Quick Guide
Home Wiring

openreach

Home wiring

With the shift to full fibre networks, traditional analogue voice services are being phased out. A full fibre network transmits a digital or All IP signal rather than analogue.

In addition, the latest Openreach ONT variants no longer come with an integrated ATA (Analogue Telephone Adaptor). Some CPs may provide an ATA port on their router, but this is dependent on the individual CP and therefore Openreach cannot guarantee the availability. Therefore, we strongly recommend against installing traditional analogue voice cabling and extension sockets around your new build.

Instead, Openreach highly recommends substituting with data cabling via CAT6 cable. This gives the future homeowner the flexibility to use the extension for data or, by using their own customer procured ATA, traditional voice services.

It's worth noting that most CPs are recommending their customers use VOIP (Voice Over IP) equipment for voice calls rather than ATA's to convert the FTTP IP signal to analogue. Homeowners can contact their CPs to find out more about the options for voice services.

Homeowners will connect their communication provider router to the Openreach ONT to enable their internet service. If the ONT is located in an under-stair or service cupboard this can potentially restrict the Wi-Fi coverage and performance of the router.

Suggested internal wiring options are shown on the next pages.

Please note

All internal wires and sockets beyond the ONT are the responsibility of the developer/homeowner.

For information, advice and guidance around positioning, please refer to PAS: 2016 Next Generation Access for New Build Homes guide.
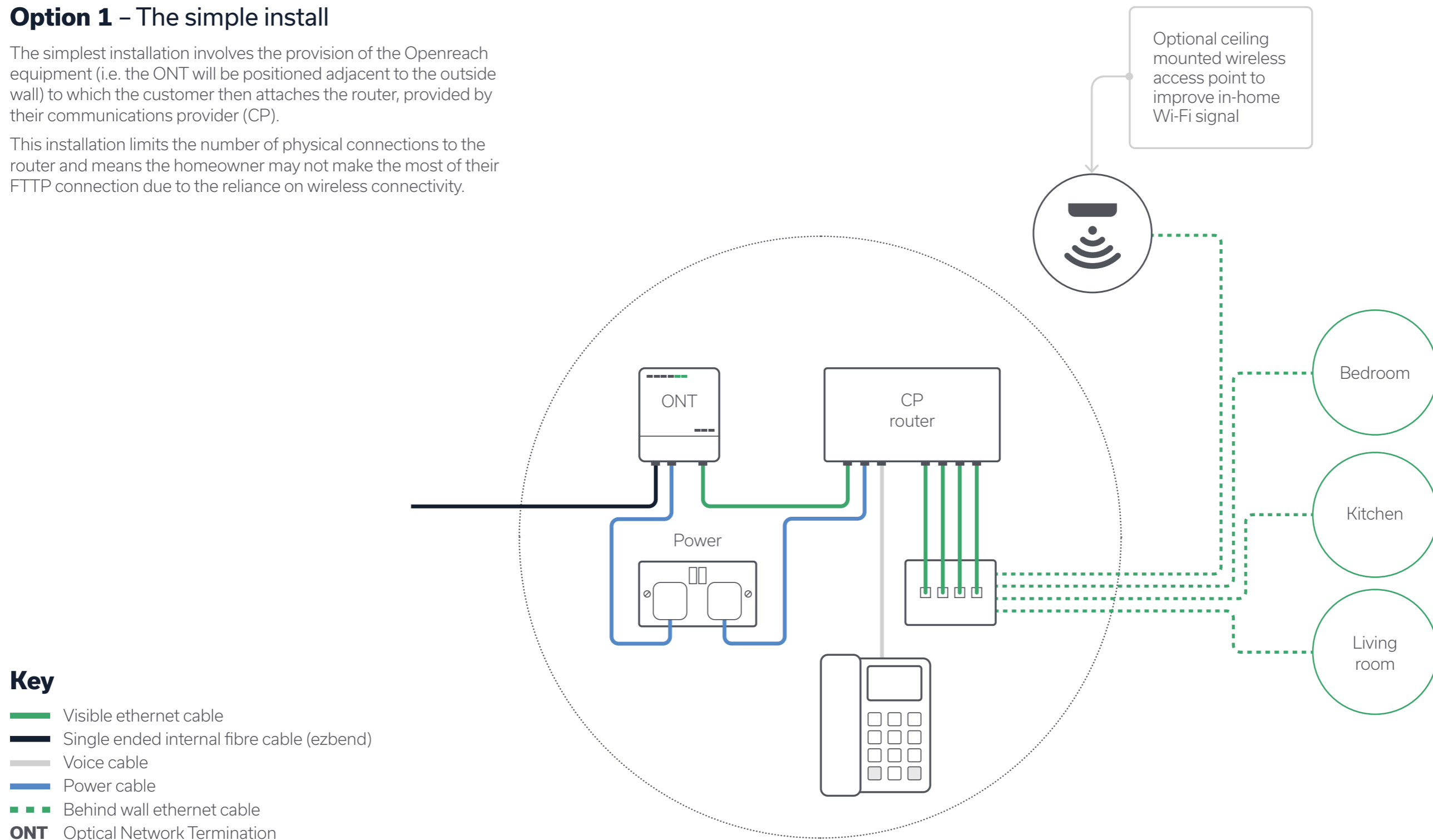
Home wiring

Option 1 – The simple install

The simplest installation involves 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 (CP).

