



# Data Infrastructure Management

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# Last Week Recap

Last week we covered:

- Software package management
- TCP/IP functionality
- And learned about compressing and decompressing data.

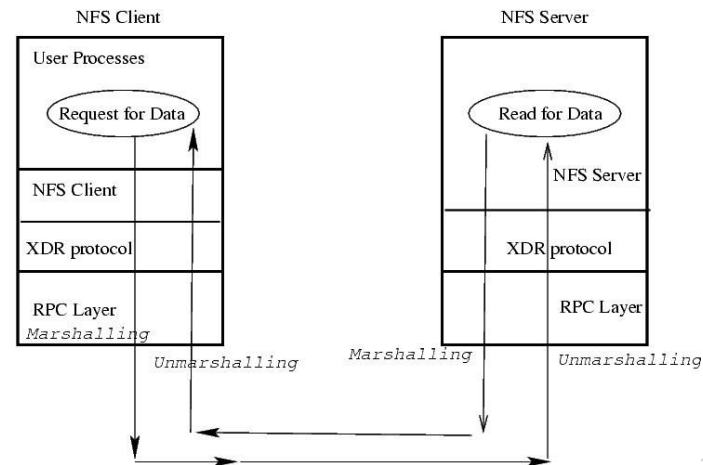
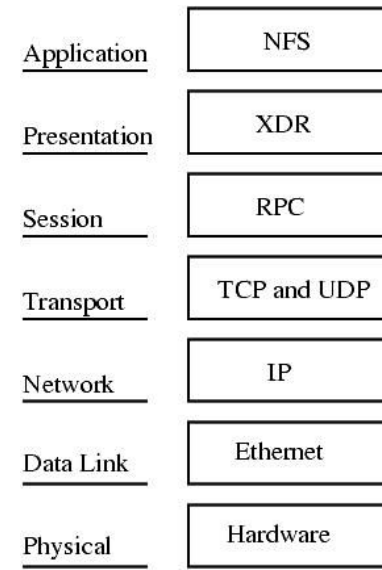
We also attended presentations on Orbit and Python



# Weekly Progress

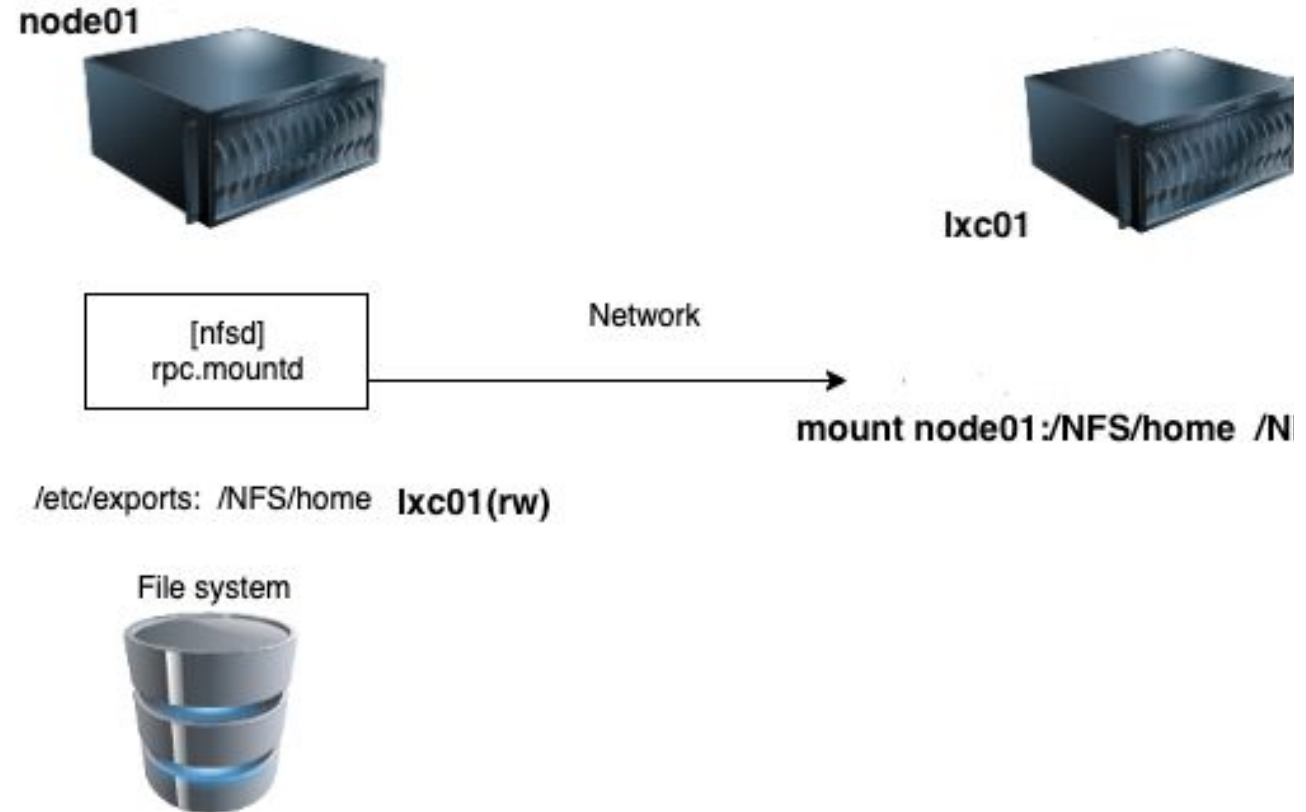
- Reimaged the server nodes with fog.
- Discussed routing and IP calculations
- Learned file systems and practiced with mdraid and zfs
- Practiced with NFS

