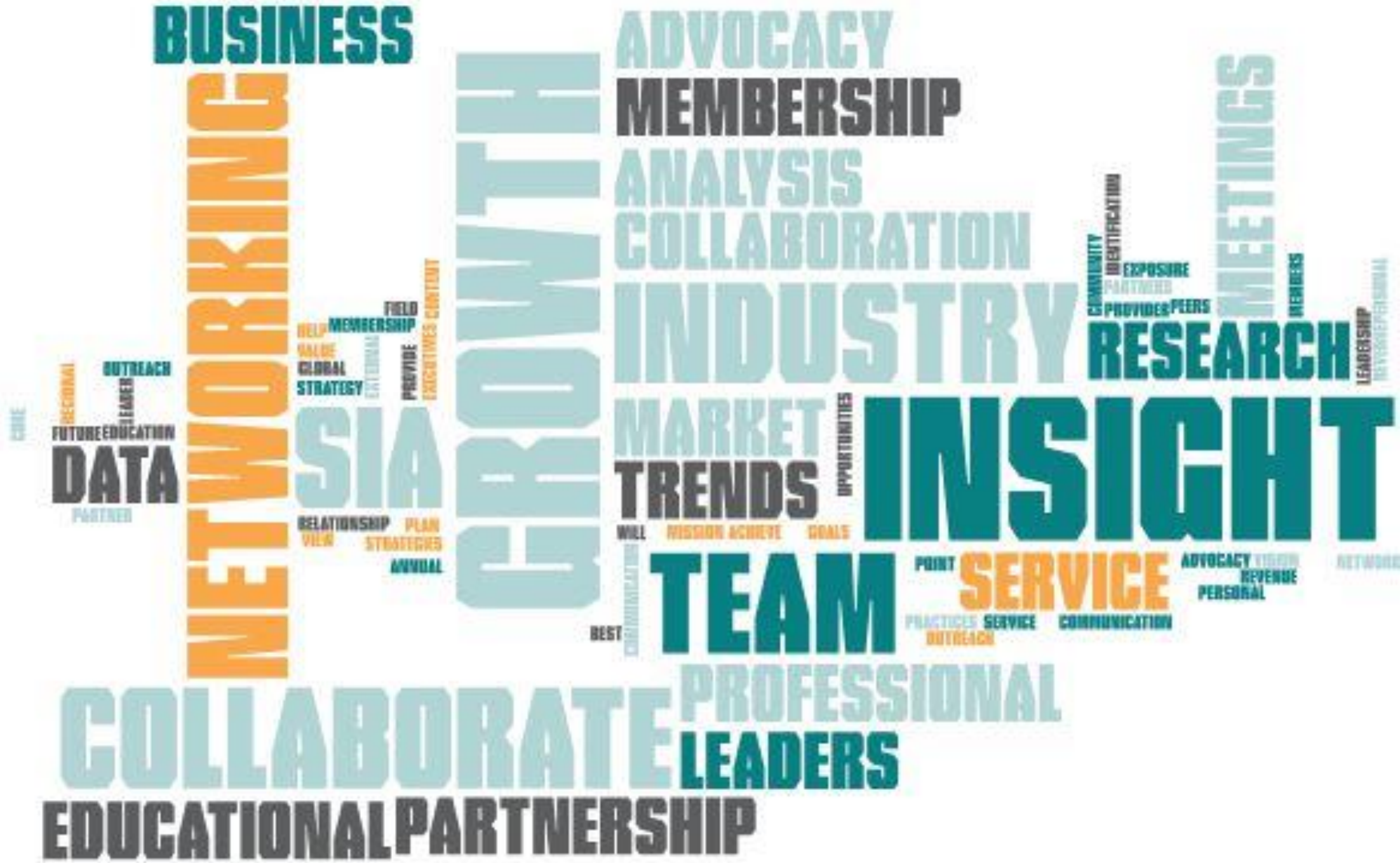
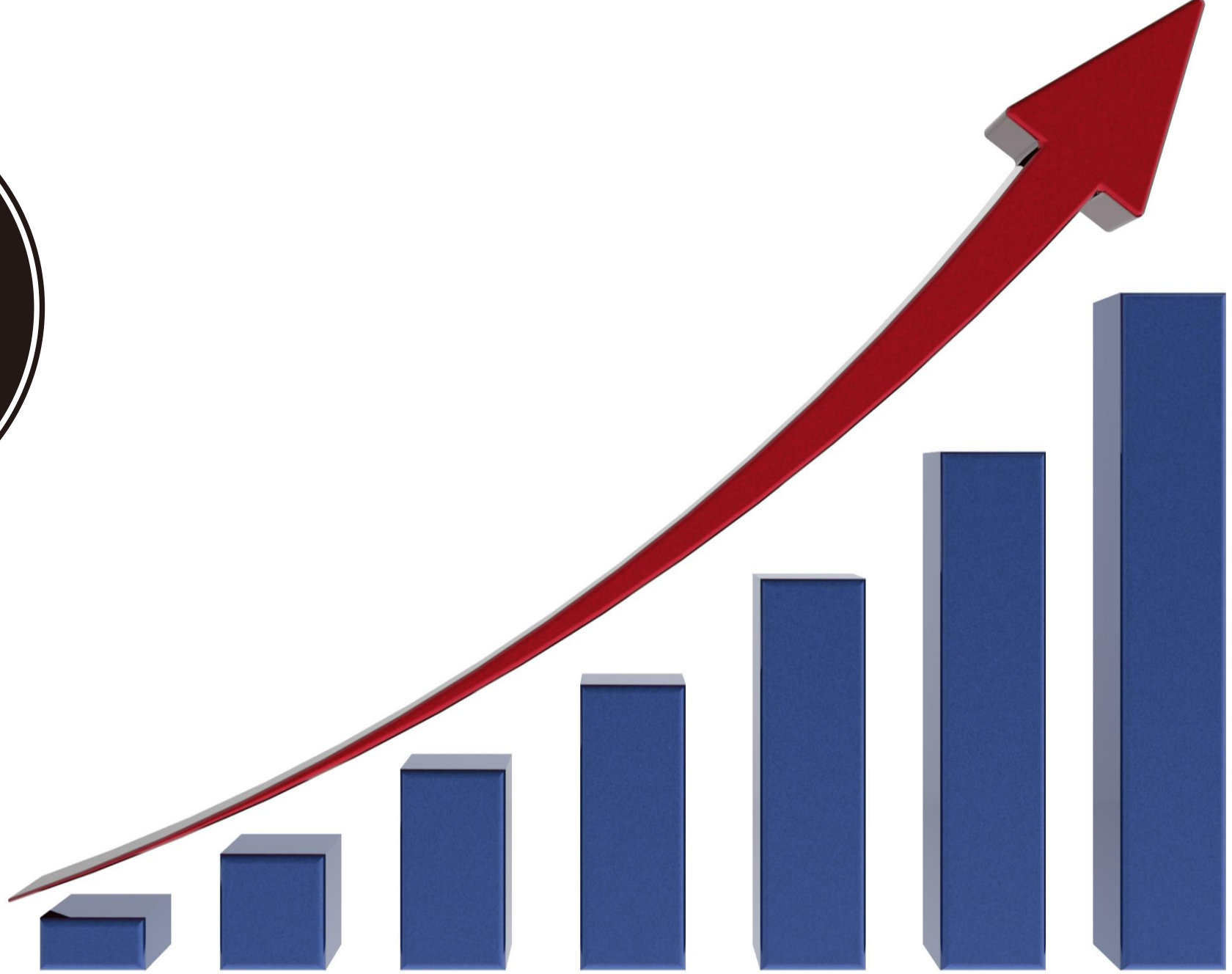
SIA White Papers


BUSINESS
NETWORKING
GROWTH
ADVOCACY
MEMBERSHIP
ANALYSIS
COLLABORATION
INDUSTRY
MEETINGS
RESEARCH
INSIGHT
MARKET
TRENDS
SIA
DATA
TEAM
SERVICE
PROFESSIONAL
COLLABORATE
LEADERS
EDUCATIONAL
PARTNERSHIP
FIELD
MEMBERSHIP
HELP
VALUE
GLOBAL
STRATEGY
EXTERNAL
PROVIDE
EXECUTIVES
CONTENT
OUTREACH
LEADER
REGIONAL
CORE
FUTURE
EDUCATION
PARTNER
RELATIONSHIP
VIEW
PLAN
STRATEGIES
ANNUAL
COMMUNITY
IDENTIFICATION
EXPOSURE
PARTNERS
PROVIDER
PEERS
MEMBERS
LEADERSHIP
OPPORTUNITIES
WILL
MISSION ACHIEVE
GOALS
POINT
ADVOCACY
VISION
REVENUE
PERSONAL
NETWORK
PRACTICES
SERVICE
COMMUNICATION
OUTREACH
BEST
COMMUNICATION

Grow Your Business



Communication

Follow us!

Engage with us!

Share!

Leverage us!

