Seneca

CLO800 – Project 2

Backup Solution for Remote Employees over a secure connection

Project Scenario

As the Cloud administrator at your company, you are responsible for ensuring that all employees' critical data is safely backed up to the Cloud. Since most employees work remotely, you need to create a solution that allows for secure connections to the Azure network gateway through a VPN (virtual private networks) tunnel and a separate folder share for each employee.

Your project outcome should include two main components.

The **first** is the creation of a secure connection for each employee to connect to the Azure network. This will require the deployment of a secure VPN tunnel.

The **second** component is the creation of a backup plan to ensure each employee's data are backed up on the Cloud regularly. Specifically, you must schedule backups to occur every Friday at 10:59 PM, with a retention period of two weeks. Additionally, you must schedule backups to occur at the end of each month, with a retention period of six months.

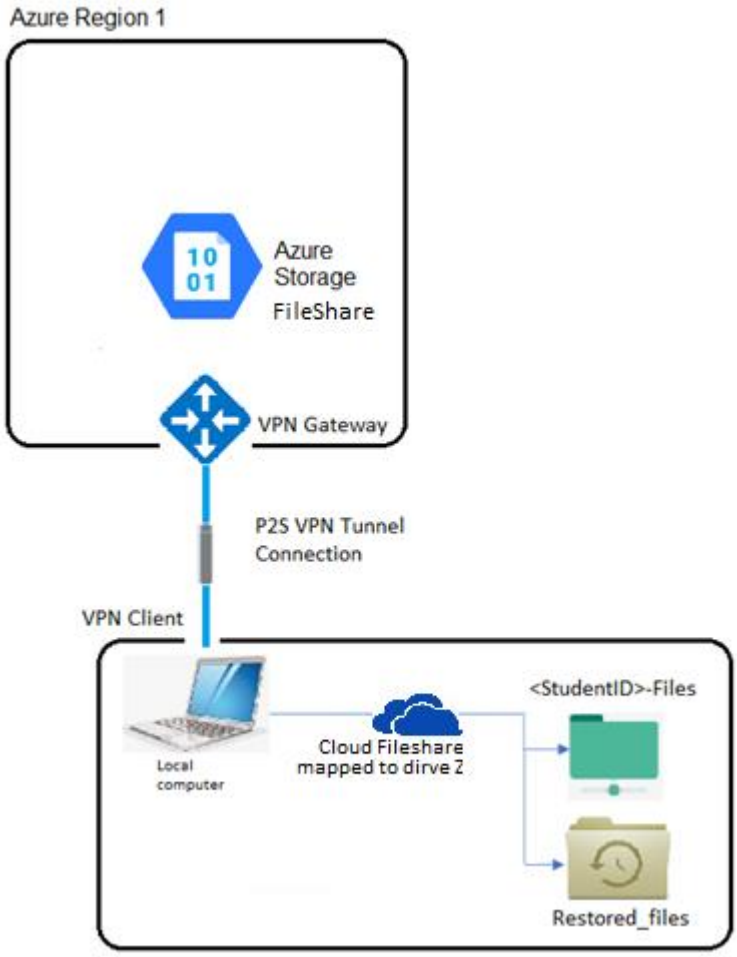

Figure 1: Project diagram

In class, I will discuss the complete details and expectations for this project.

Rubric and Requirements

I will look at your work to see how well and thoroughly you met the expected project outcomes. You should explore various methods and choose the best one to achieve the solution expected from doing the project.

Part I: Do the project

To start your project, here are some suggested steps.

1. Create a resource group named <StudentName>-s243-RG, where StudentName is your name.
2. Create your VNet in Azure using your assigned IP address space.
3. Implement a Peer-to-Site (P2S) VPN tunnel connection between a **remote computer** and the Cloud network. For the remote computer, you can either use your personal computer or **create a VM in a different region** and use it as the remote computer.
4. Create a file share on Cloud and map it to **drive Z** on your remote computer.
5. Create two folders on drive Z as shown in the diagram and copy some files to the folder that has your name.
6. From the Azure environment, create a scheduled backup plan to back up the <StudentID>-Files folder every Friday at 10:59 PM and at the end of each month with a retention of two weeks and six months, respectively.

To verify your solution, you can manually back up files from the <yourname> folder to the Cloud and then restore files from the Cloud directly to the "**Restored files**" folder. It is important to note that all backup/restore configurations must be done centrally from the Cloud for all users, not from remote computers.

Part II: Present and Demo your work

Once you have completed the project, you will need to record a presentation with your camera and microphone on. If you have technical issues or other concerns, please talk to me so we can find a solution or arrange a one-to-one presentation of your work.

Start by introducing yourself with your camera on and confirming that you are presenting your own work. Please don't spend too much time explaining the project itself. Instead, show the general setup and resources created, including those specifically for the secure connection and the backup solution.

During your demo, you must show that the remote connection is secure and encrypted. Show any license used and how you created them, and then demo backup and restore of designated folder/files. Your presentation should be no longer than five minutes, and you must ensure that your audio and video quality are good with no background noise or talking.

Part III: Points and Penalties

A total of 100 points is allocated to the project. **40% creating the connection secure** and 40% for the backup plan. Presentation quality and observing the time limits will also have **20%**. If applicable, the following penalties will apply.

- Not using your ODL- account will result in a grade of **0.**
- Not using your assigned IP address will result in a **50% penalty**.
- Resource names without a student ID or name will result in a **50% penalty**.
- Late submissions will result in a 10% penalty per day after the due date (up to the 3rd day. On the 4th day that you are late, you will receive a **grade of 0**).
- **No audio/video** on the presentation (unless arrangements are made) will result in a grade of **0**.

Project Submission

1. The project submission must be in video format and uploaded to Microsoft Stream as a private video with access granted only to your professor.
2. Use screen recording software to demonstrate the components of the project as outlined in the rubric, while verbally explaining your work.
3. Submit the link to your video demonstration through Blackboard.
4. Only submissions made through Blackboard are acceptable.

Resources:

· Microsoft Stream: https://www.microsoft.com/en-us/microsoft-365/microsoft-stream

· Microsoft Stream screen capture: Create a screen recording from your desktop

· Video link: Obtain direct link to a video

Clean up resources

It is important to remember to delete any Azure resources that you no longer need. This will ensure that you are not charged for unused resources and helps to keep your Azure account credit managed.