



Introduction to the new mainframe

Chapter 12 - Network Communications on z/OS

```
l, 3444  
v, Score  
PrintNumber  
  
p, 219  
DrawShape  
  
sh, 1  
16h  
GetKey
```



```
xor di, di  
mov cx, 2000  
mov ax, 700h  
rep stosw  
  
call DrawBorders  
  
mov di, 184  
mov si, offset sNext  
call PrintText  
mov di, 271  
mov si, offset shiScore  
call PrintText
```

```
mov al, 0 mov ah, 7  
Clear screen and set color  
  
mov di, 3430  
mov si, offset escor  
call PrintText  
mov di, 204  
mov al, 14 mov ah, 7  
call PrintText
```

```
mov di, 292  
mov bx, HiScore  
call PrintNumber  
  
mov Score, 0  
  
call ChooseGame  
  
call Rand  
mov NextShape, bx  
call NewShape  
call DrawNextShape
```

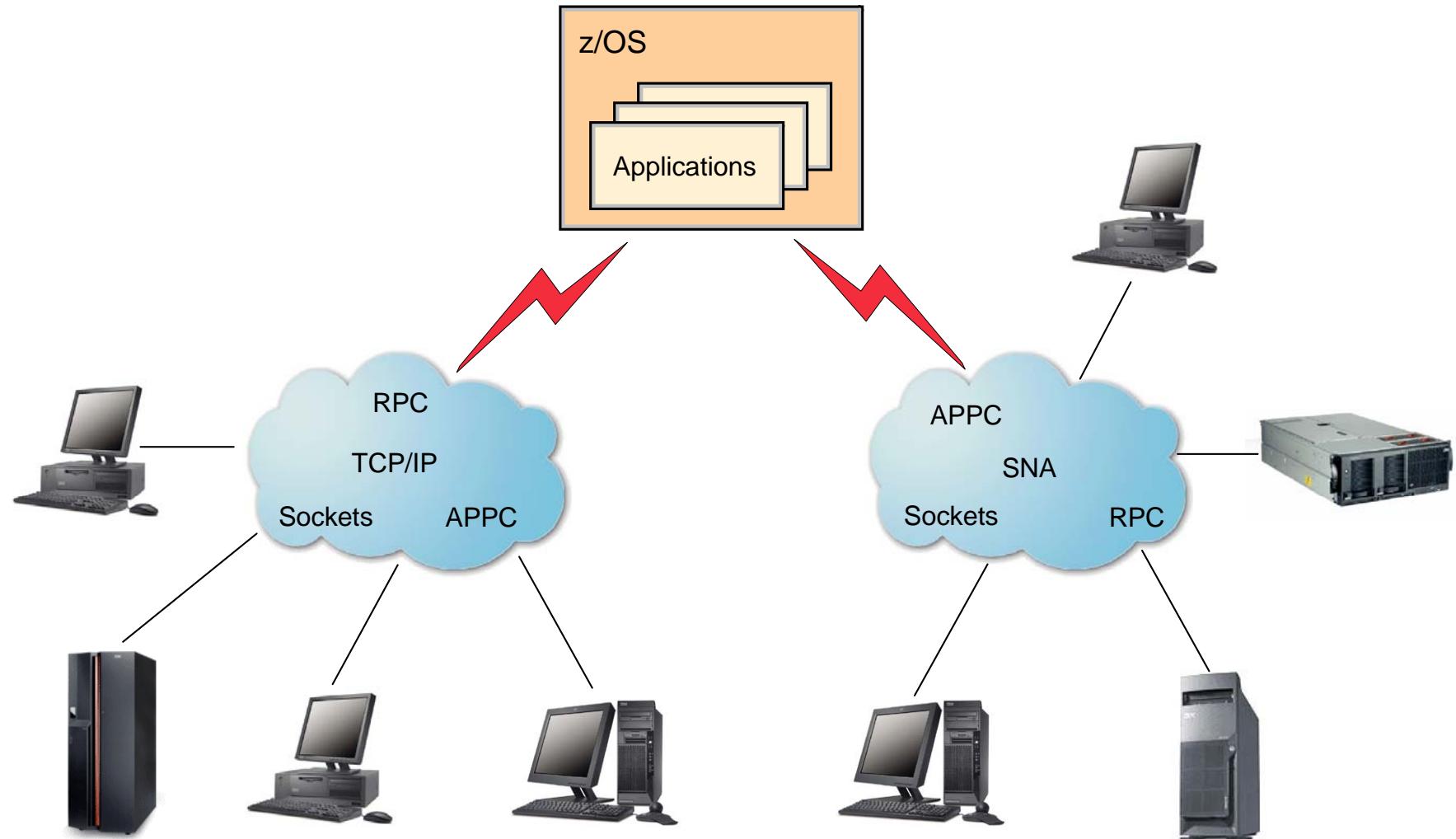


Objectives

In this chapter, you will learn:

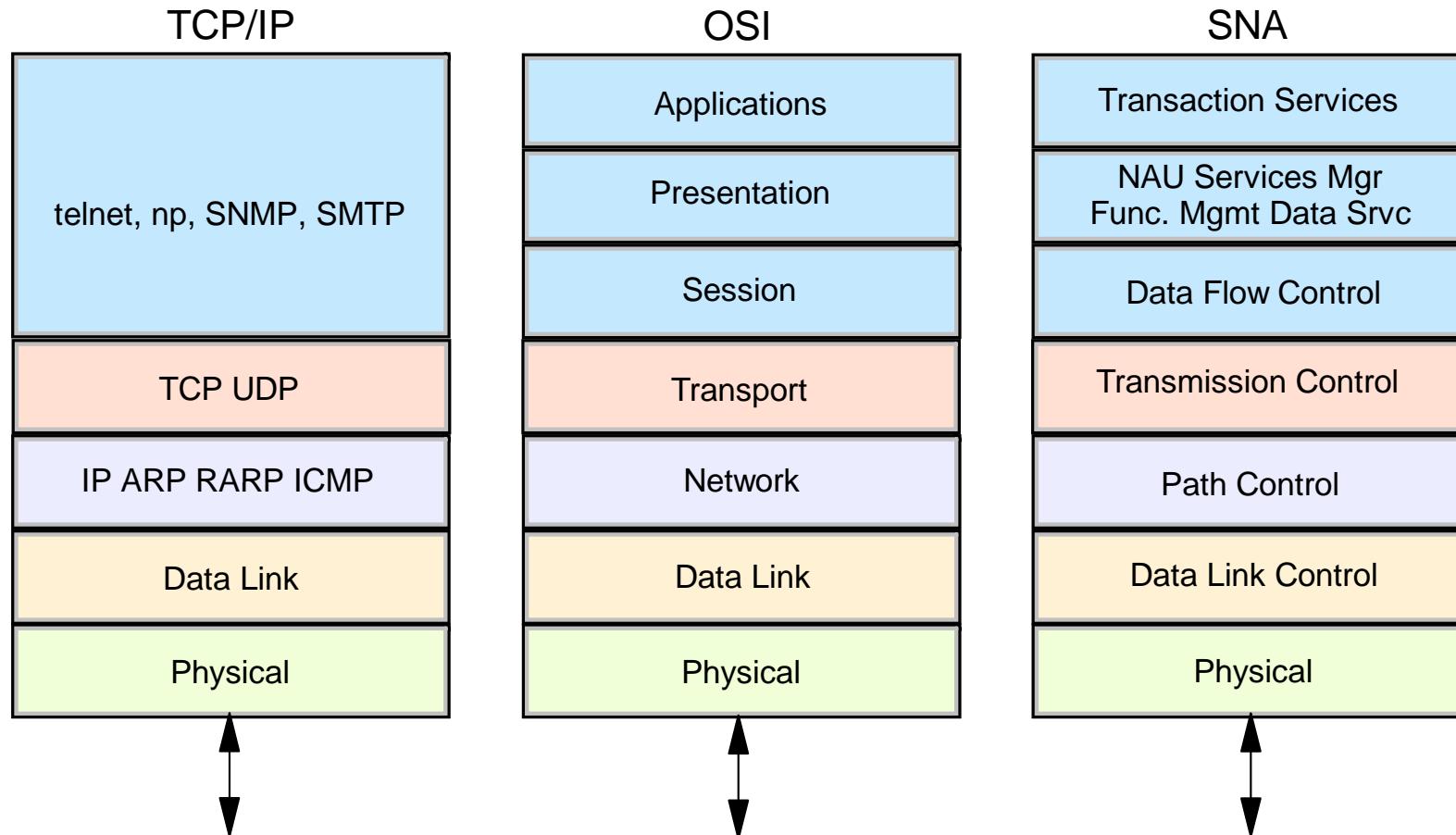
- An overview of the communication network model layers
- The software components of the z/OS Communications Server product
- The difference between a VTAM subarea and APPN network topology
- How the IP network can be used to transport data between SNA applications.
- Commonly used TCP/IP and VTAM commands