Insights:
Educate our Members
Networking:
Add Value to our Members
Collaboration:
Thought Leadership
SERVICE INDUSTRY ASSOCIATION
SIA

Tribal Knowledge & Insight

Blogs
Papers
Webinars

Contact a Board Member

SERVICE EXPRESS

I’m Not Dead Yet

Measuring Risk With Analytics

SIA Global Summit 2019

People-Powered Data Center Solutions

Our Core Value

To help our employees achieve their personal, professional, and financial goals

Our Purpose

To provide the best experience possible for our customers, partners, and employees

Specializing In
Data Center Maintenance

Supporting
3000+
Customers Worldwide

Shipping
125K
Parts Per Year

480+
Employees

Multivendor
Server, Storage & Network
Support

Maintaining
99%
Inventory Accuracy

Third-Party Maintenance
Industry Leader

Humans are Inherently Bad at Calculating Risk

SERVICE EXPRESS

Risk Exercise: Part 1

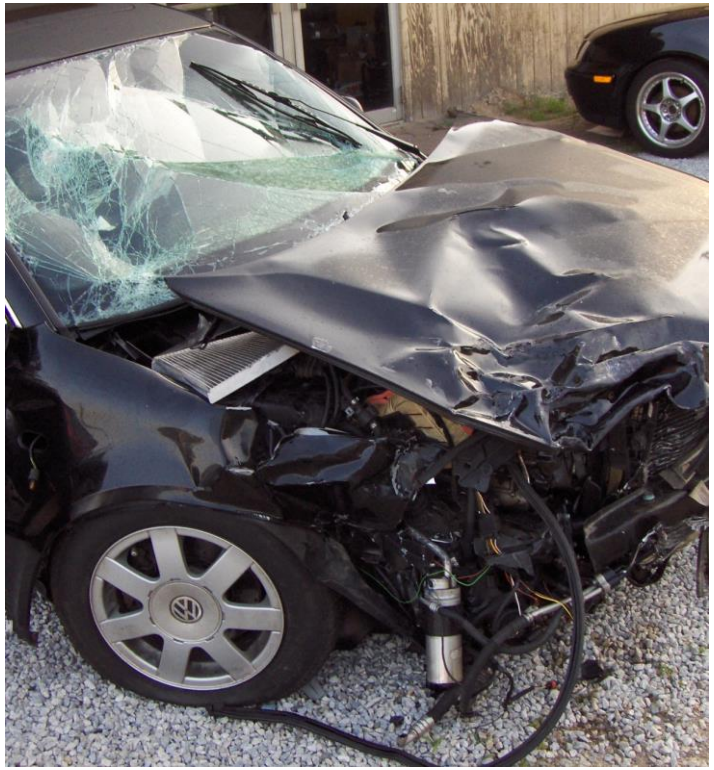
Auto Insurance Plan A

- Premium: $1,000
- Deductible: $500

Auto Insurance Plan B

- Premium: $500
- Deductible: $1,000

Risk Exercise: Part 2



Auto Insurance Plan A

- Premium: $1,000
- Deductible $500

Auto Insurance Plan B

- Premium $700
- Deductible $1,000

Risk Exercise: Part 3

Auto Insurance Plan A

- Premium: $1,650
- Deductible: $0

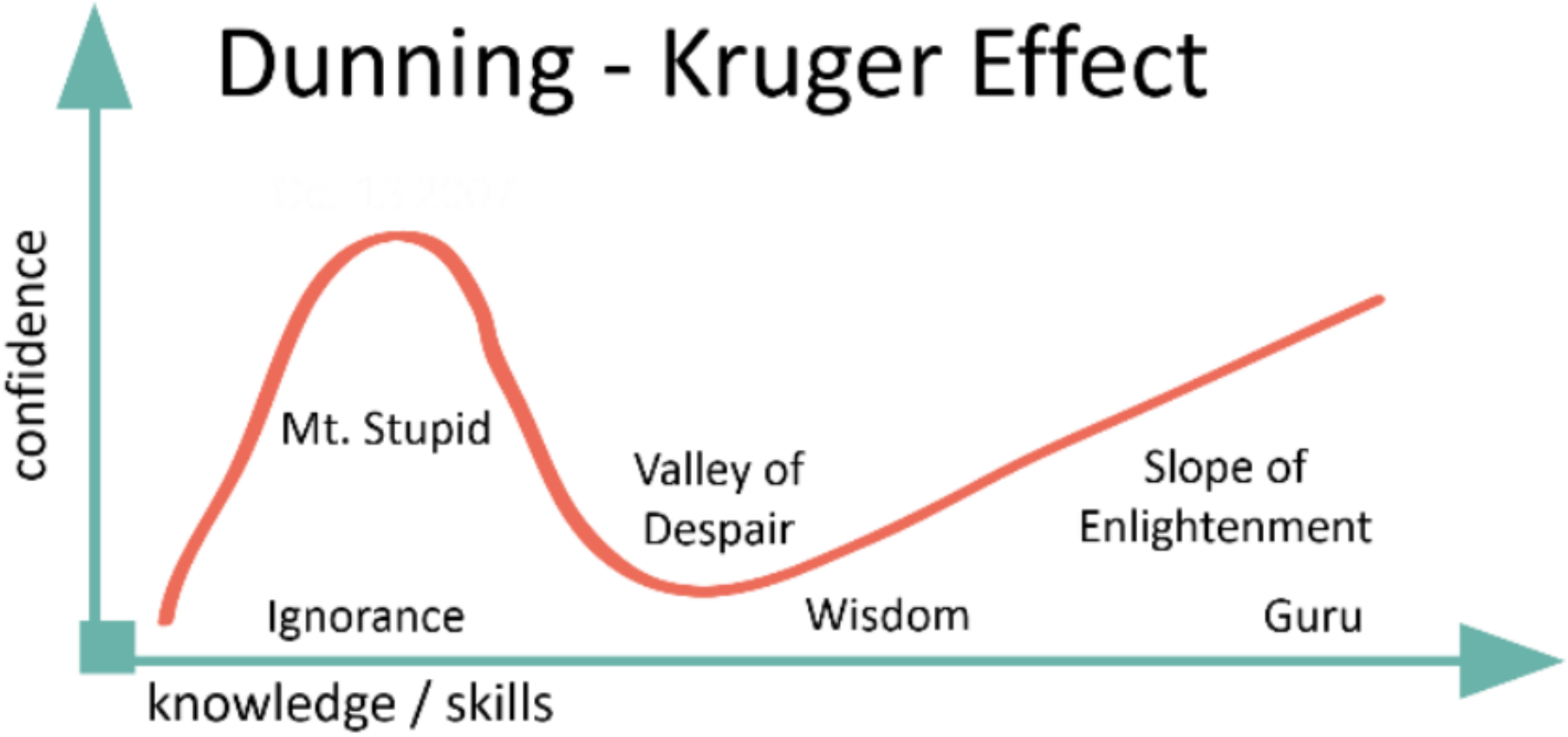
Auto Insurance Plan B

- Premium: $1,100
- Deductible: $500

Auto Insurance Plan C

- Premium: $900
- Deductible: $1,000

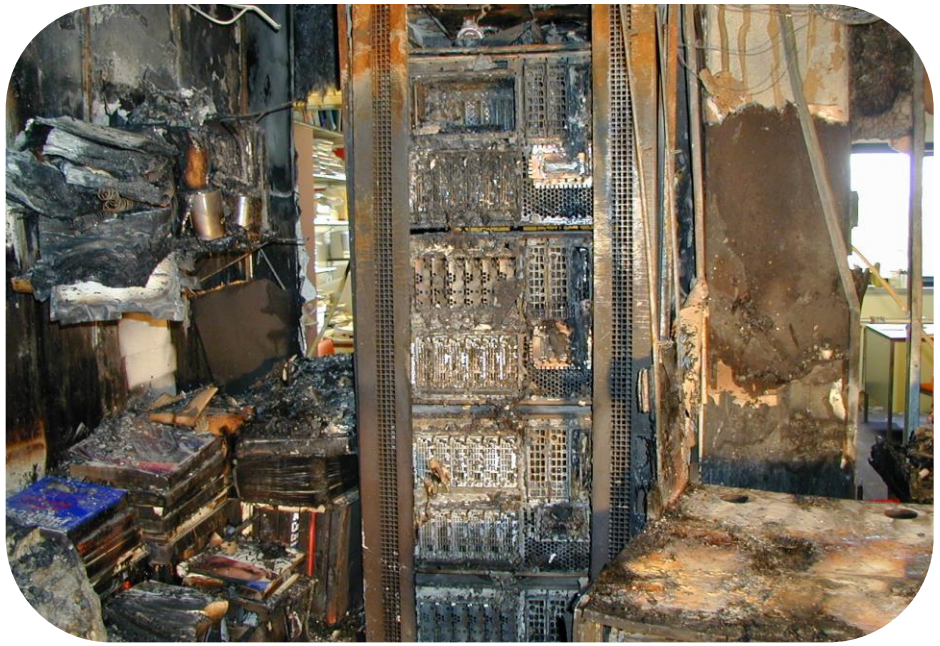
How Do We Get Past Our Terrible Instincts?



