that with the set up of the wireless

network the whole system did not grind to a halt if one camera became inoperative. The Glencoe Road scheme had encountered no problems.

Maintenance costs for the CCTV scheme were expensive as engineers were more experienced with fibre optics and were less so with wireless, but this is expected this to improve with time. We were informed that there was a robust system in place to counter vandalism and the system was not affected by adverse weather conditions.

The line of sight and bandwidth determined reception. Reference was made to the backhaul, which was the use of communications systems to get data back over a network to where the processing was taking place. Appropriate bandwidth was critical to the success of any network installation.

THE IMPACT OF WIRELESS ON BUSINESSES

During our review there has been the change in the economic climate with the economic downturn officially moving into a recession. The Council has responded with a series of well publicised measures to support local businesses. The possible introduction of wireless in town centres would be a useful tool and would help businesses in terms of giving free internet access and bringing people into town centres.

West London Business commissioned Facts International to undertake a Business Sentiment Survey amongst businesses in the 6 west London Boroughs, which included Hillingdon. The aim of the research was to obtain a snapshot of the views of West London Business on the current business environment future challenges and to begin a trend analysis. The key conclusions of the survey for Hillingdon which are relevant to the review are:

- Businesses in Hillingdon have experienced a less prosperous business performance in 2009 than in 2008 and they anticipate this decline will continue in the future. However over half (49%) of businesses do still expect growth over the next three years.

- The key issue of concern to businesses in Hillingdon and affecting their optimism about the future is the economy and recession, whereas last year transport was the main concern. Businesses are also concerned about cash flow; expect late payments for goods or services and difficulties in obtaining credit or finance.

- Two thirds of businesses in Hillingdon (65%) definitely need support finding new customers and two thirds (63%) definitely need support with keeping new customers. This is particularly important for small businesses which have reported profit reductions. It is recommended that initiatives are taken to raise the awareness of the support available for businesses, particularly who to contact within the local authorities.

The wireless schemes in Islington and in Norfolk have been successful in terms of usage but there has been no study into the impact wireless has had on businesses in terms of increasing business within a town centre. However, in Islington there is evidence that the cafes and restaurants have seen an increase in trade.

Hillingdon Chamber of Commerce and West London Business

As part of our review, Members heard evidence at its meeting on 8 April 2009 from Michael Langan, Chairman of Hillingdon Chamber of Commerce. He explained that businesses currently operated in a difficult economic climate and in his opinion, the introduction of wireless is not a main priority at the moment. The main concerns for businesses was increasing the "foot flow" into town centres, reducing car parking charges and the costs associated with running a business, including rents and business rates.

Reference was made to small businesses requiring IT equipment in order for them to benefit from free wireless, and in the present economic climate this will not be a huge priority for small and medium enterprises.

In his opinion there is no real research or evidence which shows the introduction of wireless will benefit small and medium enterprises and could encourage people to come into the Borough's high streets and to use the wireless facilities free of charge.

Reference was made to younger people who would come into the Borough's town centres to use free wireless and to spend money, all which would benefit local businesses. Town centres were presently not attracting younger people and wireless could be an attraction and increase the "foot flow" into town centres.

Russell Harris from West London Business sent the following comments: "West London Business would like to express its support for the introduction of wireless internet connection in the London Borough of Hillingdon, especially in the current economic climate, where the intelligent utilisation of workspace is highly important.

WLB also believes that the wireless internet in Uxbridge town centre
- Is important in enabling more inward investment and business retention in the area
- Will set the London Borough of Hillingdon above other West London boroughs
- Will support flexible working, which as mentioned, is important to global businesses in the current economic climate
- Will allow internet access to those who previously may not have had the chance to utilise this resource."

Andy Stubbs, Town Centre Manager for Uxbridge made the following comments: "My feeling is that the proliferation of wireless provision in town centres, shopping malls and individual business premises will be a good thing. It is increasingly being provided by the private sector (notably in cafes) and any free-to-access public sector offering can only add to the availability of wireless leading to increased bandwidth for users".

Technological Developments

Throughout the review Members were made aware of the technological developments in this field and that 3G and enhanced variances of 3G are already out in the market. The next technological advancements will be wi-max and 4G, however within three years wi-fi and wi-max will be compatible and there will be software available to allow both systems to run.

CONCLUSIONS AND RECOMMENDATIONS

Officers at the last witness session for the review on 8 April 2009 were asked to look at the cost implications of rolling out a wireless programme starting with two pilot schemes, one in the north and one in the south of the Borough.

The following was agreed:

Funding

1. "That officers be asked to contact London Development Agency and investigate other possible sources of funding for two pilot wireless schemes in the Borough"

Response

Officers have made contact with the LDA regarding the possible funding of two pilot wireless schemes. Contact was made with all the Directorates: Design, Development & Environment, Job Skills & Youth and Strategy, Resources and Performance. Unfortunately funding for wireless schemes is not within any of their future planned investment.

