# 2020
Corporate Brochure

MemVerge

MemVerge

Opening the Door to Big Memory
Abundant. Persistent. Available.

In 2017, Intel released a new Optane SSD product. Under the covers of this new *SSD* was 3D XPoint, a new persistent *memory*. In the history of computing, "memory" and "storage" have always been two different concepts. Persistent Memory promises to change that and can be operated at memory speed while being persistent like storage. With the Optane SSD available, we knew that the real game changer, the persistent memory DIMM, was not far away.

We decided, right at that moment, to start MemVerge. With every new hardware substrate, a new software stack will must be developed to allow the applications to take full advantage of the new hardware. In this case, that solution is Software for the new category called Big Memory. At MemVerge, our mission is to open the door to Big Memory Computing via the Memory Machine™ Software we develop. We are well on our way.
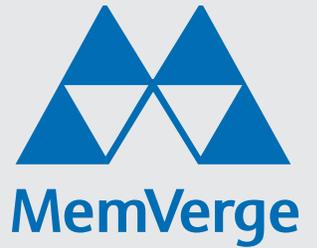
MEMVERGE
Leadership

Shuki Bruck
Chairman

Shuki is the Gordon and Betty Moore professor of Computation and Neural System and Electrical Engineering at Caltech. He co-founded and served as Chairman of the technology companies XtremIO and Rainfinity.

Charles Fan
CEO

Charles was an SVP/GM at VMware, founding the storage business unit that developed the Virtual SAN product. Charles joined EMC via the acquisition of Rainfinity, where he was a co-founder and CTO.

Yue Li
CTO

Yue worked as a senior post-doctoral scholar in memory systems at Caltech. His research has been published in top journals and conferences on data storage.

Kathy Do
VP, Finance & Operations

Prior to MemVerge, Kathy was Vice President, Controller at MapR Technologies. Prior to MapR, Kathy held the corporate controller position at Xactly Corporation, Rainfinity and SQRIBE. Her broad experience includes global accounting operations, ERP system setup and implementation, financial planning, and cash management.

Andrew Degnan
VP of Sales

Andrew comes to MemVerge from Diamanti where he served as Vice President of Sales . Prior to Diamanti, Andrew was one of Pure Storage's early sales hires, and was instrumental driving Pure's go-to-market success. Andrew has also held sales positions at BMC Software, NetApp and Sun Microsystems.

Frank Berry
VP of Marketing

Frank joined MemVerge from analyst firm IT Brand Pulse which he founded in 2009. Prior to that Frank was VP of corporate marketing for storage networking leader QLogic for almost a decade, and a VP of Marketing for Quantum.

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MEMVERGE
Investors

Funding New Growth
**$43M from VC & strategic investors**

MemVerge

Our Vision
(The Destination)

All Applications Live in Memory

Our Mission
(How We Get There)

