Organizations can reduce server costs by 64% over five years with the Dell PowerEdge R7715

A four-node cluster of these servers with AMD EPYC 9355P processors offers improved efficiency and consolidation potential at a lower five-year TCO vs. five-year-old servers

Commissioned by Dell Technologies | September 2025

What we tested

Legacy

Four-node legacy HPE ProLiant DL380 Gen10 VMware vSAN cluster with dual 28-core Intel® Xeon® Gold 6258R processors

Latest gen

Four-node Dell™ PowerEdge™ R7715 VMware vSAN cluster with single-socket 32-core AMD EPYC™ 9355P processors

Two workloads ran simultaneously:

- Data analytics performance comparison
  - Used the HammerDB TPROC-H workload to determine how long it took each solution to complete their workloads, and then calculated the queries per hour that each solution could support
- WordPress webhosting performance comparison
  - Used the Siege benchmark tool to determine the maximum transactions per second (TPS) each solution could support

Calculated five-year TCO

- Used HammerDB results to determine a consolidation ratio for TCO comparison
- Measured CPU and power utilization to compare energy efficiency
- Calculated expected five-year costs for licensing, power, space, and maintenance for the solutions supporting an equivalent number of workloads

About PT

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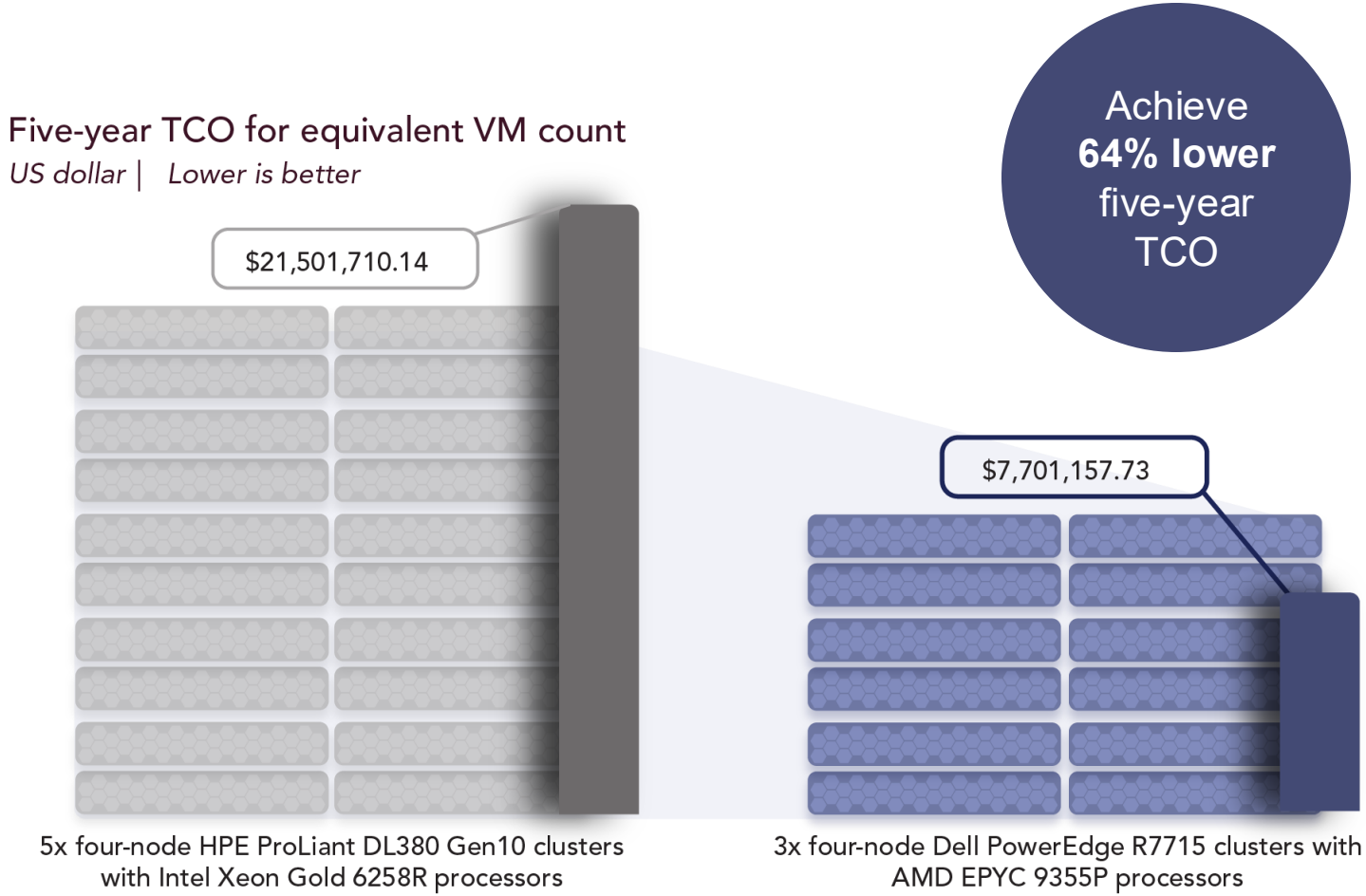
Save $13.8M over five years from consolidation

