



# **Market Requirements for 10 GbE: Media and Distances IEEE 802.3 HSSG June 1999**

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# Summary: Last Time

- Start now: avoid multiple, competitive, proprietary solutions
- Aggregate projected installed base of 30M GbE switched ports by 2002
- Distances
  - Support campus LAN application distances: risers 500 m, bldg to bldg: 2 to 10 km
  - Support MAN/RAN distances: > 50 km
  - Support server-cluster interconnect at distances < 50 m
- Cost goal for 10GbE  $\ll$  10X GbE
  - 1000BASE-X launched at 5 to 12X cost of sw 100

# Focus Today

- Support campus LAN application distances: risers 500 m, bldg to bldg: 2 to 10 km

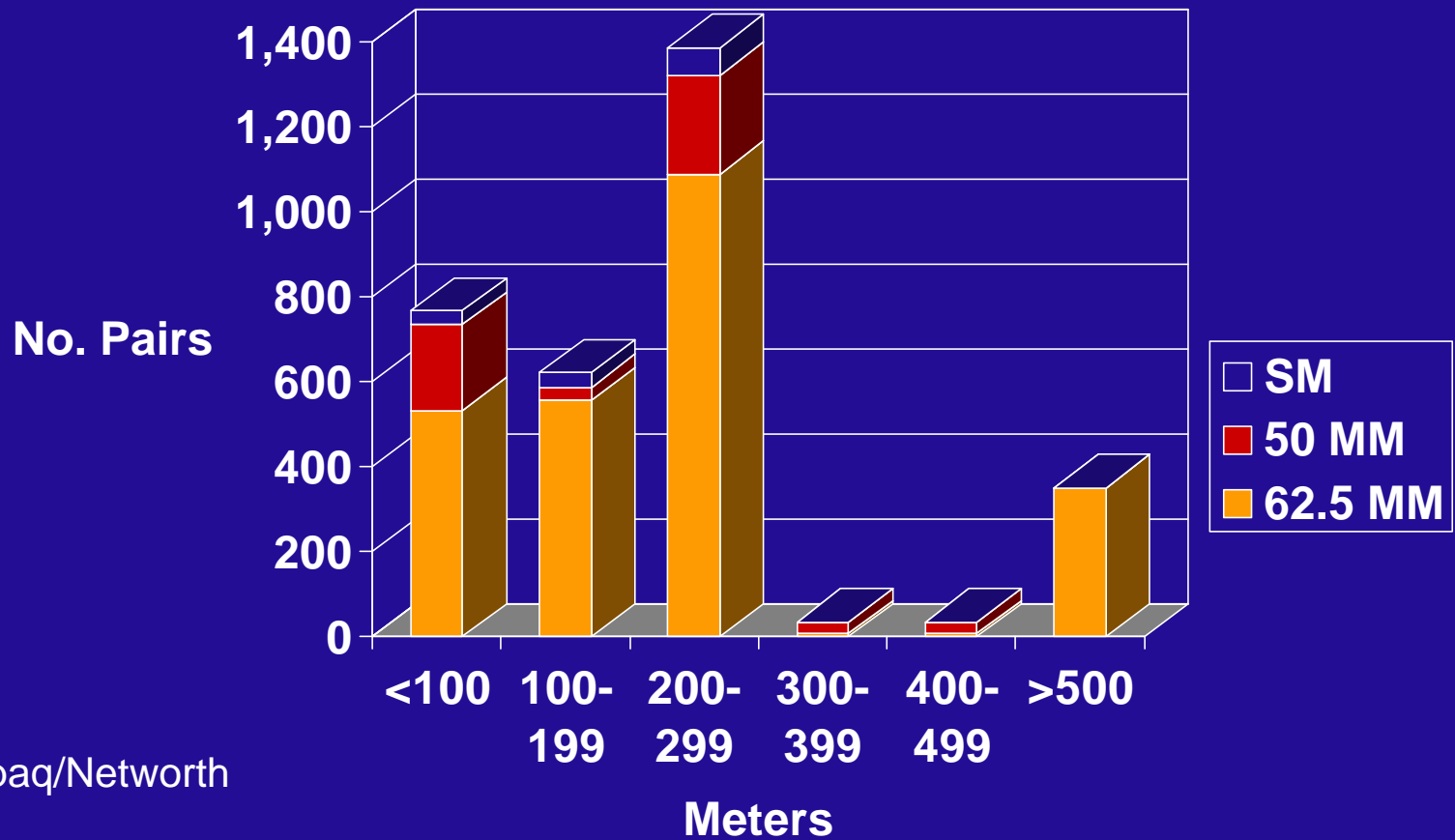
## Desired Information, Questions:

