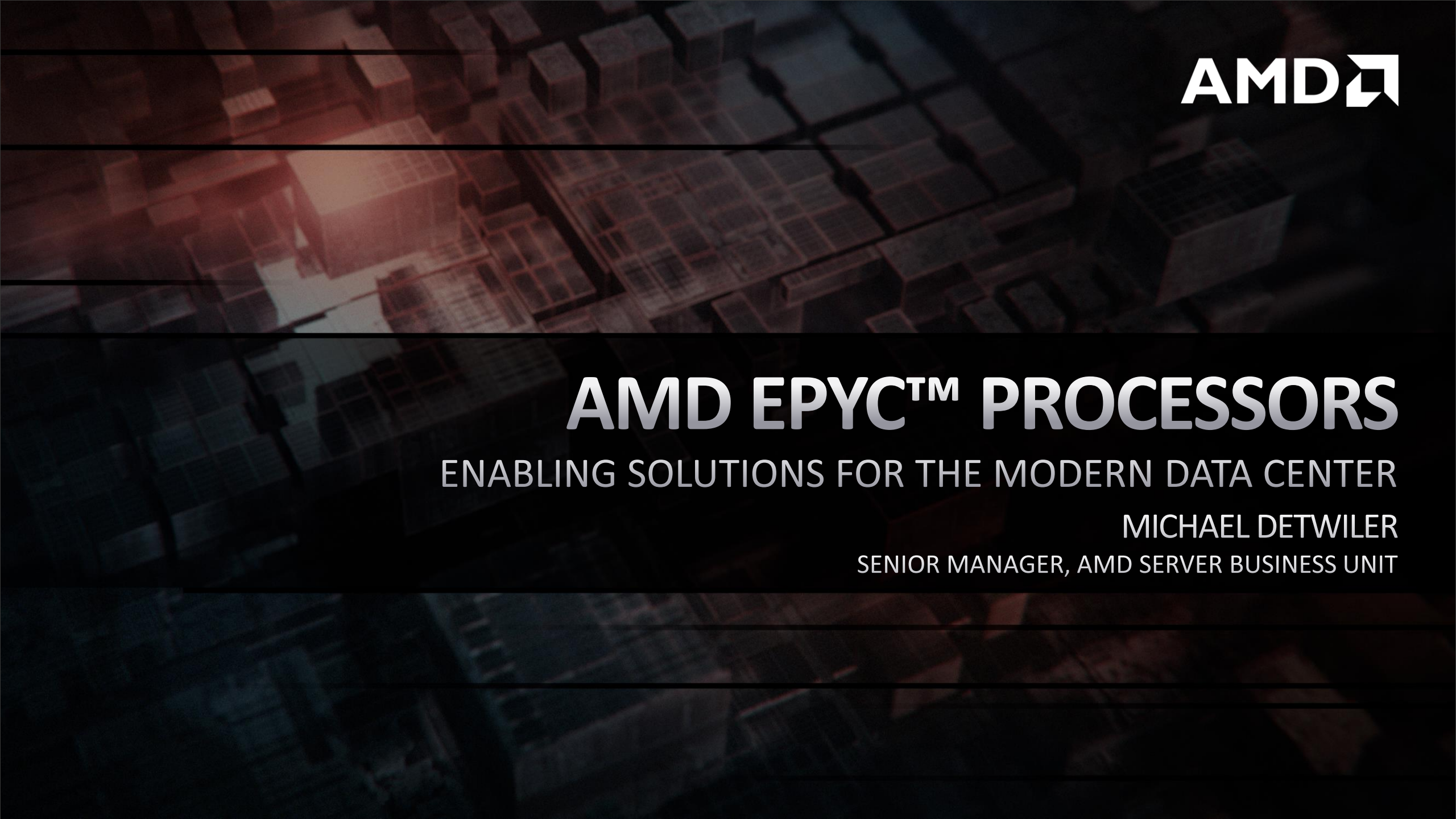


AMD EPYC™ PROCESSORS

ENABLING SOLUTIONS FOR THE MODERN DATA CENTER

MICHAEL DETWILER

SENIOR MANAGER, AMD SERVER BUSINESS UNIT

LEADERSHIP ROADMAP AND EXECUTION

Roadmap Subject to Change

AMD

2ND GENERATION AMD EPYC™

UNLOCKING A NEW CLASS OF PERFORMANCE

64 48, 32, 24, 16, 12, 8 cores per socket	128 PCIe® 3/4* lanes in a single CPU	8 Memory channels per CPU	4 UP TO TB RAM per socket support
For VM Density and Compute Throughput	To Help Reduce IO Bottlenecks	To Feed the Cores	For In-Memory Analytics

