



## Quick Guide – Internal wiring

### **Implications of locating the service provider's router in a cupboard**

It is important to note that the Wi-Fi service your customer receives is dependent upon the intended location of the communication provider's router. Placing the router in a service cupboard or under stairs cupboard will significantly reduce the speed and coverage your customer will receive.

It is highly recommended that if you position the router in this way that you provide additional RJ45 ports within the home. Ideally for optimum speeds to be enjoyed using Wi-Fi service it is recommended that you locate the router centrally within the property.

For information, advice and guidance around positioning, please refer to: PAS: 2016 Next Generation Access for new Build Homes Guide.

### **Please note**

All internal wires and sockets beyond the ONT are the responsibility of the developer/future home owner.

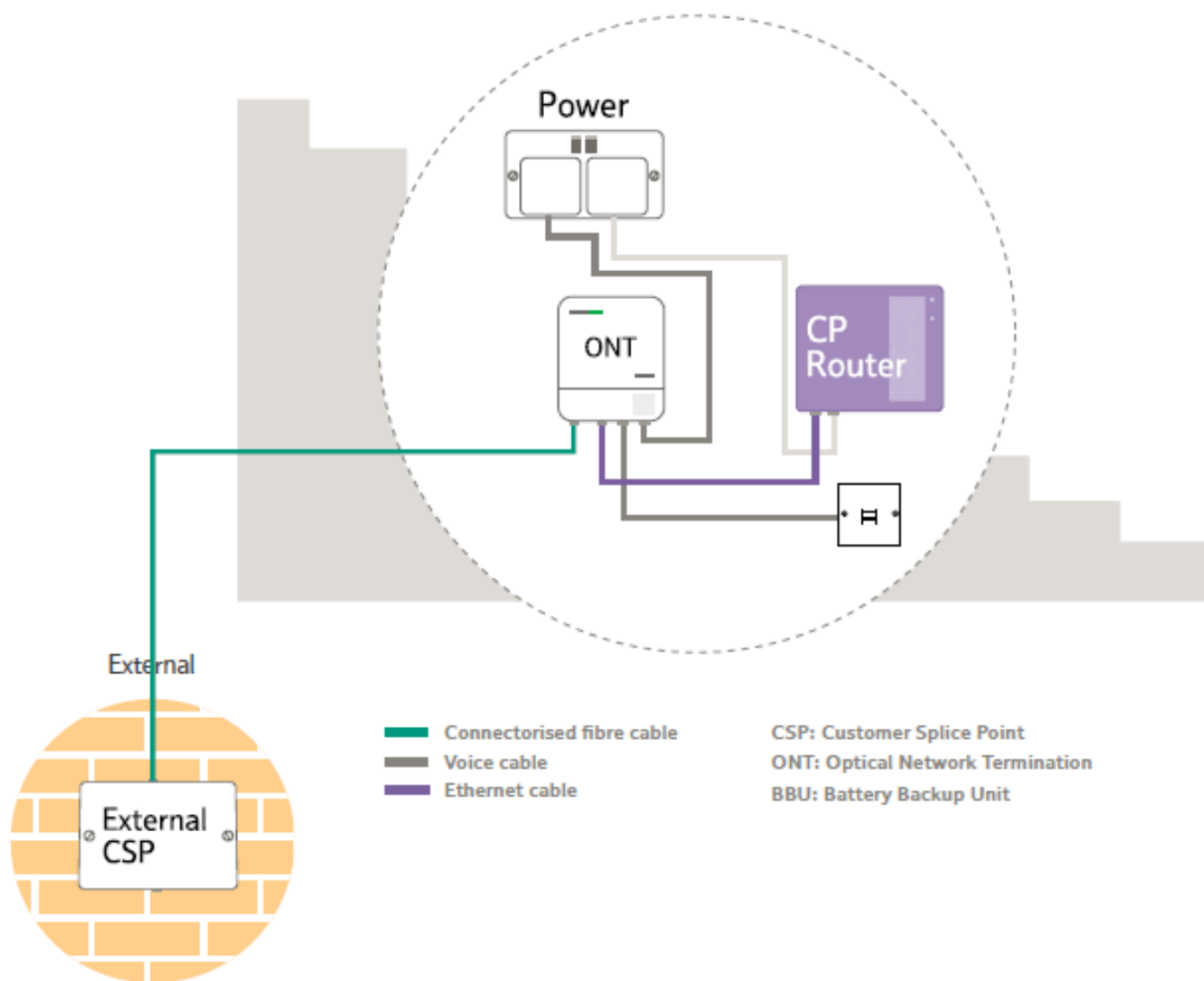
If any part of the connectorised internal fibre cable is found to be damaged at commissioning, it is the developer's responsibility to replace it.

