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# Technology Evolution (A very personal perspective)

Richard P Mount

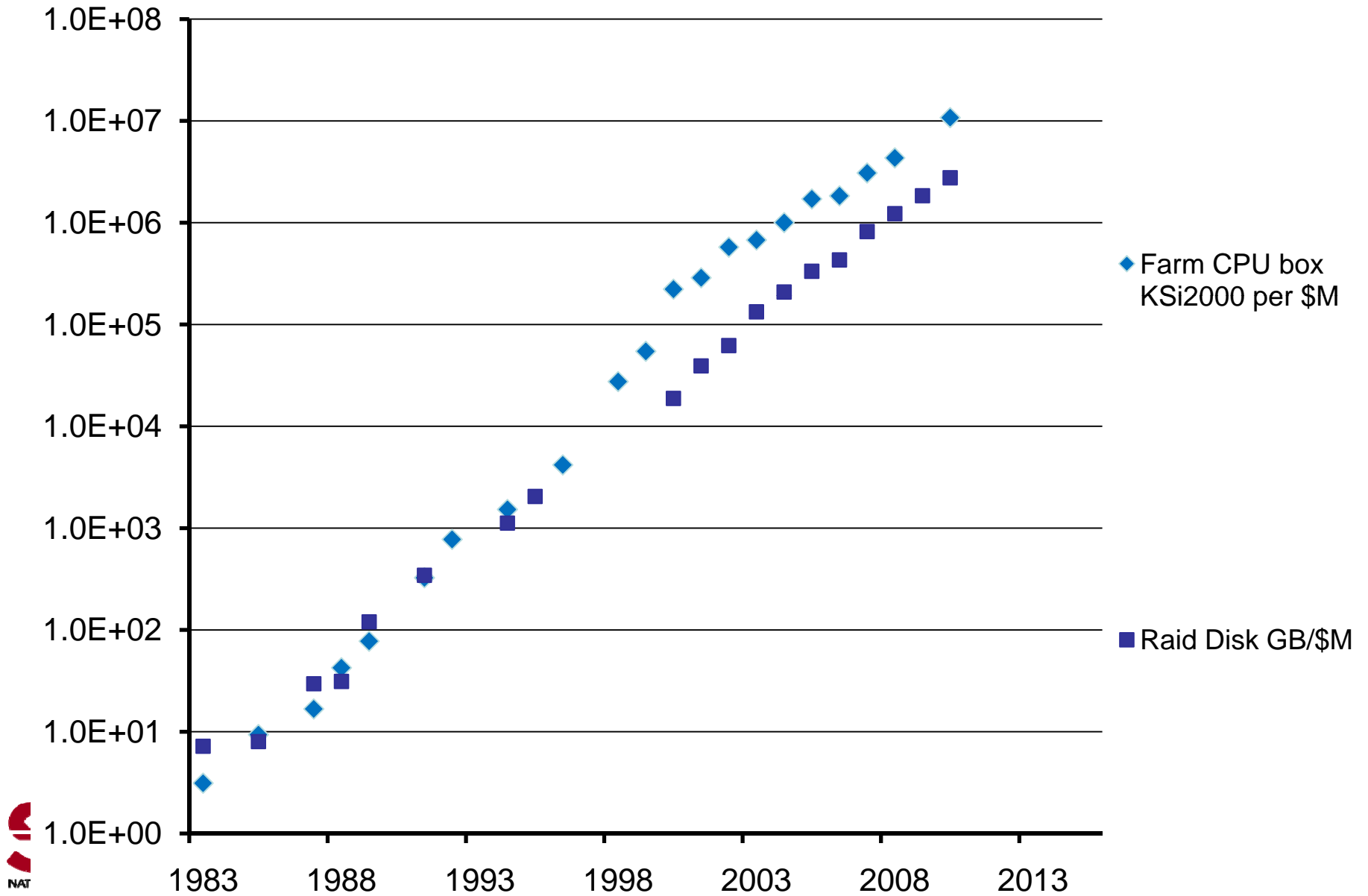
SLAC Scientific Computing Workshop  
June 20, 2011

