

## **task 1(b)**

### **client specification:**

network should include:

1 server

100 client PCs

5 colour printers

Switch

To meet this requirement, I am recommending that we install.

- A server with Active directory
  - . File and print server.
  - . DHCP server
  - . DNS server
- Windows server update systems (WSUS) server (to manage operating system updates)
- Server should include antivirus which should cover all client PCs, luckily windows have their own built in anti-virus which is gets the job done on all machines.
- Client PCs
  - . All PCs should have windows 10 installed and joined to the Active directory domain (ADD)
  - . All client PCs should be provided with the following software.
- Productivity software
  - . Office 365 – allows working with documents and email management.
  - . Adobe Acrobat – allows opening PDF files.
  - . Endpoint protection software – Sophos endpoint protection software – prevents viruses, malware, spam and external threats.
- Switches
  - . the client wants connectivity of 106 devices (100 PCs, 5 printers and 1 server), I have also given leeway for firewall/router connection.
  - . To achieve this, we recommend installing 4 managed switches.
  - . 1 switch for the connectivity of the hardware (for example, firewall/router, server, printers, and other switches) – switch recommended as 20 port switches for future attachments.

- . switch 2-4 for the client PCs – 3 switches with 40 ports for the client PCs as you would want a 1/3 on each switch, allowing space for future add-ons.
- Gateway router /firewall – included to allow secure internet access and online searching.
- IP addressing
  - . Ips should be addressed using the following IP scheme.
  - Network Ip – 192.168.0.0/24
  - Server Ip – 192.168.0.1
  - Printer Ip – 192.168.10-19 reserved for printers and add-ons.
  - Switches Ip – 192.168.0.220-229 and add-ons
  - Gateway router Ip – 192.168.0.254
  - DCHP server scope Ip -192.168.0.100 – 192.168.0.209

## **Stages of implementation**

### **Stage 1:**

Physical instillation of switches

Physical instillation of cables

### **Stage 2:**

Installation of 2k19 server

Configuration of server settings

Configuration of AD server

Installation of security software

### **Stage 3:**

Install win10 on client reference PC.

Install key software (office, adobe)

Sysprep ready for system imaging

Imaging of reference pc

Answer file created including configured of domain join.

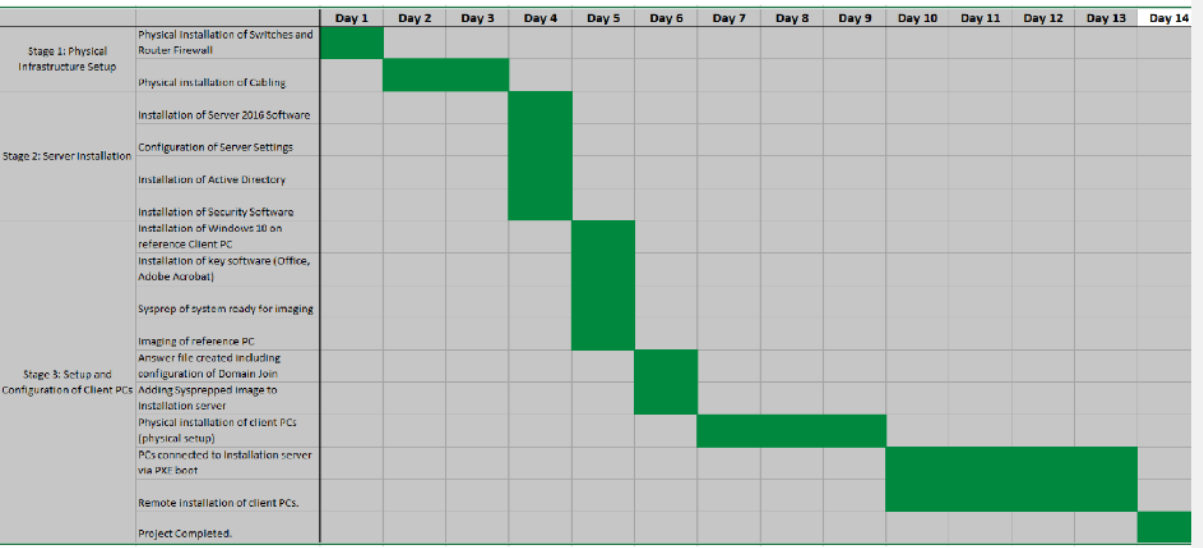
Adding sysprep image to instillation server

Physical instillation of client pcs

Pcs connected to pxe boot.

Remote installation of client pcs

Project completed.



Network diagram

