

Tecnologias de rede local

Tecnologias de rede local - Switching -

Palestrante:

Fabio de Azevedo Montoro

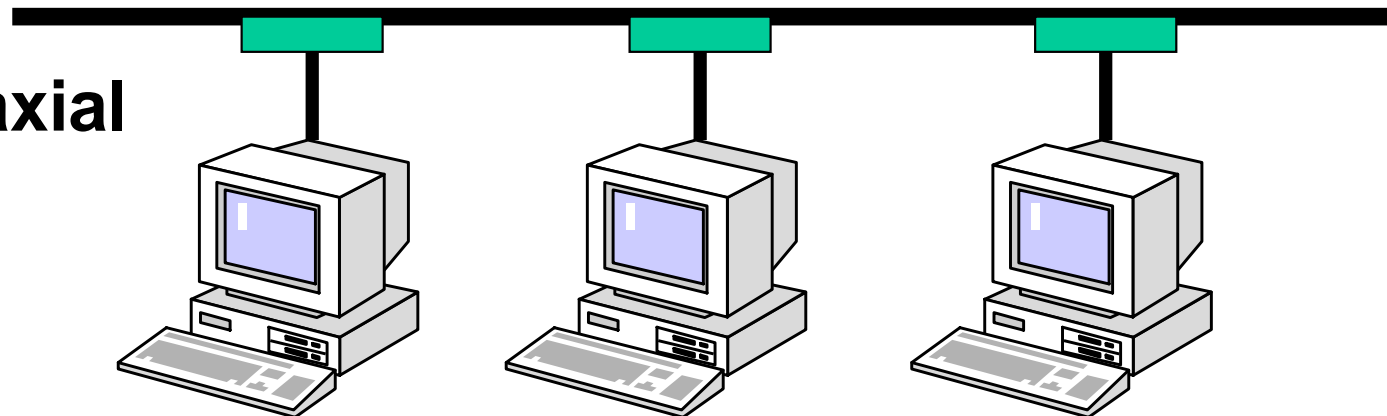
Engenheiro Eletrônico

