Preparing for the switch to an IP Voice telephony service

Understanding commonly used abbreviations, acronyms and their meaning

bsia
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Foreword

The way the world communicates has changed. The UK has embarked on the transition from 'analogue' telephony to 'digital' ALL IP services.

Whilst this evolution is there for our benefit, the transition itself is causing some confusion because of the different terminology and messaging being used by various industry sectors involved in the transition. For the fire and security sector, it is important the end-user fully understands the benefits and impacts of transitioning to these services as the alarm systems they have at their premises may well rely on the telephony service.

It is therefore vitally important that terminology used by the whole supply chain (the regulator, network operators, communication providers, alarm system providers) is used and understood, particularly to ensure the end-user understands what the ALL IP service is and how it impacts on connected services.

Below is a list of commonly used abbreviations and acronyms along with their meaning in the context of the digitisation of the telephony network:

1. Those organisations involved in the transition to ALL IP

AP - Access Provider
Access Providers provide the core ALL IP network, which is then used by CPs to sell on to their customers. Examples of APs are Openreach, Virgin Media and KCom.

CP - Communication Provider
A CP is a telecommunication company providing a range of services to business and consumer end-users. Such examples include BT Consumer, Virgin Media, TalkTalk, Sky.

Note: There are many more CPs in the UK marketplace that may offer similar digital telephony services.

ISP - Internet Service Provider
An ISP is a telecommunication company providing predominantly internet services to businesses and end-users (e.g. PlusNet, EE etc).

Note: ISPs may also be CPs, since they may sell both services.

Ofcom - Office of Communication
Ofcom is the UK telecommunication regulator and has responsibility to ensure the rights of the consumer (the end-user) are protected.

2. Traditional analogue telephony services

DTMF signalling - Dual Tone Multi-frequency signalling
The audio tones you hear on a PSTN when dialling the telephone number. A commonly used technology used in alarm signalling transmission (digital communicators) from an end-user premises to an Alarm Receiving Centre. It uses different frequency tones (similar in nature to pressing digits on a phone keypad) to transmit alarm messages from one point to another.

ISDN 2 /30 - Integrated Services Digital Network
Traditional digital telephone line sometimes used for alarm/video surveillance system transmission.

Note: Not to be confused with a VoIP service.

PSTN - Public Switched Telephone Network
The current telephony system in use in the UK today providing dial tone, 50 volt and DTMF signalling. Although it includes digital systems, it uses 'fixed line' analogue technology to support older phone systems.

Note 1: The Openreach PSTN system will be retired in the UK by the end of 2025, with many exchanges already in the process of migration to ALL IP systems.
Note 2: The PSTN may also be referred to as 'POTS' (Plain Old Telephone Service).

3. Telephony services over the internet

ALL IP
A key term used to describe the overall transition from the analogue telephony service to the new digital voice IP services being implemented.

Note: The term ALL IP may also be referred to as IP Voice or Digital Voice, though these terms may also be being used interchangeably by some CPs as their ALL IP product portfolio.

ATA - Analogue Telephone Adapter
A device for connecting a conventional analogue telephone to a hub or base unit that provides a digital IP Voice service. An ATA would provide Dial Tone and 50 Volts like a normal PSTN line.

FXS/FXO Port
Name for a physical port on a router that you would plug an analogue phone into. An FXS/FXO port would provide Dial Tone and 50 Volts like a normal PSTN line.

SIP - Service Initiation Protocol
A protocol often used for VOIP service.

VoIP - Voice over Internet Protocol
A technology that allows you to make voice calls over the internet (the Broadband) instead of an analogue phone line. Examples of VoIP services include Skype, MS Teams etc.

Note: Some telephony providers will provide dedicated ATA ports to allow analogue phones to continue to work over a VoIP network.

VRI - Voice Re-Injection
Cabling connection in end-users premises that allows a PSTN device to connect to a broadband router and provide an emulated PSTN service.

4. Telephone and broadband access networks – technologies used to connect customers to the telephone and broadband networks

GEA FTTC - Generic Ethernet Access Fibre To The Cabinet
A service where a fibre optic cable provides fast transmission speeds for services such as broadband direct from the provider to the street cabinet, where it is then traditionally served via an existing copper wire to end-user premises.

GEA FTTP - Generic Ethernet Access Fibre To The Premises
A service where a fibre optic cable provides fast transmission speeds for services such as broadband direct from the Access Provider direct to the end-user premises.

Note: FTTP can also sometimes by referred to as FTTH (Fibre To The Home).

MPF - Metallic Path Facility
Basic copper line service provided by Openreach to Communications Providers. The Communication Providers run their own phone and broadband services/equipment in the telephone exchange.

SOGEA - Single Order Generic Ethernet Access
Similar to FTTC but without the underlying copper telephone line, so a broadband only service with telephony provided using VoIP. A key element of the PSTN switch-off.

SOGfast - Single Order Gfast
Similar to FTTC, but without the underlying copper line, so a broadband only service with telephony provided using VoIP. Provides ultrafast speeds. A key element of PSTN switch-off.

