



stay connected

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Telecommunications Connectivity

Combined Fixed Network and
Mobile Coverage Assessment

One & Two Bracknell Boulevard

Bracknell

Berkshire

RG12 1HH

Fixed Network Connectivity - Desk Top Study

One & Two Bracknell Boulevard, Bracknell, Berkshire RG12 1HH

Sep 2011

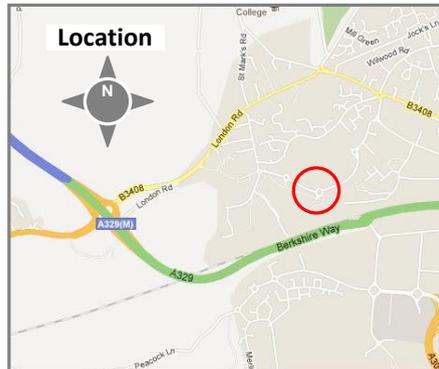
STRUCTURE

One & Two Bracknell Boulevard are two office buildings located to the west of Bracknell town centre. Building One is over two floors affording 20,935 sq ft, and Building Two over four floors affording 51,516 sq ft of Grade A office accommodation with large open floor plates. The buildings are constructed of concrete and steel with large windows and brick facades to all floors and sides. They are located just off the A329 (M) on an estate with a number of other offices and commercial type buildings.

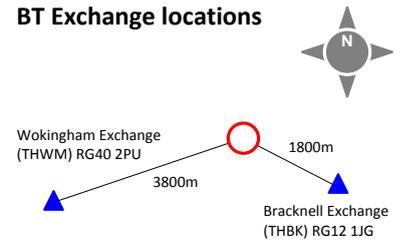
TOPOGRAPHY



One & Two Bracknell Boulevard
Bracknell
Berkshire RG12 1HH



BT Exchange locations



Note: All distances are straight line and cable routes will be greater. All distances and orientations are approximate only

BT SUMMARY

The buildings are currently served from the Bracknell exchange, located to the south east of the site. This exchange provides excellent services including ADSL, ADSL+, SDSL, (21CN WBC), plus the availability of good LLU services from AOL, O2/Be, NewNet, C&W Bulldog, Orange, Sky Easy Net, Talk Talk, Tiscali all over BT infrastructure. The buildings are positioned outside of the coverage from the Wokingham Exchange, located to the south west. However, this exchange could provide similar services in order to deliver diversity and resilience if required. Services include ADSL, ADSL+ and SDSL, (21CN WBC) plus the availability of good LLU services via AOL, O2/Be, C&W Bulldog, Orange, Pipex, Sky Easy Net, Talk Talk, Tiscali all over BT infrastructure.

TELECOMS CARRIERS

Telecommunications carriers with owned infrastructure located within easy reach of the building are listed below for information. In addition to these, there are a number of alternative carriers that can provide service, albeit over a third party network such as BT. It must be noted that the presence of infrastructure within the search area does not constitute availability of service at the building location.

- British Telecom** Tel: 0800 800 152 www.bt.com
- Cable & Wireless** Tel: 0800 092 5825 www.cw.com
- Verizon** Tel: 0800 018 18 18 www.verizonbusiness.com/uk
- Virgin Media (NTL/Telewest Business)** Tel: 0800 953 0180 www.virginmediabusiness.co.uk
- Kingston Communications (Kcom)** Tel: 0800 915 5226 www.kcom.com
- Global Crossing** Tel: 01256 733555 www.globalcrossing.co.uk

SUMMARY

The services available at Bracknell Exchange and the added services available and resilience of a second exchange at Wokingham afford the building with an excellent level of services to meet today's business needs. The presence of a good selection of alternative carriers to BT adjacent to the building, and within the local estate environs offers additional choice of services and resilience, albeit some may be restricted by location and the cost of providing service over owned infrastructure. However, the ability to provide such services over the BT network or another third party should not be overlooked as a more cost effective solution.

RATING

BT / LLU **4**

CARRIERS **4**

- BT / LLU**
- 1** Limited services available from BT only
 - 2** Good BT services, limited by LLU Operators
 - 3** Good BT/LLU services now, or planned
 - 4** Excellent BT/LLU services now, with diversity

- CARRIERS**
- 1** Limited infrastructure available
 - 2** Good level of infrastructure but with access issues
 - 3** Good level of infrastructure with limited access issues
 - 4** Excellent level of infrastructure with no access issues

GLOSSARY OF TERMS

- ADSL (Asymmetric Digital Subscriber Line)** Asymmetric line speed, the speed from the internet to the user, and the user to the internet are different. Feed over copper cable, governed by distance from exchange to user. (co-exists with voice services)
- ADSL+ (Asymmetric Digital Subscriber Line+)** Asymmetric line speed as above, but with faster connections both downstream and upstream over similar distance following roll-out of BT's 21CN Wholesale Broadband Connect (WBC).
- SDSL (Symmetric Digital Subscriber Line)** Symmetric line speed, the speed between the user and the internet are the same in both directions but cannot co-exist with voice services over the same line.
- LLU (Local Loop Unbundling)** Is the process by which third party network operators are able to install equipment into BT exchanges in order to deliver their own services without having to utilise BT's network. Only the copper cable from the exchange to the premises is used, which remains the property of BT.

