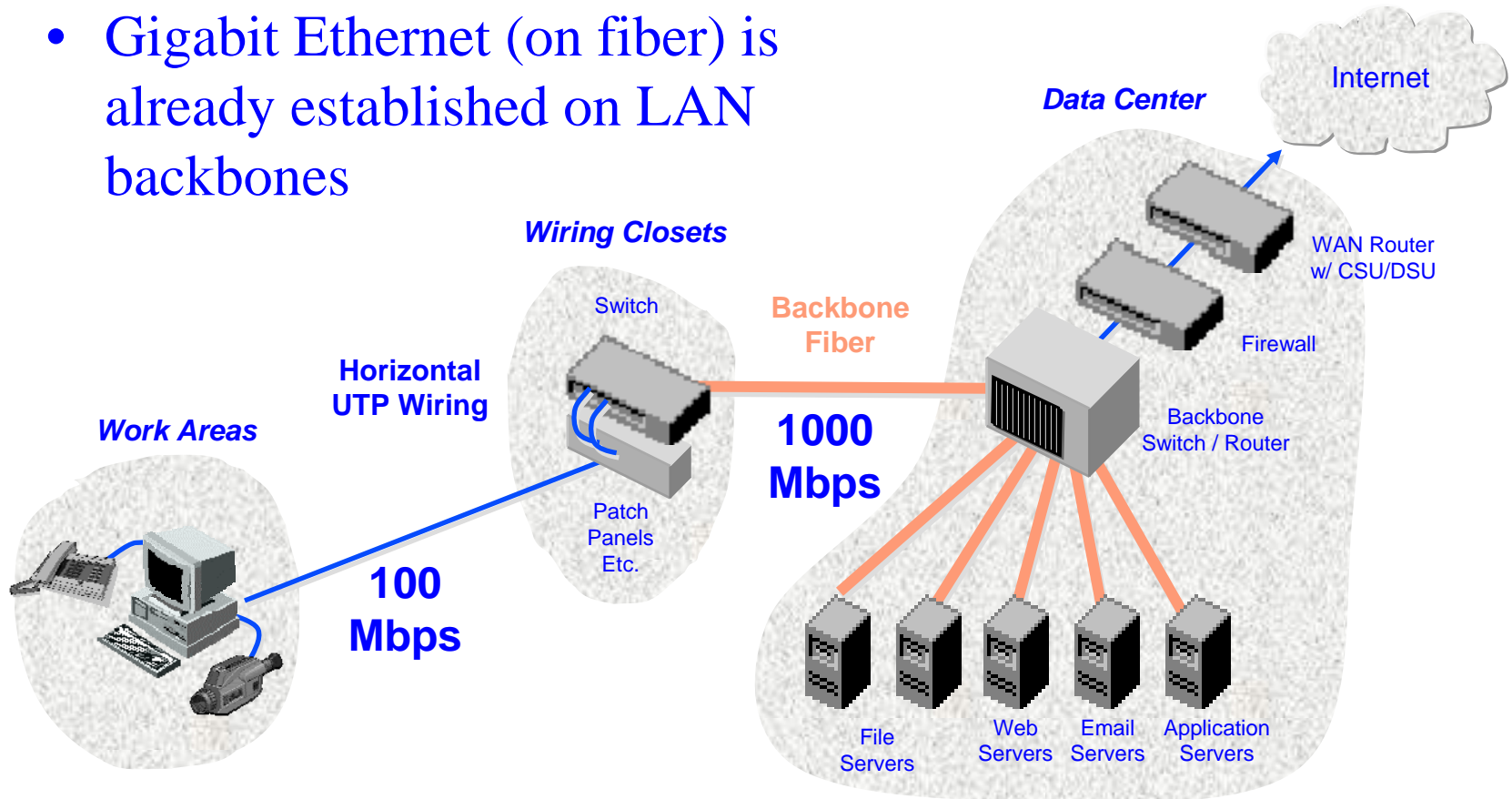


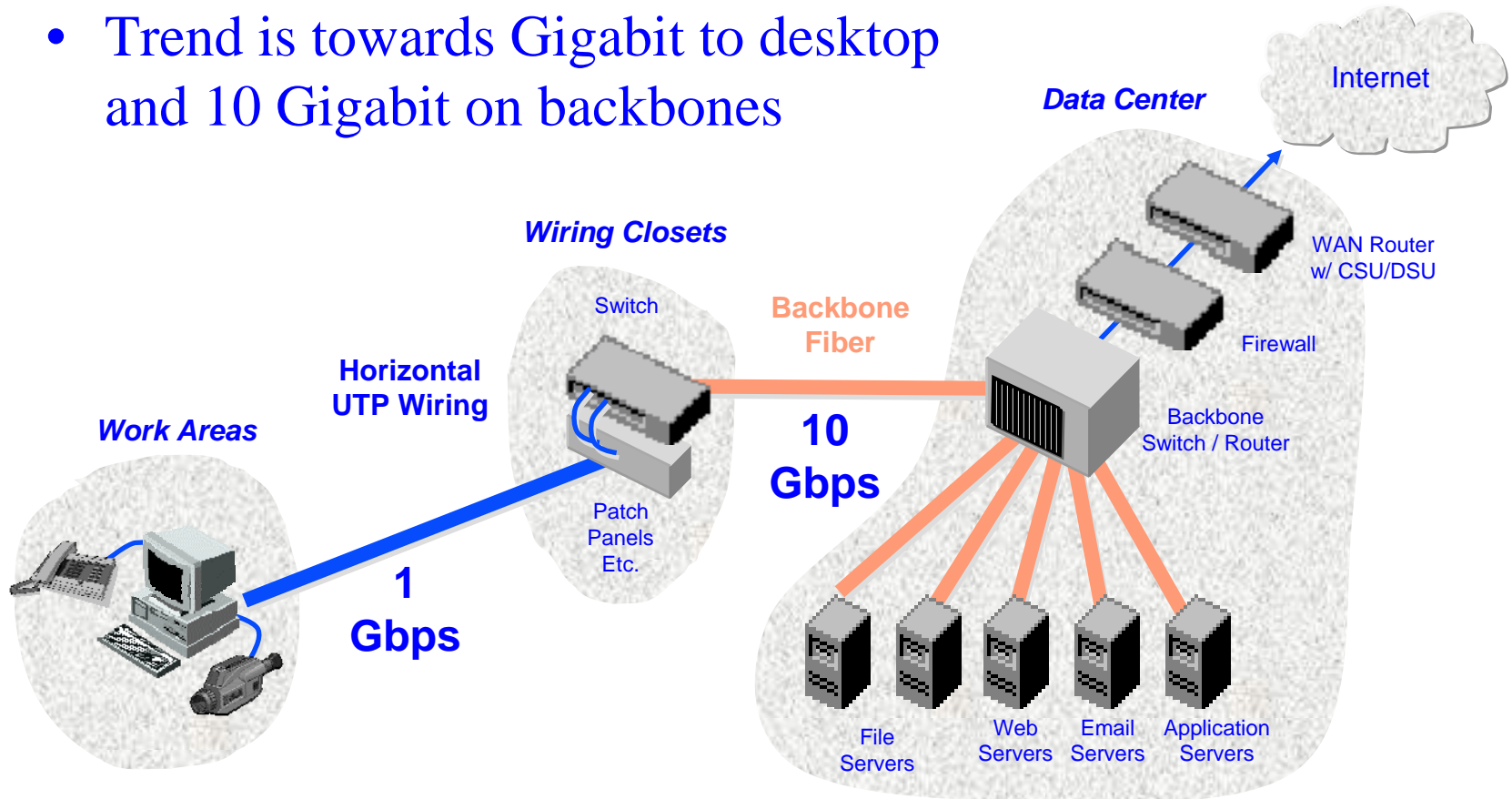
# LAN Technology Trends: Present

- Gigabit Ethernet (on fiber) is already established on LAN backbones

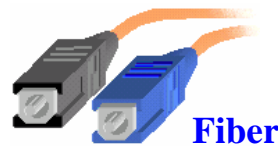


# LAN Technology Trends: Future

- Trend is towards Gigabit to desktop and 10 Gigabit on backbones



# Network Physical Layer Standards



1 Gigabit Ethernet



Published  
6/98

IEEE802.3z



Expected  
Q3 99

IEEE802.3ab

10 Gigabit Ethernet

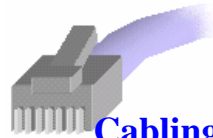


Expected  
2002

Work started

?

# TIA Copper Cabling Standards



Cabling Standard



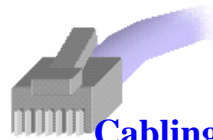
Testing Standard

Cat 5 modifications  
to accommodate  
1000Base-T

Category 6

 <p><b>Expected Q3 '99</b></p> <p><b>TSB-95</b></p> <ul style="list-style-type: none"> <li>• Additional parameters (ELFEXT, Return Loss, Delay, Skew)</li> </ul> <p><b>568-A-5</b></p> <ul style="list-style-type: none"> <li>• Category 5E Cabling</li> </ul>	 <p><b>Expected Q3 '99</b></p> <p><b>TSB-95, 568-A-5</b></p> <ul style="list-style-type: none"> <li>• Level II E tester requirements</li> </ul>
