RAMA UNIVERSITY

www.ramauniversity.ac.in

# FACULTY OF ENGINEERING & TECHNOLOGY

## BCA-302Computer Networks

## Lecture-24

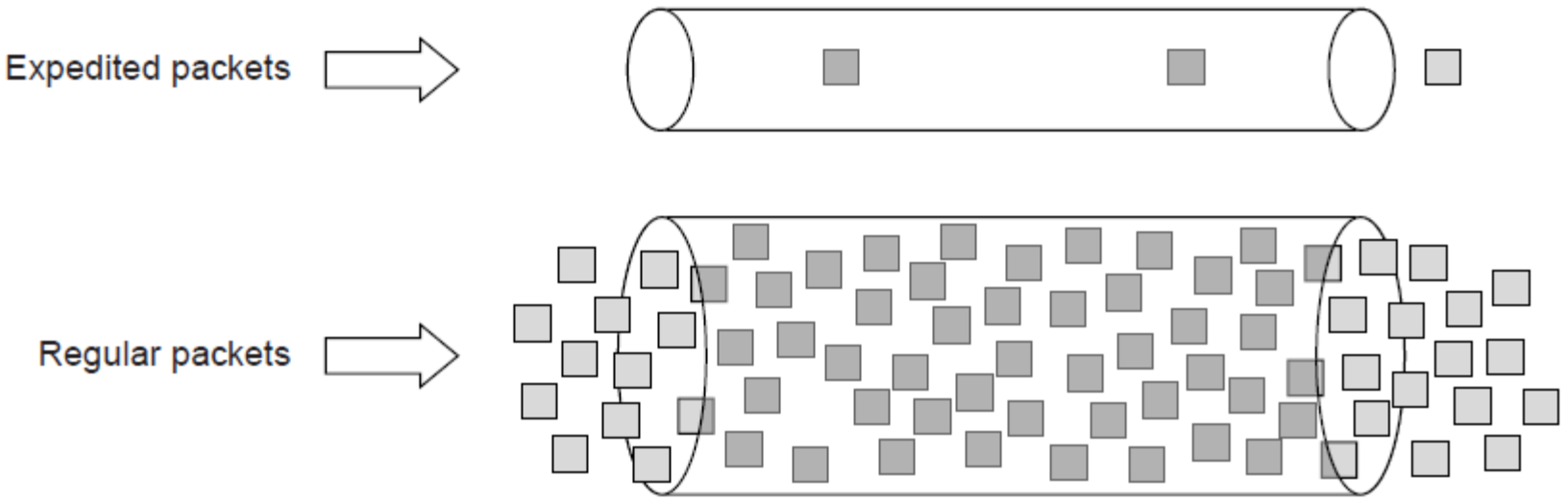
Mr. Dilip Kumar J Saini
Assistant Professor
Computer Science & Engineering

# OUTLINE

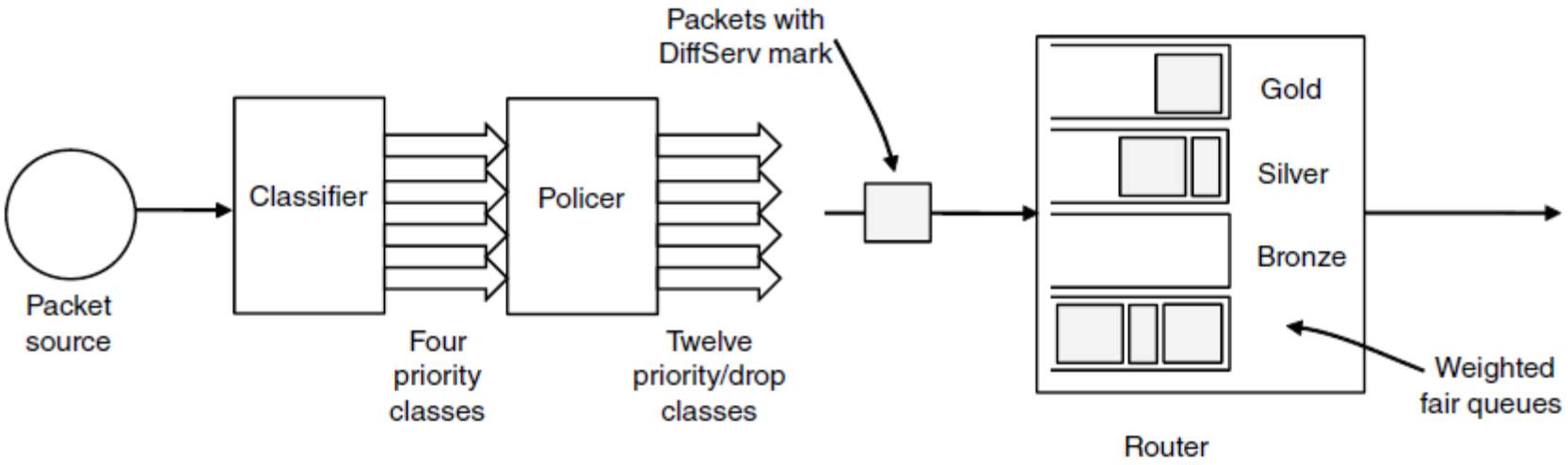
- DIFFERENTIATED SERVICES
- HOW NETWORKS DIFFER
- HOW NETWORKS CAN BE CONNECTED
- TUNNELING

