

# Analytics & AI

The Data-Centered don't just manage data. They master it - with powerful Lenovo analytics and AI solutions powered by Intel® and designed just for them.

Lenovo Infrastructure Solutions for The Data-Centered.

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## Don't accept one-size-fits-all when it comes to analytics and AI

The need to derive more value from data refocuses our most fundamental IT strategies and requirements. It makes data analytics now a transformative science, encompassing data collection, organization, storage, and all the tools and methods for extracting useful insights. Artificial intelligence (AI) is the next step in the evolution of data analytics, and AI's ability to shape the future is well documented. AI has evolved from customized solutions used by data scientists and data engineers into mainstream tools accessed across the enterprise. However, your IT partner should tailor AI and data analytics solutions to your specific needs.

Despite dramatic improvements in processing capacity and cloud-based service options, the unique performance requirements of the latest analytics and AI applications highlight the practical limitations of the traditional IT stack. For example, Big Data, analytics, and AI require an order of magnitude increase in computational resources over conventional IT systems.

Further, most high-performance computing (HPC) system's learning curve and footprint made them prohibitive for all but the largest organizations.

Lenovo's new HPC technology solves the pricing and footprint issue for businesses of all sizes with scalable HPC systems that can handle the most demanding workloads. These systems leverage hardware and software components such as databases, storage, and graphical processing units (GPUs) as well as high-performance processors uniquely suited to deep learning and machine learning. With advanced cooling and energy efficiency, this hardware can sit within a standard rack and meet size-specific requirements.

With Lenovo's HPC solutions, the breakthrough potential of analytics and AI is now within your reach. You can have all the HPC performance you need in a ready to deploy infrastructure that is modular, adaptable and ready to address the most complex research and business problems you are working with today – and you can easily scale those capabilities to meet future requirements.



## When it comes to implementing advanced analytics and AI, you need a strategic partner dedicated to your business results

When you decide the time is right to unlock the value of analytics and AI, your next step is finding the right partner to help you complete the transformation. At Lenovo, we have four global AI innovation centers dedicated to enabling your success – from strategy to business results.

In these centers, we apply our industry-recognized expertise in analytics and AI, as well as a full spectrum of professional services to help you develop a proof of concept, sort through possible options and optimize and tune your tailored solution.



## We know time is money, and data is the new currency. For analytics and AI solutions, time-to-value is essential

Lenovo Analytics and AI infrastructure solutions are certified for industry-leading analytics software vendors like SAP, Oracle, MS SQL, and Cloudera, and can be pre-configured to speed deployment.

Lenovo's HPC solutions are flexible and straightforward to use, whether off-the-shelf or highly customized. For analytics and AI, as well as HPC workloads, we assure the quickest possible deployment schedules.



## Analytics and AI demand compute muscle only found in supercomputers & optimized for datacenter workloads

Lenovo offers deep AI expertise and a range of analytics and AI infrastructure solutions for every size customer. Starting with the industry's most reliable compute platform, Lenovo offers general-purpose infrastructure solutions, optimized for in-memory databases, deep learning, and other data-intensive workloads. Using CPUs and GPUs to accelerate data insights, Lenovo delivers high performance, purpose-built HPC systems with water-cooled technology, low-latency, and reduced energy consumption.

Smarter  
technology  
for all

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The industry recognition that Lenovo has earned as the #1 Top 500 supercomputer provider in the world illustrates its commitment to HPC at the high end, and its Exascale to Everscale means that customers can leverage the innovations and performance achieved for high-end end systems within smaller footprints and designed specifically for advanced analytics and AI.

And while analytics and AI are already delivering unprecedented insights and value, and those trend lines will undoubtedly continue climbing at astronomical rates, organizations have the ability to match their compute resource needs today – in affordable and non-disruptive approaches – and not over-resource with specialized components.

That's why Lenovo's HPC computing platforms can scale from a single server to hundreds of racks and utilize from 2 to 8 sockets, air and Neptune® liquid-cooled, GPU-enabled and CPU-only solutions. Customers have the widest range of options and, in concert with Lenovo's engineering and experience, the ability to configure the right system for specific use cases.

[Learn more about Analytics and AI](#)



Lenovo is the world leader in building supercomputers for use in some of the most demanding settings. This includes one of the world's highest performance supercomputers in the Munich-based Leibniz Supercomputer Centre – a research-focused HPC system architected around Lenovo's ThinkSystem SD650 servers with Lenovo Neptune™ liquid cooling – harnessing 13000 CPUs, 311,000 cores, 700 TB of memory, 70 PB of disk storage and containing over 60km of cabling – and delivers over 26.7 petaFLOPS of processing capacity.

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