LINUX SYSTEM CALLS OVERVIEW

System Call – Interface to OS Services (AP

- ✓ nothing but your C / C++ routines ; User Mode: Kernel Mode

System Call Types

Process Control ; File Manipulation ; Info Maintenance;
Communication ; Protection ; Device Management

PROCESS CONTROL Calls: end() ; abort(); load(); execute();

Create(); terminate(); get / set attributes () ; wait(), fork(), etc.

FILE MANIPULATION Calls: create(), delete(), open(), read(), write(), get / set file attributes ();

INFORMATION MAINTENANCE calls: getpid(), getppid(), etc.

COMMUNICATION Calls: pipe() ; shmopen() ; mmap(), etc.

PROTECTION Calls: chmod() ; chown() ; umask();

DEVICE MANAGEMENT Calls: read(), write(), get / set device attributes

LINUX SYSTEM CALLS OVERVIEW

FORK() and related system calls

- ✓ Process creation using fork () system call
- ✓Process – Program in Execution – Must reside in Main Memory, Occupy CPU
- ✓Attributes of a Process
- ✓ PID ; STATE ; PC; PRIORITY ; GPR ;
- ✓List (open files); Open Devices; Protection Info
- ✓Process Details are stored in Process Control Block (PCB)
- ✓**Two Types of Processes** : CPU Bound v/s IO Bound
- ✓Running State v/s Wait State

[More Cpu Time v/s More IO Time] –

Right Balance of processes – Schedulers Challenge