



10 Gigabit Ethernet The Market Opportunity

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Lawrence Berkeley Labs Bandwidth Requirement Projections

FY	2000	2002	2004
Fast Track	2.5 Gbps	10 Gbps	40 Gbps
Acc. Track	10 Gbps	160 Gbps	1000 Gbps

Source: Mike Bennett, LBNL, HSSG presentation, Idaho, June 1999

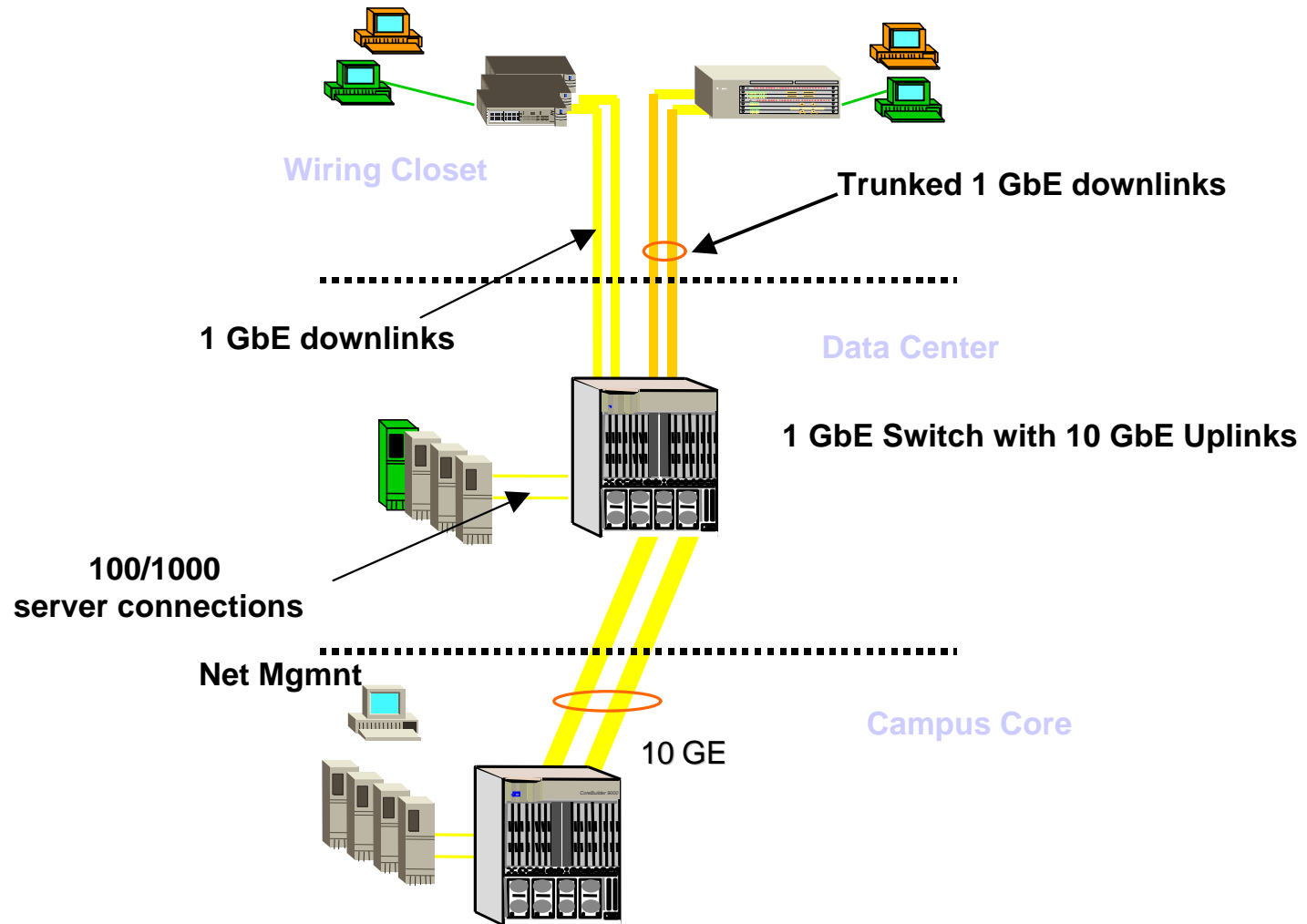


10 GbE for Enterprise LANs

- Server interconnect for clusters of servers
- Switch to server
- Aggregation: e.g. multiple 1000BASE-T segments to 10 GbE downlink
- Building to Building
- Media:
 - SM fiber, MM fiber

