

**Key:** NTE: Network Termination Equipment  
CPE: Customer Premises Equipment

Etherway: the maximum potential bandwidth of the physical fibre/copper bearer  
Etherflow: the actual purchased bandwidth (over a given Etherway)

## EFM Ethernet - CopperStream®

BT Wholesale

**NTE Type:** Hatteras/Overture HN408CP [<https://www.google.co.uk/images?q=hn408cp>].

**NTE Interface:** RJ45.

**CPE:** The CPE normally needs to be capable of VLAN tagging. Spitfire normally recommends a Cisco C1111/C1117.

**How to Connect:** RJ45 port on the NTE, via cross-over cable, to RJ45 port 0/0/0 on CPE.

## Fibre Ethernet - FibreStream® - from suppliers listed:

BT Wholesale, TalkTalk Business or Openreach

### Etherway: less than 1 Gb/s

**NTE Type:** ADVA FSP150CP [<https://www.google.co.uk/images?q=fsp150cp>].

**NTE Interface:** RJ45.

**CPE:** For Etherflows of <200Mb/s Spitfire normally recommends a Cisco C1111/C1117. For Etherflows of ≥200Mb/s Spitfire normally recommends a Juniper SRX340.

**How to Connect:** For Cisco C111X, RJ45 port on the NTE, via cross-over cable, to RJ45 port 0/0/0 on CPE. For Juniper SRX340, RJ45 port on the NTE via cross-over cable, to RJ45 port 7 on CPE.

### Etherway: 1 Gb/s

#### DEFAULT COMMON PRESENTATION:

**NTE Type:** ADVA FSP150CP

[<https://www.google.co.uk/images?q=fsp150cp>].

**NTE Interface:** SFP Module (Multi-mode; MMF) with an LC Interface

[<https://www.google.co.uk/images?q=fibre+lc+connector>].

**CPE:** Spitfire normally recommends a Juniper SRX340.

**How to Connect:** LC interface on the NTE, via LC-LC fibre optic patch lead, to LC interface (usually port 15) on Juniper CPE.

#### ALTERNATIVE PRESENTATION (SUBJECT TO AVAILABILITY):

**NTE Type:** ADVA FSP150CP

[<https://www.google.co.uk/images?q=fsp150cp>].

**NTE Interface:** RJ45 presentation (if available must be discussed and ordered as such at point of sale).

**CPE:** Spitfire normally recommends a Juniper SRX340.

**How to Connect:** RJ45 port on the NTE via cross-over cable, to RJ45 port 7 on Juniper CPE.

### Etherway: 10 Gb/s

**NTE Type:** ADVA FSP150CP [<https://www.google.co.uk/images?q=fsp150cp>].

**NTE Interface:** SFP Module (Single-mode; SMF) with an SC Interface [<https://www.google.co.uk/images?q=fibre+sc+connector>].

**CPE:** Spitfire normally recommends a Juniper SRX340.

**How to Connect:** SC interface on the NTE, via SC-SC fibre optic patch lead, to SC interface (usually port 15) on CPE.

## Fibre Ethernet - FibreStream® - from suppliers listed:

COLT or Virgin Media Business

**NTE Type:** the NTE varies (but is commonly an Alcatel-Lucent OmniSwitch).

**NTE Interface:** RJ45. If the NTE has multiple ports, the one to use is typically FE1/1 or GE1/9 but Spitfire Provisioning will normally confirm the port number to use.

**CPE:** Varies.

**How to Connect:** RJ45 port on the CPE, via cross-over cable, to RJ45 port on the NTE (commonly FE1/1 or GE1/9).

## FTTC Ethernet - FibreStream® Lite - from supplier listed:

BT Wholesale

**NTE Type:** The FTTC Ethernet service uses VDSL2 and terminates on an Openreach NTE5.

**NTE Interface:** Openreach NTE5.

**CPE:** The customer CPE router must include an integrated VDSL2 modem - for Cisco routers, a VDSL2 WAN Interface Card (WIC). Spitfire may also recommend a DrayTek router which includes a VDSL2 modem.

**How to Connect:** POTS lead from router (either DSL port or DSL WIC) to Openreach NTE5. Please also follow the DSL Information Sheet at [<https://www.spitfire.co.uk/support/knowledge-base/>] especially to avoid double filtering!

## FTTC Ethernet - FibreStream® Lite - from supplier listed:

TalkTalk Business

**NTE Type:** The FTTC Ethernet service uses VDSL2 and terminates on an Openreach NTE5. TalkTalk Business typically provide a Comtrend VR3030 modem [<https://www.google.co.uk/images?q=Comtrend+VR3030>] as the NTE.

**NTE Interface:** RJ45 port on the TalkTalk Business VDSL2 modem.

**CPE:** Varies. Spitfire may recommend a DrayTek router.

**How to Connect:** RJ45 port on the TalkTalk Business NTE, via cross-over cable, to the WAN port on the CPE router.

**Notes:** a steady DSL light on the TalkTalk Business NTE indicates sync. The Internet light will remain extinguished (this is correct behavior).

## A note on the use of Media Converters

Spitfire recommends against the use of Media Converters such as those used to convert between fibre and copper. It is instead recommended that a customer's router be directly connected to the supplier NTE via a single cable. Any advice or guidance from Spitfire in relation to Media Converters would be limited and provided on a non-guaranteed basis. Spitfire-supplied routers have the interface and cable to match the interface on the NTE without the need for a Media Converter.

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**For assistance please contact Spitfire Support on [020 7501 3030](tel:02075013030) or via [support@spitfire.co.uk](mailto:support@spitfire.co.uk).**