

OVERVIEW

Lenovo Database Solutions for Microsoft SQL Server bring together the right mix of hardware infrastructure, software, and services to optimize a wide range of data warehouse and transactional database use cases. The configurations integrate a variety of Lenovo ThinkSystem servers, storage, and infrastructure products, combined with the capabilities of Microsoft SQL Server 2016/2017 Enterprise and Standard Editions.

SALES OPPORTUNITY

Leverage end of support for legacy SQL Server instances + hardware refresh cycle

- + Databases are still being deployed on premises for performance and business critical requirements
- + 37% of WW database servers run Microsoft SQL Server, with > 50% running SQL Server 2008 R2 or older. Additionally, it is estimated that SQL Server will become the most popular enterprise database in 2018
- + Extended support for SQL Server 2008 R2 ends on July 9, 2019, cutting off access to critical security updates
- + This opens the potential for business interruptions, failure to meet regulatory compliance, and can also mean higher maintenance costs
- + Maintaining legacy servers, firewalls, intrusion systems, and other related systems gets expensive quickly

Answer demand for solutions to transform data into actionable insights

Customers need to be proficient in three types of data warehousing:

- + **Traditional:** Customers will always need historical insights from their relational data that lives in traditional data warehouse solutions
- + **Operational:** If customers want to stay responsive and competitive, they'll have to have real-time insights enabled by operational data warehousing
- + **Modern:** To chart the course forward, they'll require insights they can only get by asking questions of big data using modern data warehousing

APPROACH

- + Identify target accounts with your Intel BDM to present Lenovo/Intel Select SQL Server OLTP solutions
- + It is highly likely that customers and prospects you work with have deployed SQL Server to some degree. Reach out to all of them to discuss their plans to move to SQL Server 2017
- + Learn what your customers plans are regarding SQL Server 2008 (extended support ends on July 9, 2019)
- + Upsell opportunities from SQL Server engagements: Expand data conversation beyond database to Big Data and ThinkAgile SX for Microsoft Azure Stack

+ WHY LENOVO FOR SQL SERVER DEPLOYMENTS?

- + Improved time to value with pre-tested hardware configurations
- + Optimized SQL Server deployment with a significant reduction in hardware testing and tuning
- + Reduced total cost of ownership through better price and performance, rapid deployment, and advanced hardware
- + Consolidated storage and matched IT investment-to-information-value with several high-performance storage options
- + More Intel Select OLTP Solutions for SQL Server than any other vendor
- + More Data Warehouse Fast Track Solutions for SQL Server 2017 than any other vendor

Customer Audience	Chief Data Officer (CDO) and CIO	BDMs (Business Analysts, VPs, GMs)	Data Engineers	DBAs	App Dev Leads	Enterprise Architects
PERSONA	CDO is a new and emerging C-level role responsible for the enterprise-wide data and information assets.	Line of business decision-makers who control the budget and purchasing authority.	Make data accessible to data scientists; assist in data collection, preparation, and correlation. Critical role on the data science team.	Database Administrators (DBAs), direct all activities related to maintaining a successful database environment.	Responsible for development and ongoing operations and management of internal- and external-facing enterprise applications.	Set direction for enterprise-wide solution portfolio. Govern IT standards and policies.
BUYING TRIGGERS	<ul style="list-style-type: none"> + Driving new solutions for value and revenue generation + Standardization and centralization of data governance and policies + Data security and trust 	<ul style="list-style-type: none"> + Focus on platforms that deliver business outcomes and fast ROI + Established business leadership through innovation + Desire for solution tailored to their vertical 	<ul style="list-style-type: none"> + Best in class and established products + Scalability and ease of integration + Overall platform and its future + Skill set + Familiarity with OSS 	<ul style="list-style-type: none"> + Capacity planning, installation, configuration, database design, migration, performance monitoring, security, troubleshooting, backup and data recovery + Long-term viability and compliance + Ensure database products meet basic enterprise needs 	<ul style="list-style-type: none"> + Agility + Developer productivity + Leverage existing skills, tools, and processes + Adopting new cutting-edge technologies to create new experiences 	<ul style="list-style-type: none"> + Long-term viability and maintainability of code/platform + Integration and interoperability + Technical architectures, features
SOLUTIONS	Business Analytics, App Innovation, Data Modernization, Big Data and Data Warehouse, Modern BI	Business Analytics, App Innovation, Modern BI	Business Analytics, Big Data and Data Warehouse, Modern BI	Data Modernization, Modern BI	App Innovation	App Innovation

