

LEARN

DRINK



**JavaOne**<sup>SM</sup>  
Sun's 1999 Worldwide Java Developer Conference\*

JAVA™  
TECHNOLOGY

EAT BREATHE

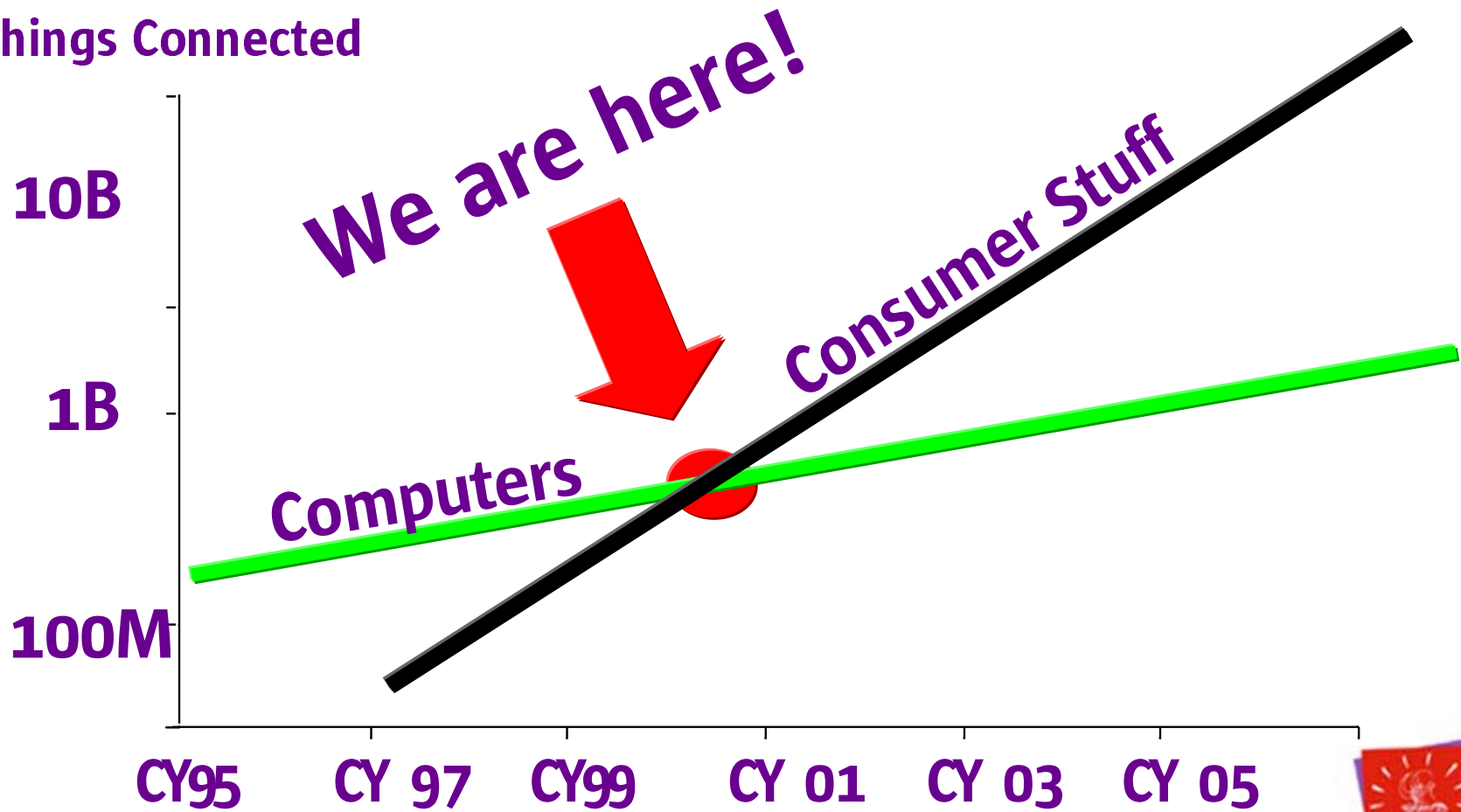
LIVE PLAY

# Greg Papadopoulos

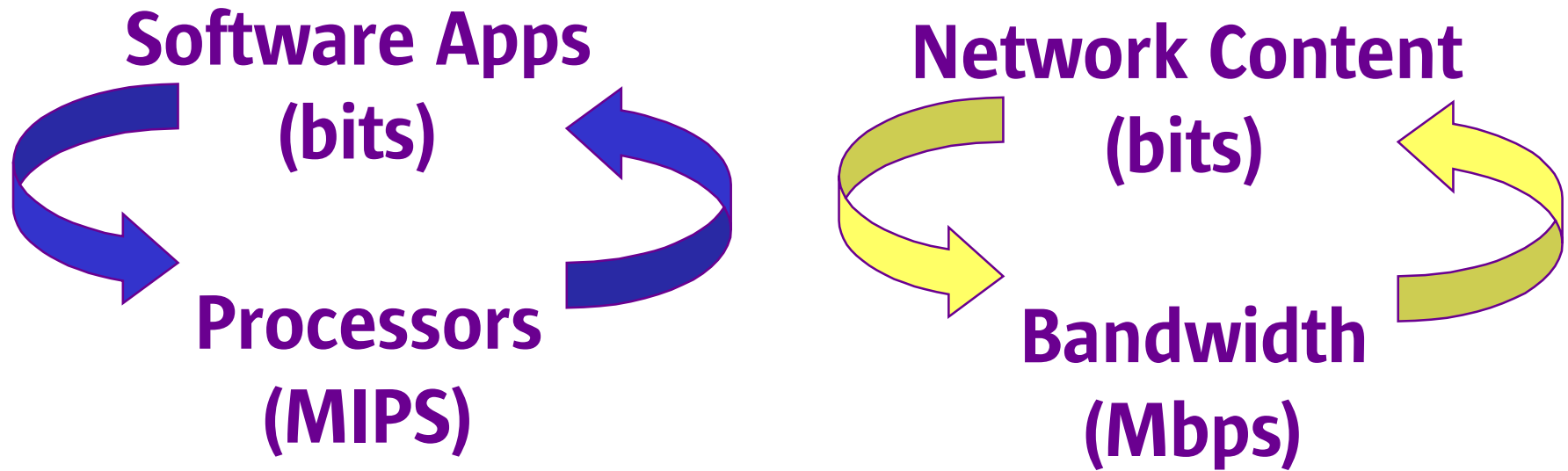
**Vice President  
Chief Technology Officer  
Sun Microsystems**

