The All-IP Journey

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All-IP Vision – Openreach will enable the UK to become a fully digital nation by 2025

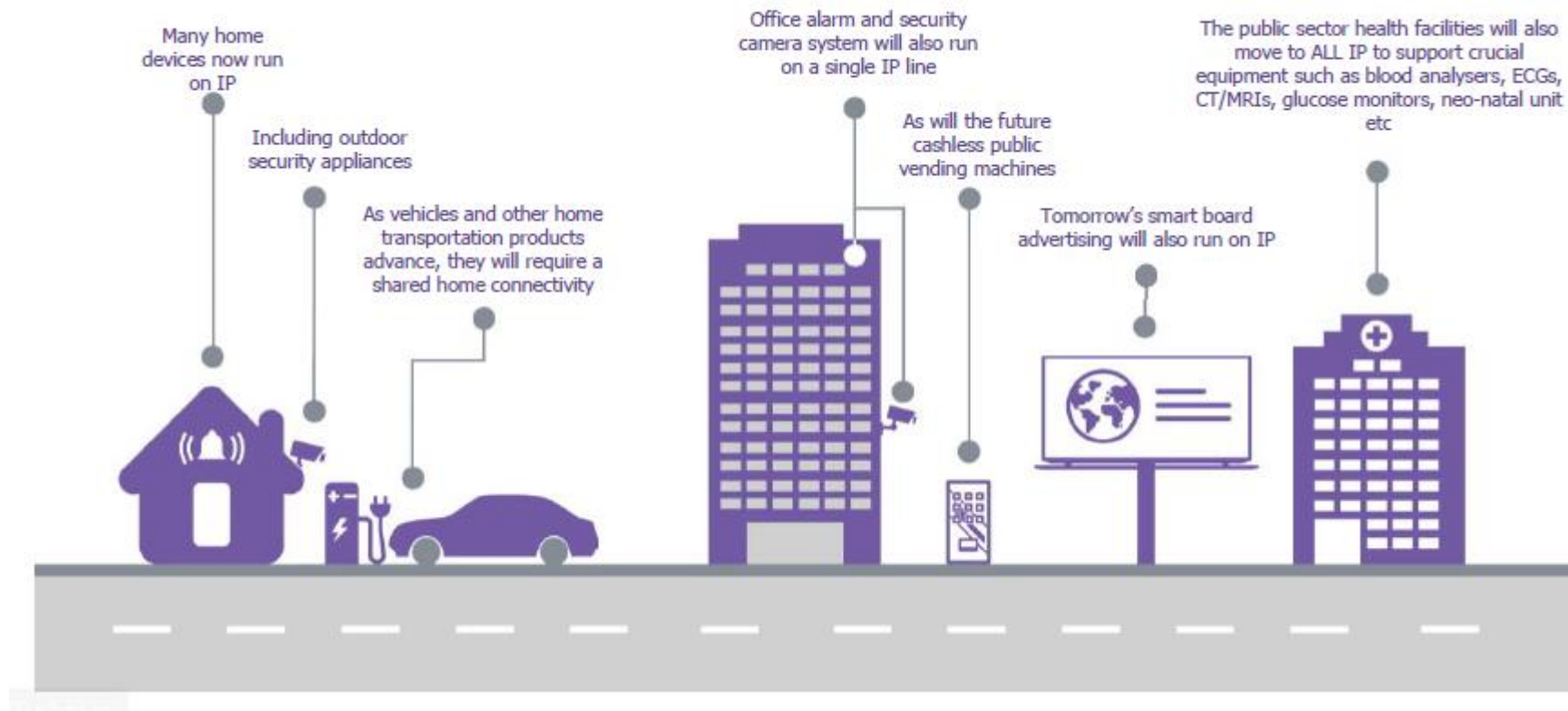**openreach**

- Multiple services for both commercial and consumer products will all run over a single IP[1] line
- Today, PSTN[2] is the only service that is not yet fully part of the digital revolution
- By 2025 our aim is to have provided the ecosystem to enable all CPs[3] to embrace and complete the move to All-IP

Many home devices now run on IP

Including outdoor security appliances

As vehicles and other home transportation products advance, they will require a shared home connectivity

