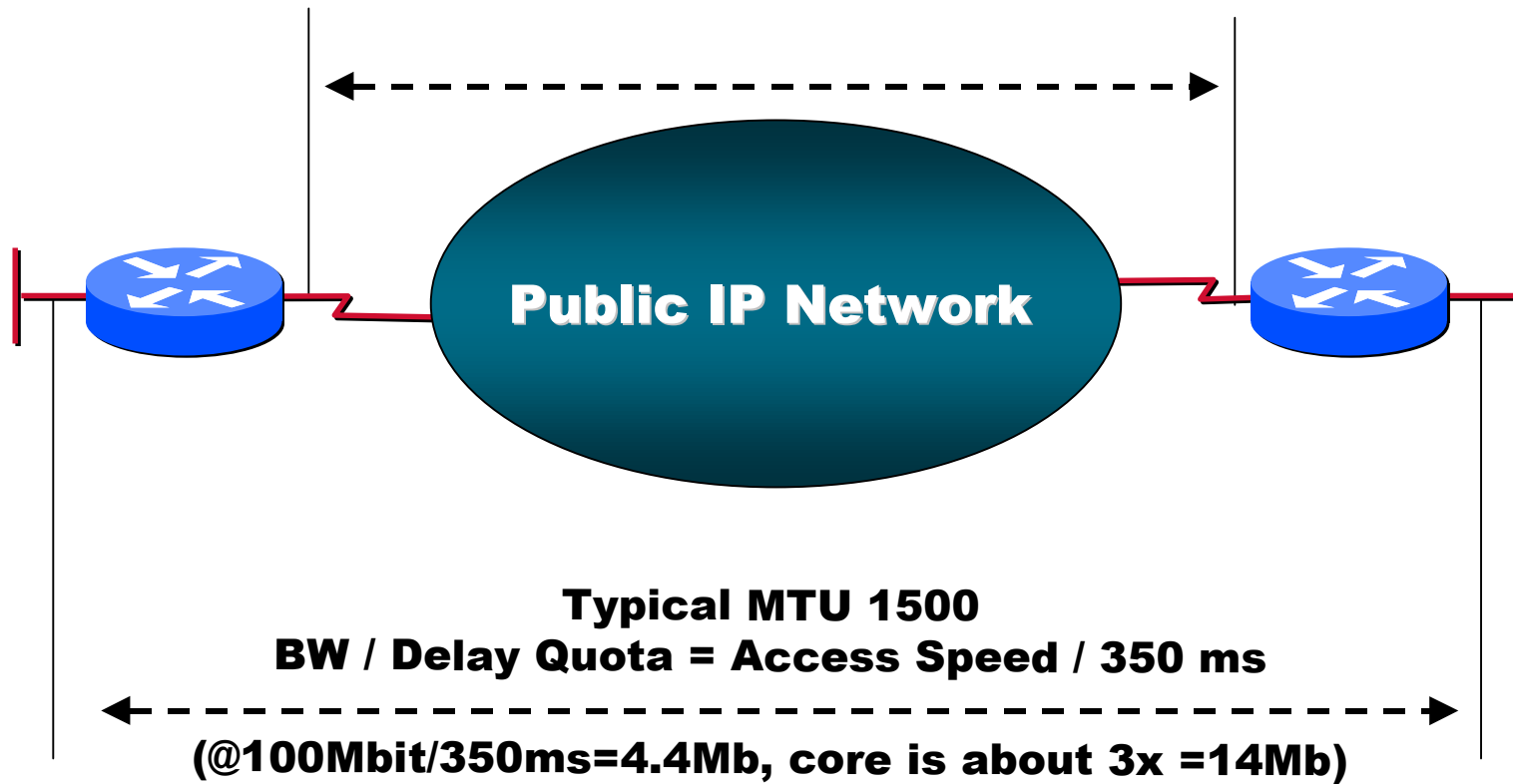


Interconnecting Boxes in a High Performance ISP

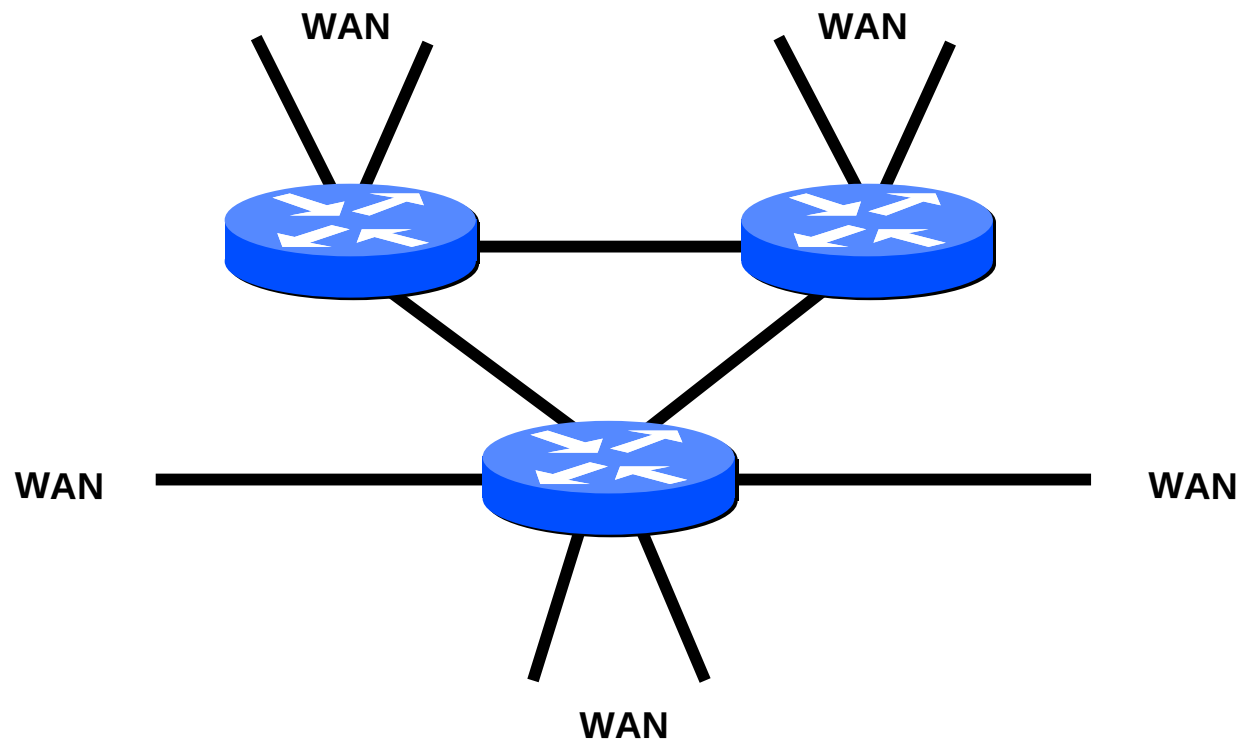
