

# Site Survey Guide

## 2.1 Background

This Guide provides explanations and details to assist in responding to the Site Survey.

## 2.2 Location

2.2.1 Where is the new solution CPE (Customer Premises Equipment – router) to be located within the school? The building, floor, room, and location within the room

This is important, particularly where orders are being placed with telecoms suppliers (including for PSTN Lines), as they often won't accept an order without these details being confirmed. Please be as precise as possible, as this can avoid confusion or error at a later stage.

2.2.2 Is this the same location as the current CPE?

Assuming you currently have a SWGfL solution, is the selected location for the new solution the same as the location of the existing solution?

2.2.3 Please provide a photograph of the location

A photograph or floor plan can be useful in larger sites, or where rooms are not clearly labelled.

## 2.3 Environment

2.3.1 Is the location within a rack cabinet?

A rack cabinet is a frame or enclosure into which ICT equipment is mounted. They can be wall mounted or floor mounted. Rack mounting equipment can improve the security and ventilation, as well as the organisation of the various connecting cables etc.

Equipment mounted in rack cabinets is measured in "U": the height of the equipment is standardised as multiples of 1.75 inches (44.45 mm), which is one rack unit or U.



2.3.2 Is sufficient space available in the rack cabinet for the new CPE?

CPE stands for 'customer premises equipment', and usually means the router or other active device that we provide at 'your end' to connect to the solution.

It is the responsibility of the customer to provide appropriate space, power and environmental conditions for any new hardware supplied as part of the SWGfL service.

The new CPE will need to be suitably located to run your service efficiently. Check the CPE guidance below for dimensions.

Additional equipment may be provided by the telecommunications provider, such as a vDSL modem for the FtC Service. For ADSL and FtC services, this will usually be of similar dimensions to the TP-Link devices (see below), while for EFM or fibre leased lines this will probably be a larger, rack mounted unit.



We have provided key details regarding the different CPE models deployed below:

<p><b>Viprinet VPN 300</b></p>	<p>Used for:</p> <ul style="list-style-type: none"> <li>• SWGfL Bonded ADSL Service</li> </ul> <p>Dimensions:</p> <ul style="list-style-type: none"> <li>• 147mm x 130mm x 177mm</li> </ul> <p>Rack mount options:</p> <ul style="list-style-type: none"> <li>• Rack mounting can only be achieved with an optional shelf</li> </ul> <p>Power:</p> <ul style="list-style-type: none"> <li>• 1x external power supply</li> </ul>	
<p><b>Cisco 881 / 881 SEC</b></p>	<p>Used for:</p> <ul style="list-style-type: none"> <li>• SWGfL EoSFB Service</li> <li>• SWGfL FtC Service</li> <li>• SWGfL ADSL Service (with TP-Link TD-8817)</li> </ul> <p>Dimensions:</p> <ul style="list-style-type: none"> <li>• 325mm x 249mm x 48mm</li> </ul> <p>Rack mount options:</p> <ul style="list-style-type: none"> <li>• Rack mounting can only be achieved with an optional shelf</li> </ul> <p>Power:</p> <ul style="list-style-type: none"> <li>• 1x external power supply</li> </ul>	
<p><b>Cisco 887VA</b></p>	<p>Used for:</p> <ul style="list-style-type: none"> <li>• SWGfL ADSL Service</li> </ul> <p>Dimensions:</p> <ul style="list-style-type: none"> <li>• 325mm x 249mm x 48mm</li> </ul> <p>Rack mount options:</p> <ul style="list-style-type: none"> <li>• Rack mounting can only be achieved with an optional shelf</li> </ul> <p>Power:</p> <ul style="list-style-type: none"> <li>• 1x external power supply</li> </ul>	
<p><b>MikroTik RB2011UIAS-RM</b></p>	<p>Used for:</p> <ul style="list-style-type: none"> <li>• SWGfL FtC Service</li> <li>• SWGfL ADSL Service (with TP-Link TD-8817)</li> <li>• SWGfL Satellite Service</li> </ul> <p>Dimensions:</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p>Rack mount options:</p> <ul style="list-style-type: none"> <li>• 1U rack mount enclosure as standard</li> </ul> <p>Power:</p> <ul style="list-style-type: none"> <li>• 1x external power supply</li> </ul>	
<p><b>TP-Link TD-8817</b></p>	<p>Used for:</p> <ul style="list-style-type: none"> <li>• SWGfL ADSL Service (with MikroTik 751G-2HnD or with Cisco 881 / 881 SEC)</li> </ul> <p>Dimensions:</p> <ul style="list-style-type: none"> <li>• 140mm x 92mm x 29mm</li> </ul> <p>Rack mount options:</p> <ul style="list-style-type: none"> <li>• Rack mounting can only be achieved with an optional shelf</li> </ul> <p>Power:</p> <ul style="list-style-type: none"> <li>• 1x external power supply</li> </ul>	

**2.3.3 Is the location adequately cooled?**

Most electronic equipment – including the CPE provided by SWGfL – operates best in a cooled environment. Indeed, if the air temperature is too warm you may find performance or reliability issues can

result. This isn't unique to the SWGfL CPE, of course: your other ICT equipment, such as servers and switches, will be the same.

If the answer to 2.2.2 is "Yes", and no issues have been experienced in respect of CPE reliability to date, it can be assumed that the location is likely to provide adequate cooling.

Otherwise, please use your judgement to decide if the location appears to be sufficiently cool to operate ICT equipment effectively.