If the homeowner experiences a lack of service or poor service, which is due to a fault within the internal installation of wiring, which requires Openreach to rectify, the homeowner will be charged.

**Option 1 – The simple install**

The simplest installation will be the provision of the Openreach equipment (i.e. the ONT will be positioned adjacent to the outside wall) to which the customer then attaches the router, provided by their communications provider. Without internal data cabling, this relies on wireless

extenders using the homes electricity cabling system to provide internet connection to other rooms in the house. Power sockets should be provided for the Openreach equipment and for the communications provider's router and for the wireless extenders /adaptors if used.

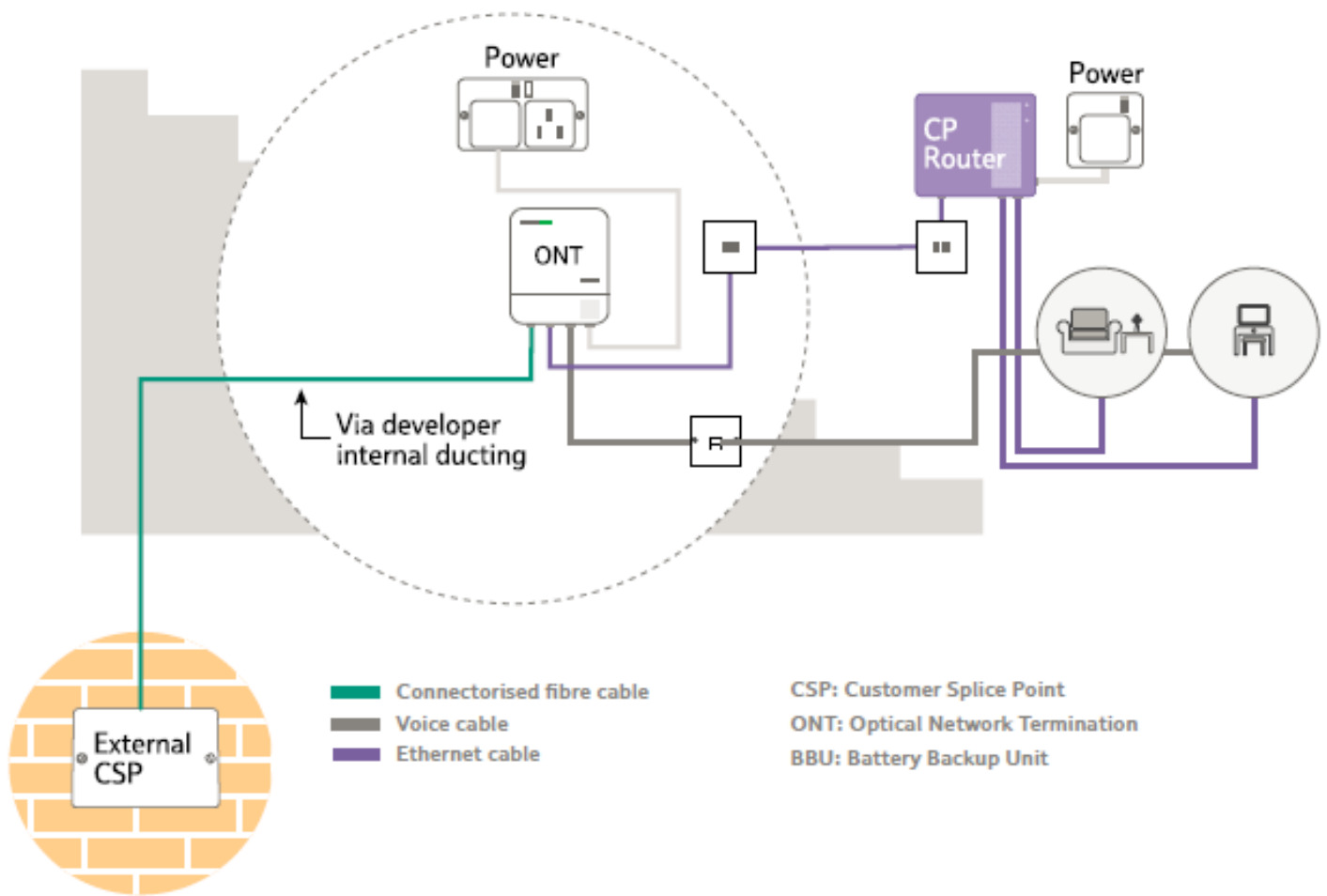


### Option 2 – Relocating the ONT and BBU

Some developers want to position the ONT and Battery Backup Unit (BBU) further inside the property. This will require a longer connectorised internal fibre cable which is recommended to be installed in a protective conduit to the external Customer Splice Point (CSP) plus the provision of a power socket for the equipment. Additional Cat6\* cabling is required for this option from the ONT & BBU to connections in the study and living

room. These connections should terminate in an RJ45 socket. A power socket should be provided for the communications provider’s router, if the router is placed near the RJ45 socket or a double socket if it is placed by the ONT and BBU.