Peter Lothberg

<roll@sprint.net>

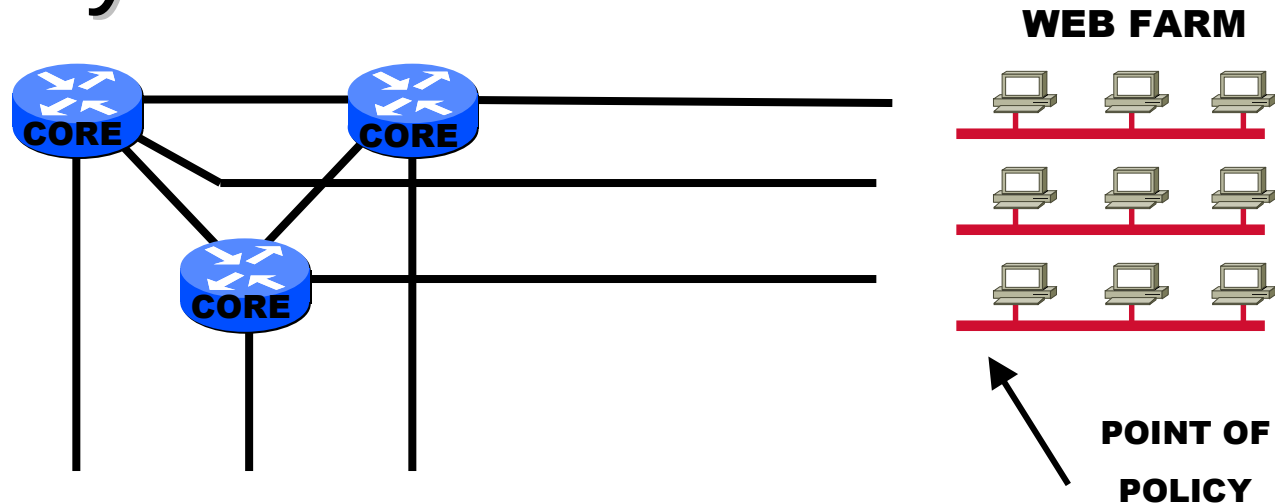
Minimum MTU 1500 + 4 IP Headers Minimum Typical 4470



