

Virtana Storage Observability for Enterprise Storage and Software Defined Storage (SDS)

Correlate storage behavior with application performance for Enterprise Storage and WisdomPack for SDS

Virtana storage observability for Enterprise Storage is a key building block of your full-stack infrastructure monitoring and analytics platform.

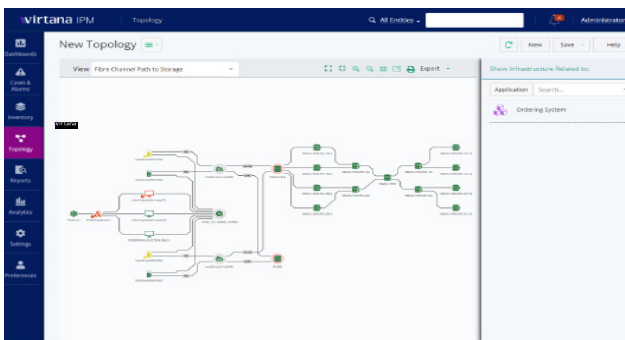
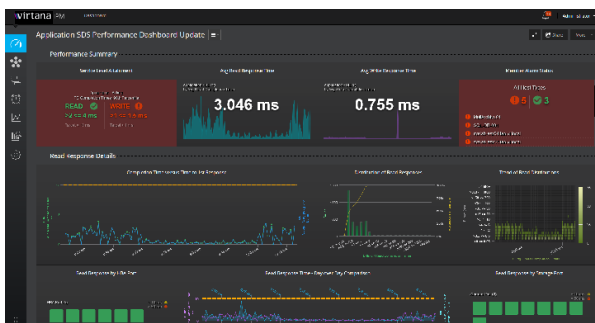


Figure 1: Discovery and dependency mapping of storage assets

Observability for Enterprise Storage and Software Defined Storage



- Brings storage insight out of the shadows and into the limelight of your full stack monitoring platform.
- Understands how your application workloads stress your storage resources.
- De-risks application service delivery on shared storage.
- Provides application or location centric storage capacity management, forecasting and alerting across supported arrays, and SDS environments.

Challenges Faced by Application, Infrastructure and Storage Teams

IT assets are dispersed

- Some workloads run on-premise using SAN attached storage, others use storage virtualizers, still others rely on software defined storage or Hyper Converged Infrastructure.

Visibility is limited

- Native monitoring tools do not have the heterogeneous view needed to understand your entire infrastructure.
- Data fidelity and application awareness are universally lacking in most vendor monitoring tools.

Monitoring tools are vendor specific

- Each storage vendor provides element managers for provisioning and monitoring their own storage array but visibility across other vendor products is either lacking or non-existent.

No single pane of glass for monitoring all assets

- Siloed infrastructure monitoring tools create expensive war room situations and increase MTTR.
- What is missing is a single dashboard that cross-correlates metrics from compute, switching and storage with an application perspective to derive meaningful insights for running the business at peak efficiency.



Virtana Platform for Enterprise and Software Defined Storage (SDS) solves the problem

Mission-critical application and infrastructure monitoring and analytics for enterprise storage platforms and SDS environments. Provides AIOps-driven problem resolution, capacity management and workload automation capabilities.

