Quantum.

BACKUP'S BUSTED

Discover what's putting pressure on backup and what to do to fix it

Agenda

- New Value of Data
- Today's Approach
- Next-Gen Data Protection
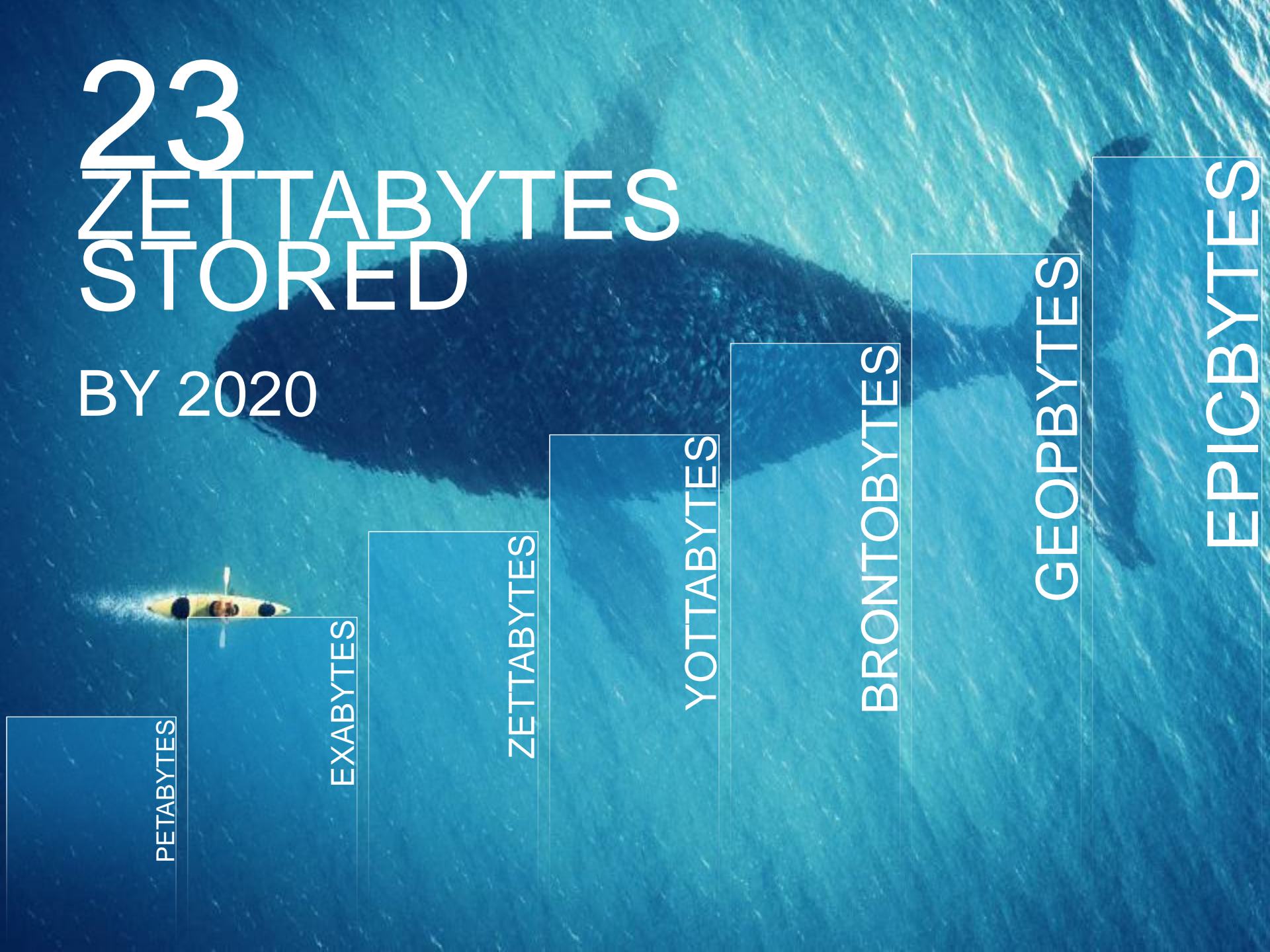
50%