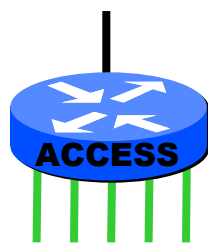
ISP PoP – Core Section



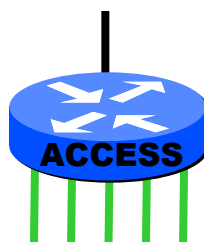
Today's Core Section



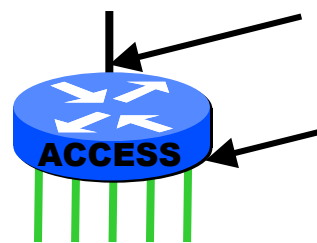
3:1 - 10:1



T1
E1
ATM



OC3

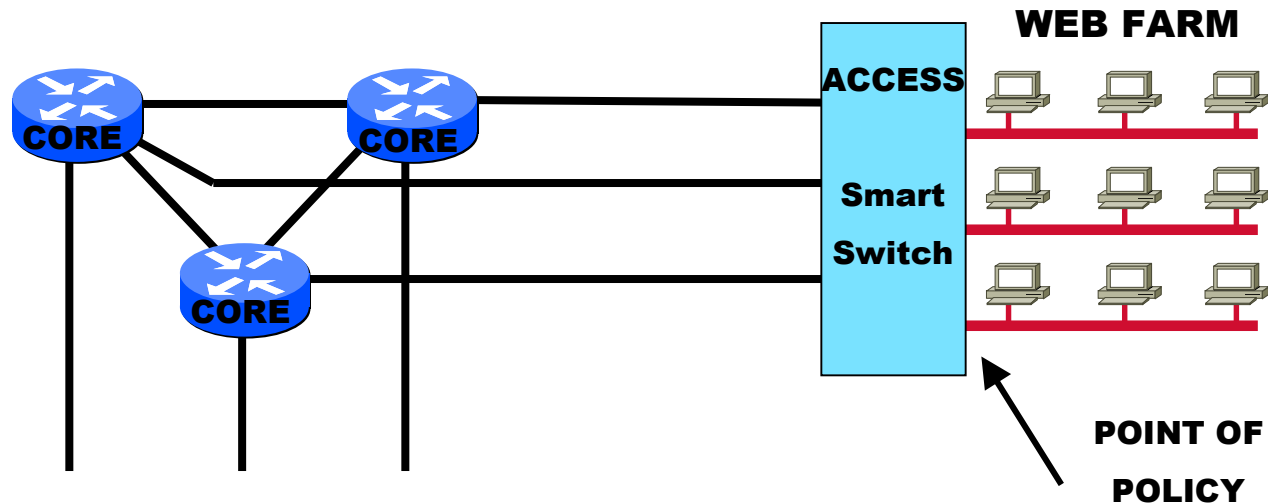


F-T1
F-E1
FR

