



# VAST Data

The Data Platform for the A.I. Era

**Chris Bisson – Regional Sales Director**  
Government, Defence, Space & Intelligence

**Doug Hadfield – Senior Technologist**  
Government, Defence, Space & Intelligence



## AGENDA –

- Introductions
- Who are VAST?
- What do VAST do?
- VAST customers
- Questions & A.O.B



“VAST Data's mission is to **shatter the tradeoffs that clip the wings of innovation**, enabling organizations to build beyond conventional limitations.”

” The Ministry of Defence's technology mission is to secure the future of the UK's armed forces by developing and deploying cutting-edge capabilities through science and technology. This involves identifying and rapidly developing innovative concepts and technologies to meet major military challenges, collaborating with industry, academia, and international partners, and ensuring that the UK Armed Forces have the best modern capabilities to deter and confront adversaries.”



Peter Gadd  
VP – EMEA & APJ  
International



Jason Hammons  
VP – SE  
International



Stuart Abbott  
MD - UK



TBC  
UK – SE MD



Chris Bisson  
RSD  
Defence & Gov, Sec



Randy Hayes  
VP  
Federal – U.S



Doug Hadfield  
Senior - SE  
Defence, Gov, Sec



Jonathan Ball  
Analytics & AI  
Specialist



Chris Snow  
Analytics & AI  
Specialist - SE





# Fastest-Growing Data Company in History...

84

Net Promoter Score  
(validated by OCX Cognition)

## Founded

December 2015

## Worldwide Team

1,000+ Employees, ~30 Countries

## Headquarters

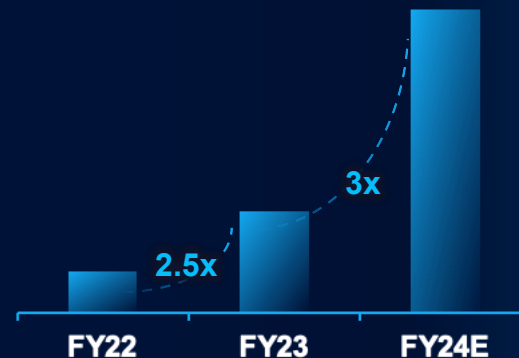
NYC (GTM), London UK

## Venture-Backed

\$380M Raised – \$9.1B Series E Valuation (2024)