VIDEO & PICTURES

40%

WILL TOUCH THE CLOUD
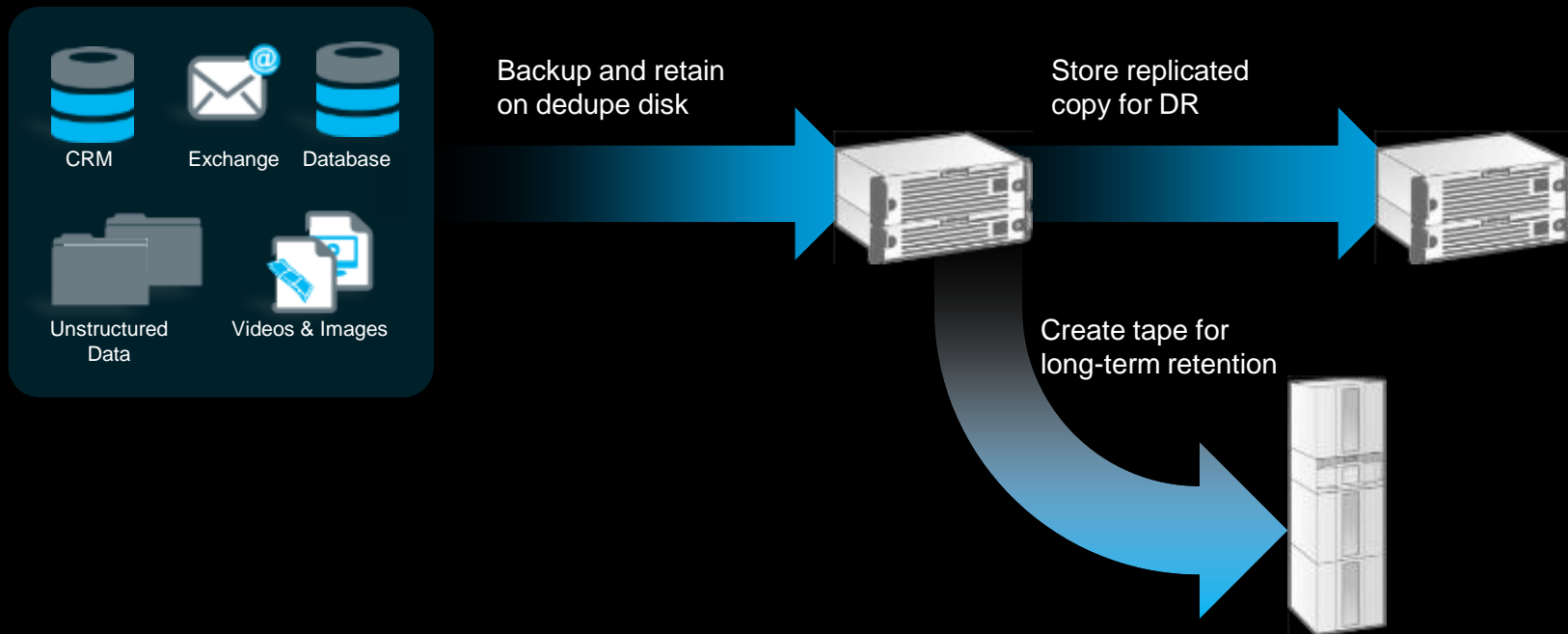
Traditional Approach
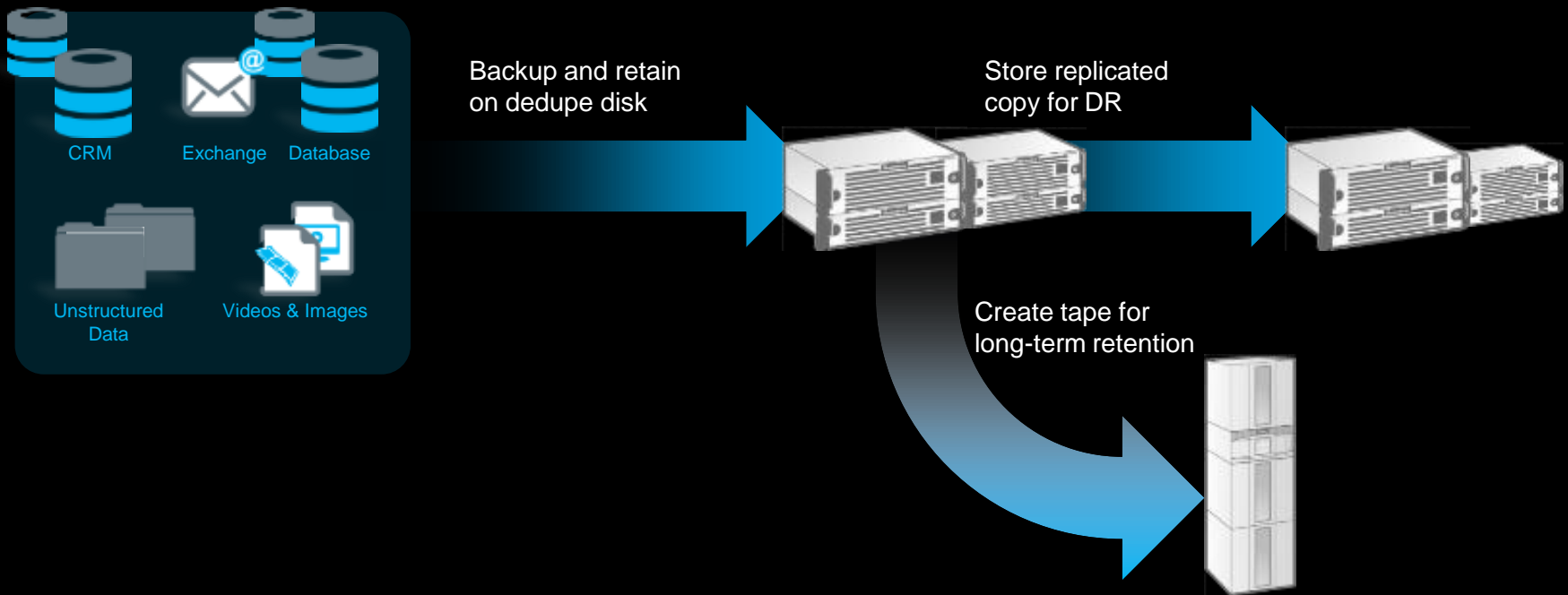
CRM

