



Rethinking your Data Strategy

In a world of Clouds, Cyber Threats, and the next wave of AI and Deep Learning

Howard Fyffe

Managing Director Australia / New Zealand

howard.fyffe@vastdata.com

+61435962224

ABOUT VAST

Universal Storage

- High-performance, all-flash, object and NAS platform
- Multi-protocol, low latency access to all data
- Enterprise simplicity, support, and availability

All-flash Data Lakes at Archive Economics

- Revolutionary data reduction drives down cost
- Scales compute and storage independently
- Faster insight with high performance for any query workload
- Eliminate data silos and copy management complexity

Enterprise Adoption

- Over 5 exabytes deployed across data-intensive industries
- Production customers with multiple 100s of PBs
- Early adoption in AI/ML, HPC, and analytics





Gartner

2022 File & Object Magic Quadrant

**The highest placement
of any vendor since the
file & object Magic
Quadrant
introduction.**

**STORAGE PLATFORMS FOREVER, HAVE
BEEN COMPLICATED.**

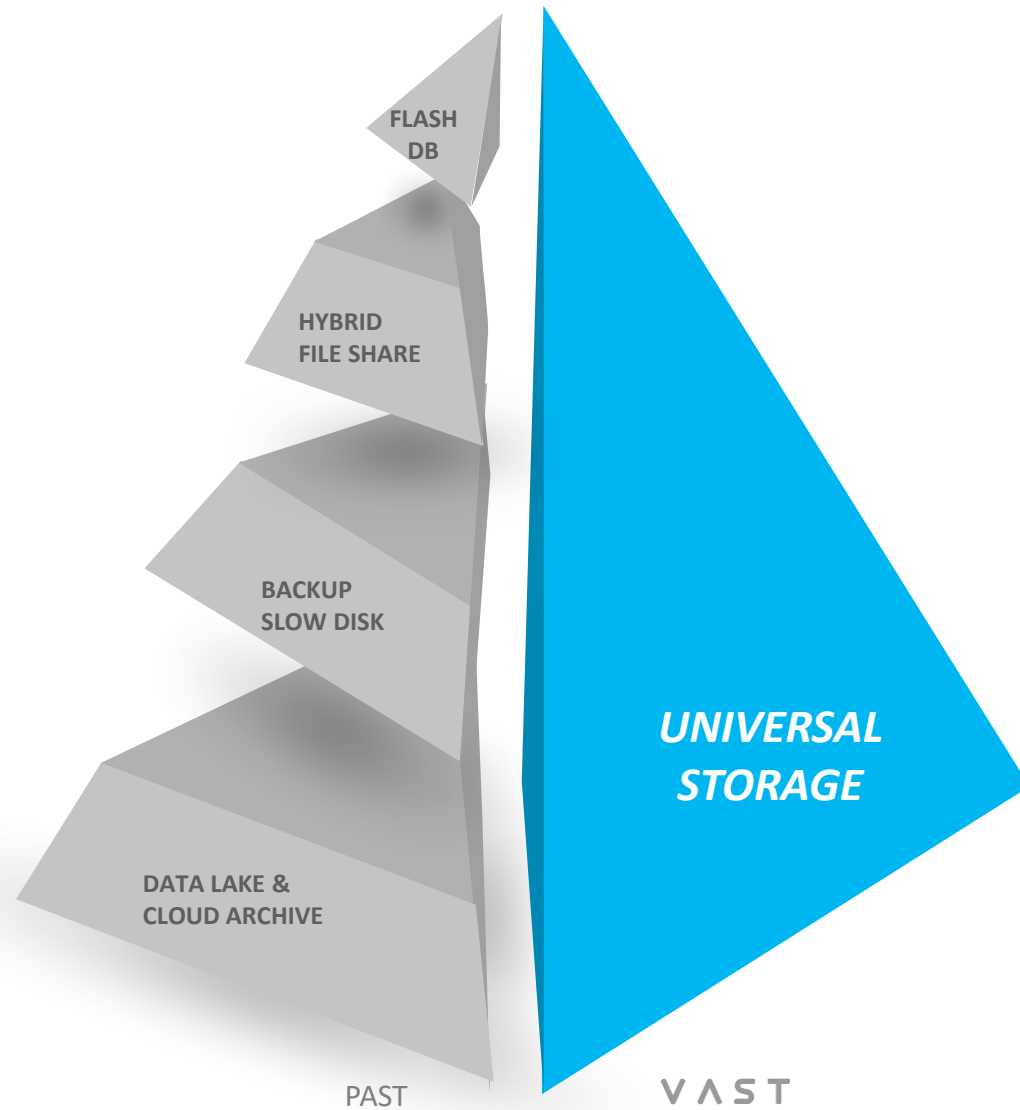


Re-thinking your Data Strategy

NO MORE TIERS

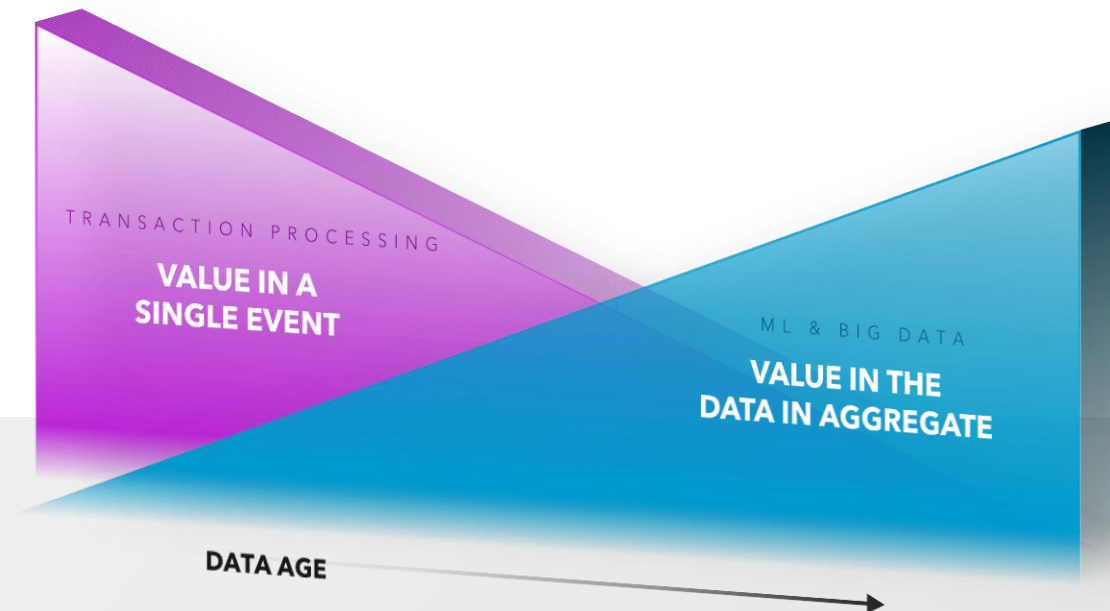
BREAKING TRADEOFFS TO MAKE ACCESSING AND USING YOUR DATA SIMPLE

- Extinction-level Event for The Hard Drive
- An End To 30 Years of Complex Data Tiering
- Unleash Big Data and ML Insights



