

CASE STUDY REPORT

DUE DATE: 8 JULY 2020, 12 PM

SCENARIO

Your organization has received quite a few new contracts lately. This has increased the need for teleworkers and workload outsourcing. The new contract vendors and clients will also need access to your network as the projects progress.

As network administrator for the organization, you recognize that VPNs must be incorporated as a part of your network strategy to support secure access by the teleworkers, employees, and vendors or clients.

To prepare for implementation of VPNs on the network, you have to devise a **VPN Planning Report** to be presented to the head of your department.

INSTRUCTIONS

For the VPN Planning Report, you are to select an organisation of your choice from the following business sector (See APPENDIX A). The selected organisation will be your case study, to which you will apply what you have learnt so far about Wide Area Network. While you may use your creativity to structure the case study, a template with suggested headings are shown as below:

1. Title page.
2. Table of contents.
3. Background information of your organization that includes business orientation, business structure, and size of employees (min of 100 words).
4. **VPN planning checklist:** Provide description that includes a narrative section describing your planning checklist. Your description should include all items in planning checklist, as shown in APPENDIX B. Be sure to include the rationale for items 3-8 in the checklist.
5. **Topology design:** Use Packet Tracer to draw the current topology for your network; no device configurations are necessary. Include:
 - Minimum of two branch offices: the Internet cloud and one headquarters location
 - Current network devices: servers, switches, routers/core routers, broadband ISR devices, and local user workstations
 - Identify where would you implement the VPNs
6. Summary, which must include a high-level statement of what you have achieved in the case study
7. Reference

GUIDELINES FOR SUBMISSION:

Report should use 1.5 spacing, 12-point Times New Roman font, and one-inch margins. Sources should be cited according to APA method. Your submission will be checked for plagiarism in Turnitin. Page-length requirements: 3-5 pages. You need to submit in PDF format.

APPENDIX A: LIST OF BUSINESS SECTORS

1. University
2. Oil and gas
3. Manufacturing
4. Clinic
5. Bank
6. Restaurant
7. Retail store
8. Broadcasting

APPENDIX B: VPN CHECKLIST PLANNING

	PLANNING CHECKLIST	DESCRIPTION
1.	VPN Project Goals	Write minimum of THREE (3) project goals that support incorporation of VPNs as a part of your network strategy
2.	VPN Factors to Support: <i>Example:</i> Scalability Cost Interoperability Security Quality of Service Network Maintenance Applications Support	Identify minimum of FIVE (5) VPN factors to support incorporation of VPNs as a part of your network strategy
3.	VPN Users and Applications: <i>Example:</i> Internal Network Users Customers Vendors Teleworkers	Identify type of VPN users and approximate numbers for each type to suit your organization's operation.
4.	Type of VPN Connection: <i>Example:</i> Site-to-site Remote access DMVPN	Identify type of VPN connection to support your organization's operation.
5.	Network resources available to VPN users: <i>Example:</i> Software applications File Servers	Identify the network resources available to each VPN users to support your organization's operation.
6.	VPN protocols to be used: <i>Example:</i> SSL IPsec GRE	Identify suitable VPN protocols to support the type of VPN connection.
7.	Technologies currently in use: <i>Example:</i> NAT ACL DHCP DNS	Elaborate updates or changes needed in technologies currently in use in your organization to support the incorporation of VPNs.
8.	Security methods: <i>Selection of security methods:</i> <ul style="list-style-type: none"> • Authentication • Encryption • HASH message type • Key exchange type 	Identify the security methods to support VPN protocols to be used (if necessary)