# VxFlex OS Workload Optimization

## Essentials

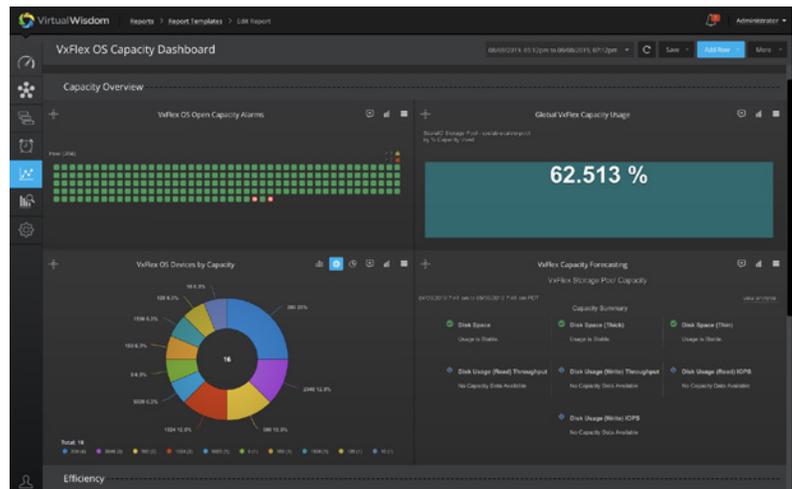### Optimize VxFlex OS Environments with VirtualWisdom

- Understand how application workloads stress storage pool resources
- Gain real-time and historical performance visibility from client (SDC) to storage (SDS)
- Forecast and manage capacity utilization across pools

### Assure the Performance of Mission-critical Application Workloads

- Utilize a single pane of glass across shared infrastructure
- Auto-discover and map application usage to VxFlex OS storage pools
- Manage access to resources based on application business value and service levels
- Leverage out-of-box best practices dashboards, reports, and alarms
- Predictive capacity management for VxFlex storage pools prevents needless application downtime
- Automate root-cause analysis and problem resolution to dramatically reduce mean time to resolution (MTTR) of tough performance issues

## VxFlex OS Management Challenges

Integrated VxFlex OS hyperconverged systems spanning Dell EMC PowerEdge servers create powerful SAN environments that deliver flexible, scalable, performance and capacity on-demand needed for digital transformation and innovation. But this powerful solution can't maintain application and storage availability, capacity and performance on its own - awareness of the mission-critical applications and infrastructure that rely on VxFlex OS resources is also required.



VirtualWisdom meets this need with the leading infrastructure monitoring and analytics platform for mission-critical application deployments. A single platform that unifies, streamlines and automates IT operations with a unique, app-centric approach to infrastructure management that assures deep insights into application performance, consumption and service levels.

VirtualWisdom maps, monitors and manages VxFlex OS service delivery for the critical applications that deliver digital transformation, and does it at virtually unlimited scale.

## Single-pane-of-glass for your Hybrid Infrastructure

VirtualWisdom starts by mapping VxFlex OS infrastructure and the applications consuming VX data storage resources. This 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.
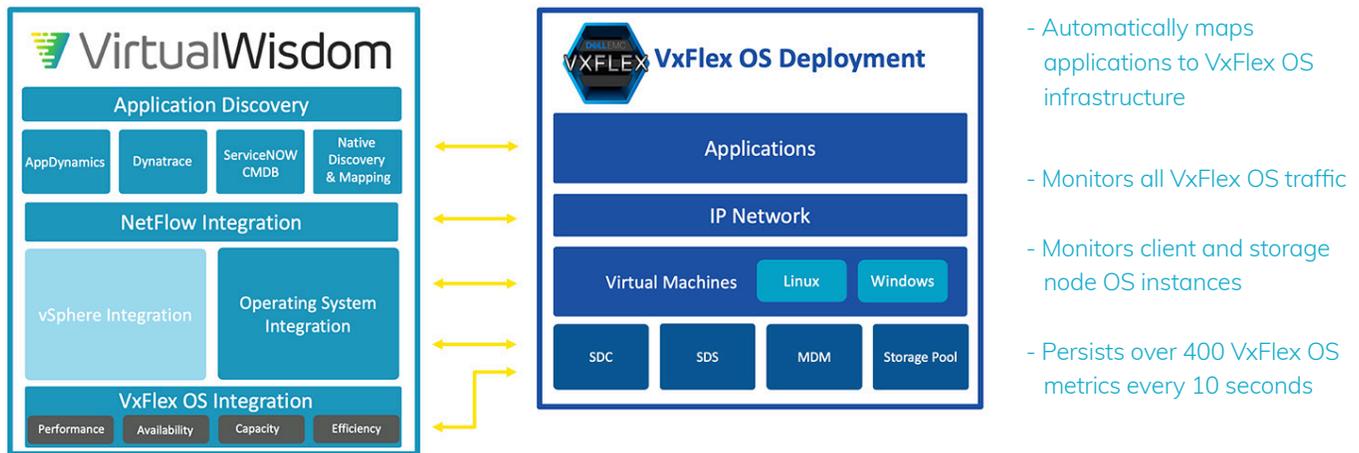
Assure performance: By monitoring over 1500+ metrics, along with network and operating system data for Linux and Windows in real-time at virtually unlimited scale across any number of VxFlex storage pools, VirtualWisdom combines dynamic, best practice and custom alarms to assure performance and availability.

Forecast and proactively manage capacity: Correlate short and long-term consumption trends and be warned proactively of potential capacity issues whether at the client, network, or cluster and nodes.

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 that:

- Auto-detect excessive evictions
- Know when a rebuilding/rebalancing process impacts performance
- Identify resource hogs and noisy neighbor problems
- Pinpoint large file and storage pool filling issues

## Logical Architecture to support VxFlex Dependent Applications and Services



Deliver visibility, scale, and analytics to assure performance, availability, and capacity of VxFlex OS clusters

VirtualWisdom provides full-stack end-to-end visibility into VxFlex OS performance and operation. This visibility extends across the applications and servers consuming and mounting VxFlex resources, VxFlex OS clusters and storage pools, and the network flows between clients and resources. These comprehensive views into the relationships and capabilities of both VxFlex resources, as well as the applications and infrastructure elements that depend upon them, enable advanced correlation that makes identification and root cause analysis easy. Including for even challenging issues such as cache evictions. VirtualWisdom helps assure the performance, availability, capacity, and efficiency of VxFlex OS clusters.

VirtualWisdom 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 VxFlex OS infrastructure.

VirtualWisdom's Wisdom Pack for Software-Defined Storage provides license flexibility, out of the box best practices, ease of deployment, provide visibility and control in minutes not days across VxFlex OS and VMware ® vSAN.

Learn more about VirtualWisdom

Contact a Virtana Expert

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