Open the Door to Big Memory
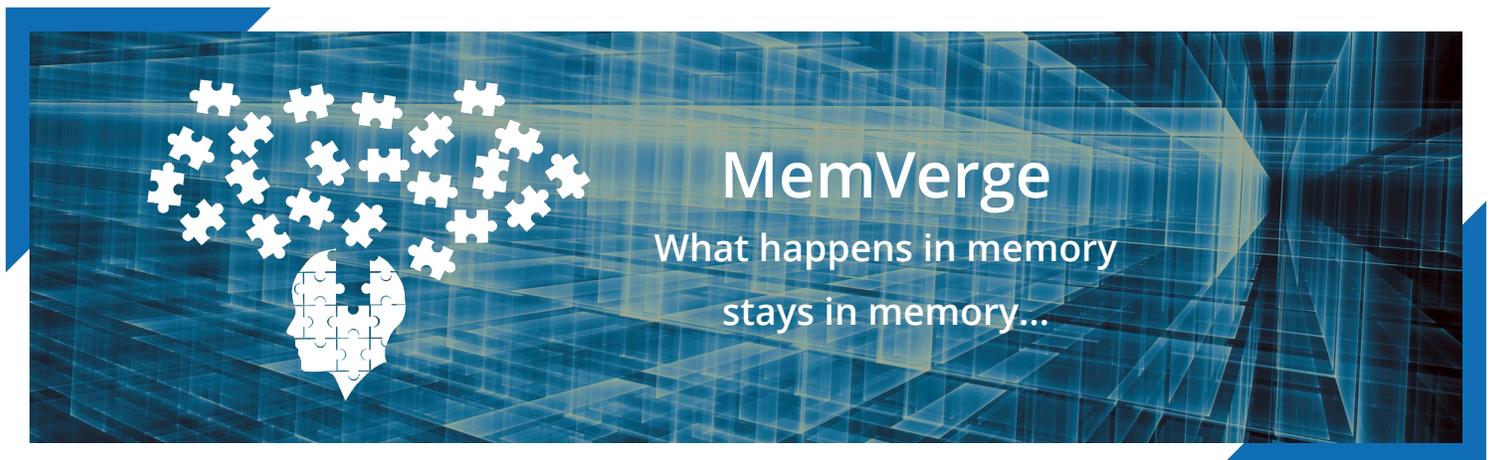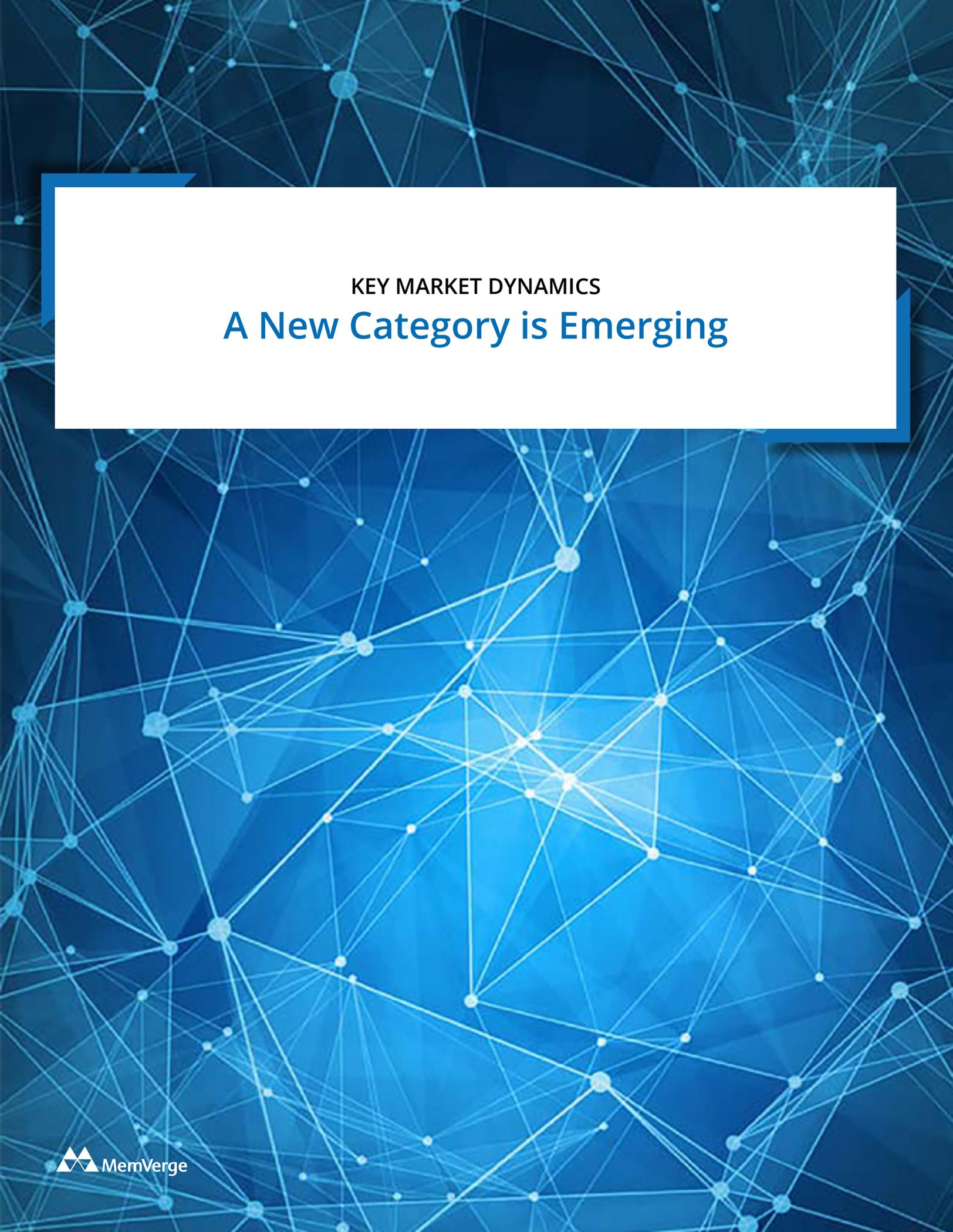
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What happens in memory

stays in memory...

