

Backup & Recovery: Optimizing Backups

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Agenda

- Fair Isaac Corporation
- Executive Summary
- Before: Share Everything!
- Standardizing the Setup
- After: The Cookie Cutter
- Lessons Learned

Fair Isaac Corporation

NYSE: FIC

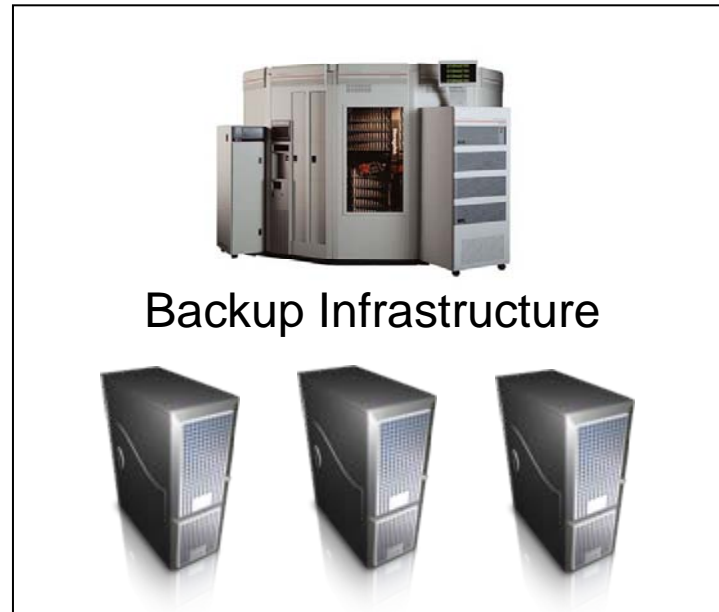
- Leading provider of analytics and decision management technology
- Specialize in building analytic products, like the industry standard FICO score, as well as market leading tools for rules management, fraud detection, optimization, and other critical business functions for customers in financial services, insurance, retail, and health care sectors



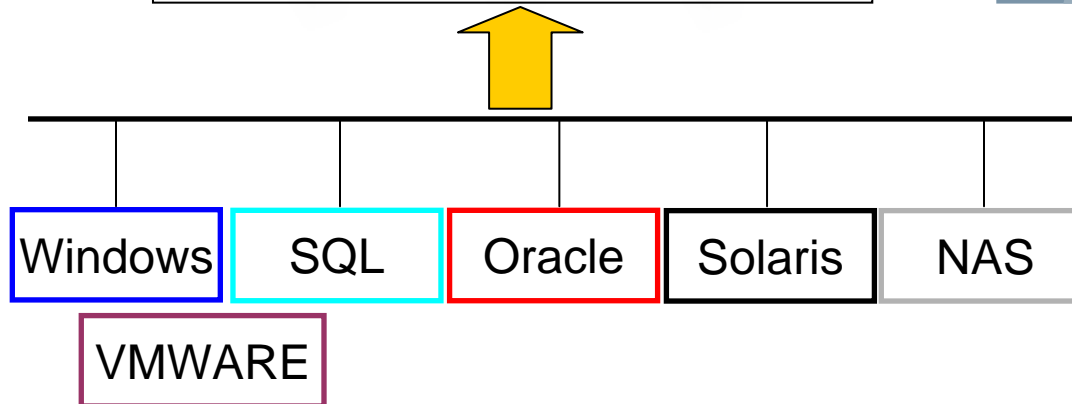
Executive Summary

- Start with Simplicity, utilization will follow
- Reporting: Less about tools, more about design
- Retention: One size may not fit all
- Simplicity leads to accurate chargeback

BEFORE: Share Everything!



