GO EASY: MIGRATING VIRTUAL MACHINES FROM LEGACY INTEL® ARCHITECTURE TO AMD EPYC™ PROCESSORS IS A BREEZE

The smart, cost-effective solution to refresh IT data centers.

VMware® has developed a tool that migrates virtual machines (VMs) running on Intel® architecture to AMD architecture, with a goal of delivering a better user experience (UX) and better business value. IT professionals know that the key to success is migrating VMs across platforms without issue or interruption to operations.

CUSTOMER OBJECTIONS: FACING IT FEARS AS DATA CENTER DEMANDS INCREASE

Companies considering VM migration across platforms might hesitate because their CPU architectures are not the same across the enterprise. Migrating across different CPU generations and/or CPU vendors can be challenging:

1 **Aging can be risky.** The average data center server is 3–5 years old. Maintaining legacy systems and aging infrastructure can increase enterprise security vulnerabilities.

2 **Upgrading is scary!** IT centers dread impeding business. Migrating VMs across different architectures can seem like a daunting task and might give pause for risk-averse IT managers.

3 **A cluster encounter.** Enhanced vMotion® Compatibility (EVC) does not support live migration of VMs from Intel to AMD hardware. Migration of VMs from Intel to AMD hardware requires cold migration.

WE GOT THIS: AMD PROCESSORS ARE SMOOTH OPERATORS

AMD and VMware developed a tool to help migrate VMs running on Intel architecture to AMD architecture to deliver a better user experience (UX) and better business value. Third-party testing proves cold migration with this tool can be a glitch-free experience. Engineers successfully cold-migrated 40 VMs from Intel to AMD hardware in less than 30 minutes.[1,2]

A COMPELLING CASE FOR AMD

AMD EPYC™ processors power the most energy-efficient x86 servers in the industry, delivering exceptional performance and helping lower energy consumption.[3]

- **Easy consolidation:** Testing proved the ability to consolidate three legacy servers based on Intel processors to one modern server based on AMD EPYC processors with no glitches.[2]

- **Help lower total cost of ownership (TCO):** Less time to migrate and less energy requirements help lower power and cooling costs and enable more time to spend on business operations.

WHY MIGRATE TO NEWER PROCESSORS:

- Servers running on legacy processors can be less efficient and can consume more energy than servers based on newer processors.

- Modern workloads, such as advanced analytics and artificial intelligence (AI)/machine learning (ML), might require new hardware with updated capabilities.

- Modern processors feature more cores and leading performance per watt, which could mean fewer servers and lower operating expenses (OpEx).[4]

NOW IS THE TIME: AMD PROCESSORS CAN DELIVER BETTER BUSINESS VALUE

Widen your IT department's ability to make use of database analytics, use AI, apply ML, and make the most of containers and cloud-native usage models to deliver next-generation architecture.

HERE'S THE DEAL

58% *LOWER CAPITAL EXPENDITURE (CapEx)*[4]

46% *LOWER OPERATING EXPENSES (OpEx)*
over a three-year period[4]

52% *LOWER POWER*
consumption helps reduce power and cooling costs[3]

MAKE A BOLD MOVE

Change the equation by migrating Intel processor–based VMs to new platforms based on AMD processors. Learn how to **Maximize Your HCI Investment**, and take the opportunity to read the complete Prowess Consulting report: **"Can You Easily Migrate VMs from Intel® Hardware to AMD Hardware?"** Gain a competitive advantage by getting to know **AMD EPYC server processors** and learning **how to use the VMware Architecture Migration Tool (VAMT)**. If you missed VMware Explore 2022 in San Francisco, watch AMD's **live interview**.

[1] Compared to using Intel® Xeon® Platinum 8380 processor–based servers.

[2] Prowess Consulting. "Can You Easily Migrate VMs from Intel® Hardware to AMD Hardware?" Commissioned by AMD. 2023.

[3] SP5TCO-019K: As of 11/10/2022, based on AMD internal analysis using the AMD EPYC™ Server Utilization and Greenhouse Gas Emissions TCO estimation tool version 10.75 and estimating the cost and quantity of 2P AMD EPYC™ 9654 (96 core/CPU) processor–powered server versus 2P Intel® Xeon® Platinum 8380 (40 core/CPU) processor–based server solutions required to deliver 1,995 total virtual machines (VM) based on VMmark® tiles in published results, for the first year. Environmental impact estimates made leveraging this data, using the country/region-specific electricity factors from the "2020 Grid Electricity Emissions Factors v1.4 – September 2020," and the United States Environmental Protection Agency Greenhouse Gas Equivalencies Calculator. This scenario contains many assumptions and estimates and, while based on AMD internal research and best approximations, should be considered an example for information purposes only, and not used as a basis for decision making over actual testing. For additional details, see www.amd.com/en/claims/epyc4#SP5TCO-019K.

[4] OpEx and CapEx: www.amd.com/worldrecords.