KEY MARKET DYNAMICS
A New Category is Emerging

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DIGITAL TRANSFORMATION IS DRIVING NEW
Requirements

Situation Overview

- 91.1% of enterprises undergoing DX in the next three years
- More data-centric business models will drive AI/ML-infused analytics
- Performance and availability implications for enterprise storage
- Market evolution will drive demand for persistent memory technologies

Real-Time Workloads Are On The Rise

- Worldwide, data is growing at a 26.0% CAGR, and in 2024 there will be 143 zettabytes of data created
- By 2021, 60-70% of the Global 2000 will have at least one mission-critical real-time workload

IDC MaturityScape Benchmark: Future Enterprise — Maturity Distribution Across the Stages
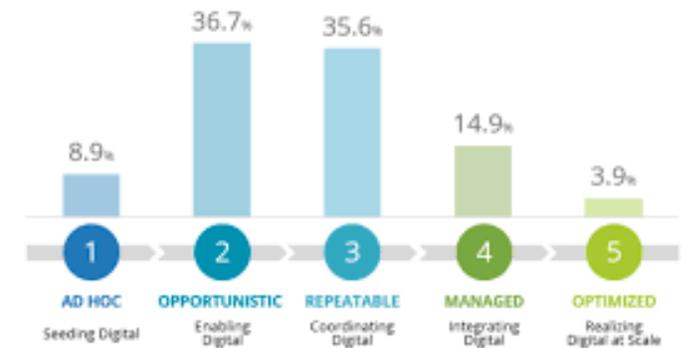
Source: IDC, 2020

Worldwide Real-Time Data and Share, 2015–2024
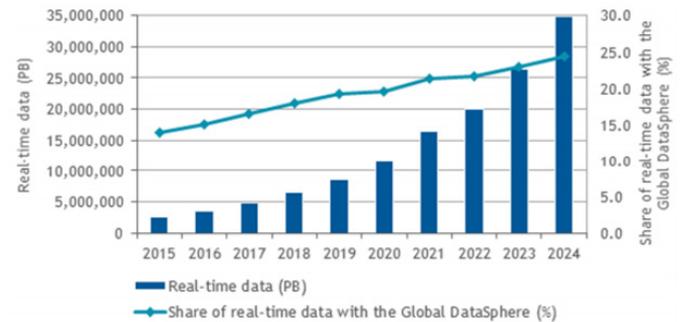
Source: IDC's Global Datasphere, 2020

Eric Burgener, IDC: Digital Transformation Driving New "Big Memory" Requirements

The Opportunity

Gartner estimates that the stand-alone IMC-enabling application infrastructure market...should exceed $15 billion by year-end 2021. *Gartner: In-Memory Computing Technologies will drive over $15 billion in spending by 2022*

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THE INDUSTRY RESPONDS WITH A NEW CATEGORY
BIG MEMORY

Defining Big Memory

Big memory is a new class of computing where the new normal is big applications and data living in byte-addressable, and much lower cost, persistent memory. Big Memory can scale-out massively in a cluster and is protected by a new class of memory data services that provide snapshots, replication and lightning fast recovery.

The Foundation is Persistent Memory

The Big Memory market is only possible if lower cost persistent memory is pervasive. To that end, IDC forecasts revenue for persistent memory to grow at an explosive compound annual growth rate of 248% from 2019 to 2023.

MemVerge Software is the Virtualization Layer

Wide deployment in business-critical tier-1 applications is only possible if a virtualization layer emerges to deliver HPC-class low latency and enterprise-class data protection. To that end, MemVerge pioneered Memory Machine™ software.

