



# RAMA UNIVERSITY

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## FACULTY OF ENGINEERING & TECHNOLOGY

### BCA-302 Computer Networks

### Lecture-33

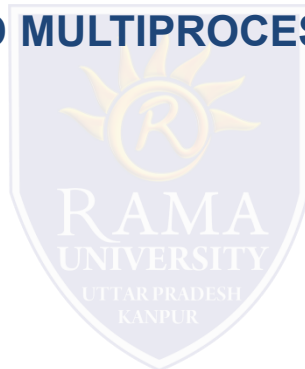
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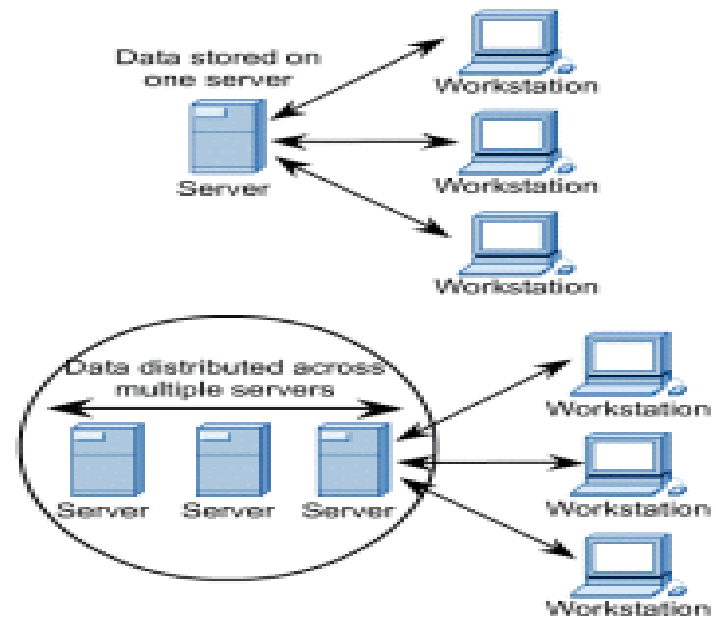
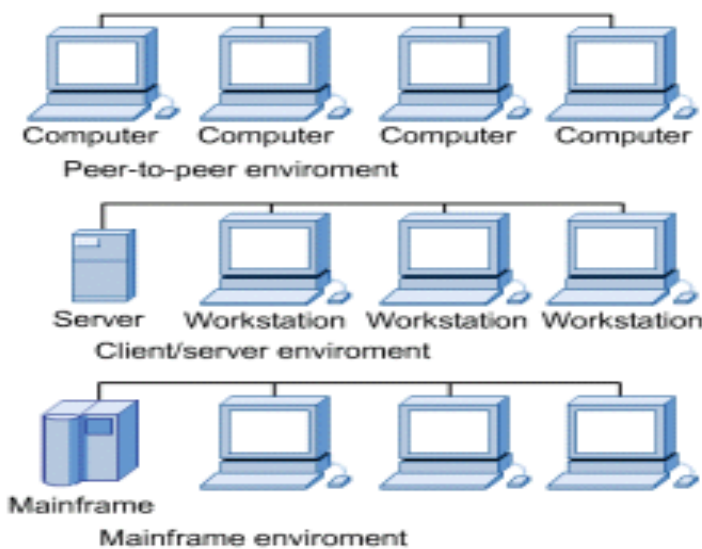
# OUTLINE

- OVERVIEW OF NOS CHARACTERISTICS
- DIFFERENCES BETWEEN PC AND A NOS
- MULTIUSER, MULTITASKING, AND MULTIPROCESSOR SYSTEMS
- CHOOSING A NOS
- TYPES OF NOS