IBM Communications Server

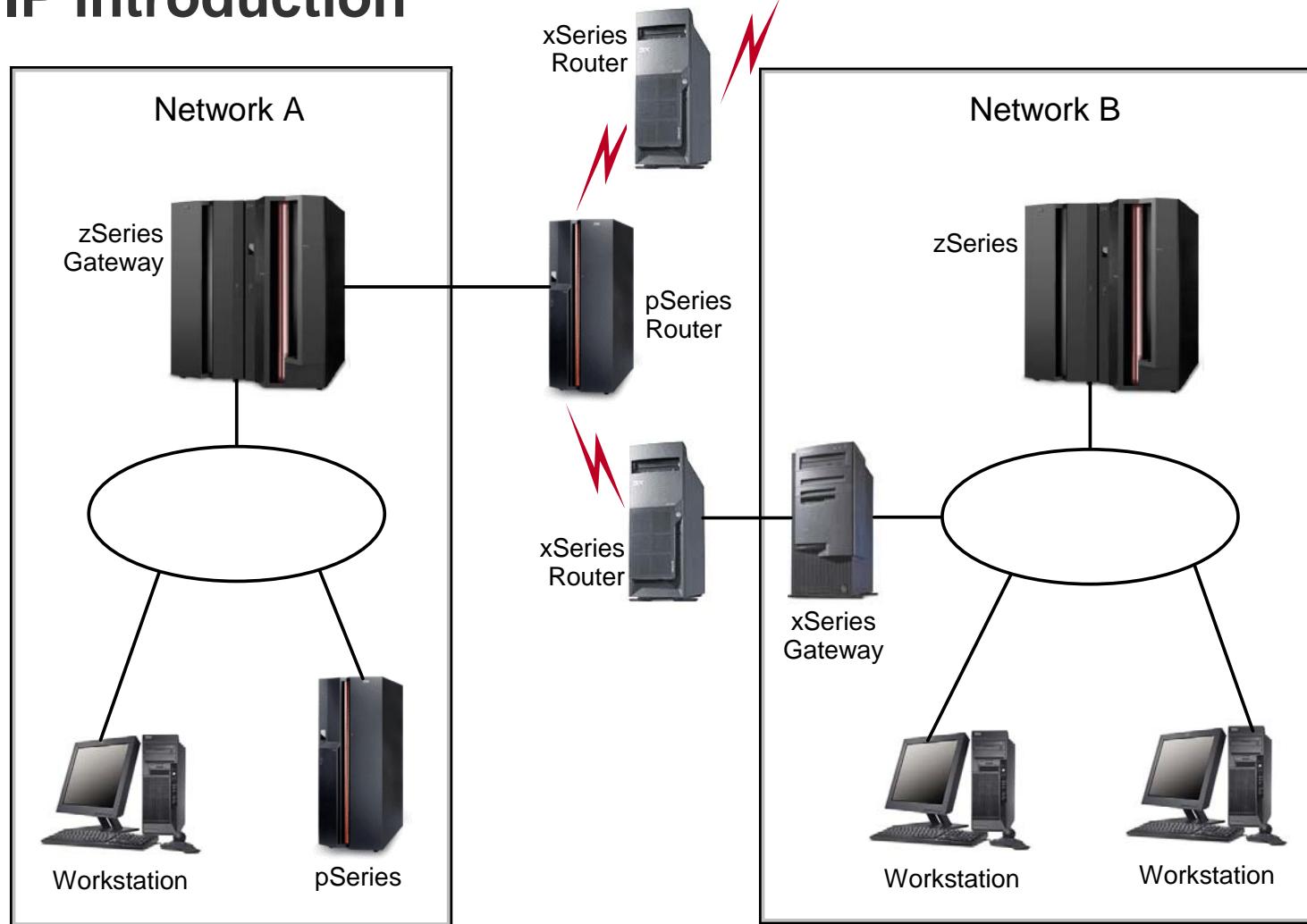


Open Systems Interconnect (OSI) network model

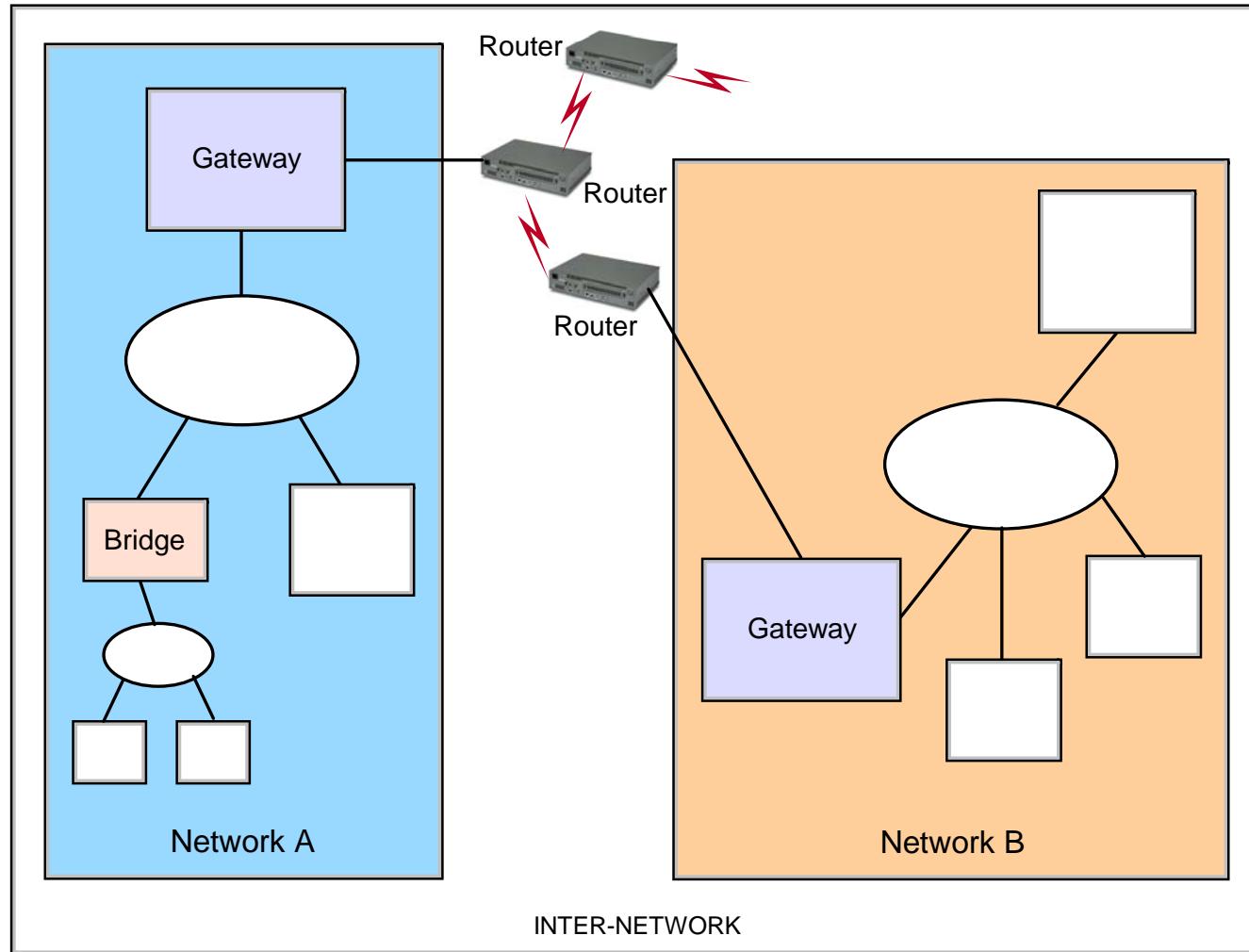