Show me the future

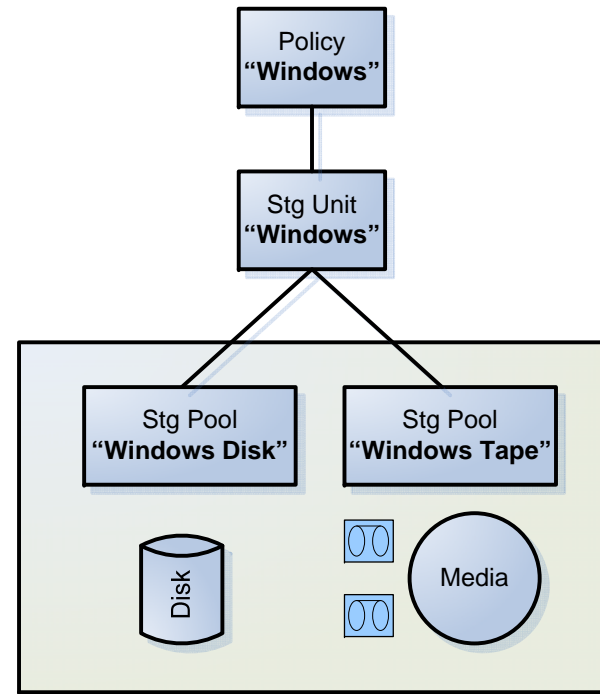


How do we Scale for the Unpredictable Future?

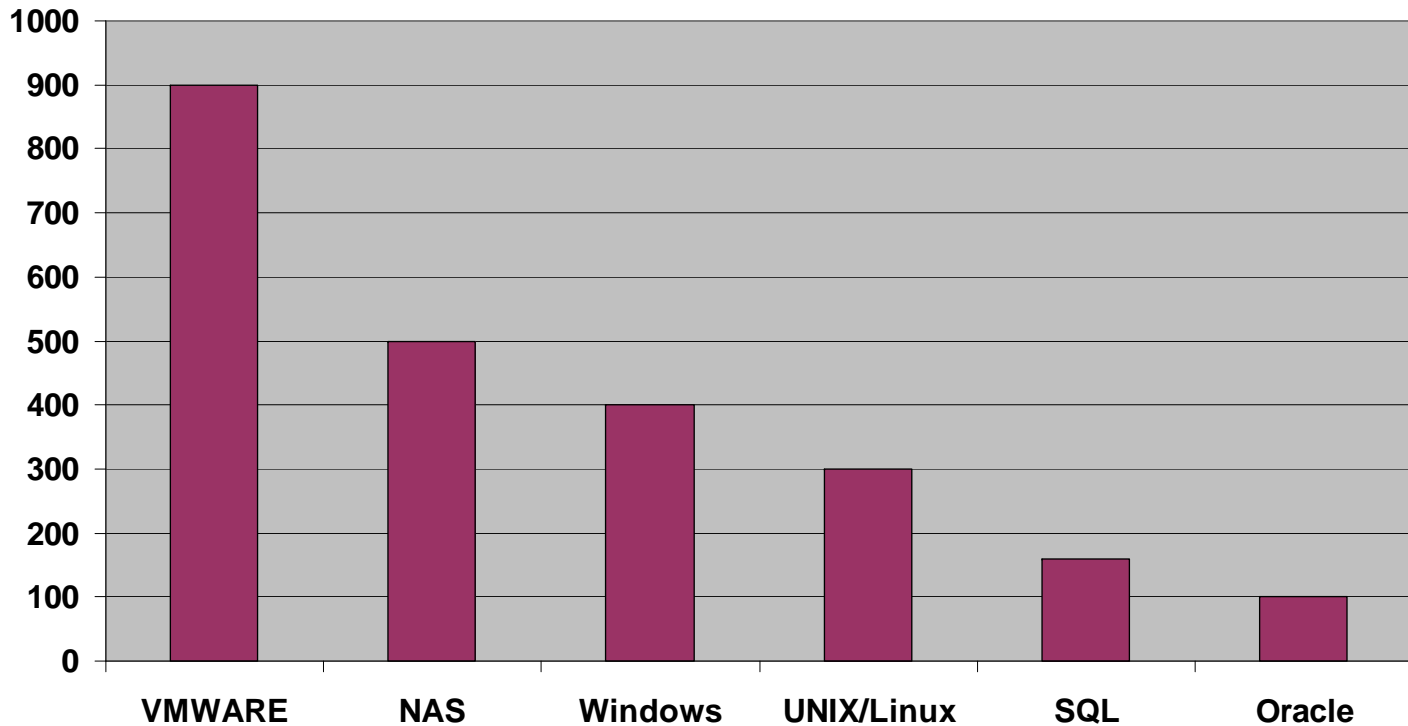
- Backup environment at 100% utilization
- Too many policies and schedules!
- Company growing quickly by acquisition
- Storage environment growing 40-60% annually
- Server Virtualization explosion!
- Lack of actionable data paralyzed management