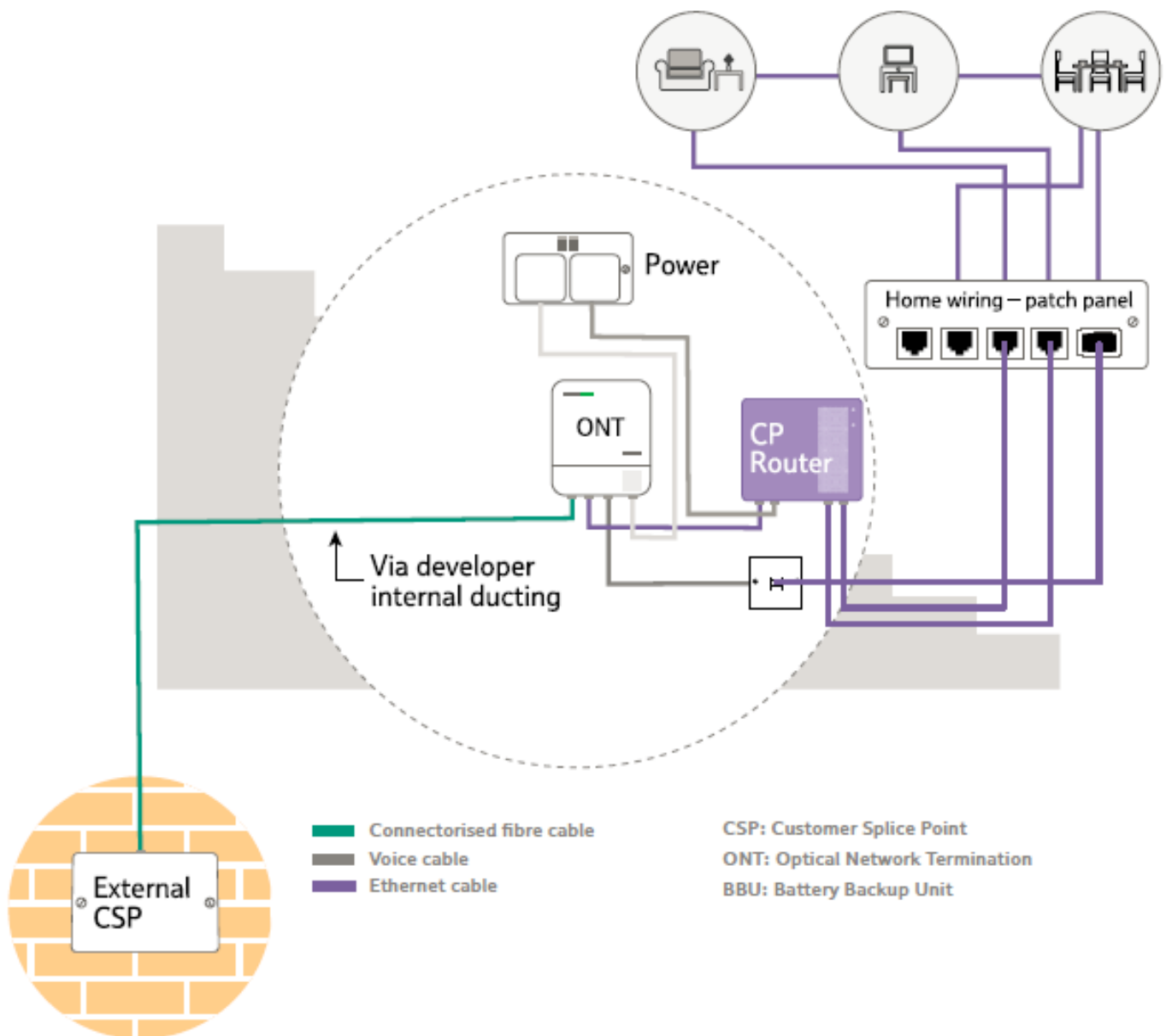
*\*Cat6 is the preferred option to ‘future proof’ for modern devices*



### Option 3 - Relocating the ONT and BBU and adding data points in multiple rooms

As per option 2 this extends the number of fixed sockets so that the home owner doesn't need to rely on wireless connections in the majority of the house. This would enable the down-streaming of 4K television in those areas where the customer is most likely to use high bandwidth applications like streaming TV, gaming consoles or video conferencing. One double power socket should be provided for the Openreach equipment and for

