

# Solaris file managment



**By: Abdullah Suhail abed**

ID: 163104416

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# File System Management



Solaris supports a wide variety of file system types to support most storage.

media (CDs, DVDs, Hard Drives, floppy disks, based storage) and network.

based file system protocols. Solaris also uses file systems to implement various.

system interface features, and to export some kernel information as files visible.

to the user (ie. /etc/mnttab).

# *Managing File system in solaris*

➤ The Solaris OS supports three types of file systems:

- Disk-based
- Network-based
- Virtual



# ***Disk-Based managing File Systems***

- Disk-based file systems are stored on physical media such as hard disks and DVDs . Disk-based
- file systems can be written in different formats. The available formats are described in the **following table:**



## Disk-Based File System

- ZFS
  - UFS
  - PxFS
  - PCFS
  - UDFS
- # Format Description
  - ZFS is the default disk-based and root file system.
  - UFS Legacy UNIX file system (based on the BSD Fast File system that was provided in the 4.3 Tahoe release).
  - Solaris Cluster software provides a cluster file system based on the Oracle Solaris Cluster Proxy File System (PxFS).
  - PC file system, which allows read- and write- access to data and programs on DOS formatted disks that are written for DOS-based personal computers.
  - The Universal Disk Format (UDFS) file system, the industry-standard format for storing information on the optical media technology called DVD (Digital Versatile Disc or Digital Video Disc)

➤ Each type of disk-based file system is customarily associated with a particular media device, as follows:

- ZFS or UFS with hard disk
- HSFS with CD-ROM
- PCFS with USB diskette
- UDF with DVD
- SAM-QFS with a hard disk or tape
- PxFs with a hard disk - For a cluster file system



# Network-Based File Systems



- Network-based file systems can be accessed from the network. Typically network-based file systems reside on one system typically a server and are accessed by other systems across the network.
- With the NFS service, you can provide distributed resources (files or directories) by sharing them from a server and mounting them on individual clients.
- With the Oracle SMB service you can provide distributed resources (files or directories) to Windows and Mac OS systems by sharing them from a server and mounting them on individual.



# Virtual File Systems



- Virtual file systems are memory-based file systems that provide access to special kernel information and facilities. Most virtual file systems do not use file system disk space. Also some virtual file systems, such as the temporary file system (TMPFS) use the swap space on a disk.

# default file system



- Solaris ZFS, a new file system provides simple administration transactional semantics, end-to-end data integrity and immense scalability The ZFS file system is hierarchical starting with the root directory (/) and continue downwards through a number of directories

ZFS provides the following administration features:

- Device management support
- Persistent snapshots and cloning features
- Quotas that can be set for file systems
- ACL-based access control
- Storage pool space reservations for file systems
- Support for Oracle Solaris systems that have zones installed

# Reading from the CDRROM



- Solaris Volume Management is enabled by default so it's easy to load a cd.
- Once you load it in the drive, Solaris automatically mounts it to /cdrom
- To look at the content of the CD  
`ls -l /cdrom/cdrom0`
- Use the `cp` command to copy files from the CD to disk.
- To unload the CD
- `cd` out of the `cdrom` directory
- Enter `eject cdrom`

# File Handling



**CP Command:** To copy one or more file or directories

CP option: (-i -r )

CP -i to display confirmation messages before overwrite it.

CP -r to allow coping directories.

**mv command:** Use mv to rename a file or to move the file to another directory

When you need to rename only one file then mv is the preferred command to use.

The syntax for the mv command

```
#mv source target
```

```
mv file100 ABC.txt
```

# Create files & directories



**touch Command:** to create an empty file.

The syntax for the touch command

```
#touch newname
```

Examples:

```
touch file1
```

No over write in the touch command

**mkdir command:** to create an empty file

The syntax for the mkdir command

```
#mkdir directories
```

You can create the child and parent it in the same time using `-p` command.

# Remove file & directories



**rm command:** when you no longer need a file use rm to remove it

when you use rm to remove a file the file is gone therefore be careful when removing files.

The syntax for the rm command.

```
#rm filename.
```

```
rm file1
```



Thank  
You

A blue paper cutout with the words "Thank You" in white, hanging from a string. The text is in a bold, rounded, sans-serif font. The cutout has a white outline and is suspended by a thin, light-colored string that loops through a small hole at the top center. The background is plain white.