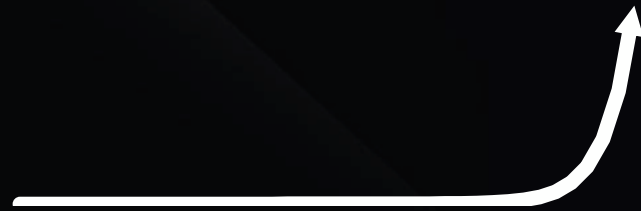# TAMING THE PETABYTE MONSTER

JASON HAMMONS, VP OF FIELD ENGINEERING
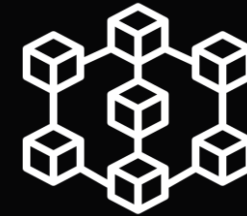
THE PETABYTE MONSTER IS GROWING

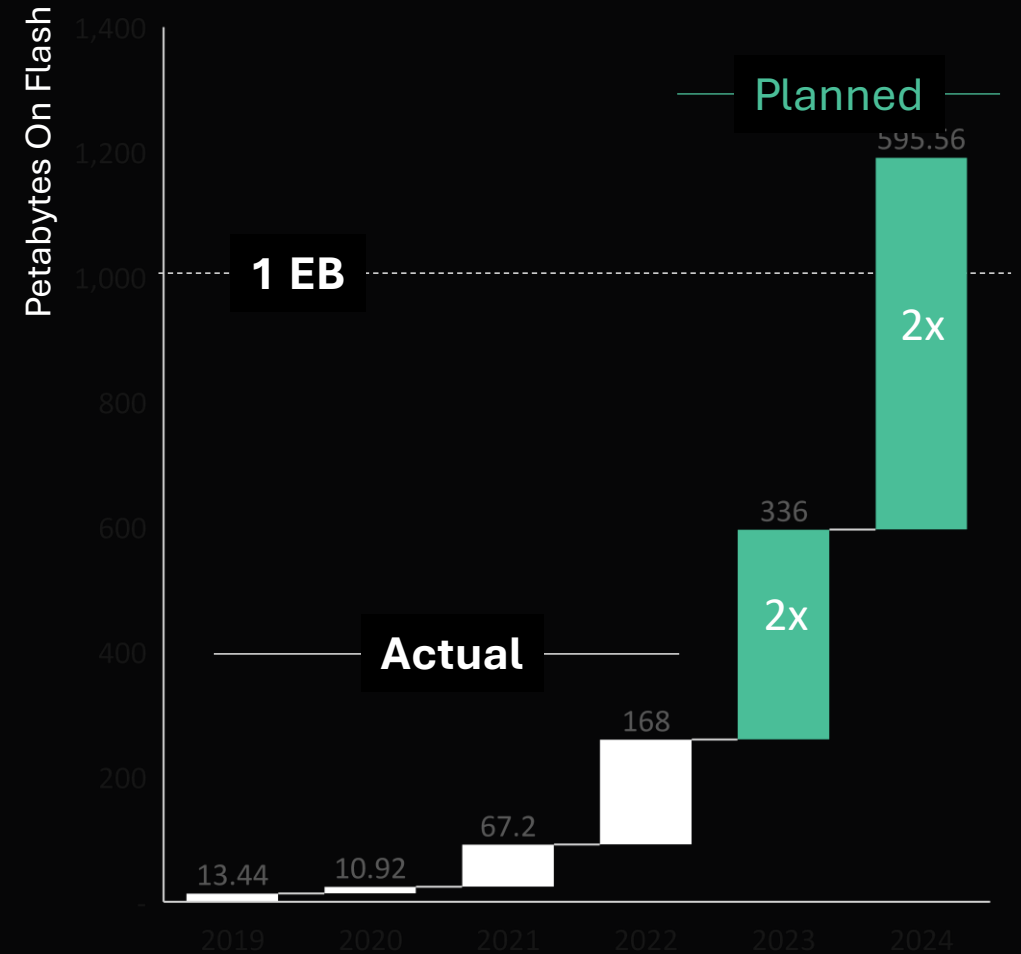**40 Years of Compounding Growth**

New Approaches to Research

New Trading Instruments

40 YEARS OF COMPOUNDING GROWTH

- Quant Research Now 40 Years Old
