

Smarter technology for all

Intel Xeon processor architecture for ThinkSystem V4 servers

Lenovo

ES42692

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Prerequisites

Although there are no specific prerequisites for this course, you should have some knowledge of high performance computing (HPC) systems, be familiar with the general administration of a network cluster, and have problem determination and troubleshooting skills.

Objectives

After completing the course, you will be able to:

- Describe the features of Intel Xeon 6 processors in ThinkSystem V4 servers
- Identify the differences between Intel Xeon 5 (Eagle Stream) and Intel Xeon 6 (Birch Stream) Scalable processors
- Describe the Intel Xeon 6 processor naming rules
- Describe the supported memory features on ThinkSystem V4 servers with Intel Xeon 6 processors

Intel Xeon 6 processor overview

Intel next-generation processor

Lenovo

Intel Xeon 6 processor



ThinkSystem V4 servers are equipped with next-generation Intel Xeon 6 processors, which are based on the Intel Birch Stream platform.

The Intel Xeon 6 processor family includes the following two classes:

- P-cores (performance-cores)
- E-cores (efficient-cores)

Intel Xeon 6 P-cores and E-cores overview

P-Cores

(Intel code name: Granite rapids)

P-cores are optimized for high performance per core. They excel at the widest range of workloads, including better AI performance than any other general-purpose processor.

E-Cores

(Intel code name: Sierra Forest)

E-cores are optimized for high core density and exceptional performance per watt. They deliver distinct advantages for cloud-scale workloads that demand high task-parallel throughput.

Intel processor naming convention

Intel Xeon 6 products formerly represented with code names	Former Intel codename abbreviation	Intel Xeon 6 official product name
Granite Rapids	GNR-AP	Intel Xeon 6900 P-cores or Intel Xeon 6900 P-series
	GNR-SP	Intel Xeon 6700/6500 P-cores or Intel Xeon 6700/6500 P-series
Sierra Forest	SRF-AP	Intel Xeon 6900 E-cores or Intel Xeon 6900 E-series
	SRF-SP	Intel Xeon 6700 E-cores or Intel Xeon 6700 E-series

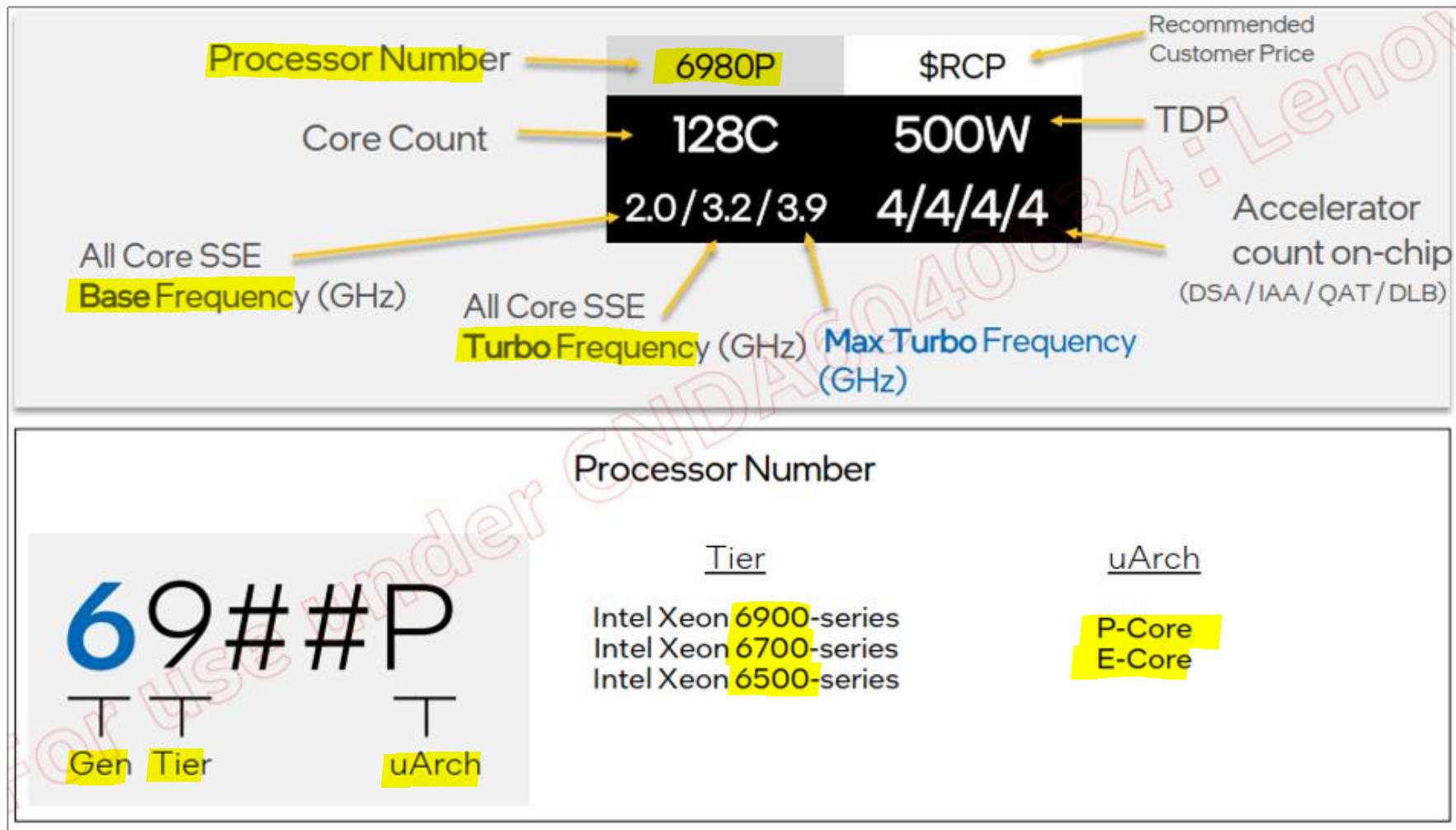
- AP = advanced performance (6900 series processor)
- SP = scalable performance (6500 or 6700 series processor)

Intel Xeon processor road map



Xeon 6

Intel Xeon 6 SKU naming rule



Intel reference articles

For more information about Xeon 6 products, refer to the following article on the Intel website:

- Intel Unveils Future-Generation Xeon with Robust Performance and Efficiency Architectures: <https://www.intel.com/content/www/us/en/newsroom/news/intel-unveils-future-generation-xeon.html#gs.d1cjt>

Intel is Meeting Performance & Efficiency Needs