## A Breakout Growth Story



## Key Metrics

\$1B Sold in 4 Years  
3x Annual Growth  
Cash Flow Positive

## Worldwide Data Platform Adoption

Enterprise AI and Data Processing

PIXAR

verizon

BOOKING  
HOLDINGS

NASA

M  
Man

COMPANY3

ALLEN  
INSTITUTE

zoom

U.S.  
DEPT OF  
DEFENSE

HARVARD  
MEDICAL SCHOOL

PacBio

expedient

New Multi-Tenant AI Clouds

CoreWeave

core42

Lambda



## The World's Leading AI Cloud Is Powered By VAST

Photo: First Cloud-Provider GB200 Bring-Up





## Building A Hyperscale Data Foundation For Generative AI

**Powering Some of the World's Largest GPU Clusters**  
20K+ GPUs, One Namespace

**Zero-Trust Infrastructure**  
Multi-Tenant, Encrypted Namespaces for Different Tenants

**Pioneering New Deployment Modalities: AI Factories**  
CNodes implemented in DPUs to enable savings and QoS



2025

**AI Operating System**

Distributed Agentic Computing & AI Agents

2023

**AI Data Platform**

Structured & Unstructured Data Services for AI

2019

**Universal Storage**

One Tier To Rule Them All

2016

**DASE**

Our Revolutionary Architecture





Direct-Attached, Shared Nothing



**“The architecture of the future”**



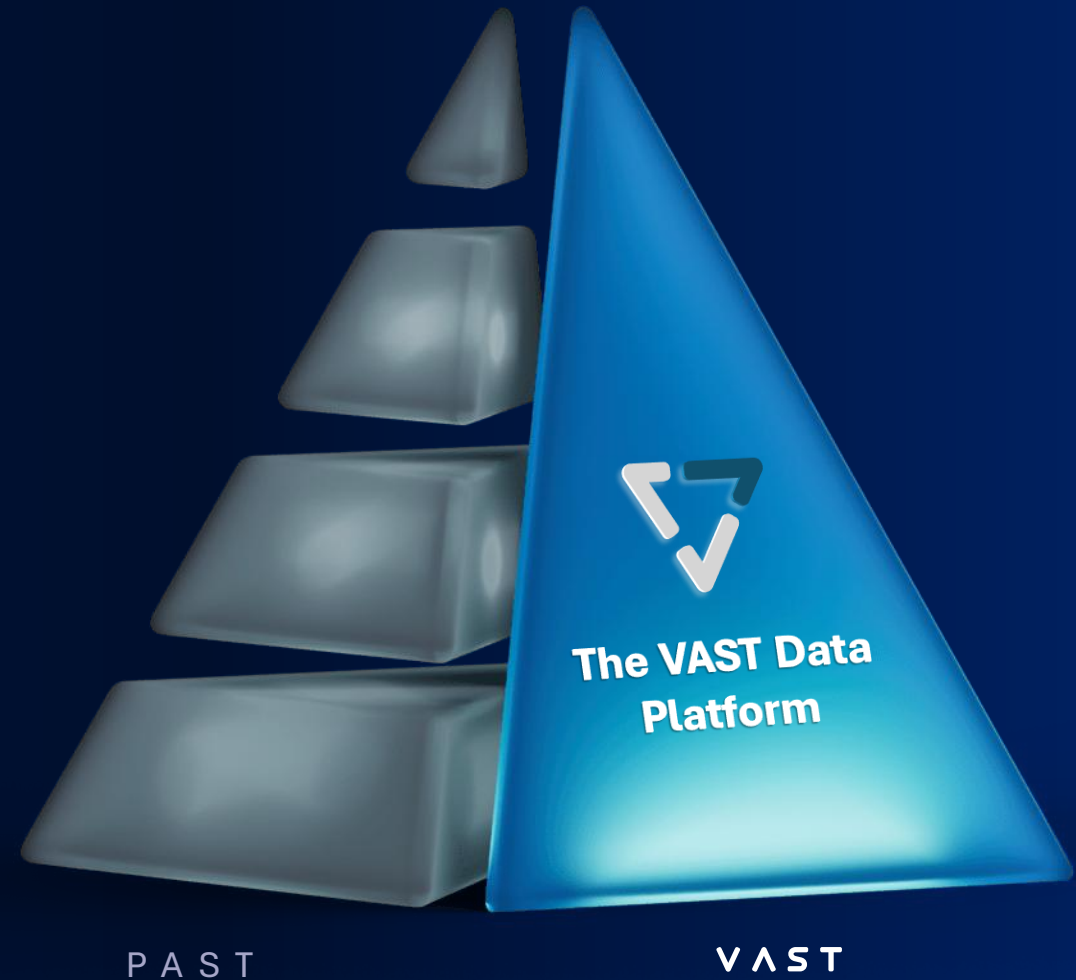
DASE: Disaggregated, Shared-Everything



# Consistent High Performance

For **ALL** of Your Data

- NO MORE TIERS!
- Unleash Big Data & AI Learning
- Radically simplify data management (eliminate data movement)
- Make historical data available to extract insights
- Consistent best user experience

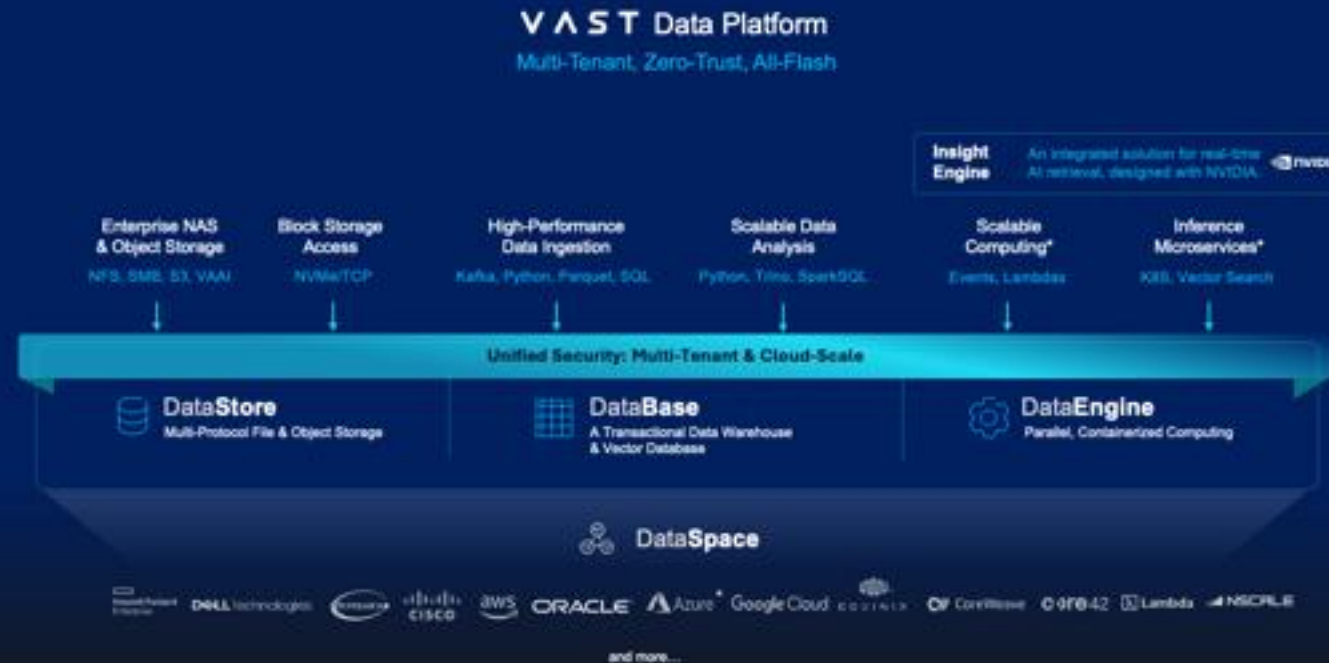


# Unleash Data & AI with the VAST AI Data Platform...

Business  
priorities



Analytics  
& AI



Ministry  
of Defence

# VAST Data Platform

Multi-Tenant, Zero-Trust, All-Flash

**Insight Engine**

An integrated solution for real-time AI retrieval, designed with NVIDIA.