- Datasets now growing 2x Y/Y
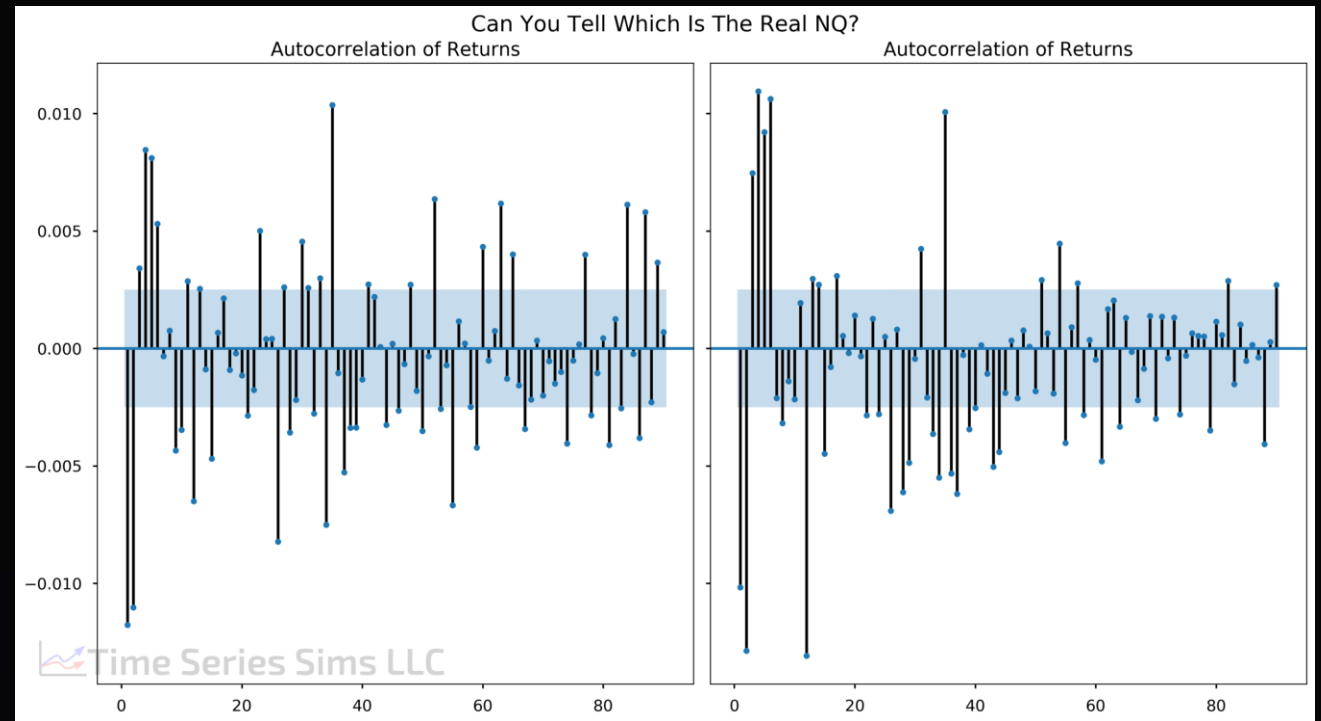- VIX avg is roughly 2x since Covid

Scaling At One of VAST's Largest Quant Trading Customers

THE MACHINES ARE NOW CREATING DATA

- Monte Carlo is being challenged by lack of sophistication and auto-correlation

- More firms are turning to DL, but the "deep" in deep learning = lots of data

- Where to get the training data? Make it!

