Dell PowerFlex
Unbounded software-defined infrastructure for the modern enterprise

Unbounded flexibility

Information Technology is central to the functioning of today’s business, enabling critical competitive advantages. Organizations must deliver complex services at an unprecedented pace to help organizations meet their objectives in an increasingly complex and fast-paced business landscapes.

To address these requirements, many IT organizations are modernizing their IT infrastructure. Organizations want to focus on deploying applications and services that drive business objectives and spend less time building and managing IT infrastructure. They are adopting technologies that eliminate complexities, facilitate automation, allow them to consume infrastructure services consistently and effortlessly to power the innovative applications and workloads that enable business agility.

A Unified, Modern platform

Software-defined approaches provide compelling choices to deliver this organizational agility. It allows organizations to automate, hence ensuring application requirements are automatically met. Additionally, ease in management allows organizations to utilize personnel efficiently. Also, they combine industry-standard hardware with software to pool and manage resources, thereby optimizing resource allocation. When selecting a software-defined platform, there are some critical aspects to consider:

- **The platform must support diverse workload needs** such as multiple operating systems, hypervisors and container orchestration platforms, as well as distinct scaling needs and specific data services.

- **It must enhance simplicity and agility** of the environment by adopting standards and automation.

- **It must deliver stringent SLAs predictably** and do so at scale. It also must be able to offer enterprise reliability, security, and critical data services.

PowerFlex: An unbounded adaptable Software-Defined Infrastructure

Dell PowerFlex, a software-defined infrastructure, provides a solid foundation for the customers for their IT infrastructure modernization. The journey begins with unconstrained consolidation as customers can combine disparate, heterogeneous workloads onto a common platform, maximizing TCO savings. PowerFlex offers a rich out-of-the-box toolset that includes PowerFlex REST API, Dell Container Storage Modules (CSM) and CSI drivers, and PowerFlex Ansible modules, that help streamline operations and boost business agility.

Finally, software-driven storage optimization ensures unrestricted IO and throughput performance with sub-millisecond latency and linear scalability to 1,000s of nodes. Such fundamental differentiators continue to allow customers to optimize their outcomes, whether modernizing a high-performance database or consolidating large application landscapes.
Modernize without limits
PowerFlex is a powerful software-defined infrastructure platform for customers at any stage of their modernization journey. It unifies the delivery of block and file storage, and compute resources in an engineered integrated system while supporting a wide range of operating environments on a common platform. It supports multiple container management and hyperscaler environments while simplifying workload and infrastructure coordination across your on-premises and cloud assets. PowerFlex also offers NVMe/TCP connectivity, giving customers an option to utilize industry standards. These capabilities empower organizations to optimally consolidate a diverse set of workloads with varying requirements and operating environments and drive transformational TCO savings.

Automate for agility
PowerFlex is engineered to streamline operations and boost agility with intelligent software-driven automation. PowerFlex Manager, a unified management toolset for PowerFlex systems, simplifies IT Operations Management (ITOM) and Life Cycle Management (LCM) tasks by providing extensive automation. It enables automated deployments and expansions with minimal hands-on time for the IT team, letting them focus on other strategic initiatives. Further, a rich out-of-the-box toolset including PowerFlex REST API, PowerFlex Ansible modules, and Dell Container Storage Modules (CSM) and CSI drivers enhance DevOps productivity and IT agility. Lastly, Dell CloudIQ intelligent insights simplify monitoring of distributed multi-location PowerFlex deployments by providing a seamless cloud-based AIOps mechanism.

Optimize your outcomes
PowerFlex is designed from the ground up to deliver consistent predictable outcomes at large scales for your most-demanding mission-critical environments. It is optimized for a wide range of validated workload solutions ranging from traditional relational databases and modern cloud-native NoSQL databases to throughput-intensive analytics workloads.

The architecture delivers massive performance for I/O and throughput-intensive workloads by aggregating resources across many nodes while optimizing data path and placement to deliver the best outcomes. Mission-critical applications running on PowerFlex deliver millions of IOPs at sub-millisecond latency without requiring massive infrastructure build-out, scale the performance linearly to 1,000s of nodes and ensure 99.9999% availability with real-life workloads. Additionally, the software-driven approach provides adaptability, enabling customers to quickly scale their infrastructure to address specific resource bottlenecks and reconstruct and recompose their resource pools to address changing seasonal or long-term requirements.

PowerFlex, with its software-driven infrastructure optimization, accelerates customers’ modernization and consolidation initiatives, ensuring optimal workload execution to meet stringent SLAs and providing extensive automation capabilities to boost business agility.

Learn more about Dell PowerFlex solutions

Contact a Dell Technologies expert
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