# Input Data

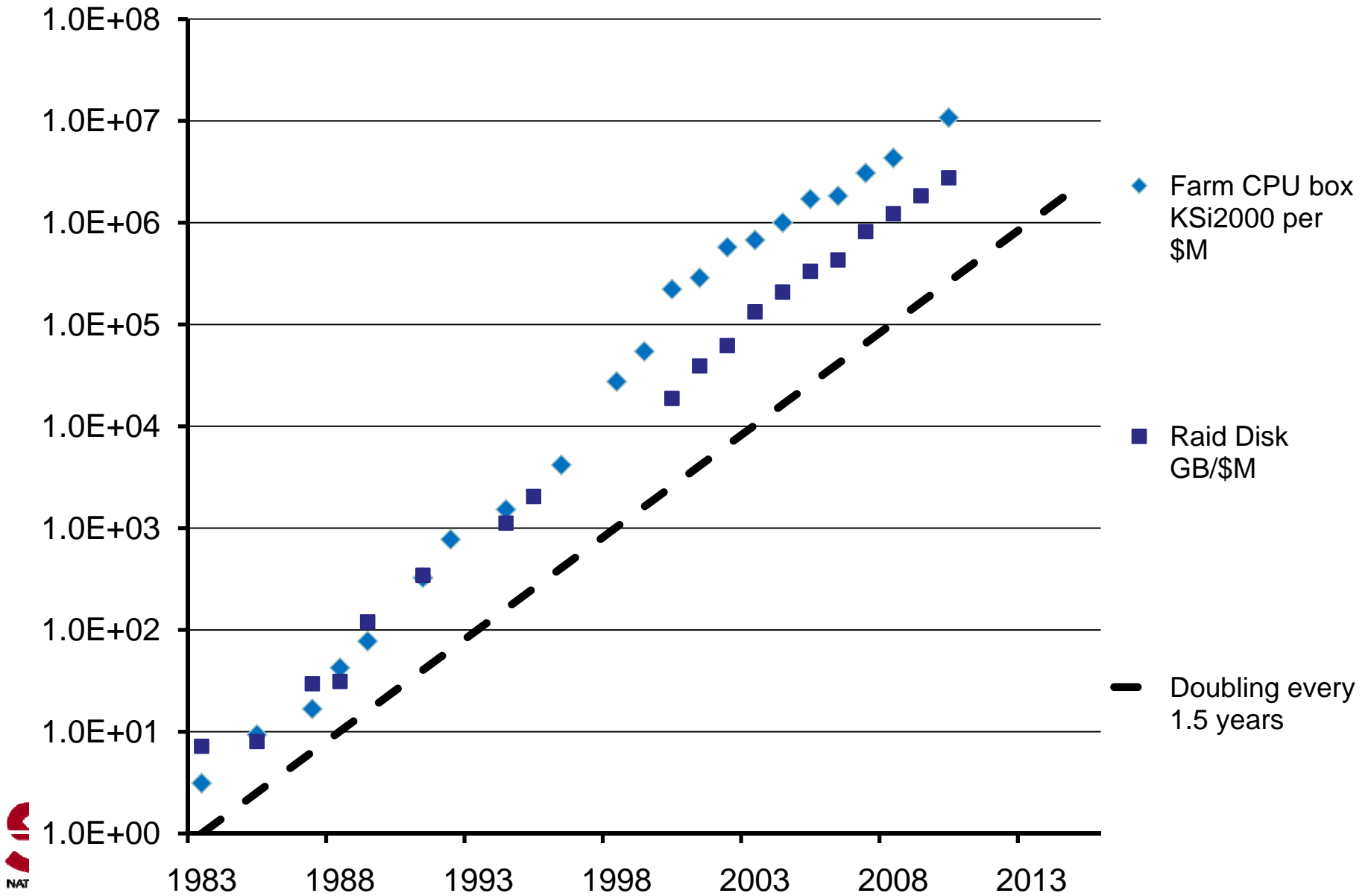
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- Entirely Historical – no attempt to predict the future
- Almost entirely based on the stuff that I bought
- (Harvey Newman, Caltech, bought the WAN links after 1997)
- Configurations were those that served experimental HEP

