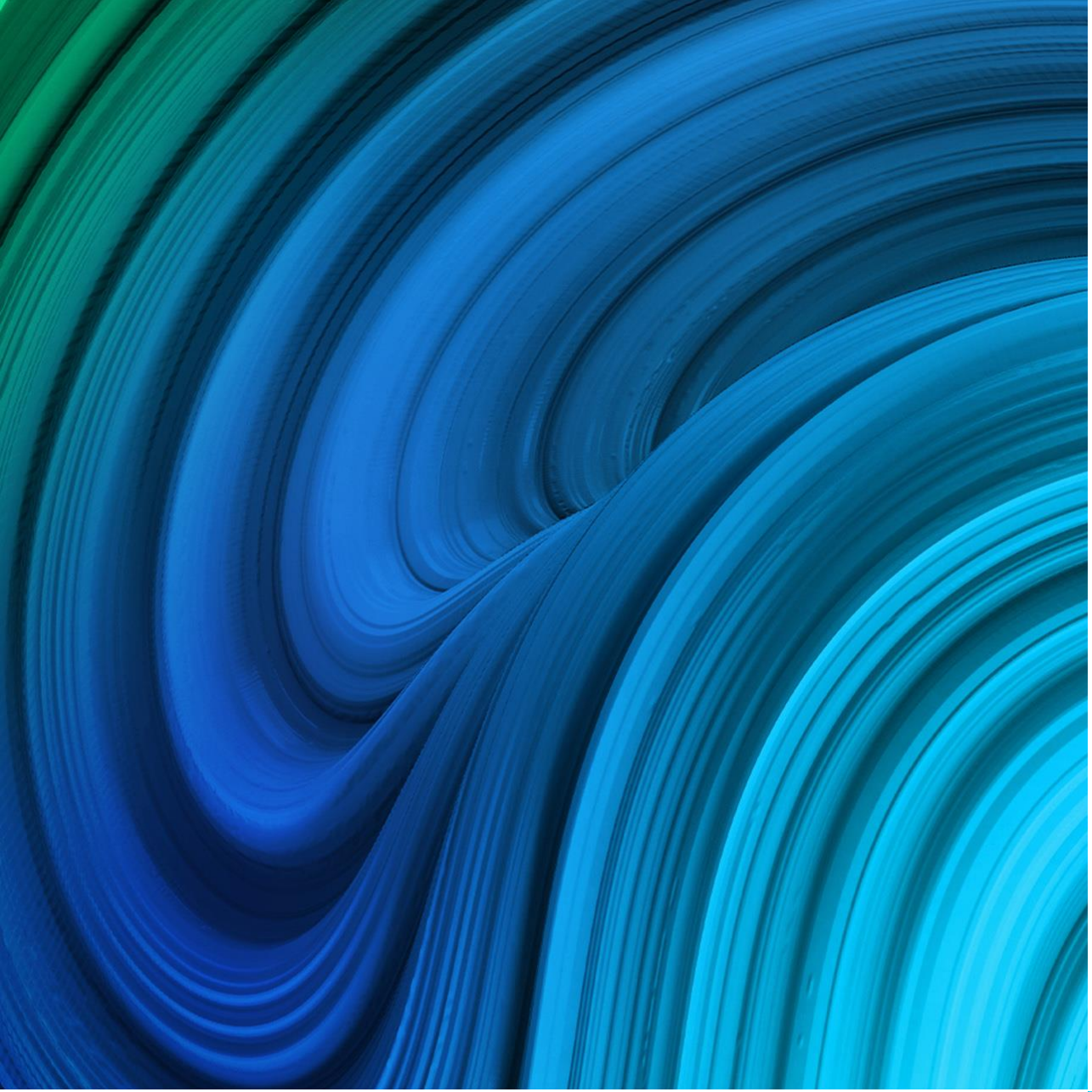

Performance
made flexible.