Enterprise NAS  
& Object Storage  
NFS, SMB, S3, VAAI

Block Storage  
Access  
NVMe/TCP

High-Performance  
Data Ingestion  
Kafka, Python, Parquet, SQL

Scalable Data  
Analysis  
Python, Trino, SparkSQL

Scalable  
Computing\*  
Events, Lambdas

Inference  
Microservices\*  
K8S, Vector Search

**Unified Security: Multi-Tenant & Cloud-Scale**



**DataStore**

Multi-Protocol File & Object Storage



**DataBase**

A Transactional Data Warehouse  
& Vector Database



**DataEngine**

Parallel, Containerized Computing



**DataSpace**

Hewlett Packard  
Enterprise

DELL Technologies



ORACLE®



\*

Google Cloud



CoreWeave

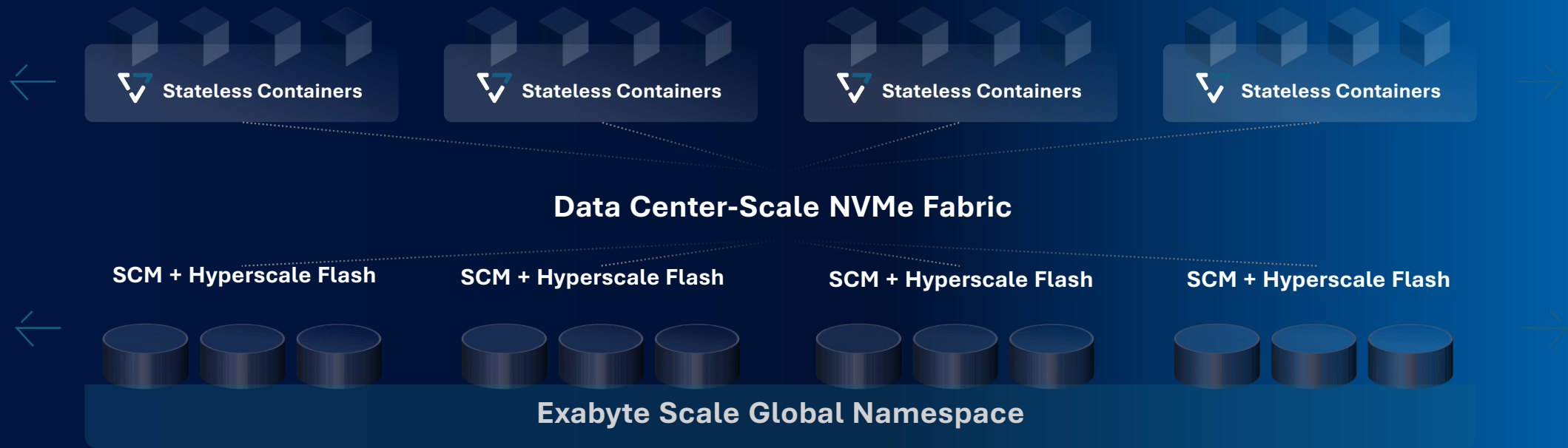
core42



and more...

# Disaggregated, Shared-Everything (DASE)

Introducing A New Hyperscale Architecture



## “The Architecture Of The Future” - IDC

### Disaggregated

Stateless Nodes Are Composable,  
Data Always Redundant

### Shared-everything

No Need For Cache Coherence,  
Massively Scalable Data Services

### Radically Efficient

New Global Efficiency Codes To  
Revolutionize NVMe Economics



## The **VAST** AI Operating System



### **DataEngine**

Scalable, Event-Driven Computing



### **AgentEngine**

Agent Tools & Orchestration



### **InsightEngine**

Real-Time RAG



### **DataStore**

Universal Storage Infrastructure



### **DataBase**

Transactional & Analytical Database



### **DataSpace**

Globally-Distributed Data Computing



# The **VAST** AI Operating System



## DataEngine

Scalable, Event-Driven Computing  
Triggers, Functions, Containers



## AgentEngine

Agent Tools & Orchestration  
Agents, Tools, Observability



## InsightEngine

Real-Time RAG  
Embeddings



## DataStore

Universal Storage Infrastructure  
NFS, SMB, S3, VAAI, CSI, vLLM, NVMe/TCP



## DataBase

Transactional & Analytical Database  
Kafka, Python, Parquet, SQL, Similarity



## DataSpace

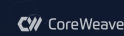
Globally-Distributed Data Computing



DELL Technologies



Google Cloud



and more...



# Enterprise Security to Enable Zero-Trust Data Environments

## On-The-Wire Security

NFS: Kerberos, TLS

SMB: Signing

S3 & DataBase: HTTPS

Replication: mTLS, Encryption

## Audit and Event Detection

Zero-overhead full audit log, query-able in VAST DB

Anomaly detection

## Multi-Tenancy

Per tenant encryption keys

Independent authentication domains

## External Key Management

IBM Key Protect + Thales CypherTrust 2.10

## Tenant Isolation

HW based isolation

Network based isolation

## At-Rest Encryption

FIPS 140-3

## Enterprise Authentication

LDAP, AD, NIS, Trusts

## Flexible ACLs

POSIX, SMB, S3 Bucket ACLs (Objects/Tables)

S3 Identity Policies/Bucket policies

Attribute-Based Access Controls

## Secure Linux

RockyOS (Managed)

Valid for STIG environments

## Indestructible Snapshots

Ransomware-Safe

# Multiple Layers of Security Assurance for Model Builders



## Cyber Resilience

Ransomware Protection

- Indestructible Snapshot Policies
- Anomalous Event Detection



## Data Provenance

Data Tampering Protection

- In-Flight and At-Rest Data Encryption
- Enterprise Authentication
- SEC-Calibre WORM Lock
- Audit Trails



