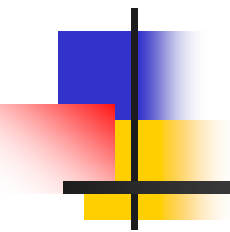


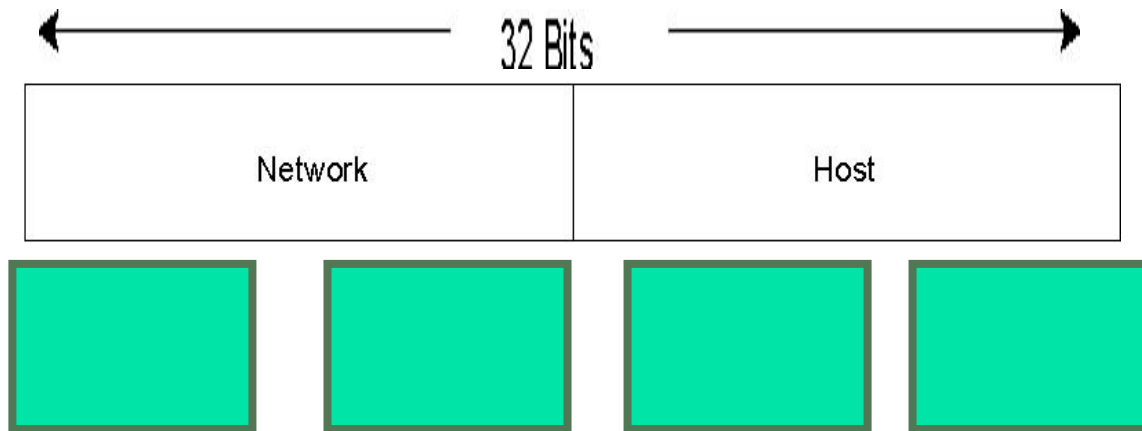
HPC08
IPM-2008



NIS-SERVER

H.A.SADRI
Department of Physics
Isfahan University of Technology

IP-FORMAT

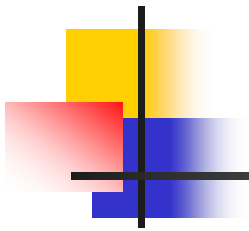


Example:

