Intel Optane DC Persistent Memory
Article

A New Class of Memory Technology

Lenovo and Intel have a robust history of innovation forged through a partnership that goes back 25 years. Together we have tackled the world's most demanding IT challenges.

Intel's latest breakthrough reengineers the storage/memory hierarchy for even greater productivity. Intel® Optane™ DC Persistent Memory is now available. This technology is a significant advancement for the Intel Xeon® Scalable Platform and is included with the second-generation Intel Xeon Scalable processors included in Lenovo ThinkSystem servers.

Intel Optane DC persistent memory represents a new class of memory and storage technology explicitly architected for data center usage. It offers three main benefits:

- Significantly lower latency than fetching data from system storage
- High capacities
- Affordable cost

Using Lenovo ThinkSystem servers running applications that are tuned for Intel Optane DC Persistent memory will result in lower data latency compared to solid-state drive technology. When data is stored closer to the processor on nonvolatile media, applications can see significant overall improvement in performance.

Lenovo supports Intel Optane DC Persistent Memory in the recent refreshes of our high-performance ThinkSystem servers where customers are most likely to implement solutions with this new offering. This includes our 8-socket, 4-socket, and many of our 2-socket servers.

To find out more, watch the video below. For our visitors in China, watch the video on Youku.

Server Support

Lenovo supports Intel Optane DC Persistent Memory in key ThinkSystem servers where customers are most likely to implement solutions with this new offering. Support is with servers that have second-generation Intel Xeon Scalable processors. The following table lists support.

Table 1. Lenovo support for Optane DC Persistent Memory

Servers with second-generation Intel Xeon Scalable processors	**Support for Optane DC Persistent Memory**
4-Socket and 8-Socket High Performance Servers	
ThinkSystem SR950	Supported
ThinkSystem SR860	Supported
ThinkSystem SR850	Supported
2-Socket GPU Rich Server	
ThinkSystem SR670	No current plans to support
2-Socket Dense	
ThinkSystem SD650 Direct Water Cooled	Supported
ThinkSystem SD530	Supported
2-Socket Mainstream Servers	
ThinkSystem SR650	Supported
ThinkSystem SR630	Supported
2-Socket Value Servers	
ThinkSystem SR590	Supported
ThinkSystem SR570	Supported
ThinkSystem SR550	No current plans to support
ThinkSystem SR530	No current plans to support
2-Socket Tower Server	
ThinkSystem ST550	No current plans to support
Blade Servers	
ThinkSystem SN850	Supported
ThinkSystem SN550	Supported
1-Socket Servers	
ThinkSystem SR250	No current plans to support
ThinkSystem SR150	No current plans to support
ThinkSystem ST250	No current plans to support
ThinkSystem ST50	No current plans to support

For more information

For more information, see these resources:

- Lenovo Press product guide on Intel Optane DC Persistent Memory
  https://lenovopress.com/lp1066-intel-optane-dc-persistent-memory
- Lenovo Press video walkthrough
  https://lenovopress.com/lp1091-intel-optane-dc-persistent-memory-video-walkthrough
- Intel Optane DC Persistent Memory
  https://www.intel.com/content/www/us/en/architecture-and-technology/optane-dc-persistent-memory.html
- Intel Optane Technology web page:
  https://www.intel.com/content/www/us/en/architecture-and-technology/intel-optane-technology.html

Related product families

Product families related to this document are the following:

- Memory

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