

Lenovo Data Center Group

Define a different future

**ThinkSystem Think**Agile



# Think change is hard? We don't.

Concerned about the risks and complexities of transformation

We see new ways to seize opportunity.

Wrestling with inflexible infrastructure and struggling to scale?

We deliver new IT models that enhance responsiveness and promote sustained business growth.

Is the cost of operations starving your ability to innovate?

We offer record-setting performance and reliability with superior economics that enable you to achieve more.

"Change is hard because people overestimate the value of what they have and underestimate the value of what they may gain by giving that up."

—James Belasco and Ralph Stayer





## Change is opportunity. Embrace it.

Some see change as an unnecessary challenge. Lenovo thinks differently.

To us, change means fresh opportunities to do things better. To re-examine and learn from the past, without being tied to it. To find answers to questions that we didn't even know to ask. In the data center, continuous change forces a critical decision: embrace its opportunities...or get left behind.

Ever-rising expectations of customers, partners and your own workforce demand data center solutions built to get more out of today's critical workloads—more insights, more efficiencies, more possibility—while delivering thoughtful innovation and design flexibility that help you capitalize on whatever tomorrow brings.

And it's simply not enough to keep pace with change; you have to set the pace. But the constraints of current data center technologies—and the legacy thinking they're built on—lock you into infrastructure and software that are difficult to adapt as your business changes. A different, better way is needed.

At Lenovo Data Center Group, we relentlessly pursue that better way.

Lenovo for the data center. Different is better.



20x

increase in data center traffic by 2020 due to IoT

http://www.businesswire.com/news/home/20160801005538/en/Increased-Spending-Cloud-Data-Center-Augment-Global

20%

CAGR for software-defined data center solutions from 2017 to 2021

 $\label{lem:http://www.openpr.com/news/499843/Shift-from-On-premise-Infrastructure-Operations-to-Cloud-to-Boost-Software-Defined-Data-Center-Market.html$ 



## Making change work for you

## Build the future-defined data center

Navigating change requires a clear strategic vision backed by a trusted partner that delivers the capabilities you need, when you need them, at a competitive cost. But because technology never stops advancing, you also need the flexibility to adjust to changes and new opportunities, helping ensure that what you implement today doesn't put you behind in the future.

It requires the future-defined data center, built with open, modular technologies, designed to adapt easily and able to scale quickly including into the cloud. Working with leading industry partners, we develop solutions built to handle today's most essential workloads faster and more reliably, delivering the capabilities you need to excel today—and tomorrow.

# Prepare for tomorrow's opportunities

#### Enterprise simplicity without compromise

Through infrastructure designed to easily integrate into existing environments, the future-defined data center dramatically simplifies and unifies management leveraging open standards, reducing the burden on administrators while delivering industry leading performance and reliability for lower operating costs.

#### Accelerated service delivery

Applications and resources are delivered on demand with new efficiency across the data center environment—compute, storage and network resources— integrated using the most effective mix of software defined, on-premise and cloud infrastructures.

#### Performance to drive new discoveries

Purpose-built, ultra-dense data center technologies deliver the performance required for intensive demands of high-performance computing and artificial intelligence—workloads that today are already revealing answers to the greatest commercial and scientific challenges

#### Scale that enables limitless connection

Scale to support the largest data center operations in the world, with fully customized capabilities for data centers designed to your exact specifications, drawing on deep R&D capabilities, world-class supply chain and comprehensive services that span strategy through deployment, and ongoing support.



\$43B Fortune 500 company **52,000** employees serving customers in more than 160 countries

7 nationalities among top 16 executives

5 Lenovo owned server manufacturing sites

7
data center research
centers around
the world

202 on the Fortune 2016 Global 500 list



## Lenovo Data Center Group

Fresh thinking. Better answers.

Imagining the futuredefined data center
meant moving beyond
legacy thinking. We started
with our unrelenting pursuit
of performance and
reliability, adding fresh
approaches that let you
focus on growing your
business faster and easier,
not just on your technology.

Solutions built on three core objectives

#### Be the Most Trusted Advisor

It's not a marketing line; it's a promise that underpins everything we do—an unshakable commitment to solving real-world business challenges, rather than protecting proprietary technology. We collaborate with the industry's best to develop solutions that help customers identify and capture opportunity, head off threats like obsolescence, and build trust through simple, honest experiences.

