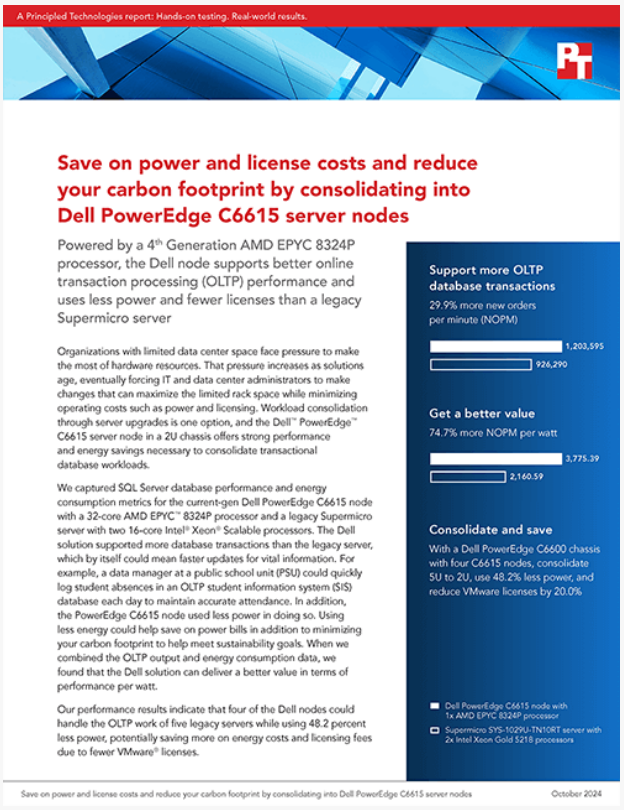
Principled Technologies finds that Dell PowerEdge C6615 nodes can help organizations consolidate SQL Server workloads

The PowerEdge C6615 node with a 4th Gen AMD EPYC 8324P processor outperformed a legacy server while consuming less power in Principled Technologies (PT) testing

AUSTIN, TX, UNITED STATES, October 2, 2024 /EINPresswire.com/ -- Many organizations are constrained by limited data center space. Consolidation can help them grow their critical workloads, such as online transaction processing (OLTP) database workloads, while being mindful of costs. Consolidation can also help reduce operating costs, require less IT administrator time, utilize resources better, and more. The Dell PowerEdge C6615 server node in a 2U chassis offers the strong performance and energy savings necessary to consolidate transactional database workloads.

PT found that a single PowerEdge C6615 node with a 32-core AMD EPYC 8324P processor handled 29.9 percent more SQL Server transactions than a legacy Supermicro server with two previous-gen 16-core Intel Xeon Scalable processors. In doing so, the


A Principled Technologies report: Hands-on testing. Real-world results.

Save on power and license costs and reduce your carbon footprint by consolidating into Dell PowerEdge C6615 server nodes

Powered by a 4th Generation AMD EPYC 8324P processor, the Dell node supports better online transaction processing (OLTP) performance and uses less power and fewer licenses than a legacy Supermicro server

Organizations with limited data center space face pressure to make the most of hardware resources. That pressure increases as solutions age, eventually forcing IT and data center administrators to make changes that can maximize the limited rack space while minimizing operating costs such as power and licensing. Workload consolidation through server upgrades is one option, and the Dell™ PowerEdge™ C6615 server node in a 2U chassis offers strong performance and energy savings necessary to consolidate transactional database workloads.

We captured SQL Server database performance and energy consumption metrics for the current-gen Dell PowerEdge C6615 node with a 32-core AMD EPYC™ 8324P processor and a legacy Supermicro server with two 16-core Intel® Xeon® Scalable processors. The Dell solution supported more database transactions than the legacy server, which by itself could mean faster updates for vital information. For example, a data manager at a public school unit (PSU) could quickly log student absences in an OLTP student information system (SIS) database each day to maintain accurate attendance. In addition, the PowerEdge C6615 node used less power in doing so. Using less energy could help save on power bills in addition to minimizing your carbon footprint to help meet sustainability goals. When we combined the OLTP output and energy consumption data, we found that the Dell solution can deliver a better value in terms of performance per watt.

Our performance results indicate that four of the Dell nodes could handle the OLTP work of five legacy servers while using 48.2 percent less power, potentially saving more on energy costs and licensing fees due to fewer VMware® licenses.

Support more OLTP database transactions

29.9% more new orders per minute (NOPM)

1,203,595

926,290

Get a better value

74.7% more NOPM per watt

3,775.39

2,160.59

Consolidate and save

With a Dell PowerEdge C6600 chassis with four C6615 nodes, consolidate 5U to 2U, use 48.2% less power, and reduce VMware licenses by 20.0%

Dell PowerEdge C6615 node with 1x AMD EPYC 8324P processor

Supermicro SYS-1029U-TN10RT server with 2x Intel Xeon Gold 5218 processors

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Dell node used less power and delivered better performance per watt, indicating a better value for cash-strapped organizations. Better performance per watt could also indicate better energy efficiency and a reduction in data center heat generation, which can help organizations address their sustainability goals.

Based on the performance they saw in their hands-on testing, PT claims that a Dell PowerEdge 6600 chassis filled with four PowerEdge C6615 nodes can do the work of five of the legacy servers, reducing necessary rack space from 5U to 2U. The PT report states that the "energy consumption savings for the Dell solution would increase to 48.2 percent" and that due to having fewer processors, the consolidation would mean "32 fewer licenses—a 20.0 percent reduction—to handle roughly the same amount of OLTP work." The Supermicro server PT tested had two sockets for two Intel Xeon processors, and the Dell PowerEdge C6615 node had one socket for one AMD EPYC processor. Broadcom licenses VMware vSphere, which PT used in testing, per socket.

To learn more about PT's testing and results, read their report at https://facts.pt/ng2XflY. To get an overview of their results, see their infographic at https://facts.pt/KaFJG9X.

Infographic: Save on power and license costs and reduce your carbon footprint by consolidating into Dell PowerEdge C6615 server nodes

About Principled Technologies, Inc.
Principled Technologies, Inc. is the leading provider of technology marketing and learning & development services.

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