



Transition Guide

NEW 2ND GENERATION INTEL® XEON® SCALABLE PROCESSOR



It's a new era of datacentric computing fueled by cloud, 5G edge computing, and artificial intelligence. Intel has an unparalleled portfolio of leadership products optimized for the New 2nd Generation Intel® Xeon® Scalable processor that accelerate insights and business agility. The opportunities from server modernization are massive.

- Maximize the value of data with faster analytics
- Deploy and scale AI workloads on a single architecture
- Boost hybrid cloud scalability, performance, and efficiency

Intel is delivering comprehensive and industry leading platform capabilities to address the broadest spectrum of data center workload demands. Now is the time to modernize core data center infrastructure and ultimately drive business transformation.

What's In the NEW 2nd Gen Intel® Xeon® Scalable Processor?

- Improved Turbo frequencies, up to 4.5 GHz
- Improved base frequencies, up to 3.9 GHz
 - Support for Intel® Optane™ DC persistent memory
 - Up to 44% more processor cache¹

Building on the record-breaking momentum of the new 2nd Gen Intel Xeon Scalable processors, and through our continued innovation in product design and production, Intel is pleased to deliver customers continued performance and value with an exciting selection of new 2nd Gen Intel Xeon Scalable processors. These new processors offer unique benefits to meet customer needs through enhanced performance and value, all delivered at similar or lower recommended customer pricing.²

Next Gen Performance Gains

UNPRECEDENTED
MAINSTREAM PERFORMANCE/\$

UP TO **25-36%**

SIR PERFORMANCE IMPROVEMENT³

DELIVERING RAPID ENHANCEMENTS TO SUPPORT IMMEDIATE CUSTOMER NEEDS

SKU list

 = New Processors

L = Large DDR Memory Tier Support Available (up to 4.5TB)

| Intel® Xeon® Scalable Processor Name | Product Code | Cores | Turbo | Base | Cache | TDP | Support for Intel® Optane™ DC Persistent Memory | |
|--------------------------------------|-----------------|-------|-------|------|-------|-----|---|---|
| Platinum 8276 | CD8069504195501 | 28 | 4.0 | 2.2 | 38.5 | 165 | Yes | L |
| Platinum 8260 | CD8069504201101 | 24 | 3.9 | 2.4 | 35.7 | 165 | Yes | L |
| Platinum 8253 | CD8069504194601 | 16 | 3.0 | 2.2 | 35.7 | 165 | Yes | |
| Gold 6252 | CD8069504194401 | 24 | 3.7 | 2.1 | 35.75 | 150 | Yes | |
| | BX806956252 | | | | | | | |
| Gold 6248R | CD8069504449401 | 24 | 4.0 | 3.0 | 35.75 | 205 | Yes | |
| Gold 6248 | CD8069504194301 | 20 | 3.9 | 2.5 | 27.5 | 150 | Yes | |
| | BX806956248 | | | | | | | |
| Gold 6240R | CD8069504448600 | 24 | 4.0 | 2.4 | 35.75 | 165 | Yes | |
| | BX806956240R | | | | | | | |
| Gold 6240 | CD8069504194001 | 18 | 3.9 | 2.6 | 24.75 | 150 | Yes | L |
| | BX806956240 | | | | | | | |
| Gold 6238R | CD8069504448701 | 28 | 4.0 | 2.2 | 38.5 | 165 | Yes | |
| | BX806956238R | | | | | | | |
| Gold 6238 | CD8069504283104 | 22 | 3.7 | 2.1 | 30.25 | 140 | Yes | L |
| Gold 6230R | CD8069504448800 | 26 | 4.0 | 2.1 | 35.75 | 150 | Yes | |
| | BX806956230R | | | | | | | |
| Gold 6230 | CD8069504193701 | 20 | 3.9 | 2.1 | 27.5 | 125 | Yes | |
| | BX806956230 | | | | | | | |
| Gold 5220R | CD8069504451301 | 24 | 4.0 | 2.2 | 35.75 | 150 | Yes | |
| | BX806955220R | | | | | | | |
| Gold 5220 | CD8069504214601 | 18 | 3.9 | 2.2 | 24.75 | 125 | Yes | |
| | BX806955220 | | | | | | | |
| Gold 5218R | CD8069504446300 | 20 | 4.0 | 2.1 | 27.5 | 125 | Yes | |
| | BX806955218R | | | | | | | |
| Gold 5218 | CD8069504193301 | 16 | 3.9 | 2.3 | 22 | 125 | Yes | |
| | BX806955218 | | | | | | | |
| Silver 4216 | CD8069504213901 | 16 | 3.2 | 2.1 | 16.5 | 100 | | |
| | BX806954216 | | | | | | | |