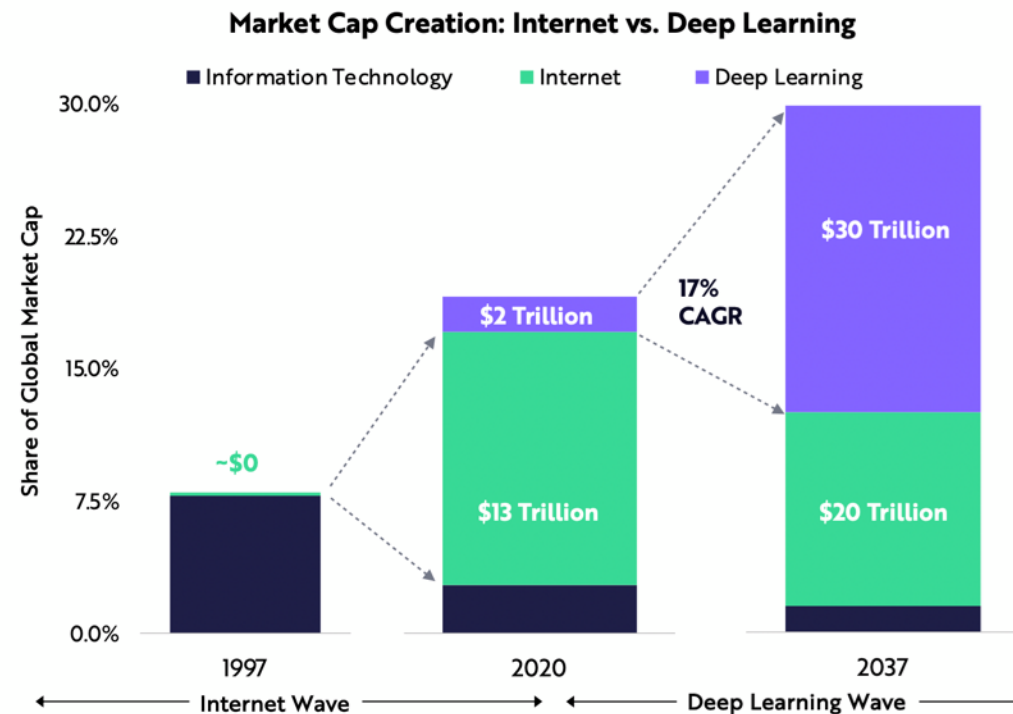
FAST ACCESS TO ALL DATA

DEEP LEARNING & AI TRANSFORMS HOW WE *VALUE AND ACCESS DATA*



Deep Learning and AI Will create more Economic Value than the Internet

However, legacy data tiering is
will not work in this new era



*"The accelerator should replace the CPU
as the main server compute engine by
2030."*

Source: ARK Capital

UNIVERSAL STORAGE

STARTING FROM A RENAISSANCE IN HARDWARE



NVME OVER FABRICS FOR DISAGGREGATION

The latency of DAS, over switched commodity networks.



QLC FLASH FOR COST SAVINGS

Low-cost, lower-endurance hyperscale flash.



STORAGE CLASS MEMORY LONGEVITY & EFFICIENCY

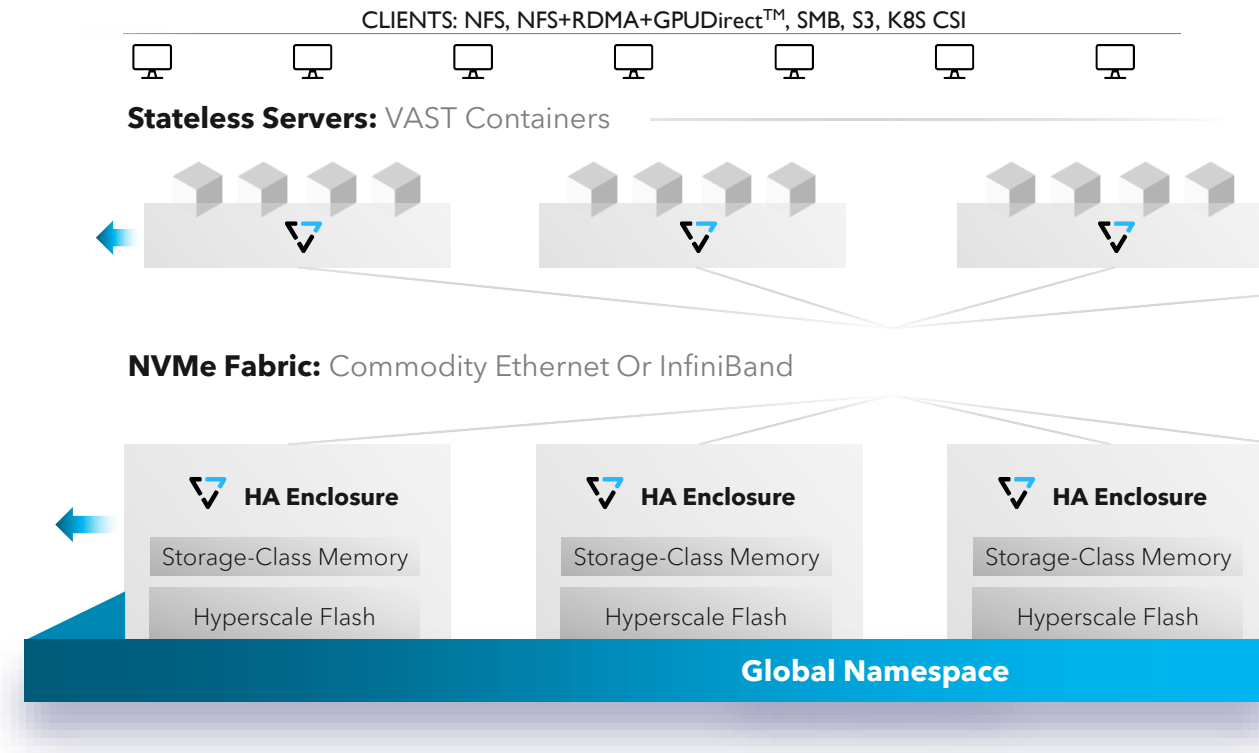
Enables write shaping to QLC and rich metadata.

