

# **2 Years In: *How New Data Reduction Can Achieve HDD Economics For All-Flash Market Data Storage***

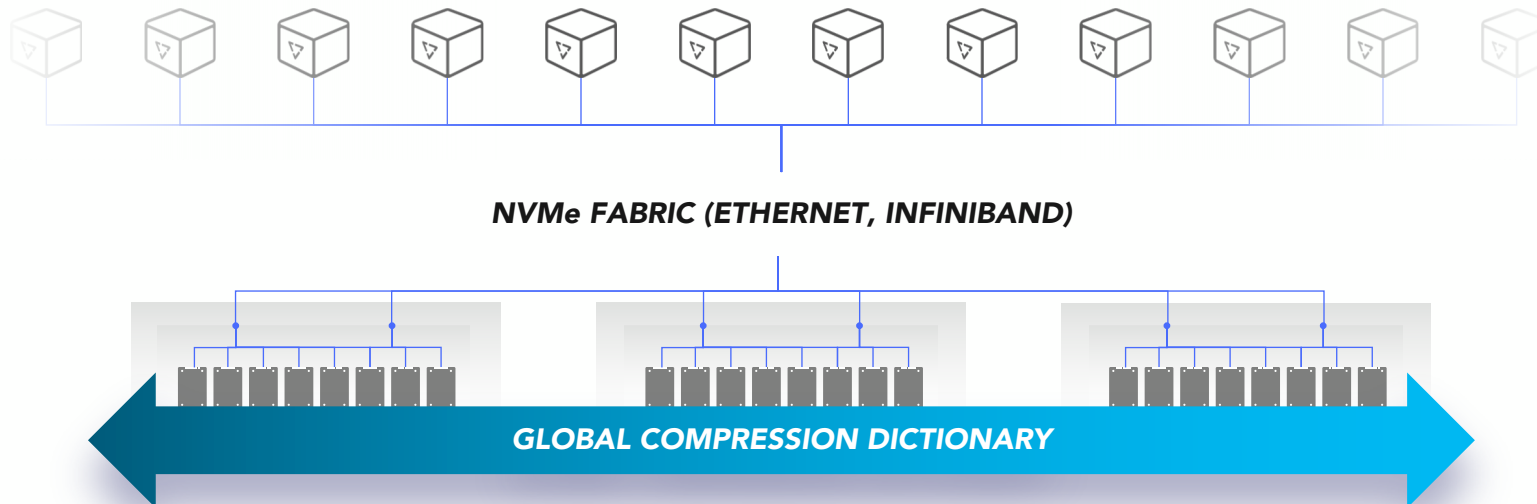
JEFF DENWORTH > CO-FOUNDER + CMO



**WE ARE *THE* PROVIDER OF ALL-  
FLASH INFRASTRUCTURE FOR  
QUANTITATIVE TRADING**



# AFFORDABILITY TO MAKE FLASH **UNIVERSAL**

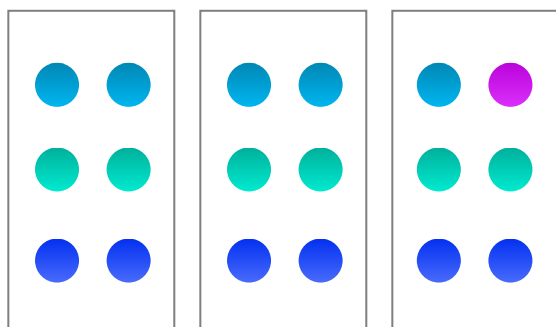


**GLOBAL WEAR LEVELING OF CHEAP FLASH**  
++ QLC FLASH IS THE LOWEST COST FLASH

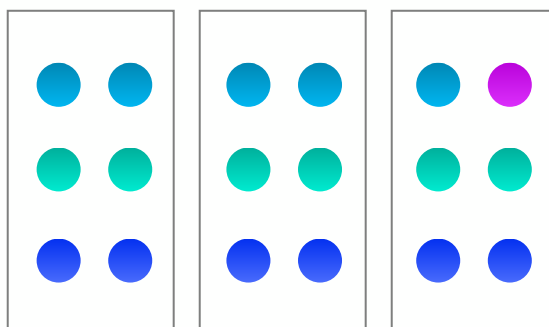
**GLOBAL RAID STRIPES – 146+4**  
++ 2.7% OVERHEAD, 60M YEARS OF MTDL