Exchange

Database

Unstructured Data

Videos & Images

Backup and retain
on dedupe disk

Store replicated
copy for DR

Create tape for
long-term retention

Traditional Approach

CRM Exchange Database

Unstructured Data

Videos & Images

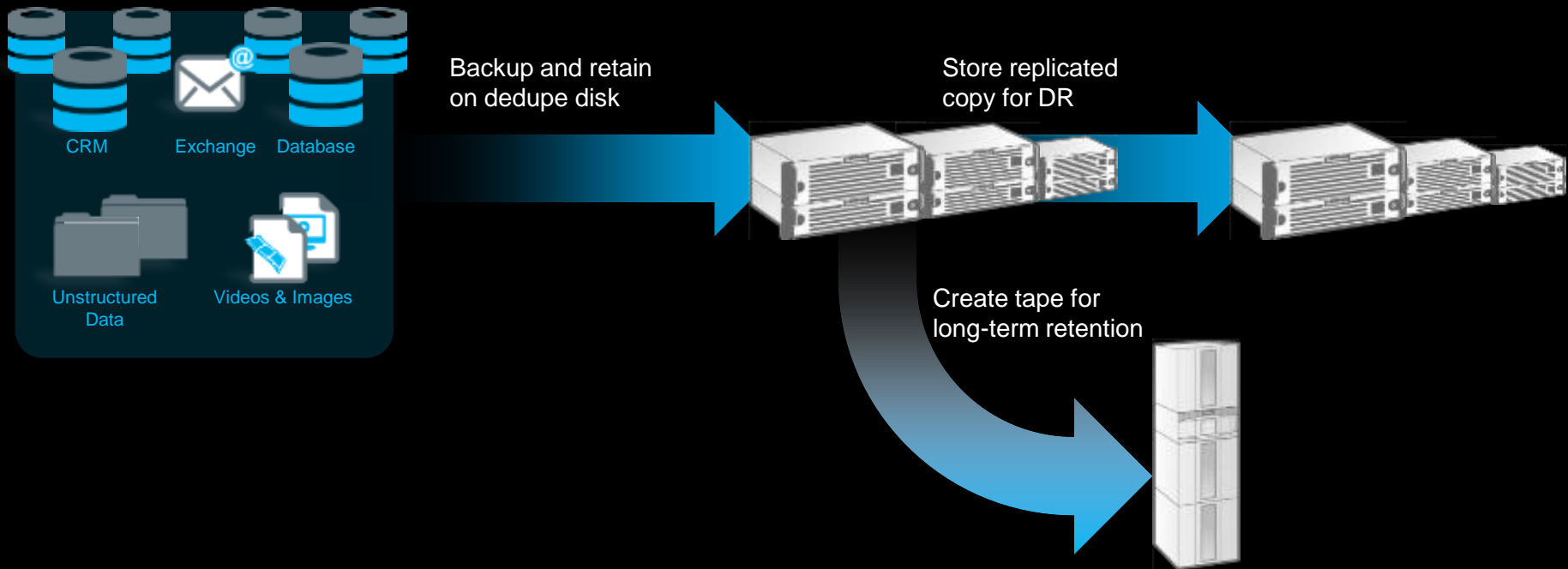Backup and retain on dedupe disk

Store replicated copy for DR

Create tape for long-term retention
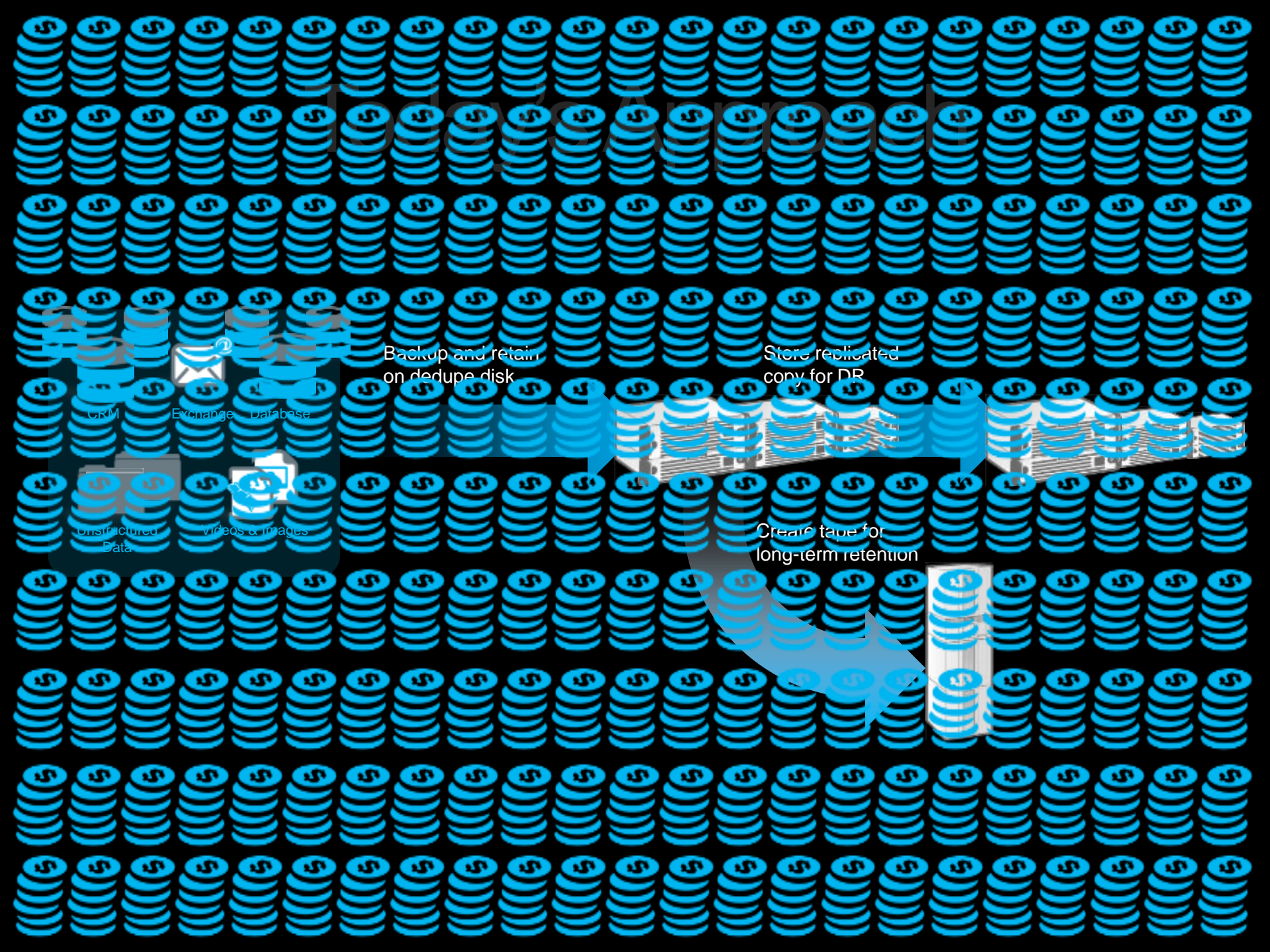
Traditional Approach

CRM Exchange Database

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Today's Approach

CRM   Exchange   Database

Unstructured Data   Videos & Images

Backup and retain
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CRM   Exchange   Database

