

Lenovo ThinkSystem DM Series Solution for SAP HANA

Lenovo™

Enabling Insights for the digital enterprise

Scalable systems, storage, software, and services for SAP HANA

Enabling the Digital Enterprise

Enabling the digital enterprise and developing business analytic solutions are the key to understanding challenges and responding to them proactively. To develop successful strategies in today's challenging environment, you need more access to critical enterprise insights than ever before. That fact is validated by a 2017 Gartner CIO Agenda survey which revealed analytics and enterprise resource planning (ERP) are top CIO priorities.¹ In addition, Forrester estimate that 70% of data in the enterprise goes unused.²

And because data volumes are growing exponentially, your technology solutions must scale easily, manage huge volumes efficiently and operate reliably. At the same time, your solutions must enable greater application performance. These are complex demands. But breakthrough technologies can help you meet all these difficult demands now, while still accommodating for future growth. Powered by mission critical servers with next generation Intel® Xeon® processors and enterprise class SAN storage, the Lenovo ThinkSystem DM Series Solution for SAP® HANA® provides outstanding capability to drive enterprise-critical insights in real time.

Integrating hardware, software and memory advancements, the Lenovo ThinkSystem SR950 mission critical server along with the Lenovo ThinkSystem DM Series storage is designed to be agile, scalable, and more resilient helping your SAP HANA based applications operate more efficiently to improve your data foundation and help lower total cost of ownership.

Highlights

- Enable your digital enterprise
- Scale with mission critical infrastructure
- Lower TCO with a scalable server and storage platform for your SAP HANA landscape
- Speed deployment and simplify on-going management with Lenovo Services





Lenovo ThinkSystem SR950 Mission Critical Server



Lenovo ThinkSystem DM Series Storage

SIMPLE, SEAMLESS AND SCALABLE ARCHITECTURE

To compete in today's dynamic markets, you require a deep understanding of your operational processes, personnel resources, company financials, corporate services and more. As the volume of information expands dramatically, so does the opportunity to gain valuable business insights and to predict challenges before they arrive. Yet meeting continually growing needs requires greater SAP HANA application performance than ever.

The Lenovo ThinkSystem DM Series Solution for SAP HANA helps you make faster more informed decisions, even with escalating data loads. The solution is designed to maximize your system performance to provide a smarter, more efficient approach to resource management. This results in excellent SAP HANA application value.

Running on fast and powerful new technology including ThinkSystem SR950 mission critical servers and ThinkSystem DM Series storage, SAP HANA software can play a critical role in providing the business insights you need from your SAP Business Warehouse (BW), SAP ERP, SAP S/4HANA® and other SAP application data.

The new mission critical servers are designed to provide faster performance and support for more memory. Using next generation Intel® Xeon® processors, the Lenovo ThinkSystem DM Series Solution for SAP HANA is purpose-built to support large-scale SAP HANA deployments.

The ThinkSystem SR950 is a 4U rack server capable of supporting up to 8 processors. It features a modular system with all

components accessible via the front or rear of the server helping to simplify server management and service. The SR950 supports up to 12 NVMe drive bays for increase storage at lower latency and up to 24 hard disk or solid state disk drive bays for increased storage capacity. Support for 128GB 3DS RDIMMs enables up to 6TB of memory in a four socket configuration and 12TB of memory in an eight socket configuration.

Used by SAP for next generation SAP HANA development, the powerful ThinkSystem SR950 mission critical servers are ideal for your most demanding SAP HANA deployments, providing superior capability and greater business value.



The Lenovo ThinkSystem DM Series storage arrays are well equipped for demanding SAP HANA environments. These elite storage systems deliver on the customer requirements for an SAP HANA deployment, which include: Lower TCO, Fast Time to Value, High Service Levels and Efficient Disaster Recovery capabilities

The ThinkSystem DM Series improves customers TCO and time to value with their advanced data management features offered through ONTAP. The Unified Architecture of block and file workloads allows customers to reduce their hardware requirements and utilize one management system for both NAS and SAN deployments.

The inline data reduction technologies built into DM Series provide an average of 3x space savings, and the following benefits:

- Inline data compaction technology uses an innovative approach to place multiple logical data blocks from the same volume into a single 4KB block. It frees up substantial space for database workloads that have relatively small I/O sizes.
- Detection of incompressible data eliminates wasted cycles.
- Enhanced inline deduplication maximizes the space savings by eliminating redundant blocks.

Deploying SAP HANA on DM Series All Flash systems provides customers with additional features that develop and enhance the built in data protection and disaster recovery capabilities that SAP HANA offers.