// THE STORAGE ARCHITECTURE OF THE FUTURE //

- IDC, 2020

- Fast Object Storage:
 - Simple, All-NVMe S3/S3A
 - Optimized for Random & Sequential I/O
- Exascale NFS:
 - POSIX, Python
 - Extreme throughput & IOPS applications
 - RDMA-capable
- Revolutionary Data Reduction:
 - Far beyond dedupe and compression, meet Similarity
- 7x24x365 Managed Service
 - Far beyond dedupe and compression, meet Similarity
 - Private Slack Channel
 - Sovereign Australian Co-Pilot team (Sydney & Perth)
- 10 Year Warranty
 - 80% less e-Waste
 - 50% lower cost than cloud
 - At 5PB, VAST reduces kilowatt-hours by nearly 400,000 per year - or 283 metric tons of carbon dioxide verses Dell Isilon Hybrid nodes.

DISAGGREGATED, SHARED-EVERYTHING



HOW IT WORKS



THE INFINITE STORAGE LIFECYCLE.

Never Migrate Again.

Asymmetric architecture

Forward & backward SW compatibility

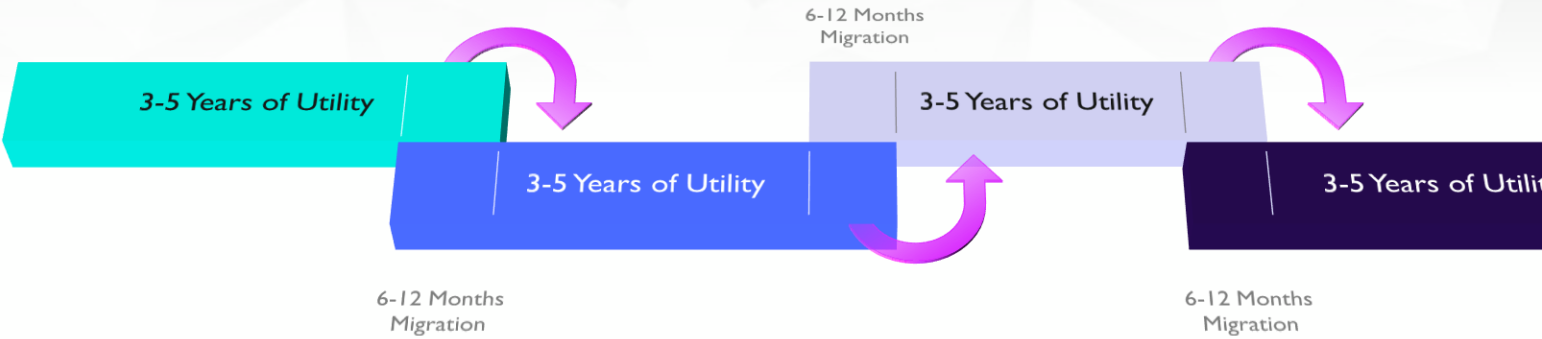
Decoupled HW & SW.

Never pay SW tax on a HW refresh

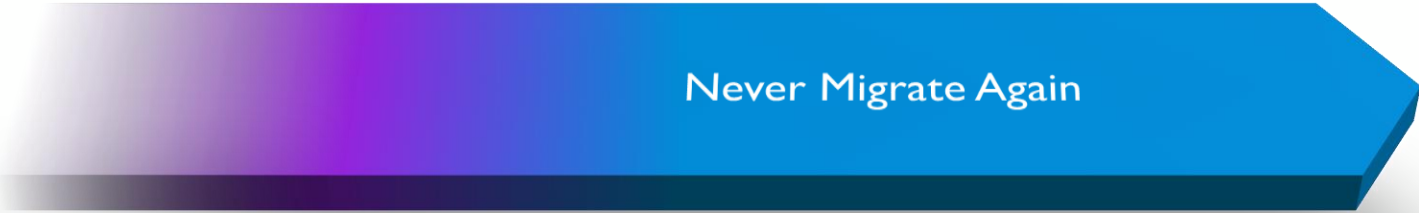
Always leverage HW investments for their useful life

Refresh, at cost, Replace at your convenience.