Persistent Memory Revenue Forecast
2019 – 2023 - IDC
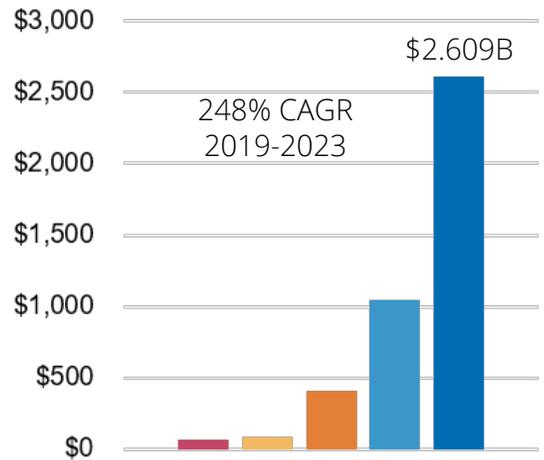
Download IDC Presentation
Defining Big Memory

Big Memory
Where memory is abundant, persistent & available

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MEMVERGE SOFTWARE

Memory Machine

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MEMORY MACHINE
Software

Big Machine Software

Memory Machine is the industry's first Big Memory software with the unique ability to virtualize memory for plug-and-play compatibility with existing applications, scale-out memory in a cluster to form a memory lake and provide data services which make the massive pools of memory highly available.

Fast Time-to-Deployment with Plug-and-Play Compatibility

Transparent Memory Services allow Memory Machine to deploy and provide access to persistent memory with no modifications to application code.

Data Services Across a Cluster Make HA Possible

The Memory Machine allows persistent memory to scale-out among multiple servers in a cluster. The Cluster Manager directs communications snapshot, replication, and recovery operations across ultra-low latency RDMA connections.

Software Subscription

Virtualizes DRAM & Persistent Memory
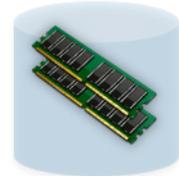
No Code Changes Needed

Snapshot, Replication & Recovery Data Services

Memory Machine
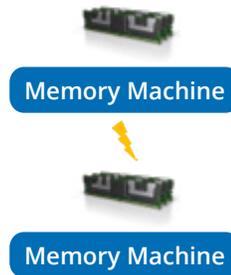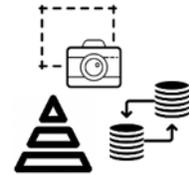
Memory Machine

Run across Ultra-Low Latency RDMA

ZeroIO™ Snapshot

Run Big Memory safely.
Powers lightning fast recovery of in-memory databases.
60x faster than current recovery technology.

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MEMORY MACHINE
Architecture

The Memory Machine architecture is designed to provide transparent access to persistent memory while at the same time providing developers with the tools to build highly available memory lakes across a cluster.
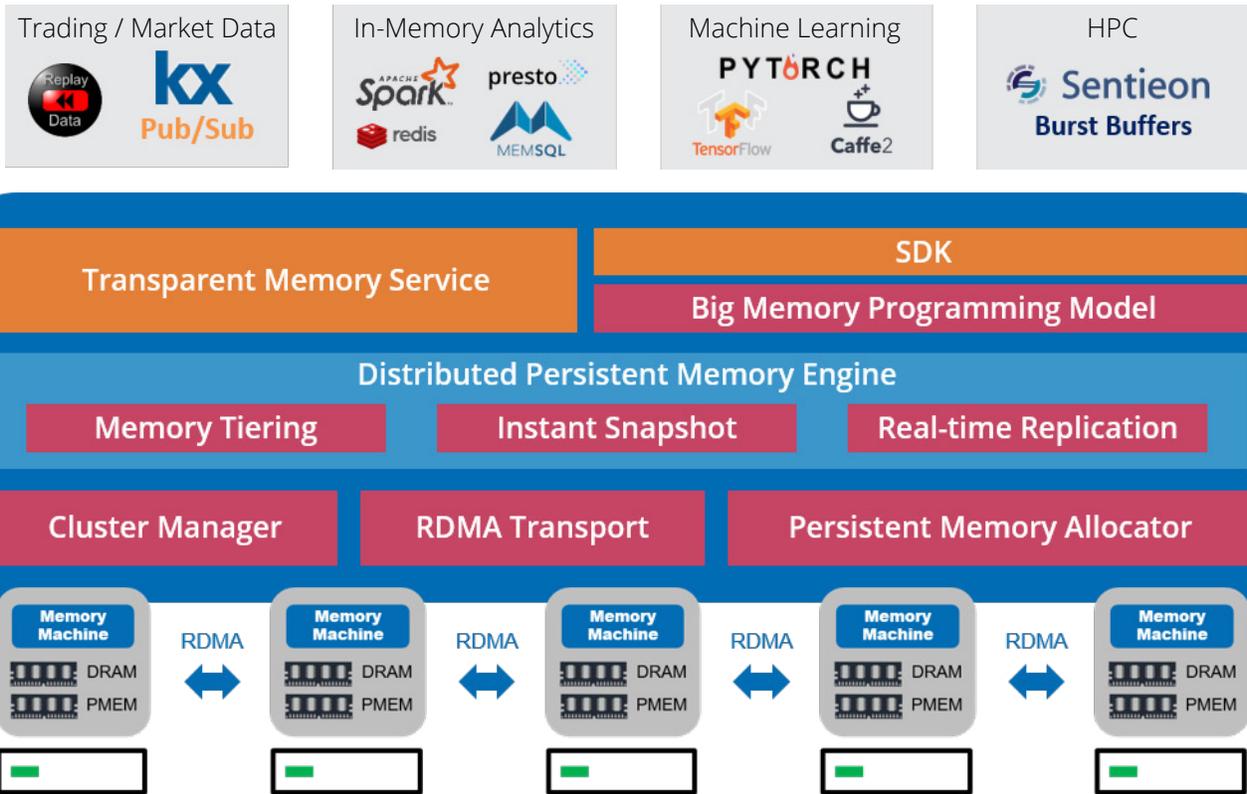