This installation limits the number of physical connections to the router and means the homeowner may not make the most of their FTTP connection due to the reliance on wireless connectivity.
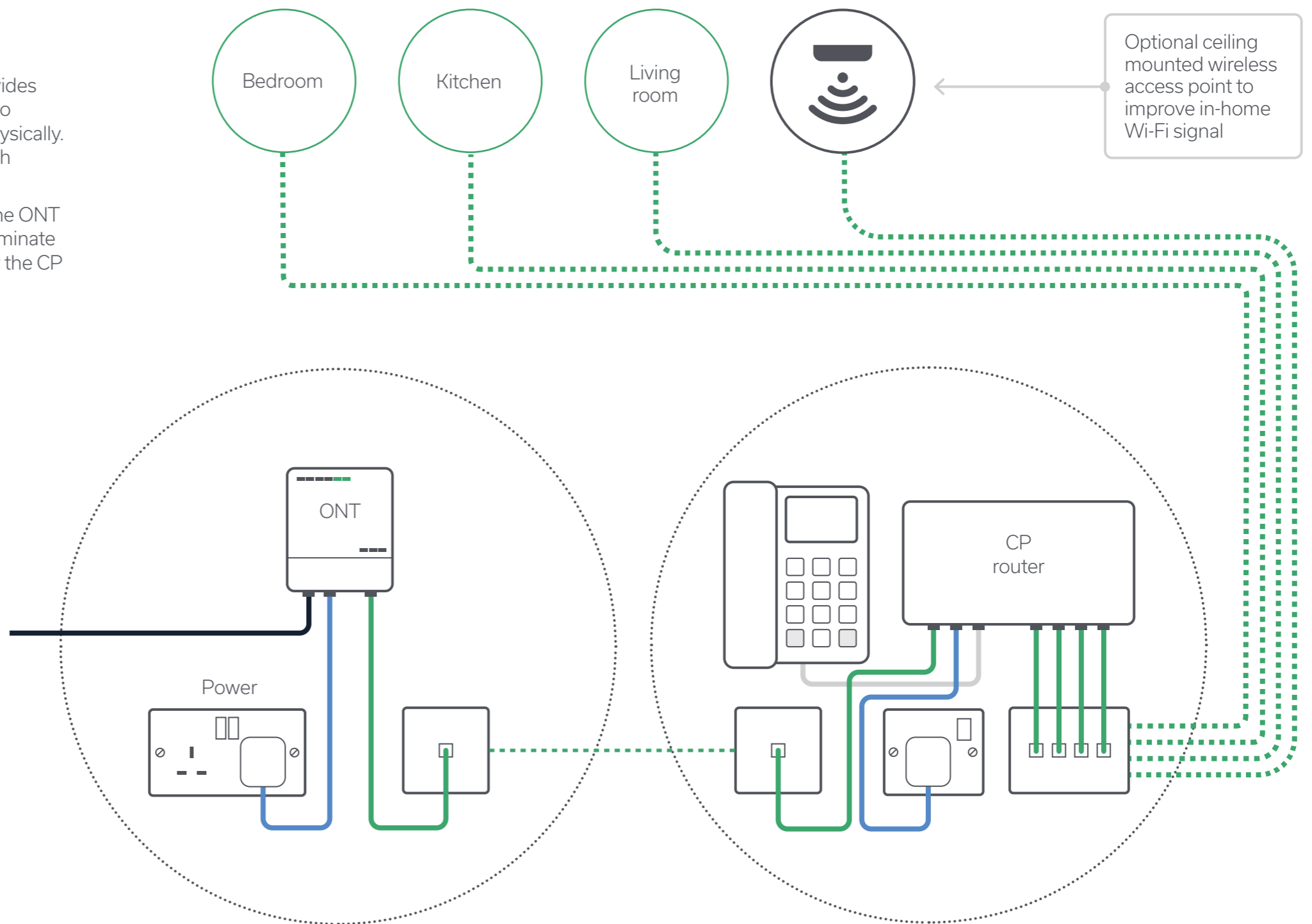
Optional ceiling mounted wireless access point to improve in-home Wi-Fi signal

ONT

CP router

Power

Bedroom

Kitchen

Living room

Key

— Visible ethernet cable
— Single ended internal fibre cable (ezbend)
— Voice cable
— Power cable
▪▪▪ Behind wall ethernet cable
ONT Optical Network Termination

Home wiring

Option 2
Relocating the router via internal network cabling

Relocating the communications provider (CP) router provides a better quality wireless connection, as well as the ability to connect static devices such as TVs or games consoles physically. This allows these devices to take full advantage of the high speeds and bandwidth of a Full Fibre connection.