Users will benefit from backup and recovery based on storage Snapshot copies using ONTAP SnapCenter. The built in Asynchronous (SnapMirror) and Synchronous (MetroCluster*) provide storage based Disaster Recovery capabilities. When running SAP HANA on the DM All Flash Series customers are protected from unexpected events by simply utilizing the included features on DM Series.

Optimize Your Data With Flexible Design

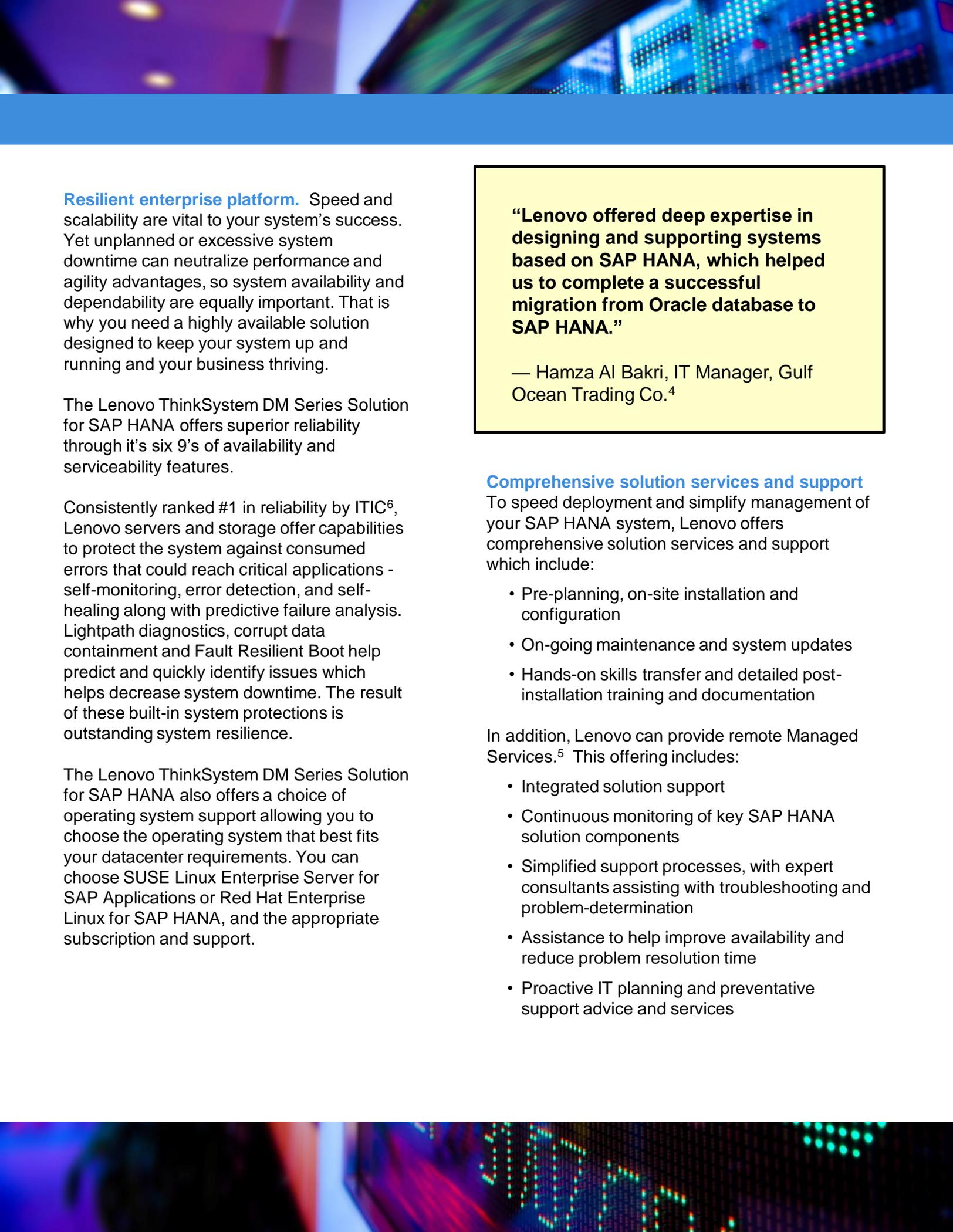
DM Series enables you to grow and adapt as your business changes. It offers the flexibility to scale up as your performance needs grow or scale out if you require additional storage. Customers can effortlessly intermix different controllers, SSD sizes, and next-generation technologies so your investment is protected.