8 bit	8 bit	8 bit	8 bit
172	16	93	110

127.0.0.1

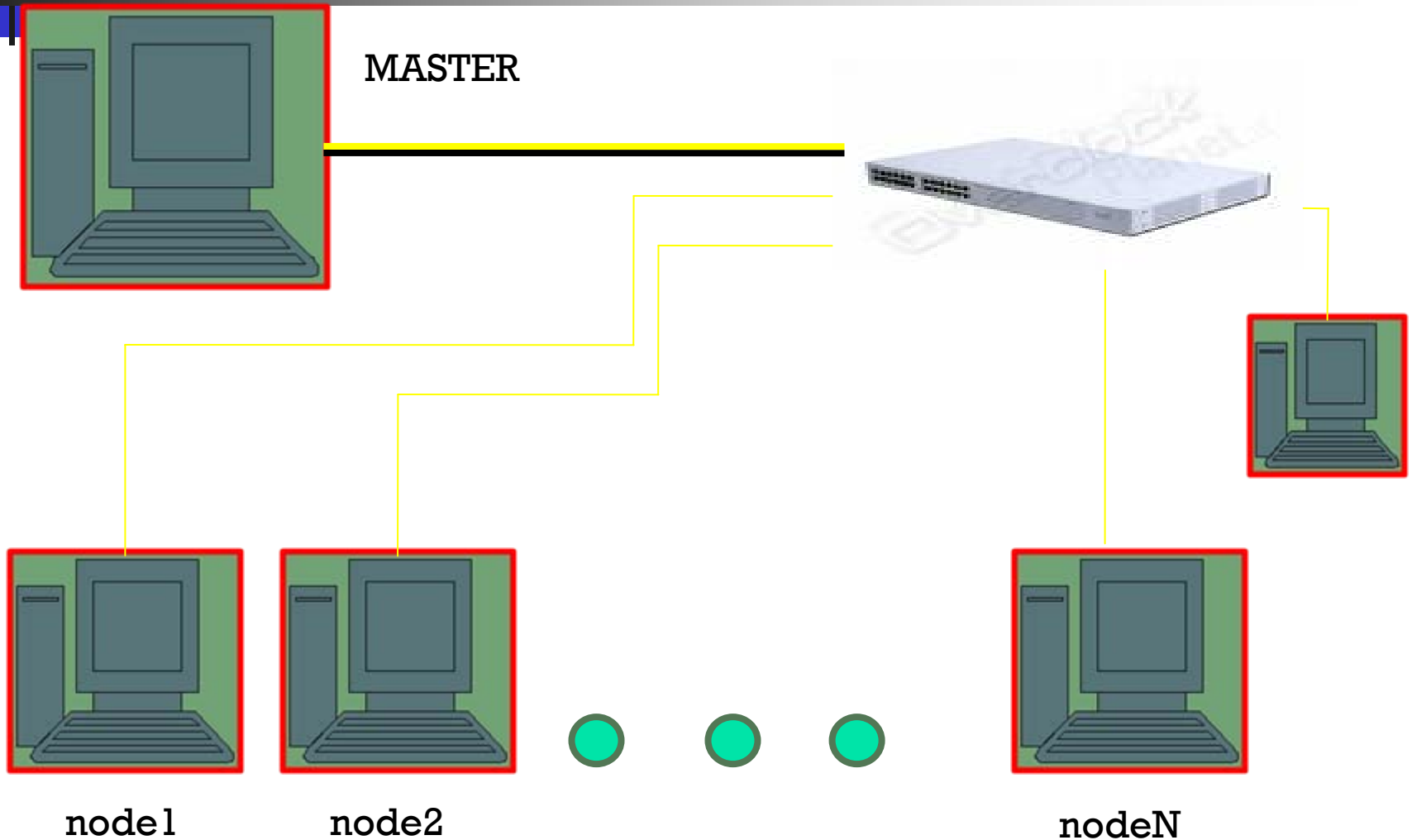
Reserve for localhost

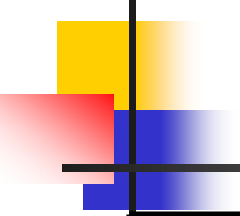


IP CLASS

Purpose	Address Range
Few large organization	1.0.0.0 to 126.0.0.0
Medium size	128.1.0.0 to 191.254.0.0
Relatively small size	192.0.1.0 to 223.255.254.0

A SIMPLE NETWORK

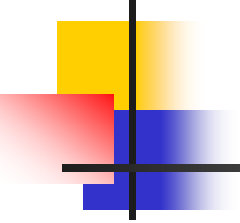




Requiered NIS Server Daemones

Daemon Name	Purpose
portmap	The foundation RPC daemon upon which NIS runs.
yppasswdd	Lets users change their passwords on the NIS server from NIS clients
ypserv	Main NIS server daemon
ypbind	Main NIS client daemon
ypxfrd	Used to speed up the transfer of very large NIS maps

RPC - library routines for Remote Procedure Calls



Configuring the NIS server

Edit /etc/sysconfig/network File

```
#vi /etc/sysconfig/network  
NISDOMAIN= hpc08.ipm
```

- *ypbind configuration file*

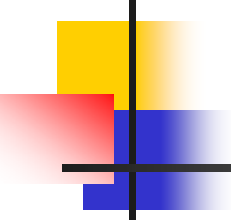
Edit your /etc/yp.conf File

```
#vi /etc/yp.conf  
ypserver 192.168.1.100
```

```
#vi /etc/hosts
```

```
192.168.1.100  master.hpc08.ipm      master
```

Insert IP, hostname & alias of all nodes in this file



Start necessary NIS daemons in the /etc/init.d directory

- service portmap start
- service yppasswdd start
- service ypserv start
- *# chkconfig portmap on*
- *# chkconfig yppasswdd on*
- *# chkconfig ypserv on*
- **Make sure they are all running.**
- *rpcinfo -p localhost*



Computer



root's Home



Trash

490.0 MB
Removable Volume

```
root@HPC:~  
File Edit View Terminal Tabs Help  
[root@HPC ~]# rpcinfo -p localhost  
  program vers proto  port  
    100000     2   tcp    111  portmapper  
    100000     2   udp    111  portmapper  
    100024     1   udp    660  status  
    100024     1   tcp    663  status  
    100007     2   udp    882  ypbind  
    100007     1   udp    882  ypbind  
    100007     2   tcp    885  ypbind  
    100007     1   tcp    885  ypbind  
    100009     1   udp    980  yppasswdd  
    100004     2   udp   1000  ypserv  
    100004     1   udp   1000  ypserv  
    100004     2   tcp   1003  ypserv  
    100004     1   tcp   1003  ypserv  
[root@HPC ~]#
```

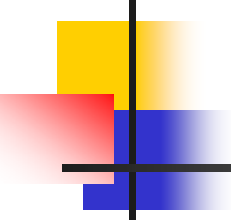


CentOS 5



root@HPC:~





Initialize Your NIS Domain

Use ypinit command to create the associated authentication files for the domain

- */usr/lib/yp/ypinit -m*

.

.