Two Case Studies In Calculating Risk

Public Cloud

Equipment Failure



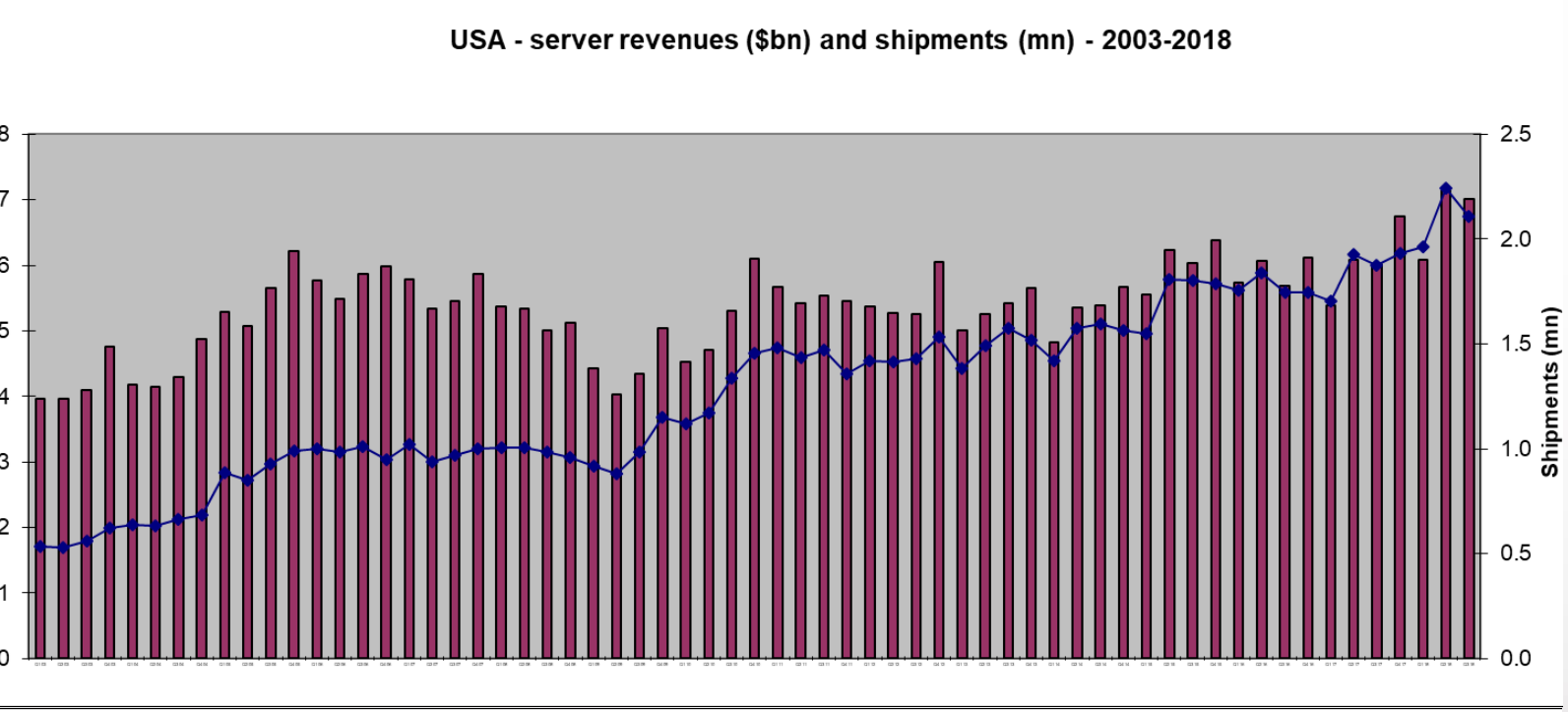
Revenue Risk Exercise: Public Cloud

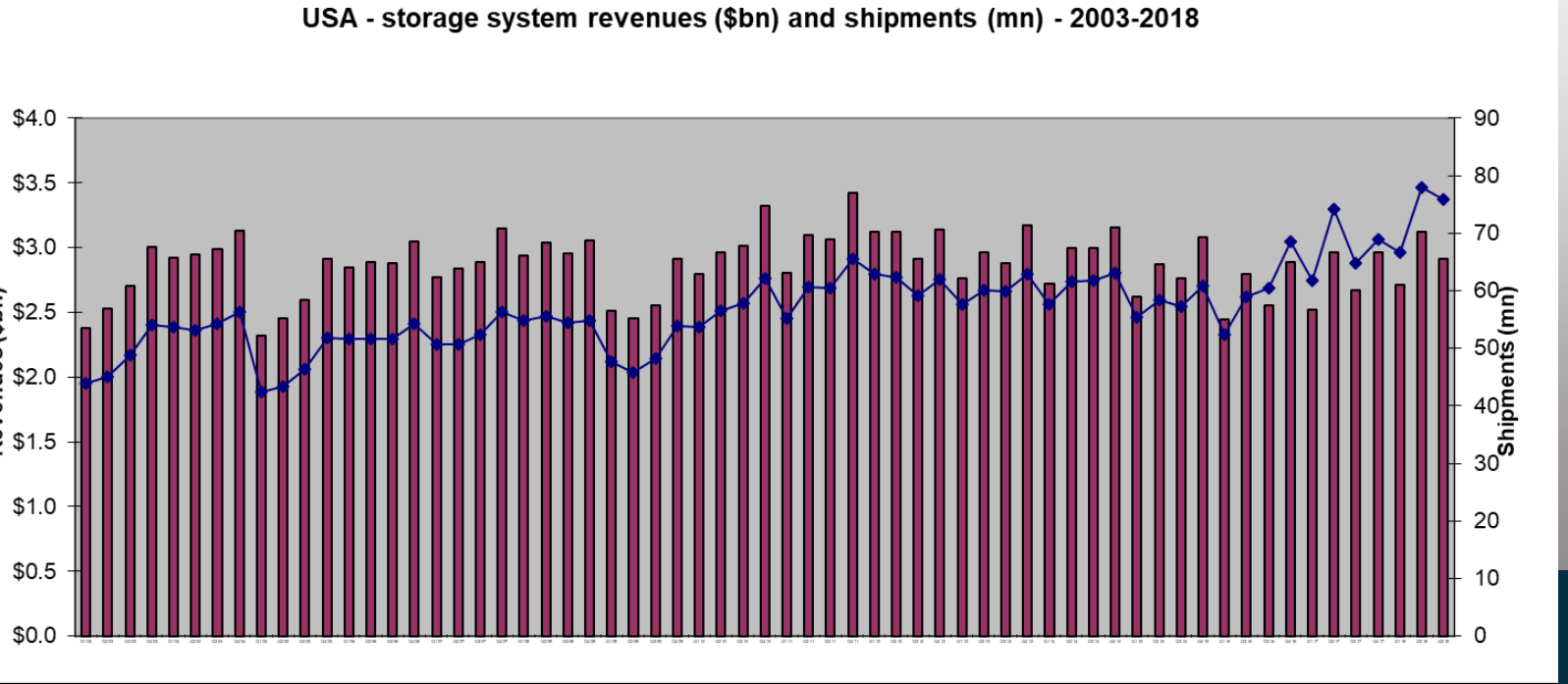
Hypothesis:

- The public cloud will destroy the datacenter market

Measurements:

- Changes in market size
- Changes in customer behavior
- Changes in OEM behavior