Layered Network Models



TCP/IP introduction

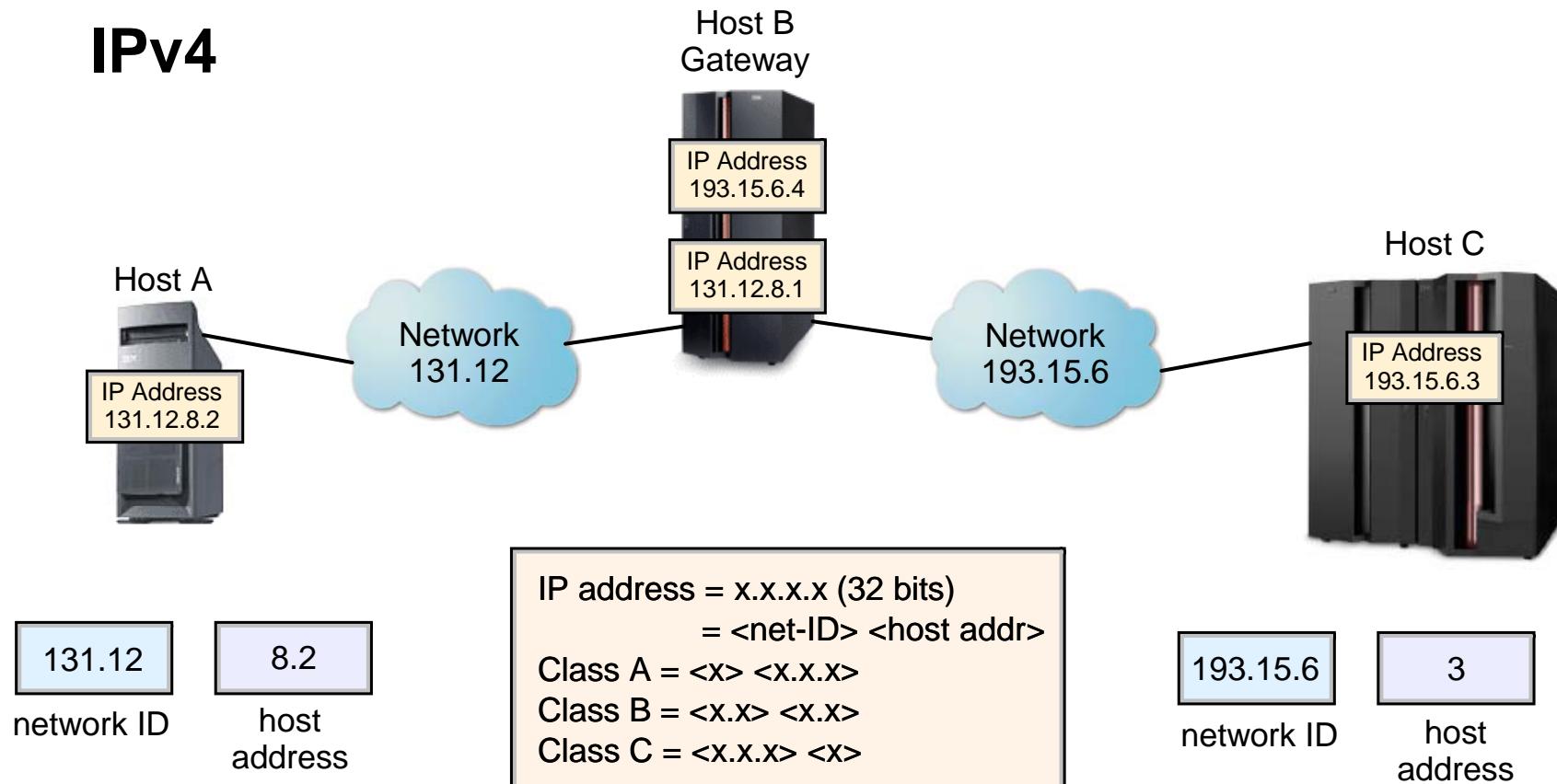


Interconnecting TCP/IP networks



Internet addressing

IPv4



TCP/IP commands

TCP/IP Commands can be entered

- TSO ready prompt
- ISPF Command Shell
- Prefixing the command with TSO on any ISPF command line.