#### Innovation that drives agility

The next-generation of IT infrastructure must adapt to rapidly changing business requirements. Progress for its own sake is admirable; progress in pursuit of specific business outcomes delivers tangible value. We develop technology innovations that answer specific business needs and create right-sized solutions that pay off with the highest ROI—immediately and in the future.

#### Transformational end-to-end experiences

We're not just selling data center solutions, we're nurturing long-term relationships. From initial consultation through solution delivery, integration and ongoing support, we now make engaging with Lenovo easier. With holistic solutions designed for your specific business needs and market realities, we work to build trust in every interaction, while giving customers the capabilities and the confidence to achieve more.





## Lenovo ThinkSystem™ and ThinkAgile™ data center solutions

To fulfill our vision, we focused on enabling the next generation capabilities that allow you to start fresh, without starting over. We stayed true to core beliefs of delivering industry-leading performance, reliability and quality across servers, storage, and networking and integrated the latest technologies to deliver the most flexible data center infrastructure solutions in the world.

Designed to adapt easily to shifting needs, ThinkSystem and ThinkAgile put Lenovo creativity and thought leadership in the data center to work for you.



## **ThinkSystem**

Designed for the most demanding workloads, ThinkSystem data center solutions make it simple to integrate new capabilities efficiently and cost-effectively from deployment through the lifecycle. Openstandards management and revolutionary engineering in system architecture gives unique flexibility in servers, storage and networking, accelerating your evolution toward the simplicity and scale of the cloud. Exhaustively stress tested, ThinkSystem delivers extreme performance with unshakable reliability and lower TCO.

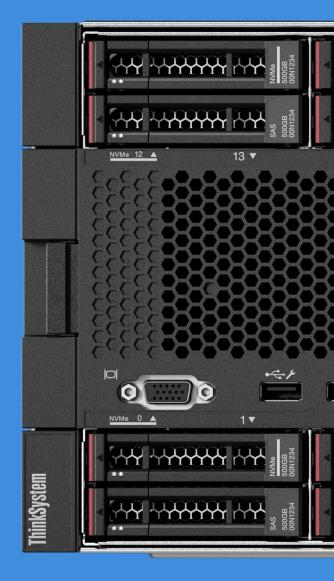
As an example, the all new Lenovo ThinkSystem SR950 is built for mission critical applications, delivering always-on reliability and leadership performance in large memory applications like SAP HANA. It has the flexibility to easily scale from 2 to 8 processors in a modular 4U chassis offering twice the density of prior generations and its unique modular design means it never needs to be removed from the rack for service or upgrades.



Powered by Intel Xeon processor Scalable family

World record performance<sup>2</sup>

Industry's highest flexibility across the lifecycle Industry-leading reliability<sup>1</sup>





## **Think**Agile

ThinkAgile software-defined infrastructure delivers the speed of cloud with the control of on-premises IT that helps to significantly lower OPEX versus the traditional approach. Easy to size, order, deploy and manage, these preintegrated, pretested customized solutions for hybrid cloud, software-defined storage, and hyperconverged infrastructure serve up a turnkey, single point of contact approach with a transformative owner experience. Rapidly deployable, they accelerate time to value through a unique approach to integrated systems that takes you from order to fulfillment in just a couple of weeks, cutting the costs and complexities of traditional data center upgrade paths.

80%

faster time to value vs. traditional approach



Powered by Intel® Xeon® processor Scalable family

For the simplest experience, expert engineer services are available to care of installation and deployment the selected software solution in just hours. And for both hardware and software solutions, comprehensive support is delivered through a single point of contact at Lenovo.

#### Lenovo Services

Customers look to Lenovo to keep their critical business operations running. We're not only building data centers—but also building relationships grounded in trust. Deep strategic thinking and a collaborative, consultative approach help customers build out the capabilities that will empower them not only to reach their goals but also to consider entirely new possibilities.