Costs/usage statistics of the schemes in Islington and Norfolk

2. "That further information be gathered from both the Norfolk Open Link scheme and from the 'Technology Mile' Islington scheme on the costs, usage statistics and local authority usage of their schemes"

Response

A number of questions were put to officers who were involved in the two schemes.

	Islington	Norfolk
What were the benefits of using Wi-fi?	Installing Wi-fi in areas where the majority of people may not have their own internet access is key in achieving internet across all social groups. Most applicable in areas of social housing. It is highly beneficial for businesses in the area.	NOL project identified a number of generic benefits of using wireless broadband including: Supporting mobile working. Promoting virtual tourist

	It can create a hub in a town centre locations which will encourage people to use local businesses such as Cafes and restaurants which in turn benefits the local economy. It can also be offered to start up small businesses in the area to assist them in setting up their infrastructure, again boosting the local economy and potentially attracting businesses to the area It can reduce fixed infrastructure costs. The network can be used to move data such as CCTV information.	trails. Student access to college/university on-line resources. Opportunity for people to experience benefits of accessing internet who aren't able to use fixed broadband connection (e.g. temporary residents, low waged, unsuitable credit status, students).
What were the lessons learnt?	The most important element is to choose your area based on your aspirations – Social inclusion = Residential area, Commercial goals = Town centre. Choose coverage carefully – do not simply offer blanket coverage across a whole area, focus it on the key and relevant areas identified.	Range of technical issues in design and operation of wireless networks including use of street furniture to host access points. Most people who used the service felt that it meet their needs and went on to use if again or purchase commercial wireless services (i.e. there was a growth in demand for the service during the pilot as well as an increase in commercially available wireless services leading to conclusion that the project stimulated overall demand for broadband). Mobile/flexible working

		– whilst technology particularly wireless are important, full benefits require all aspects to be considered (e.g. HR, re-design of job processes). Access to broadband considered by many to be essential pre-requisite (basic utility similar to water, gas, electric) and would influence decisions as to where to live, study, work or locate new business.
Cost involved in setting it up/ maintaining?	This is difficult as it depends so much on the size and nature of the network. There are so many variables involved. I can say that a small network would start at around 25K capital and perhaps 10-15K per annum for maintenance, naturally this increases as the network grows.	Project budget was £1.1M.
Has it expanded?	Yes, several of our networks have started small and have expanded to meet new demand.	NOL project was a limited pilot – it was not designed to run as a commercial service at the end of the pilot; however there has been interest from a number of commercial communication companies in establishing and marketing various broadband services including wi-fi in the Norwich area.

How many people have used it?	I have asked the customer services team for some example stats – I will get back to you with some indicative figures.	Mobile workers and students are the most frequent users of the service. It was getting 30,000 connections each month and extended the service in the spring of 2008. There were more than 1,800 connections in the first week, with 2,500 in the second week and 3,000 in the third week.
How did you source the power?	We carry out comprehensive site surveys to establish power locations. From these we can establish the location of the power terminals on street and in the street lighting networks – again very dependant on location	There were more than 200 antennas positioned around the city, mainly on lampposts, creating blanket Wi-Fi coverage. The City was one giant hotspot, utilising a mesh network which meant users could get seamless internet access as they wandered the streets. The network had two speeds – 256Kbps for the public and 1Mbps for public sector workers. The speeds of 256Kbps is slower than that provided in hotspots and users were limited to a one-hour sessions and had to reconnect after 60 minutes.
How have businesses and residents benefits from the wireless network?	The main areas are covered in the first point. Added to this, people are increasingly expecting to live in a 'connected' world where information and communications are available all the time. Providing good access to	Each access unit had to have its own power feed, where access points were hosted on lamp posts then a separate fuse was installed to allow it to be fed from the lamp post

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	the internet in a public area can create a vibrant and successful environment for business and social activities to thrive. In the current economic climate it can also give people better access to information to help them and access to resources that can help them back into employment.	power supply (note that need to establish unmetered power agreement with electricity supplier to cover cost as this usage is not covered by normal street lighting funding arrangements). Where units were located in buildings then access agreements were negotiated with property owners to cover supply of power.
Have any unanticipated problems arisen?	We have never had any problems that have caused major issues. We have from time to time encountered 'weak spots' where some adjustment in node location is required and there are occasional small issues with connectivity. What I would say is that we have a dedicated customer services team to handle any problems that arise and have always reacted quickly to any minor issues that have arisen with our networks.	As NOL was a pilot and one of the first large scale city wi-fi projects then there were a number of unanticipated issues, however one of the objectives of the project was to better understand the issues and challenges involved in designing and implementing such projects.