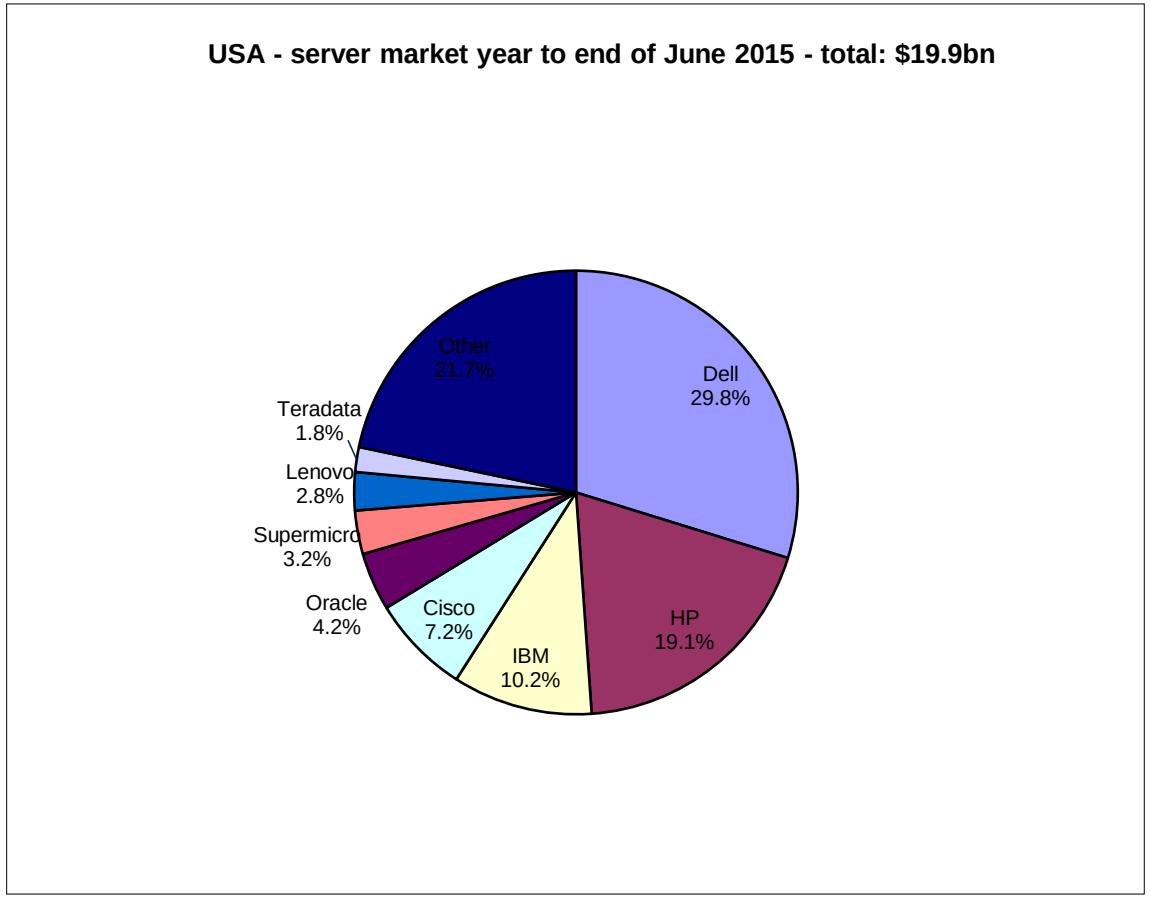


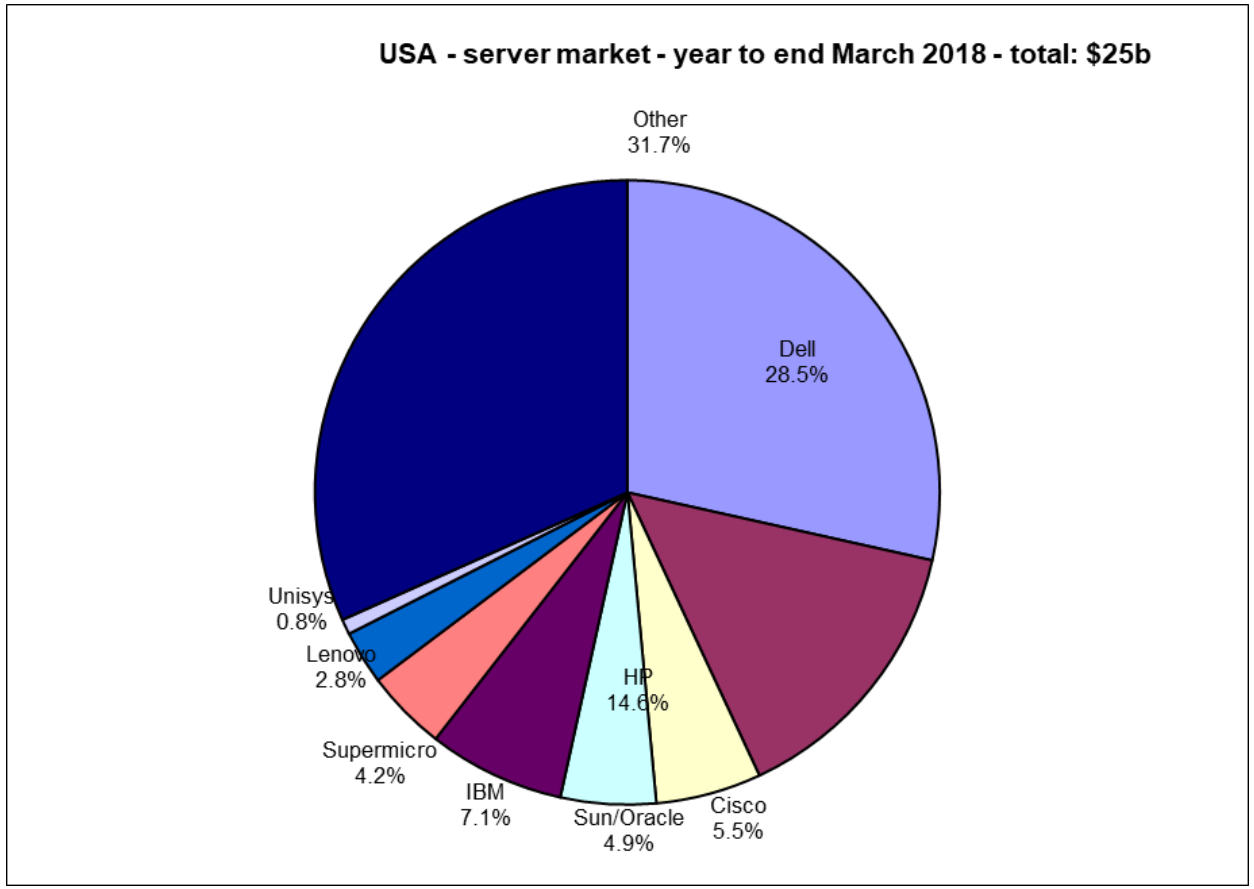


What Does the Cloud Operate On?

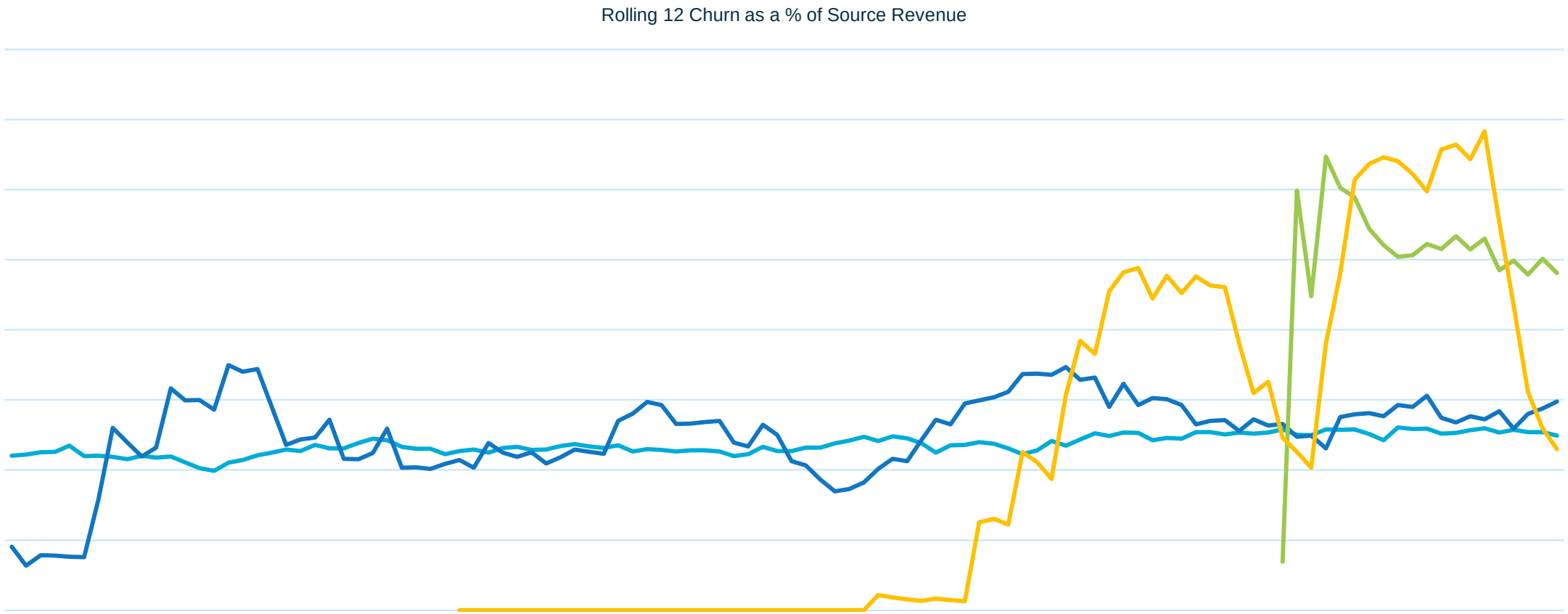
- Do we see a shift in market sales?

The Market is Shifting

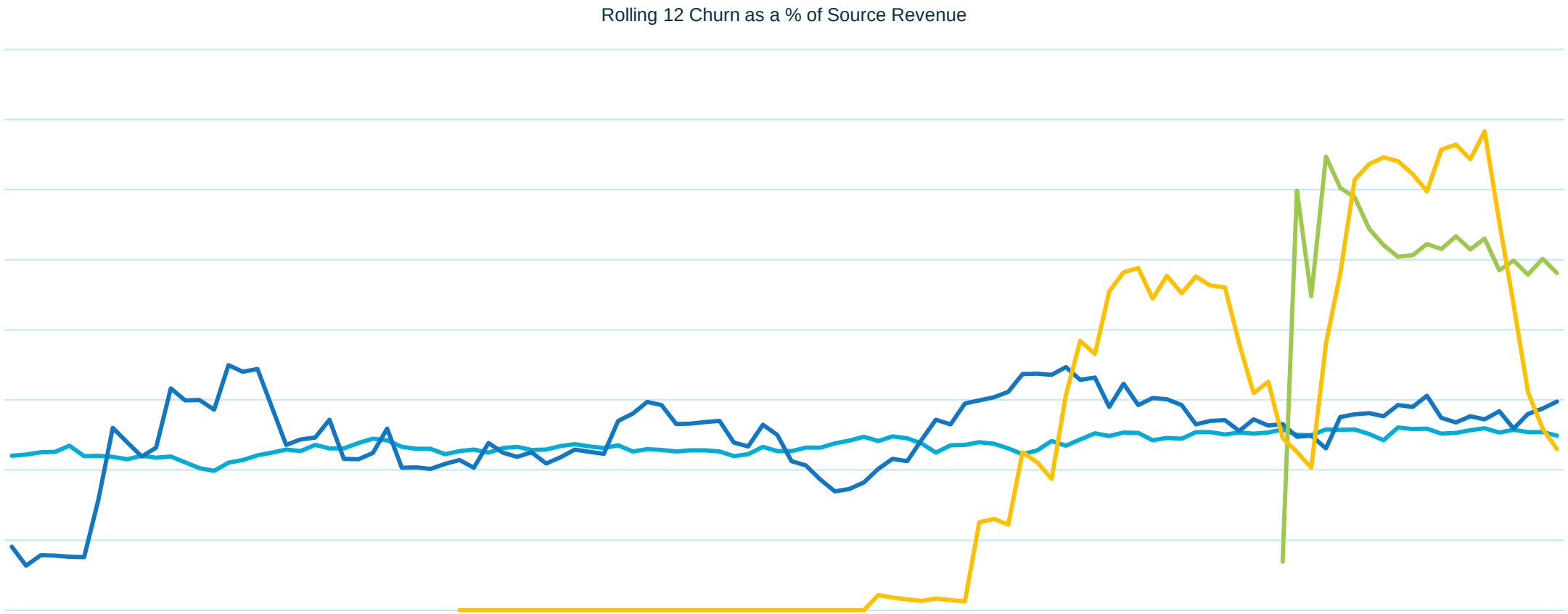




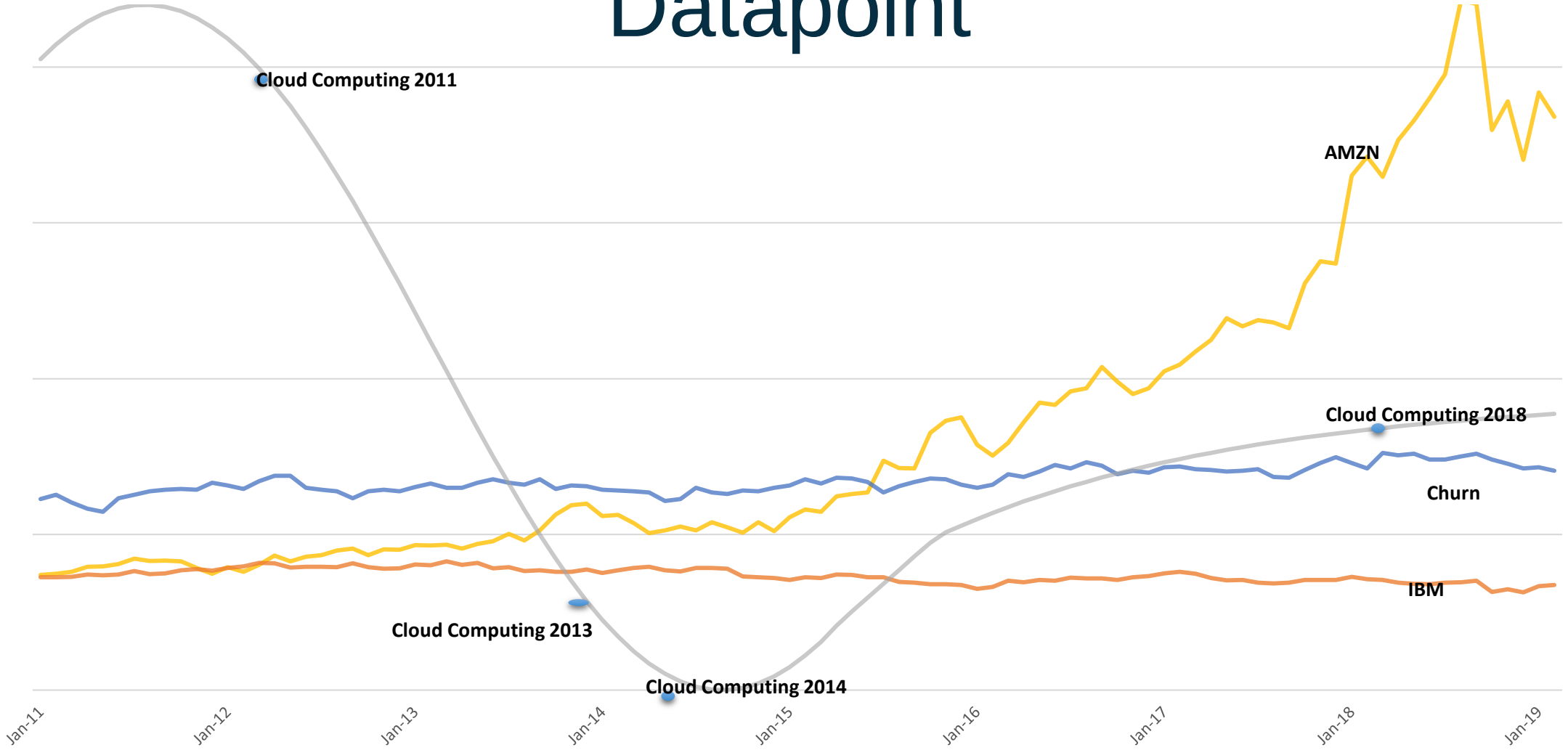
Are Customers Behaving Differently?