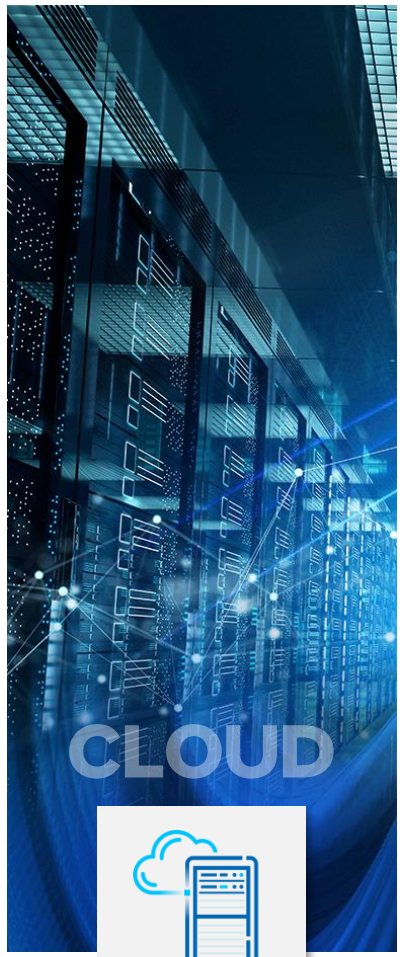


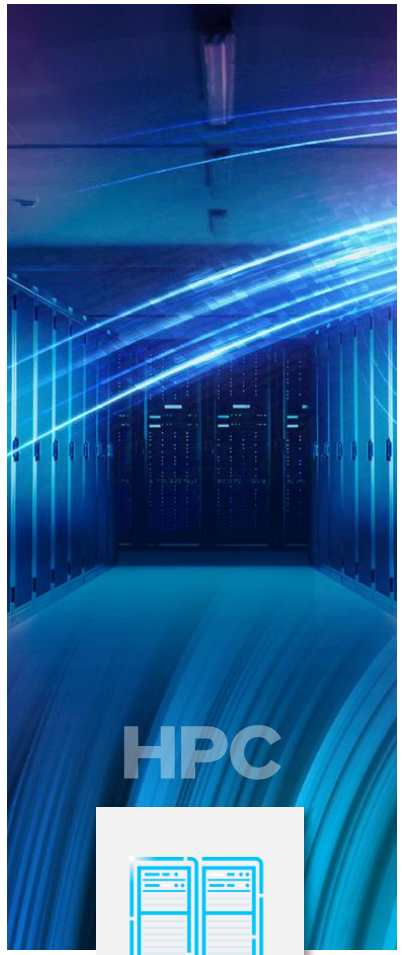
Himanshu Saluja

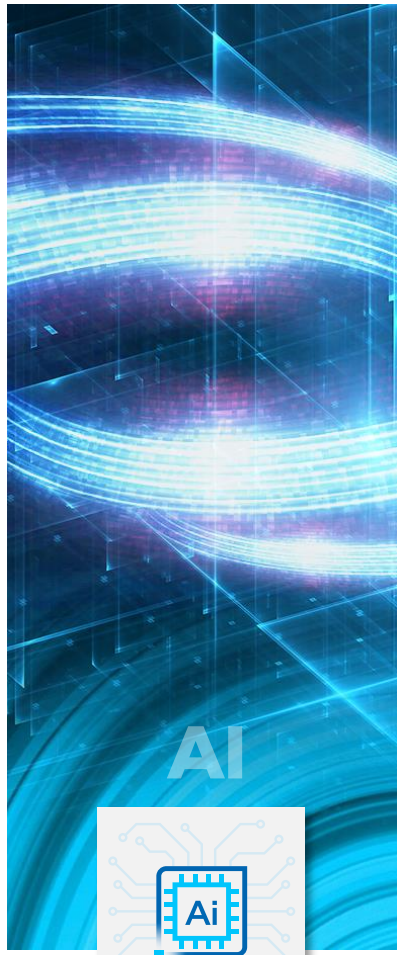
Business Development Director,