AMD

EPYC™ PERFORMANCE OPTIMIZED SKUS

APPLICATION PERFORMANCE - MORE THAN JUST FREQUENCY

HIGH-PERFORMANCE

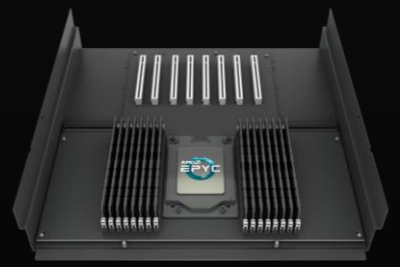
High Performance “Zen 2” core
High base and boost frequencies
7nm process delivers more performance for less power

CPU ARCHITECTURE

Large L3 cache located close to cores provides low latency access to critical data.
Infinity Architecture enables linear scaling

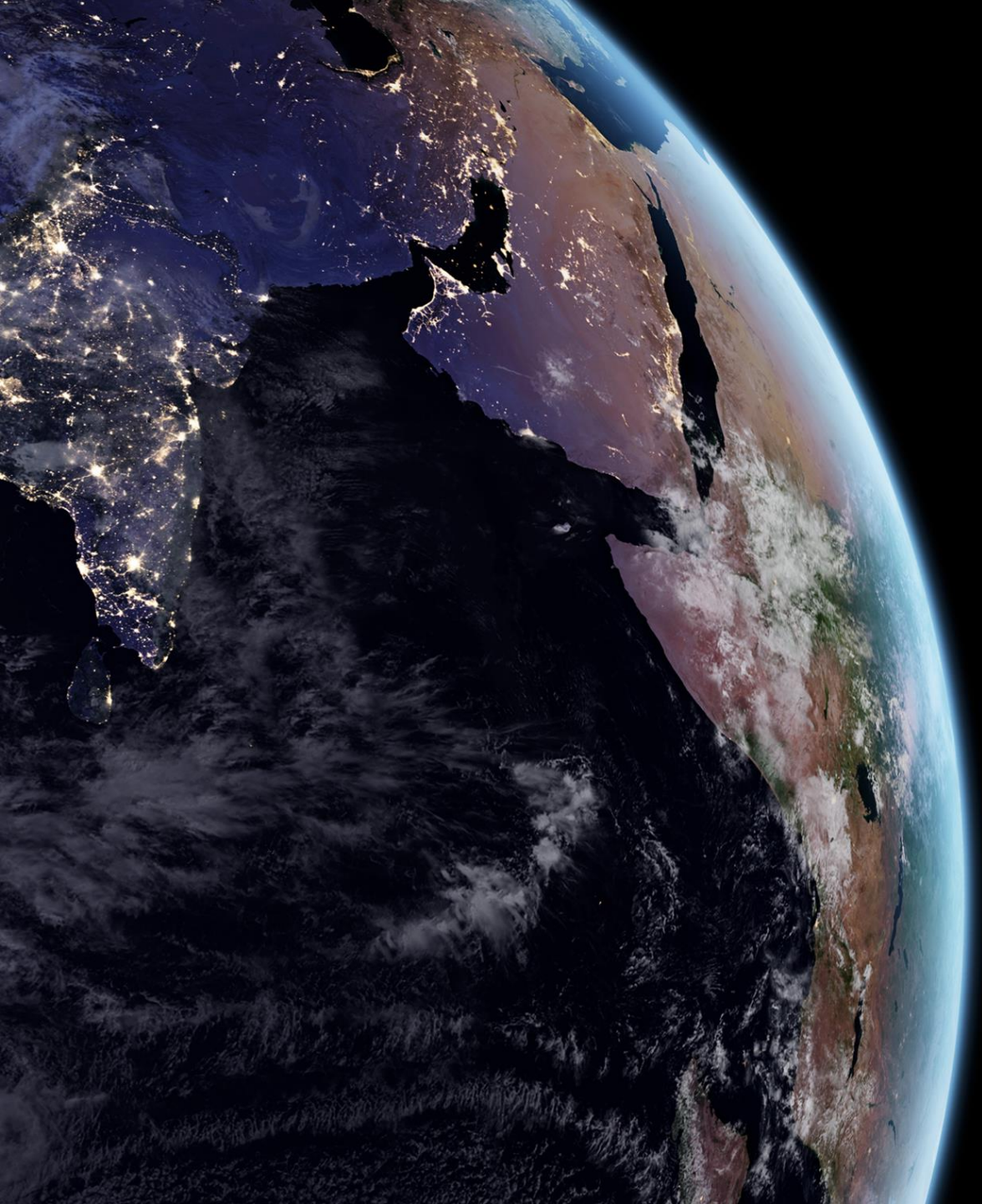
SYSTEM DESIGN

Reduce bottlenecks with industry leading 8 channels of DDR4-3200 memory and up to 128 lanes of PCIe® 4.0 connectivity