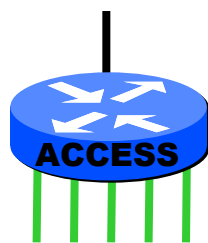
**POINT OF
POLICY**



Server Access

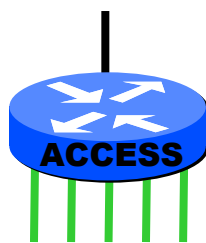


3:1 - 10:1

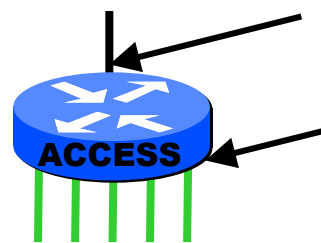


T1
E1
ATM

DS3
E3



OC3

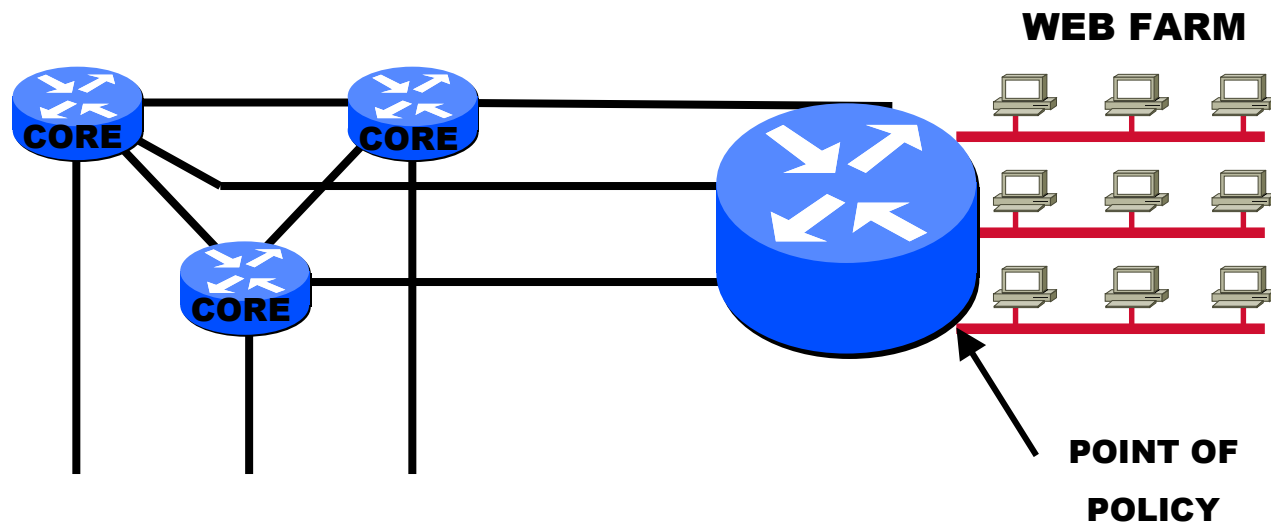


F-T1
F-E1
FR

