Parallel Path Trunking
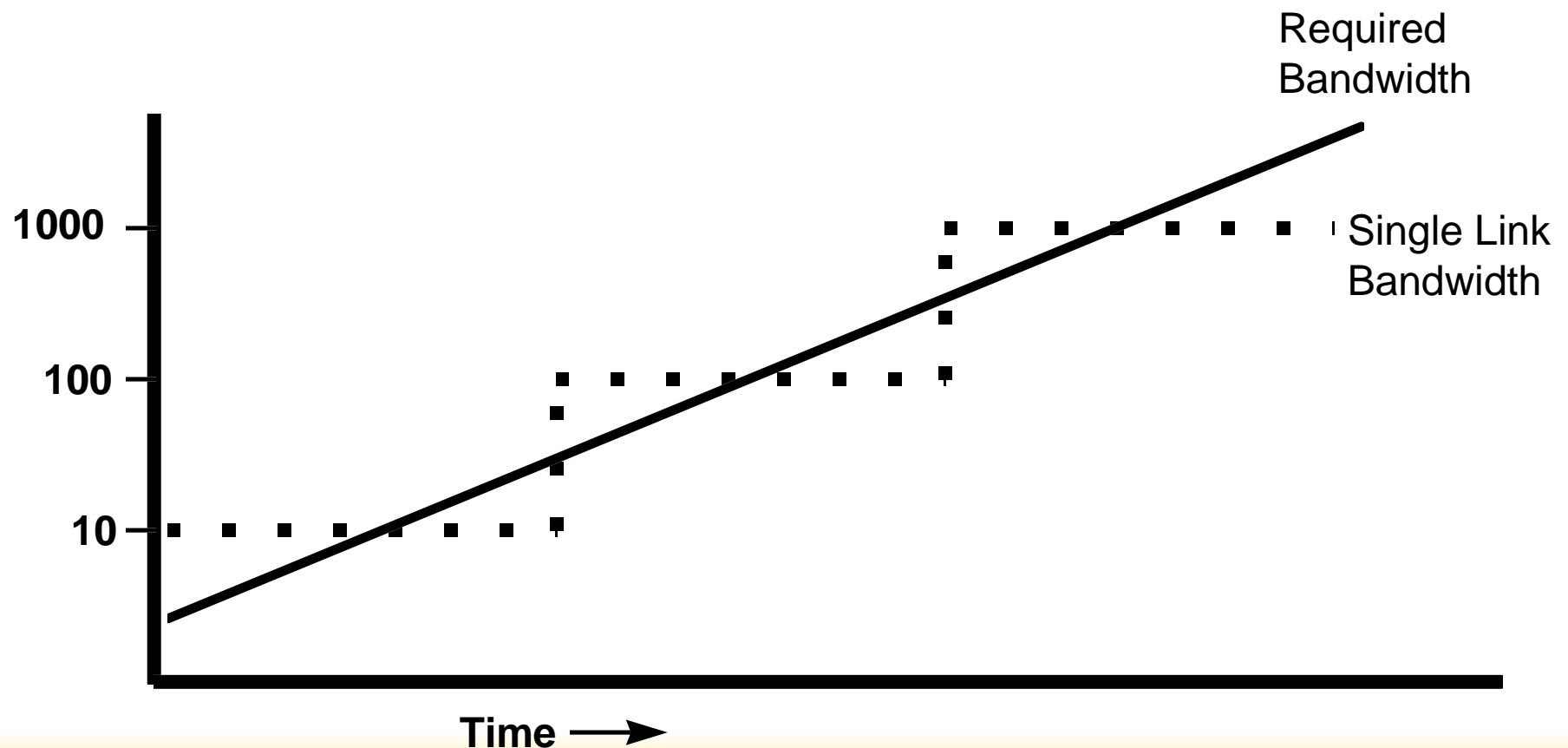
IEEE 802 Tutorial