THE INFINITE REFRESH CYCLE.

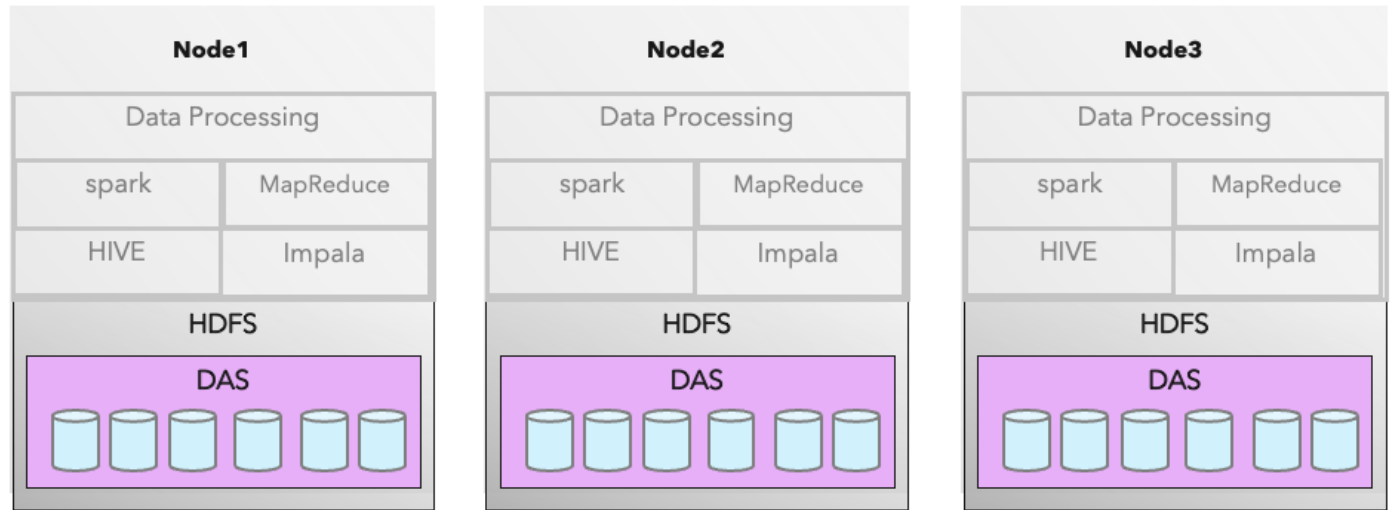


THE INFINITE STORAGE LIFECYCLE.

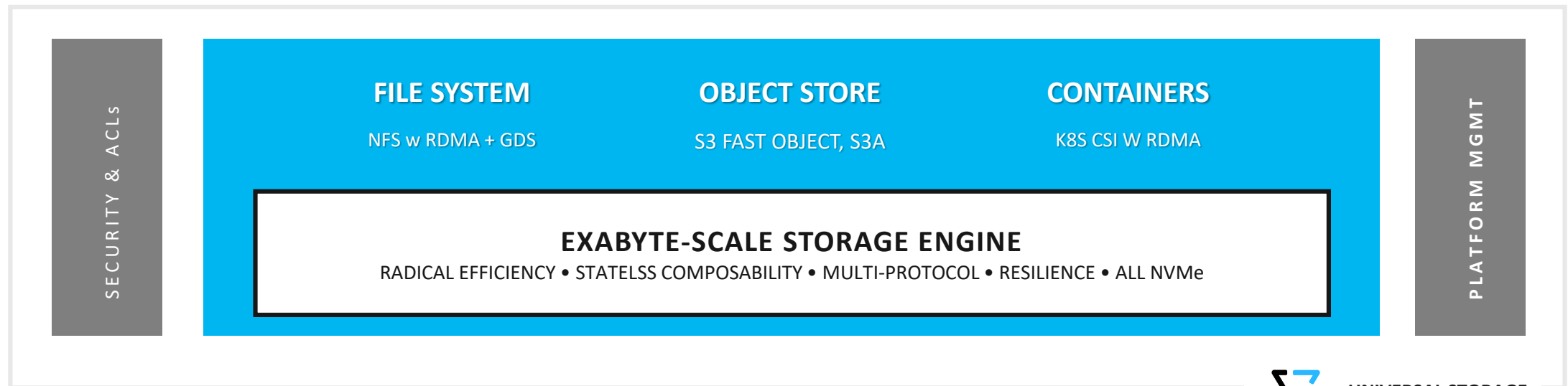
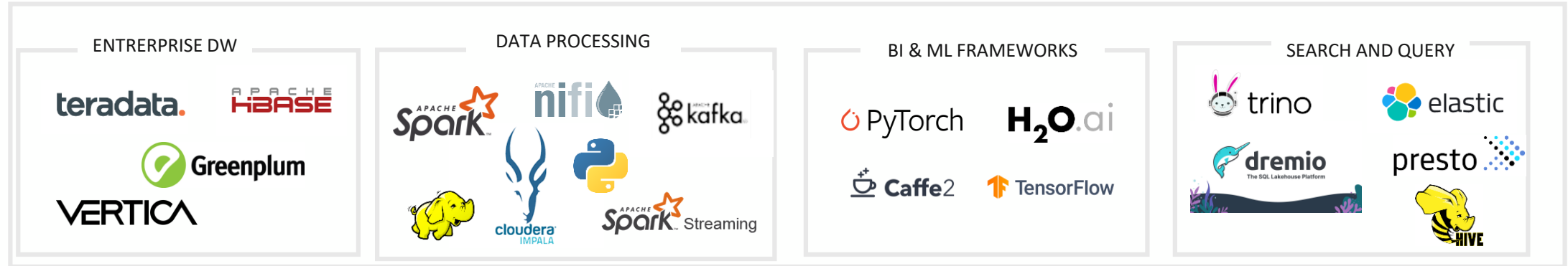