Source: Blackarbs LLC

CONFIDENTIAL

CRYPTO IS A DATA GROWTH CATALYST

- Full ownership lineage
- 500 exchanges trading coins
- More metadata to analyze

7x Larger Crypto Trade Data Payload

Options Trade Data Payload

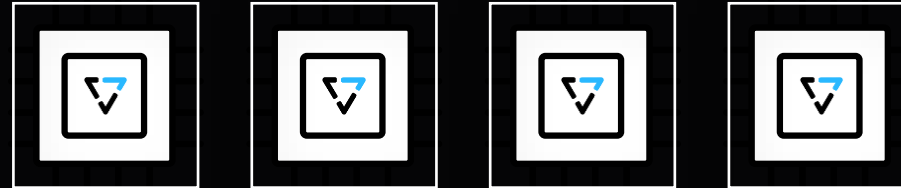# DATA IS GROWING AT HISTORIC LEVELS & MUST BE ACCESSED IN REAL-TIME

BUSINESSES NEED TO CONTROL THE COST OF REAL-TIME INFRASTRUCTURE
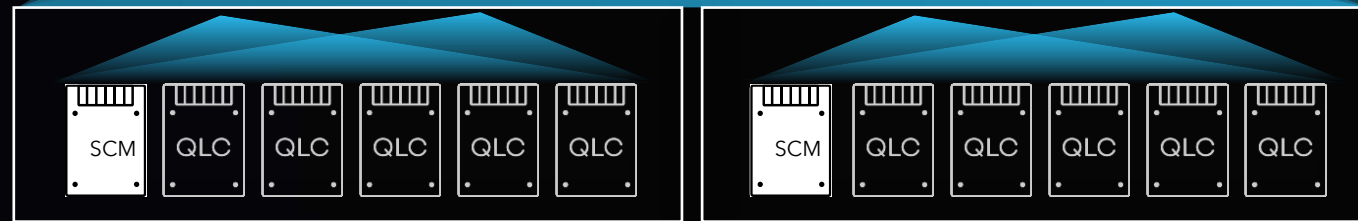
ONE TIER TO RULE THEM ALL

NFS • SMB • S3 • GPUDirect Storage

1,000s of stateless containers
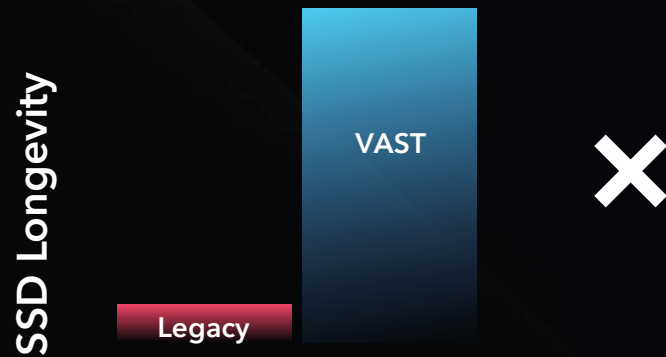Zero east west traffic, linear scale

NVMe Fabric

Exabytes of low-cost flash
All-flash at archive price-points

SCM QLC QLC QLC QLC QLC   SCM QLC QLC QLC QLC QLC

DASE: the world's first partition-less scale out architecture

THE PATH TO FLASH AFFORDABILITY

VAST predictive placement saves 85%

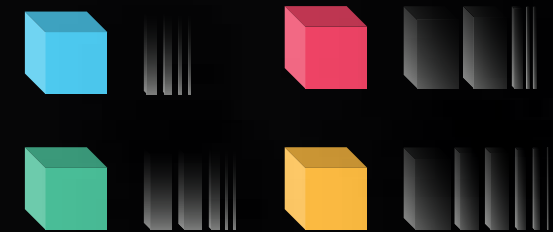**Data protection saves up another ~30%**

Unprecedented storage efficiency (2:1 on *compressed* data)

SSD Longevity

VAST

Legacy

Enable hyper-scale flash

Locally-decodable erasure codes

Similarity-based data reduction

ALL-FLASH MARKET DATA ARCHIVES
ARE WHAT WE DO

THANK YOU

www.vastdata.com