

Boost Energy Efficiency and Sustainability with Dell PowerEdge Solutions



Dell Technologies aims to create more sustainable products and services while **also lowering operating costs.**

Energy Efficient IT



The Dell PowerEdge server portfolio improves energy efficiency through innovative design features, management tools to optimize consumption, recycled materials, and validation by recognized eco labels.

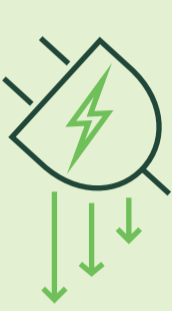
First Tier 1 vendor to

CO₂ **measure and track server carbon emissions on production servers.¹**

Management tools

Provide visibility and control to reduce energy consumption.

Dell OpenManage Enterprise (OME) Power Manager



Generate power-usage insights, simplify IT and improve decision-making.

Get useful information that allows you to quickly respond to power issues, improve overall power usage and track greenhouse gas emissions.

Up to **82%**

less time to cap power on eight-node servers vs. doing it manually.²

Up to **96%**

less time to collect power data vs. doing it manually.³



The Power Manager Emission Conversion Factor feature lets you approximate carbon dioxide emission levels based on energy consumed.



The Power Manager 3.0 plug-in lets you calculate energy and carbon emissions cost per unit for devices managed and monitored through the OME console.



APEX AIOps integrates energy and emissions tracking with analytics to enhance workload efficiency and technology updates, reducing IT and carbon footprints.

Dell SmartFlow design

A new feature within the Dell SmartCooling solution, increases airflow and reduces fan power by up to 52% compared to 15th Generation PowerEdge servers



Consolidate up to seven 5-year-old servers into one server today, resulting in up to **65% lower CPU power consumption.**⁴



PowerEdge R750 has an optimized thermal design that **improves energy efficiency.**⁵

Up to **95°F**

PowerEdge servers deliver **power-efficient operation.**



High-performance fans and new CPU heat sinks keep the system at optimal temperatures without using more energy than is needed.



World record performance for AI and virtualization tasks.⁶ The latest XE9680 can save you **58% in energy.** This is equivalent to the annual energy savings of 7 ENERGY STAR certified refrigerators.⁷

Sustainable materials and eco labels

We use recycled materials to make parts for new products.



Reducing our Impact: Our latest 17G PowerEdge servers launched with packaging designed with 100% recycled or renewable materials.⁸



PowerEdge servers are crafted with **up to 35% recycled plastic content.**⁹

Recognized eco labels validate our environmental leadership.



PowerEdge servers are the first in the industry to achieve EPEAT Silver.¹⁰

PowerEdge has more EPEAT-registered and ENERGY STAR®-certified servers than any other vendor.¹¹

Sustainability is a joint effort

By increasing energy efficiency, reducing the environmental impact and maximizing performance, PowerEdge servers can help support your business and climate goals. When we all prioritize sustainability, we are driving business outcomes and protecting the planet.

Learn more at
Energy Efficient Center | Dell USA

¹ Based on Dell analysis, in May 2023, of Tier 1 server vendors offerings for systems management and any features that would allow a customer to track and measure server carbon emissions as compared to the Dell Open Manage Enterprise Power Manager 3.0 (released in May 2022).

² Based on Principled Technologies report commissioned by Dell in November 2022. Testing compared using OpenManage Enterprise Power Manager 3.0 vs manually completing server monitoring and management tasks with iDRAC. Actual results may vary.

³ Principled Technologies report commissioned by Dell Technologies, *Gain in power consumption faster and more easily*, November 2022.

⁴ Based on Dell analysis comparing the SPECint and SPECfp scores of the AMD EPYC 5th Gen 9665 in a Dell R7725 (2980 and 2350) with the same scores for an Intel Xeon E520 in a Dell PowerEdge R7400G (375 and 290). The ratio of the scores shows that 7 of the R7400G servers would give a total score similar to that for the single R7725 as configured above. The GPUs in a single R7725 would have a total TDP of 1000W (2x500W). The CPUs in 7x R7400Gs would have a total TDP of 2870W (2x2057) where each Intel Xeon E520 has a TDP of 205W. This represents a CPU power reduction of 65%. Data accurate as of 10/2/2024. Actual performance will vary.

⁵ Based on Dell internal analysis comparing DDR5 memory on AMD EPYC 4th gen running at 4800 MT/s and DDR4 memory on AMD EPYC 3rd gen running at 3200 MT/s. Actual results will vary. CLM-Q03953.

⁶ Based on Dell PowerEdge servers achieving world record scores for VMmark4 (2-S matched pair score of 5.17 @ 5.8 tiles with the Dell PowerEdge R7725), SAP-SD (2-S score of 201,000 users with the Dell PowerEdge R6720), and TPC-AI (Scores of 720,388 @SF3, 864,593 @ SP10 and 1115,009 @SF30 with the Dell PowerEdge R6715 and R6720) as of 10/2/2024. Actual performance might vary.

⁷ Testing was conducted by Dell in June of 2023. Performed on PowerEdge XE9680 with 8x Nvidia H100 80GB and PowerEdge XE9680 with 8x Nvidia A100-SXM-80GB. MLPerf™ 3.0 BERT-large Training benchmark was used.

⁸ Applies to PowerEdge R670 and R770 packaging. Contains 100% recycled content and 100% renewable materials. Renewable materials in the form of sustainably sourced materials. Post Industrial Recycled (PIR) content in the form of EPE foam. Percentages may vary slightly by region. Exclude optional items added to order and included in box.

⁹ Based on internal analysis, March 2023. Applies to PowerEdge C6520, PowerEdge R660, PowerEdge R6615, PowerEdge 6625, PowerEdge R760, PowerEdge 7615, PowerEdge 7620, PowerEdge XR4000r, PowerEdge XR4000z, CLM-Q07390.

¹⁰ Based on Dell analysis of entries on www.epeat.net with Dell having 57 entries compared to 53 by Lenovo, 50 by HP, 18 by Cisco and 11 by SuperMicro as of 3/24/2023. Dell analysis of www.epeat.net showed Dell having 530 entries out of a total of 618 entries for servers as of 4/10/2023.

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