NETSTAT

PING

TRACERTE

NSLOOKUP

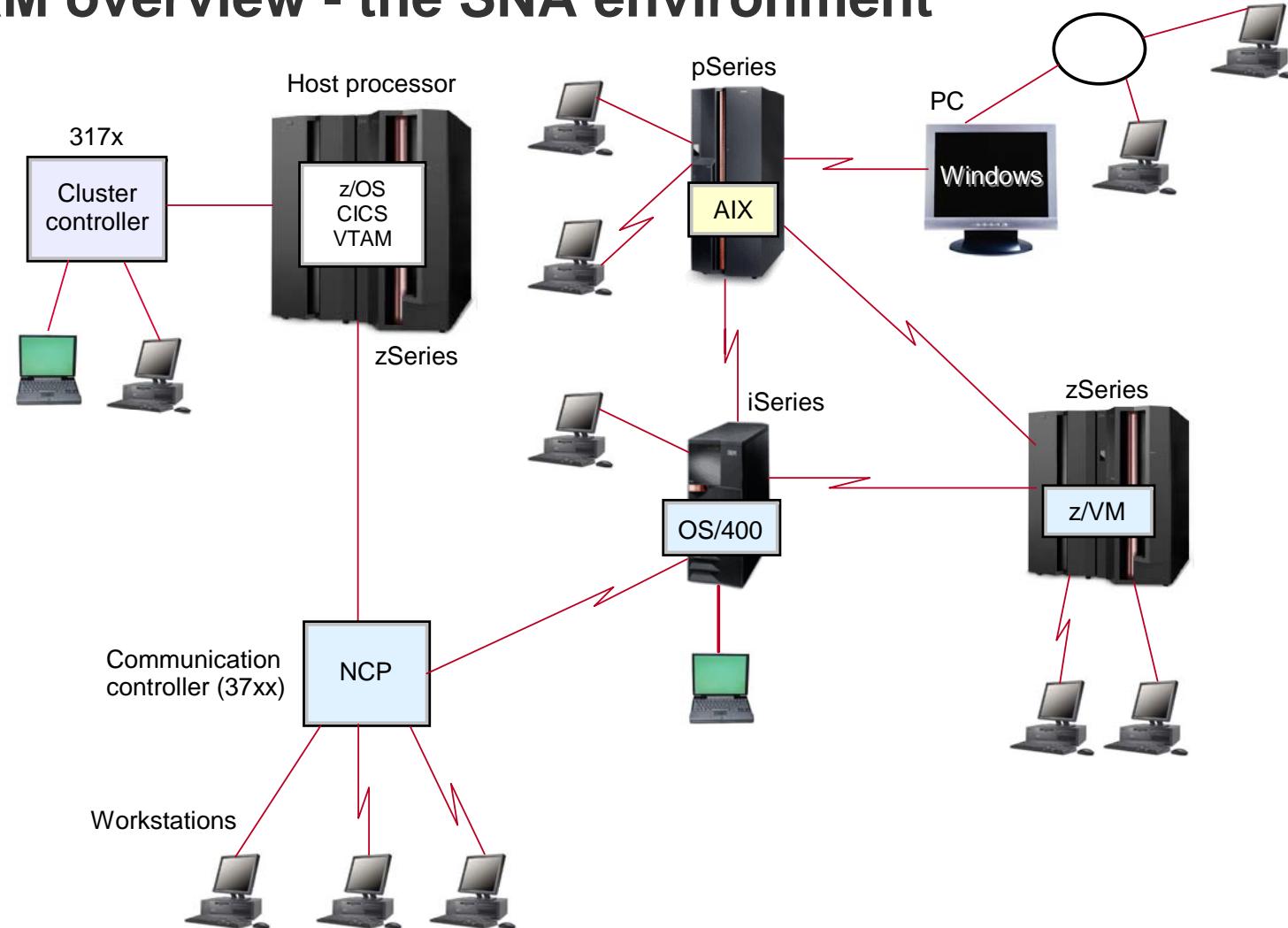
TELNET

FTP