Are Customers Behaving Differently?



No Solution Resides in a Single Datapoint

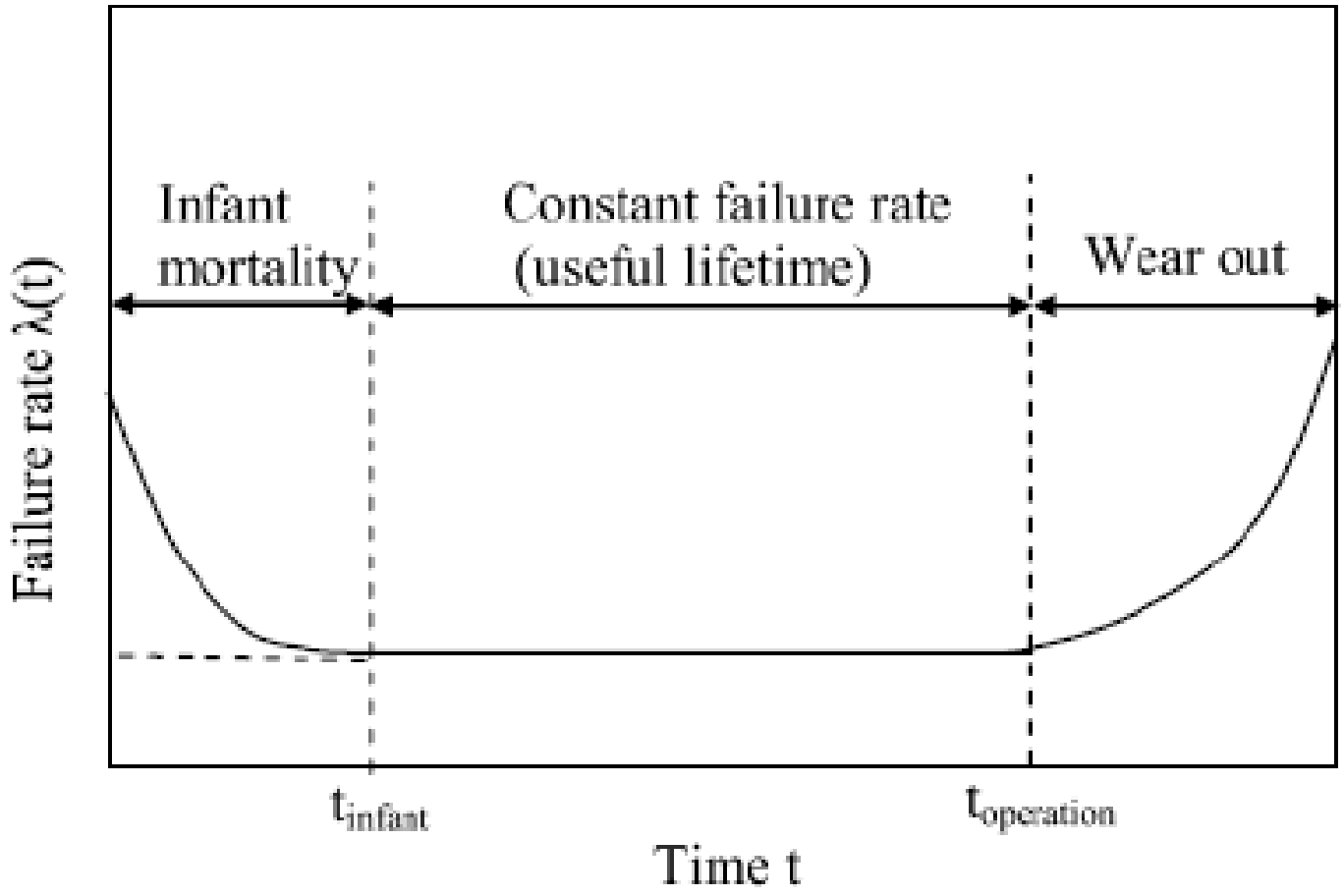


Conclusions: Public Cloud

- +1$ for cloud is not equal to -1$ On-Prem
- Sales of on-prem and hybrid cloud hardware are still strong
- Customer behavior changes glacially, not pyroclastically
- Your mixture of revenue streams and hardware tell a more complete story

An Exercise in Equipment Reliability Over Time

The common understanding of what failure over time looks like



Profitability & Reliability Over Time

Hypothesis

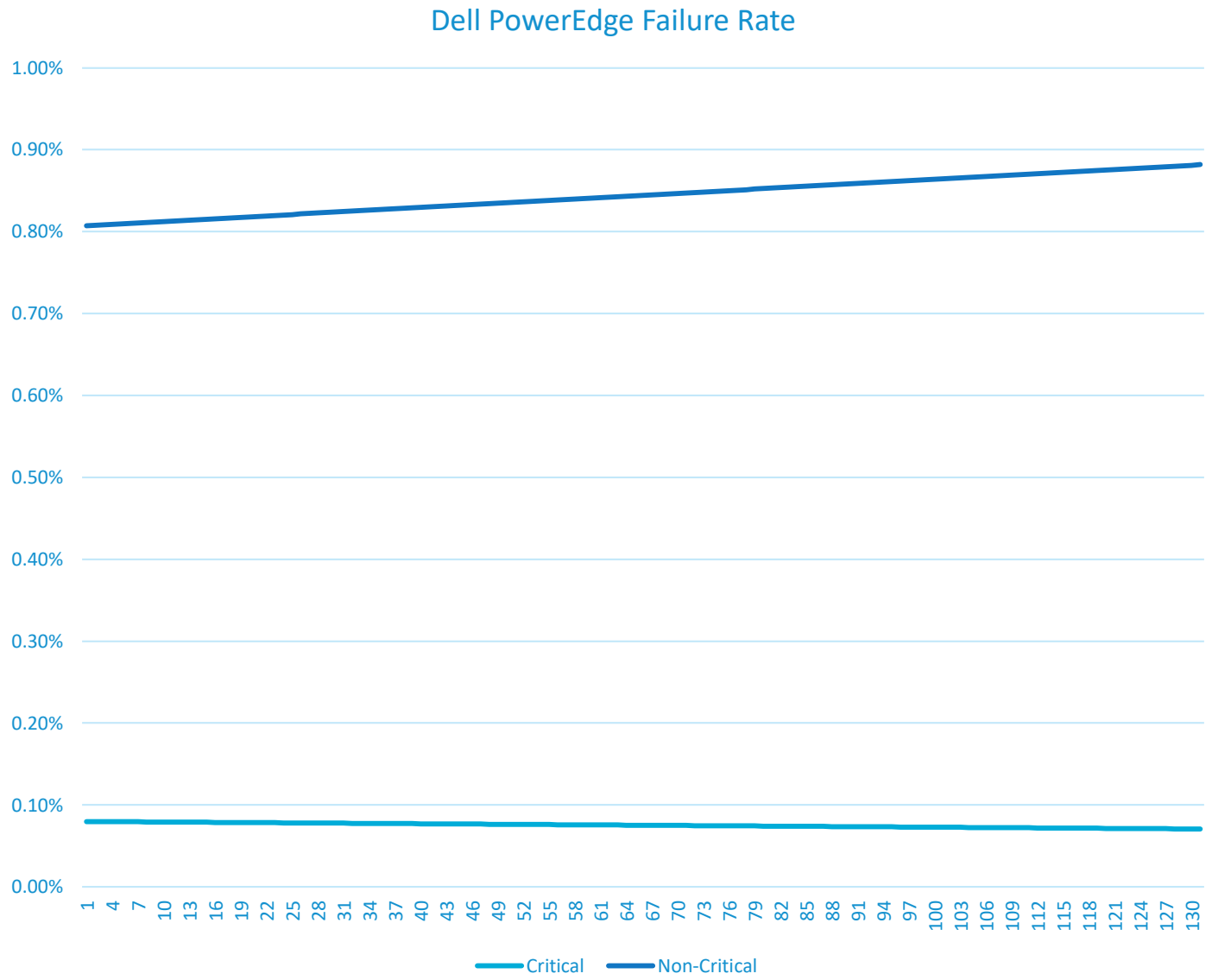
- Equipment becomes less reliable over time, but maintenance revenue is shrinking.