Email: fmontoro@zetha.com.br

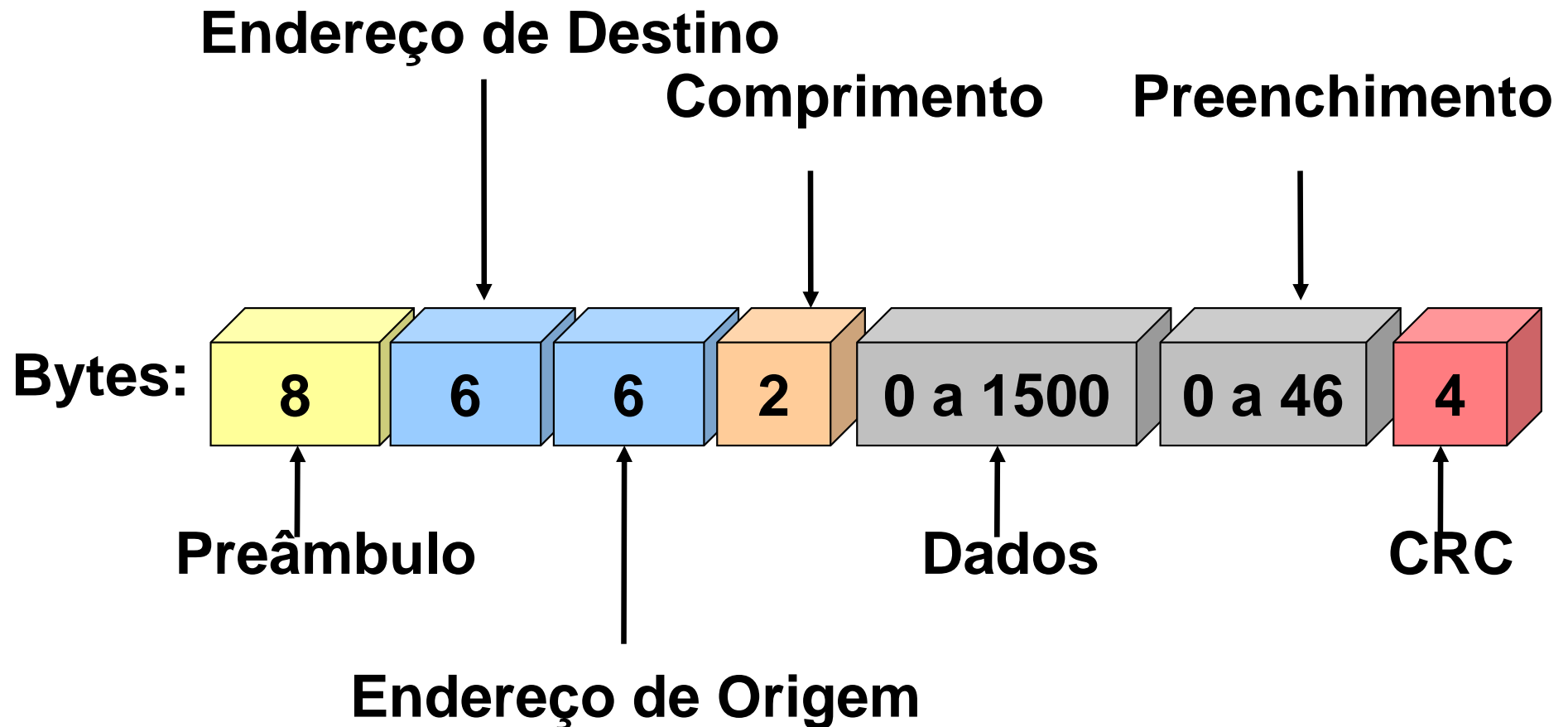
Início da Lan

- Ethernet: 10 Mbps
- Meio Compartilhado
- Acesso Aleatório

Cabo Coaxial