| Intel® Xeon® Scalable Processor Name | Product Code | Cores | Turbo | Base | Cache | TDP | Support for Intel® Optane™ DC Persistent Memory |
|--------------------------------------|-----------------|-------|-------|------|-------|-----|---|
| Gold 4214R | CD8069504343701 | 12 | 3.5 | 2.4 | 16.5 | 100 | |
| | BX806954214R | | | | | | |
| Silver 4214 | CD8069504212601 | 12 | 3.2 | 2.2 | 16.5 | 85 | |
| Silver 4210R | CD8069504344400 | 10 | 3.2 | 2.4 | 13.75 | 100 | |
| | BX806954210R | | | | | | |
| Silver 4210 | CD8069503956302 | 10 | 3.2 | 2.2 | 13.75 | 85 | |
| Silver 4208 | CD8069503956401 | 8 | 3.2 | 2.1 | 11 | 85 | |
| Bronze 3206R | CD8069504344600 | 8 | 1.9 | 1.9 | 11 | 85 | |
| | BX806953206R | | | | | | |
| Bronze 3204 | CD8069503956700 | 6 | 1.9 | 1.9 | 8.25 | 85 | |

Advance Performance

| Intel® Xeon® Scalable Processor Name | Product Code | Cores | Turbo | Base | Cache | TDP | Support for Intel® Optane™ DC Persistent Memory |
|--------------------------------------|--------------|-------|-------|------|-------|-----|---|
| 9282 | N/A | 56 | 3.8 | 2.6 | 77 | 400 | |
| 9242 | N/A | 48 | 3.8 | 2.3 | 71.5 | 350 | |
| 9222 | N/A | 32 | 3.7 | 2.3 | 71.5 | 250 | |
| 9221 | N/A | 32 | 3.7 | 2.1 | 71.5 | 250 | |

Optimized For Highest Per-Core Scalable Performance

| Intel® Xeon® Scalable Processor Name | Product Code | Cores | Turbo | Base | Cache | TDP | Support for Intel® Optane™ DC Persistent Memory |
|--------------------------------------|-----------------|-------|-------|------|-------|-----|---|
| Platinum 8280 | CD8069504228001 | 28 | 4.0 | 2.7 | 38.5 | 205 | Yes |
| Platinum 8270 | CD8069504195201 | 26 | 4.0 | 2.7 | 35.75 | 205 | Yes |
| Platinum 8268 | CD8069504195101 | 24 | 3.9 | 2.9 | 35.75 | 205 | Yes |
| Platinum 8256 | CD8069504194701 | 4 | 3.9 | 3.8 | 16.5 | 105 | Yes |
| Gold 6258R | CD8069504449301 | 28 | 4.0 | 2.7 | 38.5 | 205 | Yes |
| Gold 6256 | CD8069504425301 | 12 | 4.5 | 3.6 | 33 | 205 | Yes |
| Gold 6254 | CD8069504194501 | 18 | 4.0 | 3.1 | 24.75 | 200 | Yes |
| Gold 6250 | CD8069504425402 | 8 | 4.5 | 3.9 | 35.75 | 185 | Yes |
| Gold 6246R | CD8069504449801 | 16 | 4.1 | 3.4 | 35.75 | 205 | Yes |
| Gold 6246 | CD8069504282905 | 12 | 4.2 | 3.3 | 24.75 | 165 | Yes |
| Gold 6244 | CD8069504194202 | 8 | 4.4 | 3.6 | 24.75 | 150 | Yes |
| Gold 6242R | CD8069504449601 | 20 | 4.1 | 3.1 | 35.75 | 205 | Yes |
| Gold 6242 | CD8069504194101 | 16 | 3.9 | 2.8 | 22 | 150 | Yes |
| Gold 6234 | CD8069504194101 | 8 | 4.0 | 3.3 | 24.75 | 130 | Yes |
| Gold 6226R | CD8069504449000 | 16 | 3.9 | 2.9 | 22 | 150 | Yes |
| | BX806956226R | | | | | | |
| Gold 6226 | CD8069504283404 | 12 | 3.7 | 2.7 | 19.25 | 125 | Yes |
| Gold 5222 | CD8069504193501 | 4 | 3.9 | 3.8 | 16.5 | 105 | Yes |