# Things Networked

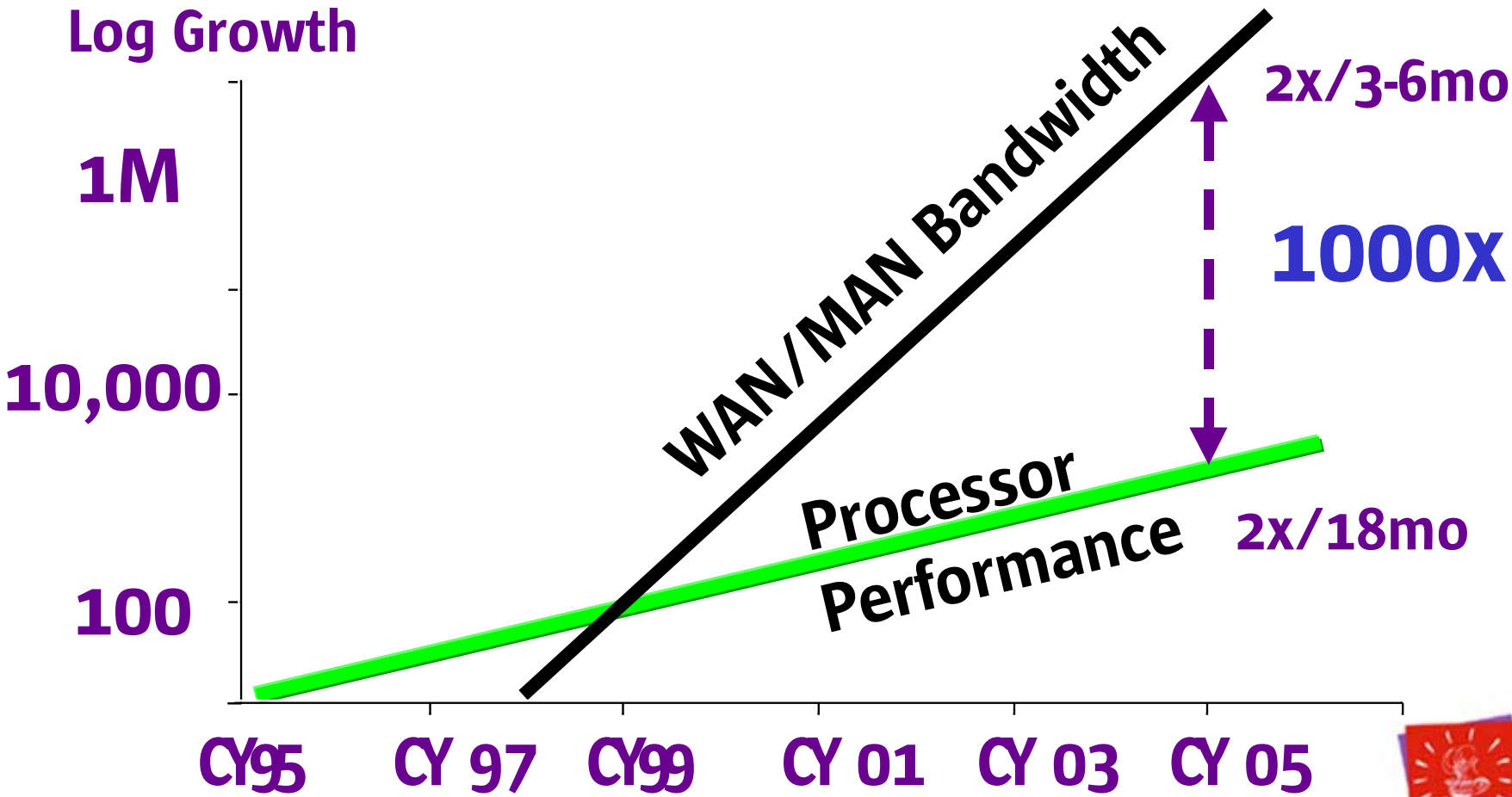
# Things Connected



# The BW Feedback Loop



# Gilder's vs. Moore's Law

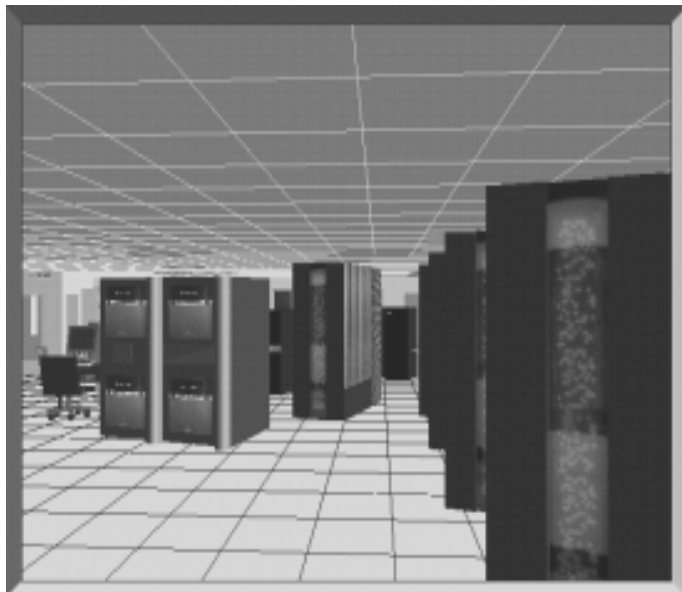


# Without a lot of Imagination - 2005

- **10,000 CPU “plexes”**
- **1 Terabyte RAM < \$50K**  
=> 10's of Terabytes commonplace
- **1 Terabyte DISK < \$5K**  
=> 10's of Petabytes commonplace
- **64 bit address spaces starting to get crowded**