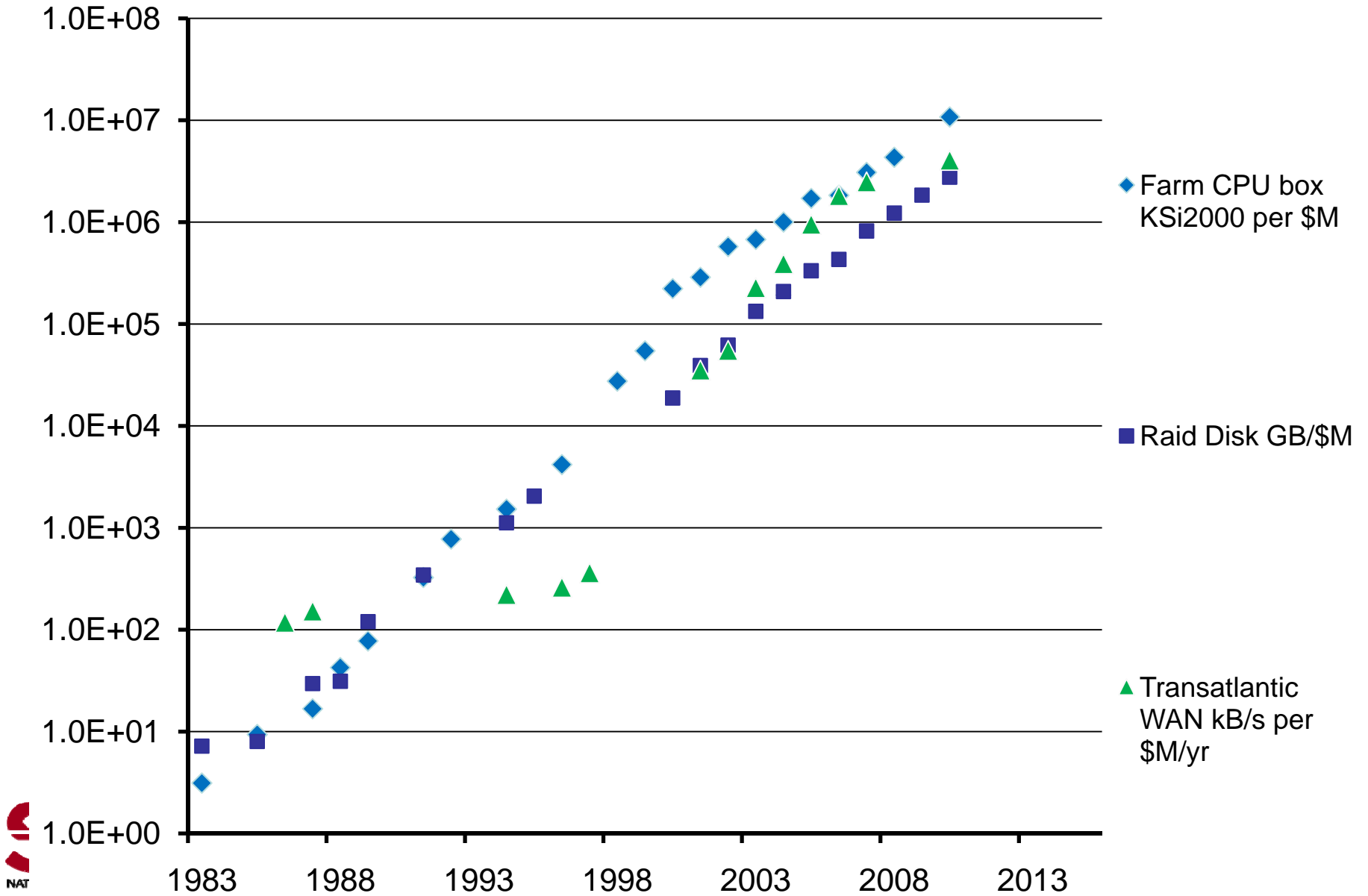
# What you can get for \$1M



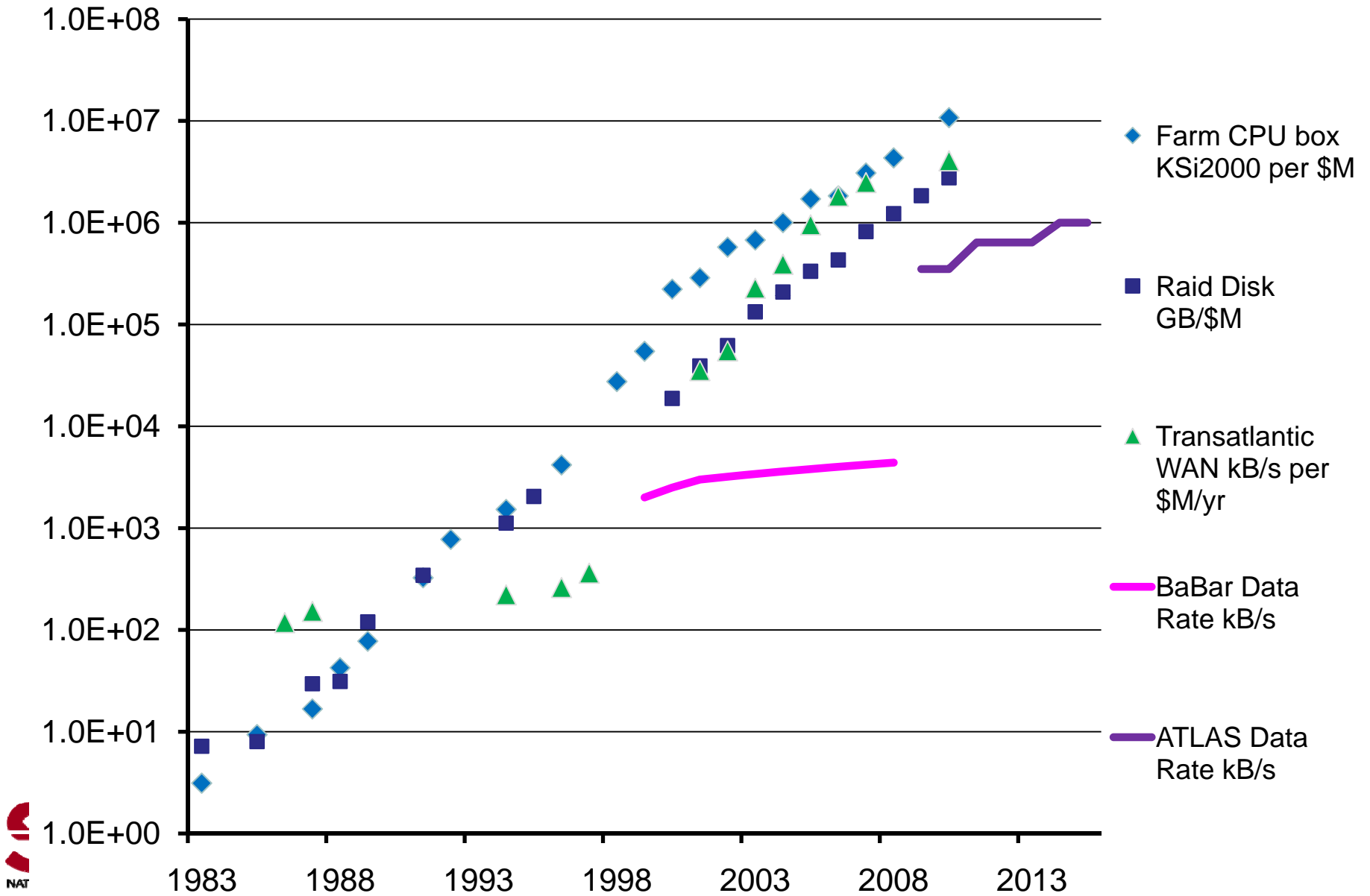
# What you can get for \$1M



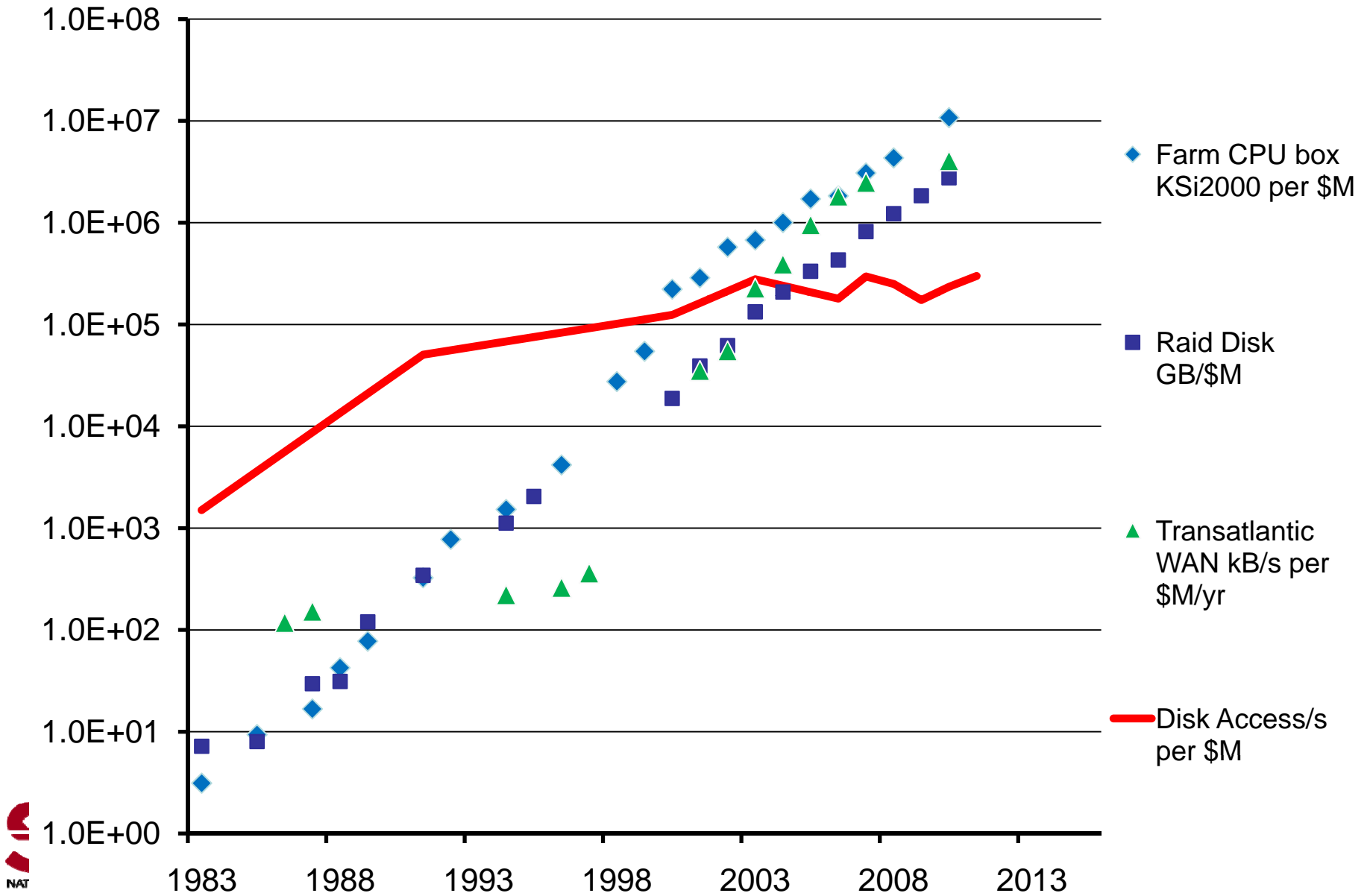