Processor	Cores	Base Freq. (GHz)	Max. Freq (GHz)	Max Mem Speed (MHz)	Max Memory Capacity	PCIe®	L3 cache (MB)
AMD EPYC™ 7F32	8	3.7	3.9	3200	4TB	Gen4	128
AMD EPYC™ 7F52	16	3.5	3.9	3200	4TB	Gen4	256
AMD EPYC™ 7F72	24	3.2	3.7	3200	4TB	Gen4	192

AMD



170+

WORLD RECORDS

AND COUNTING

https://www.amd.com/en/processors/epyc-world-records

NOT STAC BENCHMARKS

GAINING TRACTION IN FINANCIAL SERVICES

VIRTUALIZED IT

Cores/rack

GRID COMPUTING

Compute/rack

SOFTWARE-DEFINED INFRASTRUCTURE

Efficiency and high connectivity

AMD

ACCELERATING TIME TO VALUE

IHV	AMD RADEON INSTINCT, Micron, Western Digital, NVIDIA, BROADCOM, XILINX, Mellanox TECHNOLOGIES, SK hynix, DALCO www.dalco.ch, SAMSUNG, SEAGATE
OSV/ISV	Microsoft, CITRIX, vmware, redhat., PostgreSQL, ORACLE, Microsoft SQL Server, CANONICAL, hadoop, NUTANIX, simplivity, docker, SUSE, Java
SILICON & PLATFORMS	Hewlett Packard Enterprise, DELL EMC, Inventec, CRAY, SUPERMICRO, Scaleway, Lenovo, GIGABYTE, TYAN, Atos, Microsoft Azure, Google Cloud, aws, HIVELOCITY, QCT, Baidu, ORACLE, packet, HETZNER ONLINE

Delivering SI, Platforms, Tools, Libraries, and Strategic Partners

USE OF THIRD-PARTY MARKS / LOGOS/ PRODUCTS IS FOR INFORMATIONAL PURPOSES ONLY AND NO ENDORSEMENT OF OR BY AMD IS INTENDED OR IMPLIED. GD-83

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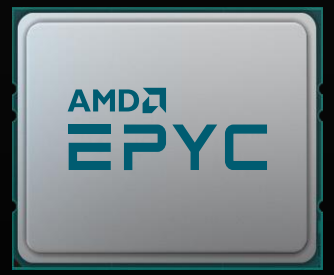
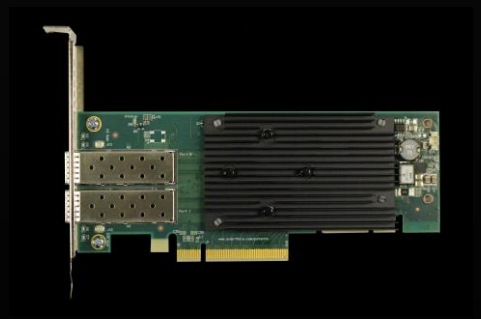
NEW TICK-TO-TRADE SOLUTION

AMD EPYC | Lenovo™ | XILINX® | LDA TECHNOLOGIES™

Lenovo ThinkSystem™ SR665





Solution advantages

- Under 25 nanoseconds Tick-to-Trade backed up by a STAC Research T0 benchmark
- Dual board solution leveraging patented Xilinx Delegated Sends technology along with LDA Technologies Lightspeed v.2 TCP
- Lenovo SR655 is an excellent platform for building performant trading solutions
- All powered by AMD EPYC™ processors

https://www.stacresearch.com/XLX200514
https://www.xilinx.com/publications/solution-briefs/partner/xilinx-lda-amd-tick-to-trade-solution-brief.pdf

AMD

EPYC™ CLOUD SOLUTIONS MOMENTUM

aws Google Cloud Microsoft Azure

IBM Cloud ORACLE CLOUD

Estimated 150+ AMD EPYC-based cloud instances available in 2020

Google Cloud Platform Confidential VMs – Powered by 2nd Gen AMD EPYC™ Processors

1st product in the Google portfolio designed to secure data in a virtualized environment with AMD EPYC™ CPU-enabled hardware-based security.