SOTAP - Single Order Transitional Access Product
Basic copper line service provided by Openreach to CPs. The CPs run their own phone and broadband services/equipment in the telephone exchange.

Note: Similar to WLR, it provides a better option for migration from MPF for PSTN closure.

WLR Service - Wholesale Line Rental Service
A service where a CP (e.g. SKY, TalkTalk etc.) buys a wholesale product from a network Access Provider (e.g. Openreach). The CP then has full control of the relationship (billing, service etc.) direct with the end-user. WLR products include: WLR3 analogue, ISDN 2, ISDN 30, SMPF, SLU SMPF, Narrowband Line Share and Classic products.

5. General terms used in the ALL IP transition

CPE - Customer Premise Equipment
In the fire or security alarm system, CPE refers to the signalling equipment installed at the end user's premises. Such examples are digital communicators, dual path systems etc.

Digital Voice
A term specific to the product / ALL IP solution released by BT Consumer to provide ALL IP services to its end users.
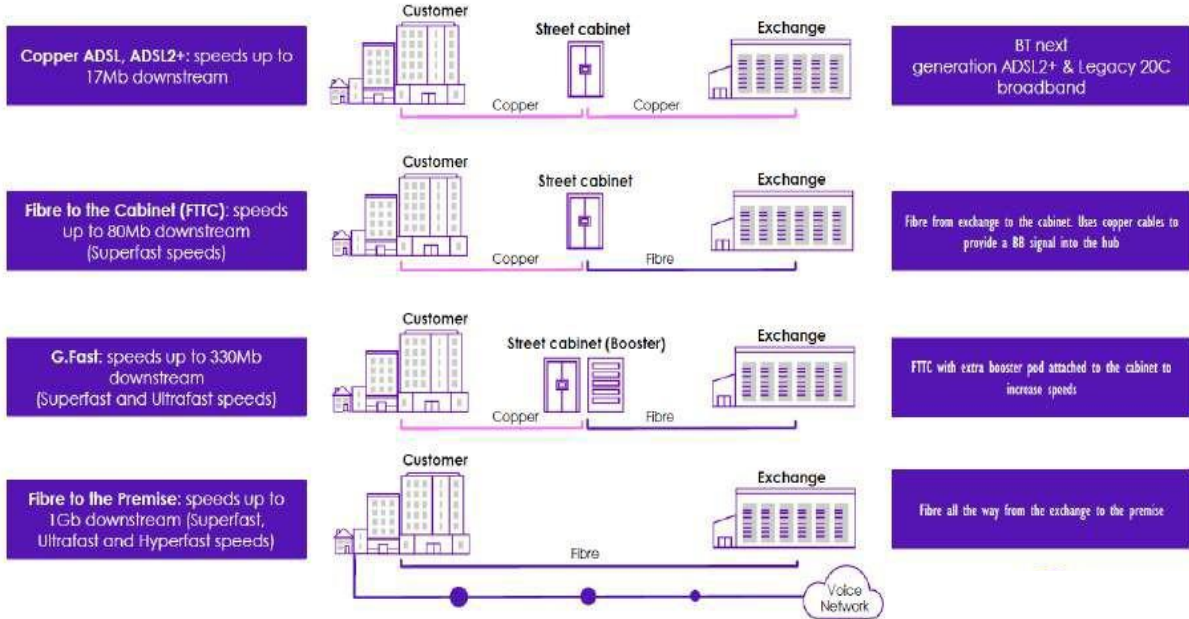
OTT - 'Over The Top' Service Provision
An OTT service provision is a term used to describe the service, such as an alarm system, that is connected to an ALL IP service.

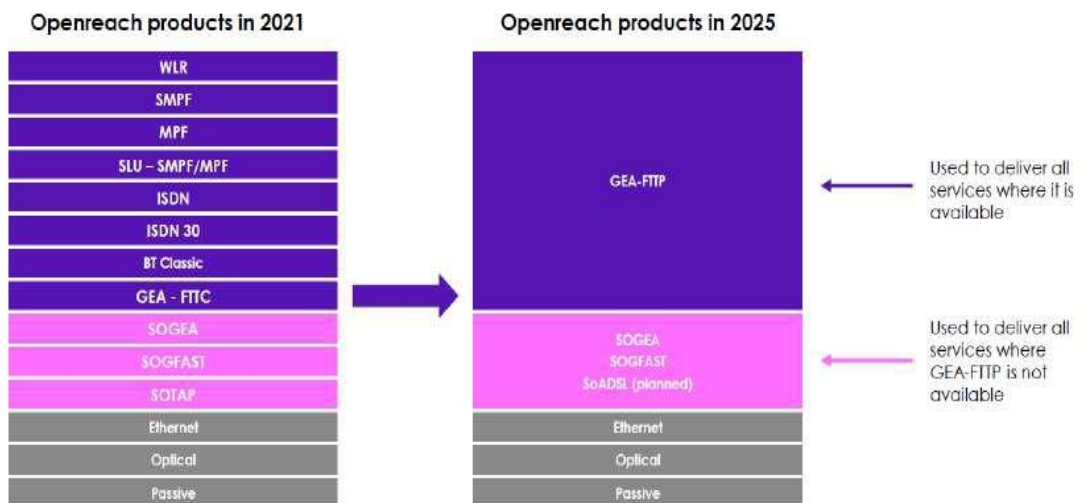*Note:* OTT may also be known as 'Special Services'.