Benefits

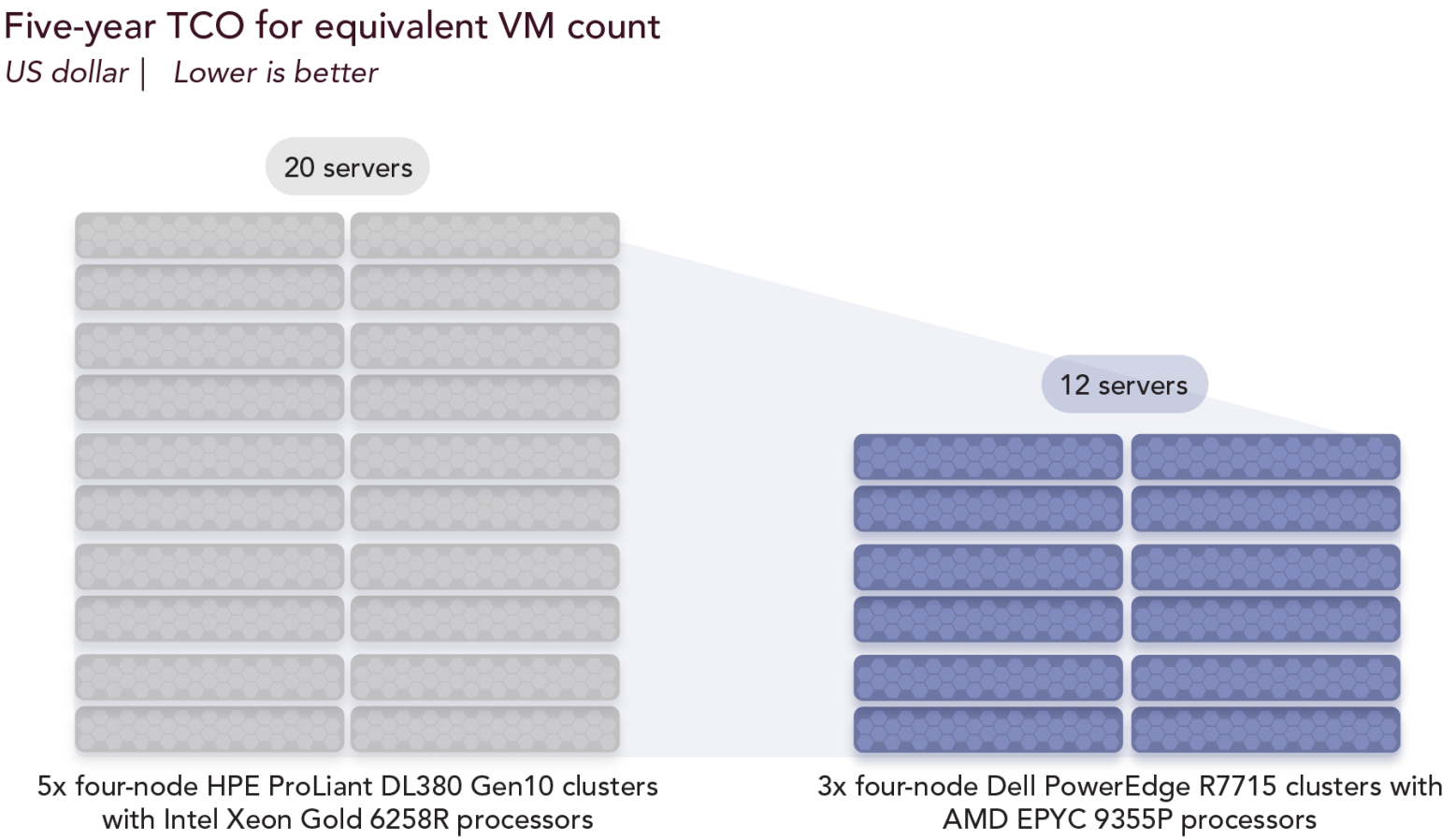
- Save in licensing, power, space, and maintenance
- Save $13.8M over the next five years—64% reduction
- The more servers you consolidate, the more you can save
- Newer AMD EPYC 9355P processors reduce core count from 1,120 to 384, yielding 66% lower software licensing