<control D>.

service ypbind start

Make sure the daemons are running

#useradd

After adding new user

#cd /var/yp

#make

root@HPC:~

File Edit View Terminal Tabs Help

the names for the other hosts, one per line. When you are done with the list, type a <control D>.

next host to add: localhost.localdomain

next host to add: master.hpc08.ipm

next host to add: node1.hpc08.ipm

next host to add: node2.hpc08.ipm

next host to add:

The current list of NIS servers looks like this:

localhost.localdomain

master.hpc08.ipm

node1.hpc08.ipm

node2.hpc08.ipm

Is this correct? [y/n: y] y

We need a few minutes to build the databases...

Building /var/yp/hpc08.ipm/ypservers...

Running /var/yp/Makefile...

gmake[1]: Entering directory `/var/yp/hpc08.ipm'

Updating passwd.byname...

Updating passwd.byuid...

Updating group.byname...

Updating group.bygid...

Updating hosts.byname...

Updating hosts.byaddr...

Updating rpc.byname...

Updating rpc.bynumber...

Updating services.byname...

Updating services.byservicename...

Updating netid.byname...

Updating protocols.bynumber...

Updating protocols.byname...

Updating mail.aliases...

gmake[1]: Leaving directory `/var/yp/hpc08.ipm'

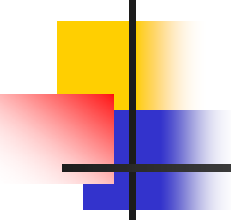
localhost.localdomain has been set up as a NIS master server.

Now you can run ypoint -s localhost.localdomain on all slave server.

[root@HPC ~]#

root@HPC:~

Starting Take Screenshot



Configuring NIS CLIENT (Text mode)

- # authconfig -tui
-
- # /etc/yp.conf - ypbind configuration file
- domain hpc08.ipm server 192.168.1.100
- #/etc/sysconfig/network
- NISDOMAIN=hpc08.ipm
- service portmap start
- service ypbind start



Computer



root's Home



Trash

490.0 MB
Removable Volume

root@HPC:~

File Edit View Terminal Tabs Help

authconfig-tui - (c) 1999-2005 Red Hat, Inc.

Authentication Configuration

User Information	Authentication
☐ Cache Information	☒ Use MD5 Passwords
☐ Use Hesiod	☒ Use Shadow Passwords
☐ Use LDAP	☐ Use LDAP Authentication
☒ Use NIS	☐ Use Kerberos
☐ Use Winbind	☐ Use SMB Authentication
	☐ Use Winbind Authentication
	☐ Local authorization is sufficient

Cancel Next

<Tab>/<Alt-Tab> between elements | <Space> selects | <F12> next screen



CentOS 5



root@HPC:~



Starting Take Screenshot





Computer



root's Home



Trash



490.0 MB
Removable Volume

root@HPC:~

File Edit View Terminal Tabs Help

authconfig-tui - (c) 1999-2005 Red Hat, Inc.

NIS Settings

Domain: hpc08.ipm

Server: master.hpc08.ipm

Back

Ok

<Tab>/<Alt-Tab> between elements | <Space> selects | <F12> next screen



CentOS 5



root@HPC:~



Starting Take Screenshot





Computer



root's Home



Trash

490.0 MB
Removable Volume

```
root@HPC:~  
File Edit View Terminal Tabs Help  
[root@HPC ~]# authconfig-tui  
[root@HPC ~]# authconfig-tui  
Stopping portmap: [ OK ]  
Starting portmap: [ OK ]  
Binding to the NIS domain: [ OK ]  
Listening for an NIS domain server..
```



CentOS 5

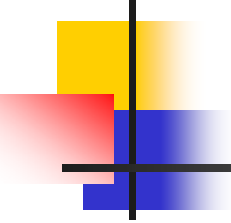


root@HPC:~



Starting Take Screenshot

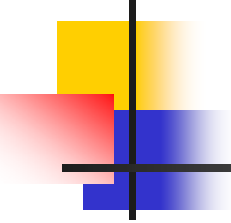




Configuring NIS CLIENT (Graphic mode)

system-> Administration --> Authentication





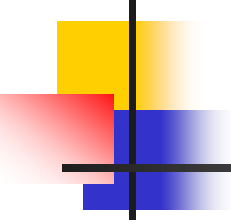
Configuring NIS CLIENT



The image shows a standard Linux-style dialog box titled "NIS Settings". It has a blue title bar with a close button (X) in the top right corner. The main area is light gray and contains two text input fields. The first field is labeled "NIS Domain" and contains the text "hpc08.ipm". The second field is labeled "NIS Server" and contains the text "master.hpc08.ipm". At the bottom of the dialog, there are two buttons: "Cancel" with a red X icon and "OK" with a blue arrow icon.

Field	Value
NIS Domain	hpc08.ipm
NIS Server	master.hpc08.ipm

Buttons:  Cancel  OK



Last step

- #chkconfig ypbind on
- #chkconfig portmap on
- #rpcinfo -p localhost
- Each users can change his/her password by
- yppasswd command

THE END