 <p><b>Expected Q4 '00</b></p> <p><b>Cat 6 Spec.</b></p> <ul style="list-style-type: none"> <li>• 250 MHz frequency range</li> <li>• Higher performance</li> </ul>	 <p><b>Expected Q4 '00</b></p> <p><b>Cat 6 Spec.</b></p> <ul style="list-style-type: none"> <li>• Level III tester requirements</li> </ul>

# ISO/IEC Copper Cabling Standards



Cabling Standard



Testing Standard

Class D  
modifications  
to accommodate  
1000Base-T



Expected  
Q4 '99

ISO 11801 PDAM3

- Additional class D parameters (ELFEXT, Return Loss, Delay, Skew)



Expected  
Q1 '00

IEC 61935

- Level II E tester requirements

Class E  
(Cat 6)



Expected  
Q1 '01

ISO 11801 2<sup>nd</sup> Ed.

- Category 6 / Class E (250 MHz)
- Category 7/ Class F (600 MHz)



Expected  
Q1 '01

IEC 61935

- Level III tester requirements

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# Standards Summary

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- The steady increase in Ethernet speed is driving all of the changes
- Market in midst of long term migration to Cat 6
- Despite concerted efforts, standards process will take up to 2 more years to complete transition



**Consensus building  
takes time!**