SAP users running development projects frequently receive requests to provision additional test or sandbox systems. Previously, this required provisioning those systems using resources in the customer's data center. Now, you can leverage the DM Series proven cloud connectivity, which requires no additional hardware. You can easily move data between the cloud and on premises storage for maximum performance and return on your investment.

Optimize data management for enterprise workload environments with leading application integration for SAP HANA.

“Running SAP HANA on Lenovo systems gives us a strong competitive edge in both domestic and foreign markets.”

— David Bevc, Head of Cloud Services, Unistar PRO³



Resilient enterprise platform. Speed and scalability are vital to your system's success. Yet unplanned or excessive system downtime can neutralize performance and agility advantages, so system availability and dependability are equally important. That is why you need a highly available solution designed to keep your system up and running and your business thriving.

The Lenovo ThinkSystem DM Series Solution for SAP HANA offers superior reliability through its six 9's of availability and serviceability features.

Consistently ranked #1 in reliability by ITIC⁶, Lenovo servers and storage offer capabilities to protect the system against consumed errors that could reach critical applications - self-monitoring, error detection, and self-healing along with predictive failure analysis. Lightpath diagnostics, corrupt data containment and Fault Resilient Boot help predict and quickly identify issues which helps decrease system downtime. The result of these built-in system protections is outstanding system resilience.

The Lenovo ThinkSystem DM Series Solution for SAP HANA also offers a choice of operating system support allowing you to choose the operating system that best fits your datacenter requirements. You can choose SUSE Linux Enterprise Server for SAP Applications or Red Hat Enterprise Linux for SAP HANA, and the appropriate subscription and support.

“Lenovo offered deep expertise in designing and supporting systems based on SAP HANA, which helped us to complete a successful migration from Oracle database to SAP HANA.”

— Hamza Al Bakri, IT Manager, Gulf Ocean Trading Co.⁴

Comprehensive solution services and support

To speed deployment and simplify management of your SAP HANA system, Lenovo offers comprehensive solution services and support which include:

- Pre-planning, on-site installation and configuration
- On-going maintenance and system updates
- Hands-on skills transfer and detailed post-installation training and documentation

In addition, Lenovo can provide remote Managed Services.⁵ This offering includes:

- Integrated solution support
- Continuous monitoring of key SAP HANA solution components
- Simplified support processes, with expert consultants assisting with troubleshooting and problem-determination
- Assistance to help improve availability and reduce problem resolution time
- Proactive IT planning and preventative support advice and services

Lenovo ThinkSystem DM Series Solution for SAP HANA



Agile. Scalable. Reliable.

It is no secret your business depends on technology. The Lenovo ThinkSystem DM Series Solution for SAP HANA provides the seamless, scalable and dependable performance needed to extract strategic insights from exploding information volumes helping deliver the bottom line business results you demand.

Why Lenovo

Lenovo is a leading provider of data center solutions. Lenovo offers a full range of compute, networking, storage, software, solutions, and comprehensive services supporting business needs throughout the IT lifecycle. With options for planning, deployment, and support, Lenovo offers expertise and services needed to deliver better service-level agreements and generate greater end-user satisfaction.

For More Information

To learn more about the Lenovo ThinkSystem DM Series Solution for SAP HANA, contact your Lenovo Business Partner or visit:

www.lenovo.com/sap/hana

1 Gartner. Gartner Survey of More Than 2,500 CIOs Charts the Rise of the Digital Ecosystem. October 17, 2016
<http://www.gartner.com/newsroom/id/3481117>

2 Forrester Consulting, Ultra-Fast Data Access Is The Key To Unleashing Full Big Data Potential, January 2016
<http://a248.g.akamai.net/n/248/420835/2bbc8f05759a4596bfa5e05402901629c5ee0569e34c6715058800decbe84d61/sapasset.download.akamai.com/420835/sapcom/docs/2016/03/9ea84ab0-647c-0010-82c7-eda71af511fa.pdf>

3 Unistar PRO sharpens its competitive edge with SAP and Lenovo
<https://lenovosuccess.com/casestudy/unistar-pro>

4 Gulf Ocean Trading gets an SAP HANA advantage with an integrated solution from Lenovo
<https://lenovosuccess.com/casestudy/gulf-ocean-trading>

5 Contact your Lenovo or Lenovo Business Partner sales representative for availability in your region

6 ITIC, ITIC 2016 - 2017 Global Server Hardware, Server OS Reliability Report
http://www.lenovo.com/images/products/system-x/pdfs/white-papers/itic_reliability_2H_2016_wp.pdf



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