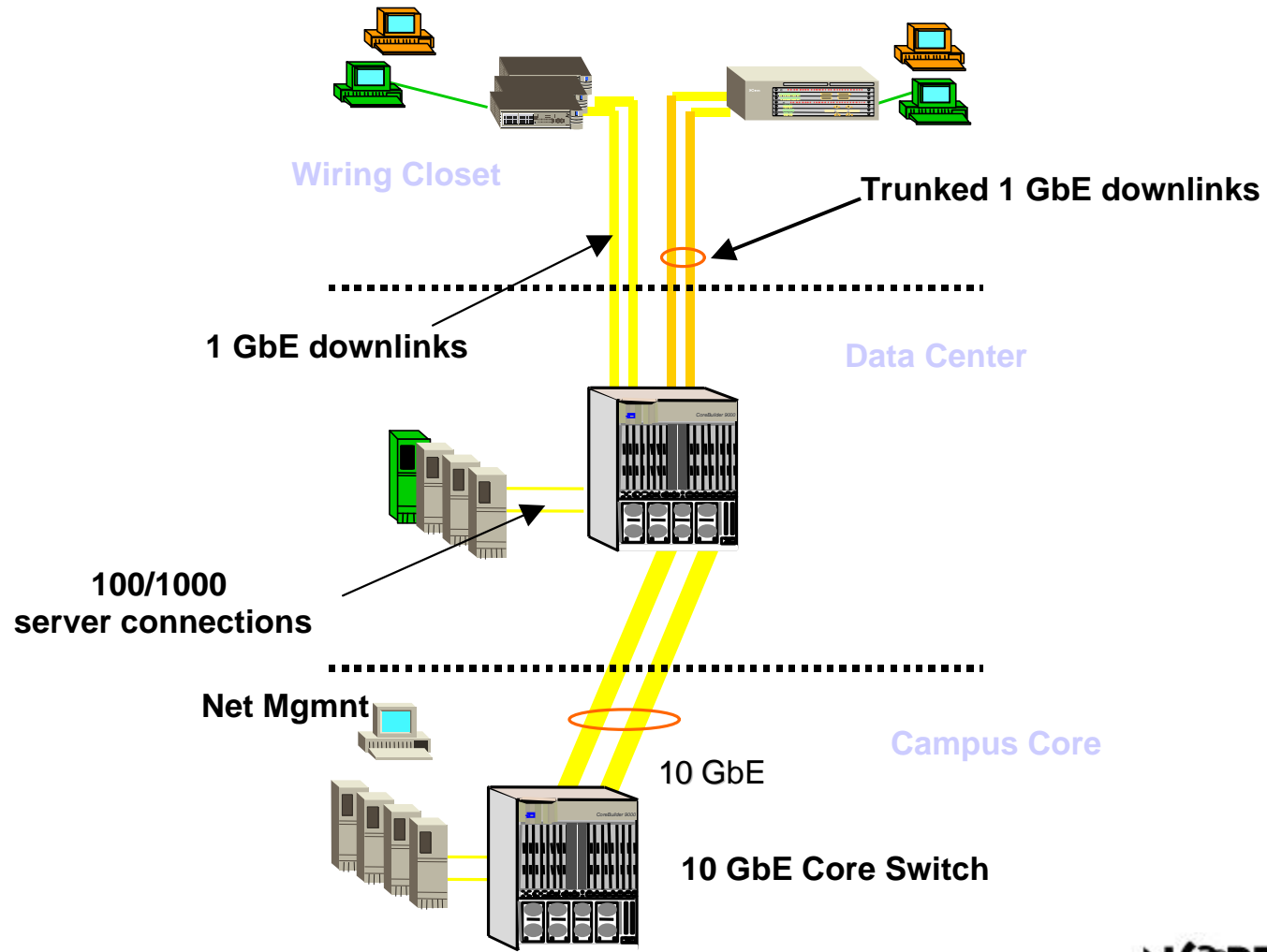


Data Center Switch Scenario





Campus Core Scenario





GbE Extended LAN: City of Santa Clara, CA



- City has access to dark fiber from AT&T/TCI cable company
- Ethernet-based “Connected Community” or private MAN Service
 - Cost-effective GbE to each site
- City IT dept. provides service to multiple city departments
- Backbone: meshed GbE switches
- 1000BASE-LX at 10 km