Measurements

- Equipment reliability over time
- Unit Pricing over time

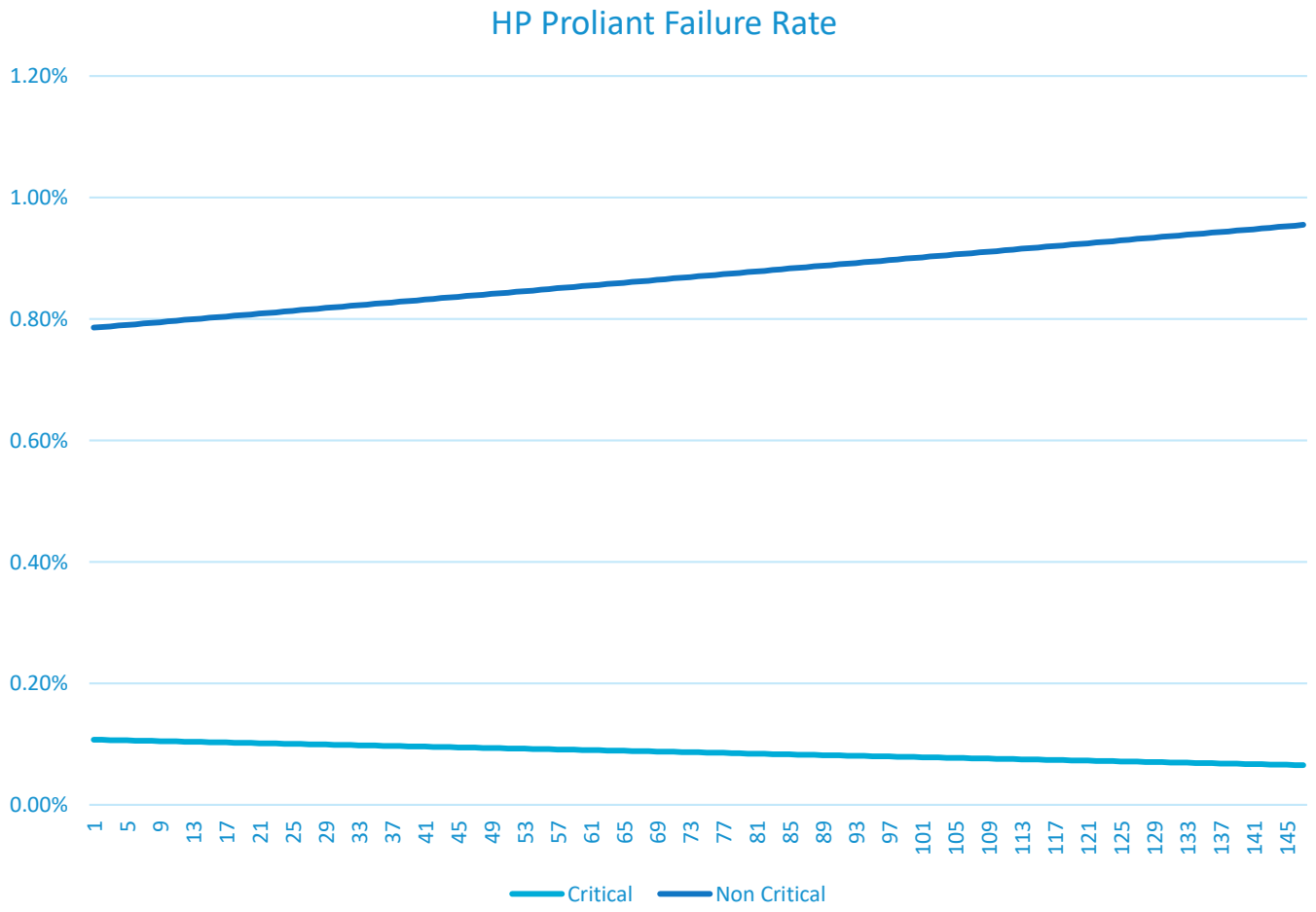
Poweredge Product Family

- The Dell Poweredge has shown to be the most reliable X86 platform over time



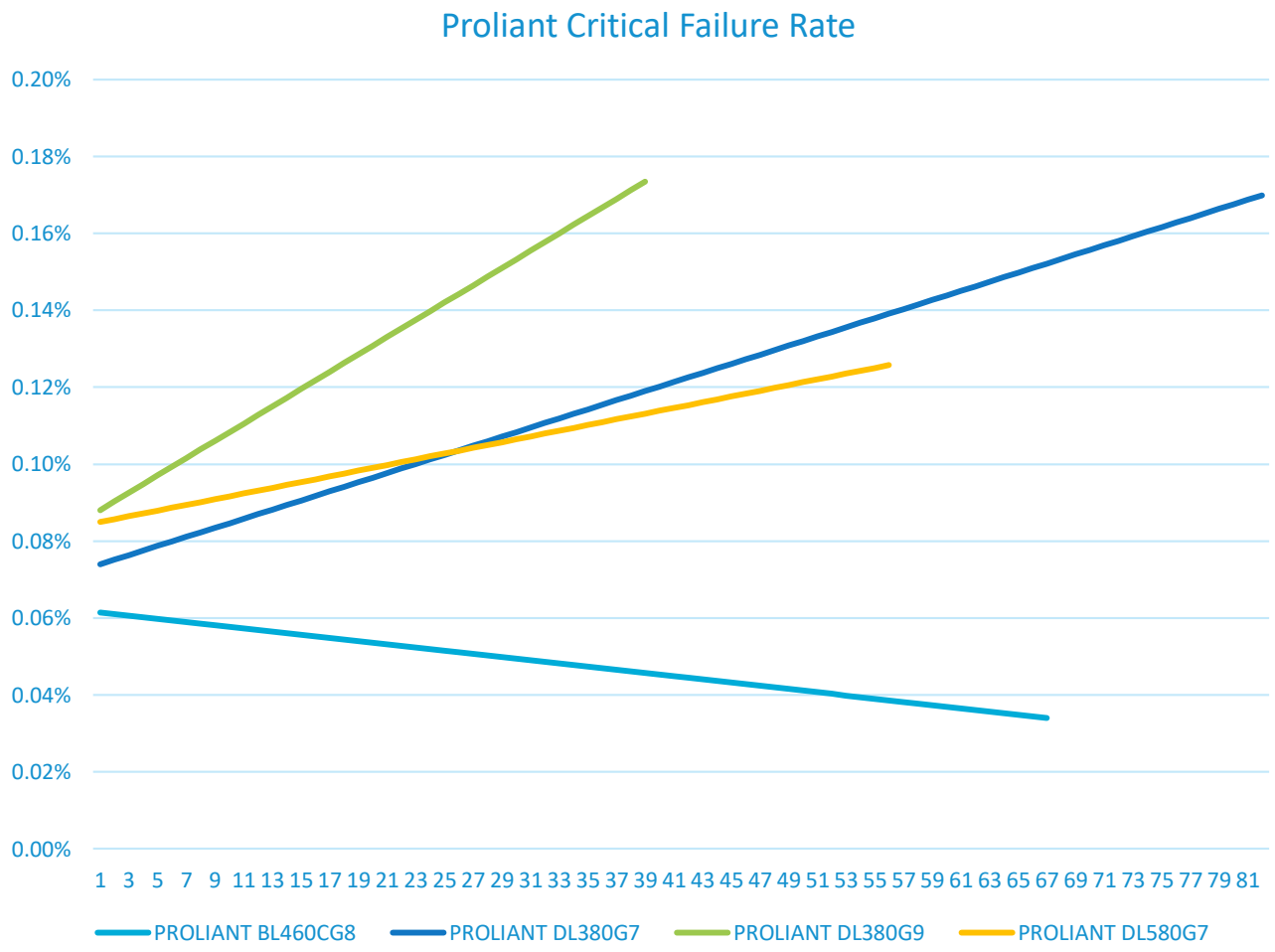
HPE Proliant Product Family

- Is this graph misleading?



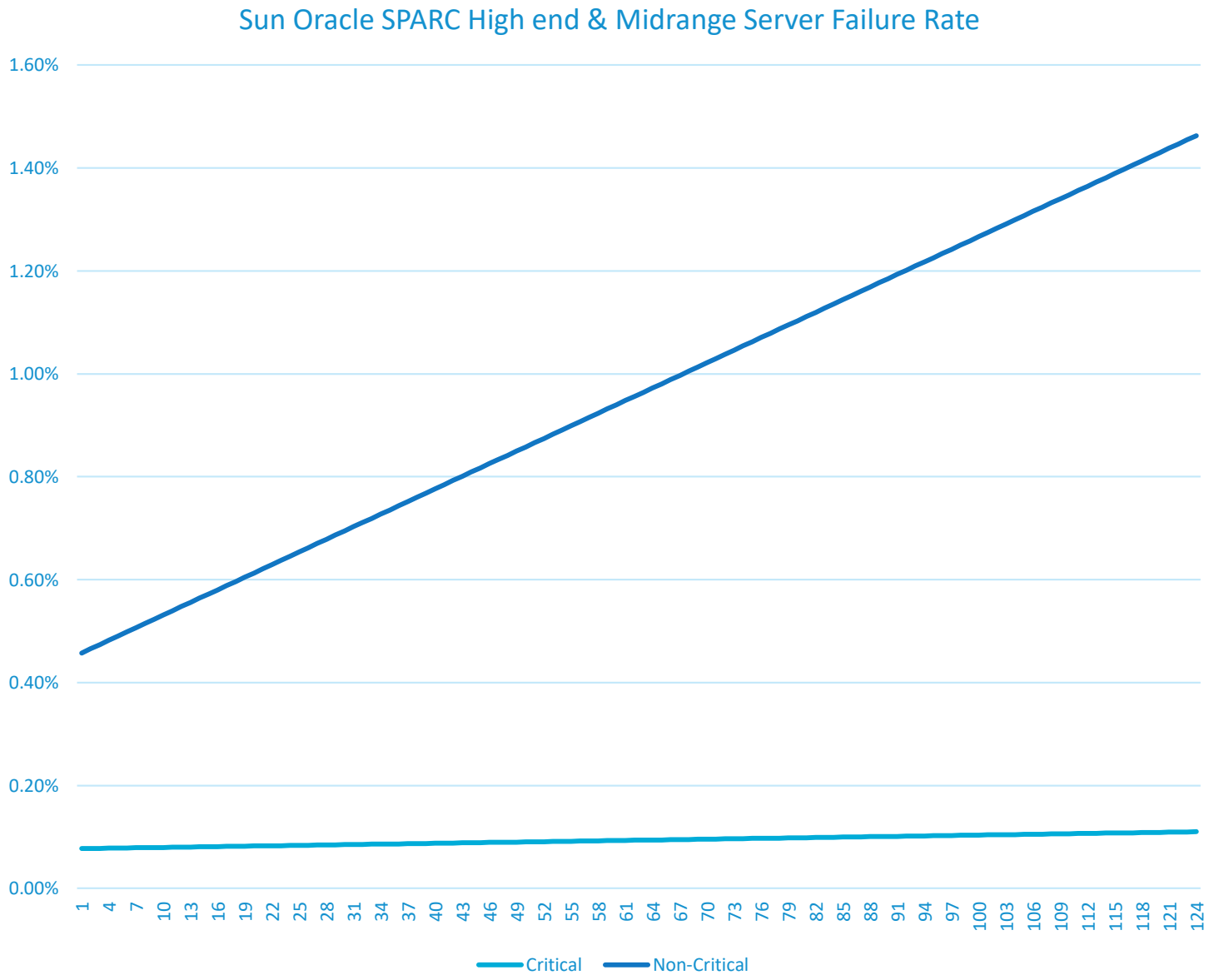
HPE Proliant

- Segmenting further will start to show variance of failure from one model to the next
- This data can be used for budgeting and resource planning