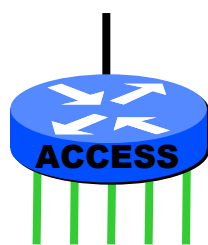
**POINT OF
POLICY**



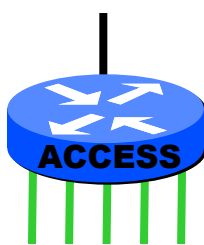
Server Access



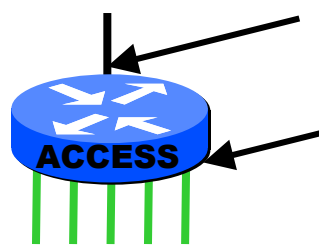
3:1 - 10:1



T1
E1
ATM

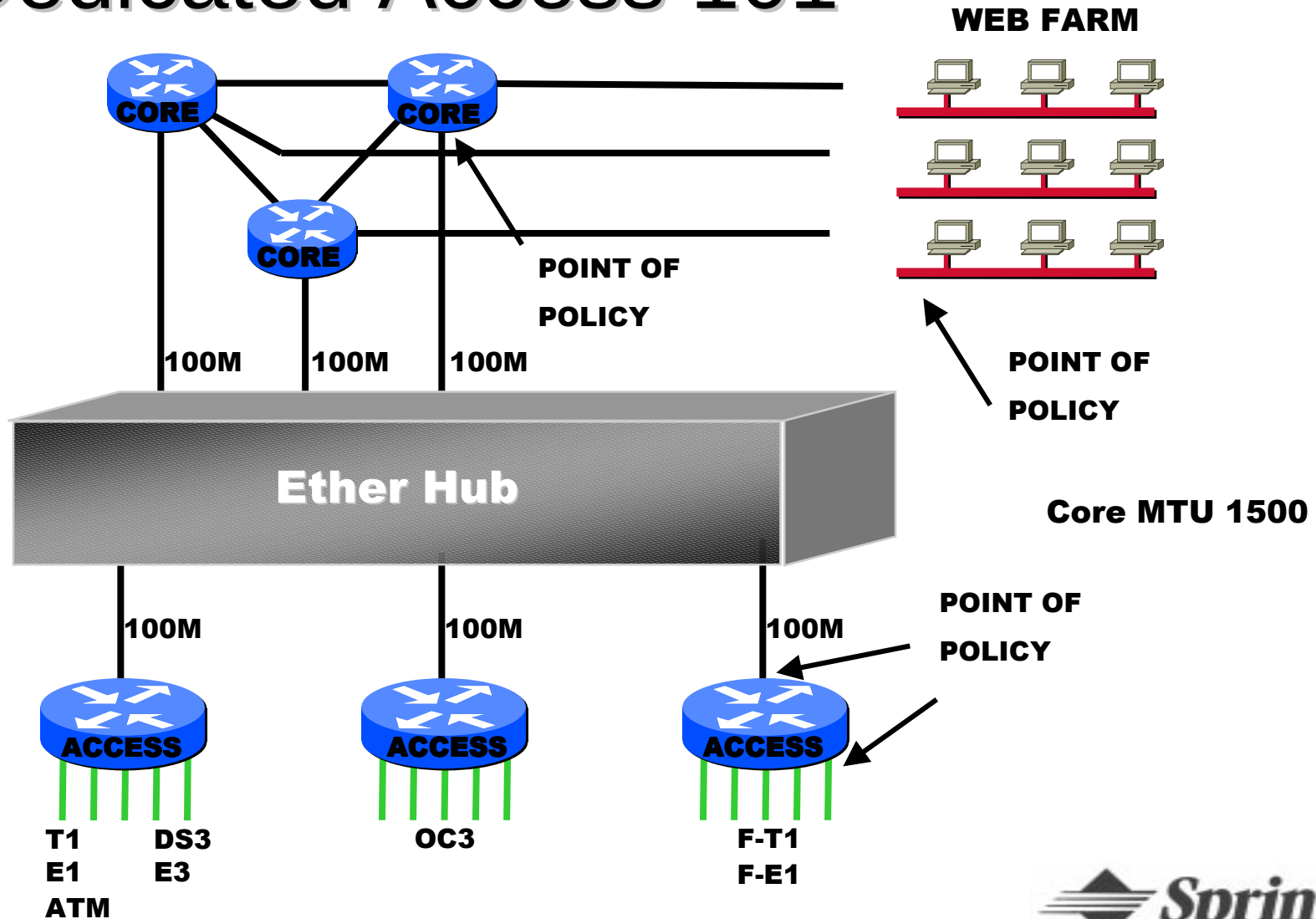


OC3

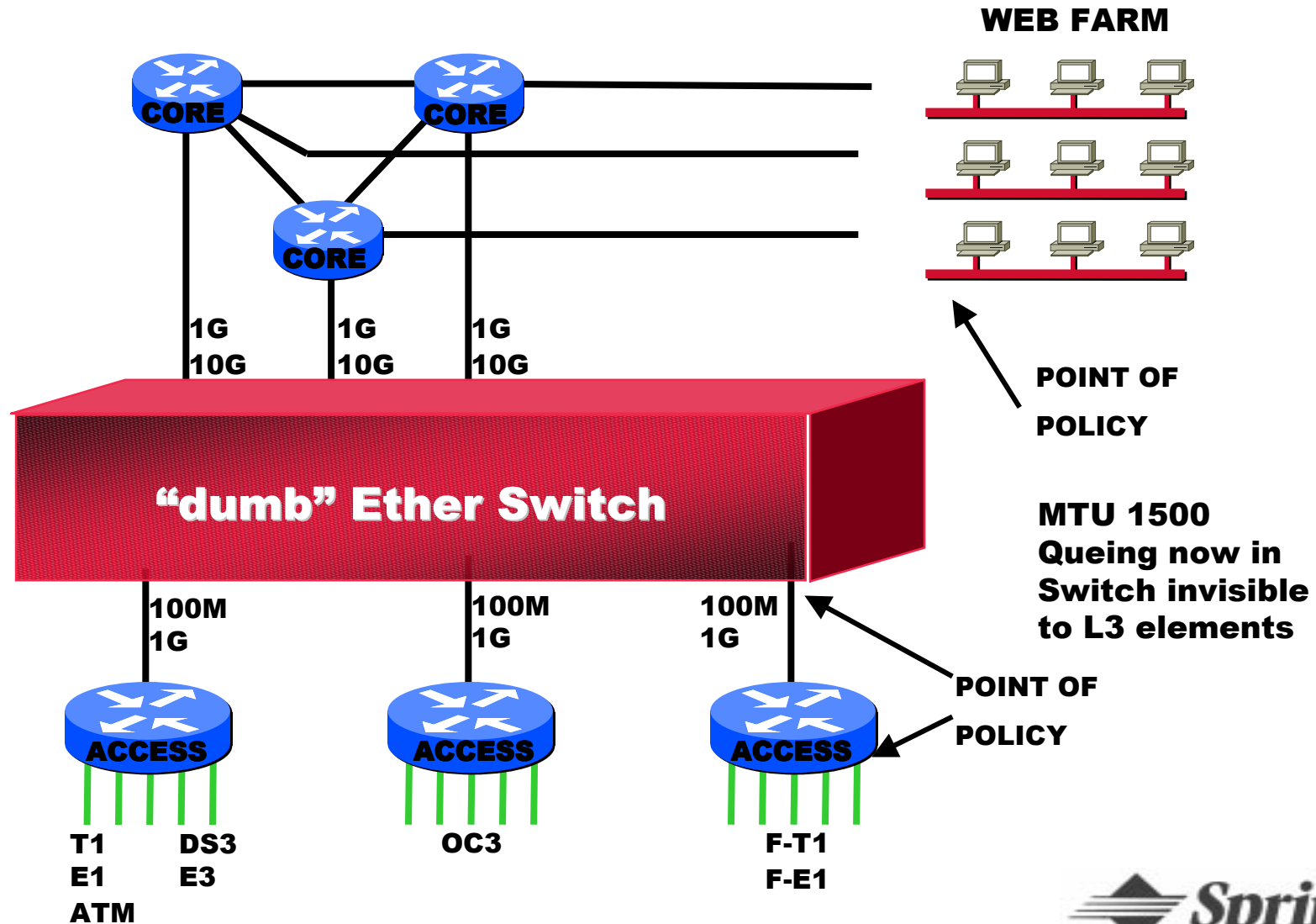


