SIN 495

Suppliers' Information Note

For The BT Network

BT Wholesale Broadband Connect Fibre to the Cabinet Service

Service Description

CONTENTS

1 Introduction

This SIN refers to the Wholesale Broadband Connect (WBC) Fibre to the Cabinet (FTTC) Service.

For an overview of the Service please see the product outline and the WBC FTTC Handbook, which can be found at;

  https://www.btwholesale.com/pages/static/products-services/fibre-broadband.htm

Definitions:

For the purposes of this document the following definitions apply.

Communication Provider (CP): The Service Provider (SP) or Business Customer (BC) who purchases the WBC service from BT Wholesale and sells or provides it to End-Users.

End User (EU): The person using their PC to connect to a SP/BC's IP network via the BT WBC service.

Generic Ethernet Access (GEA): Openreach Next Generation Access product

This SIN should be read in conjunction with SIN 472 for the WBC service and SIN 498 for Openreach's Fibre to the Cabinet (FTTC) Generic Ethernet Access service

2 Availability

The availability of WBC FTTC for an EU can be obtained from the Broadband Availability Checker, which can be found at;

http://www.btwholesale.com/pages/static/Community/Broadband_Community/Coverage/ADSL_Availibility_Checker.html

3 Service Outline

The WBC FTTC Service provides an EU Access service option as part of the overall WBC Service. Openreach provides the Generic Ethernet Access for an End User Access up to a point of handover in an exchange (which is not necessarily the same telephone exchange as for the EU's Public Switched Telephone Network exchange line) and WBC backhauls it on behalf of its SPs to one of 20 WBC Interconnect Nodes.

BTW WBC FTTC
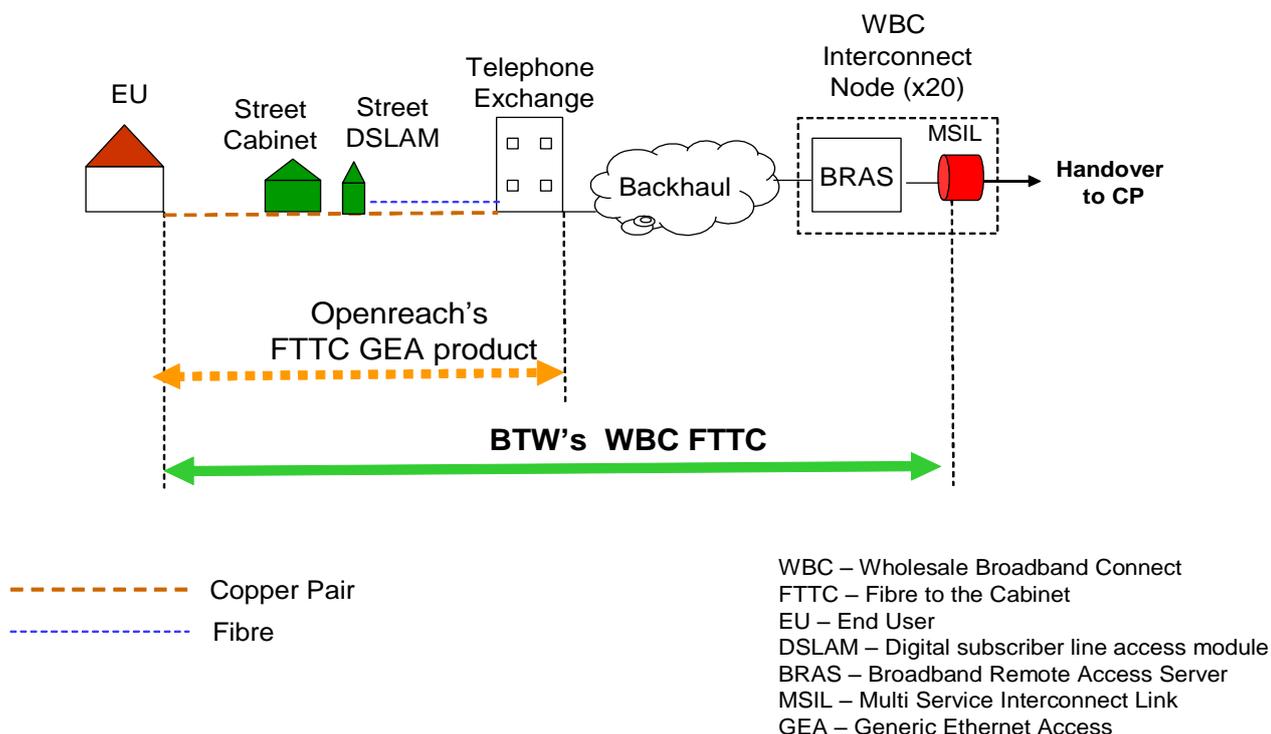
Figure 1 – Overview of BTW's WBC FTTC

4   BT Wholesale Broadband Connect FTTC service

Wholesale Broadband Connect (WBC) provides Broadband service from the EU to one of 20 WBC interconnect points around the UK.