#1

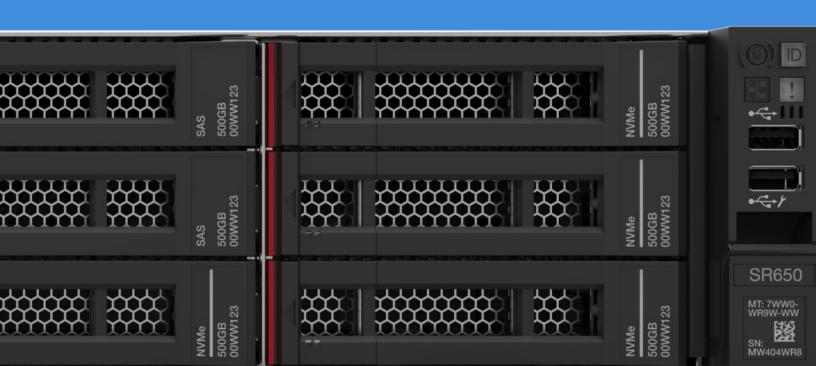
rated for customer support<sup>4</sup>

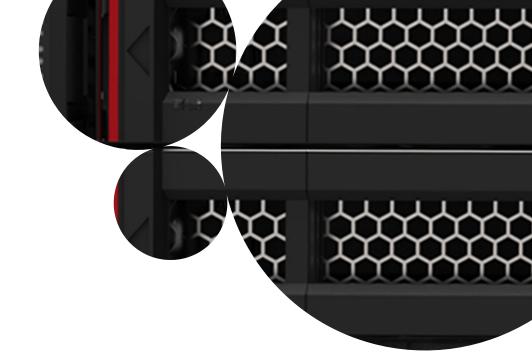
10K

support specialists in more than 165

~2.6M

machines under Lenovo warranty and maintenance





# Lenovo Data Center Group does things differently.

Because different is better.

At Lenovo, we know that intelligent, focused change is the only way real advancement happens. It's why we think differently and relentlessly pursue a better way.

It's time to look at Lenovo again.

#1

#1

in x86 server customer satisfaction<sup>4</sup>

in SAP<sup>2</sup> and Microsoft performance<sup>5</sup> #2

#1

in 86 server

reliability1

TOP500 Supercomputing vendor<sup>6</sup>

Historical World
Record Benchmarks<sup>8</sup>

Top 25

Gartner Supply Chain in the world<sup>7</sup>



### Learn more at www.Lenovo.com/data-center

- (1) #1 x86 server reliability. ITIC 2016-2017 Global Hardware, Server OS Reliability Report: http://www.lenovo.com/images/products/ system-x/pdfs/white-papers/itic\_reliability\_2H\_2016\_wp.pdf
- (2) #1 for SAP Performance.

http://news.lenovo.com/news-releases/lenovo-x6-server-architecture-achieves-10-performance-world-records.htm

(3) ThinkAgile - 80% faster time to value

http://wikibon.com/case-study-lenovonutanix-appliance-for-microsoft-application-environment/

- (4) #1 x86 server customer satisfaction. Source TBR 2H2016 2H16 Corporate IT Buying Behavior and Customer Satisfaction Study ". December 2016. Lenovo was #1 for the 6th consecutive study going back to January 2015, and in 22 of 28 studies since 2H 2009. Also, lead in 21 of 22 satisfaction attributes in latest survey. (http://www.lenovo.com/images/products/system-x/pdfs/white-papers/ tbr\_x86servers\_top\_csat\_2h16\_wp.pdf) - (including System x results prior to System x acquisition by Lenovo in 2014)
- $(5) \# 1\,MS\,SQL\,Performance.\,Results\,as\,of\,7/11/2016.\,\,http://www.tpc.org/3321\,,\,http://www.tpc.org/3325\,,\,http://www.tpc.org/4076\,,\,http://www.tpc.org/4078$
- (6) #2 on TOP500 supercomputer list

The TOP500 project ranks and details the 500 most powerful non-distributed computer systems in the world. https://www.top500.org/statistics/list/ (As of June 2016)

- (7) Gartner Supply Chain Top 25 for 2016 http://www.gartner.com/newsroom/id/3323617
- (8) Achieve 30 150+ historical world record benchmarks. Includes both current and historical benchmarks 2001-present for the x86 product line (acquired in 2014), as certified by industry benchmarking organizations, as of original date of publication.

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