AMD EPYC | Google Cloud

AMD

2020 HCI SOLUTIONS BY OEM

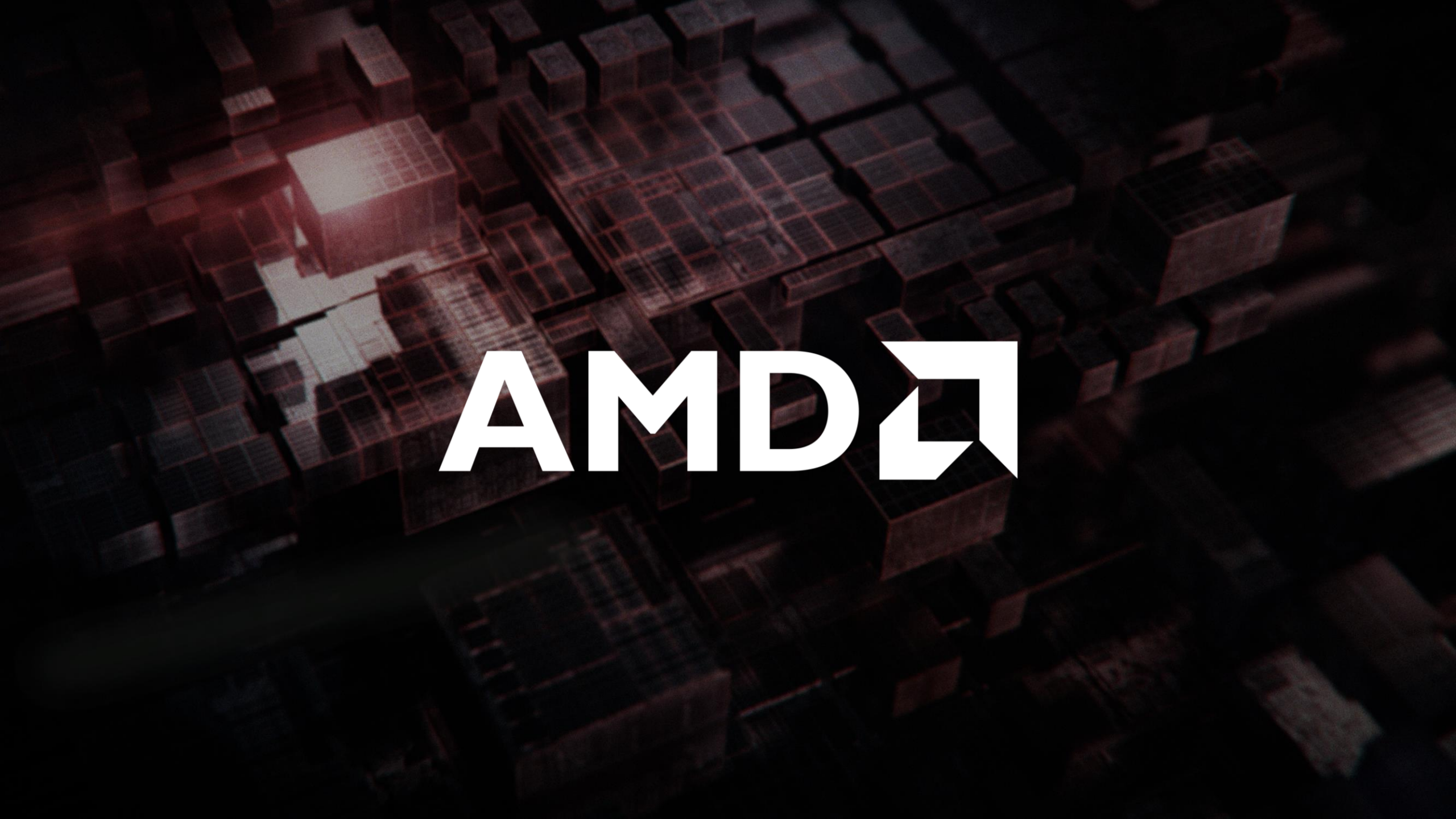
OEM	DELL EMC	NUTANIX	Hewlett Packard Enterprise	Lenovo	SUPERMICRO	cisco
Appliances	VxRail E665 Nutanix XC-6515 Azure Stack HCI AX-6515	HPE DX385	SimpliVity DL325 Nimble dHCI (DL325, DL385) Nutanix DX385 via Greenlake	ThinkAgile HX3375		FlashStack with PureStorage* FlexPod With NetAPP* *Note: Converged – not HCI
Solutions	VMware ReadyNodes (R6515, R6525, R7515, R7525, C6525)	HPE DL325 via VAR	VMware ReadyNodes (DL325, DL385) Azure Stack HCI (DL325, DL385)	ThinkAgile HX3376 Certified Node VMware ReadyNodes (SR635, SR655)	VMware ReadyNodes (1P & 2P)	

AMD

WHERE WE ARE TODAY

- Predictable Execution
- Leadership Performance
- Strong Ecosystem Support

AMD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