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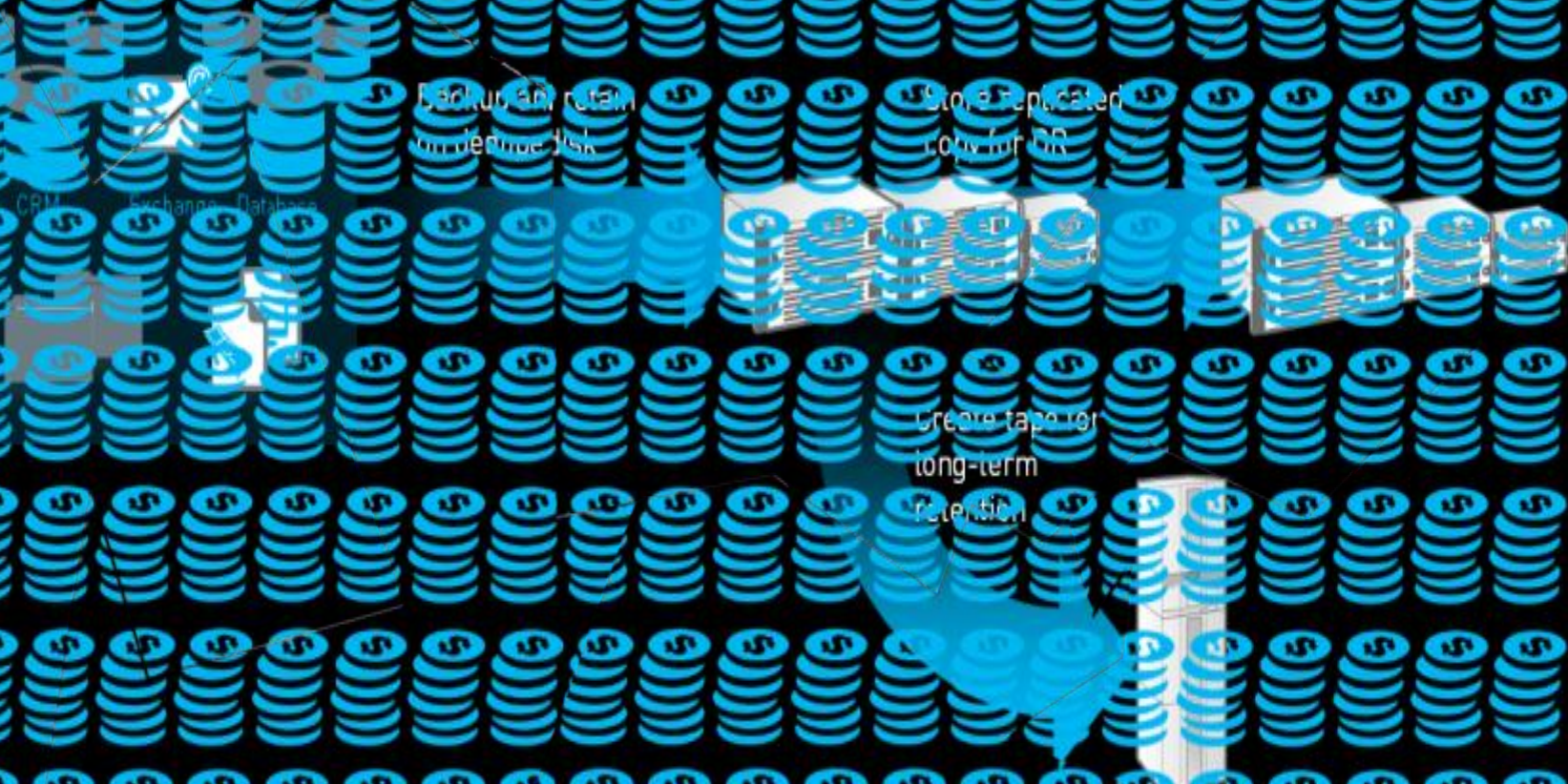
BACKUP'S BUSTED