## Model Reproducibility

Pipeline Versioning

The VAST DataSet

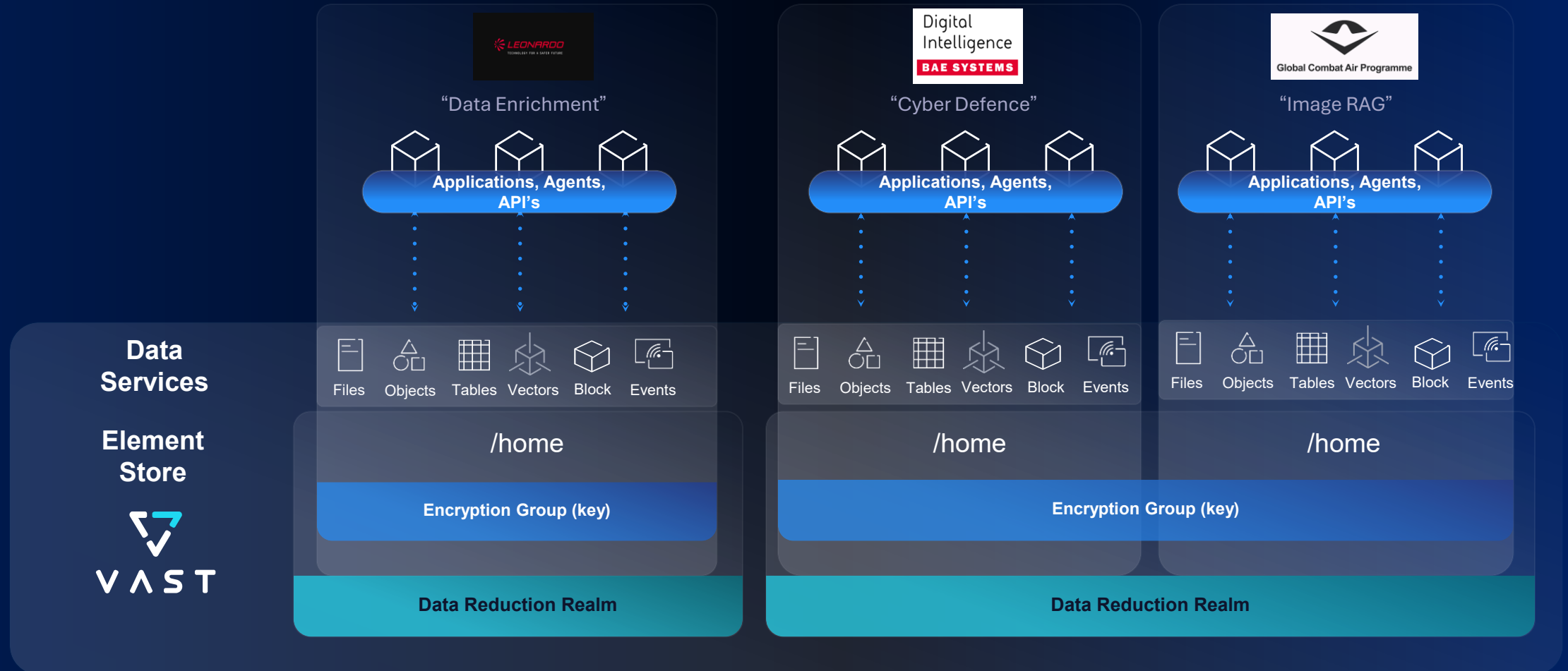
- Materialized Views for DL Pipelines
- For Instant Model Reproducibility

Code + Examples + Indexes (TBA)



# Designed for Secure Multi-tenancy

VAST Data Platform Secure Multi-Tenancy for IaaS, PaaS, SaaS Services on a Single Unified Platform



# AI Defence Solution

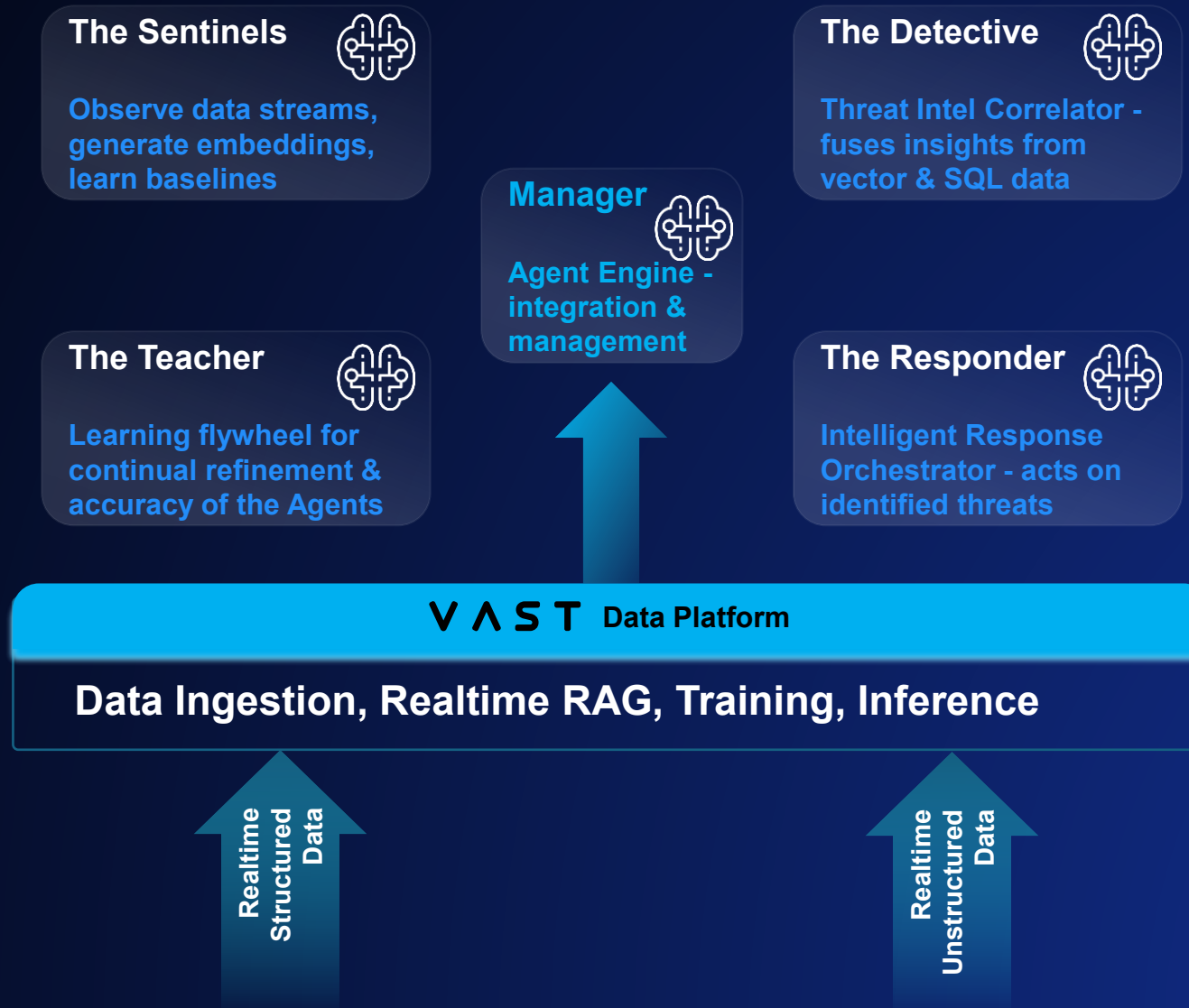
Build a learning, adaptive AI solution to dynamically defend your organisation