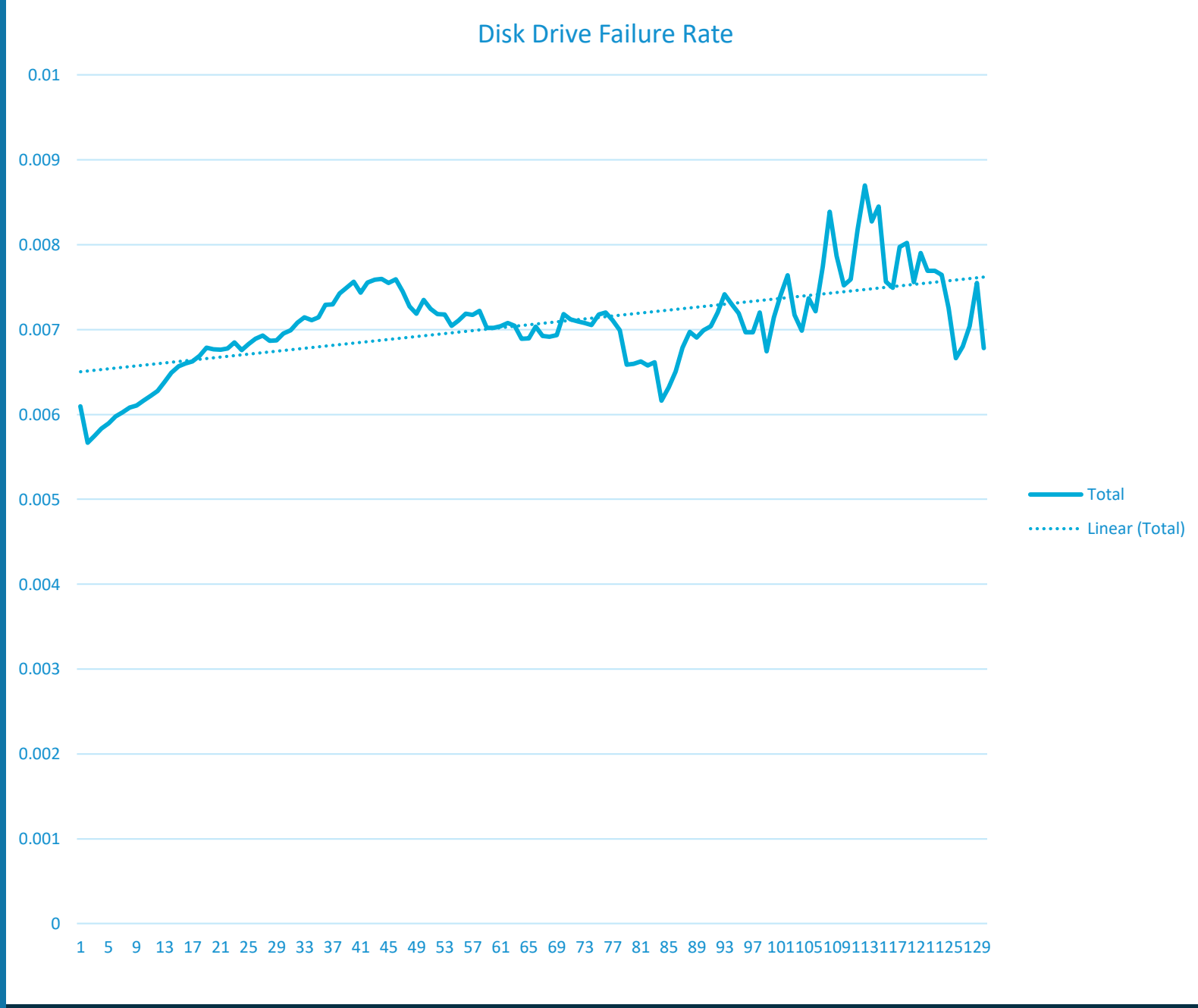
Oracle Sparc Product Family

- Why would the Oracle servers show higher instances of failures?



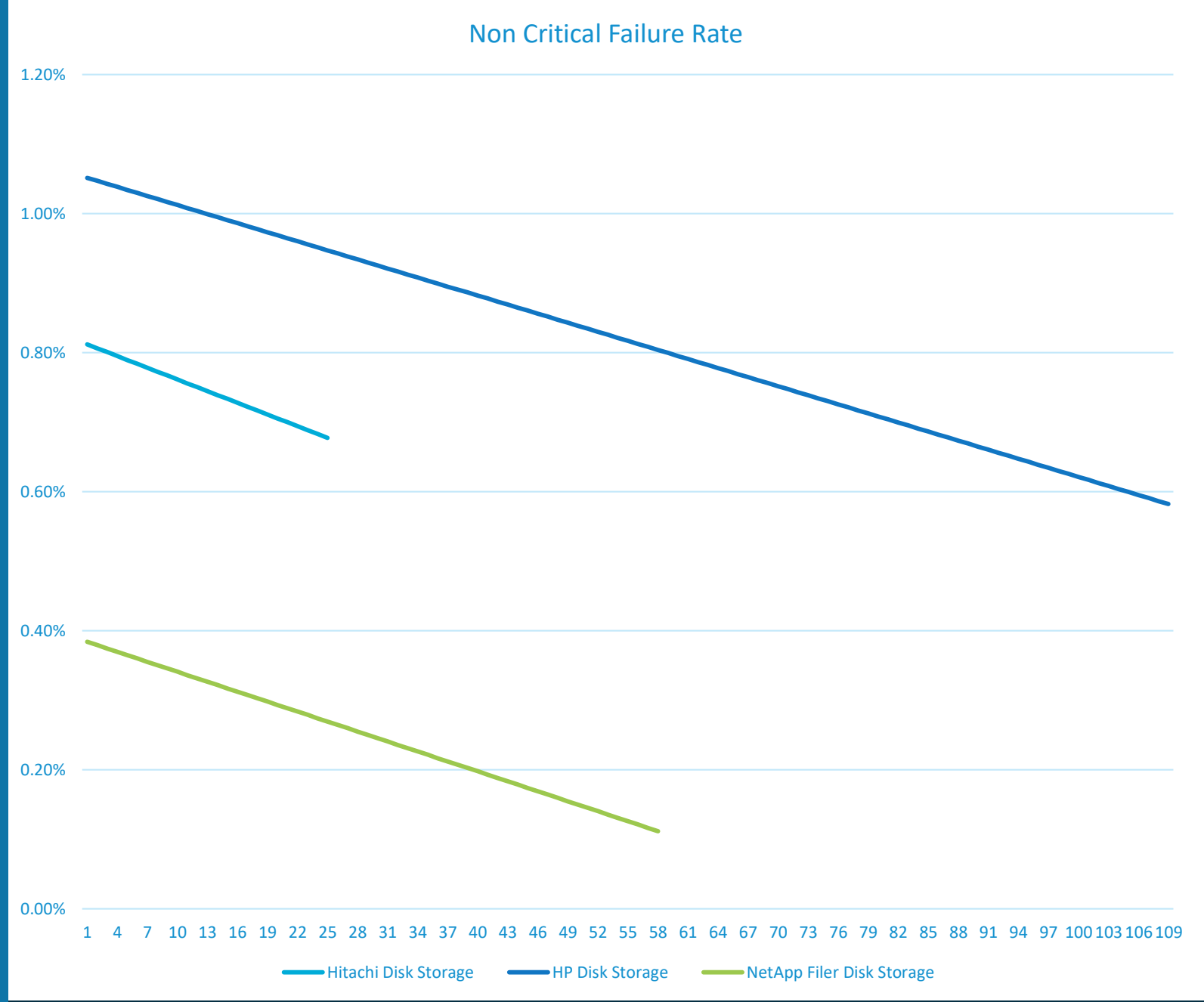
Disk Drive Failure Rates

- How many disks are in each time cohort and what are expected costs
- The common knowledge on long term disk reliability should be challenged