**GLOBAL DATA REDUCTION**  
++ DRAMATIC COMPOUNDED SAVINGS

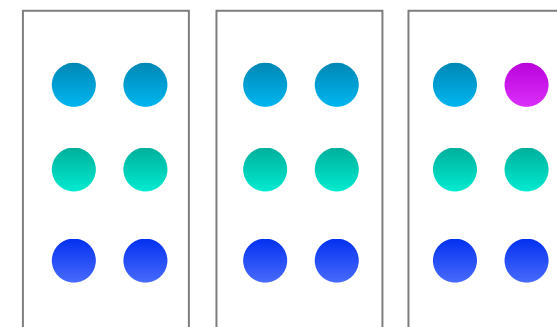
# ***SIMILARITY-BASED DATA REDUCTION***



**COMPRESSION** Fine Grained, But Local



**DEDUPLICATION** Global, But Coarse



**SIMILARITY REDUCTION** Global & Fine Grained

## **EXAMPLE SAVINGS FROM SIMILARITY**

**3:1** Pre-Reduced Backups

**3:1** Pre-Compressed Log Files

**2:1** Life Science Data

**3:1** HPC Data

**3:1** Animation Data

**8:1** Uncompressed Time-series Data

# SAVING MONEY, BYTE BY BYTE

## Legend

compressible data

delta data

reference\_chunk\_data\_3\_488\_52641792 <--> similar\_chunk\_data\_3\_495\_199966720 - Text Compare

Home Sessions All Diff Same Context Minor Rules Format Copy Edit Next Section Prev Section Swap Reload

/Users/asafiev/repos/orion/reference\_chunk\_data\_3\_488\_52641792

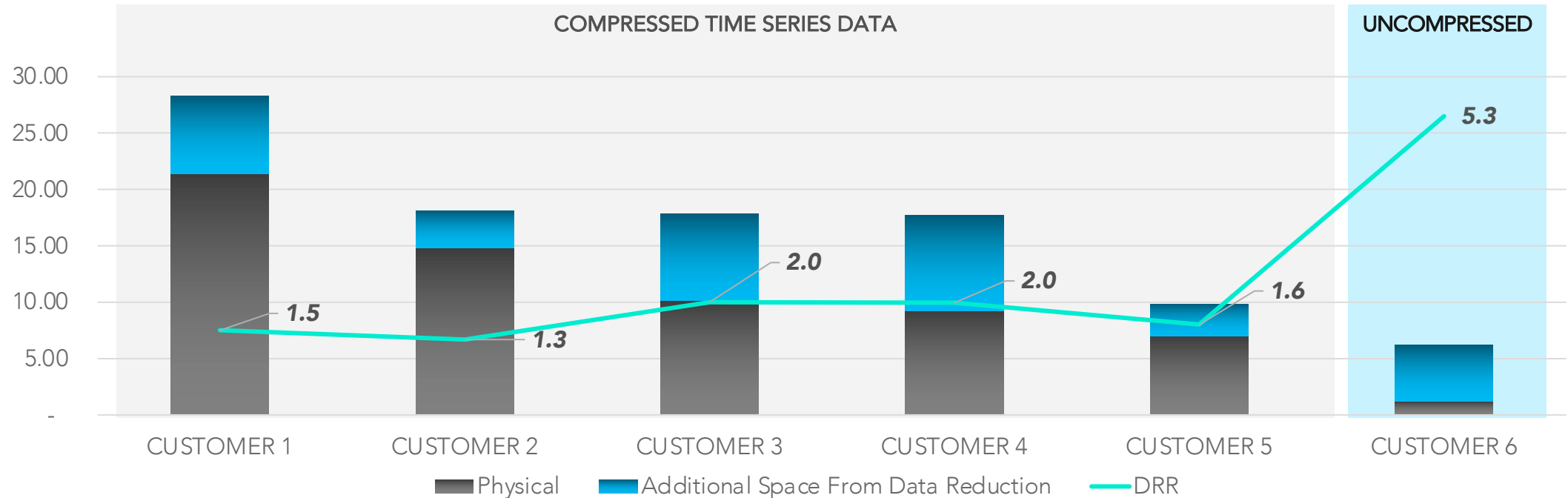
Today, 7:06:43 28,405 bytes Everything Else Current Locale (UTF-8)