Consolidate through improved performance

Benefits

- 40% reduction in rack space
- 32% energy reduction



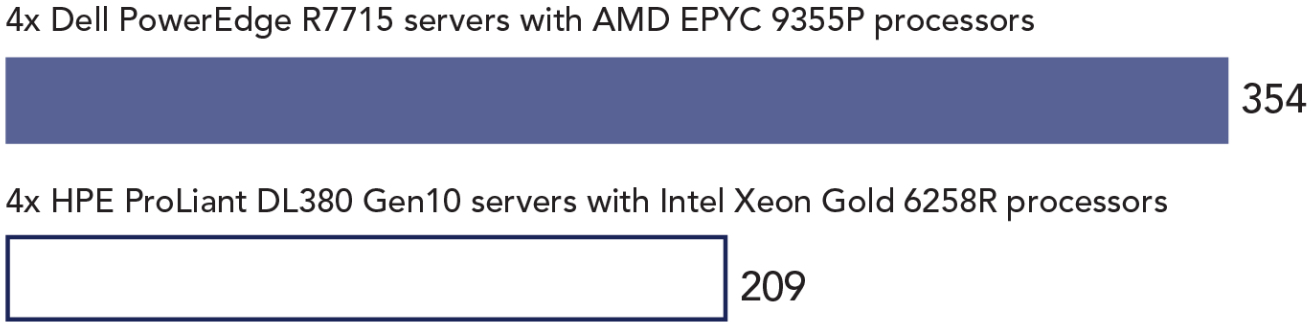
Boost analytics to unlock timely insights

Benefits

- 69% more query sets per hour while running webhosting workloads
- 66% more data analysis VMs while spending 42% less on software licenses (due to 42% fewer cores)
- 2.9X the data analysis per SQL license

Query sets completed per hour (TPROC-H workload)

Number of query sets | Higher is better



Benefits

- Get up to 3X the power efficiency (performance per watt) in head-to-head cluster comparisons
- Reduce power and related cooling costs