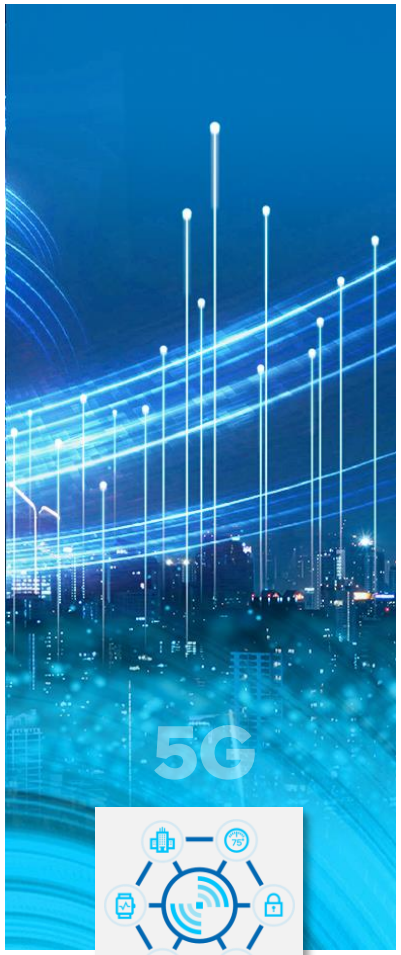
APJ & EMEA | Team Oracle

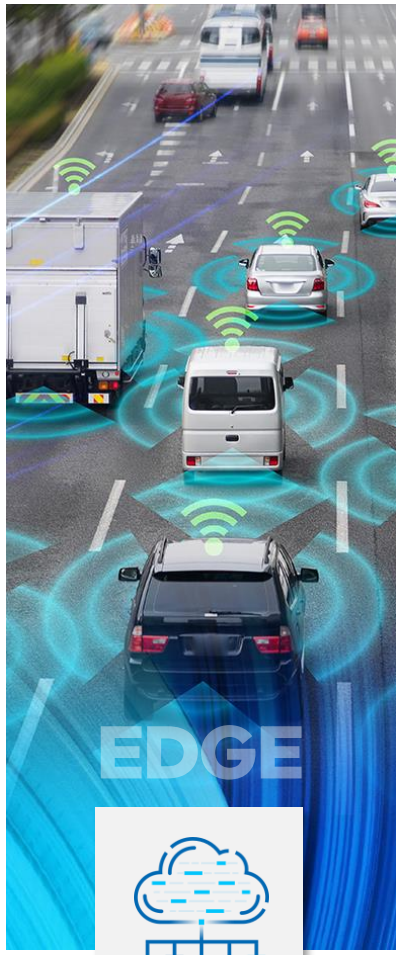
Business Needs and Demands are Dynamically Shifting

