Faster workload completion compared to AMD CPUs

 Most modern applications still rely on CPUs for most of their processing power. However, the increasing demand for AI workloads presents challenges. When running the same workload, 4th Gen Xeon Scalable processors outperform prior generations by up to 3.5x.*

*Based on a specific configuration at a predefined workload in terms of performance. The net impact was a huge efficiency delta.

Reduced need for additional hardware

 Xeon Scalable Processors come equipped with built-in accelerators designed to improve performance for common AI workloads. This helps enterprises achieve the best training and inferencing across various workloads — on the same hardware you already have. This means you can reduce the number of discrete accelerators you need to purchase and integrate, saving money and increasing efficiency.

More processing capacity and bandwidth

 Intel Xeon Scalable processors have the highest core and memory throughput of any server processor. Intel Xeon Scalable processors are designed to run complex workloads — such as AI training and inferencing, plus many classical machine learning applications — on the same hardware you already have. This means you can maximize energy efficiency, you can increase operations in every clock cycle, making your system more efficient, without adding discrete accelerators to your server rack.

Increased energy efficiency

 Intel® Software Guard Extensions (Intel® SGX), a built-in accelerator for security, is designed to protect your data on-prem, at the edge and in the cloud. Intel® Software Guard Extensions provide a hardware-enforced isolated environment in which your most sensitive data is stored and processed, with minimal impact on your performance. By using Intel SGX, you can protect your data while it's being transferred across the network and while it's actively in use. This means you can achieve faster workload completion and maximize energy efficiency, without adding additional hardware.

High performance maintained while protecting your most sensitive data

 Intel® Advanced Matrix Extensions (Intel® AMX) are purpose-built for particular functions in AI, security, HPC, networking, storage and data analytics. This allows developers to efficiently complete complex workloads on existing hardware. Intel Xeon Scalable processors are already optimized for the most rigorous workload challenges. Xeon Scalable processors with built-in accelerators can help your business solve the most rigorous workload challenges.