



# Optimize your data center with Intel® Xeon® processors

Make the best use of your space, power, and budget.

Consolidate workloads to fewer servers and repurpose space and power for AI-ready servers at a lower total cost without compromising performance.<sup>1</sup>



## Intel® Xeon® 6 processors with Performance cores (P-cores)

With more cores, double the memory bandwidth, and AI acceleration in every core, Intel Xeon 6 processors with P-cores provide twice the performance for the widest range of workloads, including AI and high-performance computing (HPC).<sup>2,3</sup>

Lower your total cost of ownership (TCO) by migrating from 2<sup>nd</sup> Gen Intel Xeon processors (4208) to Intel Xeon 6 processors with P-cores (6952P).<sup>4</sup>

Up to

# 17:1

server consolidation



Free up rack space and reduce data center footprint

Up to

# 94%

reduction in server count



Simplify and lower data center operations cost

Up to

# 77%

reduction in CO<sub>2</sub> emissions and power



Lower power bills and reach sustainability goals

Up to

# 87%

reduction in TCO



Lower overall cost to reinvest for growth

## Recover your cost in 4 months

## Intel Xeon 6 processors with Efficient cores (E-cores)

These processors are ideal for cloud-scale workloads that demand high task-parallel throughput as well as places where power, space, and cooling are limited. They are optimized for high core density and exceptional performance per watt.

Take advantage of lower TCO by migrating from 2<sup>nd</sup> Gen Intel Xeon processors (6252) to Intel Xeon 6 processors with E-cores (6740E).<sup>5</sup>

Up to

# 4:1

server consolidation



Up to

# 70%

reduction in server count



Simplify and lower data center operations cost

Up to

# 53%

reduction in CO<sub>2</sub> emissions and power



Lower power bills and reach sustainability goals

Up to

# 53%

reduction in TCO



Lower overall cost to reinvest for growth

## Recover your cost in 13 months

## 5<sup>th</sup> Gen Intel Xeon processors

These processors deliver impressive performance-per-watt gains across all workloads, plus outsized performance and lower TCO for AI, databases, networking, storage, and high-performance computing.<sup>6</sup>

Make the most of these advances by migrating from 2<sup>nd</sup> Gen Intel Xeon processors (4214) to 5<sup>th</sup> Gen Intel Xeon processors (5520+).<sup>7</sup>

Up to

# 3:1

server consolidation



Free up rack space and reduce data center footprint

Up to

# 70%

reduction in server count



Simplify and lower data center operations cost

Up to

# 38%

reduction in CO<sub>2</sub> emissions and power



Lower power bills and reach sustainability goals

Up to

# 61%

reduction in TCO



Lower overall cost to reinvest for growth

## Recover your cost in 6 months

## Take the next step and learn more

Visit Intel [TCO Advisor website](#) to calculate the benefits available to you with Intel® Xeon® processors.

Learn more about how [Intel® Xeon® 6 processors](#) can meet your diverse power, performance, and efficiency requirements.

Securely unlock the full potential of AI and cloud. [Learn more](#)

<sup>1</sup> See [7T1] at intel.com/processorclaims: Intel® Xeon® 6. Results may vary.  
<sup>2</sup> See [9A2] at intel.com/processorclaims: Intel® Xeon® 6. Results may vary.  
<sup>3</sup> See [9H10] at intel.com/processorclaims: Intel® Xeon® 6. Results may vary.  
<sup>4</sup> EMEA energy costs greater than US. Outcome varies by use, configuration and other factors. Please reference Intel Node TCO & Power Calculator.  
<sup>5</sup> Outcome varies by use, configuration and other factors. Please reference Intel Node TCO & Power Calculator.  
<sup>6</sup> See [G1, T1] at intel.com/processorclaims: 5th Gen Intel Xeon processors. Results may vary.  
<sup>7</sup> Comparing benefits transitioning from Intel Xeon 4214 to Intel Xeon 5520+  
Performance varies by use, configuration and other factors. See configurations below. Results may vary.  
2nd Gen Intel Xeon to 5th Gen Intel Xeon:  
Calculations as of June 2024 based on the Intel® Node TCO & Power Calculator using default cost, power and TCO assumptions over a multi-year TCO horizon comparing replacing 50 older servers with Intel Xeon 4110 processors with new servers using new 4th Gen Intel Xeon processors. Results may vary. Performance measurements based on published SPECrate®2017\_int\_base on spec.org as of March 28, 2023  
4214 https://www.spec.org/cpu2017/results/res2021q3/cpu2017-20210824-28887.html  
5520+ https://www.spec.org/cpu2017/results/res2024q1/cpu2017-20240311-41976.html

### Notices & Disclaimers

Performance varies by use, configuration and other factors. Learn more at [www.Intel.com/PerformanceIndex](#).  
Performance results are based on testing as of dates shown in configurations and may not reflect all publicly available updates. See configuration disclosure for configuration details. No product or component can be absolutely secure.  
Intel contributes to the development of benchmarks by participating in, sponsoring, and/or contributing technical support to various benchmarking groups, including the BenchmarkXPRT Development Community administered by Principled Technologies.  
Your costs and results may vary.  
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Some results may have been estimated or simulated.  
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