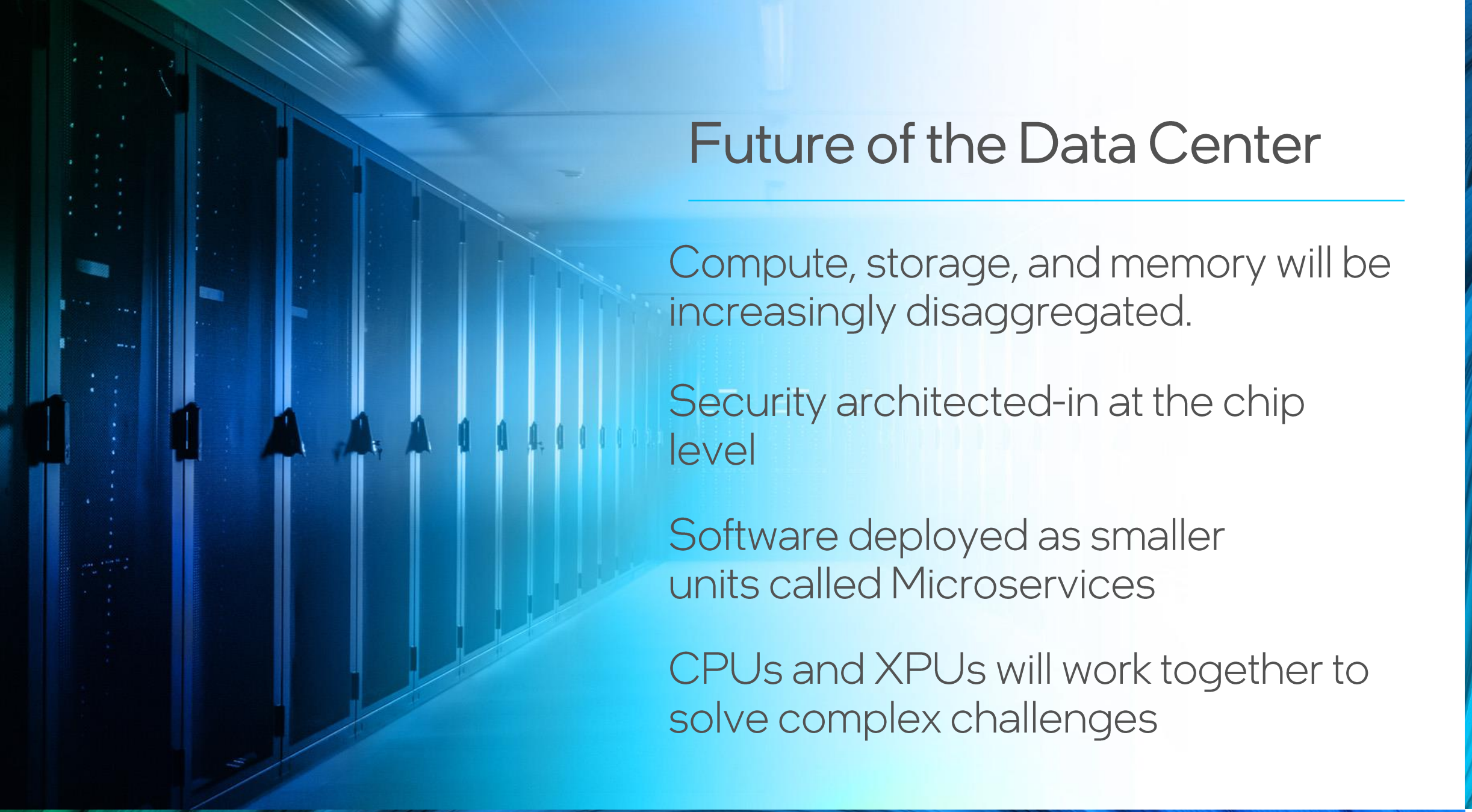












Future of the Data Center

Compute, storage, and memory will be increasingly disaggregated.

Security architected-in at the chip level

Software deployed as smaller units called Microservices

CPUs and XPUs will work together to solve complex challenges

Unmatched Portfolio of Hardware, Software and Solutions

Optimized Software and System-Level **Solutions**

INTRODUCING

3rd Gen Intel® Xeon® Scalable processors

Performance made flexible

Only x86 data center processor with built-in AI & security solutions

Targeted for 1S-2S systems

Advanced security solutions

- Intel Software Guard Extensions
- Intel Crypto Acceleration
- Intel Total Memory Encryption
- Intel Platform Firmware Resilience

Scalable, flexible, customizable

- Intel Deep Learning Boost
- Intel Speed Select Technology
- Intel AVX-512
- oneAPI POWERED Optimized Software

Next-gen Xeon Scalable **Platform**

Up to 6TB	Up to 8CH	Up to 2.6X	Up to 64
System Memory Capacity (Per Socket) DRAM + PMem	DDR4-3200 2 DPC (Per Socket)	Memory Capacity Increase vs. 2nd Gen Xeon Scalable	Lanes PCI Express 4 (per Socket)

Breakthrough Data **Performance**

- Intel® Optane™ persistent memory 200 series
- Intel® Optane™ SSD P5800X series
- Intel® SSD D series

Faster, Flexible, Data **Scale**

- Intel® Ethernet 800 series network adapters
- Intel® Agilex™ FPGA solutions
- intel SELECT SOLUTIONS
- intel MARKET READY

Performance made flexible.