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Featuring Intel® Speed Select Technology-Performance Profile (SST-PP, "3 in 1")

| Intel® Xeon® Scalable Processor Name | Product Code | Cores | Turbo | Base | Cache | TDP | Support for Intel® Optane™ DC Persistent Memory |
|--------------------------------------|-----------------|-------|-------|------|-------|-----|---|
| Platinum 8260Y | CD8069504200902 | 24 | 3.9 | 2.4 | 35.75 | 165 | Yes |
| Gold 6240Y | CD8069504200501 | 18 | 3.9 | 2.6 | 24.75 | 150 | Yes |
| Bronze 4214Y | CD8069504294401 | 12 | 3.2 | 2.2 | 16.5 | 85 | |

NETWORKING/NFV Specialized (incl. Intel® Speed Select Technology -BF)

| Intel® Xeon® Scalable Processor Name | Product Code | Cores | Turbo | Base | Cache | TDP | Support for Intel® Optane™ DC Persistent Memory |
|--------------------------------------|-----------------|-------|-------|------|-------|-----|---|
| Gold 6252N | CD8069504294401 | 24 | 3.6 | 2.3 | 35.75 | 150 | Yes |
| Gold 6230N | CD8069504283604 | 20 | 3.5 | 2.3 | 27.5 | 125 | Yes |
| Gold 5218N | CD8069504384601 | 16 | 3.9 | 2.3 | 22 | 105 | Yes |

VM Density VALUE Specialized

| Intel® Xeon® Scalable Processor Name | Product Code | Cores | Turbo | Base | Cache | TDP | Support for Intel® Optane™ DC Persistent Memory |
|--------------------------------------|-----------------|-------|-------|------|-------|-----|---|
| Gold 6262V | CD8069504285004 | 24 | 3.6 | 1.9 | 33 | 135 | Yes |
| Gold 6222V | CD8069504285204 | 20 | 3.6 | 1.8 | 27.5 | 115 | Yes |

Long-Life Cycle and NEBS-Thermal Friendly

| Intel® Xeon® Scalable Processor Name | Product Code | Cores | Turbo | Base | Cache | TDP | Support for Intel® Optane™ DC Persistent Memory |
|--------------------------------------|-----------------|-------|-------|------|-------|-----|---|
| Gold 6238T | CD8069504200401 | 22 | 3.7 | 1.9 | 30.25 | 125 | Yes |
| Gold 6230T | CD8069504283704 | 20 | 3.9 | 2.1 | 27.5 | 125 | Yes |
| Gold 5220T | CD8069504283006 | 18 | 3.9 | 1.9 | 24.75 | 105 | Yes |
| Gold 5218T | CD8069504283204 | 16 | 3.8 | 2.1 | 22 | 105 | Yes |
| Bronze 4210T | CD8069504444900 | 10 | 3.2 | 2.3 | 13.75 | 95 | |
| Bronze 4209T | CD8069503956900 | 8 | 3.2 | 2.2 | 11 | 70 | |