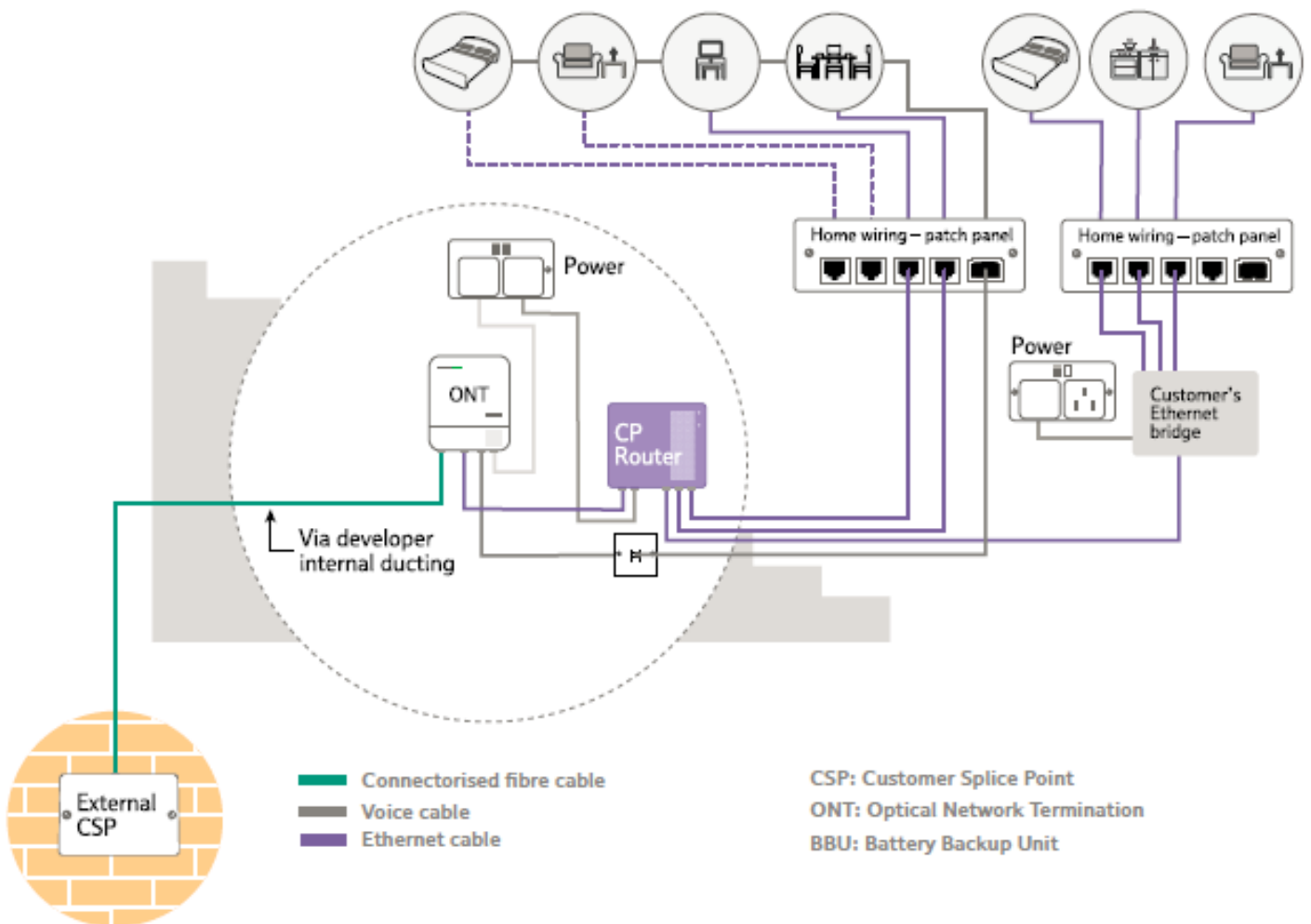
the communications provider's router. We recommend that all the data cabling from the rooms are terminated in a data patch panel (example as below) in close proximity to the ONT to facilitate easy connection. It is also recommended that where an aerial socket is provided for televisions that an ethernet data socket and associated wiring is also provided.



### Option 4 – The networked home

This option offers data cabling from wherever the Openreach ONT & BBU equipment is located, to all rooms in the home using a home wiring patch panel and RJ45 data sockets throughout. This could be offered either as standard or a customer paid option and will guarantee the best customer experience and help differentiate your property.

We recommend that all the data cabling from the rooms are terminated in a data patch panel in close proximity to the ONT (Optical Network Termination) or the communications provider's router to facilitate easy connection.



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