DELLTechnologies

Leading brokerage firm optimizes its core trading platform

A major securities broker chose Dell EMC PowerFlex and Splunk to monitor and optimize its core trading platform, providing real-time insight and predictability.

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"PowerFlex ensures consistent Splunk performance, easily accommodating large trading spikes without any glitches so volumes can scale exponentially."

Leading Brokerage Firm

Business needs

Facing significant and unpredictable surges in trading volume, a well-known securities brokerage firm needed superior IT performance, agility, scalability and manageability. Dell EMC PowerFlex provides a cutting-edge solution for the firm's Splunk environment that's essential for running its trading platform.

Solutions at a glance

- Dell EMC PowerFlex
- Dell EMC PowerScale

Business results

- 10TB of Splunk ingest daily.
- 90% faster searches — 10 seconds vs. up to 90 seconds.
- 1 administrator manages entire Splunk environment.
- 6x bursts in trading volume easily handled during peak periods.

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"Response times with PowerFlex on even the most complex searches have decreased by as much as 90%."

Leading Brokerage Firm

A leading global securities brokerage is committed to staying on the leading edge of innovation to deliver the highest quality service to investors and advisors. This has proven to be challenging, especially in light of recent increases in market volatility.

The firm had long relied on an IT infrastructure consisting of stand-alone bare-metal servers with internal storage. Unfortunately, this led to significant underperformance, limited scalability, siloed resources and increased management complexity.

Ideal to run critical Splunk environment

To monitor and optimize its trading platform, the broker chose the Dell EMC PowerFlex rack for its business-critical Splunk environment.
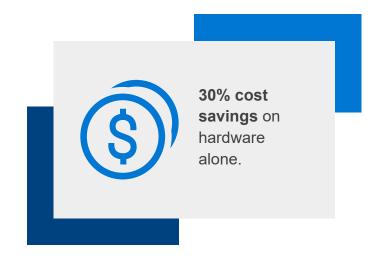
In each of its two data centers, the brokerage firm has deployed 34 compute nodes and 18 storage nodes managed by PowerFlex. The PowerFlex hosts "hot" and "warm" data buckets, based on customer retention and aging policies. Dell EMC PowerScale provides storage for the firm's "cold" and "frozen" tiers of data not needed as frequently within the Splunk environment.

PowerFlex helps the firm overcome silos by allowing resources to be efficiently aggregated across nodes. This wasn't possible with its previous IT infrastructure, which confined resources to stand-alone servers. PowerFlex ensures consistent Splunk performance, easily accommodating large trading spikes without any glitches so volumes can scale exponentially.

Originally sized for about 7TB of data ingest per day, PowerFlex efficiently handles Splunk ingests of up to 10TB of data daily — almost 45% more than it was configured for. This has helped the firm deal with an explosion of trades — from 1.5 million in late 2019 up to 9.5 million trades daily during 2020 peaks — with no additional hardware. Because trading volumes drive the brokerage's revenues and profits, this is obviously an enormous benefit.

Searches in the Splunk environment have also grown from as few as 250,000 daily up to one million, a fourfold increase. At the same time, response times with PowerFlex on even the most complex searches have decreased by as much as 90%.

Beyond PowerFlex and PowerScale, the brokerage firm also counts on a wide array of Dell Technologies solutions — including Dell EMC PowerEdge servers and Dell EMC ECS enterprise object storage — in its other environments.

30% cost savings on hardware alone.

D&LL Technologies

Doing more with less

PowerFlex is designed for simple and efficient management and operations through the use of PowerFlex Manager. This helps to streamline upgrades, patching and lifecycle management for the firm while delivering a rich set of REST APIs — making it easy to leverage third-party tools and address custom workflows.

Before PowerFlex, the brokerage's IT management team had to maintain a strict set of codes on the different hardware and continually rebalance workloads across data centers and servers. This was becoming increasingly complex as the Splunk environment continued to expand. Today, with PowerFlex, one administrator can manage the entire Splunk environment. "PowerFlex has given us the ability to do more with less," says the firm's Splunk architect.

Further, the firm estimates that with its previous infrastructure, they would have had to deploy at least 14 additional nodes by now to handle the growth in trading data. Not only has PowerFlex reduced platform costs by 30%, but it also eliminates the need for additional IT team members to manage it — a major savings.

Over time, the brokerage firm has built a strong partnership with Dell Technologies, which has resulted in a high level of trust among team members. This has helped the brokerage maximize the benefits not only from its PowerFlex solution, but also from the critical Splunk environment that runs on the platform.

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> **Leading Brokerage Firm**

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