ĎŇŠ, Súborové služby (SAMBA, NFS, FTP)

kriza (Richard Staňa)
kr1za.github.io/
UPJŠ - AOS

Načo vysvetľovat?

- Mali ste siete ne?
- link

Prečo sú 2?

Prečo sú 2?

- A keď jeden vypadne?

DNS server = bind9

- bind9 bind9utils bind9-doc

- Zatiaľ len Ipv4:

  - vim /etc/default/bind9

    - RESOLVCONF=no
    - OPTIONS="-u bind -4"

Konfiguraky

- /etc/bind/named.conf
- /etc/bind/named.conf.options
  - Nastavíme blbý resolver

Kontrola

- named-checkconf

Funguje to?

- nslookup
  - apt install dnsutils
  - server 127.0.0.1
- Nastavenie na klientovi
  - Napevno úpravou
    - /etc/network/interfaces
    - /etc/netplan/00-private-nameservers.yaml
  - Škaredo napevno
    - /etc/resolf.conf
  - dhcp

Konfiguraky

- /etc/bind/named.conf.local
  - /etc/bind/zones/db.test.example.com
  - /etc/bind/zones/db.?.168.192
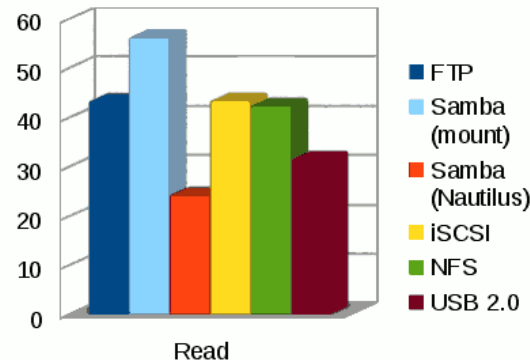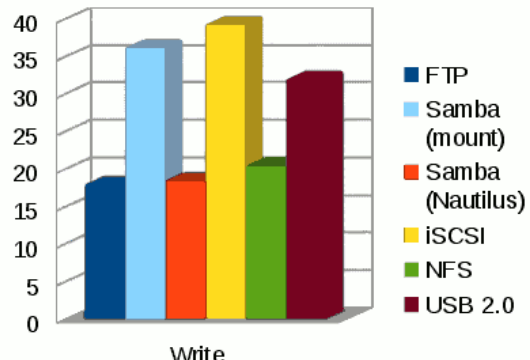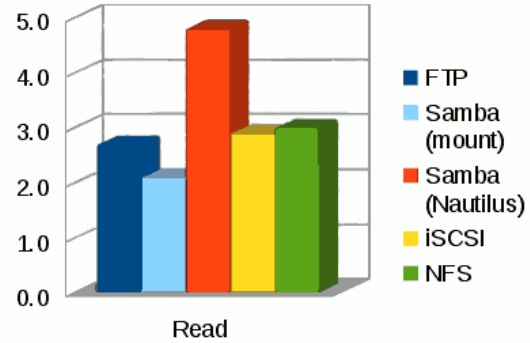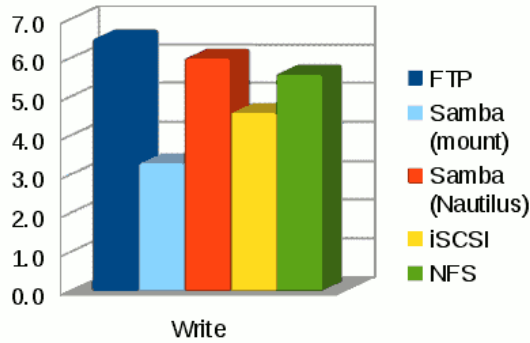   - Nastavíme vlastné zony (vlastné lokálne dns záznamy)

Kontrola

- named-checkconf

- named-checkzone nazovZony /etc/bind/zones/db.nazovZony

- named-checkzone ip.adresa.in-addr.arpa /etc/bind/zones/db.adresa.ip

SAMBA vs FTP vs NFS

- (SMB)Windows zdieľanie (ktoré už na win10 nenastavite…)

- SMB uses a LOT of short messages which makes it VERY sensible to network latency.