Transparent Memory Service

Scale-out to Big Memory configurations.
100x more than current memory.
No application changes.

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MEMORY MACHINE
Benefits

Intel Optane makes memory
persistent

Multiple Memory Machines form
amemory lake that makes memory
abundant

RDMA let's Memory
Machinescommunicate with
ultra-low latency

Memory Machine snapshots, replication, and
lightning fast recovery make persistent memory
highly available
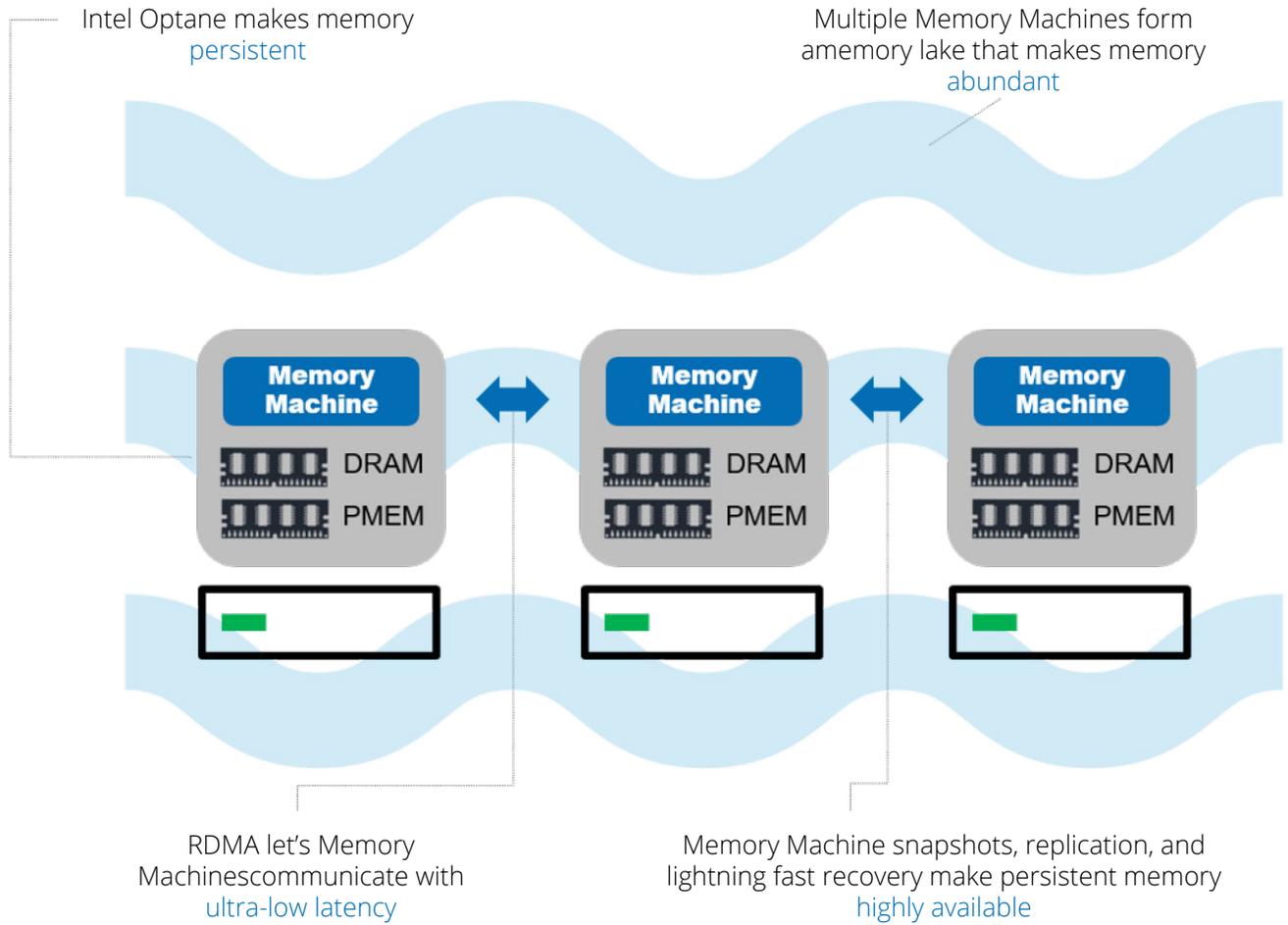
In-memory computing is ephemeral, lasting only a very short time.