Application Service Assurance

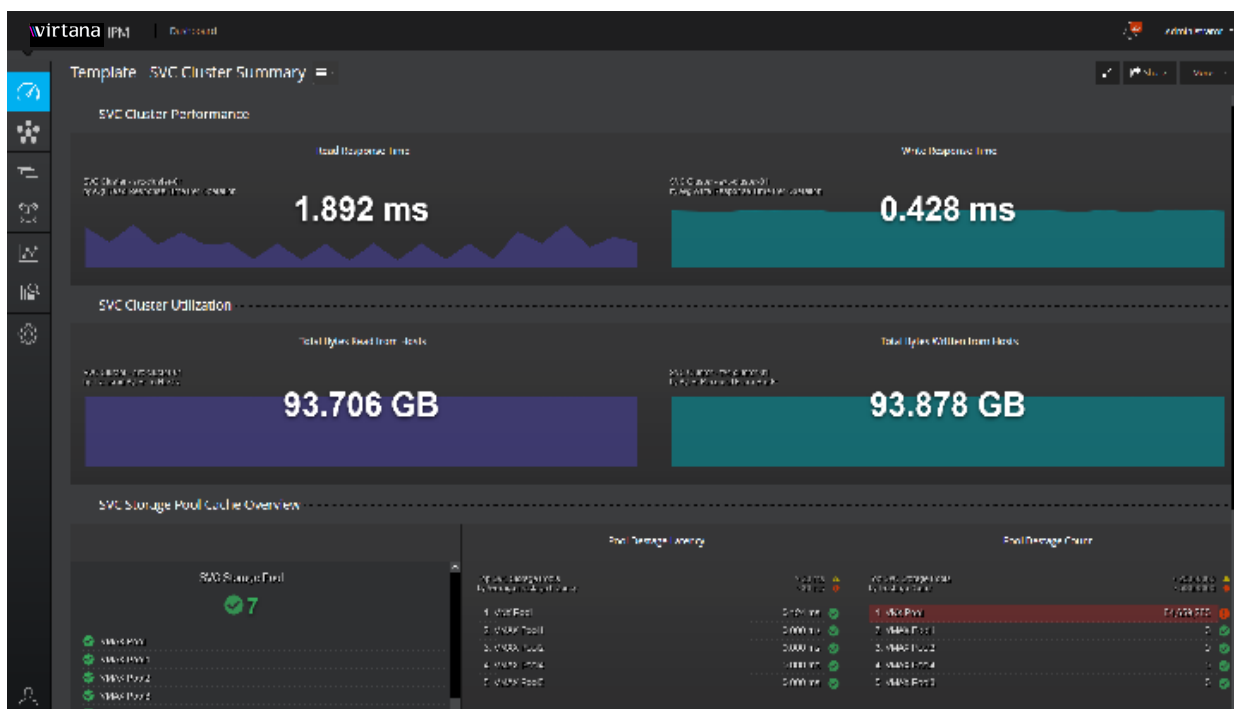
- Use a global view to proactively manage and assure application service levels across physical, virtual and cloud-based hosts.
- Ensure a seamless interface between the compute and storage layers.
- Map applications through the infrastructure to your storage systems in a single topology view.
- Identify unintended overlap of shared storage resources between higher and lower tier applications.

Predictive Capacity Management

- Predict time-to-zero for enterprise storage or software defined storage.
- Forecast, view, and alert on storage usage trends across hybrid infrastructure sets by application or storage environment.
- **Workload Infrastructure Balancing**
- Analyze how your on-premise workloads behave end-to-end using sophisticated workload balancing algorithms.
- Proactively rebalance your infrastructure using the AI recommendation engine.

Problem Resolution and Avoidance

- Isolate and remediate problems using a run-book style methodology with guided and automated investigations around workflows such as analyzing “noisy neighbors”.



Virtana Observability for Enterprise Storage

KEY FEATURES

	NetApp	DELL EMC VMAX/ PowerMAX	Dell EMC Isilon	IBM SVC	Pure FlashArray
Infrastructure Discovery and Application Mapping	Automatic	Automatic	Automatic	Automatic	Automatic
Agentless Software-only Monitoring	✓	✓	✓	✓	✓
Access Method	API access (cluster- mode ONTAP supporting NFSv3)	API access (to Dell EMC Unisphere storage manager)	API access (to Dell EMC OneFS API ver. 8.0.0 or later)	SSH and FTP (into SVC master node running SVC ver. 7.7.1.8 or later)	RESTful APIs, 1 minute polling interval, 30 second granularity. Pure Storage Purity environments
Health Metrics	✓	✓	✓	✓	✓
Capacity Metrics	✓	✓	✓	✓	✓
Performance Metrics	NA	✓	✓	✓	✓
Best-practice Alerting NA	NA	✓	✓	✓	✓
Intelligent Problem Resolution	✓	✓	✓	✓	✓