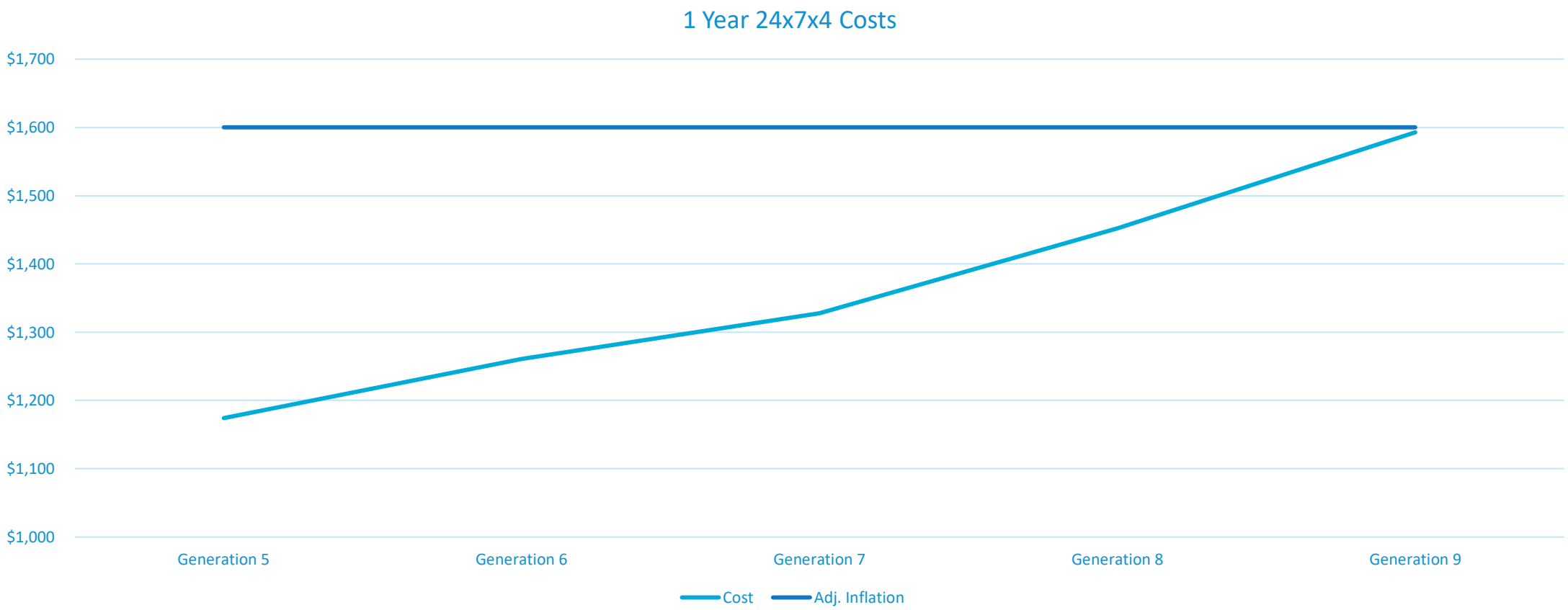


Disk Arrays Non-Critical Failure Rates

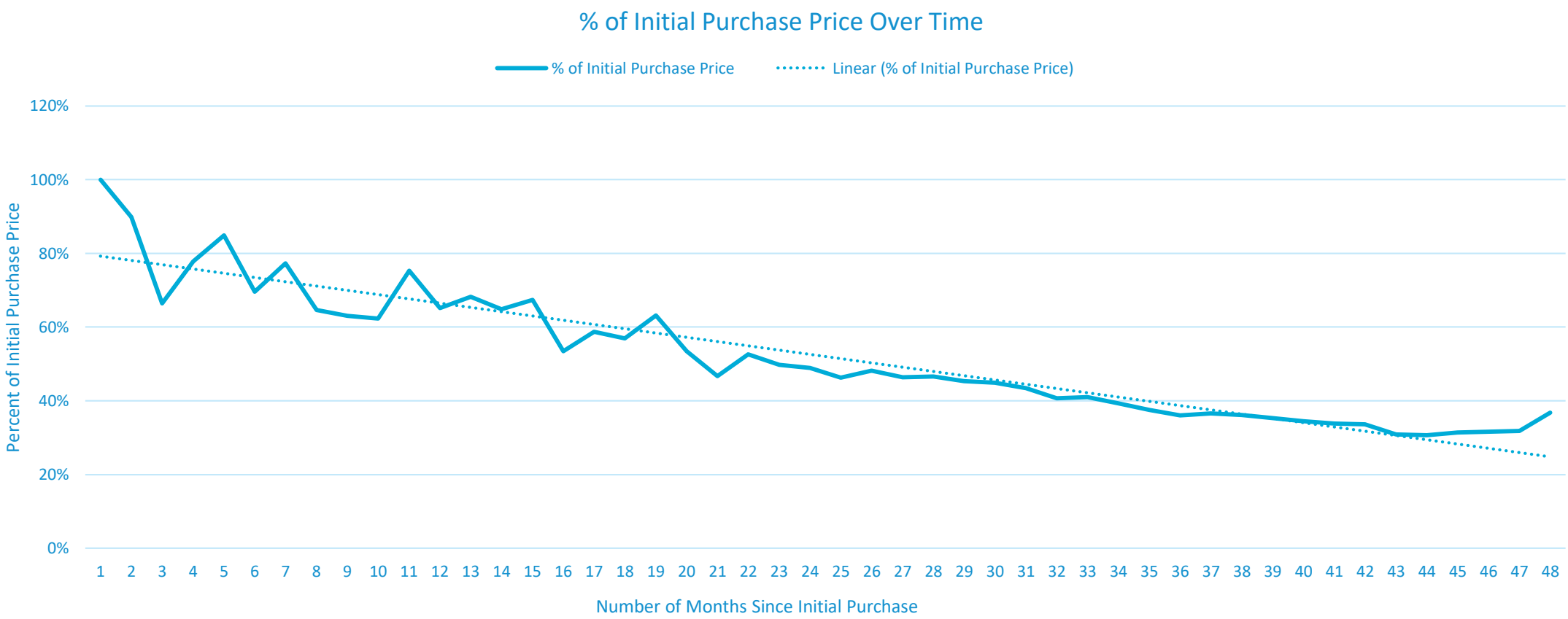
- Looking at arrays themselves, the post 5 year reliability should make any datacenter operator wonder if a replacement is necessary



Are end user costs going up or down?



How do replacement parts age?



Conclusions: Reliability and Costs

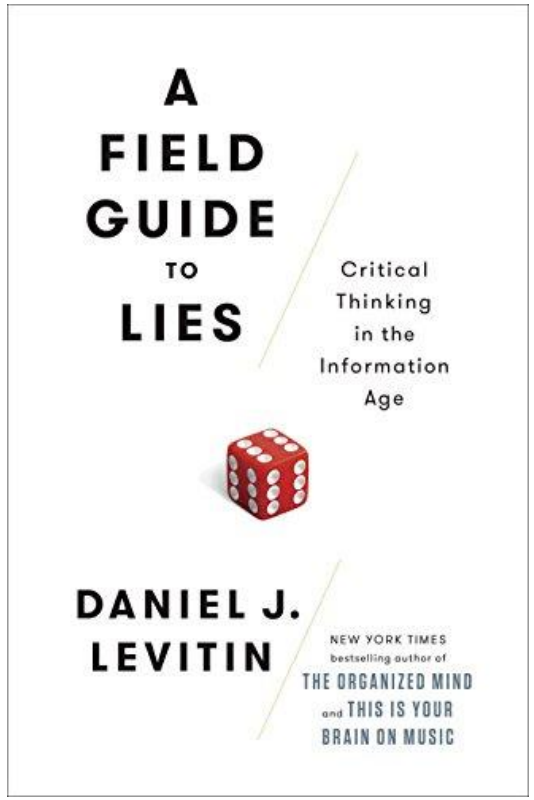
- Equipment reliability does not change drastically over time
- Increasing equipment tenure within customers is a key performance indicator
- OEM pricing is staying with inflation
- Costs of parts decline faster than their failure

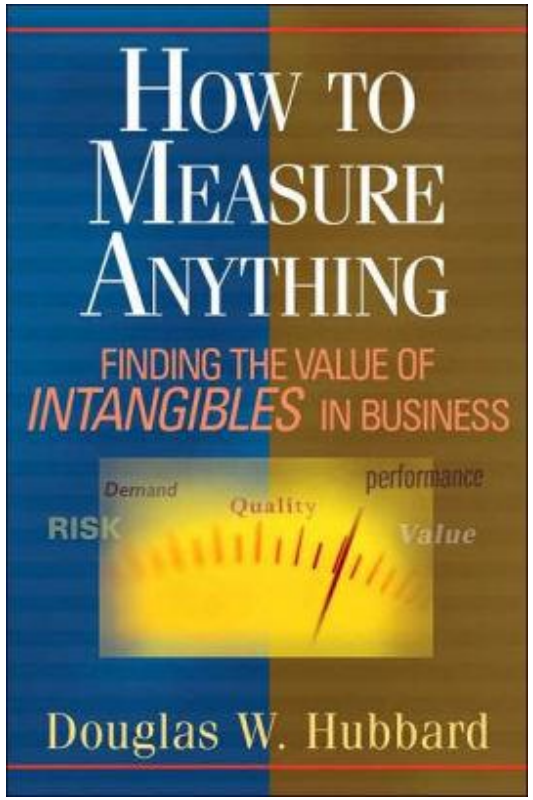
“Customers will run out of compatibility and capacity far before they run out of reliability.”

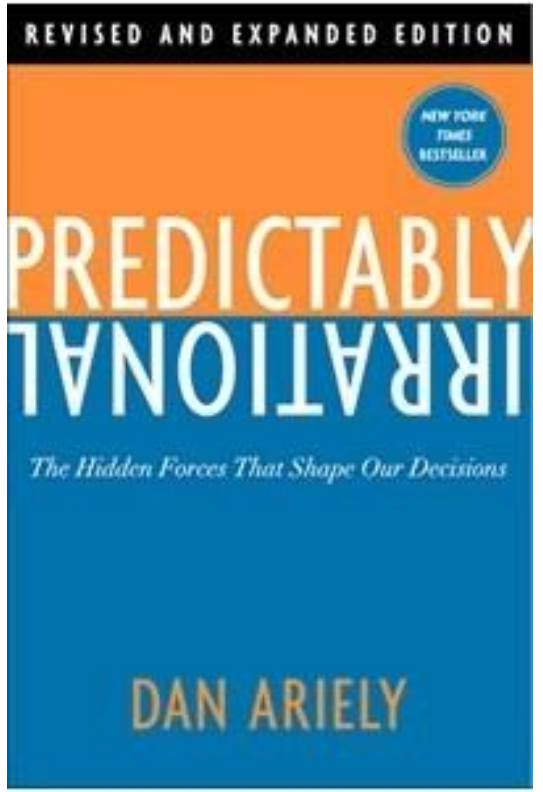
Jake Blough, 2019

Parting Thoughts On Risk

- The farther and longer you are away from the front line, the more important data is
- Measuring risk is a macro level event, not a micro level event
- You will not always find happy news







Further Reading