

Topics: Connecting to Processes Near and Far

Approach: Three Examples: bc, popen(), timed, rem_execd

Today's System Calls: socket(), bind(), listen(), accept(), connect()

Outline

More Pipes

bc in detail

1. Big picture
2. Details of implementation
3. Ideas of client and server

popen() - processes that look like files

1. What is popen() ?
2. A simple example ?
3. Writing popen()

Sockets

What For?

Connect processes on different machines

An analogy

1. Calling the time service
2. Server and client
3. address family
4. hostname
5. port number
6. setting up a service
7. using a service

Reality

1. talking to a time daemon
2. Server and client
3. address family
4. hostname - (see /etc/hosts)
5. port number - (see /etc/services)
6. setting up a service
7. using a service

A Dialog

1. remote execution
2. using it for file transfer

Other Socket based Services

printer, talk, nfs, mail, ftp, telnet, news, dictionary,
names, chat, games, ...