START THE CONVERSATION

If you hear...	Consider these questions...	Based on a positive response, propose these solutions...
<ul style="list-style-type: none"> + We use Microsoft SQL Server for mission-critical applications + We are planning to consolidate multiple SQL Server instances to reduce our operational costs + My team has plans to migrate to SQL Server 2016/2017 + I am running business intelligence applications + Real-time data analysis is crucial to my organization + We are experiencing massive data growth, so we need a highly scalable solution + We are unhappy with the current performance of our applications 	<p>...for sponsors — LOB, sales, marketing and C-level executives:</p> <ul style="list-style-type: none"> + Is your team running business intelligence applications? + Is real-time data analysis (especially business intelligence) crucial to your organization in maintaining competitive advantage (understanding trends, buyer patterns, sales, etc.) + Why are you moving to SQL Server 2016/2017? What are you looking to accomplish? + Is your team building a data warehousing solution? + Are you aware of the data warehouse work Lenovo has done with Microsoft? + Are you experiencing massive growth in the amount of data that is coming into your organization? + Do you need a highly scalable solution? 	<p>...for influencers — DBAs and IT managers:</p> <ul style="list-style-type: none"> + Do you use Microsoft SQL Server for mission-critical applications? + Do you need flexibility in how/where you deploy your applications? + Why are you moving to SQL Server 2016/2017? What are you looking to accomplish? + Would consolidating multiple SQL Server instances reduce operational costs? + Are you building a data warehousing solution? + Do you have the need to analyze exponentially more data than ever before? + Is your infrastructure (are your solutions) highly scalable? + Are you unhappy with the current performance of your applications?

If you hear...	Consider these questions...	Based on a positive response, propose these solutions...
<ul style="list-style-type: none"> + Our order entry systems need an upgrade. Performance is lagging + We are unhappy with the performance of our online financial transactions + Sales is not happy with our CRM performance + Retail sales systems are causing customer satisfaction complaints 	<ul style="list-style-type: none"> + What database is currently supporting your order entry (or CRM, online financial systems, retail sales systems)? + Are you looking to upgrade your current database platform? + What is causing the performance problems of your OLTP systems? 	<ul style="list-style-type: none"> + Are you familiar with Lenovo's SQL Server offerings and solutions? We work closely with Microsoft to ensure optimal price-to-performance + Working with Intel and Microsoft, Lenovo has certified OLTP solutions that may help address your needs. Would you like to arrange time to review?

SALES PLAY #1: DATA WAREHOUSE SOLUTIONS

The Microsoft Data Warehouse Fast Track (DWFT) for SQL Server Program is designed to reduce the time necessary for enterprise leaders to build configurations that solve data warehousing issues. Lenovo has teamed with Microsoft to create DWFT solutions for Microsoft SQL Server, using not only its enterprise servers, but also a variety of System x servers to cover a wide range of data warehouse sizes (For full review of System x-based DWFT solutions see Database Solutions webpage on lenovo.com).

<p>9TB Data Warehouse Offering</p>	<ul style="list-style-type: none"> + Based on SR630 1U rack servers + SQL Server 2017 	<ul style="list-style-type: none"> + Entry-level data warehouse solution + Organizations looking to store operational data and run small business analytics at a smaller scale + Budget around \$10,000 for hardware + High-volume play
<p>44TB Data Warehouse Offering</p>	<ul style="list-style-type: none"> + Based on SR650 2U rack servers + SQL Server 2017 	<ul style="list-style-type: none"> + Mid-range level data warehouse, typically up to 100TB solution needed + Organizations looking to consolidate all data into one data store for a single organization or group (i.e. Marketing) + High-performance data warehouse + Budget around \$100,000 for hardware
<p>50TB Warehouse Offering</p>	<ul style="list-style-type: none"> + Based on ThinkSystem SN550 servers (2 for Active-Active and Active-Passive) + SQL Server 2017 	<ul style="list-style-type: none"> + High-availability + Disaster recovery and read-scale balancing + Small to Medium organizations
<p>60TB Data Warehouse Offering</p>	<ul style="list-style-type: none"> + Based on clustered 2x x3650 M5 rack server + IBM V9000 All Flash Array storage + SQL Server 2016 	<ul style="list-style-type: none"> + High-availability solutions + Customers who cannot afford downtime of business-critical applications + Price/performance-focused
<p>90TB Data Warehouse Offering</p>	<ul style="list-style-type: none"> + Based on SR950 2S to 4S Base + SQL Server 2017 	<ul style="list-style-type: none"> + Advanced, high-end, enterprise data warehouse solution + High-performance, high-capacity customer requirements