## 2.4 School Network

2.4.1 Is the location within 2 metres of the school Local Area Network ("LAN") switch?

Refer to Appendix 1.

2.4.2 Is there a spare port on the switch that can be used to connect the new CPE (or, if the answer to **Error! Reference source not found.** is "Yes", will the existing port be used)?

As described in Appendix 1, the new CPE needs to connect to a suitable port on the switch.

If there are no spare ports, but the existing CPE is connected, the port the existing CPE is connected to may be used (though be aware that this will mean any parallel operation (of both the existing and the new solution) won't be possible).



### IP Requirements

2.4.3 If you require more than 1,024 private IP addresses and/or more than 8 public IP addresses, or you have additional requirements, such as DHCP or VPN management, please provide details

SWGfL connections normally receive an allocation of 1,024 private IP addresses from the 10.0.0.0/8 netblock and 8 public IP addresses, supported using static NAT rules on the central firewalls. Larger allocations of private or public IP addresses can be requested at no additional cost.

You may just require the same configuration as you have at the moment, if you have an existing SWGfL solution. However, if you require a new or different IP range, or other IP-related changes, please let us have the details.

### Additional Information

2.4.4 We will contact you prior to completion of your request for a new solution, but please provide us with any additional information we may need to know about your network, for example if you have existing local services and require access to reach them. Please provide a description (e.g. "remote access server on 192.168.0.2")

You may just require the same configuration as you have at the moment, if you have an existing SWGfL solution. However, if you require access to particular systems or services, please let us have the details.

## 2.5 Power Supply

2.5.1 Is the location within 2 metres of an available 13 amp power socket(s)?

The new CPE needs electricity! Much like the port you need on the switch, if you don't have an unused power socket(s) available, you'll be able to use the socket(s) that the current router is plugged into (if you're locating the new CPE in the same location as the current CPE).

Each CPE device will require power, so use the table below to identify how many power sockets are required:

SWGfL Solution	CPE	x1 power socket needed	x2 power sockets needed
ADSL Solution	Cisco 887VA	✓	
	Cisco 881 SEC + TP-Link TD-8817		✓
	MikroTik 2011UiAS-RM + TP-Link TD-8817		✓
Bonded ADSL Solution	Viprinet VPN 300	✓	
FttC Solution	Cisco 881 SEC		✓
	MikroTik 2011UiAS-RM		✓
EoSfBB Solution	Cisco 881 SEC		✓
	MikroTik 2011UiAS-RM		✓
EFM Solution	Cisco 881 SEC		✓
Satellite Solution	MikroTik 2011UiAS-RM		✓

Check section 2.3.2 for additional CPE details.

## 2.6 Existing PSTN Line (ADSL and FttC)

2.6.1 Is the location within 2 metres of a BT Master Socket?

See Appendix 1 and Appendix 2 (section **Error! Reference source not found.**) for details.

2.6.2 Is the PSTN line used for anything at the moment, such as phone or phone system (like BT Inspiration), a fax machine, or alarm system etc? Please provide details

There are a few things to watch out for:

- Security alarm systems: it is not recommended to use a PSTN Line running alarm system
- Fax machines: it is not recommended use a PSTN Line operating a fax machine

See Appendix 2 (sections **Error! Reference source not found.** and **Error! Reference source not found.**) for details.

2.6.3 Are any 'features' active on the PSTN Line, such as Redcare? You'll probably find details on your bill if you don't know. Please provide details

See Appendix 2 (sections **Error! Reference source not found.** and **Error! Reference source not found.**) for details.

2.6.4 Please provide the telephone number of the existing PSTN line, if applicable

This is the full telephone number of the PSTN Line, including STD code, that you intend to use with the new SWGfL solution.

## 2.7 New PSTN Line (ADSL and FttC)

2.7.1 If an existing PSTN Line with BT Master Socket is not present; is not in the correct location, or is not compatible with your new ADSL or FttC solution, you'll require a new PSTN Line. Please confirm that the details provided in **section Error! Reference source not found.** correctly describe the required location for the new PSTN Line

Confirm “Yes” if the location details provided at **section** Error! Reference source not found. correctly describe the required location for the new PSTN Line, or “No” if alternative details need to be provided. If “No”, return to **section** Error! Reference source not found. and adjust the details.

2.7.2 Please provide a plan, drawing or sketch clearly indicating the location for the new PSTN Line, and showing where it will connect to

- o the school LAN, and
- o the nearest available power socket(s)

This is optional, but can be very helpful in assisting the BT engineer in locating the correct position in which to install the new PSTN Line.

2.7.3 Please provide and/or confirm the contact details for an appropriate onsite contact who can supervise the BT engineer who installs your new PSTN Line

This may be the same contact details provided at **section** Error! Reference source not found., or it may be a different person with different contact details.

We'll do our best to make sure BT install new PSTN Lines in the right place, but do please use the guidance we've provided in **section** Error! Reference source not found. to help ensure that the BT engineer that attends locates the PSTN Line in a suitable place.

## 2.8 Installation

### Engineer Installation

2.8.1 If you would prefer to have an engineer attend your site to complete the installation, we can provide this, however there will be a charge. If you'd like this service, please confirm

Confirm “Yes” for an engineer to attend site to complete the installation, or “No” to make the arrangements to undertake the installation yourself.

## 2.9 Establishment Details

Do please ensure that all information is provided, as this can avoid issues at a later stage.

## 2.10 Question or Issues

If you have any other questions or issues, please let us know as soon as possible!

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