- Vychádza z cifs(Common Internet File System) – dá sa tiež montovať

- Obmedzené na lokálnu sieť

- FTP's main advantage is that since it's so OLD and UNIVERSAL, teda **funguje všade**

- FTP can be extremely **fast** to transfer **large documents** (though it's way less efficient with small files).FTP is faster than SMB but it has less functionality.

- FTP clients main disadvantage is that "usernames, passwords and files are sent in clear text."
  - Riešenie SFTP

- Čisto linuxácka vec (Windows 10 Enterprise edition includes NFS services)

- Možnosť mountovania

SAMBA vs FTP vs NFS

	FTP		Samba (mount)		Samba (Nautilus)		iSCSI		NFS		USB 2.0	
	Read	Write	Read	Write	Read	Write	Read	Write	Read	Write	Read	Write
Software Statistics (MB/S)	43.42	18.11	56.4	36.3	24.4	18.6	43.5	39.4	42.5	20.6	31.7	32.1
Bandwidth Monitor (Minute)	2.7	6.5	2.1	3.3	4.8	6.0	2.9	4.6	3.0	5.6		

SAMBA vs FTP vs NFS

Write operations

Files	NFS (write)			SMB (write)			NFS avg.	SMB avg.
10 KiB (6998 files)	38s	37s	37s	95s	106s	102s	37s	101s
1 MiB (240 files)	24s	23s	23s	26s	29s	27s	23s	27s
500 MiB (1 file)	46s	45s	45s	45s	45s	45s	45s	45s
3,5 GiB (1 file)	323s	323s	324s	325s	324s	323s	323s	324s

Read operations

Files	NFS (read)			SMB (read)			NFS avg.	SMB avg.
10 KiB (6998 files)	25s	26s	26s	60s	57s	57s	26s	58s
1 MiB (240 files)	24s	24s	25s	28s	29s	27s	24s	28s
500 MiB (1 file)	45s	45s	45s	48s	50s	48s	45s	48s
3,5 GiB (1 file)	323s	323s	345s	345s	349s	346s	330s	347s

Samba

- samba
  - /etc/samba/smb.conf
  - smbpasswd -a user
    - [homes]
      - comment = Home Directories
      - browseable = yes
      - read only = no
      - create mask = 0700
      - directory mask = 0700
      - valid users = %S
- smbclient

Samba - public

- samba
  - /etc/samba/smb.conf
    - # mkdir /var/samba
    - # chmod 777 /var/samba/

      [public]

      comment = public anonymous access

      path = /var/samba/

      browsable =yes

      create mask = 0660

      directory mask = 0771

      writable = yes

      guest ok = yes

- smbclient

FTP

- vsftpd
  - /etc/vsftpd.conf
- ftp

NFS

- nfs-kernel-server
  - /etc/exports
    - /media/nfs   192.168.1.0/24(rw,sync,no_subtree_check)

- **ro**: specifies that the directory may only be mounted as read only
- **rw**: grants both read and write permissions on the directory
- **no_root_squash**: is an extremely dangerous option that allows remote "root" users the same privilege as the "root" user of the host machine
- **subtree_check**: specifies that, in the case of a directory is exported instead of an entire filesystem, the host should verify the location of files and directories on the host filesystem
- **no_subtree_check**: specifies that the host should not check the location of the files being accessed withing the host filesystem
- **sync**: this just ensures that the host keeps any changes uploaded to the shared directory in sync
- **async**: ignores synchronization checks in favor of increased speed

- nfs-common
  - mount -t nfs4 192.168.1.110:/media/nfs /media/share

¿Má niekto niečo, opýtať sa chce?

- ¿Prezentácie?
- ¿Domáce?