YESTERDAY'S BIG DATA INFRASTRUCTURE

- Complex architecture driven by legacy HDFS
- Inability to scale storage & performance independently
- High overhead: 3X replication
- Costly rebuild on node failure

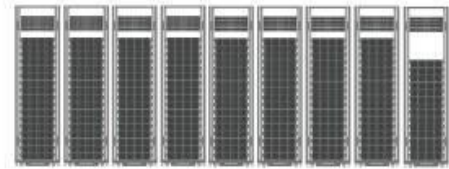


Modernise your Big Data Platform



UNIVERSAL STORAGE

VAST DATA vs HDFS



HDFS

VAST

TOTAL RACK UNITS (COMPUTE+STORAGE)	336	80
RAW CAPACITY	30PB	6PB
AVAILABLE CAPACITY	10PB	10.7PB*
STORAGE THROUGHPUT (READ BANDWIDTH)	180GB/s	360GB/s
RACKS	9	1
CLOUDERA SERVER NODES	150	36

THE VAST ADVANTAGE

80%

LESS CAPACITY NEEDED

2X

FASTER PERFORMANCE

88%

LESS RACK SPACE

80%

LESS SW LICENSE COST

// AGODA LEVERAGES VAST'S S3 COMPATIBLE FAST OBJECT STORAGE TO BUILD COST-EFFECTIVE COMPUTING ENVIRONMENT FOR **APACHE SPARK AND APACHE IMPALA PROCESSING**



THE PROBLEM

- Needed to move away from Cloudera HDFS and proprietary toolsets (HIVE and Impala)
- Needed an on-prem performant and scalable S3 platform for PRESTO DB.

THE SOLUTION

- Commercial flexibility that allows scale beyond 15PB of effective capacity, at half the cost of alternative tiering solution
- Multi-protocol support (NFS and S3) with massive scale

*The University of Auckland modernised data protection with **immutable backups** and **all-flash restore** in the event of a cyber attack.*



THE PROBLEM

- Ransomware threat meant large data restoral from Hard Drive Disk (HDD) storage could take months
- Legacy HDD storage did not offer immutability to protect from a ransomware attack

THE SOLUTION

- All flash data platform delivered as a per TB consumption model offer Cloud Commercial flexibility on premise
- All-flash performance and data immutability critical for the university.

VAST

Plan B has launched New Zealand's first and only **all-flash S3 offering**

PLAN.B
solarix iconz

THE PROBLEM

- A opportunity for customers to democratise their data with an all-flash data platform
- Current Backup as Service offering needed a modern S3 storage platform

THE SOLUTION

- New Zealand's first all flash S3 cloud offering with archive economics
- Data platform delivered as a managed service with a 10 year warranty.



THANK YOU