Office alarm and security camera system will also run on a single IP line

As will the future cashless public vending machines

Tomorrow's smart board advertising will also run on IP

The public sector health facilities will also move to ALL IP to support crucial equipment such as blood analysers, ECGs, CT/MRIs, glucose monitors, neo-natal unit etc
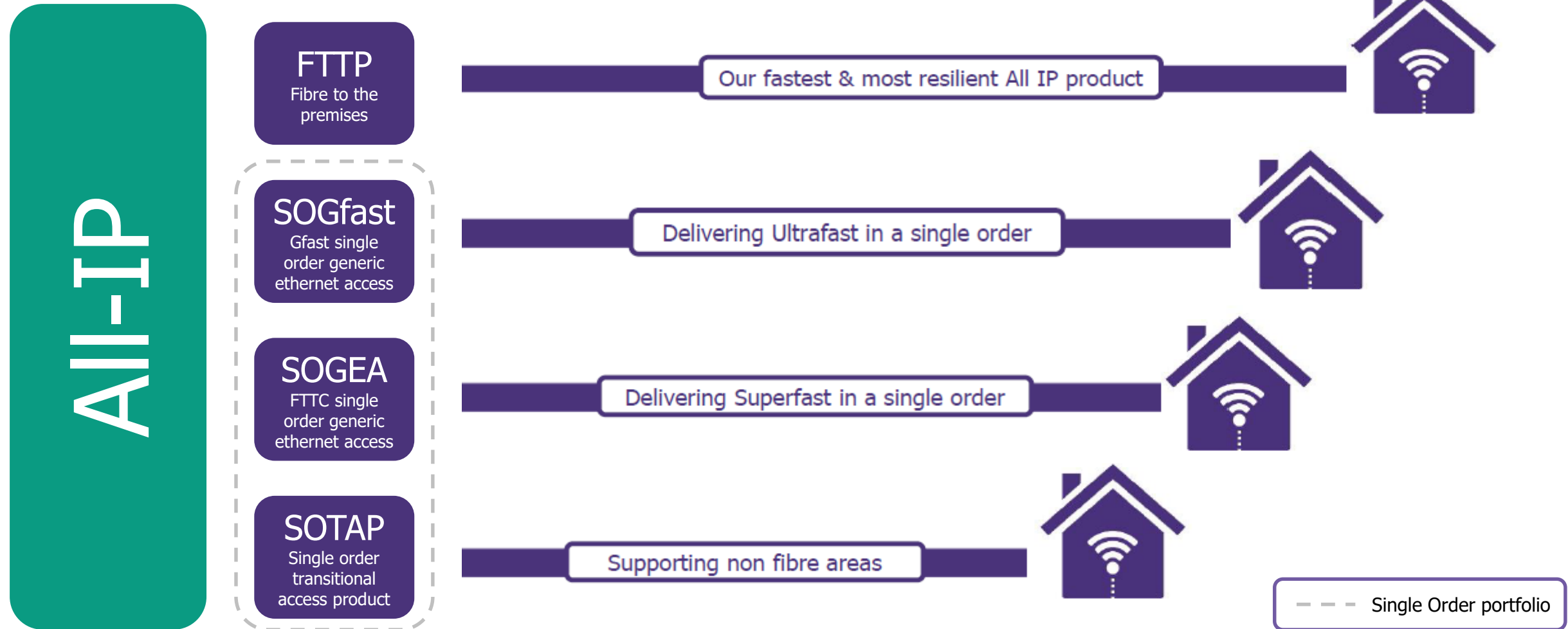
[1] IP – Internet Protocol
[2] PSTN – Public Switched Telephony Network
[3] CP - Communications Provider