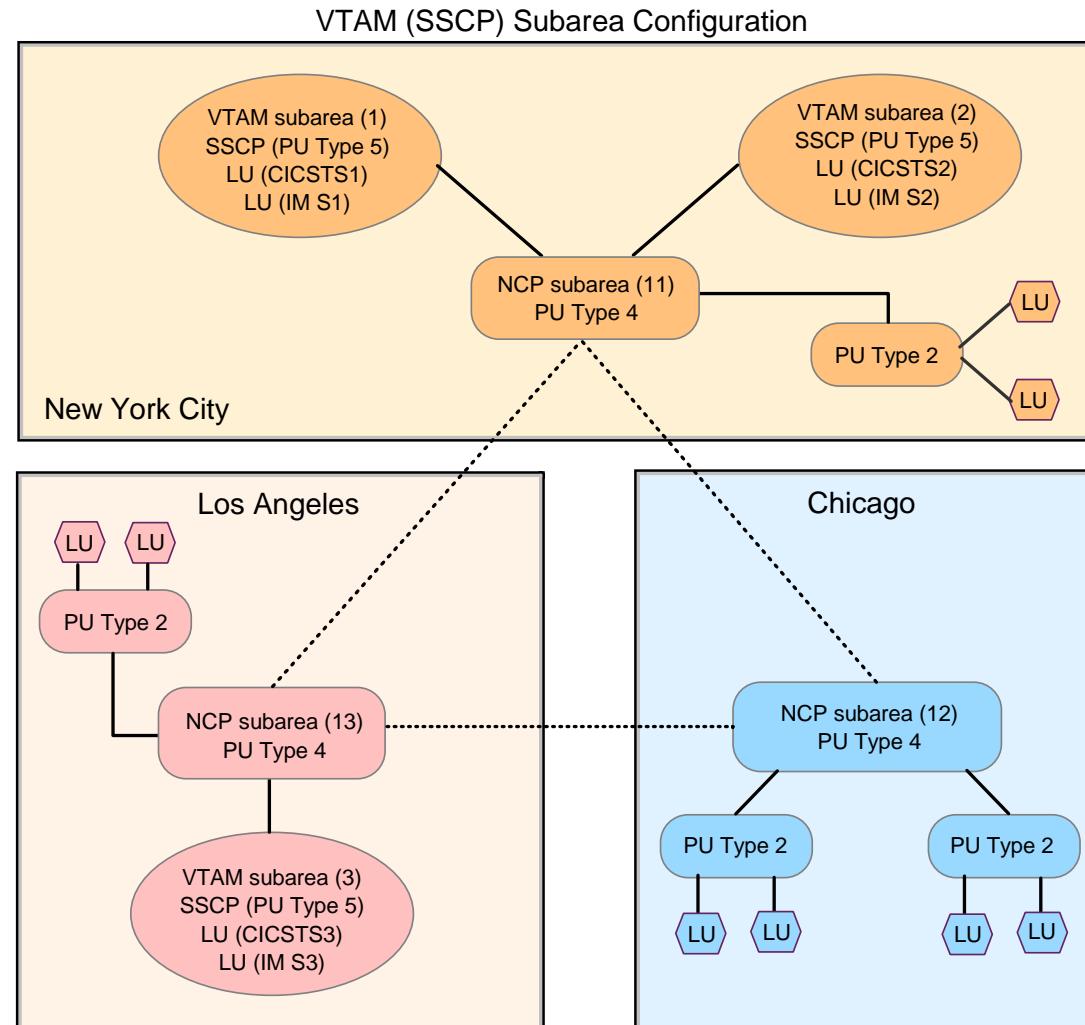
- **z/OS UNIX shell prompt (prefix “o”=command)**