Additional Cat6* cabling is required for this option from the ONT to the chosen relocation area. This connection should terminate in an RJ45 socket. A power socket should be provided for the CP router next to this socket
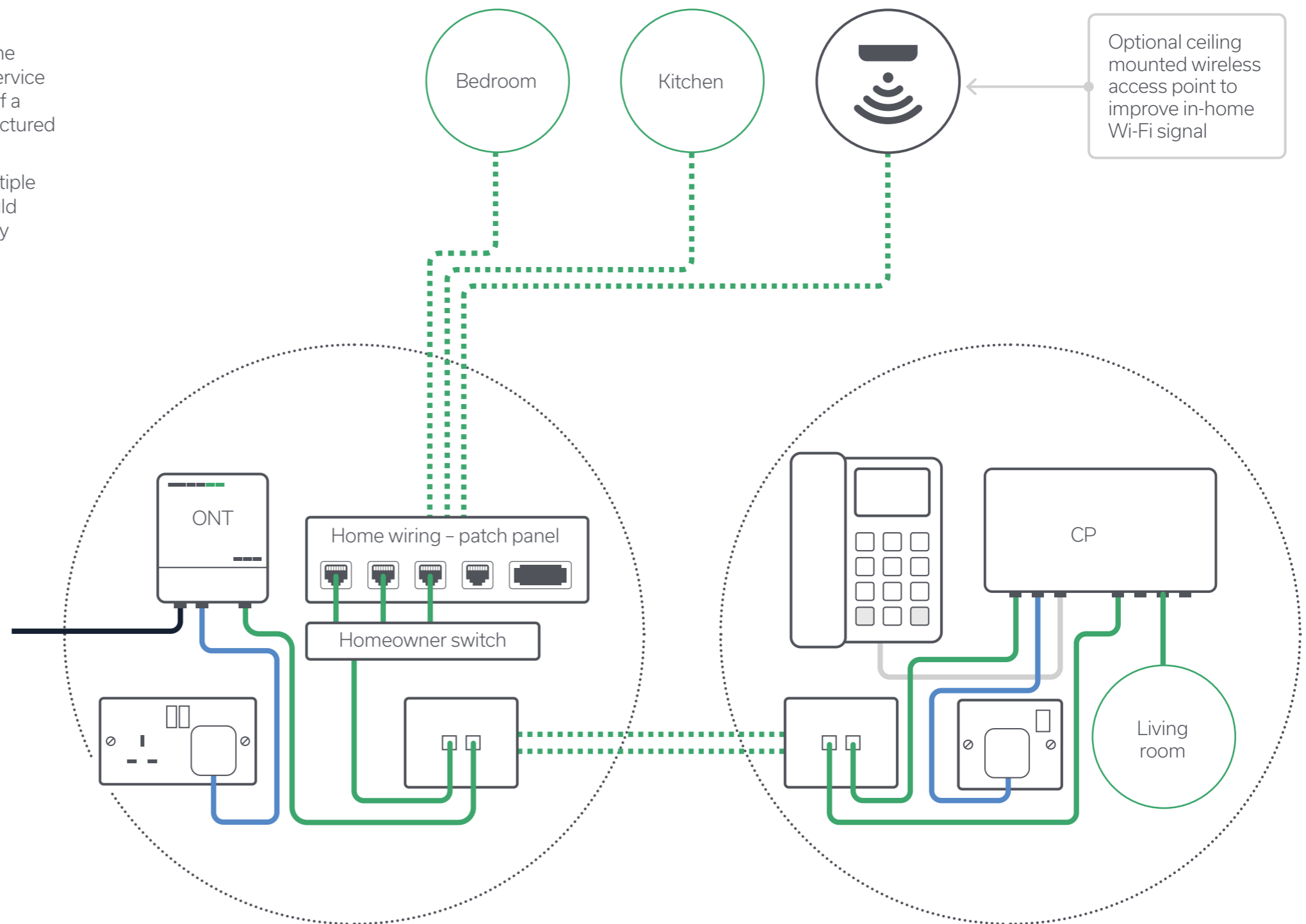
Bedroom

Kitchen

Living room

Optional ceiling mounted wireless access point to improve in-home Wi-Fi signal

ONT

Power

CP router

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ONT Optical Network Termination

Home wiring

Option 3
The networked home

Further to the second option, this setup cables back from the CP router position within the property to the under stairs/service cupboard position of the Openreach ONT for the location of a patch panel. This means that, as much as possible, any structured cabling is discreetly located out of sight.

A patch panel is the best option to intelligently connect multiple rooms with structured cabling. In this setup a customer could also install an ethernet bridge/switch to further create a truly networked home.

Bedroom

Kitchen

Optional ceiling mounted wireless access point to improve in-home Wi-Fi signal

ONT

Home wiring – patch panel

Homeowner switch

CP

Living room

Key

— Visible ethernet cable
— Single ended internal fibre cable (ezbend)
— Voice cable
— Power cable
···· Behind wall ethernet cable
ONT Optical Network Termination

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