Next-Gen Data Protection

STRUCTURED DATA

Physical Environment

CRM   Exchange   Database

Virtual Environment

Snap a native copy

UNSTRUCTURED DATA

Retain in native format
on low-cost LTFS & LTO

ON PREMISE

Dedupe & Replicate

OFF-SITE

Keep content active and
available from anywhere
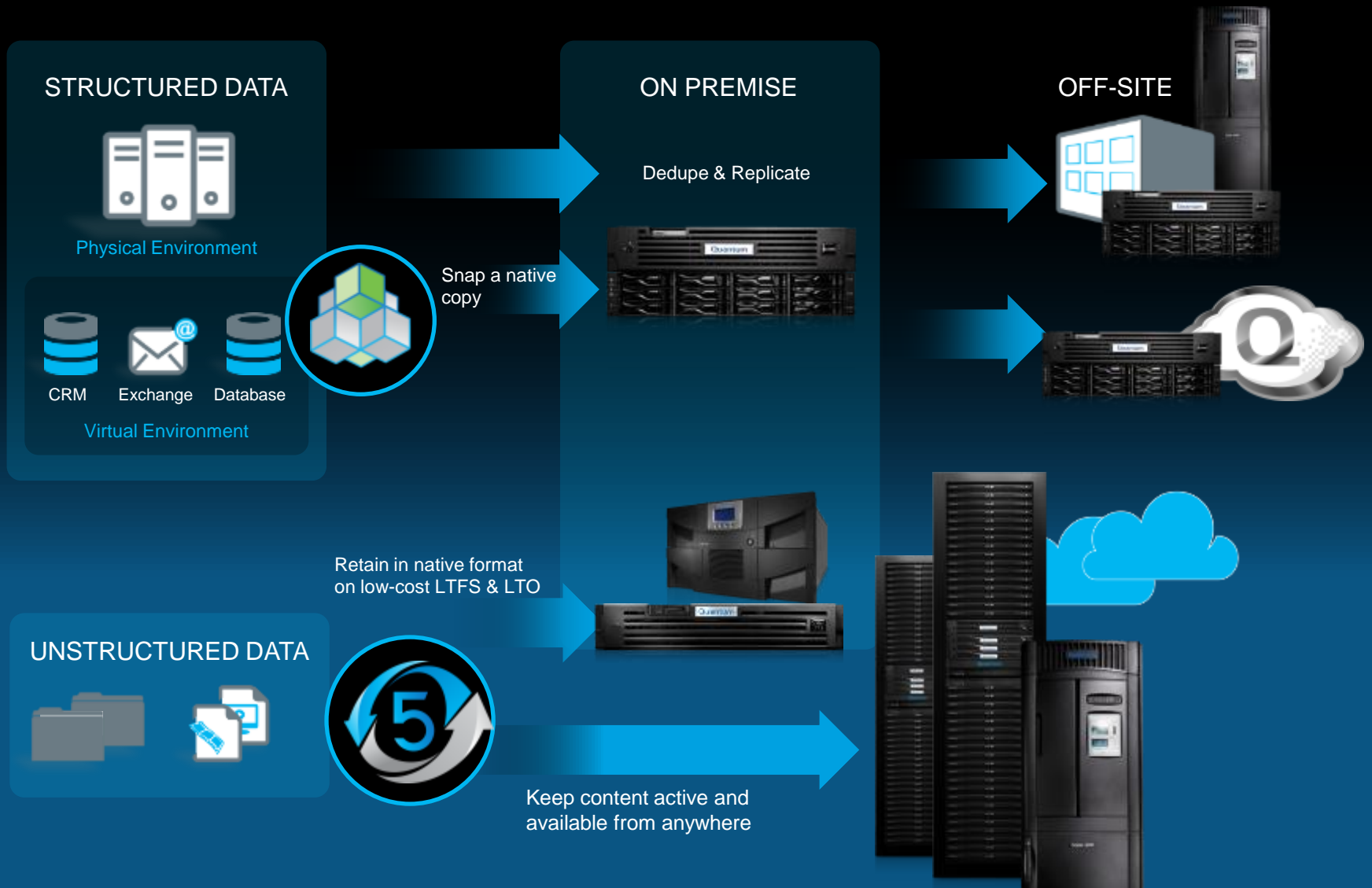
Reduce Complexity of Multi-Site Backup

SITUATION / PROBLEM

Tape management expenses at remote sites was straining IT resources. Remote sites were on different hardware and software versions/platforms.
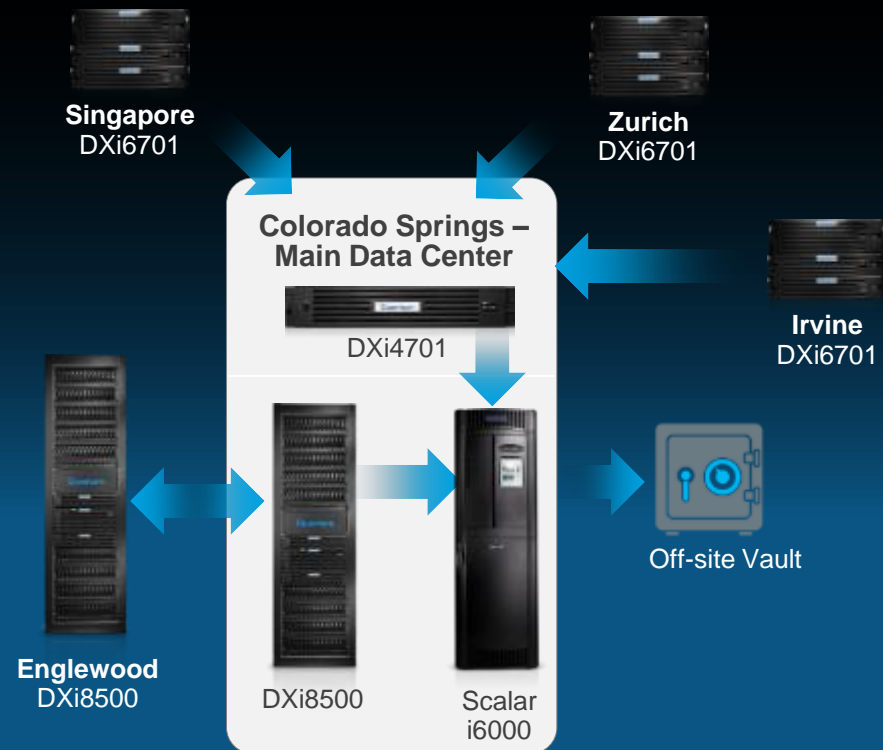
CUSTOMER SOLUTION

- 3 DXi6701 at edge sites, replicating to DXi4701 at core site
- 2 DXi8500 – one at larger edge site, replicating to core site
- DXi replicating to Scalar i6000 LTO library at primary datacenter

BUSINESS VALUE

- Eliminated tape management at edge sites
- Improved backup window
- Edge sites consistent hardware/software
- Simplified management

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Singapore
DXi6701

Zurich
DXi6701

Colorado Springs – Main Data Center

DXi4701

Irvine
DXi6701

Englewood
DXi8500

DXi8500

Scalar i6000

Off-site Vault

Maximize Disk Storage & Network Resources

3X BETTER
DATA REDUCTION

Patented variable-length deduplication maximizes data reduction to lower storage TCO and reduce network impact

University of San Diego
Better Backup for VMs

SITUATION / PROBLEM

University IT staff was an early supporter of virtualization and today nearly 98% of its servers are VM. Their legacy backup and DR could no longer keep up and was taking too long.