67: 54 Default text

67: 54 Default text

6 difference section(s) Important Difference Insert Load time: 0.15 seconds

# DATA REDUCTION ACROSS A FEW OF VAST'S QUANT TRADING CUSTOMERS



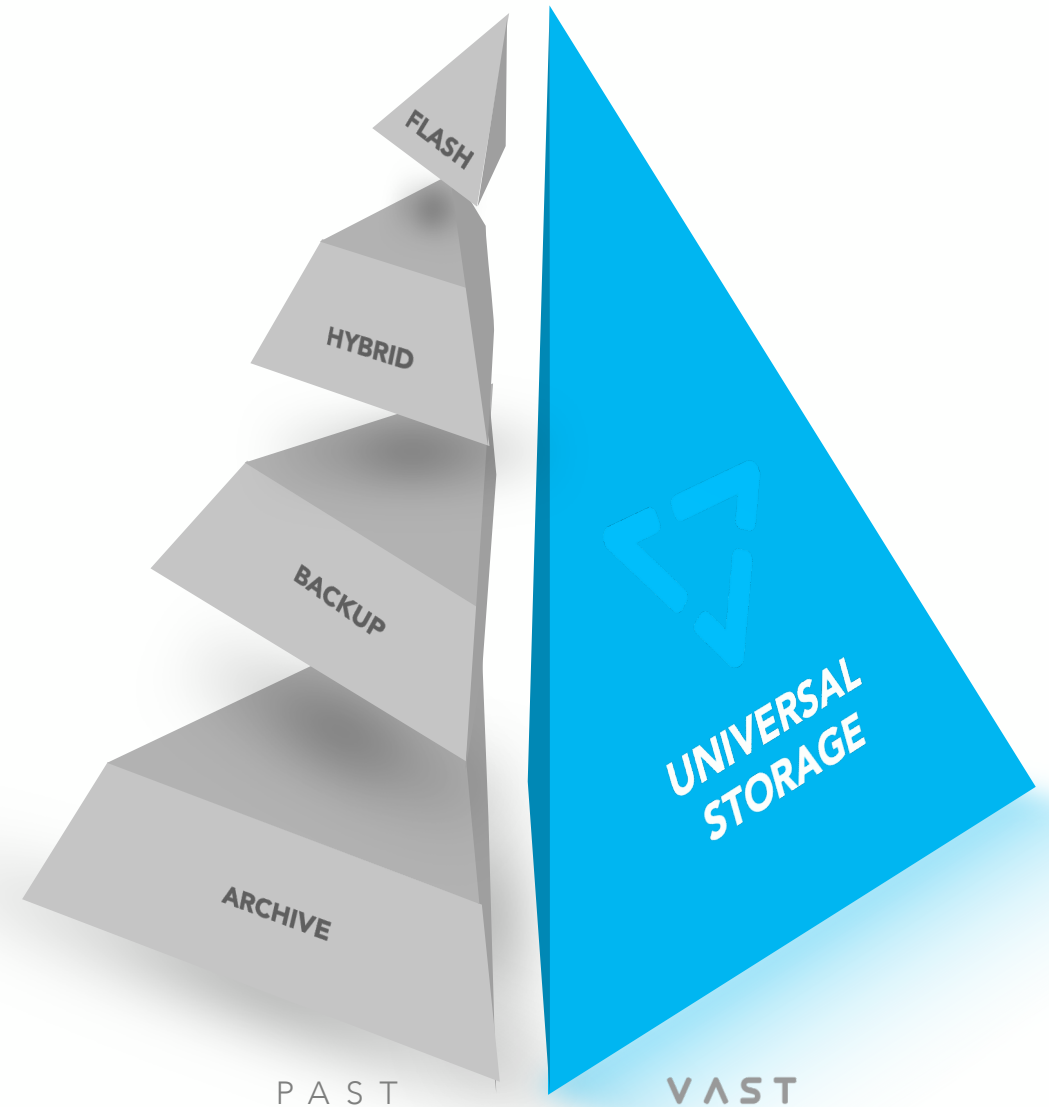
OUR MISSION

# NO MORE **TIER**S

## **BREAKING TRADEOFFS TO MAKE STORAGE SIMPLE**

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

VAST



## BUSINESS OVERVIEW

# RECORD-BREAKING PRODUCT ADOPTION

- ~\$100M Sold In Just 2 Years
- Fastest-Growing In Infrastructure History
- 350% Year-Over-Year Growth In 2020
- Cash Flow Positive Exiting 2020

VAST





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***THANK YOU***

