Volumez – Overview

Presented to: Company Name

August 13th, 2023
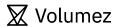
Volumez

Disclaimer

This Presentation is confidential and proprietary. Viewers of this presentation are hereby advised that the Company's actual results and achievements in the future may differ materially from those presented in this presentation. In addition, forward-looking forecasts and assessments are based on data and information available to the Company at the time the presentation was prepared, as well as third party information, and the Company does not undertake to update and/or modify any such forecast and/or assessment to reflect events and/or circumstances occurring after the date this presentation was created.

Volumez

Agenda

- Introduction

- Market challenges and vision

- The Volumez service – composable data infrastructure

- Q&A

It's about the data

Introduction / Team

CA | Amir Faintuch
CEO

TLV | Johnathan Amit
Founder & CTO

TLV | Nir Rigai
VP Engineering

CA | John Blumenthal
Chief Product &
Business Officer

TLV | Efri Nattel-Shay
VP Products

TLV | Carmit Levy
Head of
Operations & HR

CA | Razi Sharir
Head of Strategic
Development

Chief Revenue
Officer

*Starting Sep. 13th.

GlobalFoundries™

IBM

IBM

Hewlett Packard Enterprise

DELL Technologies

IBM

Checkmarx

intel

storwize an IBM Company

storwize an IBM Company

CLOUDPHYSICS

EMC²

tableau from Salesforce

salesforce

Qualcomm

ECI THE ELASTIC NETWORK

vmware

QUMRANET

Informatica

vmware

ATHEROS™

VERITAS
BUSINESS WITHOUT INTERRUPTION™
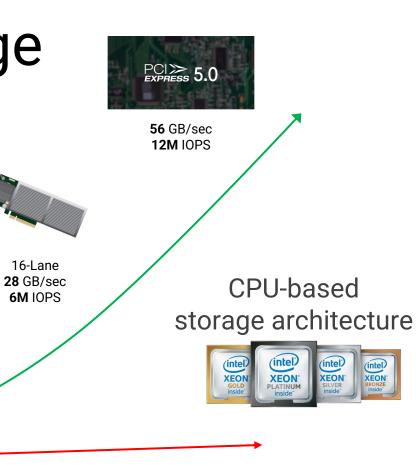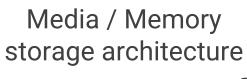
Rakuten

TEXAS INSTRUMENTS

BMC Software

Volumez

Microsoft

Volumez makes composable data infrastructure possible

… And the "Compossibilities" are endless

The data + compute challenge

PCI EXPRESS 5.0

56 GB/sec
12M IOPS

16-Lane
28 GB/sec
6M IOPS

CPU-based
storage architecture

Media / Memory
storage architecture

PCI EXPRESS **4**

NVMe PCIe4

7 GB/sec
1.7M IOPS

nvm EXPRESS

3 GB/sec
500K IOPS

1.5 GB/sec
50K IOPS

0.8 GB/Sec
200 IOPS

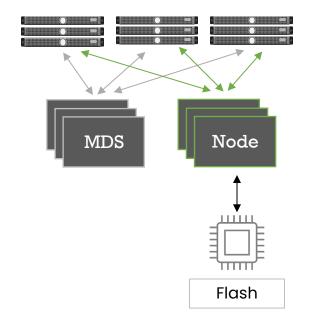| 2009 | 2013 | 2014 | 2019 | 2022 | 2023 |

Volumez

Storage controllers became bottlenecks

Storage Appliances

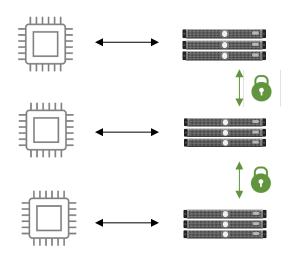**Software Defined Storage Meta Data Server**