All-IP Products

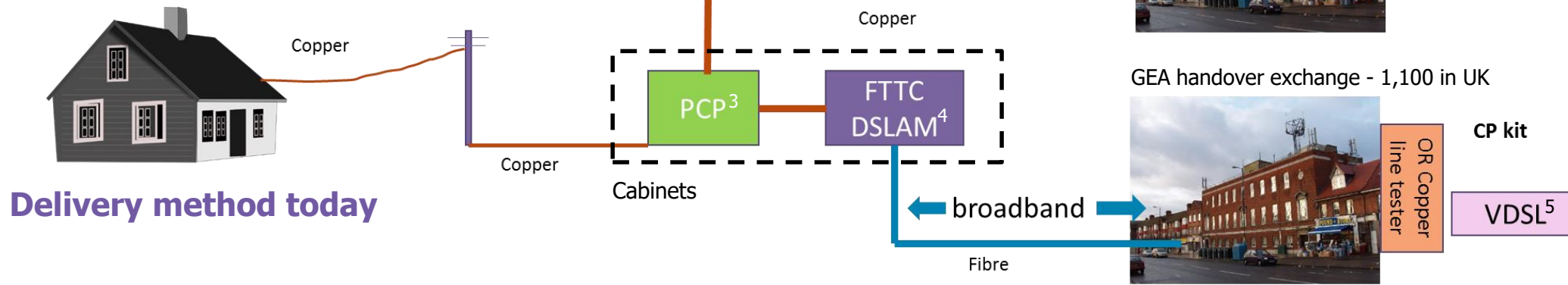In the UK Openreach has developed a suite of All-IP products that will enable CPs to embrace and complete the move to All-IP

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All-IP

FTTP
Fibre to the premises

Our fastest & most resilient All IP product

SOGfast
Gfast single order generic ethernet access

Delivering Ultrafast in a single order

SOGEA
FTTC single order generic ethernet access

Delivering Superfast in a single order

SOTAP
Single order transitional access product

Supporting non fibre areas

- - - - Single Order portfolio

3

The Single Order portfolio delivers the same broadband services but the network is arranged in a very different way and this impacts services such as voice
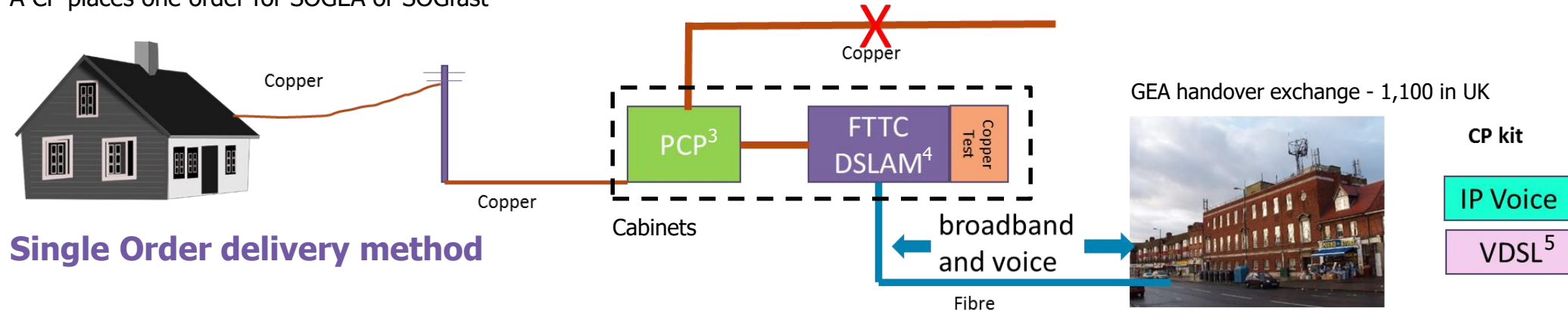
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Exchange - 5,600 in UK

Voice and broadband are split and delivered to different exchanges
A CP places two orders for a copper line (LLU[1]/WLR[2]) and FTTC/Gfast

← Voice →

Copper

OR Copper line tester

CP kit

Voice

Copper

Copper

PCP[3]

FTTC DSLAM[4]

GEA handover exchange - 1,100 in UK

Cabinets

OR Copper line tester

CP kit

VDSL[5]