Search Application VALUE Specialized

| Intel® Xeon® Scalable Processor Name | Product Code | Cores | Turbo | Base | Cache | TDP | Support for Intel® Optane™ DC Persistent Memory |
|--------------------------------------|-----------------|-------|-------|------|-------|-----|---|
| Gold 5520S | CD8069504283804 | 18 | 3.9 | 2 | 24.75 | 125 | Yes |

Single-Socket VALUE Specialized

| Intel® Xeon® Scalable Processor Name | Product Code | Cores | Turbo | Base | Cache | TDP | Support for Intel® Optane™ DC Persistent Memory |
|--------------------------------------|-----------------|-------|-------|------|-------|-----|---|
| Gold 6212U | CD8069504198002 | 24 | 3.9 | 2.4 | 35.75 | 165 | Yes |
| Gold 6210U | CD8069504198101 | 20 | 3.9 | 2.5 | 27.5 | 150 | Yes |
| Gold 6209U | CD8069504284804 | 20 | 3.9 | 2.1 | 27.5 | 125 | Yes |
| Gold 6208U | CD8069504449101 | 16 | 3.9 | 2.9 | 22 | 150 | Yes |

Sales Support for the 2nd Gen Intel Xeon Scalable Platform

Training

Selling 2nd Generation Intel® Xeon® Scalable processors and the Latest Memory Innovations: http://channeltraining.intel.com/diweb/gateway/init/1/f/catalog*2Fitem*2Feid*2F295828

Selling 2nd Generation Intel® Xeon® Scalable processors Workload-Optimized SKUs: http://channeltraining.intel.com/diweb/gateway/init/1/f/catalog*2Fitem*2Feid*2F295828

Sales Tools & Resources

Selling Resources: intel.com/itp-xeonsp

Intel® Xeon® processor advisor tool suite: <https://xeonprocessoradvisor.intel.com/>

Tools for insight to help you transition customers to the right Intel® Xeon® Scalable processor for their workload.

Scale IT Up Tool: <http://scaleitup.intel.com>

Side by side comparisons demonstrate the total cost of ownership benefits and help you position the power of upgrading storage and networking as well as software to unleash the full potential of the CPU.



¹ Comparing new 2nd Gen Intel® Xeon Scalable processors to current new 2nd Gen Intel® Xeon Scalable processors

² Comparing all Intel® Xeon® Gold 6200R processors to current Intel® Xeon® Gold 6200 processors

³ Intel estimated performance based on expected increase in frequency and core counts of the 'New Mainstream SKUs' versus existing comparable SKU, SIR = SPECrate2017_int_base, a SPEC CPU2017 benchmark, SPEC.org

Intel estimated performance based on increase in frequency and core count new 2nd Gen Intel® Xeon® Scalable processor versus current 2nd Gen Intel® Xeon® Scalable processor¹. For more complete information about performance and benchmark results, visit www.intel.com/benchmarks.

Intel technologies' features and benefits depend on system configuration and may require enabled hardware, software or service activation. Performance varies depending on system configuration.

No product or component can be absolutely secure.

Tests document performance of components on a particular test, in specific systems. Differences in hardware, software, or configuration will affect actual performance. For more complete information about performance and benchmark results, visit <http://www.intel.com/benchmarks>.

Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products. For more complete information visit <http://www.intel.com/benchmarks>.

Intel Advanced Vector Extensions (Intel AVX) provides higher throughput to certain processor operations. Due to varying processor power characteristics, utilizing AVX instructions may cause a) some parts to operate at less than the rated frequency and b) some parts with Intel® Turbo Boost Technology 2.0 to not achieve any or maximum turbo frequencies. Performance varies depending on hardware, software, and system configuration and you can learn more at <http://www.intel.com/go/turbo>.

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Cost reduction scenarios described are intended as examples of how a given Intel-based product, in the specified circumstances and configurations, may affect future costs and provide cost savings.

Circumstances will vary. Intel does not guarantee any costs or cost reduction.

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