MemVerge let's all your tier-1 applications plus data run in memory and stay in memory.

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MEMORY MACHINE
Use Cases

According to IDC, by 2021, 60-70% of the Global 2000 organizations will have at least one mission-critical real-time workload. Below are just a few examples of use cases that are implementing Big Memory now.

Latency-sensitive transactional workloads such as high-frequency trading

Real-time big data analytics in financial services, healthcare, and retail

AI/ML analytics and inferencing like fraud detection and smart security
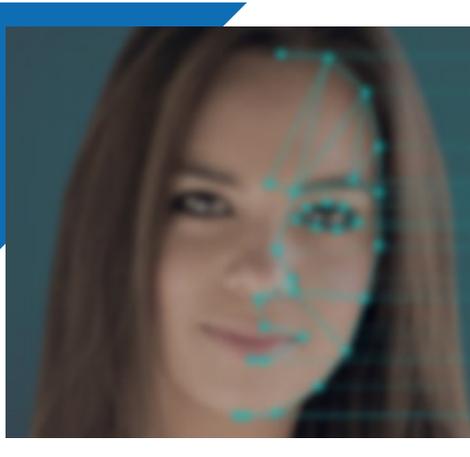
Low Latency AI/ML Inference

Machine Learning inference applications are latency-sensitive.

MemVerge Big Memory technology lowers latency by 40x.

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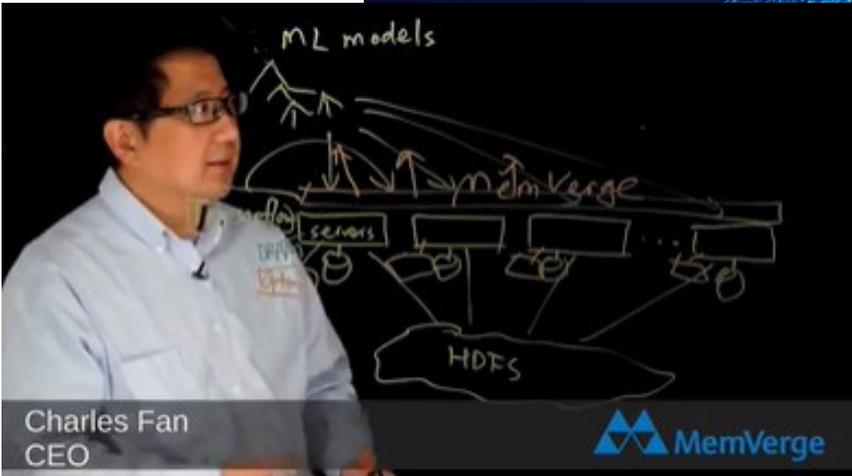
Watch "The Art of Big and Fast Data"

Help us shape the future of Big Memory

- Join the Big Memory Community to receive news, tech tips and early access to new software releases.
- Attend Big Memory University and earn a certificate.
- Deploy a Memory Machine PoC to see the power of Big Memory for yourself.

Send me info

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