CUSTOMER SOLUTION

Quantum vmPRO software + DXi deduplication

BUSINESS BENEFITS

- Estimate cost savings in excess of $1M over the next three years
- Accelerates VM backup performance to meet target window
- Saves hours on each recovery, improving user productivity
- Reduces costs by storing 22TB of backup data on a single terabyte of disk space
- Integrates VM backup with vCenter to reduce admin overhead

vmPRO software

APP

OS

Commvault

DXi Backup Appliance

Tape Library

Off-site Vault

Major Name Brand Retailer
Intelligent Content Archives

SITUATION / PROBLEM

Retailer with 80% video content. Backups were not being completed, and the large files were causing the system to crash. Archiving was done in separate storage silos, making accessing archived content challenging.

CUSTOMER SOLUTION

Quantum StorNext Storage Manager + StorNext Q-Series Disk + Tape Library

BUSINESS BENEFITS

- Allows customer to easily browse & retrieve video assets used for marketing and internal communications

- Consolidated workflow to archive on ingest rather than two processes

- Increased productivity, better integration w/MAM & long-term preservation on Scalar LTO

Marketing Content Production Environment

Instant auto-copies & versioning

Scalar Tape Library

Off-site Vault

Consolidate Backup & Archive
Surveillance Video Storage
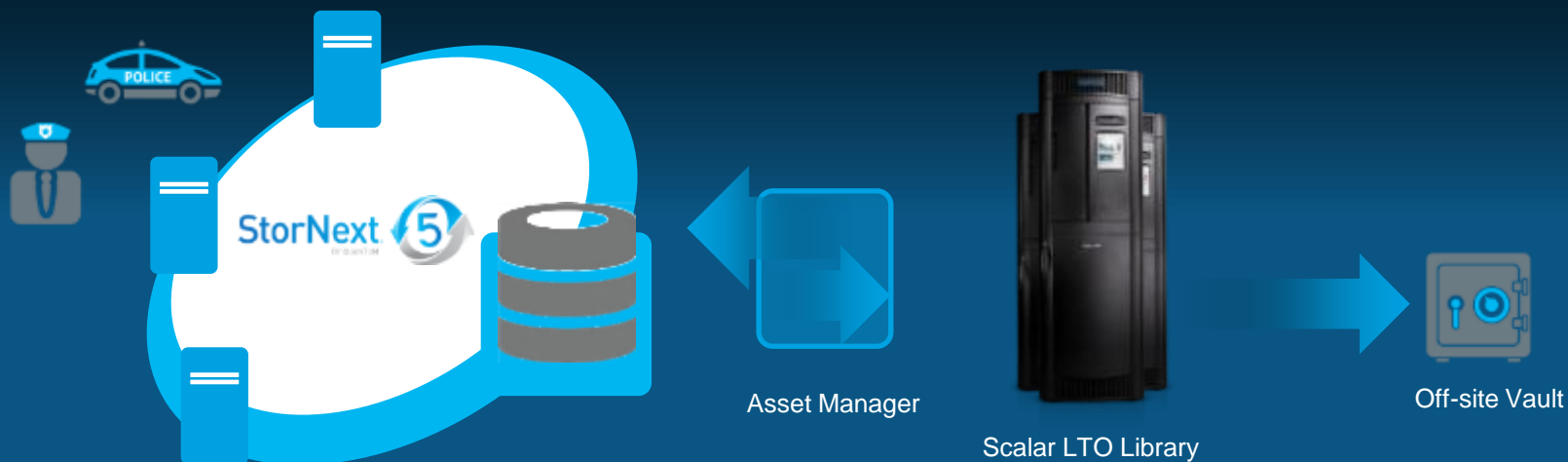
SITUATION / PROBLEM

In addition to their existing dashboard cameras, for an initial pilot, a law enforcement agency equipped 50 police officers with on-body cameras, creating a large requirement for video storage.

CUSTOMER SOLUTION

Quantum StorNext Storage Manager + M662 + 5 QX-1200 + Scalar i6000 LTO Library

BUSINESS BENEFITS

- Automated archive capability of StorNext Storage Manager and the ability to virtualize the entire archive
- Workflow allows the customer to store less than ¼ of their video files on expensive disk, while putting the rest on tape
- Consolidated backup and archive into one enterprise library with dual robots and EDLM
- 2X more cost-effective than previous NAS

StorNext 5

Asset Manager

Scalar LTO Library

Off-site Vault

Build a Durable, Large Scale Archive
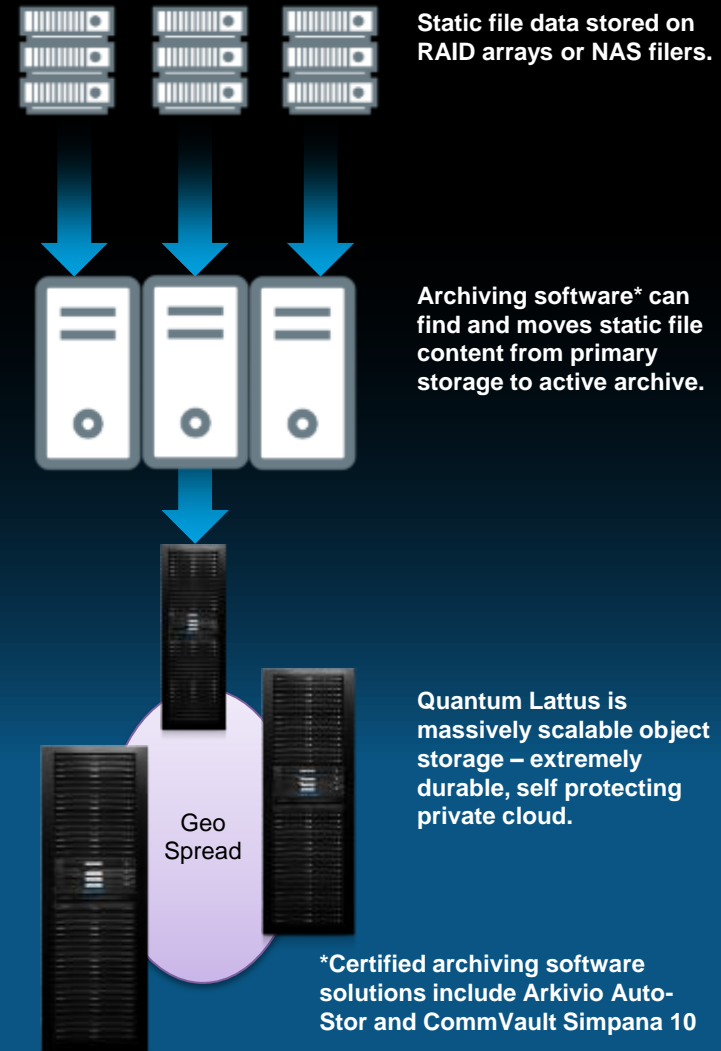
SITUATION / PROBLEM

Large amounts of static file data consuming primary disk, creating OPEX and CAPEX issues and burdening backup & recovery operations.