## The End of Reactive Security: VAST Unveils the World's First AI Agent Platform for Autonomous Cyber Defense

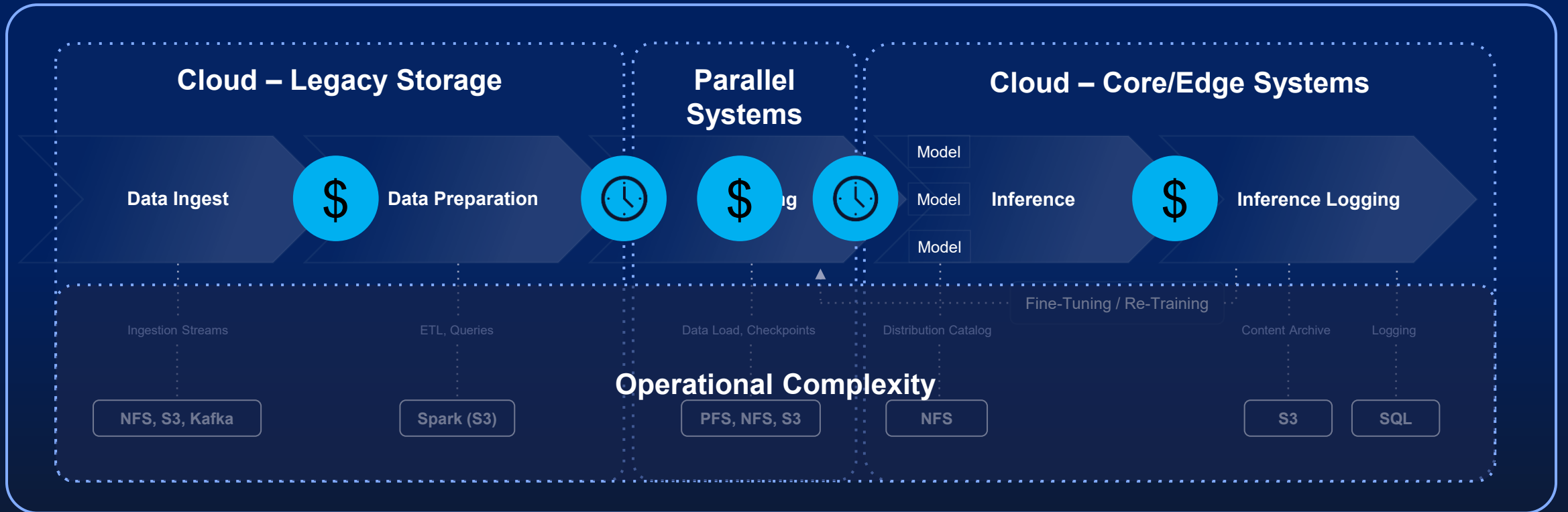
Authored by  
Jonathan Hays, Director of Product Management



# AI Defence Solution

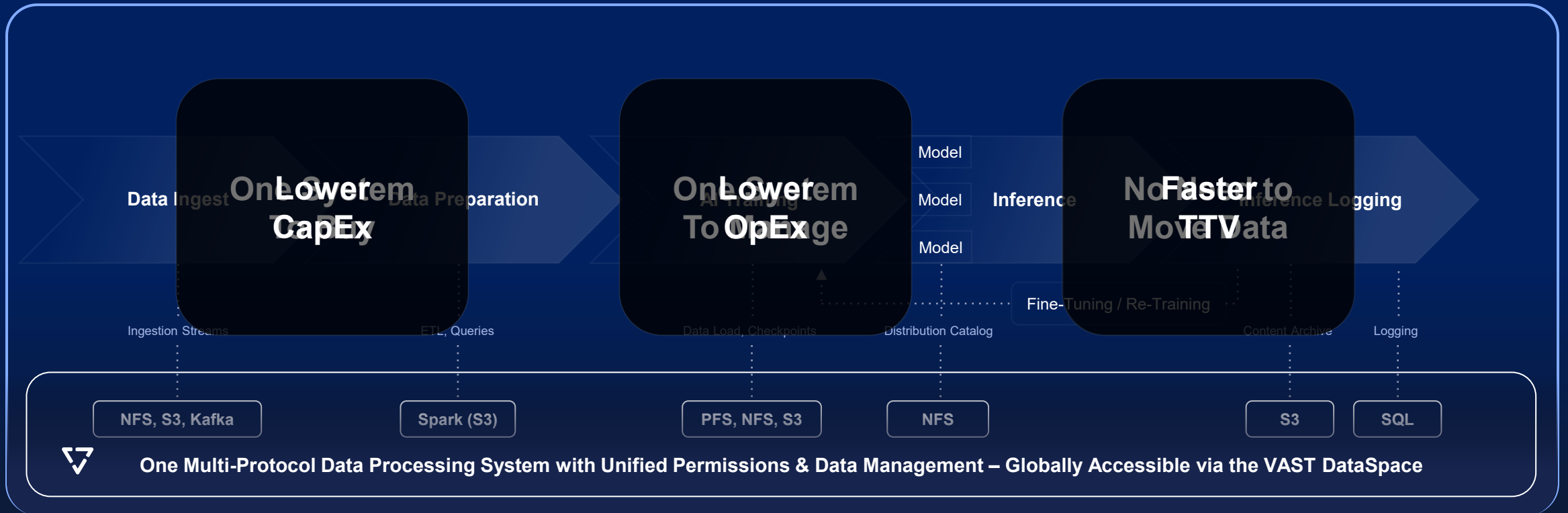


# VAST: The **Only** Comprehensive Data Platform for AI Pipelines





## VAST: The **Only** Comprehensive Data Platform for AI Pipelines





Ministry  
of Defence



Future battles will be fought across **multiple domains** - land, air, sea, space and cyber - **simultaneously**; they will be driven by data derived from sensors on **crewed and uncrewed platforms** operating across all domains.

