Computer System & Network Administration

Lab 04. Disk Management & File System

Lab requirements

- Disk Management (2 points)
  - Create partitions
  - Create RAID array
  - Format the array
  - Mount the filesystem
- File System (1 point)
  - ZFS

Disk Management - Create Partitions

- There are two unused disks in your system
  - /dev/vdb
  - /dev/vdc
- Create two partitions on each disk(total 4 partitions)
  - You should use GPT partition table
  - Each partition should be 4 GiB

Disk Management - Create RAID Array

- After partition creation, you should have two partitions in each disk
- Use the first partition to create RAID array
  - Use tool mdadm
  - Create RAID array device /dev/md0
  - You should create RAID 1 array

Disk Management - Format the Array

- You should have device `/dev/md0` in your system
  - Format it into ext4

Disk Management - Mount the filesystem

- Mount the array at /mnt/raid1

File System - ZFS

- We now will use the second partition to create ZFS
- You should create a zpool called ncku-nasa
- The pool should be configured in stripe
- You should enable ZFS compression, and set the compression method to lz4

Judge Timetable

- 3/20 22:00
- 3/21 22:00
- 3/23 22:00
- 3/24 22:00
- 3/24 23:59

- All GMT+8

Q & A