Mobile Voice / Data Appraisal - Coverage Predictions

One & Two Bracknell Boulevard, Bracknell, Berkshire RG12 1HH

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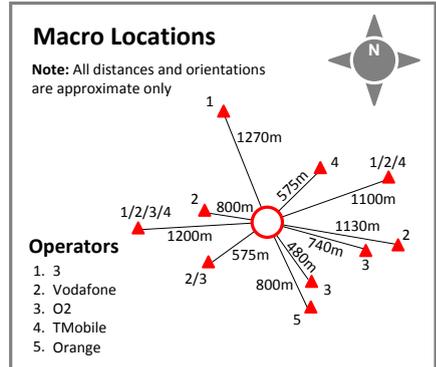
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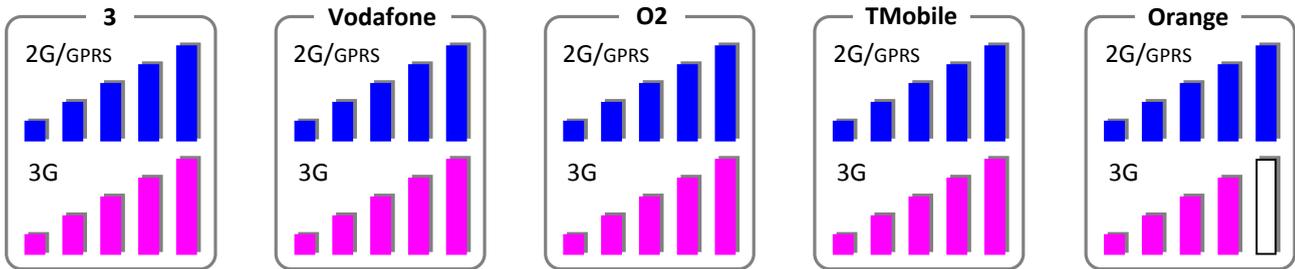
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STREET LEVEL COVERAGE



OBSERVATIONS

One & Two Bracknell Boulevard have an excellent level of macro coverage from all of the five mobile operators as shown in the plan above. The closest serving cells are detailed in respect of 2G and 3G services and can be seen vary in location and distance. The majority of cells will provide coverage to the building, with some directed to specific locations such as the town centre. Based on this information it is considered to be a location that affords very good overall coverage across all operators.

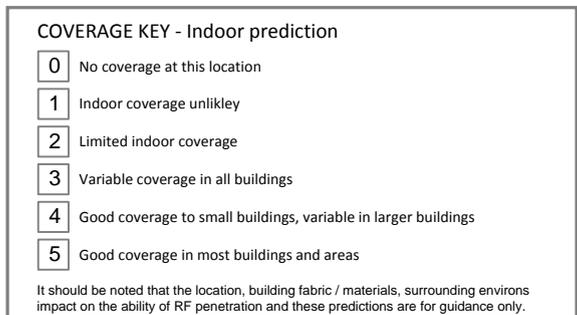


PREDICTIONS

Based on the location of the building and serving cells, it is envisaged that a good level of coverage will be present within the buildings for both 2G and 3G services, with potentially only small specific areas having issues due to their location such as internal rooms in the centre of the buildings. In addition, due to the number of adjacent cells a degree of dropped calls may be experienced due to non dominance issues. This is due to handsets switching between cells during calls as each external cell competes to provide strongest signal, but is considered to be of minimal impact. Further to the coverage levels, the availability of service is dependant on capacity. This is the volume of data and simultaneous voice calls the macro cell can accommodate at any one time. Capacity issues result in 'network busy' messages or dropped calls. The level of capacity can be addressed by the operators should the building be populated with a high number of users on a single network which will impact on both them and others using the same cell.

INDOOR SUMMARY

OPERATOR	2G / GPRS	3G
3	4	4
Vodafone	4	4
O2	4	4
T-Mobile	4	4
Orange	4	3



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Fixed Telecoms Appraisal

In addition to the Fixed Network Desktop study completed, a review by survey of the above site was undertaken on 22nd September 2011. The purpose of this survey was to clearly identify the presence of existing telecommunications carrier's infrastructure adjacent to the building.

Local Carriers

The buildings location is one that is accessed via the estate road (Cain Road) and is bordered to the north and south by the B3408 and A329. The level of infrastructure on the estate is one that encompasses a number of historic carriers, some now operating under alternative businesses (Shown in brackets). On inspection a number of carrier's infrastructure is present along Cain Road including Cable & Wireless (Mercury), Verizon (WorldCom), Virgin Media (Telewest and NTL), Kingston Communications (Torch) and British Telecom (BT). The majority of these have major trunk route presence in and around Bracknell as would be expected along the Thames corridor, connecting a large number of office buildings and warehouses throughout the estate which require high levels of communication services. In addition other carriers are present within the area such as Global Crossing albeit with no visible presence at this specific location.

Service Availability

Following an external survey of the building it was found that there are a number of carriers chambers in Cain Road at the roundabout at the entrance into the site. These include BT, Cable & Wireless, Verizon, Virgin Media and Kingston Communications. Of these there is clear evidence of existing infrastructure serving a number of locations along Cain Road throughout the estate as duct scars are visible in the footway and carriageway.

Summary

Based on the local carrier infrastructure and the availability of services from BT's Bracknell exchange, we consider the building can be provided with fibre connectivity in minimal timescales from order. The presence of the Cable & Wireless, Verizon, Virgin Media and Kingston Communications infrastructure outside of the building entrance affords an excellent level of service and diversity at this time with minimal or no requirements for external street works. In addition, the availability of the other carriers located in the area affords even greater choice of service and resilience should it be required.