Standardizing the Setup

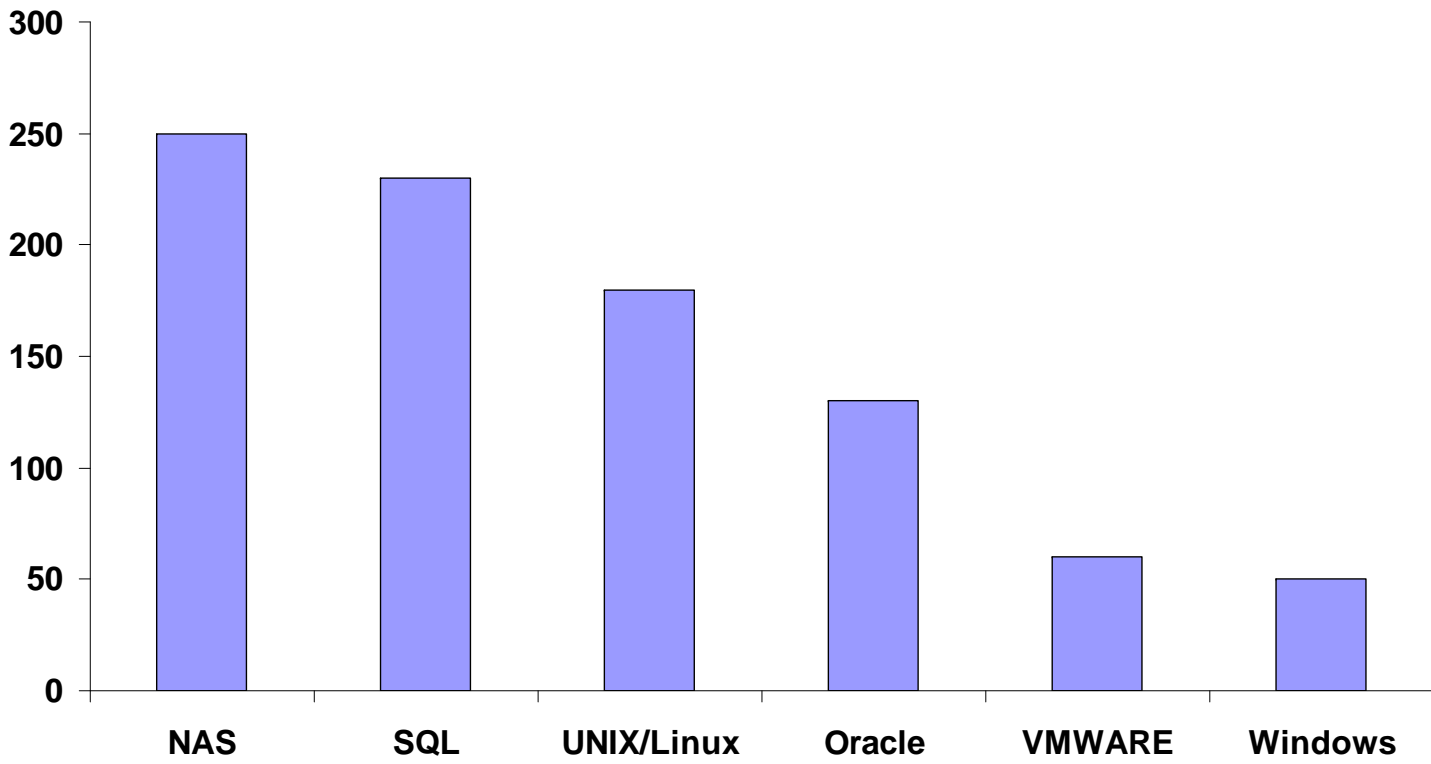
- Simple naming conventions
- Dedicated hardware
- Introduced ATA and VTL
- Pooled like data types
- Quantified the investment (\$\$)