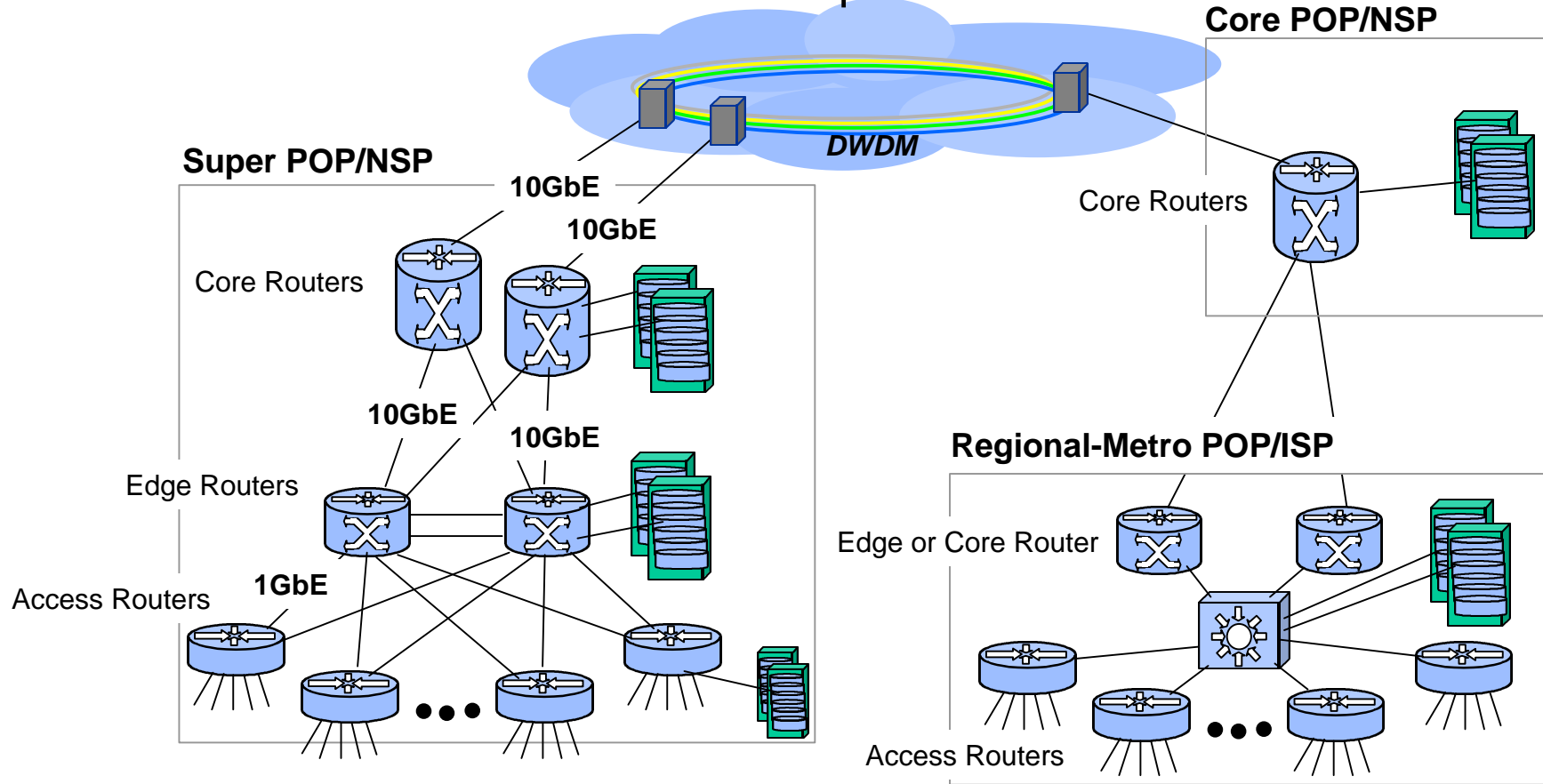
10 GbE Applications for ISPs/NSPs

- Server farm interconnect
- Intra-POP connections
 - MM fiber < 300 meters
- POP uplinks or Inter-POP
 - less than 40 km
- MAN access via WDM
- Media:
 - Dark fiber, dark color/wavelength, SONET/TDM infrastructure