Detailed solution components and benefits available in the Sales Guide and Playbook

SALES PLAY #2: ONLINE TRANSACTION PROCESSING (OLTP)

Lenovo has developed two transactional database solutions for workloads ranging from enterprise operational databases to business mission-critical applications, including enterprise online sales transactions, finance management, and business intelligence. Both solutions utilize Microsoft SQL Server 2016 database software deployed on Microsoft Windows Server 2016 operating system without server virtualization, and are based on the Intel Select Solution specifications (performance results have been verified by Intel).

<p>Base Intel Select Solution</p>	<ul style="list-style-type: none"> + SR630 - 6136/192GB + 4 million TPM + Microsoft SQL Server 2016 Standard Edition 	
--	---	--

<p>Base Plus Intel Select Solution</p>	<ul style="list-style-type: none"> + SR650 - 8153/384GB + 6.5 million TPM + SQL Server 2016 Enterprise Edition 	
---	---	--

HYPERCONVERGED SOLUTIONS

<p>Nutanix</p>	<ul style="list-style-type: none"> + Based on # 4 HX7510 server model + Relative Performance: 8 virtual machines - 24 million transactions + SQL Server 2016 Enterprise Edition
-----------------------	--

<p>VMware vSAN</p>	<ul style="list-style-type: none"> + Based on # 4 SR650 server model + Both Hybrid and All-Flash configurations + SQL Server 2016 Enterprise Edition + Relative Performance: Hybrid: 8VMs: 12 million transactions per minute; All Flash: 8VMs: 13 million transactions per minute
---------------------------	--

Why Choose Lenovo for Microsoft SQL Server?

Leader in Data Warehouse Solutions

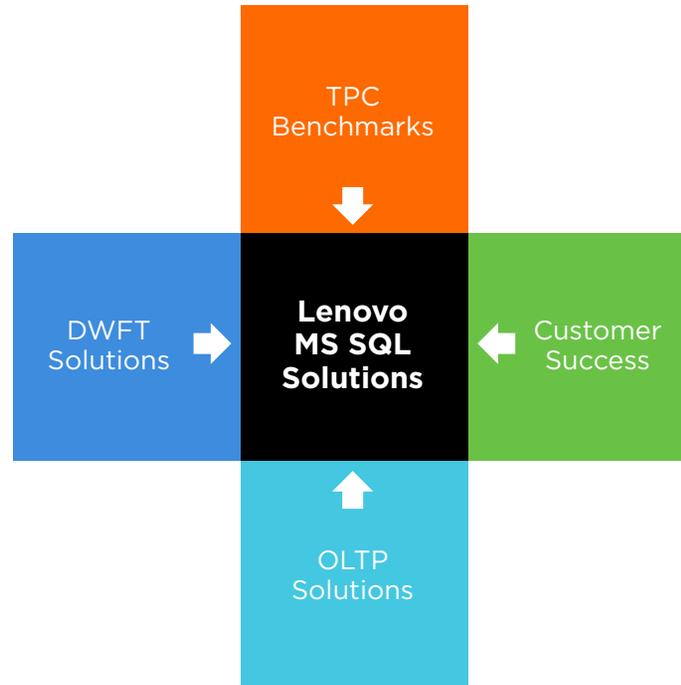
- + Industry first with DWFT 2017 solutions
- + Broadest portfolio of certified DWFT solutions (Basic, Standard, Advanced)
- + Higher performance (NVMe, SSDs)
- + Flexibility – high availability

Flexibility of OLTP Solutions

- + First in industry certified with Intel Select
- + Intel Select (SR630, SR650)
- + Consolidation through SDI solutions
 - + Nutanix 7510

Leader in MS SQL Benchmarks

- + #1 TPC-E (SR650, 3950 X6)
- + #1 TPC-H
- + 10TB – SR950
- + 30TB – 3950 X6



Trusted by Customers

- + Deployment
- + Accelerating OLTP & DWFT workloads