# Parallelism as a Time Machine



\$20M

Circa 1993

2000 Processors

2000 SpecInt / 256 GF

64 GB RAM / 500 GB Disk

=

\$20K



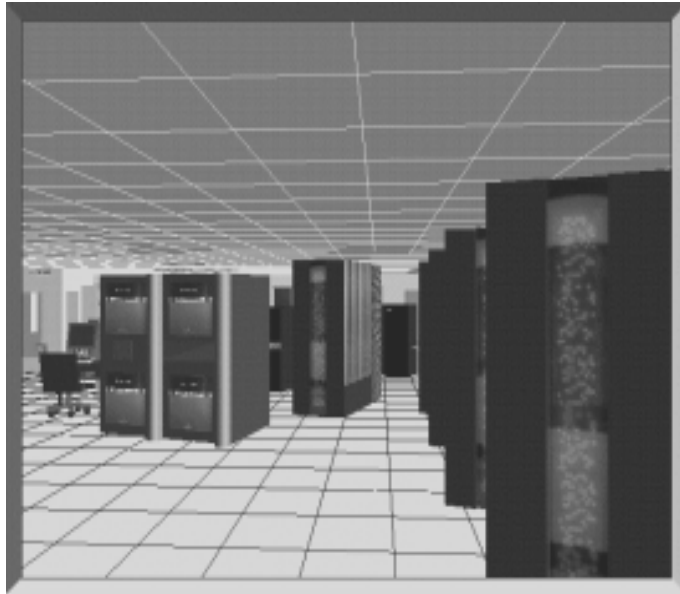
Circa 2005

4 Processors

2000 SpecInt / 50 GF

64 GB RAM / 500 GB Disk

# Parallelism as a Time Machine



\$20M

Circa 1993  
2000 Processors  
64 GB RAM

=



\$200

Circa 2025  
50,000 MIPS  
64 GB+ RAM  
Palm CXV