A MODERN DATA CENTER

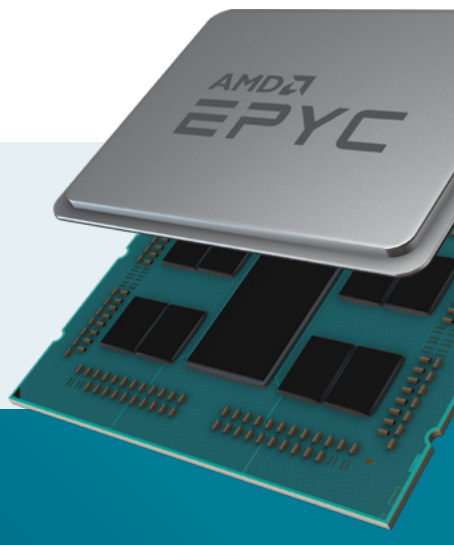
Growth is the **#1 business priority** reported by **CIOs**,[1] with 62% of CIOs now responsible for creating new products or services.[2]

IT LEADERS FACE CHALLENGES IN THE MOVE TO A MODERN DATA CENTER:

The pressure to innovate exposes cracks in today's infrastructure

New security threats emerge every day

Old technologies hinder balancing current and future needs



AMD EPYC™ 7002 SERIES PROCESSORS:

LEADERSHIP THAT SETS A NEW STANDARD FOR THE MODERN DATACENTER:

LEADERSHIP ARCHITECTURE:

New AMD Infinity Architecture delivers performance, scale, efficiency and security features for the agility to move at the speed of your business, now and into the future.

EFFICIENCY
Hybrid Multi-Die SoC Design
First 7nm x86 server processors
Energy & NUMA Enhancements

PERFORMANCE
Core Performance Upgrades
~ 2X Performance Increase[3]
Up to 4X Theoretical FLOPS[4]

2ND GENERATION **INFINITY FABRIC™**

THROUGHPUT
Breakthrough System Features
First PCIe® 4 x86 Server Processors
Leading I/O and Memory Bandwidth[5]

SECURITY
'Hardened at the Core'
Micro-Architecture Enhancements
Advanced Security Features

LEADERSHIP PERFORMANCE:

Ground-breaking performance, performance/dollar, and performance/watt for the most demanding workloads. Up to 2x the performance of Intel Xeon and World Record scores on many industry standard benchmarks:

43% HIGHER [6]
Virtualization

84% HIGHER [7]
Base Floating-Point

1.8X HIGHER [8]
Server-Side JAVA®

93% HIGHER [9]
Base Integer

~ 2X ANSYS FLUENT® [10]
Computational Fluid Dynamics

LEADERSHIP SECURITY:

Advanced security features with silicon-embedded protection that helps your organization take control of security and minimize risks to your most important assets.

SECURE
ROOT OF TRUST TECHNOLOGY

SECURE
MEMORY ENCRYPTION

SECURE
ENCRYPTED VIRTUALIZATION

ARE YOU READY TO DELIVER MORE WITH A MODERN DATA CENTER?

Visit amd.com/epyc or contact your AMD sales representative.

1. http://idgcommunications.lookbookhq.com/ciodigitalmagazine-cradlepoint/01-ciod-winter-2019--1
2. Gartner 2018 CIO Agenda Report
3. Results as of 8/7/2019 using SPECrate(R)2017_int_base. The EPYC 7742 2P score is 654 on the SPECrate®2017_int_base, https://spec.org/cpu2017/results/res2019q3/cpu2017-20190722-16242.html. EPYC 7601 2P score of 304 results at http://spec.org/cpu2017/results/res2019q2/cpu2017-20190411-11817.pdf. 654 / 304 = 2.15 or 2x higher integer performance for the EPYC 7742. SPEC®, SPECrate® and SPEC CPU® are registered trademarks of the Standard Performance Evaluation Corporation. See www.spec.org for more information. ROM-37
4. Based on standard calculation method for determining FLOPS. ROM-04
5. EPYC™ 7002 series has 8 memory channels, supporting 3200 MHz DIMMs yielding 204.8 GB/s of bandwidth vs. the same class of Intel Scalable Gen 2 processors with only 6 memory channels and supporting 2933 MHz DIMMs yielding 140.8 GB/s of bandwidth. 204.8 / 140.8 = 1.454545 - 1.0 = .45 or 45% more. AMD EPYC has 45% more bandwidth. Class based on industry-standard pin-based (LGA) X86 processors. ROM-11.
6. Results as of 8/7/2019 based on VMmark 3.1 SAN. An EPYC 7702 powered server delivered a VMmark 3.1 SAN storage score of 12.88 with 14 tiles on Aug 7, 2019. https://www.vmware.com/content/dam/digitalmarketing/vmware/en/pdf/vmmark/2019-08-07-HPE-ProLiant-DL385Gen10.pdf. Product available Aug 7, 2019. The next highest 2 node 4 socket score of 9.02 @ 9 tiles with Platinum 8280, https://www.vmware.com/products/vmmark/results3x.0.html, July 28, 2019. VMware VMmark 3.0 and 3.1 results can be found at https://www.vmware.com/products/vmmark/results3x.html. ROM-100
7. A 1P EPYC 7742 powered server has SPECrate®2017_fp_base score of 268, http:/spec.org/cpu2017/results/res2019q3/cpu2017-20190722-16244.html as of August 7, 2019. The next highest base score is a 1P Intel Platinum 8280 server with a score of 148, http://spec.org/cpu2017/results/res2019q2/cpu2017-20190318-11231.pdf as of July 28, 2019. SPEC®, SPECrate® and SPEC CPU® are registered trademarks of the Standard Performance Evaluation Corporation. See www.spec.org for more information. ROM-98
8. An EPYC™ 7702P powered server has a World Record 1P SPECjbb2015-MultiJVM Max score of 171,634 (SPECjbb2015-MultiJVM Critical scored 75,275), http://www.spec.org/jbb2015/results/res2019q3/jbb2015-20190717-00467.html. 84% higher than the previous #1, a server with an Intel Platinum 8280 with a score of 93,484 (SPECjbb2015-MultiJVM Critical scored 25,413), https://www.spec.org/jbb2015/results/res2019q2/jbb2015-20190313-00372.html. SPEC® and SPECjbb® are registered trademarks of the Standard Performance Evaluation Corporation. See www.spec.org for more information. ROM-115.
9. A 1P EPYC 7742 powered server has SPECrate®2017_int_base score of 349, http://spec.org/cpu2017/results/res2019q3/cpu2017-20190722-16290.html as of August 7, 2019. The next highest score is a 1P Intel Platinum 8280 server with a score of 181, http://spec.org/cpu2017/results/res2019q2/cpu2017-20190318-11230.pdf as of July 28, 2019. SPEC®, SPECrate® and SPEC CPU® are registered trademarks of the Standard Performance Evaluation Corporation. See www.spec.org for more information. ROM-96
10. Based on AMD internal testing of ANSYS FLUENT 19.1, lm6000_16m benchmark, as of July 17, 2019 of a 2P EPYC 7742 powered reference server versus a 2P Intel Xeon Platinum 8280 powered server. Results may vary. ROM-42