← broadband →

Delivery method today

Fibre

Openreach line tests are run from the exchange where the copper line terminates

Voice and broadband are delivered to the same exchange, not always the local exchange
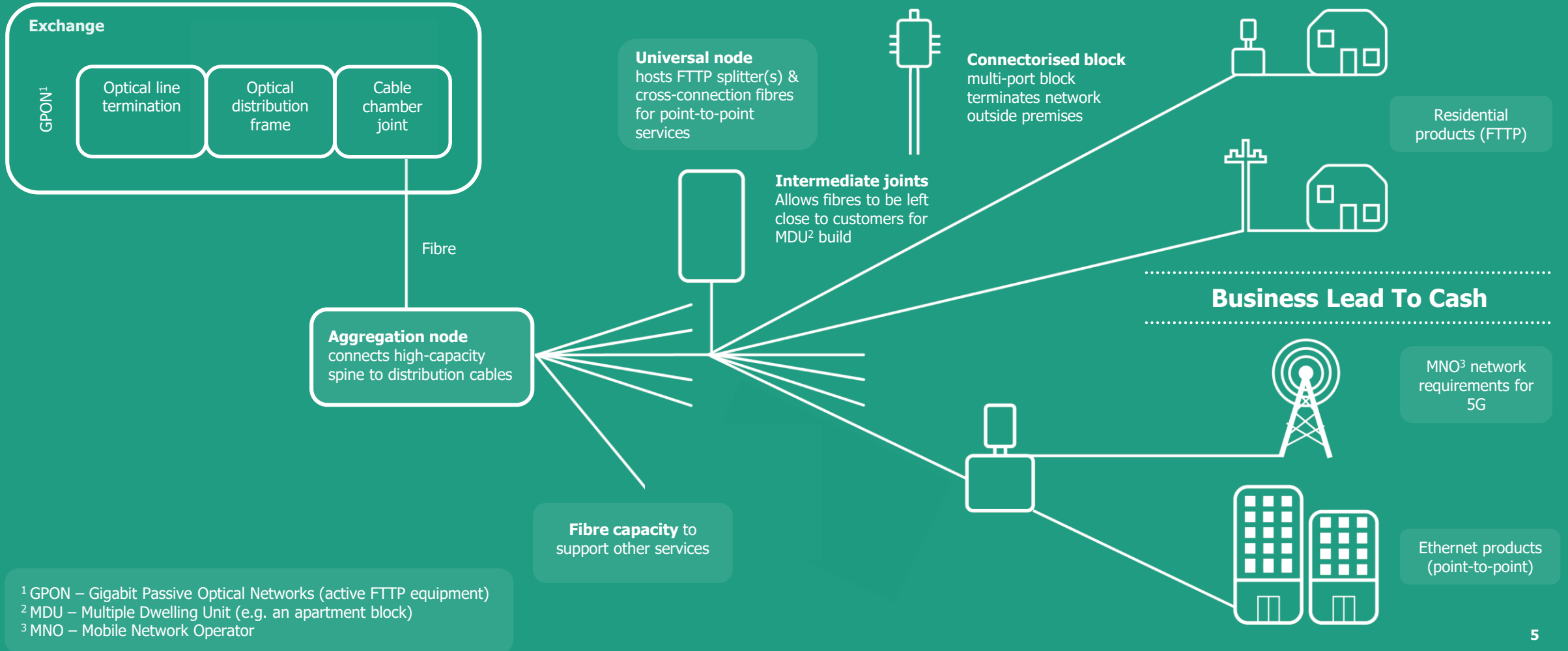A CP places one order for SOGEA or SOGfast

✕ Copper

Copper

PCP[3]

FTTC DSLAM[4]

Copper Test

GEA handover exchange - 1,100 in UK

Cabinets

CP kit

IP Voice

broadband and voice

VDSL[5]

Single Order delivery method

Fibre

Openreach line tests are run from the cabinet. CP could consolidate exchanges

[1] LLU – Local Loop Unbundling
[2] WLR – Wholesale Line Rental
[3] PCP – Primary Connection Point
[4] DSLAM – Digital Subscriber Line Access Multiplexer
[5] VDSL – Very high-speed Digital Subscriber Line

FTTP is natively All-IP

Plan & Build

Consumer Lead To Cash

Exchange

GPON[1]

Optical line termination

Optical distribution frame

Cable chamber joint

Fibre

Universal node
hosts FTTP splitter(s) & cross-connection fibres for point-to-point services

Connectorised block
multi-port block terminates network outside premises

Intermediate joints
Allows fibres to be left close to customers for MDU[2] build

Aggregation node
connects high-capacity spine to distribution cables

Residential products (FTTP)

Business Lead To Cash

MNO[3] network requirements for 5G

Fibre capacity to support other services

Ethernet products (point-to-point)

[1] GPON – Gigabit Passive Optical Networks (active FTTP equipment)
[2] MDU – Multiple Dwelling Unit (e.g. an apartment block)
[3] MNO – Mobile Network Operator

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