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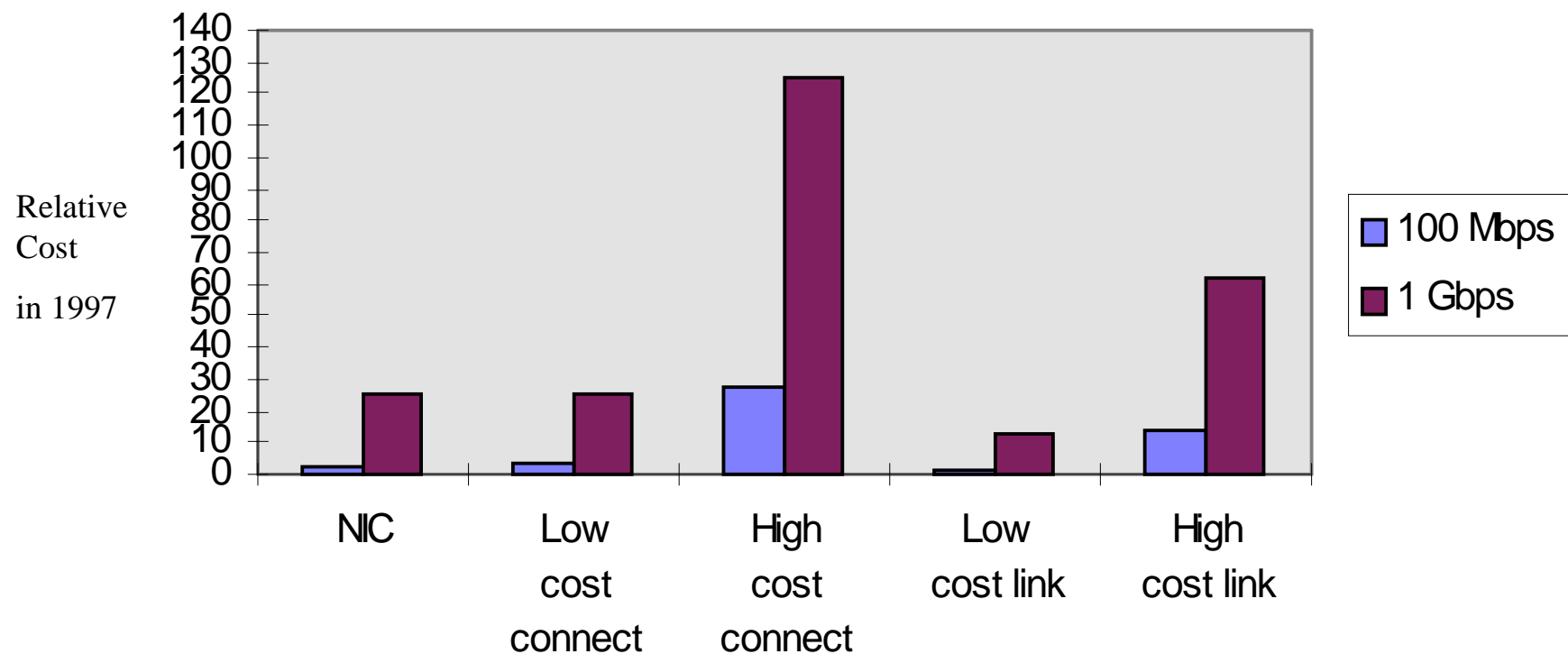$\frac{1}{2}$

