

# Dell Technologies PowerStore Application Workload Optimization

## Essentials

### Enhance PowerStore Environments with Virtana IPM

- Cross-domain visibility into application workloads running on PowerStore
- Captures capacity, usage, performance, and health information and correlates it to inter-related, external components and applications
- Aggregates data from multiple PowerStore clusters and other heterogeneous storage implementations

### Assure the Performance of Mission-Critical Applications and Workloads

- Realize true end-to-end visibility into performance and capacity across your shared infrastructure – see the data path from Application through Compute, Network, Storage to Volume relationships
- Auto-discover and map application usage and intelligently track consumption trends
- Predictive alerting and capacity forecasting for cross-domain resources using high fidelity data and AI/ML-based analytics
- View latency metrics aggregated at the Application, Host, Network, Storage, or Volume level
- Automate root-cause analysis and problem resolution to dramatically reduce mean time to resolution of tough performance issues
- Leverage out-of-box dashboards, reports, and alarms built from our years of knowledge helping enterprise customers

## Why Virtana Infrastructure Performance Management (IPM) for PowerStore Environments?

“The groundbreaking PowerStore family of all-flash data storage appliances transforms traditional and modern workloads with a data-centric, intelligent, and adaptable infrastructure that delivers revolutionary new capabilities such as AppsON”. -Dell.com

PowerStore is designed to accommodate multiple network protocols and storage formats, making it the ideal solution for heterogeneous workloads and multiple applications.

As these storage technology advancements drive workload consolidation use cases, effective observability of cross-domain infrastructure in context of mission-critical applications has never been more important.



Virtana’s infrastructure monitoring and analytics platform for mission-critical application deployments meets this need.

Virtana IPM unifies, streamlines, and automates IT operations with a fully application-centric approach to infrastructure management, to deliver complete visibility into application performance, consumption, and service levels.

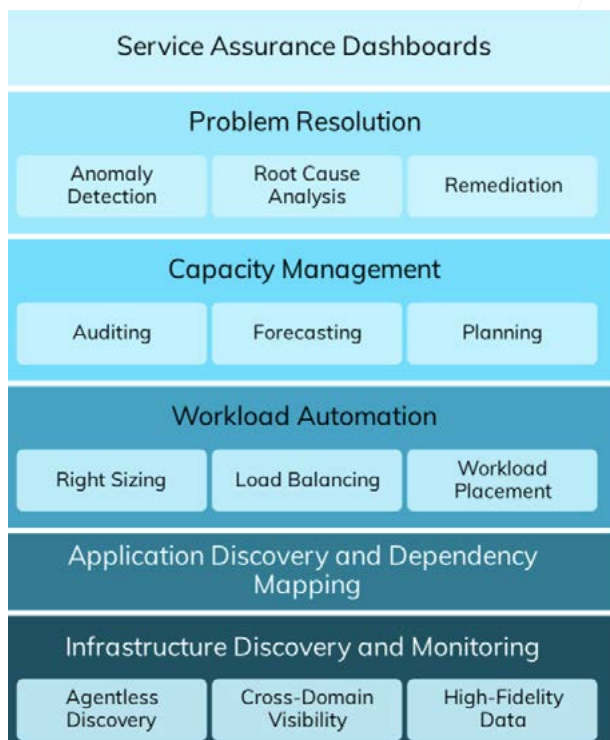
Is PowerStore the destination for your mission-critical applications? Leverage Virtana’s agentless, high-fidelity data collection and analytics to contextualize your workloads and enable data driven decisions for your Private, Public & Multi-Cloud digital transformation initiatives.

## Monitoring, Analytics, and Automation to Support PowerStore-Dependent Applications and Services

Virtana IPM starts by mapping the PowerStore infrastructure to the applications consuming its resources. Its comprehensive understanding of the data supply chain provides the basis for rich dashboards that deliver service assurance, visibility, and control to administrators, architects, and executives.

Realize the value of innovations provided by the PowerStore line of Storage:

- Virtana's tight coupling of infrastructure and application relationships provides business-level context to both applications that are hosted on external compute and those leveraging the **'AppsON' embedded vCenter**
- Combine Virtana's PowerStore visibility with our Compute, Hypervisor and Container Integrations to provide a unified view of performance across traditionally siloed teams:
  - Paired with our Kubernetes integration, with support for OpenShift and Tanzu, Virtana helps guarantee performance of PowerStore's **Container Storage Module (CSM)** for file and container-based workloads at block storage speeds.
  - Combined with our Hypervisor integration for vCenter, Virtana provides unified observability for **storage provisioned as vVols**, and other VMware functions like VAAI.
- Leverage Virtana's workload intelligence and analytics engine to validate and augment PowerStore **Autonomous Operations**:
  - Automated Data placement
  - Resource balancing
  - Dynamic Node affinity
  - Assisted Migration
- Virtana helps guarantee continuous data availability for PowerStore environments:
  - Ensure business continuity functions like local and remote replication are performing as expected.
  - Pair with Virtana's legacy Dell/EMC Storage integrations like Unity & XtremIO, or integrations for other storage vendors to effectively plan, monitor and benchmark application performance before, during and after migration to PowerStore.



**Assure performance:** By monitoring over 1500+ metrics, along with network and compute data in real-time at virtually unlimited scale across any number of PowerStore volumes, Virtana IPM combines dynamic, best practice and custom alarms to assure performance and availability.

**Forecast and proactively manage capacity:** Correlate short and long-term consumption trends and be warned proactively of potential capacity issues.

**Continuously optimize workloads and infrastructure resources:** Manage your infrastructure with a unified approach that relies on automated recommendations that integrate with your ITSM governance.

**Solve problems faster:** Automatically triage, diagnose, and provide actionable issue resolution recommendations before your operations teams are even aware of potential impact with analytics-driven runbooks.