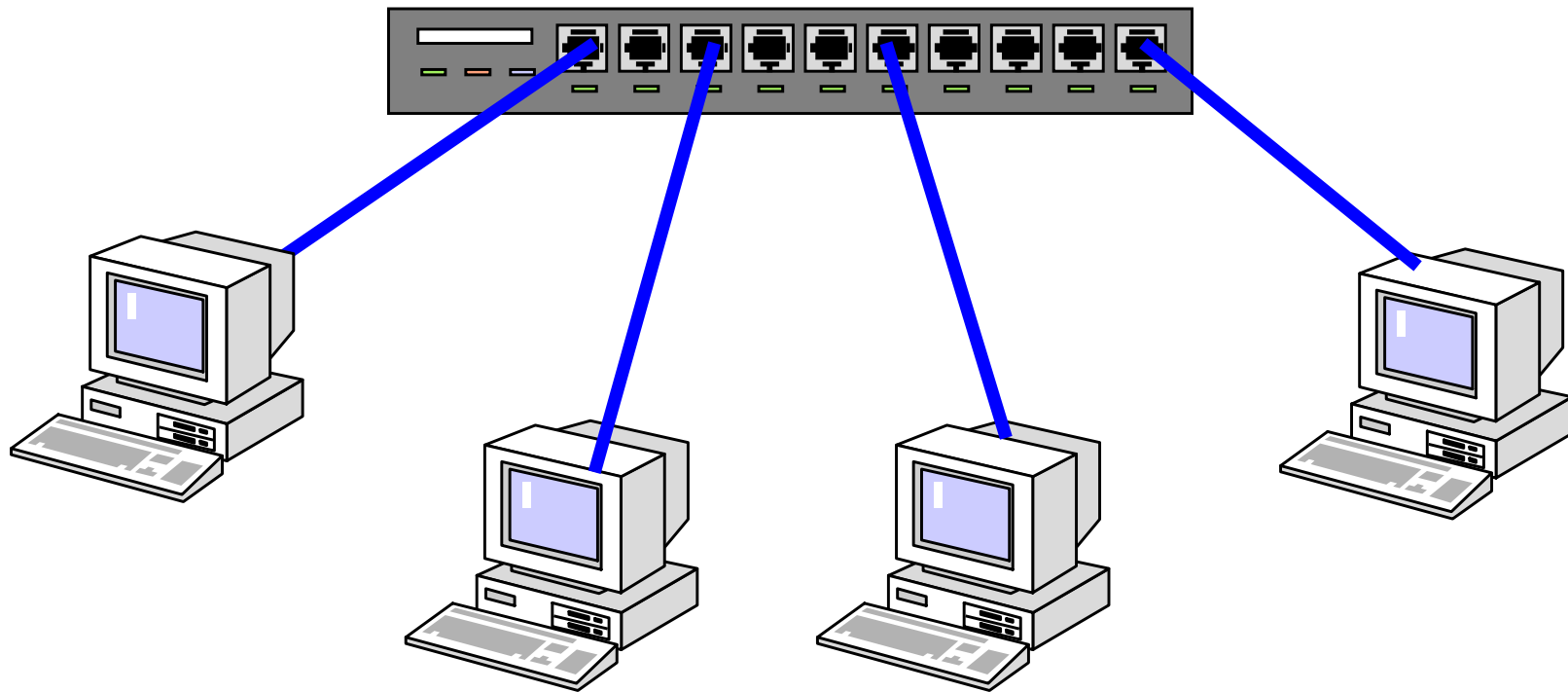


Pacote Ethernet

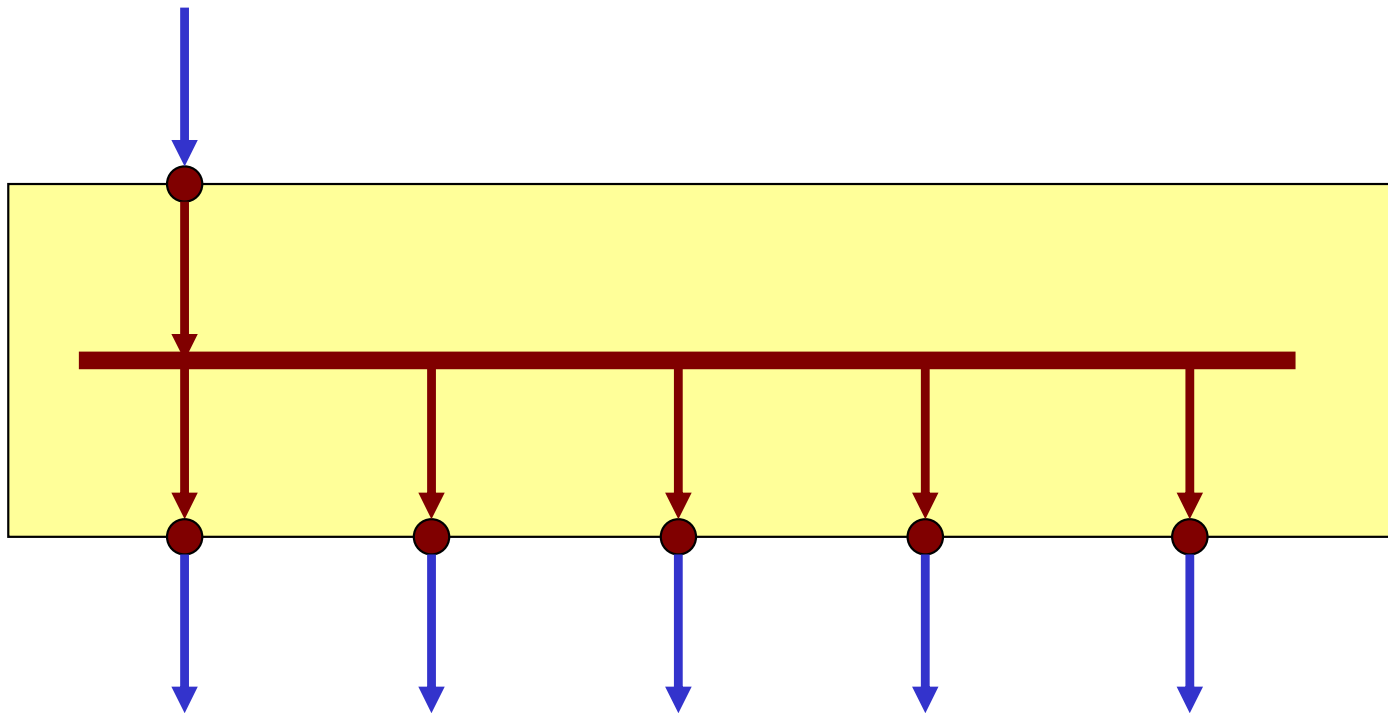


Evolução para o Par Trançado

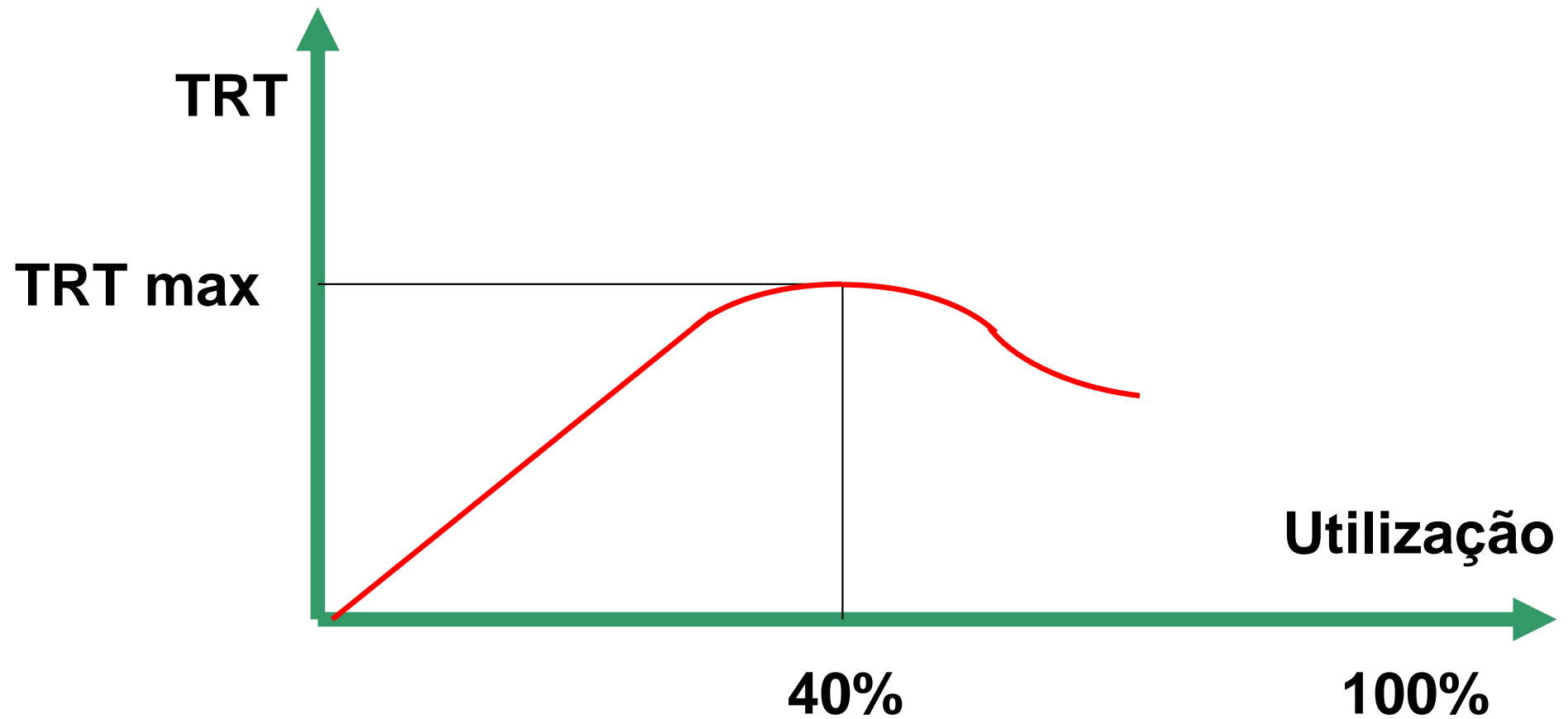
