

Technical Support Fundamentals (IT5010)

Introduction: our Company Name 'Spring computers' having its office in Wellington intends to extend our office site further to Auckland and two other. As an initial extension management advised to design a computer network solution for the new office in Auckland which should be compatible to fundamental concepts of IT Technical Support with a view of further development of two more offices.

Requirements: The design should consist of at least four computers, printer, a software tool to monitor and manage call logs, customer support and taking care of communication between sites are secured.

In addition, the design prioritisation system for handling support calls, the budget should not cross \$20,000.

Networking Topology Suggested : Ring Topology – it is the best and simple .WE also use it in our school .A ring network is a network topology in which each node connects to exactly two other nodes, forming a single continuous pathway for signals through each node , with each node along the way handling every packet.

Handling the support call prioritisation: Range of factors to consider.

- **Problems:** Interruptions in service to customers.
- **Request:** Asking for services that are part of the HELP DESK's advertised list of services.
- **Questions:** Queries about how to perform specific tasks using technology.
- **WORK ITEMS:** You have to be able to prioritise work planned and unplanned, against everything else going on in your Help Desk.
- **Help Desk:** Improvement or call elimination initiatives are usually carried out by the second level of support. If you are working on the second level of support, make sure you give call elimination work the priority it deserves.
- **Important :** Following the guidelines of ITSM (IT SERVICE MANAGEMENT)prioritize the problem into categories of : 1. LOW
2 High
3 Medium and
4 CRITICAL

These categories will be incorporated into ticketing system of software purchased to manage and monitor call logs customer support.

- **Securing Communication Channel:**
- 1. Router having VPN.
- 2. Firewall having VPN.

- VPN – meaning virtual Private Networks. Security Networks are composed of 3 site: Collectively named – CIA.
- **CONFIDENTIALITY:** Critical confidential information of our organisation should not be exposed to any unauthorised person, whether it is within our organisation or outside personal in transit of data, but we have in place barriers to protect data and ensuring that information is always available 24/7 to the right recipient or recipients as and when required with utmost integrity.
- **INTEGRITY:** Data security is the practice of protecting digital information from unauthorised access, corruption or theft throughout its entire lifecycle. It's a concept that encompasses every aspect of information security from the physical security of hardware and storage devices to administrative and access controls as well as the logical security of the software applications. It also includes organizational policies and procedures.
- **Availability:** Any critical or important data in transit should not be tampered or modified ensuring that data is available with utmost dignity and integrity.
- **Encryption:** Using an algorithm to transform normal text characters into an unreadable format,

encryption keys scramble data so that only authorized users can read it. File and database encryption solutions serve a final line of defence

- For sensitive volumes by obscuring their contents through encryption. Most solutions also include security key management capabilities.

We can ensure complex passwords are made and available for executive's and senior staff .They are made up of eight characters.eg,///.....

Automated compliance reporting: Comprehensive data protection solutions with automated reporting capabilities can provide a centralised repository for enterprise –wide compliance audit trails.

Justification: Everything is of utmost high quality, with warranty covering purchases .Secondly, there is a savings of almost \$10.000, which could be used in further development of company's use of facilities.

All components quotes from PB tech:

PB Tech Penrose PB Technologies Ltd 4 Station Rd, Penrose PO Box 12680, Penrose, Auckland Phone: 09-5839200 Fax: 09-5800504 Website: https://www.pbtech.co.nz/		Date 16-Aug-2022 Page Number Page 1 of 1 Sales Analysis Colin Wang (R)		SQPR057734 GST Number 61280472	
Quote SQPR057734					
To: PNR60274					
bhiku batel 0220489417			Deliver To:		
Code	Description	Quantity	Price	GST	Total
WKSPB54515	PB Executive Series 54515 Desktop PC Intel 12th Gen Core i5 12400 6 core / 12 threads , 16GB RAM, 500GB NVMe SSD, AX WiFi + Bluetooth Windows 10 Professional 64 bit,	4	1,149.00	689.40	5,285.40
EXMONDEL2319	Dell P2319 (A-Grade Off-Lease) 23" FHD Business Monitor 1920x1080 - IPS - DisplayPort - HDMI - VGA - Reconditioned by PB Tech - 12 Months Warranty	4	190.00	114.00	874.00
CABCXT830500	Crutec 5m Cat6 Ethernet Cable - White Color	4	9.14	5.48	42.04
KEYMST2464564	Microsoft Sculpt Comfort Desktop Keyboard & Mouse - USB Wireless RF Keyboard - English - Black - USB Wireless RF Mouse - BlueTrack - 6 Button - Tilt Wheel - QWERTY - Black	4	99.00	59.40	455.40
OFFMST1127	Microsoft 365 Business Standard 1 User , PC/MAC, Works on Windows, Mac, iOS, Android English 1Year Subscription	4	179.00	107.40	823.40
CHRLCK0009	Loctek YZ505 Ergonomic Office Chair, With Functional Lumbar Support, Backrest and 3D Adjustable Armrest, - Passed AS/NZS 4438:1997 NZ Chair Standard	4	278.26	166.96	1,280.00
DSKFTL42588	Fluteline Large Footrest - Silver Elite Frame With Black Carpet - Board Size 450mm x 350mm, - Height Adjustable Range 40mm-140mm	4	104.34	62.60	479.96
TAASAC0023	SATECHI Eco Leather Desk Mat - Black	4	47.83	28.70	220.02
SWHTPL1001	TP-Link TL-SG108PE 8-Port Gigabit Easy Smart PoE Switch, 4-Port PoE (Max 55W)	1	120.86	18.13	138.99
PTRHPL02831	HP LaserJet Pro M283FDN Colour Laser MFP Print/Copy/Scan/Fax ePrint/AirPrint, Network Ready, Print up to 21 pages per minute, 2-sided printing, smart task, all-in-one toner - no drums required, 3 Year Warranty	1	399.13	59.87	459.00
SURBEL2740632	Belkin BSV804 Power Surge Protector - 8 Outlets - 2m Cord - 2 USB Ports 2.4A - Charge Tablets and Smartphones - Including iPad at Highest Charge Speeds - 900 Joules of Protection	2	49.00	14.70	112.70

Network Diagram:

Ring Topology