F-T1
F-E1
FR

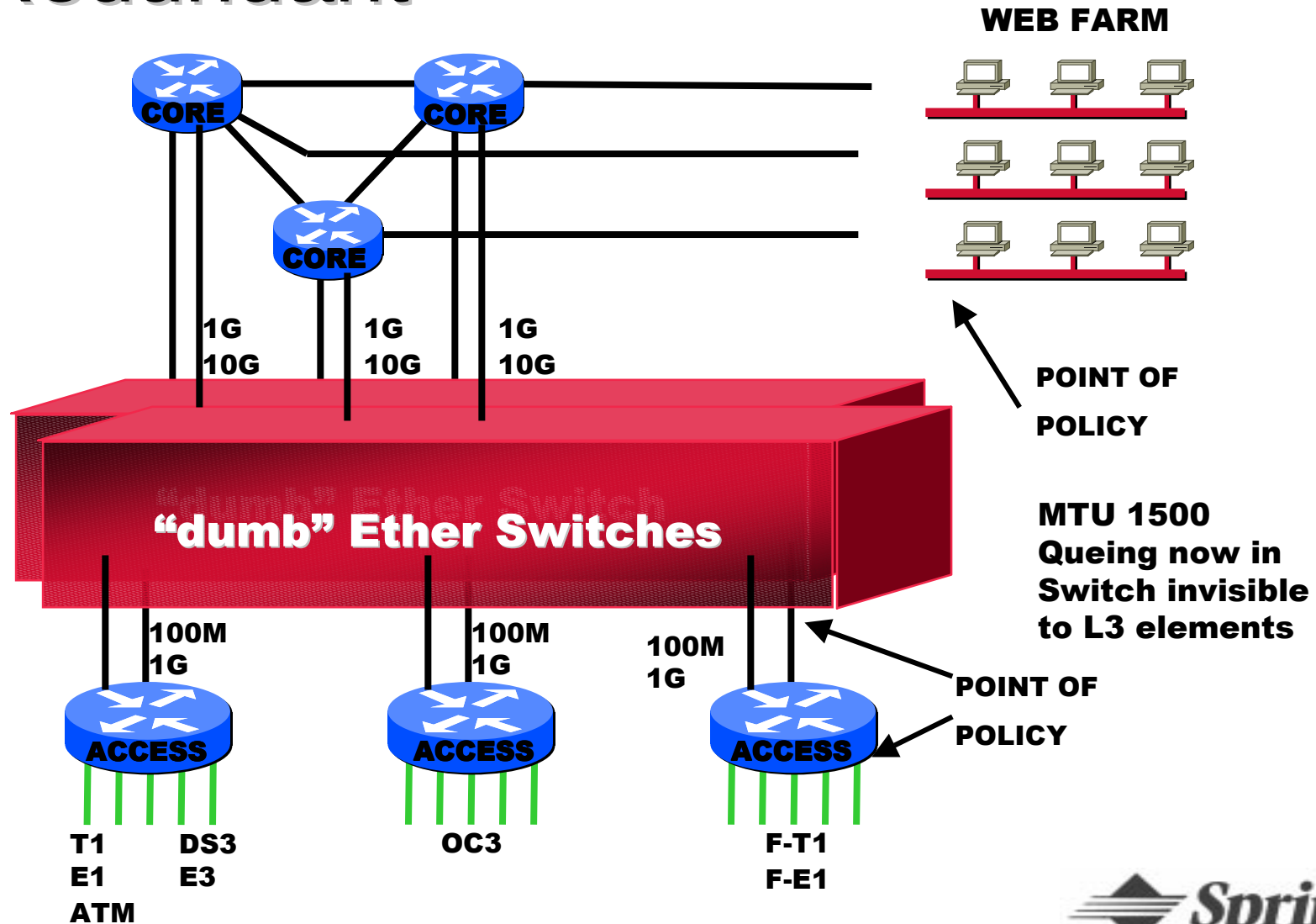
Dedicated Access 101



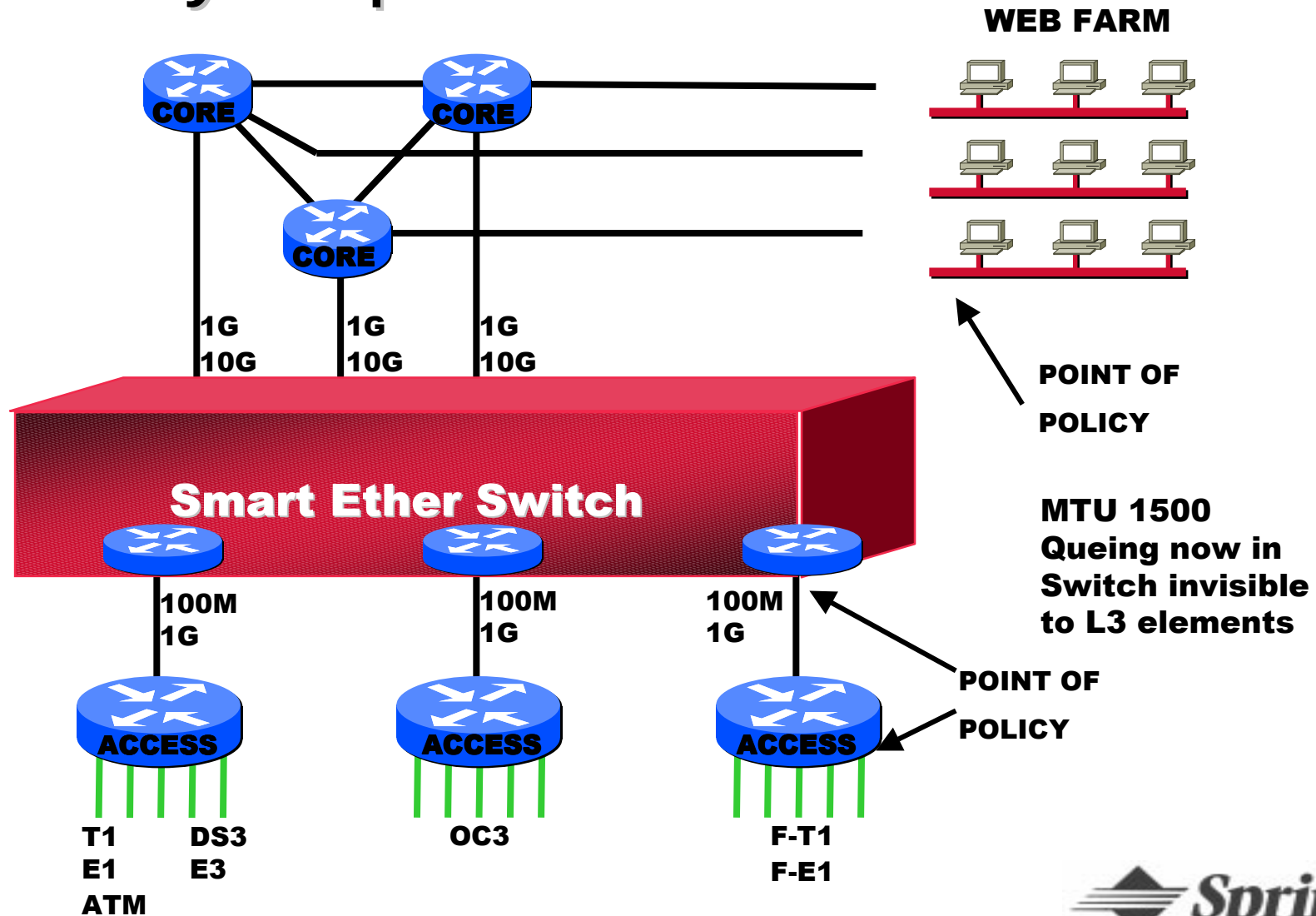
Common Dedicated Access



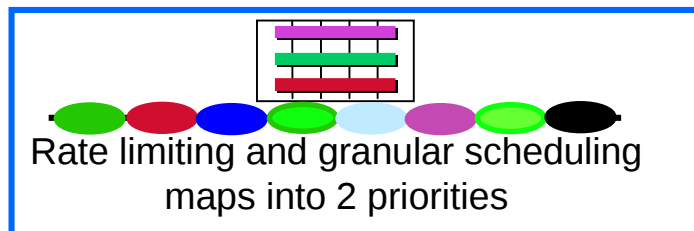
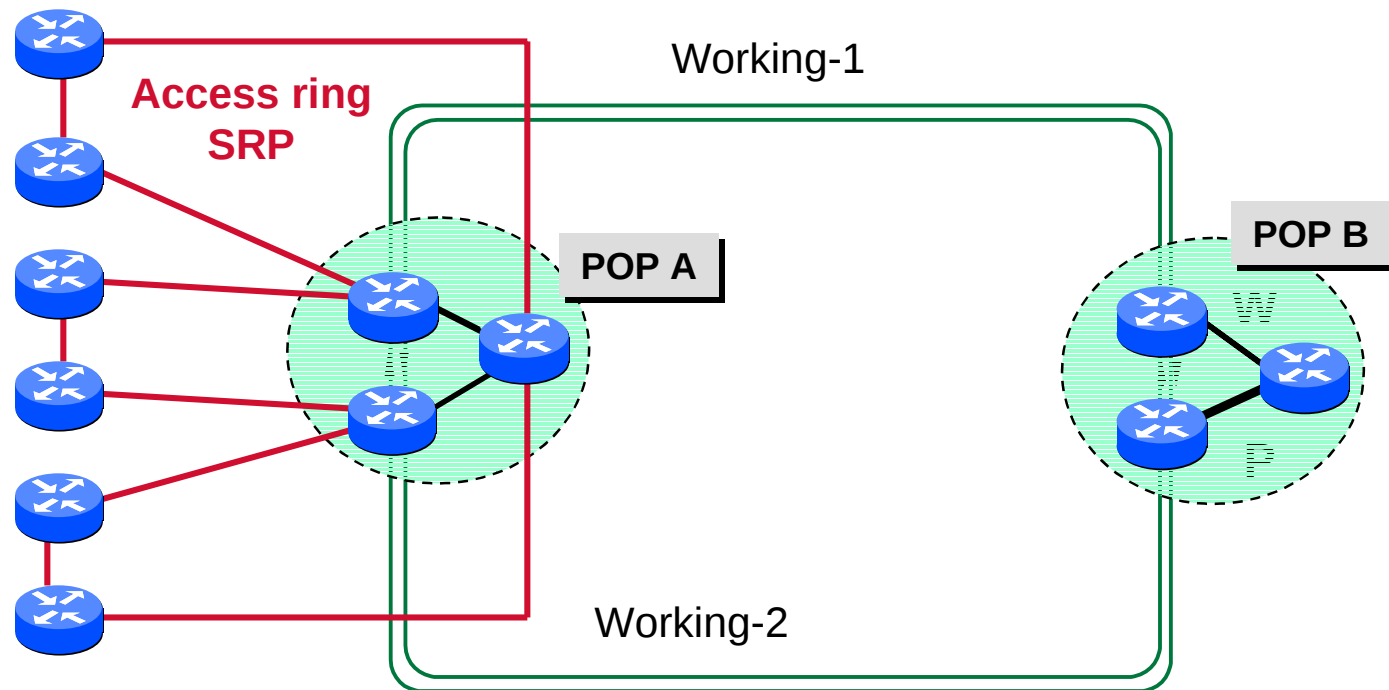
Redundant