Enabling AI to drive **real time insights** that can be **shared securely** across all domains and simulate **multiple mission scenarios** will help win future battles.







# One Universal Data Platform for All Your Data Needs

Enterprise Applications | Backup | Archive | Analytics | AI

VAST Data

# Customer Stories



# VAST Data Platform For Artificial Intelligence

## Accelerated Infrastructure For AI Workloads

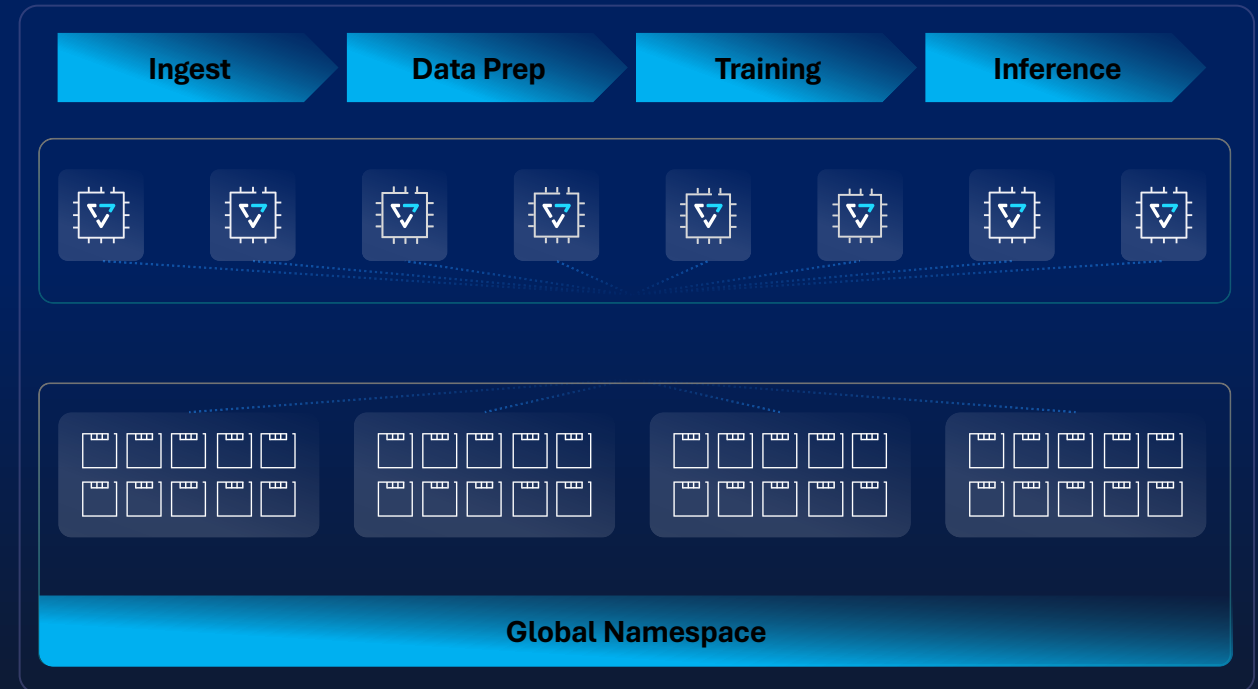
One Simple, Parallel Tier Of NVMe To Serve Files, Objects & Tables

