

Milestone 6: Backup and restore

Objective:

The purpose of backup and restore systems in an enterprise environment is to protect critical data and ensure business continuity in the event of data loss, system failures, disasters, or human error. Some key reasons for having such a system include:

1. Data protection and recovery
2. Business continuity
3. Compliance and legal requirements
4. Disaster recovery
5. Version control and historical data
6. Protection against ransomware and cyberattacks
7. Peace of mind and risk mitigation
8. System upgrades and migrations

During this lab, you will learn the importance of not only having a well-written backup policy but also implementing it.

Instructions:

It is recommended that you consult with a TA to ensure that your policy meets the requirements.

Step 1: Backup Policy

If you already have a backup policy that covers the points below, you can go to step 2. If not create or update it to cover all the points. Make sure to also justify your decisions/ reasoning

1. Data retention
2. Frequency of backups
3. Backup types
4. Storage media
5. Off-site backups
6. Encryption and security
7. Testing and verification
8. Backup automation
9. Monitoring and alerts
10. Documentation and documentation review
11. Scalability and growth
12. Compliance and regulatory requirements
13. Disaster recovery planning
14. Regular review and testing

Remember, a well-defined backup policy should align with your organization's needs and risk tolerance. It should strike a balance between data protection, cost, and operational efficiency while considering any industry-specific requirements.

Step 2: Implementation

Designate one or more of your servers as the backup server that will contain the backups of all other VMs.

Some of the solutions you may want to consider are:

There are several open-source and free enterprise backup solutions available that can meet your backup needs. Here are a few popular options:

1. Bacula
2. Amanda
3. Duplicati
4. Veeam Backup & Replication Community Edition
5. Clonezilla
6. UrBackup
7. Bareos

These solutions vary in terms of features, scalability, and complexity, so it's important to evaluate them based on your specific requirements. Additionally, make sure to review the licensing terms and any potential limitations or restrictions that may apply.

Submission Requirements

- ☐ 50 Points - A backup policy that contains all 14 points
- ☐ 150 Points - You can backup and restore your machines to the specifications in your policy