# DIFFERENTIATED SERVICES

## Expedited packets experience a traffic-free network



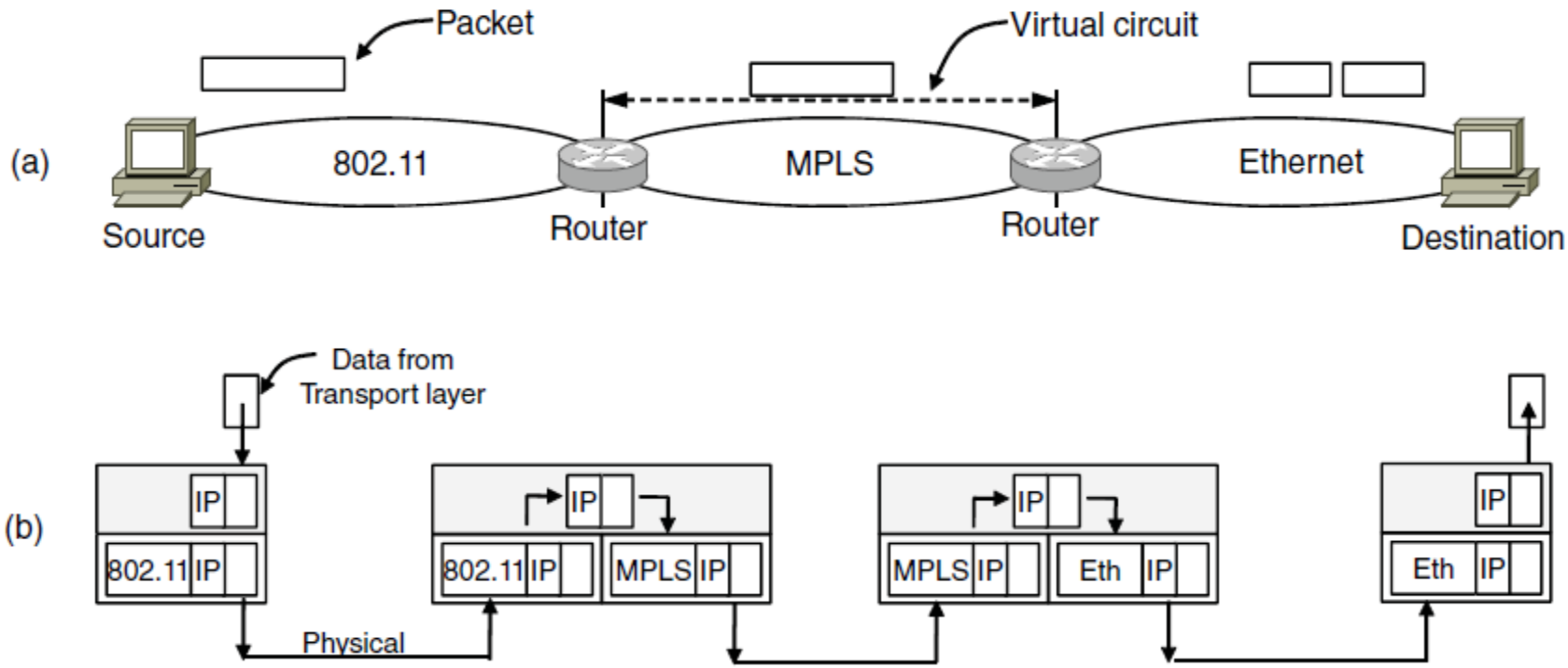
## A possible implementation of assured forwarding