- Installed base of MM fiber inside buildings, between bldgs by bandwidth type: USA, Europe, ROW
  - For example, 160 Mhz\* Km fiber
  - Two vendors shared installed base data, what about Others?
  - Length of fiber runs, insides bldgs, bldg to bldg
- Pct. of corporate enterprise (LAN) network sites that have access to dark fiber, max, min , and mean distances of such runs

# Networth/Compaq Survey

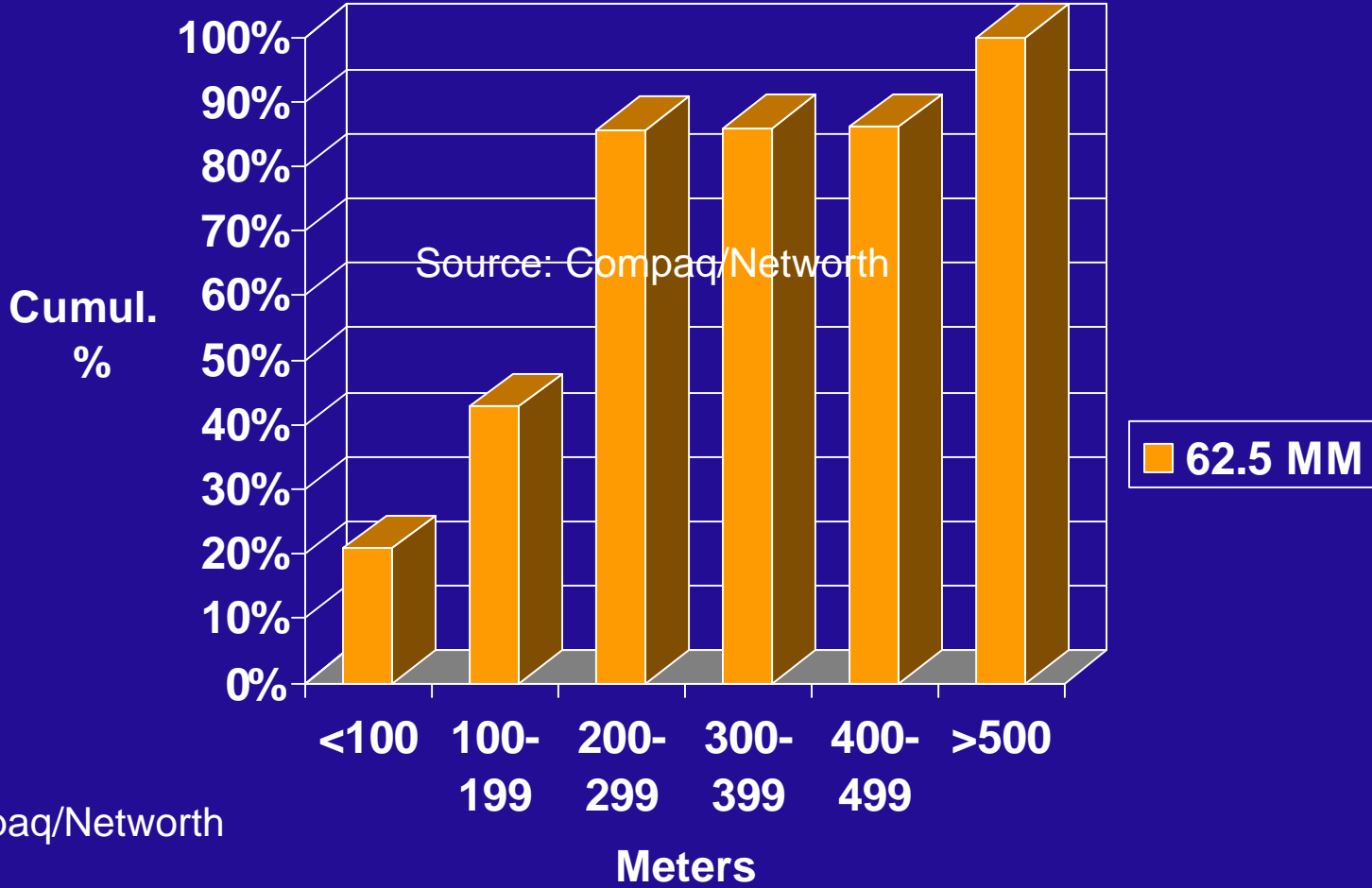
- 107 companies/ End user sites
- US Only
- IT managers drawn from ComputerWorld Buyer's database
- Ahmed Nouri presented results, Montreal Nov. '97