Hub Repetidor



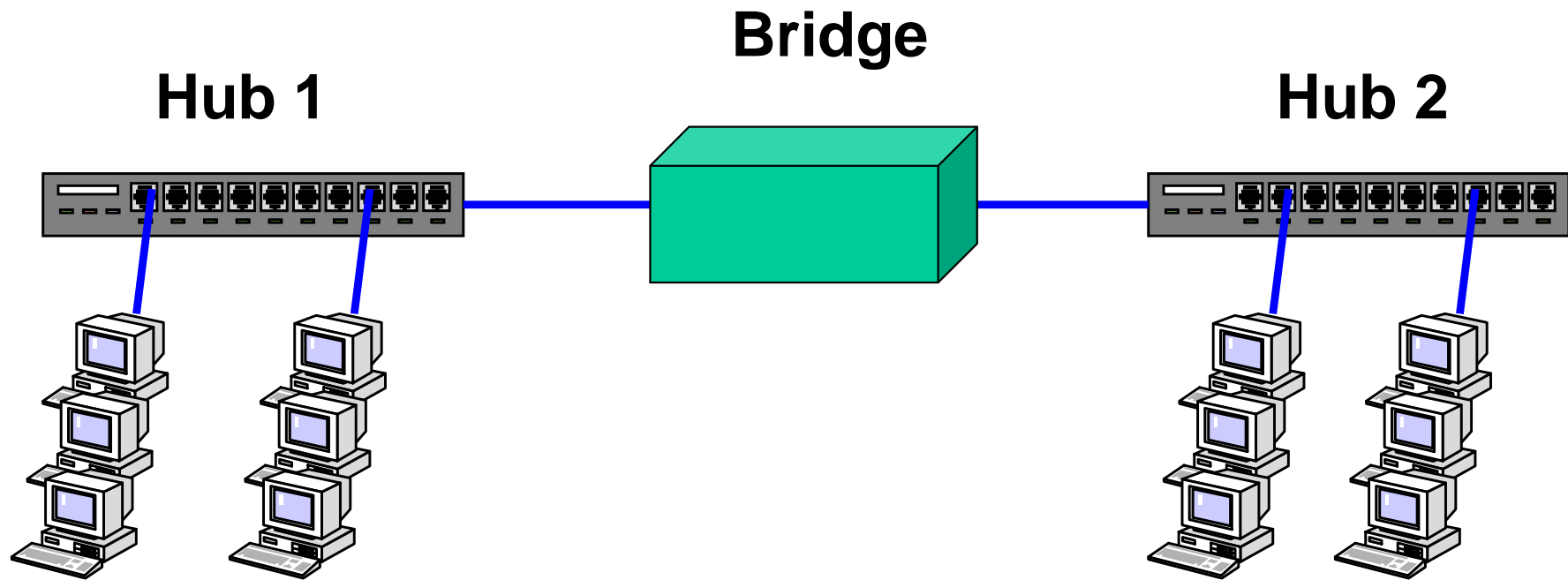
Arquitetura do Hub



Domínio de Colisão/Congestionamento



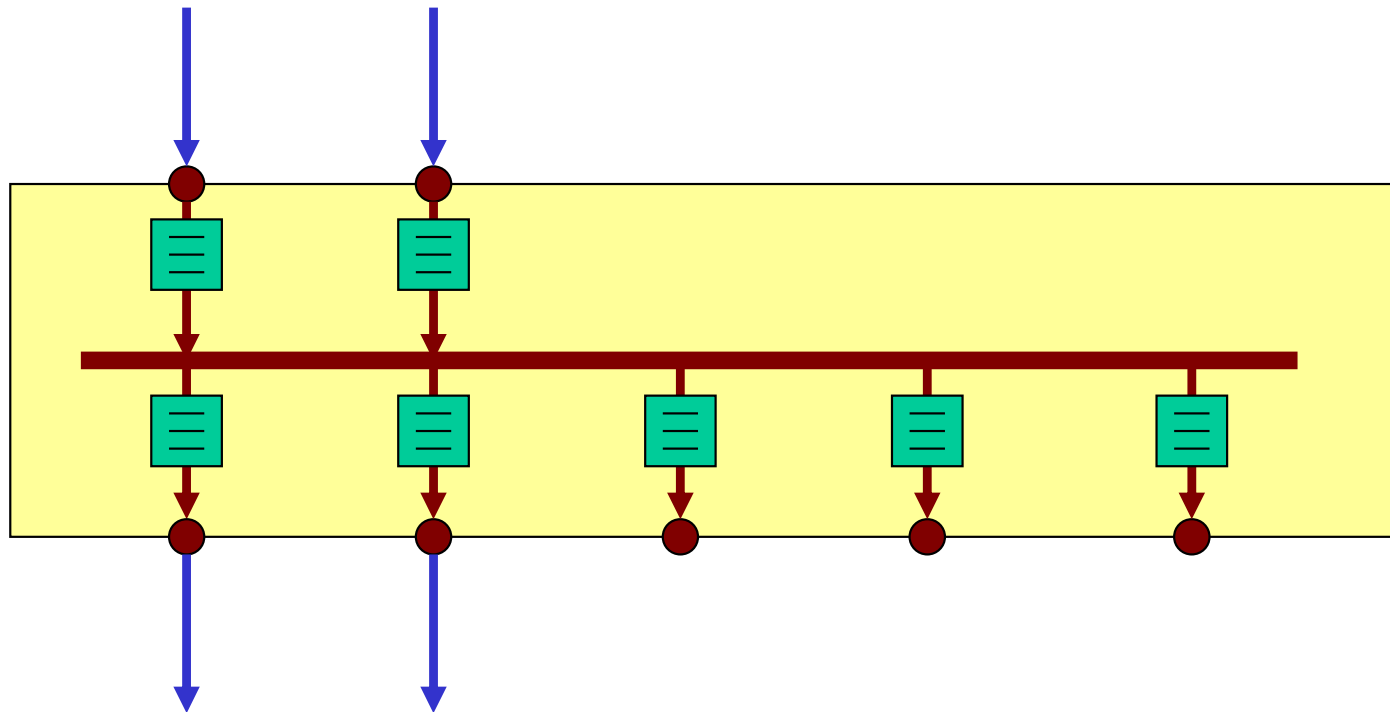