## A Full-stack Solution For End-to-end AI Pipelines

The Only Solution To Integrate Structured & Unstructured Data

## An Enterprise-grade, Zero-trust Services Platform

Multi-tenancy, Data Retention, QOS, Ransomware Protection



F E A T U R E D C U S T O M E R S





## The World's Leading AI Cloud Is Powered By VAST

Photo: First Cloud-Provider GB200 Bring-Up

# The World's Most Important Frontier Models Are Trained On VAST

Photo: Memphis Data Center with 100Ks of GPUs



Grok

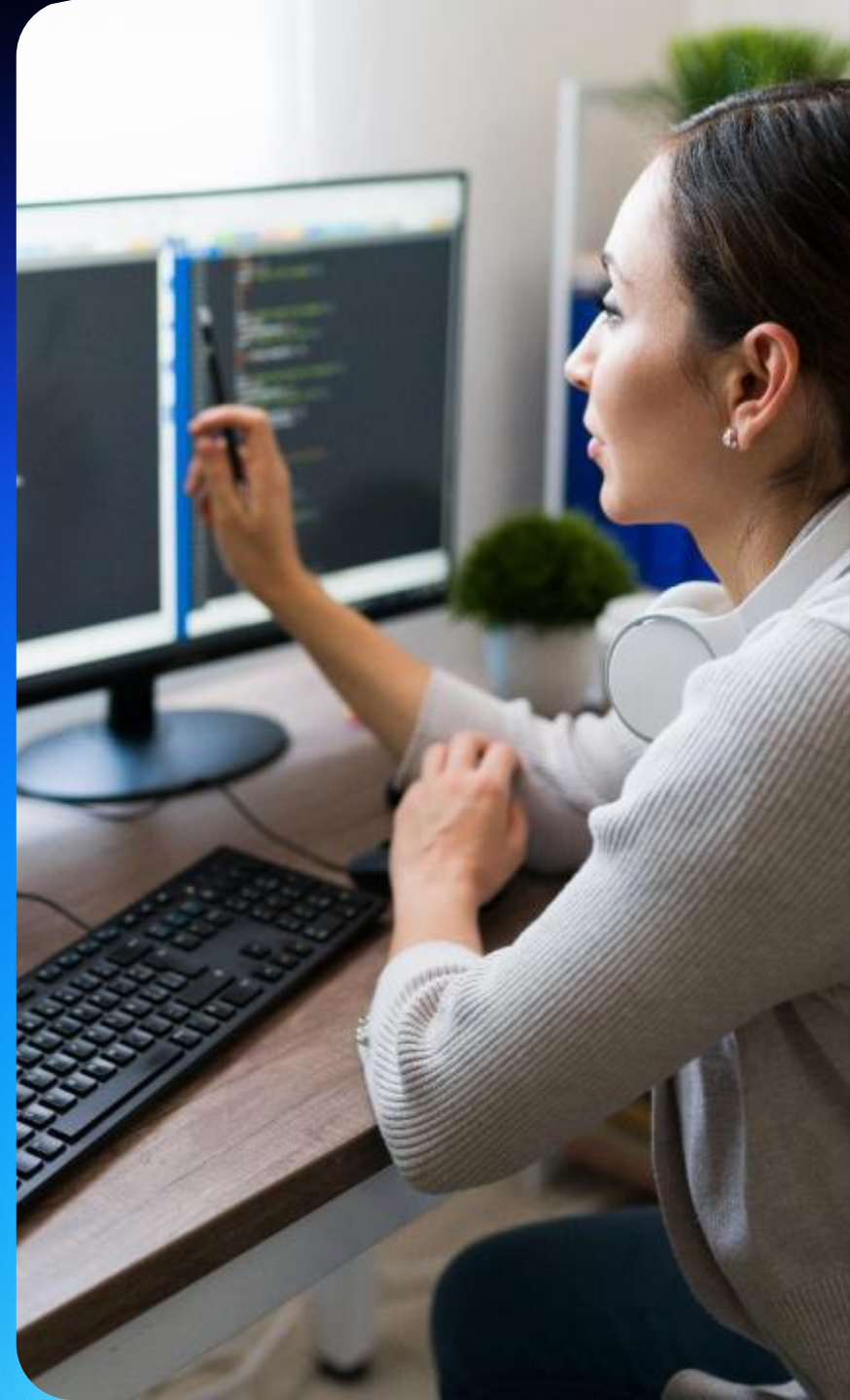




**“With VAST, we have found a silver bullet: a platform that supports our efforts now and will help to accelerate our roadmap for the future too.**

#### Success Story

- High throughput performance for multiple protocols
- Large-scale machine learning jobs running continuously from users across many teams
- Capacity and concurrency scalability with ease of operational management