Images: The figures depict the functionalities of the NFS as it sits on top of the TCP/IP OSI 7 layer scheme.



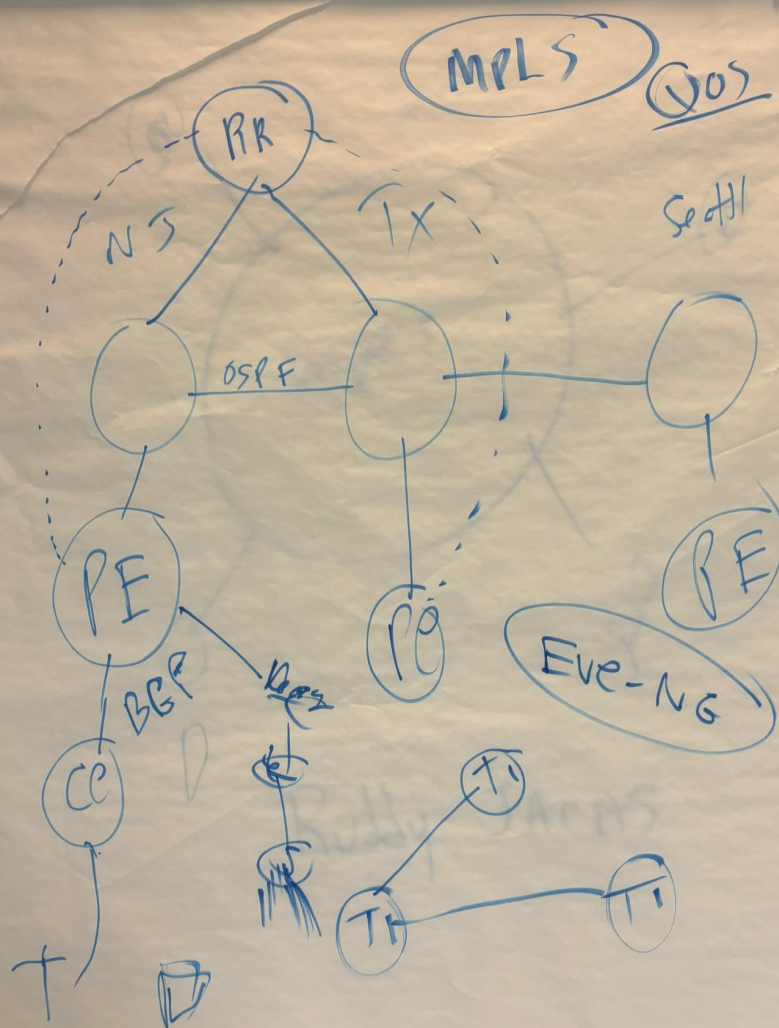
# Weekly Progress

- ▶ We successfully mounted and unmounted file systems
- ▶ We created a file system using zfs where we:
  - Replaced a disk on the file system after turning it off
  - Then we unmounted our file system and deleted it
- ▶ We each have our own physical node and virtual containers
  - ▶ We first exported a file system that we each created on our nodes to our container
  - ▶ We then mounted the exported file system on our container



# Wednesday Presentation

- ▶ Ruddy Jacas from AT&T came to present about service provider networks.
- ▶ The presentation covered data routing from computer to computer over one or multiple service provider networks.
- ▶ It also covered alternate routing and network testing.
- ▶ This expands on the TCP/IP functionality we learned last week.



# Plans for next week

- ▶ Learn about shell scripts
  - Bash syntax
  - Conditional statements
  - Loops
  - Functions
  - Awk, grep, sed
  - Environment variables
- ▶ Managing Linux with python
  - Jupyter notebook installation
  - Python fundamentals: data types, syntax, conditional statements, loops, functions
  - Python models for interacting with Linux