Policy Capable Access

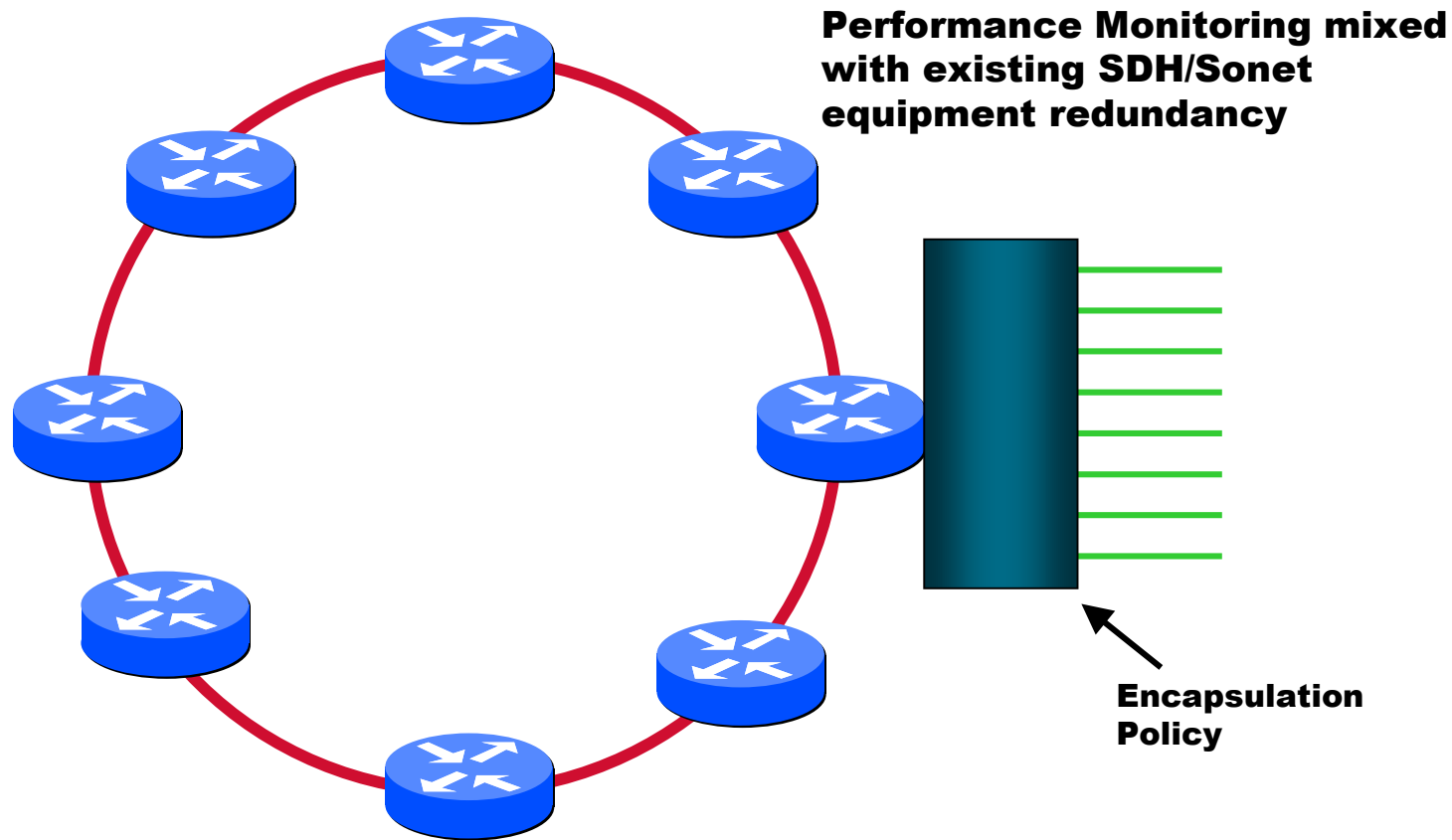


Optical IP Backbone - Access

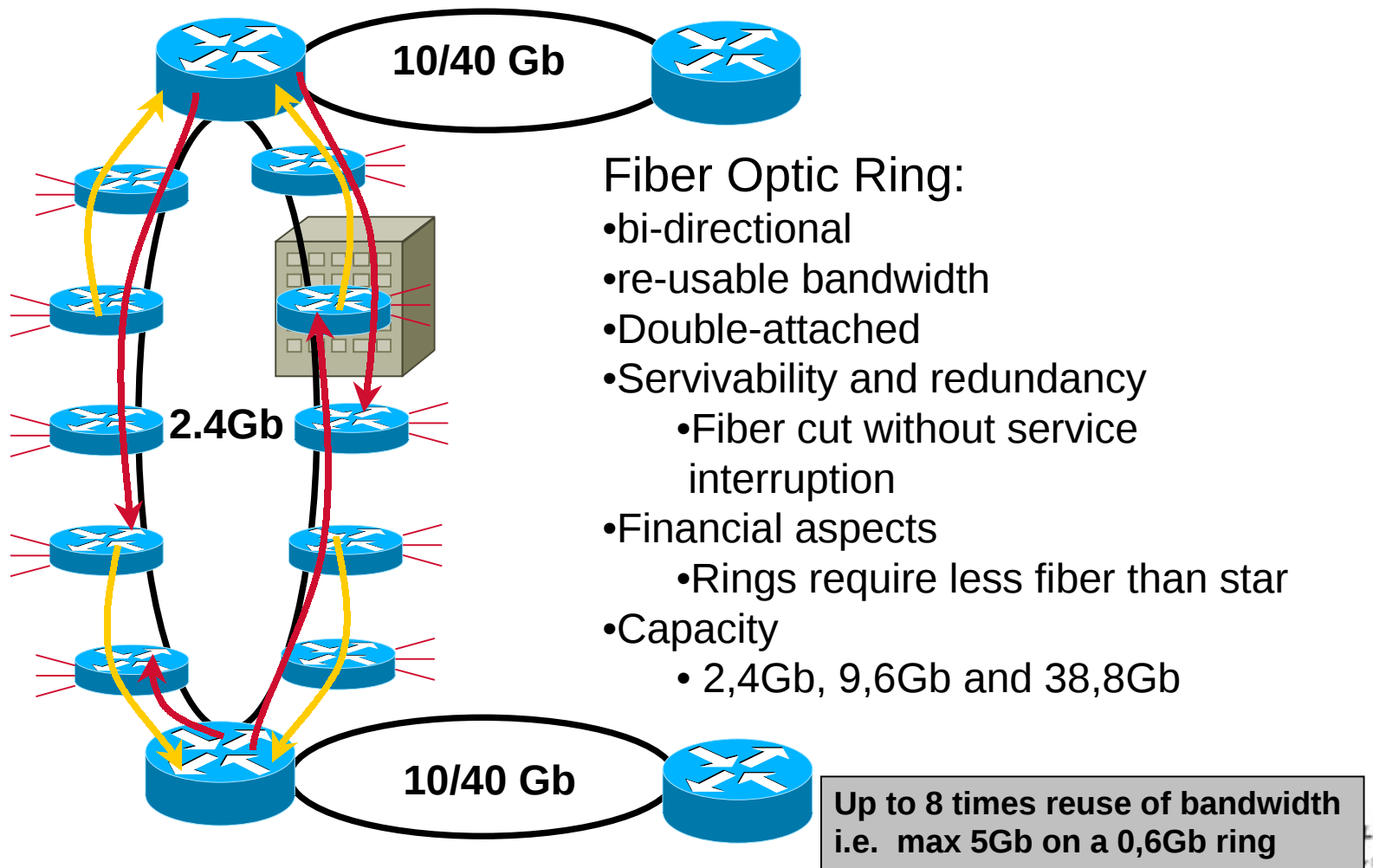


IEEE, March 7, 2000

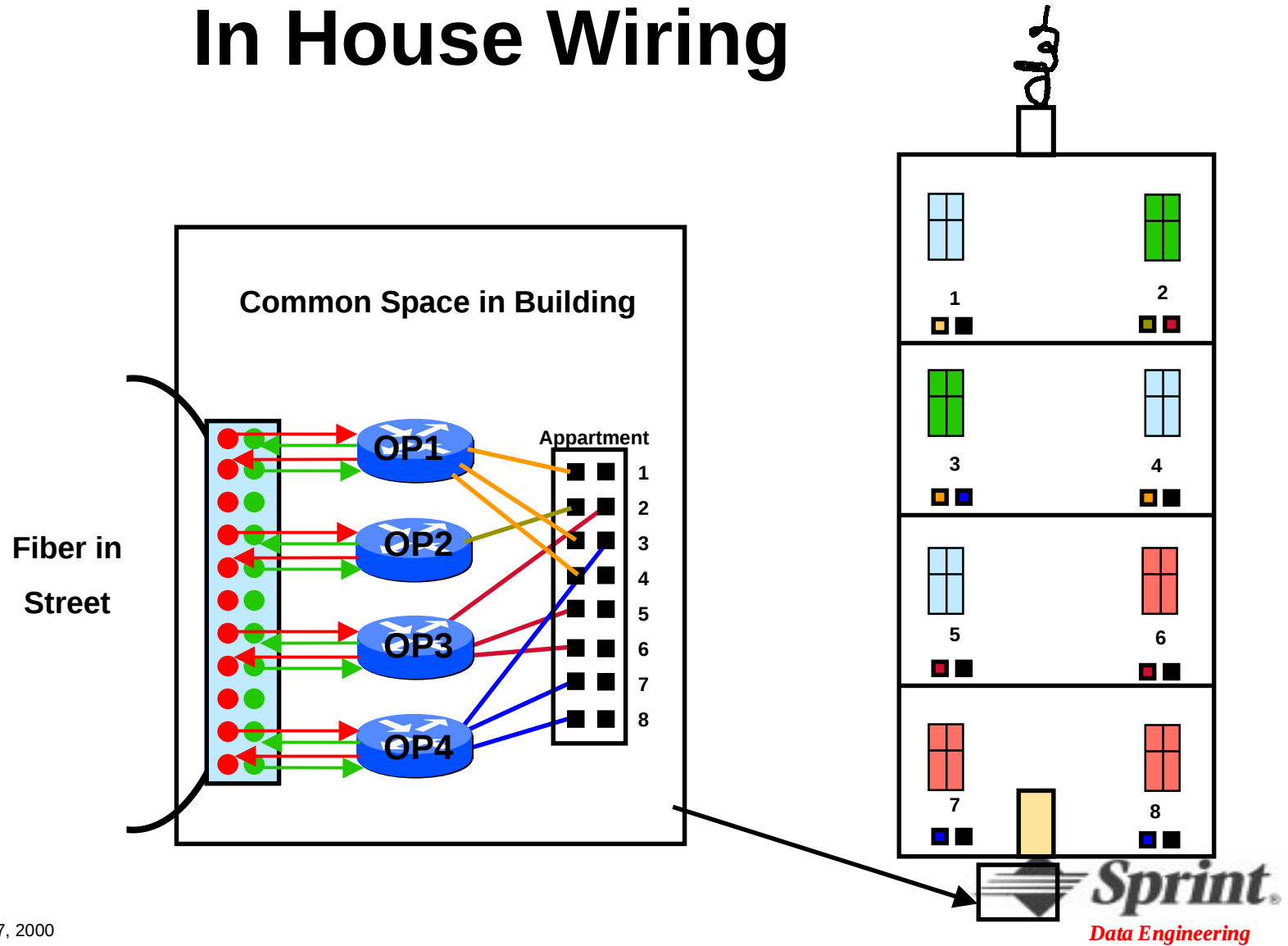
Metro Fiber Ring



Future subscriber access/MAN



In House Wiring



WHY?

- **L1/L2 Protection**
- **No extra elements doing policy**
- **Inter-operates with all existing transmission**
- **Scalable in speed and nodes**
- **Priorities (2)**
- **Performance monitoring/fault isolation**
- **Crafts people compliant**