Segmentação: A Bridge



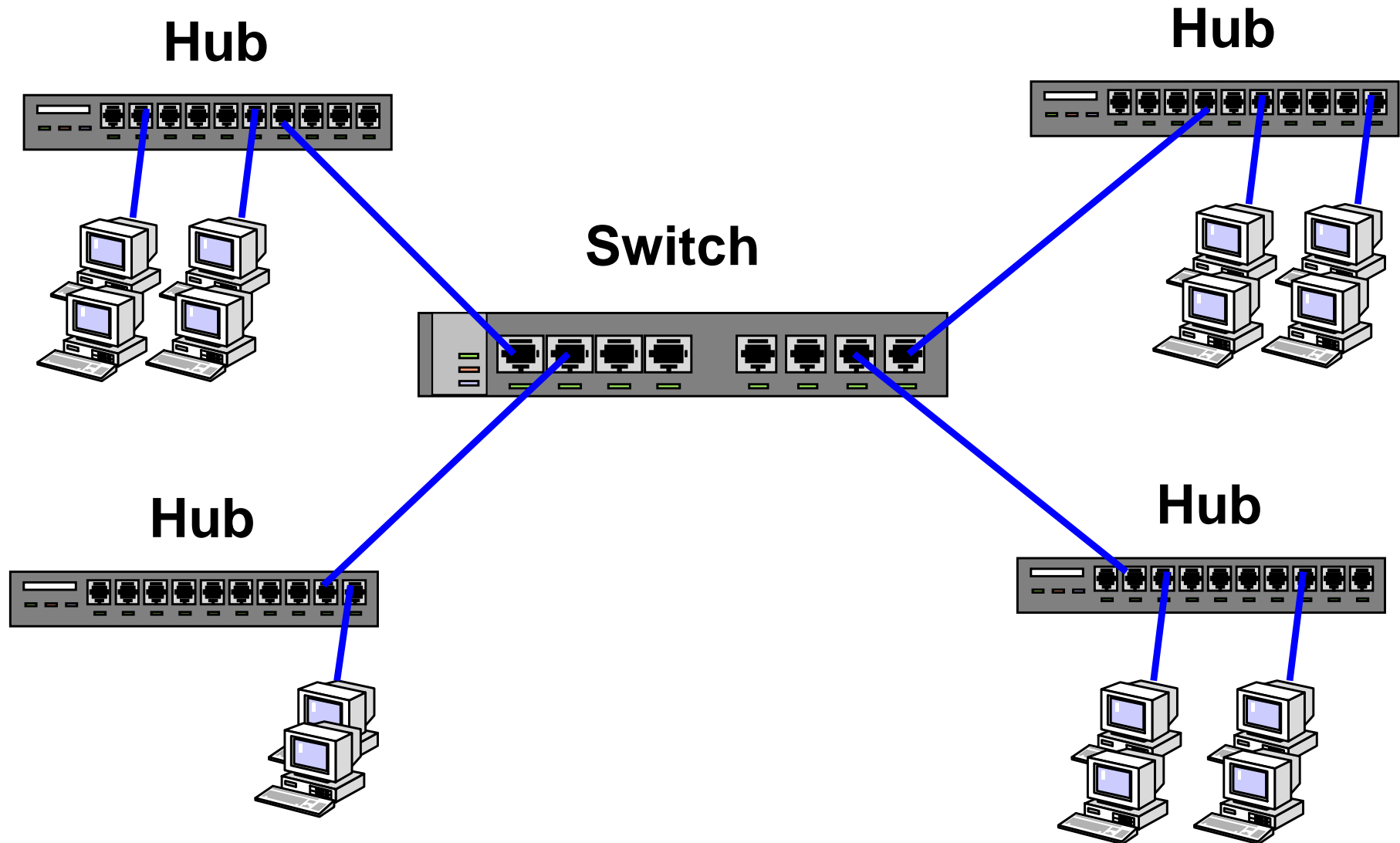
- Latência
- Store and Forward
- Cut-Through

A Bridge multiporta
foi
batizada de
Switch !