Single Link Bandwidth Doesn't Scale With Demand

Required Bandwidth

1000

100

10

Single Link Bandwidth

Time ➝

Parallel Path Trunking

The Cost of Exponential Scaling is Exponential

Relative Cost

in 1997

Source: Based On Dell'Oro

Bigger Server Pipes Are Needed
For High Data Concentration

Trunk

Switch

Desktops
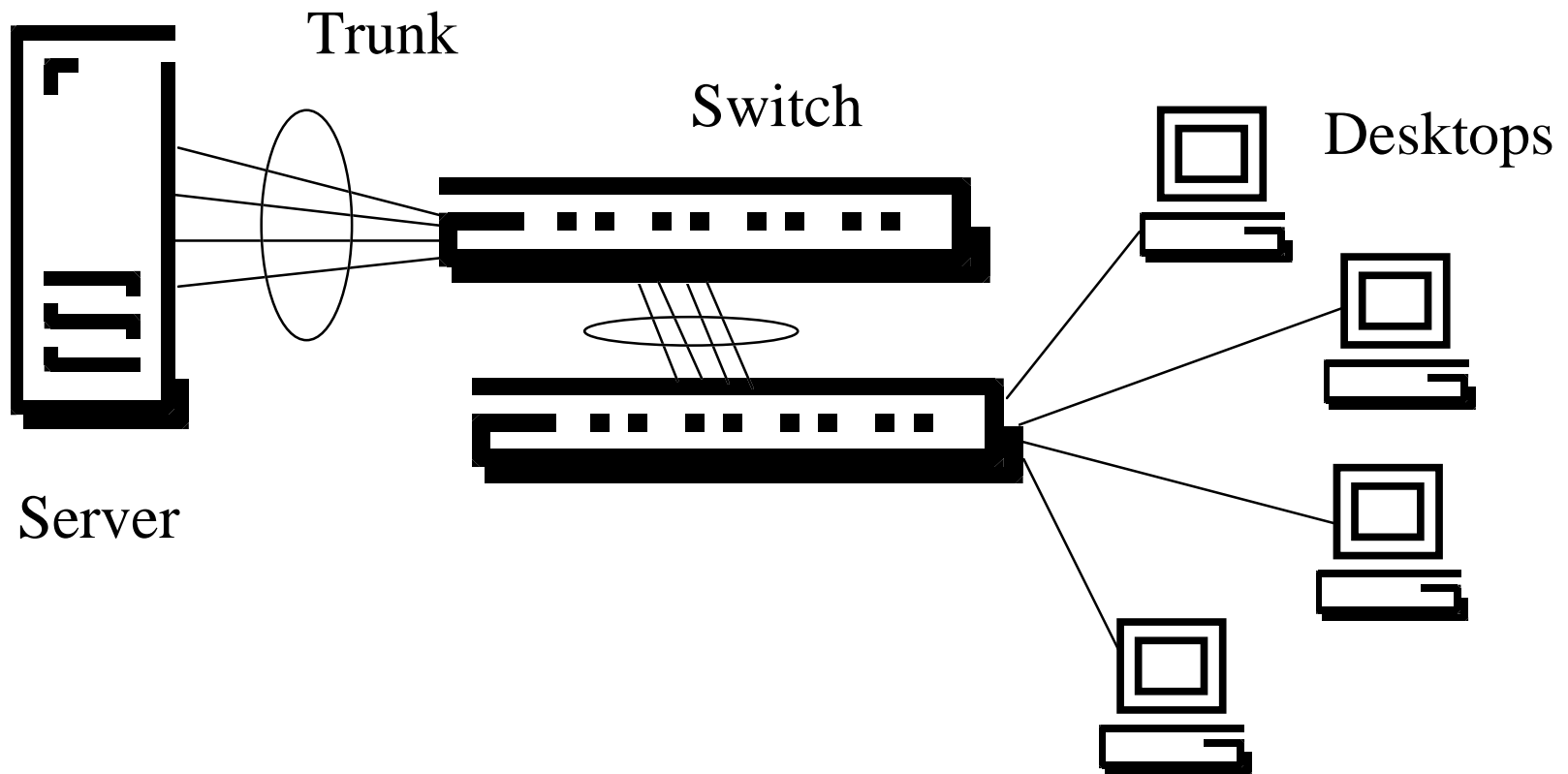
Server

Parallel Path Trunking Is the Answer

- Supports incremental scaling rather than exponential scaling of server and switch ports

- Takes pressure off next generation links for very high performance backbone support

- Provides a cost effective solution for applications which need incremental scaling

- Provides access pipes to servers where data is highly concentrated

It Can And Is Being Done

BayStack 350T Autosense Switch

BayStack 350F Autosense Switch

Parallel Path Trunking

Parallel Path Trunking in 802

- Specify a DTE to DTE logical link which consists of n point-to-point duplex links

- Preserve the existing service to MAC Clients

- Define the necessary management objects and protocols to control addition and deletion of physical links to and from the logical link

Market Demand is Now

- Ethernet is most of the market

- Several vendors have solutions

- Solutions will not be interoperable

- The market wants interoperable solutions

- Keep standards work simple and release in stages to catch market window

- Limit to point-to-point links

Parallel Path Trunking

80/20 KISS = 802 OKISS

- **O**pen

- **K**ombined

- **I**nterconnect to

- **S**witches and

- **S**ervers

Parallel Path Trunking