ISP/NSP Applications

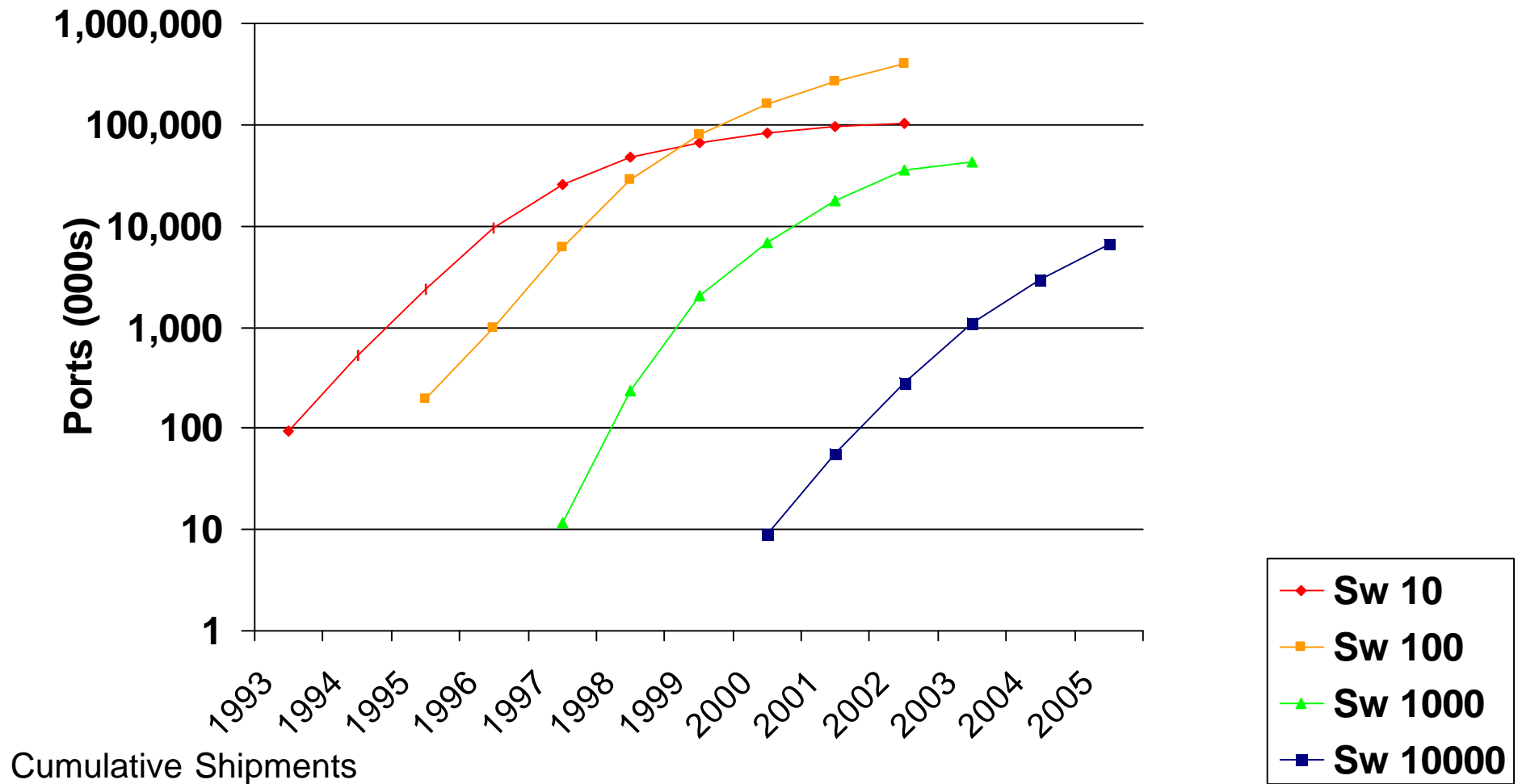
Transport Network





10 GbE Growth Projections

2002: 35 M GbE ports!



Sw 10, Sw 100, Sw 1000: Dell'Oro Group, Sw 10,000: 3Com/Nortel Estimates (Total Market)

B. Tolley/3Com; Nan Chen/Nortel

IEEE 802 Tutorial, Nov. 1999





Customer Benefits of 10 Gb Ethernet

- Solves bandwidth requirement
- Reliability
- Scalability (10/100/1000/10,000 Mbps)
- Cost reduction
- Standards-based, interoperability
- Competitive market of suppliers
- Optimized for data