# Enterprise Backup & Recovery

## The Most Affordable Path To Rapid Recovery

Similarity Is The Industry's Best Data Reduction...Guaranteed

## Restore Data At Up To 50x The Speed Of Competing Arrays

VAST's Parallel NVMe Architecture Makes Recovery Easy

## Cyber-hardened Data Protection Infrastructure

Ransomware-proof With Full-auditability And Anomaly Detection

FEATURED CUSTOMERS

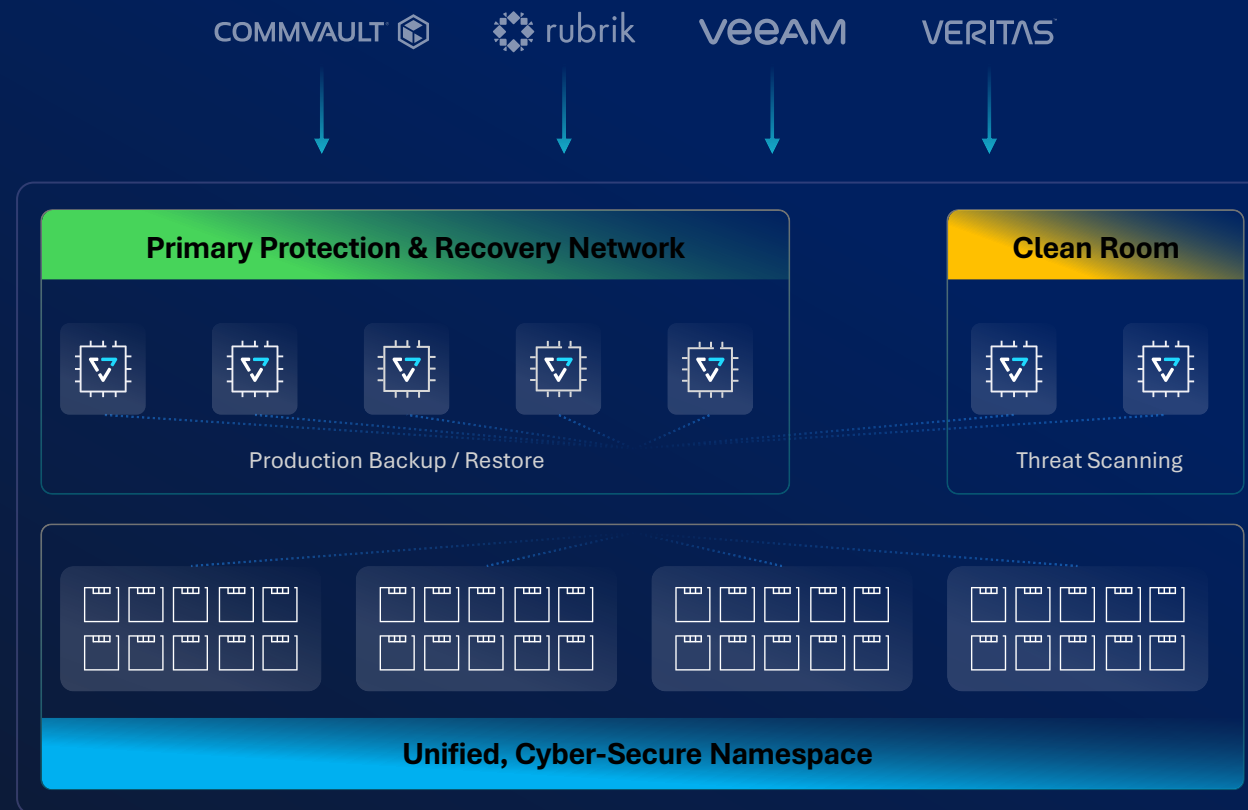


Kaspi.kz



DigitalOcean

opentext™







## Delivering Efficiency and Security For A Data Protection SaaS Platform

**A High-speed Data Protection & Recovery Platform**  
Up To 50x The Restore Speed Of DataDomain For Veritas

**A Consolidated Data Protection Cloud**  
Radical Savings Vs Legacy Data Protection Targets

**A Secure, Zero-Trust Cloud Delivery Platform**  
Designed From The Ground Up To Service Multiple Tenants

# High-Performance Computing

## Simplify And Accelerate HPC Cluster I/O

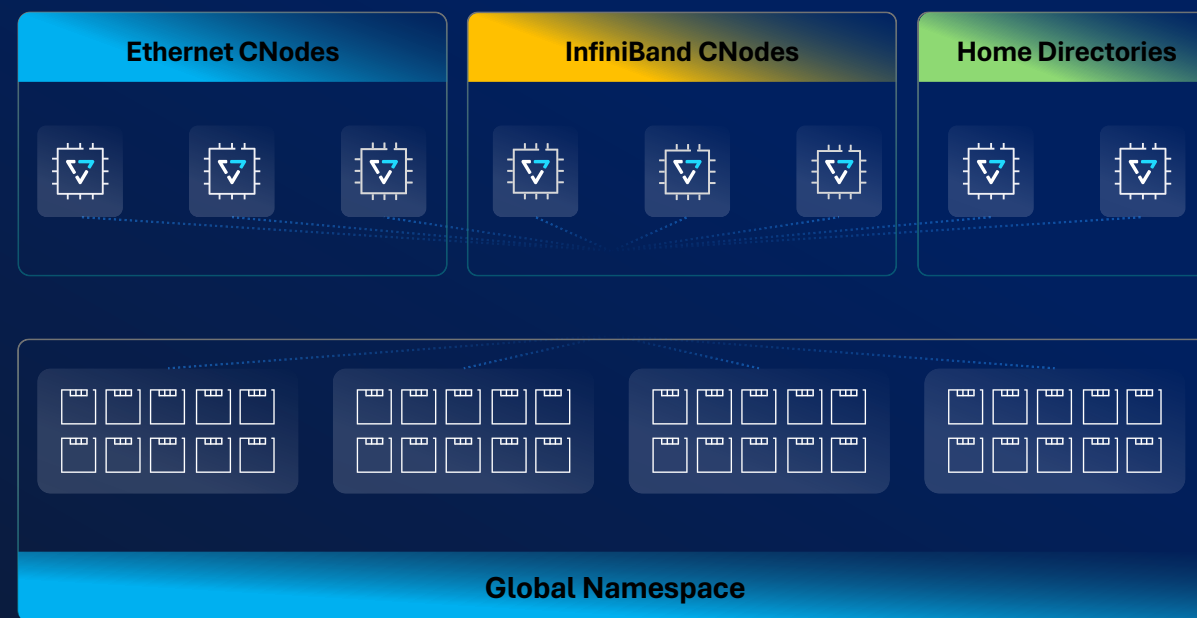
1 Tier Of Parallel NVMe, Eliminates HPC File System Headaches

## Radical Infrastructure Efficiency

2:1-3:1 Data Reduction Enables Savings And Tier Consolidation

## Enterprise Data Management Without Scale Compromise

Native Data Protection, Data Catalog, Ransomware Protection...



FEATURED CUSTOMERS





## Simplifying and Scaling HPC Supercomputing

### **A Composable, Site-wide File System**

Cnode Pools Enable Clusters To Enjoy Dedicated I/O Engines

### **Optimized For A Whole Spectrum Of HPC I/O**

Small Files, Large Files – Everything Just Works Fast

### **An Enterprise Appliance Experience**

Online Upgrades Make It Easy To Preserve Operational SLAs





## Driving Synergy Between Data Science Motorsport

Williams Racing uses the VAST Data Platform to process racing telemetry and optimize car designs in near-real-time.



# VAST Data Platform For Big Data Analytics

## The Persistence Layer For Modern Analytics.

Support For A Wide Variety Of Analytics Toolsets

## Acceleration Options: From Great To Astounding

VAST-DB Enables Revolutionary Acceleration And Engine Efficiency

## Synthesized With Vast's Unstructured Datastore

Full-stack Support For Structured & Unstructured Data Processing



splunk>

VERTICA



RAPIDS



S3(A)



Apache Arrow



VAST DataEngine



Global Namespace

FEATURED CUSTOMERS







## Reimagining Big Data Infrastructure For Better Telco Data Analytics

**Scalable Infrastructure To Power Multi-channel Analytics**  
Petabytes Of Data Warehouse Capacity

**Radical Infrastructure Efficiency**  
Similarity-Based Data Reduction Delivers Added Savings

**A Zero-trust, Secure Enterprise Data Platform**  
End-To-End Encryption To Protect PII Data



# Maximizing Efficiency, Reducing Costs, and Future-Proofing Infrastructure

Benefits Seen by Top 10 Global Bank with VAST



# Maximizing Efficiency, Reducing Costs, and Future-Proofing Infrastructure

Benefits Seen by Top 10 Global Bank with VAST



# Media & Broadcast

**One Platform, with QOS, for The Entire Production Pipeline**

Co-Locate Transcode, Editorial, Rendering and Playout

**Radical Infrastructure Efficiency**

DRR savings for different broadcasters can reach 2:1+

**Enterprise Data Management Without Scale Compromise**

Native Data Protection, Data Catalog, Ransomware Protection...



F E A T U R E D C U S T O M E R S







+



## Modernizing and Simplifying Digital Asset Management

### All Archive Content is Online in Real-Time

Elevated 10s Of PBs Of Data From LTO Libraries Into VAST

### Scalable Infrastructure to Support NHL's Workflows

All Of NHL's Content Production Pipeline Runs On VAST

### Data Intelligence, Built-In

VAST Data Catalog Provides Built-in Metadata Management







**Thank You**