Arquitetura do Switch



Aplicação do Switch

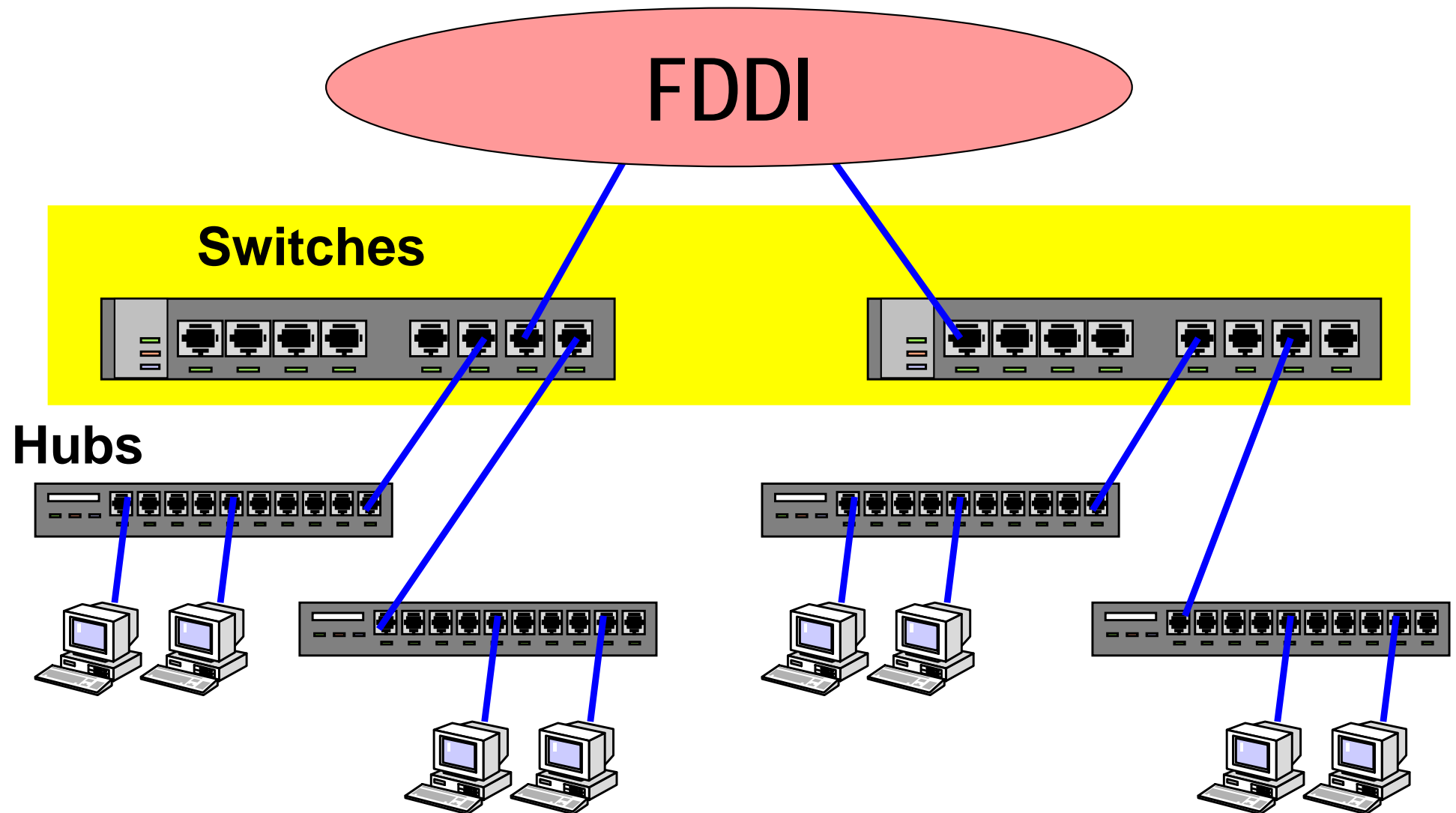


Outros Padrões

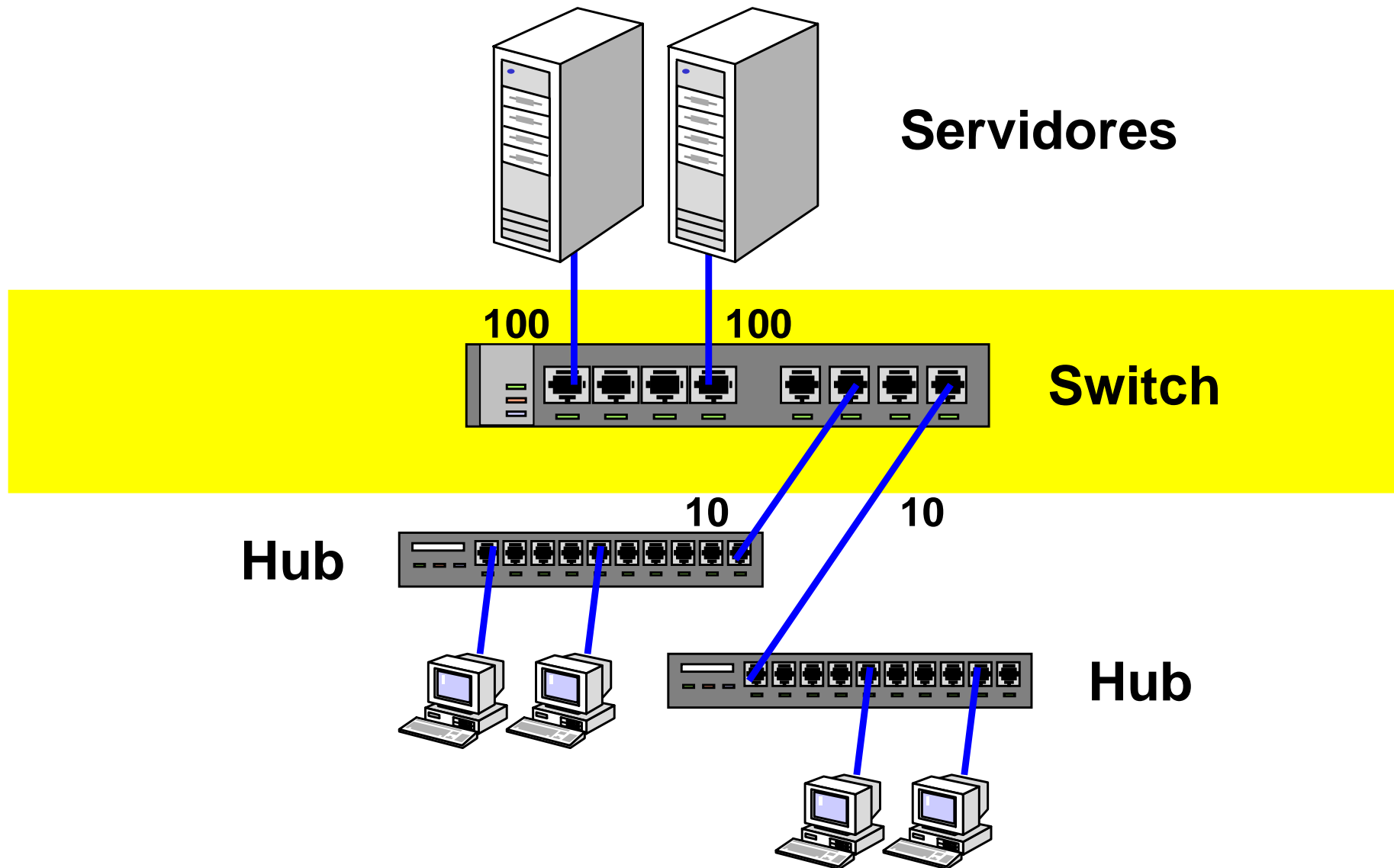
- FDDI → 100 Mbps
- CDDI → 100 Mbps
- Token Ring → 16 Mbps

