### Revision

### Connecting to the internet.

### Wired methods

* Ethernet
* ADSL
* Fibre Optic

### Wireless methods

* Wi-Fi
* Bluetooth
* Infrared
* 3G and 4G (Mobile Data)

## Connecting a computing device to a wireless network

### Network name (SSID)

An SSID (service set identifier) is the name of a wireless local area network (WLAN). All wireless devices wishing to connect must use the same SSID in order to communicate with each other.

If a network is hidden then an SSID can be entered manually. It is also possible for a public SSID to be broadcast from an access point to all wireless devices that are within range of each other.

### Security keys

Security keys are used to exchange messages between devices. These are commonly encrypted with WEP (Wired Equivalent Privacy). This is set through the network router setup wizard. It is a sequence of hex digits chosen by a network administrator and assists with securing the network connection. As with all technology WEP has been superseded by WPA(Wi-Fi Protected Access) and WPA2 which provide greater security.

### Firewall settings for public and private networks

#### Public

The firewall setting is applied when a connection to a domain is made through a public network, e.g. hotel airport, coffee shop.

#### Private

The firewall setting is applied to a network adapter when it is connected to a network that is identified by the user or administrator as a private network. A private network setting is one not directly connected to the Internet but is behind some kind of security device such as a NAT router or hardware firewall.

#### Backing up data

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### Archiving

An archive tends to be the backup of data for long-term storage. The user does not expect to retrieve this data but it is there in case they have to. In this storage the medium has to have a long shelf life.

#### Factors affecting the choice of data collection method

### Nature of information to be collected

#### Environmental conditions

 Paper-based methods of data capture are not environmentally friendly

 Whether the information to be collected is analogue or digital

#### Location of information

 Information collected centrally lends itself to online collection over manual collection

 Postal information needs to be collected

 Does the collected information have to be close to the processing site?

### Cost

#### Source document

 Time cost required to prepare the data, e.g. staff wages

 Financial cost in terms of paper, postage, etc.

#### Data entry processing

 If it has to be done quickly then staff costs will be higher

 If edits are required to be made to the data, the whole process will take longer

 The amount of data that has to be keyed in – the more data, the longer it takes

 The legibility of the document, e.g. handwriting, etc., if it is illegible then it takes longer and so more cost is involved

 If data is to be scanned, cost is affected by:

o size of the document

o uniformity of the pages

o document condition

o arrangement of the pages, e.g. double-sided

o quality of the paper

o whether batch processing of documents can be used

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### Availability

 Paper is readily available for manual collection whereas as barcodes and magnetic cards have to be specially produced

 Availability of staff to prepare and collect the information – e.g. offshore employees, teleworkers

#### Ease of use

 What ability has the person giving the information, e.g. a child

 Form design

 OMR lends itself to the collection of marks in predefined places

 OCR lends itself to the collection of typed text

 Handwritten data capture lends itself to manual forms

 Complexity of the data collected

 Keyboard suitable for low volumes of text

 Automatic data capture means less/no human intervention

### Data security

 No human intervention then data is more secure

 Consideration has to be given to where the source documents are held

 How many people have to use the source material before it gets processed