

# Lenovo Big Data Solutions for Splunk Enterprise

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## Easy to implement solutions for analyzing machine data

Machine data is digital information created by the activity of computers, mobile phones, embedded systems and other networked devices. Application, server and web logs, traffic monitoring data, call detail records and sensor data are some examples of machine data. Splunk Enterprise turns machine data into answers for real-time insights to boost business results.

Lenovo Solutions for Splunk Enterprise provide thoroughly tested and integrated offerings that combine the benefits of Splunk analytics with Lenovo ThinkSystem servers. The solutions allow businesses to archive data and tier storage based on their needs. They are highly scalable with configurations for departmental, small, midsize and large enterprise business requirements. The solutions feature deployment and implementation guidance for faster time to deployment, and continuous availability is ensured with support for multi-site clustering, high-availability and disaster recovery.

### Turning Machine Data into Answers

Splunk Enterprise harnesses the untapped value of machine data to help companies reduce downtime, provide better customer experience, and gain competitive advantage. It provides universal collection and indexing of machine data and security data from virtually any source, a powerful search processing language (SPL) to search and analyze real-time and historical data, and real-time monitoring of events, conditions and critical KPIs to help keep your operations running smoothly. Intuitive charts and interactive visualizations make sense of complex data, letting you identify problems, opportunities and potential issues. Dashboards then integrate these charts, views, and reports to display a comprehensive data story.

Splunk leverages artificial intelligence and machine learning for predictive and proactive business decisions. Organizations can develop their running production model and operationalize their machine learning by collecting and analyzing data, training models iteratively, and setting alerts in real time.

### Highlights

- Utilizes machine data to provide operational efficiencies and better customer experiences
- Accelerates deployment of Splunk Enterprise software on Lenovo ThinkSystem infrastructure with certified configurations
- Supports entry through high-end configurations and the ability to easily scale as the use of machine data grows

## Solution Details

The Lenovo solution employs Splunk Enterprise on bare-metal Lenovo ThinkSystem servers. This Lenovo big data solution employs Lenovo ThinkSystem SR650 for "indexers" and ThinkSystem SR630 servers for "search heads". Splunk analyzes data sent to it from "forwarders" using "indexers". One or more "search heads" provide query capability into the indexed data.

Splunk can be deployed on a single Lenovo ThinkSystem SR650, or on a scale-out cluster with multiple ThinkSystem SR650 and SR630 servers across one or more racks.

All Lenovo ThinkSystem and ThinkAgile servers are high performance systems, consistently holding numerous world performance benchmarks. Engineered for always-on productivity, ThinkSystem and ThinkAgile servers are consistently ranked high in customer satisfaction and #1 in x86 server reliability ([ITIC](#)). Connecting the servers to the storage in these solutions can be easily accomplished with network switches. 10GbE switches are recommended for these solutions.

## Complementary Offerings

Lenovo XClarity™ Administrator is a centralized resource management solution that is aimed at reducing complexity, speeding response, and enhancing the availability of Lenovo server systems and solutions. The Lenovo XClarity Integrator for Splunk Enterprise is a "forwarder" that enables collection, visual representation, and analysis of Lenovo hardware events from the Splunk platform.

## Tying It All Together

In today's rapidly-changing technology environment, empowering your data center transformation isn't just a necessity - it's also a journey. Regardless of your current environment, Lenovo Services is a true business partner that will take you from where you are, to where you want to be. At every stage, you'll get our expertise and services to help you:

- **Drive Digital Transformation.** You'll get the best architectures suited to your unique needs, along with our industry insights, expert guidance, and hands-on experience.
- **Foster Innovation.** Free up your internal resources to focus on initiatives that grow your business.
- **Simplify Your Support Experience.** Gain a trusted partner who understands your systems and solutions to fully support and optimize your data center.

In order to maximize the performance of their Indy cars during a race, Schmidt Peterson Motorsports (SPM) wanted to employ big data to analyze the data from over 100 automotive sensors in real time, track-side, during the race. SPM selected Splunk Enterprise running on Lenovo ThinkSystem servers for searching, monitoring, and analyzing machine-generated big data. By analyzing automotive sensor data in real time, SPM is able to make decisions faster, able to adjust the race car settings more quickly, and extend the life of auto parts and improve the performance of the car - leading to success on the racetrack.



### Why Lenovo

Lenovo is a leading provider of data center infrastructure solutions. We partner with you to identify, design, install and support the solution that best ensures your organization's needs are met throughout the IT lifecycle. Lenovo complements a portfolio of leading x86 servers with a full range of storage, software, and comprehensive services that provides excellent performance, reliability, and security for your IT environment from the edge to the cloud.

### For More Information

To learn more about the Lenovo Big Data Solutions for Spark Enterprise, contact your Lenovo Business Partner or visit:

[www.lenovo.com/systems](http://www.lenovo.com/systems)

Uncover new insights in your machine data with Splunk and Lenovo



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