

SAIT

ITSC206 Winter 2020

Final

Student name:

Student ID:

Section:

Date of submission:

Instructor: Viktor Lyagutsky

Mark: /

Objectives:

- Understand the role of firewalls in corporate environment.
- Understand the role of VPNs in corporate environment.
- Configure security packages according to provided requirements.
- Test and verify the functionality of configured servers.

Tasks:

- Use virtualization software to recreate the topology presented on the provided diagram.
- Assign IP addresses to network adapters and complete the following table:

| Computer Name | IP address | Type: Static/Dynamic | MAC Address |
|---------------|------------|----------------------|-------------|
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- Describe differences between Stateless and Stateful firewalls
- Configure firewall to provide connectivity to the Internet for the internal network members.
- Restrict access to facebook.com, sait.ca and 142.110.204.12 internet resources for internal network members.
- Describe differences between TAP and TUN VPNs.
- Configure port forwarding on the Firewall to provide connectivity to the internal VPN server for the external clients.
- Configure VPN service to provide access to internal network for external clients.

Marking criteria:

-Topology configured correctly - 5 points

Correct hostnames

Correct IP addresses

Correct IP types

correct MAC addresses

Connectivity for internal network verified

- Stateless and Stateful firewalls described (written answer) - 5 points

- Connectivity to the Internet for internal clients is configured and working properly (attach proof) - 1 point

- Access to facebook.com, sait.ca and 142.110.204.12 internet resources for internal network members is restricted (attach proof) - 3 point

- TAP and TUN VPNs described properly (written answer) - 5 points

- Port forwarding configured (attach proof) - 1 point

- VPN is configured and working properly (attach proof) - 3 points

- Final paper formatting - 5 points

Due date: Thursday, April 23 2020, 8 am. Late submissions are not acceptable.