onetstat

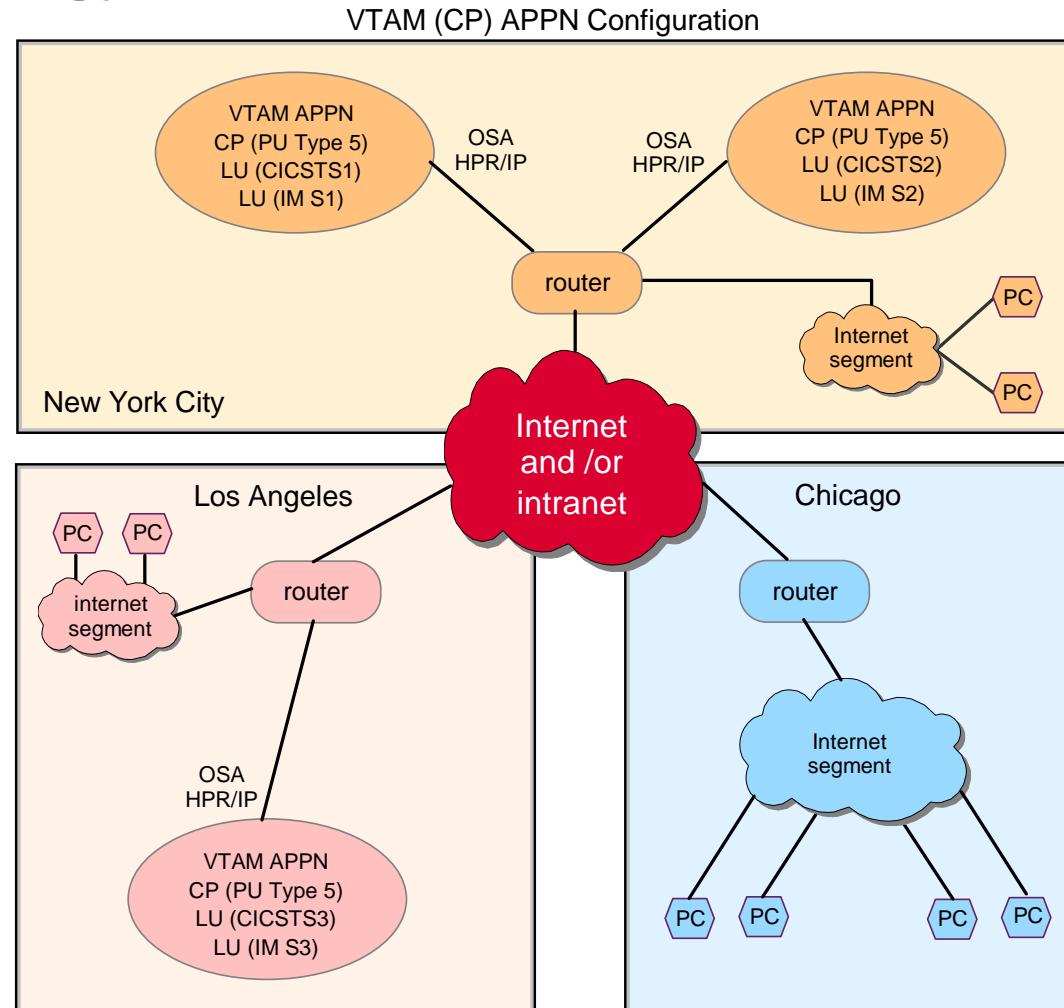
VTAM overview - the SNA environment



A pure VTAM subarea network



APPN topology



Common VTAM commands

- Displays VTAM startup options.
`D NET,VTAMOPTS`
- Displays communication storage usage.
`D NET,CSM[,OWNERID=ALL]`
- Displays status of defined applications (ACBs).
`D NET,APPLS`
- Displays status of VTAM activated ATCCONxx members.
`D NET,MAJNODES`
- Displays APPN topology information.
`D NET,TOPO,LIST=SUMMARY`
- Displays status of APPN CP-CP sessions.
`D NET,CPCP`
- Displays status of subarea SSCP-SSCP sessions.
`D NET,SESSIONS`
- Displays status of subarea cross domain resource managers.
`D NET,CDRMS`
- Displays status of VTAM exit points.
`D NET,EXIT`

Summary

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- Software components of the z/OS Communications Server product
- The difference between a VTAM subarea and APPN network topology
- How the IP network can be used to transport data between SNA applications.
- Commonly used TCP/IP and VTAM commands