Backing up your homelab is crucial for ensuring data integrity and recovery in case of failures. Here are some good quality options for backing up your Raspberry Pi, Dell M910, and Dell M73:

General Backup Strategies

1. **Regular Backups**:

   o Schedule regular backups for all systems to ensure you capture data consistently.

2. **Full and Incremental Backups**:

   o Use a combination of full backups (complete snapshots) and incremental backups (only changes since the last backup) to save space and time.

Backup Solutions

1. **For Raspberry Pi**:

   o **Raspberry Pi Imager**: Create a full SD card image using tools like Raspberry Pi Imager or dd command.

   o **rsync**: Use rsync to back up files to another storage device or server.

   o **Duplicati**: A powerful backup solution that can back up to various cloud services or local storage.

2. **For Dell M910 (Windows Server)**:

   o **Windows Server Backup**: Built-in tool for system state and file backups.

   o **Veeam Agent for Microsoft Windows**: Offers comprehensive backup options for Windows systems.

   o **Acronis True Image**: Known for its reliability and ease of use.

3. **For Dell M73 (Docker & NGINX)**:

   o **Docker Volumes Backup**: Use docker cp or docker commit to back up containers and their data.

   o **Portainer Backup**: Use Portainer to create backups of your container configurations.

   o **rsync**: Again, a great option for backing up configurations and data files.

Backup Locations

1. **External Hard Drives**: Reliable for local backups. Ensure they are kept in a separate location to prevent data loss from disasters.

2. **Network Attached Storage (NAS)**: If you have a NAS, consider backing up to it as a centralized storage solution.

3. **Cloud Storage**: Services like Backblaze, Amazon S3, or Google Drive can be great for off-site backups.

4. **Rsync to Remote Server**: If you have another server, set up rsync for efficient backups over the network.

Monitoring and Testing

- **Regular Testing**: Periodically test your backups by restoring them to ensure they are functional.

- **Monitoring Tools**: Use monitoring solutions (like Grafana) to keep track of backup processes and their status.

Additional Tips

- **Documentation**: Document your backup procedures and configurations for easy recovery.

- **Security**: Encrypt sensitive data before backing it up, especially if using cloud services.

By combining these strategies and tools, you can create a robust backup plan for your homelab that minimizes downtime and data loss.