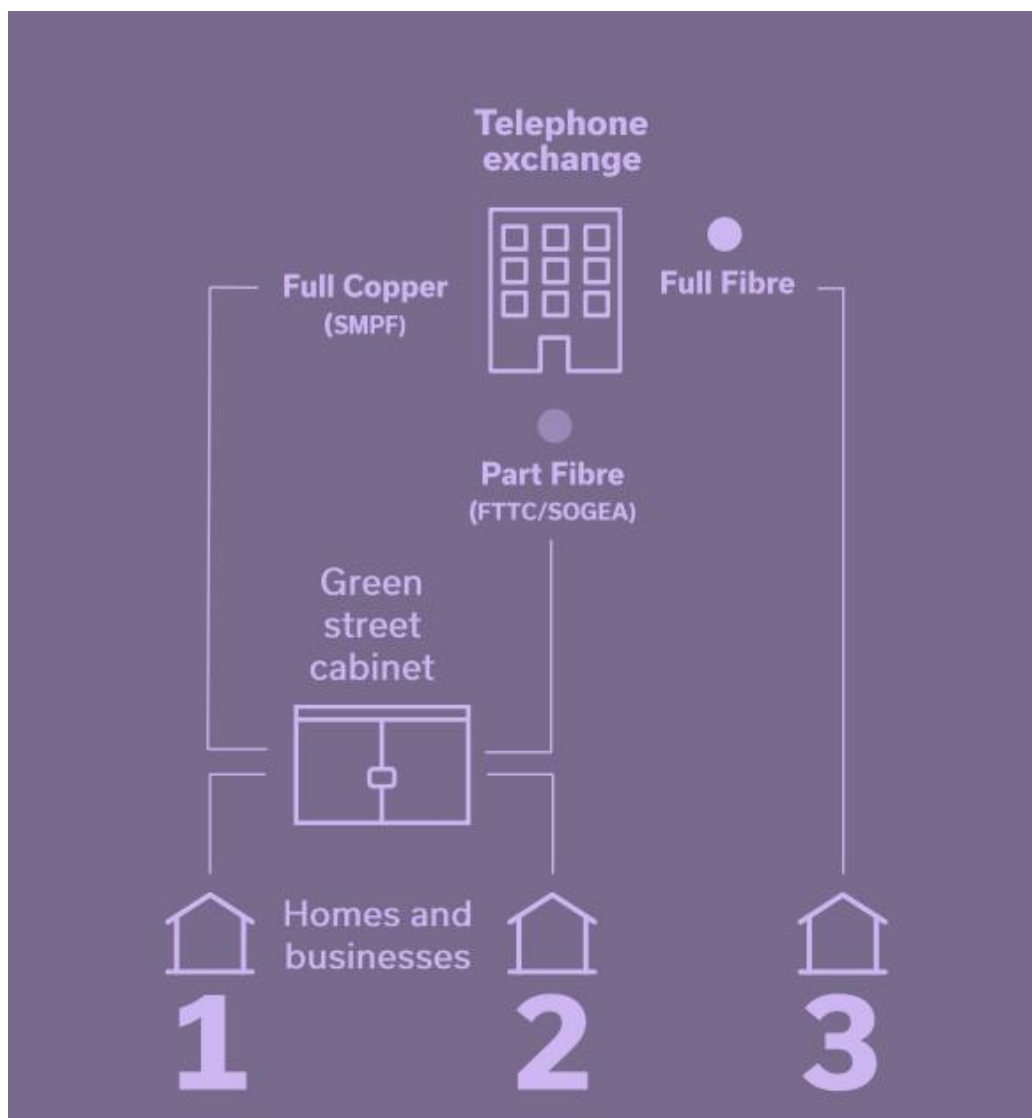# A general topography of today's telephony services

An overview of Openreach products moving forward

A general topography of the telephony services – post ALL IP

Openreach has provided a useful web page with up-to-date information on their progress of the transition to an ALL IP network. Details can be found here.

More information from the BSIA, and the impact on the fire & security alarm sector can be found here.

About the BSIA

The British Security Industry Association (BSIA) is the trade association representing over 70% of the UK's private security industry. Its membership includes companies specialising in all sectors of security. For security buyers, BSIA membership is an assurance of quality, with all member companies required to adhere to strict quality standards.

For other information please contact:

British Security Industry Association

01905 342 020
info@bsia.co.uk
www.bsia.co.uk