The project officer for the Norfolk Open Link also made the following comments:

The NOL Project was successful as measured against original objectives. It was also regarded as successful in other areas (actual usage was much greater than expected, profile of the service was very positive and people liked it, indirect benefit to profile of Norwich/Norfolk due to high level of positive national and international interest).

The pilot was a limited project. The various public sector organisations involved in NOL are all using wireless in varying ways (mobile working, hot desking, provision of broadband facilities to visitors without compromising

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internal security, improving connectivity across large sites/campus, remote monitoring inc CCTV) Experience from NOL pilot has been useful to all organisations in informing and influencing individual wi-fi strategies.

The project identified many benefits to using wireless to support communications and evolving work processes associated with delivering local authority activities. Project also found that many local authorities had played a successful role in collating demand and campaigning for improved broadband access (wired and wireless) for residents and local businesses often as part of regeneration initiatives.

Costings for two pilot schemes

3.   "That costings be undertaken for two pilot schemes, one in the north and one in the south of the Borough."

Response

Officers managed to obtain outline costings as follows:

These costs are budgetary and are based on current technology in a market that is volatile and fast moving due to technology trends. All these costs are in addition subject to survey and can only be confirmed once confirmed details can be provided to contractors so that detailed site surveys can be undertaken.

Costs are for Ruislip and Hayes Town Centres based on 5 nodes (points of presence) but are not based on any specific locations within these town centres and therefore the reach of this wireless cannot be specified without a full site survey.

Costs are also based on 1 year contracts only and should be treated as estimated until the full commercial decision is taken by the Council so that pricing can be verified fully.

It has been assumed that there will be suitable sites to mount the access points in the locations (lamp posts or similar) and power will be available at each and costs for this are not included.

London Borough of Hillingdon will be responsible for preparing the sites in terms of power availability at the top of the lamp post etc and any costs will be borne by the Council.

It is unlikely that London Borough of Hillingdon staff would be able to use this service for anything other than very basic services due to the requirements for ICT security that Central Government requires of Councils as part of the electronic join up of public sector services.

1st Cost
Note: Cost is based on assumption that applications used will be low bandwidth and will not be used for any business critical purposes by the Council or any other person as support times have assumed to be 4 working days for a fix in the case of any system fault.

2nd Cost
Note: Cost is based on assumption that higher bandwidth applications will be used and support times in case of a system fault would be 2 working days. Assumption is still that the system would not be used for business critical work.

The costs were reported to Members of the Committee in Part II of the meeting held on 13 May 2009.

RECOMMENDATIONS

Recommendation 1 – That the Council's Communications Team be asked to instigate a publicity campaign in relation to the Council introducing pilot schemes for wi-fi into town centres with the intention of encouraging people and businesses into the Borough's town centres.

Recommendation 2 - That a full quotation be sought from providers for wi-fi pilots to be run in two town centres; namely Hayes and Ruislip.

Recommendation 3 - That a full quotation be sought from providers for a roll out scheme to all LBH town centres.

Recommendation 4 - That statistical data be trapped for 1 year to see how, when and where the free wi-fi is being used.

Recommendation 5 - That subject to the use and operation of the pilot and the roll out costs as acceptable that the scheme is rolled out to all LBH town centres.

Recommendation 6 - That the wireless broadband be provided free to use but without service guarantees.

Recommendation 7 - That cooperation is sought with The Chimes operators to seek possible joined up implementation for an Uxbridge Town Scheme.

Recommendation 8 - That external funding be sought from the Local Government Association, from 2012 Tourism Funds or other possible funders.

Recommendation 9 – That work takes place with Business Link to promote wi-fi to businesses in the area.

Recommendation 10 - That officers ensure that the scheme be undertaken as part of a wider wireless strategy in the Borough i.e CCTV**.**

Bt And McDonald's Put Bt Openzone Wi-Fi Hotspots on The Menu

UK Press Releases

January 7, 2004

BT today announced a huge boost to its campaign to bring public Wi-Fi to every community in the UK by installing BT Openzone access points in more than 500 McDonald's restaurants in the next few months.

The two giants have teamed up to offer millions of diners who visit McDonald's restaurants the ability to log on to the internet using wireless broadband, via their Wi-Fi-enabled laptop or PDA, as they grab a bite to eat.

BT believes that the landmark deal will mean that thousands more people will be able to easily take advantage of Wireless Broadband Week, which starts on January 26, when anyone with a suitable laptop or PDA (Personal Digital Assistant) can try out wireless broadband without time limit - free of charge.*

The BT Openzone access points will be installed in McDonald's flagship and drive thru restaurants by the end of March, taking the total number of BT Openzone live sites to more than 2,000. When the full roll-out is completed in March, the total will exceed 2,200.