# HOW NETWORKS DIFFER

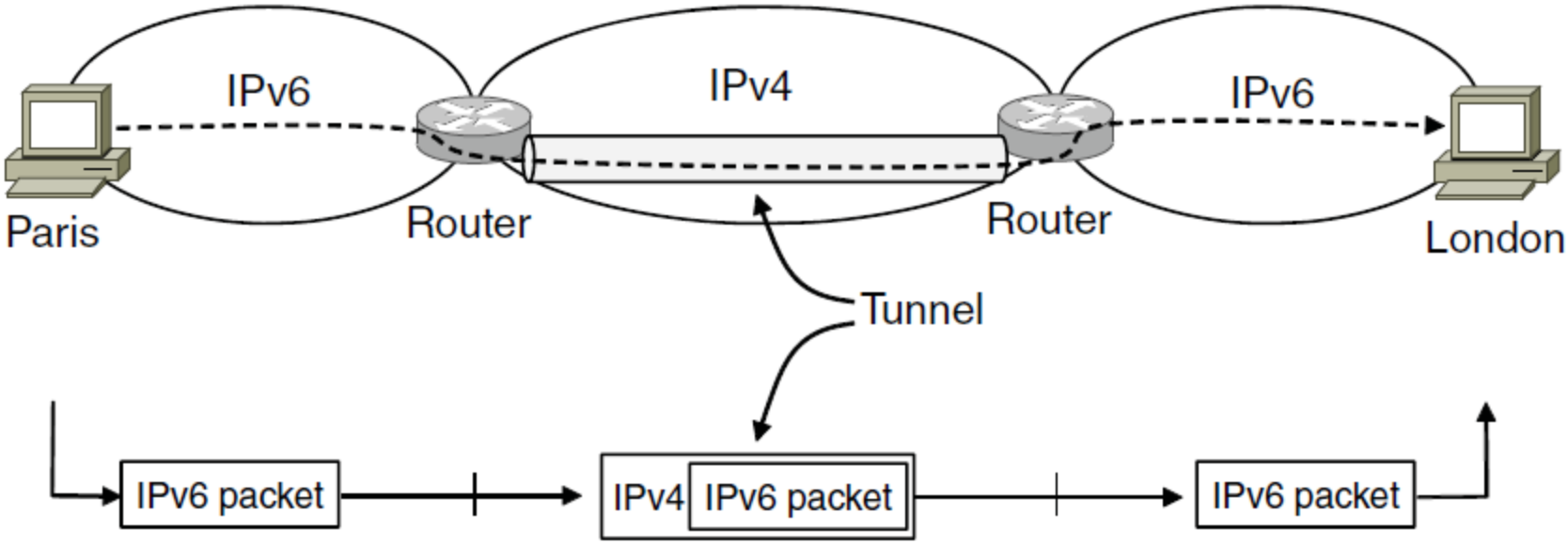
| Item | Some Possibilities |
|---|---|
| Service offered | Connectionless versus connection oriented |
| Addressing | Different sizes, flat or hierarchical |
| Broadcasting | Present or absent (also multicast) |
| Packet size | Every network has its own maximum |
| Ordering | Ordered and unordered delivery |
| Quality of service | Present or absent; many different kinds |
| Reliability | Different levels of loss |
| Security | Privacy rules, encryption, etc. |
| Parameters | Different timeouts, flow specifications, etc. |
| Accounting | By connect time, packet, byte, or not at all |

# HOW NETWORKS CAN BE CONNECTED




(a)A packet crossing different networks.
(b)Network and link layer protocol processing

# TUNNELING


IPv6
IPv4
IPv6
Paris
Router
Router
London
Tunnel
IPv6 packet
IPv4
IPv6 packet
IPv6 packet

# Multiple Choice Question

## MUTIPLE CHOICE QUESTIONS:

| Sr no | Question | Option A | Option B | OptionC | OptionD |
|---|---|---|---|---|---|
| 1 | What is auto negotiation? | a procedure by which two connected devices choose common transmission parameters | a routing algorithm | a security algorithm | encryption algorithm |
| 2 | Ethernet in metropolitan area network (MAN) can be used as _____ | pure ethernet | ethernet over SDH | ethernet over MPLS | all of the mentioned |
| 3 | A point-to-point protocol over ethernet is a network protocol for _____ | encapsulating PPP frames inside ethernet frames | encapsulating ehternet framse inside PPP frames | for security of ethernet frames | for security of PPP frames |
| 4 | High speed ethernet works on _____ | coaxial cable | twisted pair cable | optical fiber | unshielded twisted pair cable |
| 5 | The maximum size of payload field in ethernet frame is _____ | 1000 bytes | 1200 bytes | 1300 bytes | 1500 bytes |

# REFERENCES


- http://www.engppt.com/2009/12/networking-fourozan-ppt-slides.html