# What you can get for \$1M



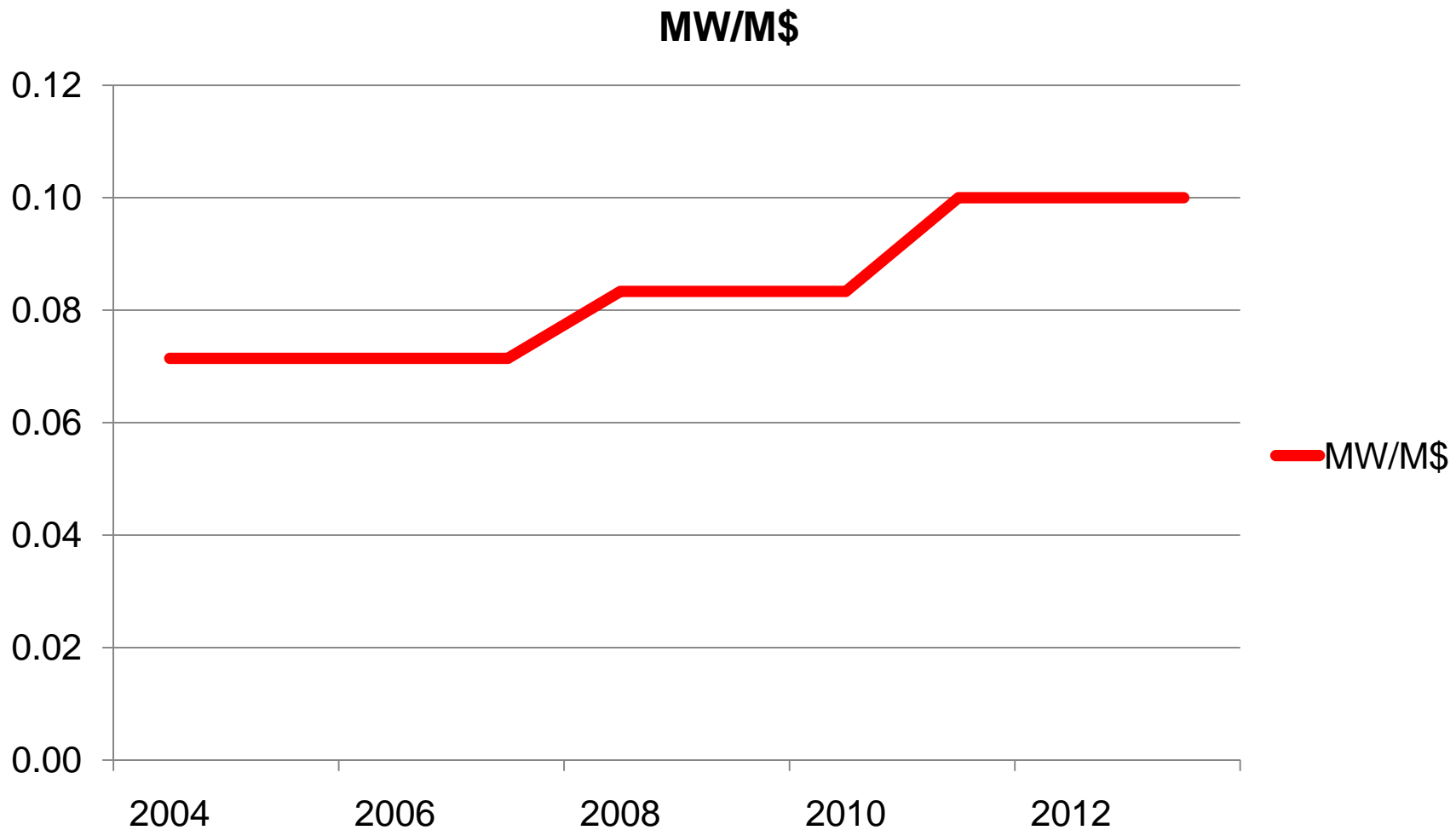
# What you can get for \$1M



# What you can get for \$1M



# How Hot is \$M ? (my personal planning assumptions)





# How Hot is \$1 Today?

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- Dell R410  
(2\*2.66 GHz 5650, 32GB, 2\*1TB) 0.125 W/\$
- 4 GB 133 MHz RDIMM (in R410) 0.142 W/\$
- 2TB 3.5" 7.2k RPM SAS (in R410) 0.060 W/\$
- Prices: ATLAS price list (sorry confidential)
- System Power Dissipation:
  - ESSA – Dell Energy Smart Solution Advisor
  - <http://solutions.dell.com/dellstaronline/Launch.aspx/ESSA>