Software Defined Storage Cluster Locks

Today

Compute

Data

Volumez

Volumez − Essential to data as Kubernetes for compute

Compute

Data

Volumez

Unlocking infrastructure performance

1.5M

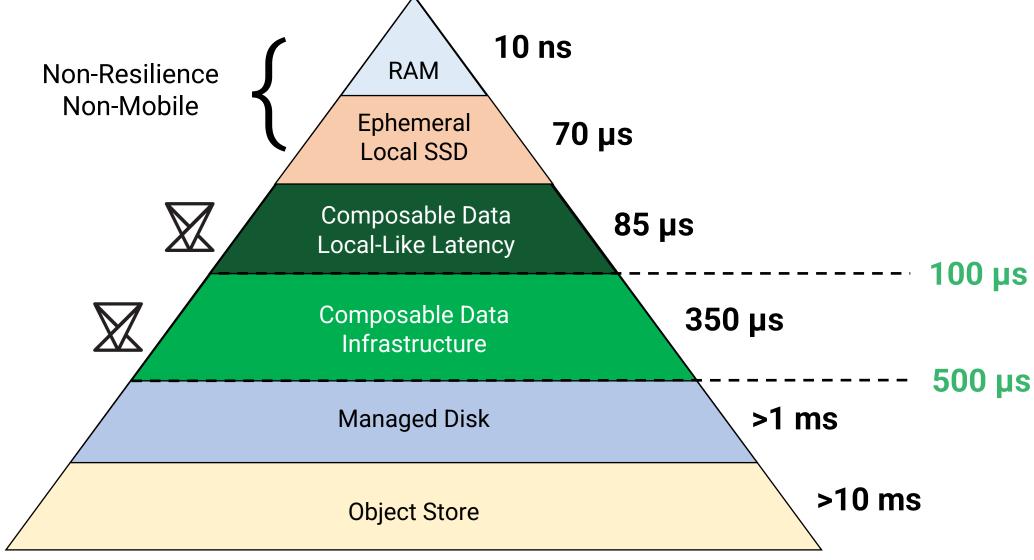**IOPS**

300μs

Latency

12 GB/s

Bandwidth

Per volume, guaranteed

- No cache, with mirroring, on AWS, with full data services
- 1.5M IOPS – with mixed 4K random 70%/30% R/W. 2M IOPS for read-only 4K random workloads

Volumez

Cloud Storage Pyramid

Non-Resilience
Non-Mobile

RAM — 10 ns

Ephemeral Local SSD — 70 µs

Composable Data Local-Like Latency — 85 µs

100 µs

Composable Data Infrastructure — 350 µs

500 µs

Managed Disk — >1 ms

Object Store — >10 ms

Composable data infrastructure

Applications

Media – NMVe/TCP Storage instances

Volumez

SaaS orchestration

Declarative policy

100% Linux Data Path
No Storage Controller

```
{
    "name" "production-database",
    "performance": {
        "iops" 1000000,
        "latency_usec" 180
    },
    "encryption" true,
    "resilience": {
        "media" 3,
        "nodes" 2,
        "zones" 1
    }
}
```

Declare

Volumez
Service

Compose

Volumez

Composable Data Infrastructure – Unleash the power of the cloud

Databases

AI/ML

HPC

X

K8s

Cloud Instances

Bare Metal

X

aws

Microsoft Azure

Google Cloud Platform

On-Premises

=

Guaranteed high performance – IOPS, Throughput

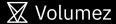Multi-Cloud with same solution, management

Scalable

No noisy neighbors

Improve utilization of CPUs/GPUs

Cost Savings (OPEX/CAPEX)

Volumez

Customer Case Studies

Volumez

Customer case study – Cloud DBaaS

Customer problem
1. Need to offer DBaaS in multiple clouds
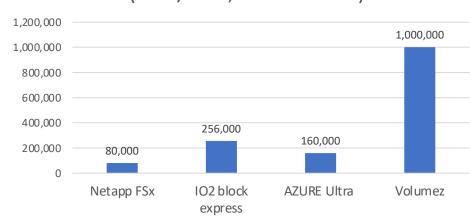2. Need low latency, high performance, low TCO

Technical benefits
1. Guaranteed **high performance**: 1M IOPS, 300 microseconds latency (vs. 256K IOPS, 1 millisecond latency in io2)
2. **Single** solution for public and private clouds, using Kubernetes
3. **Resiliency** – survive failures of up to 3 media, 3 nodes, 2 zones
4. Enterprise **data services** – e.g., snapshots, copy to object
5. **Zero** disruption from **noisy neighbors**
6. Linear **scalability**

Business benefits
1. **Write new workloads once**, run anywhere
2. **20%-50%** total cost savings – allowed launching the service
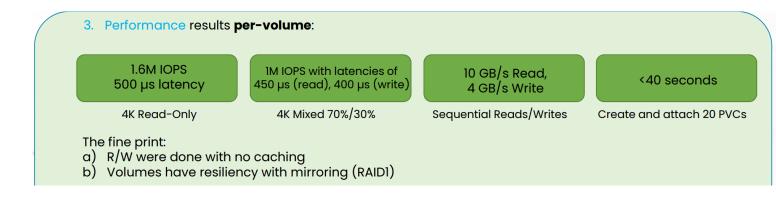3. Launch a **better service**

SQLaaS - IOPS (70%/30%, no cache hit)

Category	IOPS
Netapp FSx	80,000
IO2 block express	256,000
AZURE Ultra	160,000
Volumez	1,000,000

Volumez

Customer case study – leading cloud provider

Customer problem
1. Volumes with significantly lower latency and higher performance than available today
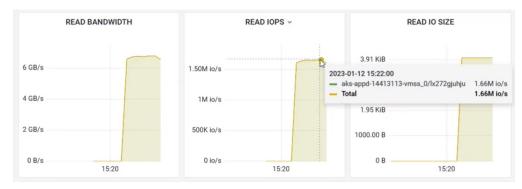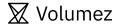2. Fast provisioning of many volumes in Kubernetes

Technical benefits
1. High guaranteed performance, per volume
2. Create 20 Kubernetes volumes in <40 seconds
3. Volumes with multi-AZ resiliency
4. Fast snapshots

3. Performance results **per-volume**:

1.6M IOPS 500 µs latency	1M IOPS with latencies of 450 µs (read), 400 µs (write)	10 GB/s Read, 4 GB/s Write	<40 seconds
4K Read-Only	4K Mixed 70%/30%	Sequential Reads/Writes	Create and attach 20 PVCs

The fine print:
a) R/W were done with no caching
b) Volumes have resiliency with mirroring (RAID1)

Business benefits
1. Ability to scale Kubernetes applications fast in the cloud
2. Ability to move traditional workloads from on-prem to cloud

Volumez

Thank You

Volumez