Flexible Performance for Most Demanding Workloads

Outstanding gen-on-gen performance from intelligent edge to cloud

Cloud

UP TO

1.5x

Improvement in Latency Sensitive Workloads

5G

UP TO

1.62x

Improvement in Network and Communications Workloads

IoT

UP TO

1.56x

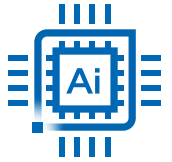
Image Classification Inference Improvement

HPC

UP TO

1.57x

Faster Modeling for Critical Vaccine Research



Artificial Intelligence

UP TO

1.74x

Language Processing Inference Improvements

Performance varies by use, configuration and other factors. Configurations see appendix [5,7, 17, 19, 52]

Intel® Optane™ Persistent Memory 200 Series

Persistent memory made flexible

Average of
32% higher memory bandwidth
compared to 100 series

Up to
6 TB total memory per socket
for faster analysis of the largest data sets

intel OPTANE PERSISTENT MEMORY

eADR (Enhanced Asynchronous DRAM Refresh) improves performance of apps that use persistent memory by eliminating "cache flushes" – volatile data including the CPU caches save automatically, even if power fails

Intel Optane PMem 200 series is compatible with existing PMem SW ecosystem & it continues to grow

Computes up to **2X** faster graph analytics algorithms used in search, social networks, and fraud detection

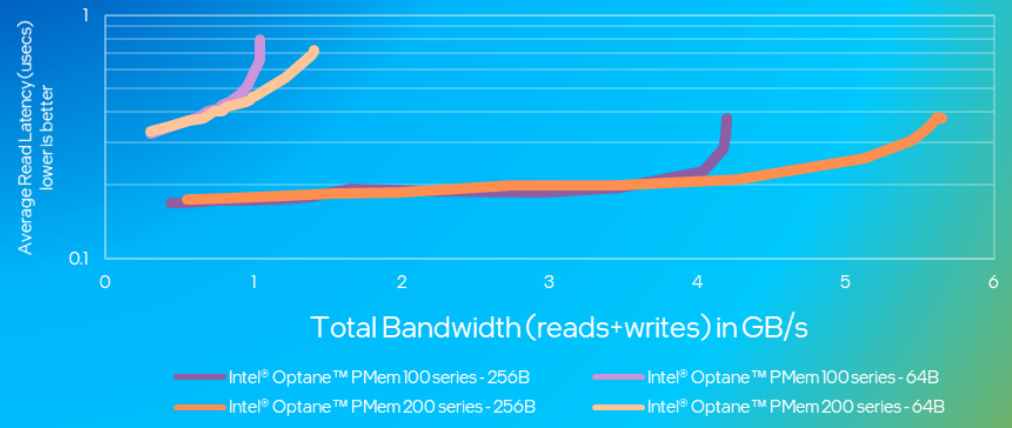
Lower infrastructure costs by up **25%** per VM while delivering the same performance

Performance varies by use, configuration and other factors. Configurations see appendix [53]

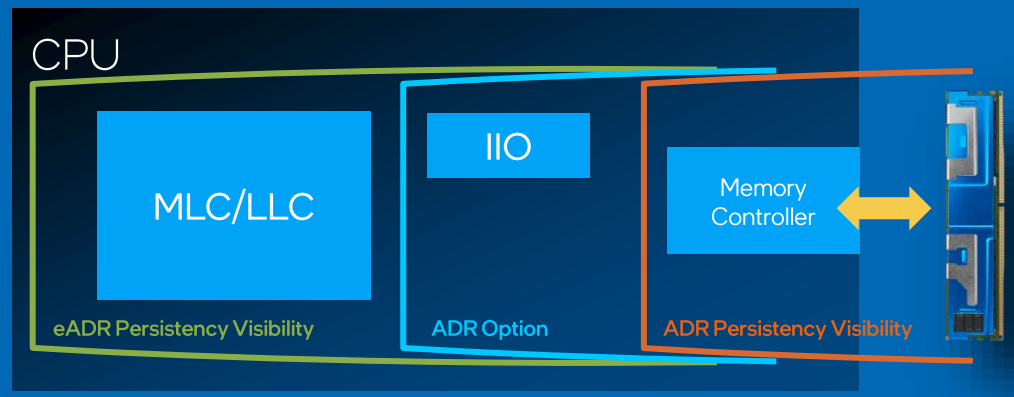
Intel® Optane™ Persistent Memory
200 Series (Barlow Pass)

Performance Improvement
Through enhanced power efficiency

+32% Average
Latency vs. Load
(70 read/ 30 write random, 256B and 64B)