Backup Clients (2,300) and growing

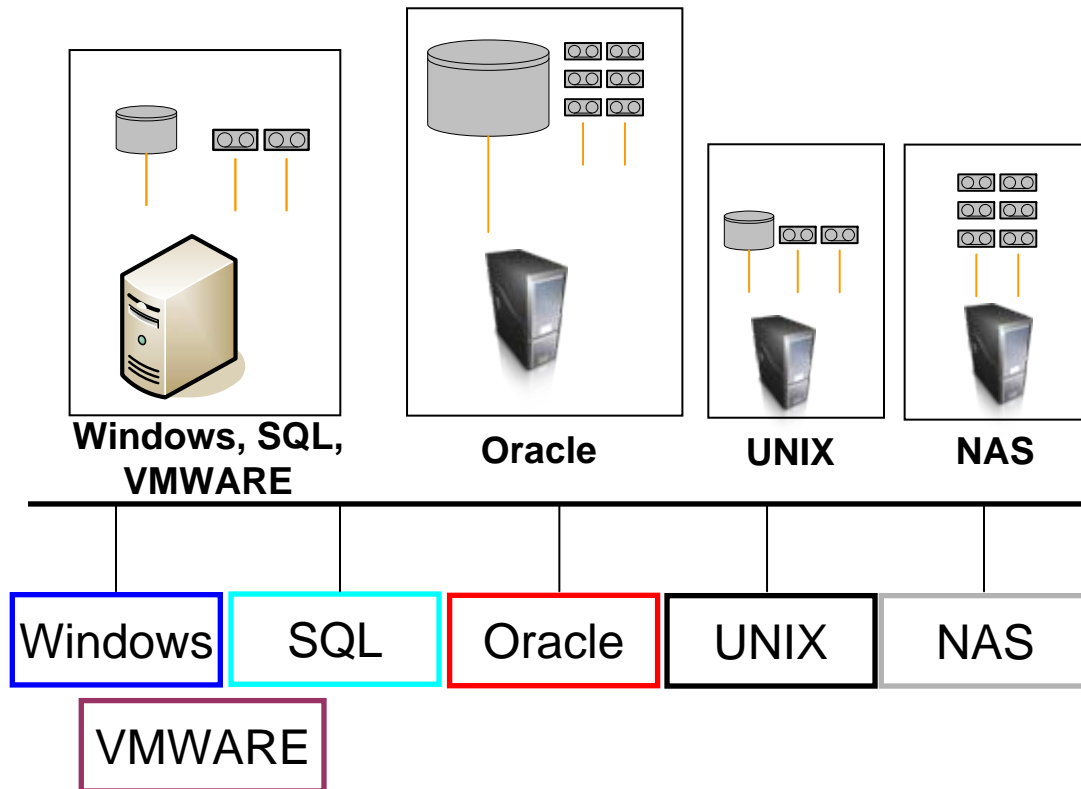


Backup Demand 900TB (Monthly)



After: Dedicated

“Create a cookie cutter approach so you can scale and replicate any environment’s individual requirements.”



Technology Investments

<u>Environment</u>	<u>Servers</u>	<u>Tape Drives</u>	<u>ATA (TB)</u>	<u>Ent (TB)</u>
Windows /SQL/VM	8	16	40	0
Oracle	1	10	10	5
UNIX	5	20	25	5
NAS	<u>1</u>	<u>14</u>	<u>0</u>	<u>0</u>
Totals	15	60	75	10

“Calculate your investment in technology to find cost per TB by environment. Then use that to drive retention discussions.”

Dedicated: Benefits

- Backup process now under control, while improving disk & tape utilization
- Reporting was easy
- Less impact for outages
- Easy to scale any environment
- Easy to quantify cost of backup
- Retention can be adjusted by platform

De-Duplication Candidates

Environment Clients to TB

- VMWARE 15:1
- Windows 8:1
- NAS 2:1
- UNIX/Linux 2:1
- Oracle <1:1
- SQL <1:1

More
Clients,
Less
Data

More
Data,
Less
Clients

De-duplication Candidates

Do you
Compress?

Fair Isaac Technology Timeline

2005

- Virtual Tape (ATA disk)
- Software Upgrade

2006

- Encryption Appliances
- Tape Upgrades
- Software Upgrade
- Backup Network

2007

- **“Simple Standard”**
- Tiers of Storage
- Database Appliances

2008

- Litigation Support
- Enterprise Disk Pools
- Tape Drive Encryption

2009

- ***Centralized Reporting***
- ***Data De-Duplication***
- ***Cross DC Backup***

Lessons We Learned

- Simplifying the Setup solved many problems
- Good design equals good reporting
- Adjusting retentions mandatory to success
- “Simple” made chargeback easy