0 Switch interconecta

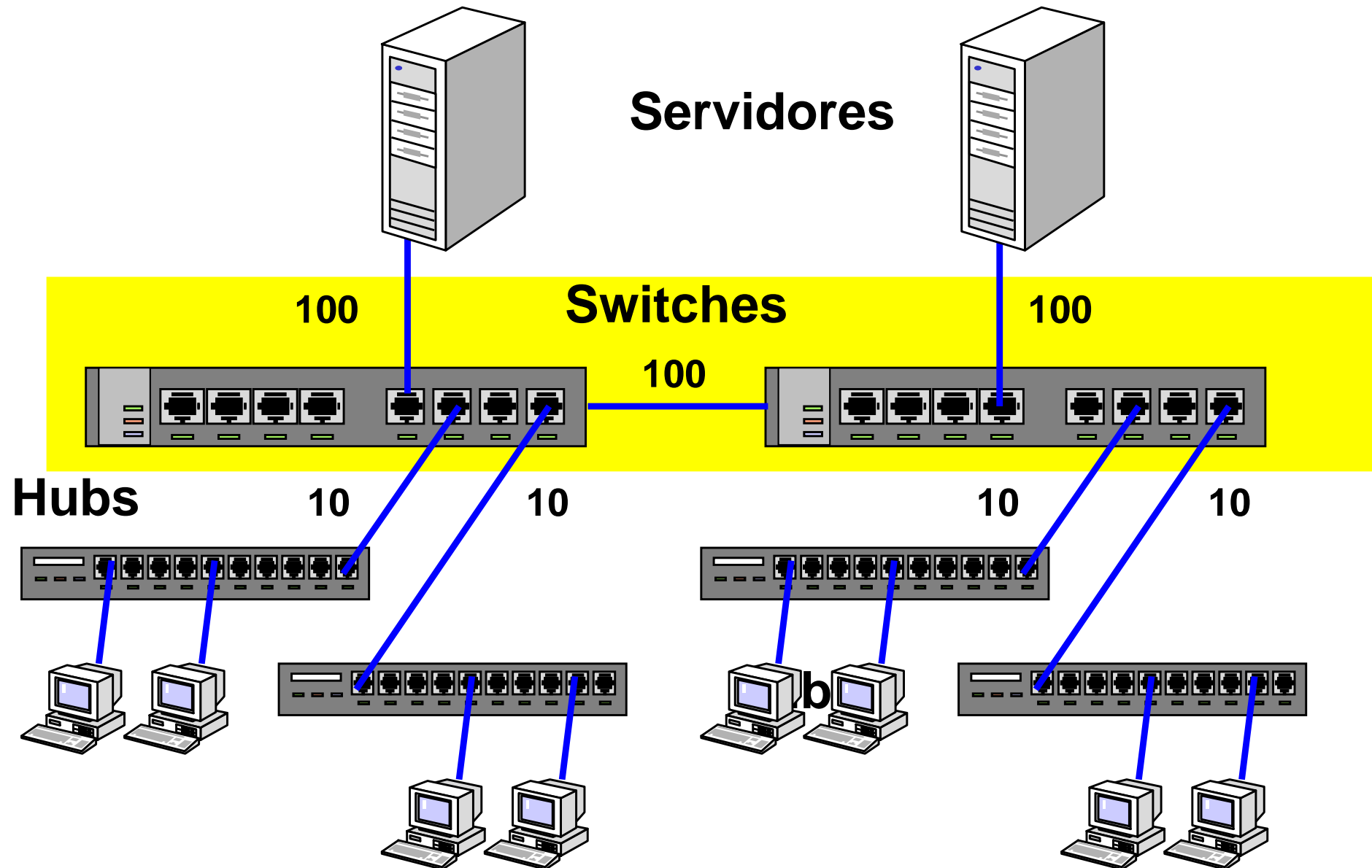
FDDI



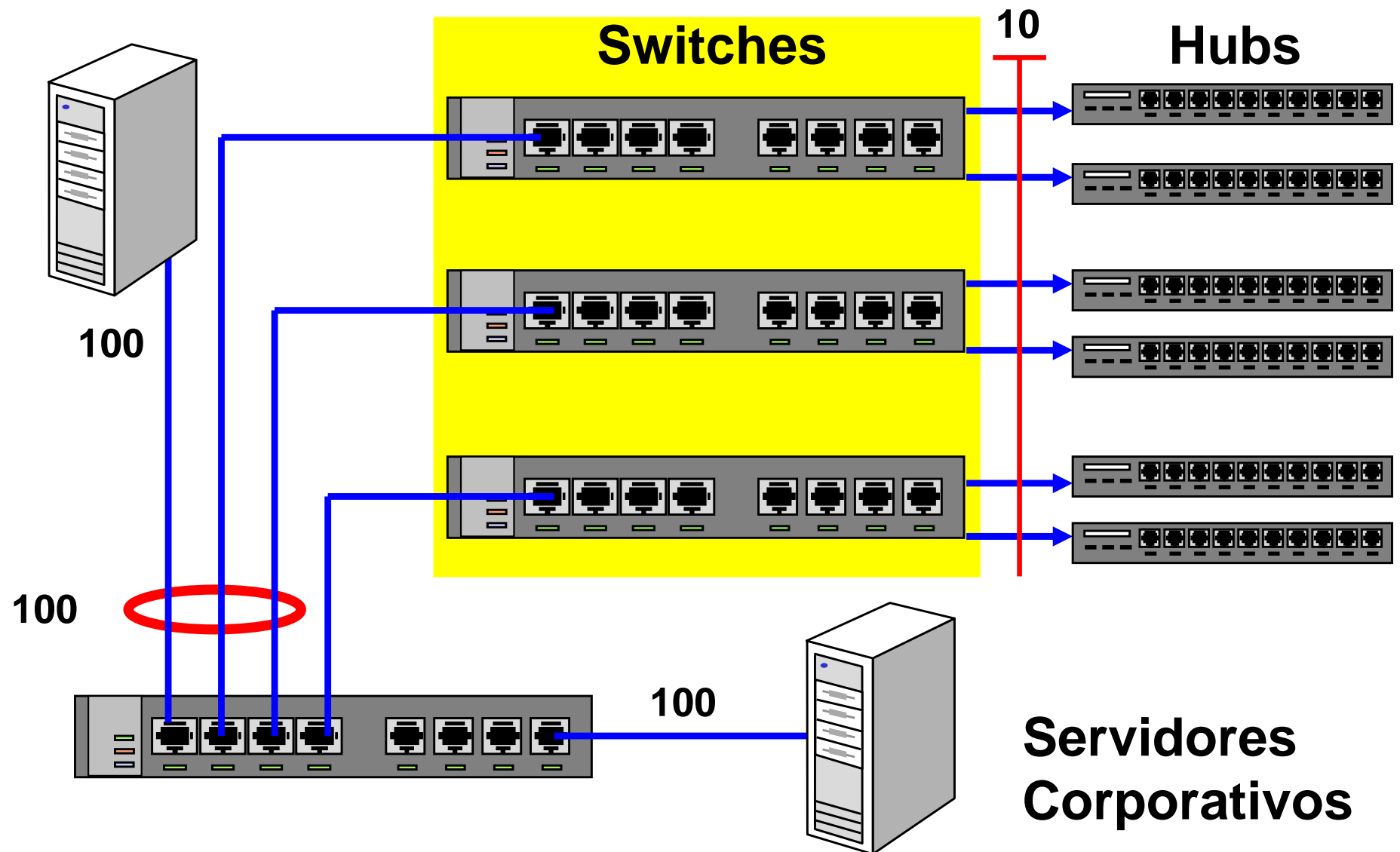
Fast-Ethernet



Fast-Ethernet



Fast-Ethernet



- ATM
- Gigabit Ethernet
- Novas Velocidades:

155 Mbps
622 Mbps
1000 Mbps

Laços de Fibra Ótica

Parâmetro	10FL	100FX	1000SX	1000LX	1000LX
Velocidade	10 Mbps	100 Mbps	1000 Mbps	1000 Mbps	1000 Mbps
Norma IEEE	802.3i	802.3u	802.3z	802.3z	802.3z
Modo da Fibra	Multi	Multi	Multi	Multi	Mono
Tipo da Fibra	62,5 μm	62,5 μm	62,5 μm	62,5 μm	10 μm
Duração de 1 bit	0,1 μs	0,01 μs	0,001 μs	0,001 μs	0,001 μs
Menor Pacote	512 bits	512 bits	512 bits	512 bits	512 bits
Maior Retardo	25,6 μs	2,56 μs	2,048 μs	2,048 μs	2,048 μs
Enlace Semi-Duplex	2000 m	412 m	111 m	111 m	111 m
Enlace Full-Duplex	2000 m	2000 m	260 m	550 m	3000 m

Novos Requisitos

- Segurança
- Mobilidade
- Subredes
- Vídeo
- Voz

- Cabeamento Estruturado
- Drives de Rede
- Interconexão à WAN

Fim

obrigado pelo seu tempo