System Level Optimization



eADR automatically flushes caches
eliminating CLFlush runtime use/overhead
(Requires: Barlow Pass, Energy Store, App support)

Intel® Optane™ Persistent Memory 200 Series

- Consistent developer target: capacity, latency…
- Increased bandwidth, better power efficiency
- Cross system innovation for increased application performance

Better Together

ORACLE®

intel XEON

intel OPTANE PERSISTENT MEMORY

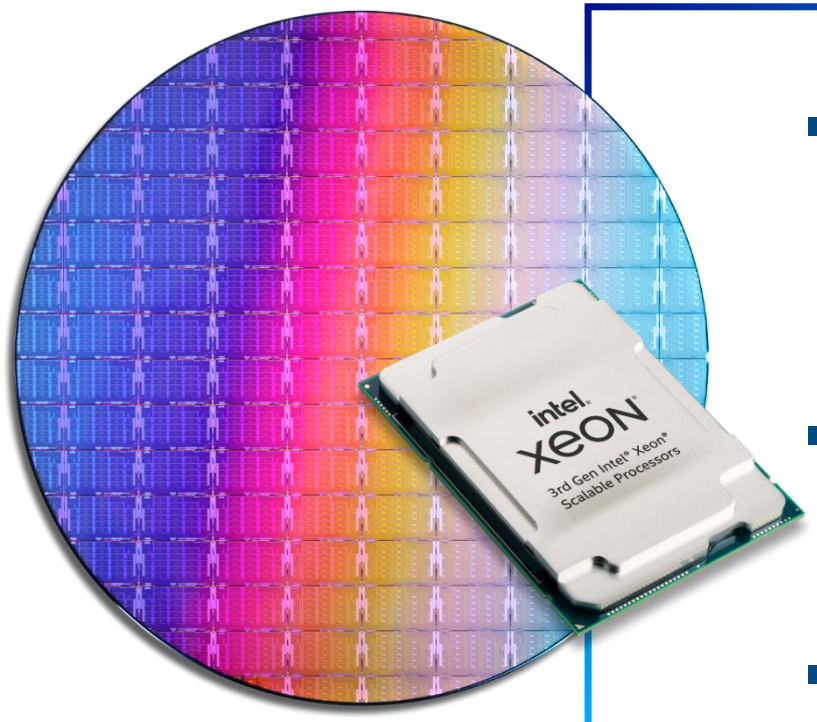
A PERFORMANCE IMPROVEMENT OF

10x
Lower latency

2.5x
Increase in online transaction processing performance.

Source: Oracle; Compared with the X8 and its InfiniBand fabric, the X8M will offer 100Gb RDMA over Converged Ethernet (RoCE) as the internal fabric to deliver latency of under 19 microseconds (10X improvement over the X8). With1.5TB of persistent memory (PMEM) per storage server and up to 21.5TB of PMEM per standard full rack, organizations can achieve up to 16 million OLTP 8K read IOPS, 2.5X the X8.

Summary



- Intel's highest performing data center processor with built-in security and AI and crypto acceleration
- Unmatched portfolio of hardware and software solutions to move, store and process data
- Broadest ecosystem and decades of experience to ease customer deployments

Notices and Disclaimers

Performance varies by use, configuration and other factors. Learn more at www.Intel.com/PerformanceIndex.

Performance results are based on testing as of dates shown in configurations and may not reflect all publicly available updates. See backup for configuration details. No product or component can be absolutely secure.

Intel contributes to the development of benchmarks by participating in, sponsoring, and/or contributing technical support to various benchmarking groups, including the BenchmarkXPRT Development Community administered by Principled Technologies.

Your costs and results may vary.

Intel technologies may require enabled hardware, software or service activation.

Some results may have been estimated or simulated.

Intel does not control or audit third-party data. You should consult other sources to evaluate accuracy.

All product plans and roadmaps are subject to change without notice.

Statements in this document that refer to future plans or expectations are forward-looking statements. These statements are based on current expectations and involve many risks and uncertainties that could cause actual results to differ materially from those expressed or implied in such statements. For more information on the factors that could cause actual results to differ materially, see our most recent earnings release and SEC filings at www.intc.com.