

Optimizing Dell EMC XtremIO with Virtana Infrastructure Performance Management (IPM)

Essentials

Optimize Dell EMC XtremIO Storage Environments with Virtana IPM:

- Understand the overall health, availability, and performance of your storage resources in context of the application and entire infrastructure delivery stack
- Achieve real-time and historical performance visibility from application to database
- Forecast and manage capacity and utilization across ports, controllers, and volumes

Assure your Mission Critical Environments through:

- Single pane of glass across shared infrastructure
- Discover and map application usage of XtremIO systems
- Data driven insights based on application business value and service levels
- Out-of-the-box best practices dashboards, reports, and alarms
- Time-series database stores performance and capacity data for long-term trend analysis
- Automated investigations dramatically reduce mean time to resolution for the most challenging performance issues
- Virtana IPM's Advanced Analytics Suite:
 - Problem Identification and Remediation including Alerting and Case Management
 - Automated metric correlation across all infrastructure layers
 - Workload balancing optimizes performance and cost both on- premises and in the cloud
 - Predictive capacity management and forecasting
 - Intelligent Workload Placement and Right-sizing, with proactive optimization recommendations
 - Seasonal trending for baselining and dynamic alert thresholding

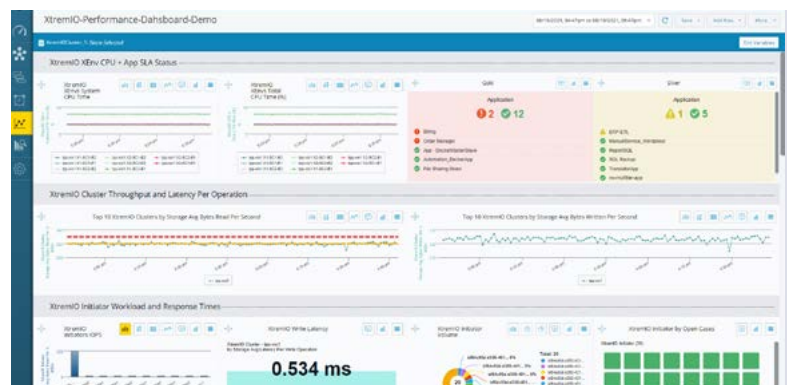
Ensure Uptime, Availability, and Performance Across Applications Running on Dell EMC XtremIO

Enterprise CXOs are relying on Digital Transformation initiatives to drive competitive advantage, speed application delivery, and reduce costs – whether directly through improved customer experience, or through the business insights gained from analytics and machine learning. As a result, assuring the performance of the critical data infrastructure that digital transformation initiatives rely on has never been harder or more important.

A key component of these initiatives is the agility, scalability, and enterprise- class performance enabled by Dell EMC XtremIO. Virtana IPM employs a unique application-centric approach powered by our industry leading Virtana IPM AIOps engine. This ensures you will have unique cross-domain visibility into performance, consumption, and overall service levels throughout your entire infrastructure stack as well as underlying XtremIO storage.

Users gain visibility into which XtremIO resources an application is consuming, access to latency metrics at the host, volume, and application levels, and the ability to report on and see trends in replication metrics.

Together, Virtana IPM and XtremIO enable organizations to get a complete perspective on Application Service Delivery by capturing capacity, usage, performance, and health information from the physical and logical components of the X-Brick Architecture, with additional metrics from related, interconnected infrastructure.



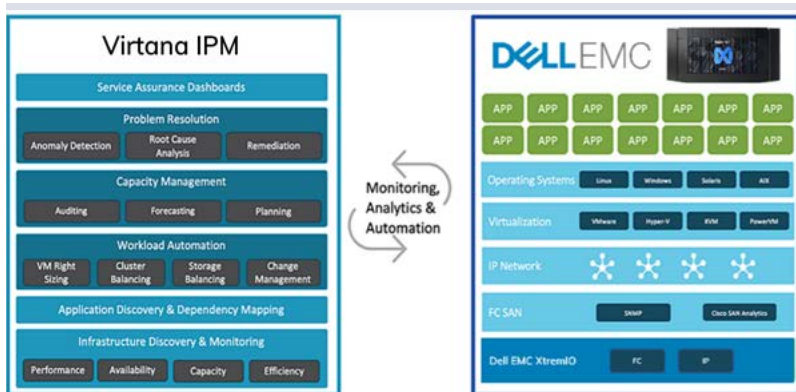
Single-pane-of-glass for Your Hybrid Infrastructure

Virtana IPM starts by mapping InfiniBox components to the applications consuming their shared resources. This comprehensive understanding of your data supply chain provides the basis for rich dashboards that deliver visibility and control to administrators, architects, and executives.

Ensure Performance: Virtana IPM combines dynamic, automatically applied best practice and custom monitoring to assure performance and availability – in real-time, at virtually unlimited scale across storage systems, network, and compute infrastructure. Base level monitoring for Dell EMC includes 250+ unique properties and metrics collected from the XtremIO array that can be analyzed both individually against expected baseline and collectively in context of metrics or events from external systems.

Forecast and Proactively Manage Capacity: Correlate short and long-term consumption trends and be proactively warned of potential capacity problems and time-to-zero resource issues across storage, network, and compute.

Solve Problems Fast: Automatically triage, diagnose, and provide actionable resolution recommendations before your operations teams are even aware of potential impacts on critical applications.



The Virtana IPM Solution for Dell EMC XtremIO

- Map applications and infrastructure components to their related XtremIO dependencies
- Monitors XtremIO internal and external KPIs
- Proactively assure performance, availability, capacity, and efficiency of XtremIO deployments

Virtana IPM provides full-stack end-to-end Application Service Delivery visibility for XtremIO systems and protocol flows as well as the applications and servers consuming those resources. The result is comprehensive visibility and unparalleled correlation that makes identification and root cause analysis easy, even for the most challenging issues. Virtana IPM assures the performance, availability, capacity, and efficiency of XtremIO storage regardless of configuration or protocol.

Virtana IPM was built from the ground up as a machine learning-powered analytics platform that goes well beyond the capabilities of traditional AIOps platforms to assure, manage, and balance workloads across XtremIO arrays and associated infrastructure. Virtana IPM provides flexible licensing, out-of-the-box best practices, and ease of deployment, which provides visibility and control in minutes, not days.

Combined Value: Virtana IPM + Dell EMC XtremIO

The combination of Virtana and Dell EMC delivers a best in class integrated approach to cognition-based AIOps. This XtremIO Enterprise Storage integration provides full-stack visibility with actionable insights based on cross-domain metrics and ML- and AI-based analytics from Virtana IPM, highly granular system-wide monitoring, and a shared understanding of the entire stack. Virtana IPM enables you to:

- Understand how and which applications are suffering performance issues from noisy neighbors or resource hogs
- Proactively manage performance sensitive workload and storage capacity at industry-leading scale
- Apply automation to quickly identify, diagnose and solve the toughest performance issues

Virtana delivers unprecedented visibility and actionable insights into the performance, health, and utilization of hybrid IT infrastructure, while Dell EMC's storage solutions deliver enterprise-class performance and scale. Together, Virtana and Dell EMC empower you to cost-effectively ensure the performance and availability of mission-critical applications running on XtremIO storage and proactively prevent infrastructure related application slowdowns and outages.