intel

Maximize your data center impact while reducing your footprint with Intel®

Data center space and power challenges are becoming more acute, and new pressures to reduce energy use and lower the carbon footprint of data center operations make it essential to find new ways to increase efficiency.

intel XEON

Migrating from older Intel® Xeon® processors to the latest 4th Gen Intel Xeon processors can significantly lower your total cost of ownership and environmental footprint

Intel can help reduce your datacenter footprint— both physical and environmental. Our end-to-end approach to the data center can reduce your server deployment and management TCO, as well as your energy costs, while delivering the reliability and capacity you need. Intel solutions are extensively tested and validated to run critical workloads at scale, helping deliver resiliency and business continuity for your data center. 4th Gen Intel Xeon processors offer the most choice and flexibility for your deployments, and with the largest ecosystem of partners and solutions, you can be confident you're getting the most from your data center and leaving no watt behind.

Whether you are refreshing older hardware used for conventional compute scenarios or building a foundation for scalable and efficient operations in emerging processing-intensive workloads like AI, HPC, and analytics, Intel is the right partner to help optimize the power efficiency of your datacenters and reduce hardware waste.

Up to
80%
reduction in server count

Up to
60%
reduction in CO_2 power and emissions

when migrating from 1st Gen Intel Xeon processors[1]

Optimize workloads and decrease TCO

Get the same (or better) performance with fewer servers, at a lower TCO and reduced CO_2 emissions.

Flexibility for today and tomorrow

Future-proof your infrastructure and prioritize interoperability and openness to reduce hardware waste and meet the demands of new workloads.

Environmentally responsible reliability and scaling

Provide business users with the responsive compute environment they need, while creating a more energy- and carbon-aware datacenter.

Refresh and consolidate with Intel® data center solutions

Only Intel® offers a full suite of technologies to optimize your entire data processing pipeline, offering IT efficiency and energy savings across your environment.

Simplify data center operations while reducing costs and environmental impact

Meet the same performance requirements with fewer servers, lower TCO and reduced CO2 emissions with Intel® optimized products

Free up rack space, reduce your physical data center footprint and lower operational costs

up to 75%

reduction in TCO refreshing from 1st Gen to 4th Gen Xeon processors[1]

Optimize your most critical workloads with Intel's workload-first approach across hardware and software solutions

up to 79%

lower TCO on NLP than 4th Gen AMD EPYC, a difference of 424.3 kW of energy and 719,546 kg CO2 emissions over 4 years[2]

Build a data center that optimizes for energy use today and scales for tomorrow

Only Intel provides a complete portfolio of hardware and software tools + optimizations to accelerate workloads across AI, data analytics, networking, security, storage, HPC and more[3]

Gain more flexibility to shift from today's general compute to more specialized needs like AI, HPC, and data analytics, helping future-proof your purchase

up to 8-14x

higher performance /watt across AI workloads with Intel® AMX vs. no built-in acceleration[5]

Ensure efficiency on your most compute- and energy-intensive workloads with built-in accelerators and optimized software

Intel® oneAPI can provide

16-53x

gain in image classification inference, a 10x gain for object detection, and nearly 5x gain for recommendation systems, giving you more insights for less power[3]

Responsive, yet responsible, computing

Maintain business continuity with quick and dynamic scaling, while ensuring energy efficiency with Intel®

Reduce workload time to completion and save energy by reducing latency

up to 63%

lower latency and 37% lower CPU utilization with Intel Dynamic Load Balancer (DLB) compared to the previous generation[4]

More efficient database back-ups than the competition

up to 35%

lower TCO than 4th Gen AMD EPYC while running Microsoft SQL 2022 + QAT Backup, a difference of 145.1 kW of energy and ~246 tons of CO2 over 4 years[2]

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See how Intel can help reduce your energy usage and carbon footprint:
xeonprocessoradvisor.intel.com/on-prem-advisors