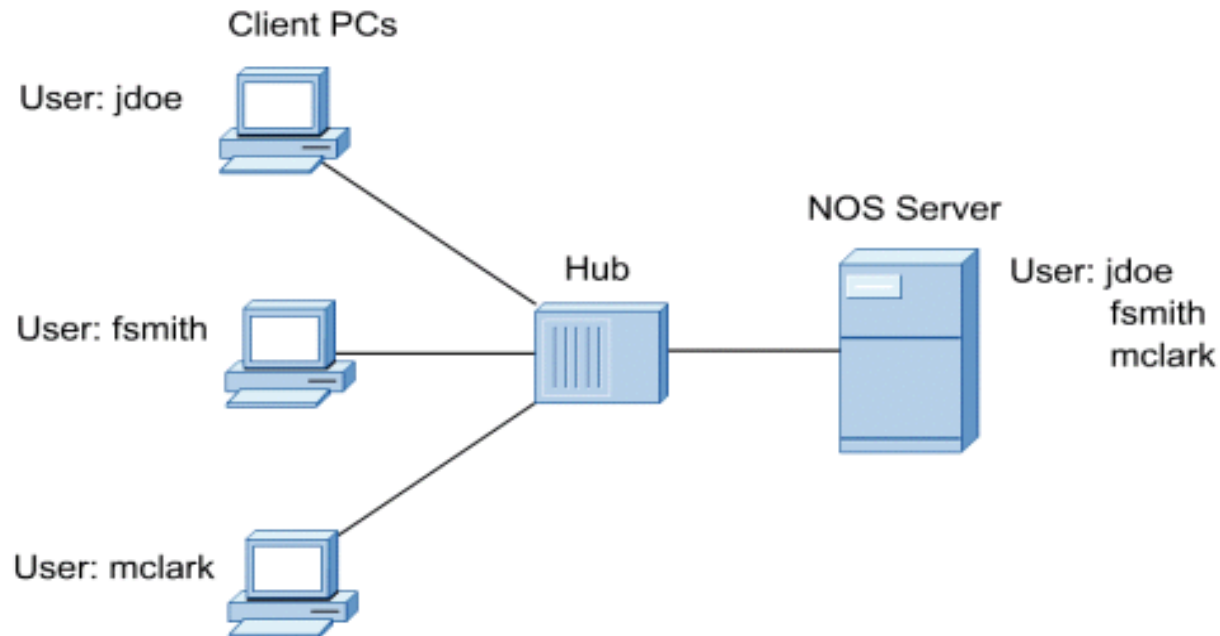
# OVERVIEW OF NOS CHARACTERISTICS

- Network operating systems (NOSs) distribute their functions over a number of networked computers.
- It then adds functions that allow access to shared resources by a number of users concurrently.
- NOS computers take on specialized roles to accomplish concurrent access to shared resources.
- Client systems contain specialized software that allows them to request shared resources that are controlled by server systems responding to a client request



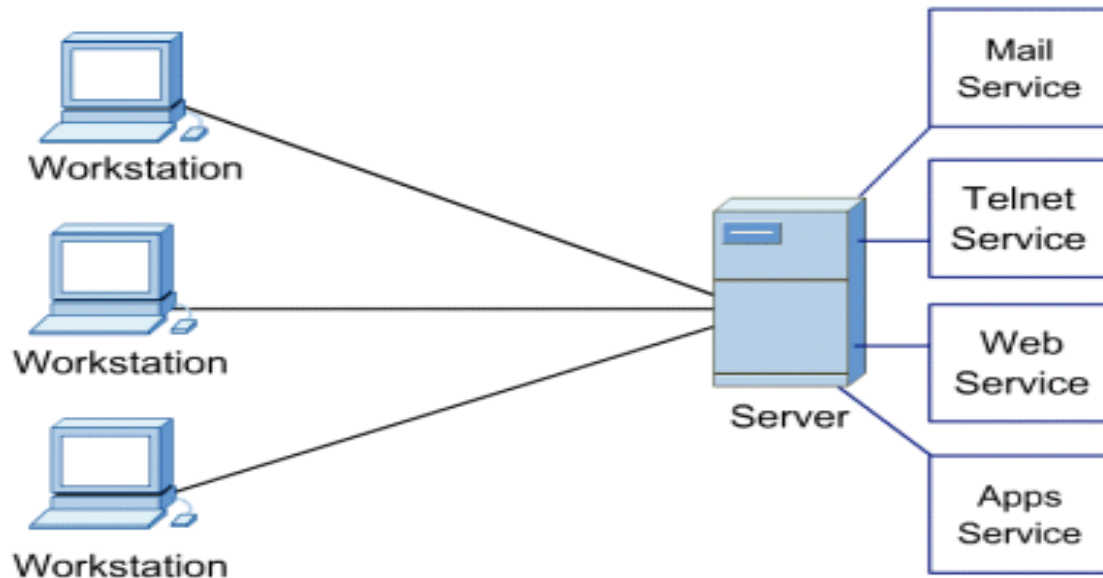
# DIFFERENCES BETWEEN PC AND A NOS

- The NOS enhances the reach of the client PC by making remote services available as extensions of the local native operating system.
- Although a number of users may have accounts on a PC, only a single account is active on the system at any given time.
- NOS supports multiple user accounts at the same time and enables concurrent access to shared resources by multiple clients (multitasking and multiuser environment).