CUSTOMER SOLUTION:

Archive static file content to near-line storage with Quantum Lattus Object Storage

BUSINESS BENEFITS

- Reduce storage and backup costs by 20-40% annually
- Reduce backup windows and infrastructure strain of backing up 'static' data
- Maintain global user access of archived data

Static file data stored on RAID arrays or NAS filers.

Archiving software* can find and moves static file content from primary storage to active archive.

Geo Spread

Quantum Lattus is massively scalable object storage – extremely durable, self protecting private cloud.

*Certified archiving software solutions include Arkivio Auto-Stor and CommVault Simpana 10

Results in Overall TCO Savings of 40%-70%

The Cost of Protecting 1TB

Move 60% of static data from primary storage to an archive tier

40% Savings

Traditional Storage
- $400 — Off-site storage
- $1,200 — Backup storage
- $1,500 — High-performance primary data storage

Lattus Storage
- $600 — Near-line archive with Object Storage, LTO, or LTFS
- $160
- $480
- $600

Axis: $0, $500, $1,000, $1,500, $2,000, $2,500, $3,000, $3,500
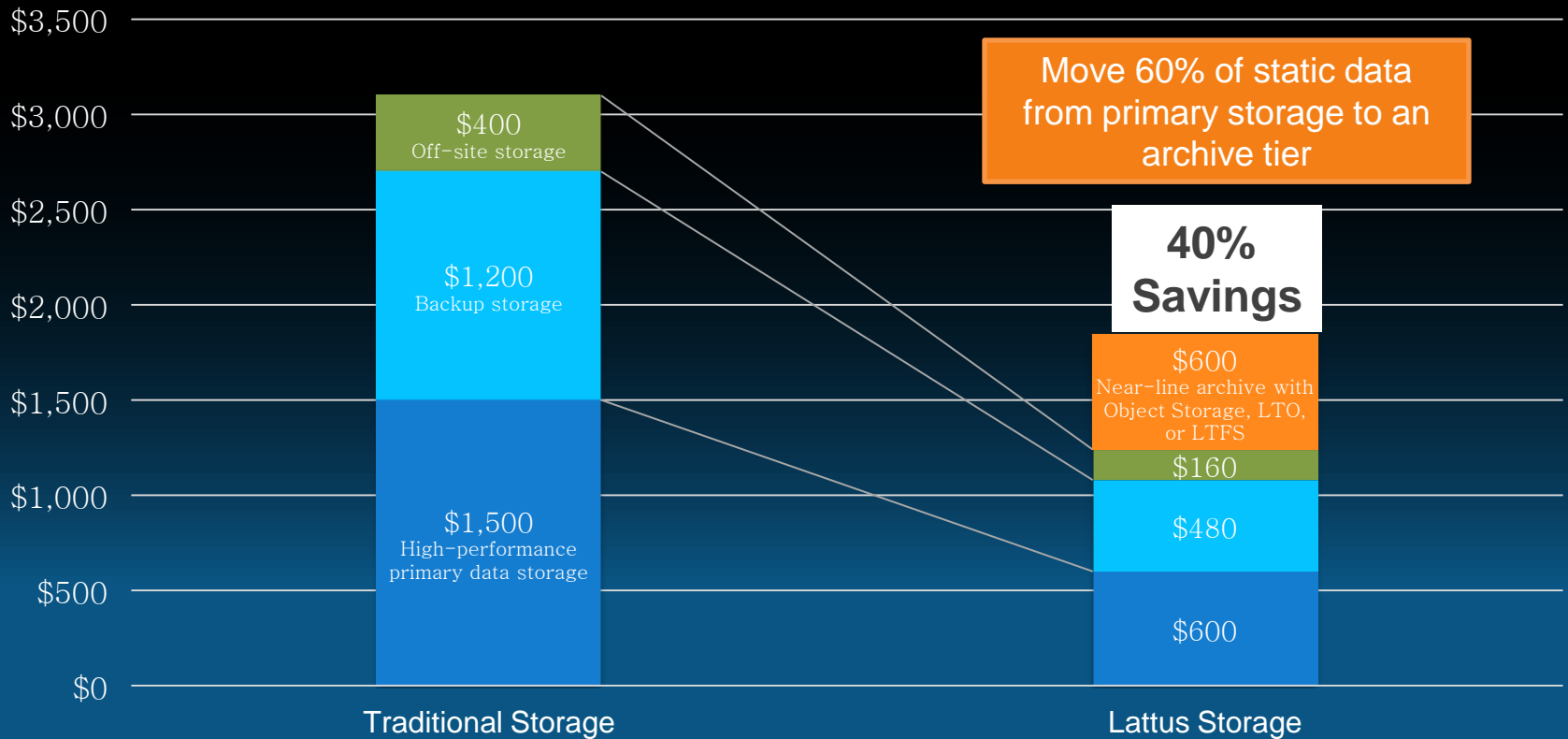
DELIVERS ROI AND REDUCES TCO IN 3 WAYS
Reduces primary storage costs | Reduces backup and DR costs | Backups are smaller and faster, reducing network load

Proof through Assessment, TCO, Demo

- Customer needed objective data to support internal business case
- Executed a free assessment
  - Revealed 67% of files not accessed and 87% not modified in past 6 months
- Delivered a comprehensive and insightful report that drove action