WBC FTTC uses the same WBC infrastructure as the other WBC services but offers an EU Access option based on VDSL 2 technology (rather than ADSL 1 and ADSL 2+ on WBC.) This type of EU Access provides a higher line rate of up to 80Mbps downstream and up to 20 Mbps upstream

The WBC FTTC Handbook provides details of where the WBC FTTC exchange roll out plan can be found on BT Wholesale.com.

The main difference between the WBC FTTC service and the WBC ADSL1 and 2+ Service is that the DSLAM ("Digital Subscriber Line Access Module") for the WBC ADSL1 and 2+ Service is situated in an exchange building but for WBC FTTC the DSLAM is situated in a street cabinet (the "Street DSLAM"). The Street DSLAM is served with a fibre back to the exchange to carry the Broadband signals. (The telephone exchange at which the Broadband service is handed over to BT Wholesale is not necessarily the same exchange providing telephony services to the End User). The Street DSLAM is connected to the Street Cabinet using tie pair cables. VDSL 2 is used to carry the Broadband over the copper pair from the Street Cabinet to the End User's premises. (See Figure 1).

The Public Switched Telephony Service (PSTN) is unaffected by this new technology and continues to be supplied over the copper pair between the Exchange and EU's premises.

Unlike other WBC access technologies, WBC FTTC accesses use the PPP ("Point-to-Point Protocol") session establishment to inform the BT Wholesale BRAS of the Openreach line rate. It is therefore essential that the PPP session is re-started every time the VDSL line re-trains. To ensure this, the PPP / L2TP timeout values must be set to less than 20 seconds.

CPs supporting L2TP customers will need to ensure they set the parameters accordingly. BT Wholesale will set the PPP timeout on the BRAS accordingly for PTA customers.

5   Further Information

More information can be found in the following documents

1) WBC FTTC Handbook
2) SIN 472 for the WBC service (available from: http://www.btplc.com/sinet/)

   This SIN provides the interface information between BTW's WBC product and the SP. All sections are relevant with the exception of Section 3 End User Access.

3) SIN 498 for Openreach's Fibre to the Cabinet (FTTC) Generic Ethernet Access service (Available from: http://www.btplc.com/sinet/)

   This SIN provides the interface information between Openreach and the EU's equipment. For SPs taking the WBC FTTC product the relevant sections are

   2 SERVICE OUTLINE
   2.1 GENERAL
   2.2 SERVICE AVAILABILITY
   2.3 HEAD END HANDOVER CONNECTIVITY (Not relevant)
   2.4 USE OF NTES
   3. INTERFACE DESCRIPTIONS
   3.1 OLT PORT CONNECTIVITY (not relevant)
   3.2 VDSL2 ACTIVE NTE TECHNICAL SPECIFICATION
   3.3 VDSL2 ACTIVE NTE HOUSING
   3.4 PPPOE OR DHCP INSERTION

For further information on the commercial aspects of this service, please refer to:
>   Your BT National Account Manager
>   BT Broadband Helpdesk via e-mail to: broadband.enquiries@bt.com
>   BT Broadband Helpdesk on 0800 0283663
>   ADSL website http://www.btwholesale.com > Broadband community
>   BT Wholesale website http://www.btwholesale.com
>   BT Terms website http://www.bt.com/terms
>   WBC website www.btwholesale.com/wbc

If you have inquiries relating to this document, then please contact: sinet.helpdesk@bt.com

6   Abbreviations

Acronym	Expansion
ADSL	Asymmetric Digital Subscriber Line
BB	Broadband
BRAS	Broadband Remote Access Server
BT	British Telecommunications plc
BTW	BT Wholesale [BT]
C7	CCITT Signalling System No. 7
CP	Communications Providers
DHCP	Dynamic Host Configuration Protocol
DSLAM	Digital Subscriber Line Access Multiplexer
EU	End User
FTTC	Fibre To The Cabinet
IP	Internet Protocol [IETF]
L2TP	Layer 2 Tunnelling Protocol
NDA	Non-Disclosure Agreement
NIPP	Network Information Publication Principles
NTE	Network Termination Equipment
OLT	Optical Line Termination
OR	Openreach
PC	Personal Communications
PPP	Point-to-Point Protocol
PSTN	Public Switched Telephone Network
PTA	PPP Termination and Aggregation
SIN	Supplier Information Note

SP	Service Provider
STIN	Suppliers' Trial Information Note
VDSL	Very high speed Digital Subscriber Line
WBC	Wholesale Broadband Connect [BT]

7 History

Issue	Date	Changes
Issue 1.0	5th December 2009	SIN Issued
Issue 1.1	10th September 2013	Section 4 amended to show that 80/20 is now the highest WBC FTTC speed variant.
Issue 1.2	January 2016	FTTC Handbook address url updated Change SINet site references from http://www.sinet.bt.com to http://www.btplc.com/sinet/

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