# MULTIUSER, MULTITASKING, AND MULTIPROCESSOR SYSTEMS

- A NOS server is a multitasking system. Internally, the OS must be capable of executing multiple tasks or processes at the same time.
- Some systems are equipped with more than one processor, called multiprocessing systems.
- They are capable of executing multiple tasks in parallel by assigning each task to a different processor.
- The aggregate amount of work that the server can perform in a given time is greatly enhanced in multiprocessor systems



# CHOOSING A NOS

The main features to consider when selecting a NOS include:

Performance

Management and monitoring tools

Security

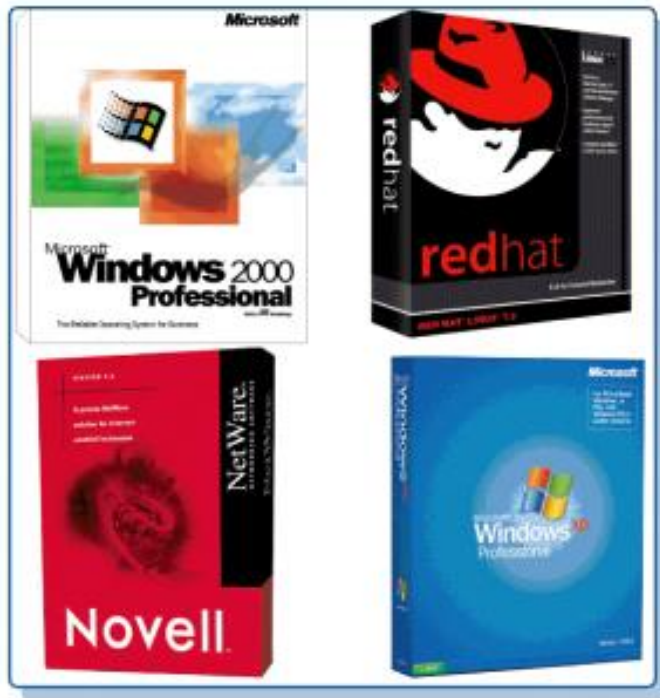
Scalability

Robustness/fault tolerance

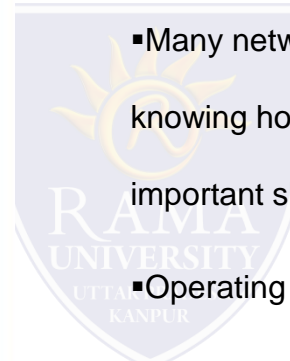
Security	
Robustness	
Performance	
Scalability	
Management	



# TYPES OF NOS



- It is important to know the basics about popular NOS families.
- Many networks now include more than one server type, and knowing how to get these diverse systems to interoperate is an important skill for a network administrator.
- Operating systems on the network have their own language.
- Different NOS vendors use the same terms in different ways.



# Multiple Choice Question

## MUTIPLE CHOICE QUESTIONS:

Sr no	Question	Option A	Option B	OptionC	OptionD
1	When were VPNs introduced into the commercial world?	Early 80's	Late 80's	Early 90's	Late 90's
2	Which of the following statements is NOT true concerning VPNs?	Financially rewarding compared to leased lines	Allows remote workers to access corporate data	Allows LAN-to-LAN connectivity over public networks	Is the backbone of the Internet
3	When the mail server sends mail to other mail servers it becomes _____	SMTP server	SMTP client	Peer	Master
4	If you have to send multimedia data over SMTP it has to be encoded into _____	Binary	Signal	ASCII	Hash
5	Expansion of SMTP is _____	Simple mail transfer	Simple Message Transfer Protocol	Simple Mail Transmission Protocol	Simple Message Transmission Protocol



# REFERENCES

- <http://www.engppt.com/2009/12/networking-fourzan-ppt-slides.html>