ROI Calculator Questions

Storage and Data Environment

1. How much primary capacity for unstructured data (usable, not raw) do you currently have?	TB
2. How much unstructured data do you currently have (utilized vs. free)?	TB
3. How much capacity buffer do you like to plan for (used versus available)?	% - Used / Avail
4. At what rate is the Unstructured Data growing?	% Annual
5. How much do you pay per useable TB for primary storage? - This needs to include cost of total system including server heads that are needed as a result of capacity increase or hardware refresh. - For example, purchasing 25TB for $125,000 of raw disk may result in 15TB of useable disk at $8,333.33/TB after it is formatted and configured to meet requirements (i.e. Spares, RAID, Snapshot, Replicate).	$/TB
6. How many sites are available for Lattus deployment?	1-3
7. What percentage of your data do you estimate should be targeted for archival?	%
8. How much ($/TB) are you spending on backup software? (How much to increase capacity license (one-time charge)) To provide the most accurate view, this figure must also include the costs associated with media server that must be added to support the additional backup capacity.	$/TB

Back Up

8. How much capacity are you currently using for backup?	TB
9. What do you currently spend per TB of backup storage? (same instructions as Q4)	$/TB
10. How much capacity are you currently using for DR?	TB
11. What do you currently spend per TB of DR storage?	$/TB

Assessment

Server	Volume	Used Space (GB)	Capacity (GB)	% Used Capacity
WOODSTOCK	projects3	2,870.42	2,972.00	96.58
POPEYE	thermal_archive	7,498.35	7,987.20	93.88
DOGBERT	home_c	2,402.54	2,626.56	91.47
BLUTO	/vol/antenna_eng	4,590.64	5,632.00	81.51
DOGBERT	home_s	2,311.43	2,918.40	79.20
MARCIE	projects19	2,116.45	2,752.80	76.88
WOODSTOCK	projects	1,459.94	2,252.80	64.81
Total		**23,249.77**	**27,141.76**	**85.66%**

Figure 1: Volumes by Percentage Capacity Used
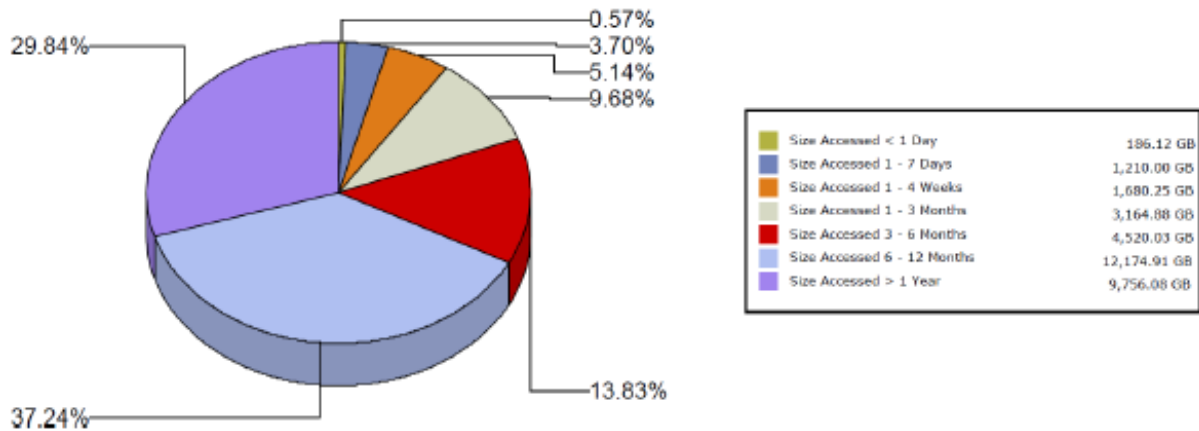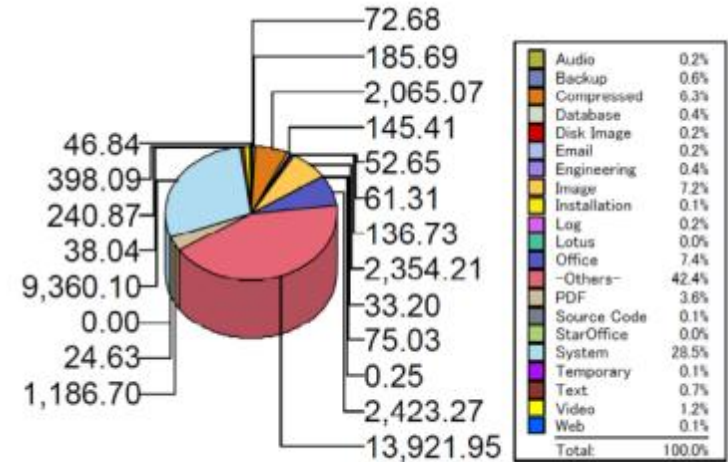
Figure 2: File age distribution based on last access time

Customer Report

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Differences with ILM

Legend: ■ Current Approach ■ With ILM

Disk and Software Costs	Cost year 1	Cost year 2	Cost year 3
Current Approach	$234,157	$320,635	$480,952
With ILM	$117,478	$39,065	$111,106

	Year 1	Year 2	Year 3	3 Year Totals
Tier-1 Storage Cost (Current)	$204,000	$275,400	$413,100	$892,500
Backup Cost (Current Approach)	$30,157	$45,235	$67,852	$143,243
Disk/software Cost (With ILM)	$150,000	$30,195	$95,584	$125,779
Backup Cost (With ILM)	-$32,522	$8,870	$15,522	-$8,130
Total Savings with ILM	$116,678.26	$281,570.22	$369,846.58	$768,095.06

Quantum

New Series!

DXi Deduplication

Scalar LTO Automation

Lattus Object Storage

vmPRO Virtual Backup & DR

Cloud Services

StorNext Scale-out Storage