Achieve more work per watt for cost savings

Power efficiency with TPROC-H workload

Completed query sets per hour per watt
Higher is better

4x Dell PowerEdge R7715 servers with AMD EPYC 9355P processors

0.67

4x HPE ProLiant DL380 Gen10 servers with Intel Xeon Gold 6258R processors

0.38

Power efficiency with webhosting workload

Completed TPS per watt
Higher is better

4x Dell PowerEdge R7715 servers with AMD EPYC 9355P processors

.84

4x HPE ProLiant DL380 Gen10 servers with Intel Xeon Gold 6258R processors

0.27

Upgrade to save money and do more with fewer servers

Maximize efficiency

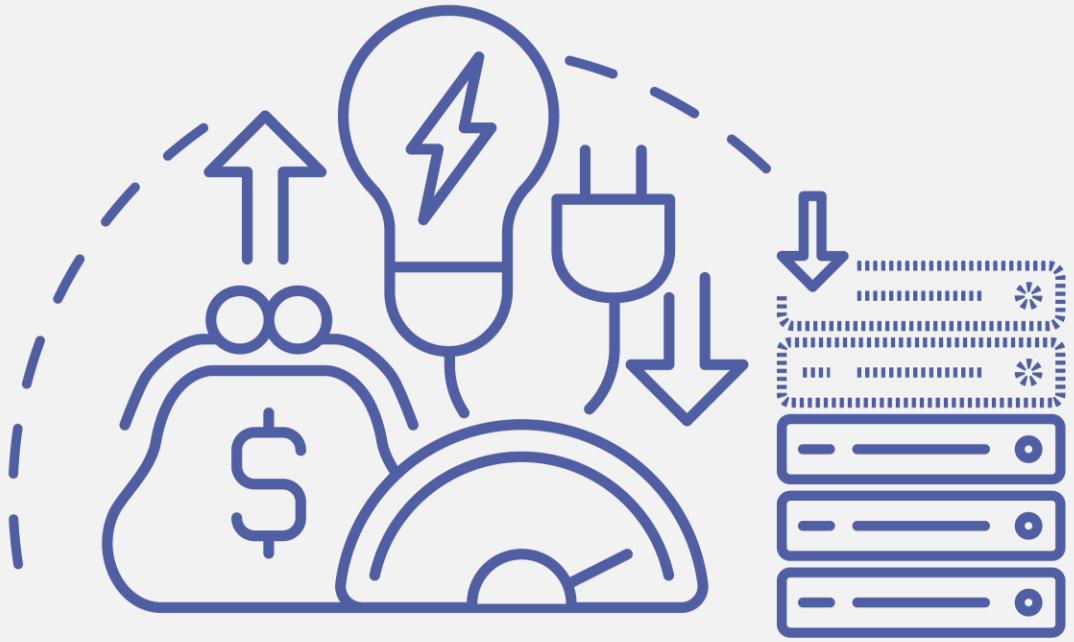
Consolidating workloads onto fewer servers helps simplify management, reduce datacenter footprint, and lower power and cooling demands

Boost performance per watt

The Dell solution supported more users per watt than the HPE solution, helping improve sustainability and potentially reduce energy spend

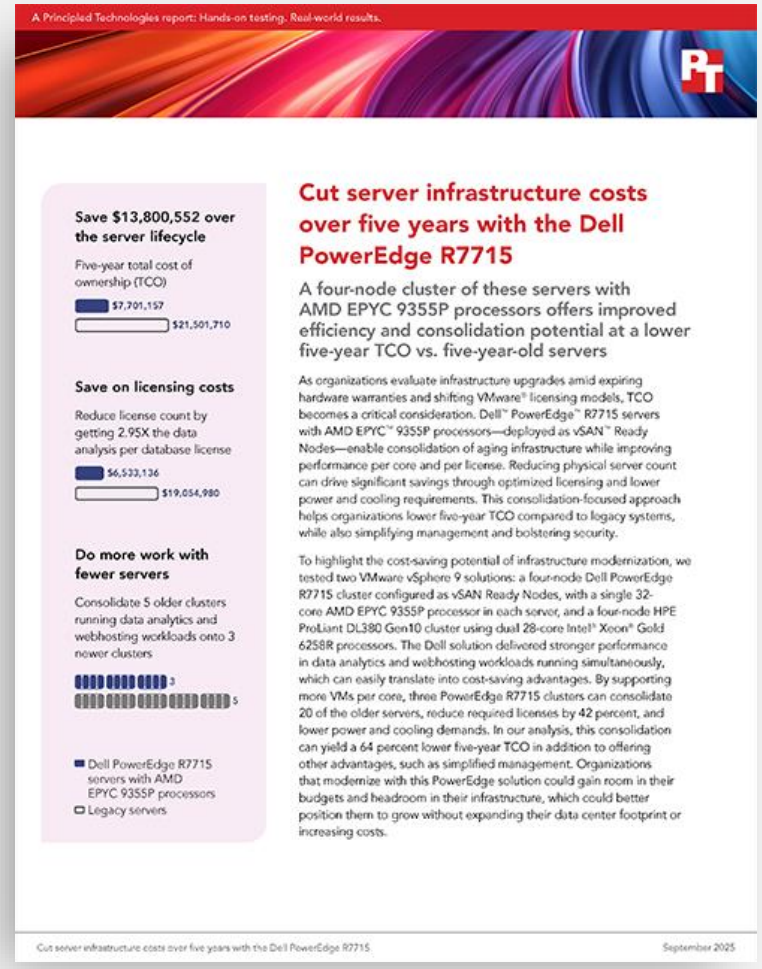
Cut costs

Consolidating to Dell PowerEdge R7715 clusters could save you over $13.8M over five years, primarily coming from licensing savings



Support business growth

Higher database throughput and more concurrent web users allow your IT environment to scale as your organization grows, without proportional increases in infrastructure



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