

Optimizing your Dell EMC PowerMax[®] or VMAX[®] All-Flash with Virtana Infrastructure Performance Management (IPM)

Essentials

Optimize PowerMax Environments with Virtana IPM:

- Understand how application workloads stress storage pool resources
- Real-Time & historical performance visibility from client to LUN
- Forecast and manage capacity utilization across ports, engines and storage groups

Assure your Mission Critical Environments through:

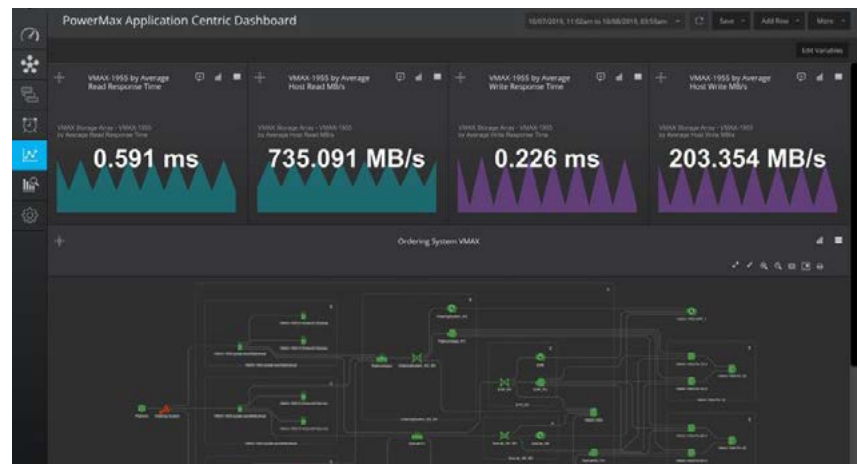
- Single pane of glass across shared infrastructure
- Discover and map application usage of PowerMax Arrays, Engines and Directors
- Manage access to resources based on application business value and service levels
- Out-the-box best practices dashboards, reports and alarms
- High performance database stores performance and capacity data for long term trend analysis
- Automated Investigations dramatically reduce mean time to resolution (MTTR) of tough performance issues

Optimizing Application Performance on PowerMax

Every CXO is looking to Digital Transformation to drive competitive advantage, whether directly through improved customer experience, or business insights gained from analytics and machine learning. As a result, assuring the performance of critical data infrastructure has never been more important.

Today, customers are deploying PowerMax to enable the agility required by corporate Digital Transformation initiatives, while providing rapid scaling, with enterprise grade-resilience of data storage. As a Select Dell EMC partner Virtana through Virtana IPM provides unparalleled insights and visibility into PowerMax and VMAX power and capacity management.

Virtana IPM leads in the industry in assuring infrastructure and storage performance with a unique app-centric approach that ensures deep insights into application performance, consumption, and overall service levels.



Virtana IPM is unique in the ability to map, monitor, and analyze PowerMax environment support of the mission-critical workloads that underpin Digital Transformation, and to do so at virtually unlimited scale.

Single-pane-of-glass for Your Hybrid Infrastructure

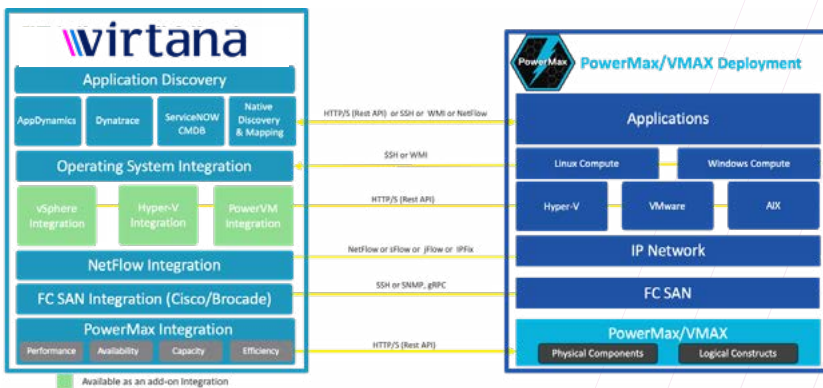
Virtana IPM starts by mapping PowerMax storage groups to the applications consuming its data storage resources. This comprehensive understanding of the data supply chain provides the basis for rich dashboards that deliver visibility and control to administrators, architects, and executives.

Assure Performance: By monitoring over 200+ Metrics in real-time at virtually unlimited scale over multiple storage arrays, Virtana IPM combines dynamic, best practice and custom alarms to assure performance and availability. This capability is complemented by Virtana IPM's industry-leading Fibre Channel or iSCSI wire data probes that provide over 300+ additional performance metrics unique to Virtana IPM.

Forecast and Proactively Manage Capacity: Correlate short and long-term consumption trends and be warned proactively of potential capacity issues, whether at the client, network, or storage.

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 PowerMax and VMAX All-Flash



Automatically maps applications to PowerMax or VMAX
 Monitors PowerMax KPIs (Internal & External)
 Visibility, scale, and analytics needed to proactively assure performance, availability, capacity, and efficiency of PowerMax arrays.

Virtana IPM provides full-stack end-to-end visibility of PowerMax clusters, and protocol flows as well as the applications and servers consuming those resources. The result is comprehensive visibility and the unparalleled correlation that makes identification and root cause analysis easy, even for challenging issues. Virtana IPM assures the performance, availability, capacity, and efficiency of PowerMax 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, balance workloads across PowerMax infrastructure. Virtana IPM's Wisdom Pack for Enterprise Storage provides flexible licensing, out of the box best practices, ease of deployment, provide visibility and control in minutes, not days.

PowerMax, VMAX Flash and Virtana IPM

- Understands how and which applications are suffering performance due to noisy neighbors, or resource hogs
- Built to proactively manage performance sensitive workload and storage capacity at industry-leading scale
- Makes it easy to automate triage and diagnose the toughest performance issues

Take the next step

See a demo today of the Virtana IPM solution for Dell EMC PowerMax at <https://www.virtana.com/request-demo/>



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Figure 7: Intuitive Reporting and Granular performance metrics via MD&S Telemetry and Virtana IPM