The majority of the McDonald's sites will be in drive thru restaurants, which are popular with business travellers. BT already has an extensive network of BT Openzone hotspots at premium locations targeted at the business traveller, such as airports, railway stations and hotels.

The new McDonald's sites will also provide an opportunity for a wider base of customers than just the business community to experience the benefits of wireless broadband. McDonald's is keen to offer its customers the additional service of quick, convenient access to the Internet, in a welcoming environment.

Steve Andrews, BT's managing director for Products and Enterprises, said: "This deal with McDonald's again confirms BT's position as the UK's leading provider of public Wi-Fi. And the scale of BT's network means that wireless broadband is growing from a premium offering for the few into something that will become part of everyone's lives, whether that's for work, or for simply surfing the web or emailing friends as a pay-as-you-go customer.

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"We already have a vast network of BT Openzone access points at key locations for road warriors and these at McDonald's will help to boost that network. These sites will also help to provide easily accessible locations where the large number of people who haven't yet tried Wi-Fi can log on for free and try before they buy during Wireless Broadband Week this month."

BT Openzone access points will be installed in refurbished flagship London restaurants in The Strand, Oxford Street and Liverpool Street station and rolled out in most drive thrus across the country. McDonald's wants to offer this exciting new service to customers who want to eat and stay connected while working on the move.

It is part of their aim to appeal to their diverse range of customers and provide a relevant and welcoming environment.

Peter Richards, chief development officer, McDonald's, said: "Today's customer is more time-pressed than ever and we think it's important to meet the needs of busy professional and family lifestyles by offering services that are both easy to use and relevant. We want the Golden Arches to be the first choice for a great meal and a place to go 'wireless'.

"McDonald's is leading the way in bringing this vital technology to millions of customers who need a convenient place to log on and work remotely or catch up with their daily schedules and correspondence while out of their home or office during the day."

McDonald's is committed to the roll out of wireless broadband in the UK, with the aim of appealing to a diverse range of customers and providing a relevant and welcoming environment. The company already has Wi-Fi agreements covering around 400 restaurants in New York, San Francisco, Chicago and Philadelphia in the United States.

* This offer applies to existing and new users for seven days from January 26, 2004. Users will be able to access BT Openzone free of charge for duration of seven days from registration during Wireless Broadband Week. For example, if a new user registers for an account on February 1, 2004, access will be free for seven days from the date of registration.

BT Openzone provides access to the Internet and the ability to get secure and fast connection to corporate networks while working "on the pause" away from the office. Users with a laptop and a Wireless LAN access card and software can access data at speeds of up to 500 kbps (almost 10 times faster than a standard 56K modem), enabling them to send and receive large quantities of information at broadband speed. Users need to be within range of an Openzone site (approx. 100 metres) - zones will be badged with the BT Openzone logo.

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Anyone with a Wi-fi enable device, such as a laptop with an Intel Centrino chip, can instantly access Wi-fi hotspots. Users without an enabled device can buy a wireless LAN card, such as a BT Voyager card, from as little as £25.

Prices

Subscriptions start at just £10 a month for 120 minutes. Occasional users can use the new pay-as-you-go option at 20pence per minute or the one-hour pass for £6. A full list of prices is available at www.bt.com/openzone.

About BT

BT Group plc is the listed holding company for an integrated group of businesses providing voice, data and video services in the UK and elsewhere in Europe. British Telecommunications plc, a wholly-owned subsidiary of BT Group, holds virtually all businesses and assets of the BT group.

BT is one of Europe's leading providers of telecommunications services. Its principal activities include local, national and international telecommunications services, higher-value broadband and Internet products and services, and IT solutions. In the UK, BT serves over 20 million business and residential customers with more than 29 million exchange lines, as well as providing network services to other licensed operators.

BT consists principally of three lines of business:

BT Retail, serving businesses and residential customers and including BT Openworld, one of the UK's leading ISPs.

BT Wholesale, providing network services and solutions within the UK, including ADSL, conveyance, transit, bulk delivery of private circuits, frame relay and ISDN connections.

BT Global Services, BT's managed services and solutions provider, serving multi-site organisations worldwide. Its core target market is the top 10,000 global multi-site organisations with European operations.

There are a number of other businesses within the BT group, including BT Exact, an internationally renowned centre of excellence in IT and networking technologies. It is also BT's technology and research and development business.

In the year ended 31 March 2003, BT's turnover was £18,727m. With profit before taxation of £1,829m.

For more information, visit www.bt.com

McDonald's

McDonald's is the world's leading foodservice retailer with more than 30,000 restaurants serving nearly 46 million people in more than 100 countries each day. In the UK, McDonald's and its franchisees employ 70,000 staff in 1230 restaurants. Sixty -two per cent of these are aged 20 and under. This is McDonald's 30th year of operating in the UK.