# Fiber Pairs: Closet to Basement

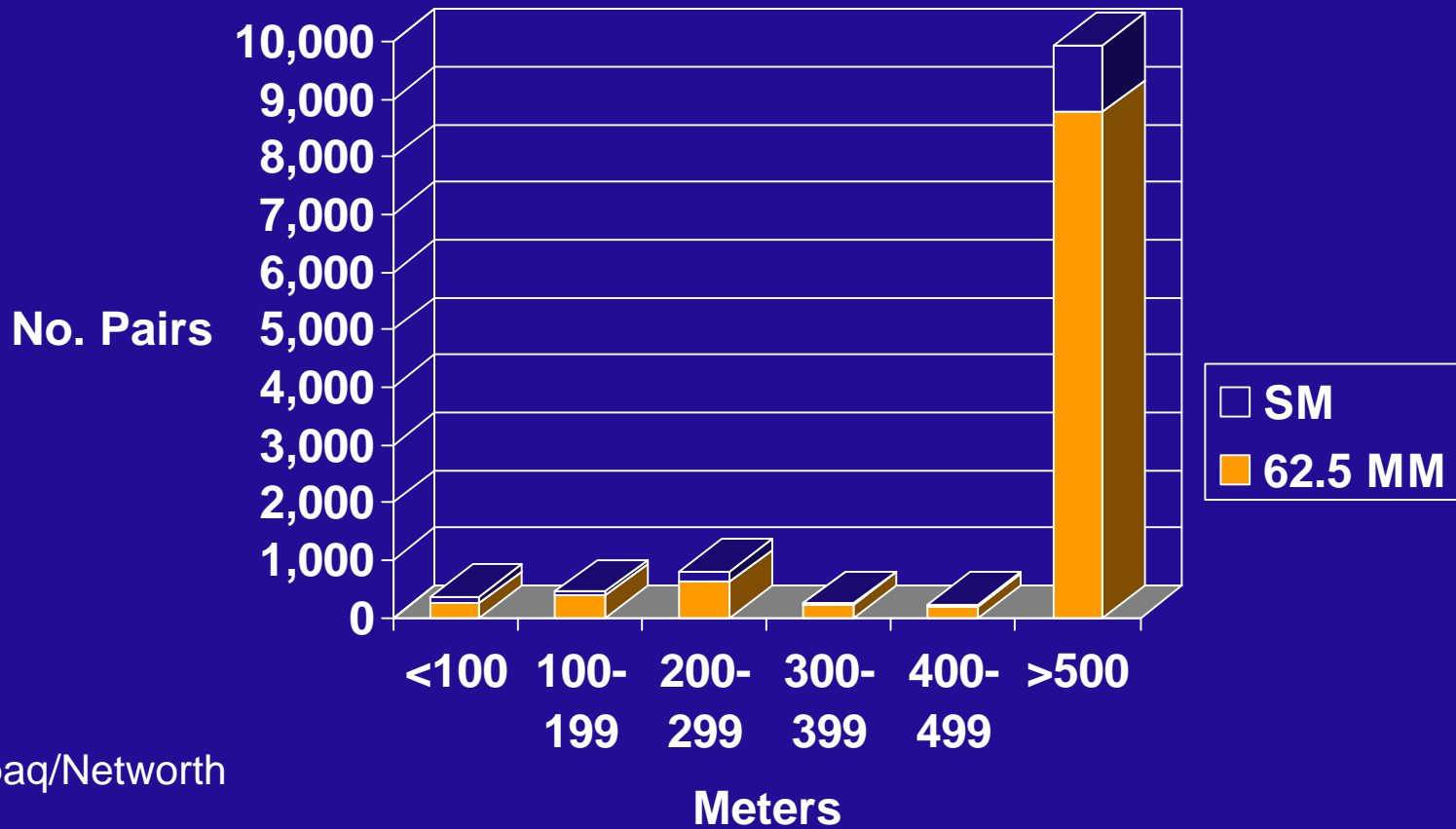


Source: Compaq/Networth

# Fiber Pairs: Closet to Basement: Cumulative Histogram



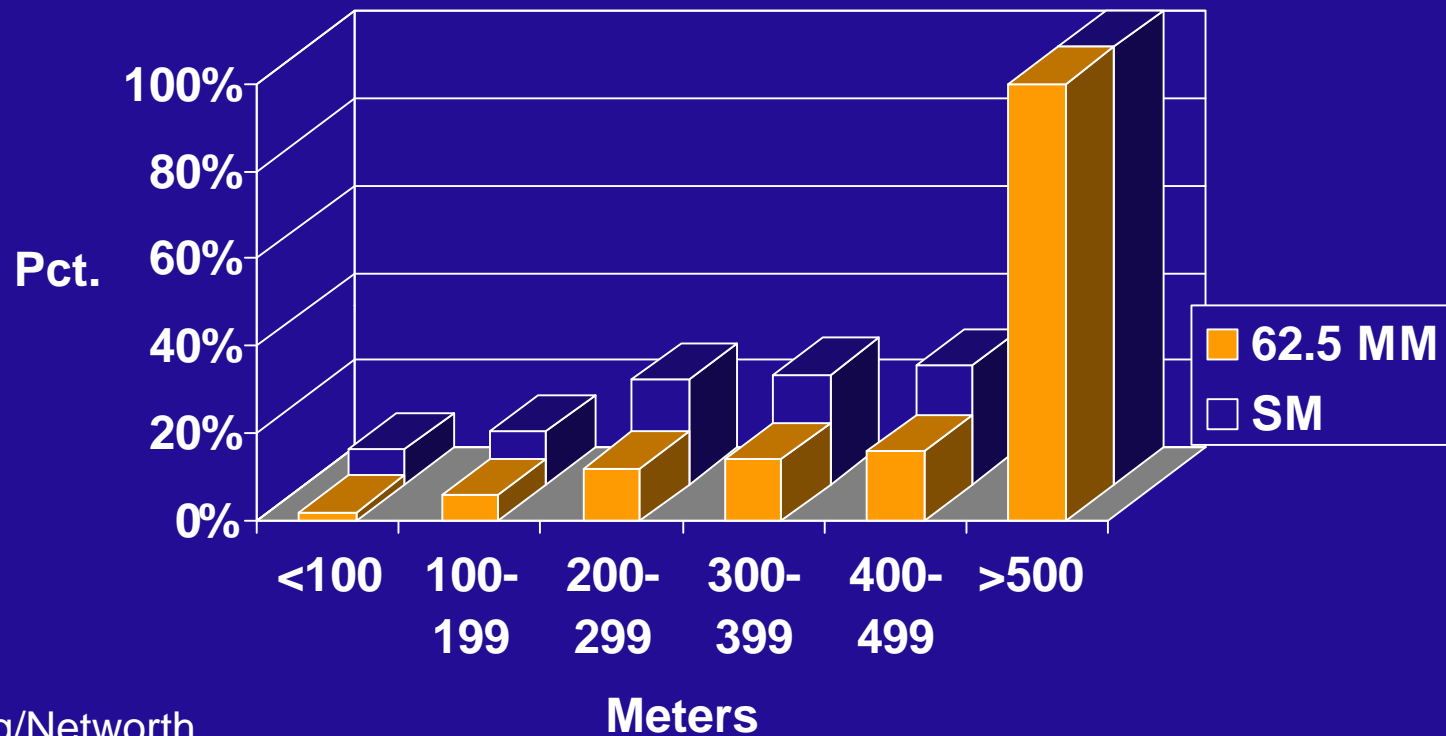
# Fiber Pairs: Bldg to Bldg



Source: Compaq/Networth



# Fiber Pairs: Bldg to Bldg: Cumulative Percentages



Source: Compaq/Network

# Comments

- No granularity about fiber links >> 500 meters
- No granularity about links from 200 to 299 meters
- No information about install date or bandwidth type

# BICSI Survey

- Sample drawn from BICSI members (cable installers)
- See Tad's presentation

# Conclusions/Issues

- Repeat both types of surveys
- Fiber cable link/End user survey should focus on
  - bldg to bldg links
  - Distances and Access to dark fiber
  - Bandwidth types
- BICSI Installer survey
  - Capture recent installation trends
  - Recommendations for next 12 months
- Questions:
  - How representative is US only data?
  - Funding, company sponsors of end user survey

End of Presentation