

Splunk Enterprise on Dell Infrastructure

Turn machine data into actionable business insights with a high-performance, scalable analytics platform

An enterprise intelligence platform built on Dell and Intel technology that is optimized for Splunk enables organizations to speed and strengthen data analytics.

Organizations today are challenged with leveraging machine and event data from a variety of sources to make intelligent business decisions. This data originates anywhere from the core of the data center to the edge of the network, and includes critical information such as user behavior, security risks and capacity consumption.

While machine data is one of the fastest growing segments of analytics and is believed to be valuable, it is often one of the most underused assets of an organization. Delivering real-time insights and business value from machine data is necessary to drive digital transformation. However, using this data presents real challenges.

Enter Splunk®. The power of Splunk lies in its ability to unlock data across all parts of the business. The data can come from many sources, including applications, devices, networks, Internet of Things (IoT) sensors and web traffic. With Splunk, organizations can combine data, ask questions, find answers, take actions, and address business objectives. The resulting insights can help them identify security threats, optimize application performance, and understand customer behavior.

To get the most out of a Splunk deployment, no matter the use case, IT organizations must first understand their Splunk workloads, and second optimize their infrastructure so that Splunk runs as efficiently as possible.

This knowledge equates to low search runtimes, high data-ingestion rates, and high numbers of concurrent searches. To simplify this often-complex process, Dell Technologies, Intel, and Splunk worked together to design a reference architecture with several different configurations. These configurations are designed for various Splunk workloads, using Dell servers and storage with the latest Intel® technology.

Splunk Enterprise on Dell infrastructure combines Splunk analytics with the cost-effective, scalable, and flexible infrastructure of Intel-based Dell hardware to deliver the right operational intelligence for your organization.

Resources

- Get validated designs and performance testing information at the [Analytics InfoHub](#).
- Explore the [Dell Technologies AI Innovation Lab](#).

Learn more

- [Validated Designs for Analytics](#)
- [Big Data Solutions](#)

Technical specifications

Dell Technologies designed this reference architecture to meet or exceed the performance of Splunk Enterprise running on reference hardware that Splunk recommends. The figure below shows a high-level view of Splunk Enterprise on Dell infrastructure.

This reference architecture provides high performance and low latency I/O by using solid-state drive (SSD) storage for Splunk hot/warm bucket data. It also provides high capacity by using hard disk drives (HDDs) or Isilon storage for Splunk cold bucket data.

The reference architecture is designed based on extensive customer experience with real-world Splunk production installations. It includes all the hardware, software, resources, and services that are required to deploy and manage Splunk Enterprise in a production environment. This reference architecture describes Splunk Enterprise on Dell infrastructure for three configurations covering a range of customer needs.

Infrastructure elements

Dell servers	Dell networking	Software	Storage
PowerEdge R640	PowerSwitch S4148F-ON	Splunk Enterprise	2x 480GB SSD SAS mixed use 12Gbps RAID 1
PowerEdge R740xd	PowerSwitch S3048-ON		

Summary

Splunk Enterprise on Dell infrastructure provides experience-based guidance for Splunk deployments. This guidance enables you to optimize performance, speed time to deployment, and reduce risk for IT operations and the business that they support.

Speed and quality of information are the two most important elements of an analytics solution, and this enterprise intelligence platform provides both. This reference architecture provides a feature-rich, extensible, high performance solution that scales to organizational needs now and in the future.