Executive summary

Preserve workload integrity during cross-architecture migration

By migrating VMs to Dell PowerEdge R7725 servers, powered by 5th Gen AMD EPYC processors, with VMware Architecture Migration Tool (VAMT), you can maintain operational continuity while gaining performance benefits

You might consider transitioning from old IT server infrastructure to the latest Dell™ PowerEdge™ and AMD EPYC™ processor-based platforms to realize higher performance, increased VM density, improved energy efficiency, and lower overall total cost of ownership. This transition could look particularly appealing if it aligns with broader data center upgrade cycles and consolidation goals. However, cross-architecture migrations have the potential to introduce operational complexity and risk, creating a need for repeatable, validated approaches that help organizations move workloads predictably while maintaining service continuity. VMware Architecture Migration Tool (VAMT) is an option for addressing that need.

We evaluated and documented using VAMT for three migration scenarios of a VMware-based environment: single VM migrations, a batch migration, and a scheduled migration. We started each scenario with VMs on a five-year-old Intel® Xeon® processor-based HPE ProLiant DL380 Gen10 system running VMware vSphere™ 8 and migrated them to a modern Dell PowerEdge R7725 server built on AMD EPYC processors running vSphere 9. We also tested the VAMT rollback capability and performed post-migration integrity validations to confirm workload consistency. Based on our evaluation, VAMT can execute cross-architecture migrations easily in a controlled, repeatable way to reduce operational risk while supporting modernization and consolidation goals.

Accelerate cross-architecture migrations

Less than 15 minutes to execute a batch VM migration

Protect operational continuity

Verified success and workload integrity through post-migration checks and rollback

Spend less over five years

Cut five-year TCO costs by up to 64%

Shorten time to business insight

Run 3x the data analytics per hour

Minimize operational and management risk with fast migrations

All our single-VM migrations completed in less than 10 minutes, and the batch migration took less than 15, making it practical to execute within planned maintenance windows alongside other critical IT activities. Using VAMT enables organizations to reduce manual effort and migration uncertainty while advancing infrastructure modernization goals quickly. A repeatable, validated process can help IT teams move workloads more confidently while maintaining service continuity and operational control.

Protect continuity with post-migration data integrity validation

We verified migration success by performing multiple VM integrity checks:

- For the Windows and Ubuntu VMs, we compared storage volume UUIDs to confirm consistency before and after migration.
- For the SQL Server VM, we performed both a file hash check on a database backup and several SQL database validation checks to confirm data integrity.

These went smoothly and proved the migrations were successful. A structured verification process can help build confidence in IT teams and users while supporting predictable modernization outcomes.

Conclusion

Using VAMT to migrate VMs to Dell PowerEdge R7725 servers powered by 5th Gen AMD EPYC processors enables repeatable, low-risk cross-architecture migrations that preserve workload integrity. The Dell and AMD solution delivers measurable business value, including better energy efficiency and a reduction in five-year TCO versus inefficient and outdated architecture.

About VAMT

The VMware Architecture Migration Tool (VAMT) is an open-source automation utility co-developed by VMware and AMD to streamline cold migrations of VMs between different hardware architectures. Traditional cold migration includes manually powering down VMs, relocating storage and compute, and verifying post-migration operations. VAMT compresses these steps into an automated workflow to reduce manual effort and operational friction.

What migration can bring: Better database performance and lower TCO

Migrating from inefficient and outdated server infrastructure to a new AMD processor-based one delivers Oracle Database performance increases that can offer serious payoff for your organization. In a recent Oracle Database study, we found that migrating from a five-year-old Intel Xeon Gold 6242 processor–based HPE ProLiant DL380 Gen10 to a Dell PowerEdge R7725 powered by 5th Gen AMD EPYC 9175F processors preserves and improves performance while enabling consolidation and operating-cost reductions. The PowerEdge R7725 supported triple the VM load while delivering 23.8 percent faster queries on average per VM. Over five years, the server can offer a 64 percent lower total cost of ownership while increasing consolidation density and energy efficiency, freeing budget for strategic initiatives.[1]

Read the report ▶

1. "Get quicker insights and save over the next five years by consolidating your Oracle Database workloads on the Dell PowerEdge R7725 with 5th Generation AMD EPYC processors," accessed January 26, 2026, https://facts.pt/KW9Y5Wr.

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