

Dell EMC DataIQ: Storage Monitoring

PowerScale OneFS cluster monitoring and insights

Essentials:

- Achieve **single-pane-of-glass** visibility into PowerScale clusters
- Identify key **warnings** and **critical cluster events**
- Put all sites, including **dark sites**, under management
- Diagnose **infrastructure, network** and **application** bottlenecks
- Track **OneFS jobs and services details**—throughput, IOPS, CPU usage, cache hit rates, disk reads/write
- Understand **past performance trends** and predict **future capacity requirements**
- Leverage PowerScale cluster health insights to **meet strict SLA requirements**
- Monitor the PowerScale storage environment at **enterprise-scale**—up to **70 clusters** and **2000 nodes**
- Supports PowerScale and Isilon clusters running **OneFS 8.0+**
- **Dataset management capabilities** also available in DataIQ – See the [Dell EMC DataIQ: Dataset Management](#) document for additional details

Infrastructure optimization is key to effective data management

The extraordinary growth and management of unstructured data presents an enormous opportunity for organizations looking to transform their business and win in this new digital economy.

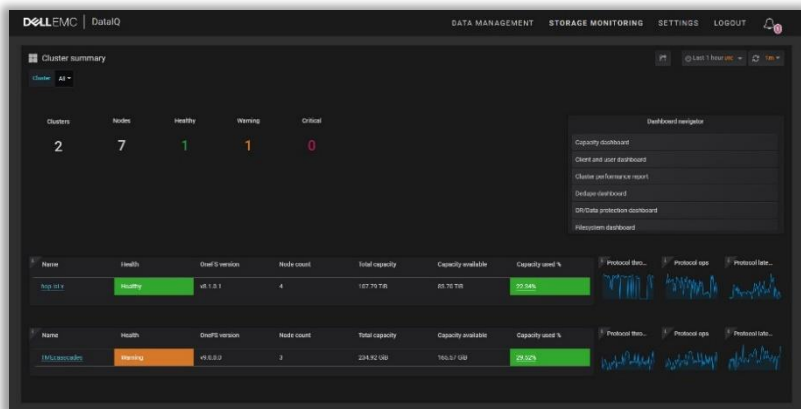
But a key challenge underpinning an effective data strategy is managing the underlying storage platforms that support the massive data growth in the first place. Understanding the storage landscape and the critical applications it supports is of paramount importance for organizations who wish to ensure SLAs are met and TCO is optimized. Insights into performance bottlenecks, capacity thresholds being reached, network events, storage usage per workload or user, etc. are required to help IT tune the storage environment for the best results. Without this level of visibility, IT is essentially operating in the dark, resulting in poor system performance, mounting costs, and an inability to forecast future needs.

Powering up DataIQ with PowerScale monitoring functionality

Dell EMC's DataIQ, a flagship dataset management and insights software, has introduced new storage monitoring functionality, all within the same tool. By including PowerScale OneFS cluster monitoring capabilities, IT can now manage both unstructured data and any PowerScale systems which support it, in a single, unified experience.

DataIQ's advanced monitoring and reporting capabilities can help maximize the performance of your PowerScale systems. While OneFS and PowerScale enable your organization to easily manage petabytes of storage and computing resources, DataIQ takes it a step further by empowering IT to investigate performance bottlenecks within workflows, determine unstructured data growth trends, optimize resources with system health dashboards and forecast future capacity requirements.

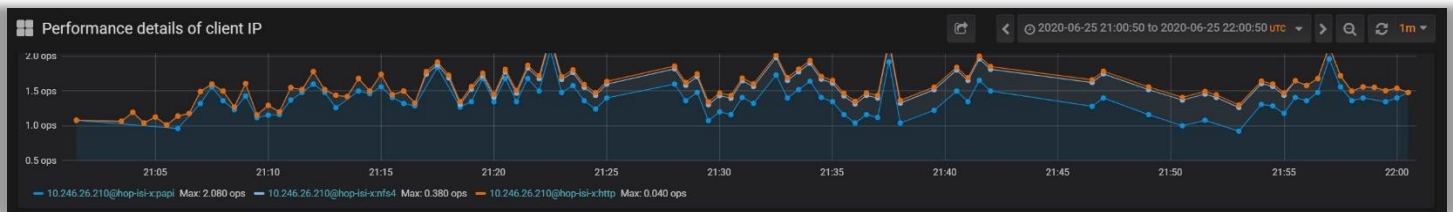
DataIQ storage monitoring UI: Cluster Summary Dashboard



PowerScale monitoring dashboards

DataIQ features a number of sub-dashboards and reports within the primary **Cluster Summary Dashboard** which displays the real-time status of each PowerScale cluster, alerting administrators to detrimental cluster events for further investigation and triage. Sub-dashboards include:

- **Capacity Dashboard:** Shows total capacity utilized per cluster over a period of time, empowering users to understand utilization rates and track capacity trends
- **Network Dashboard:** Displays network details pertaining to throughput, packet rate and error rate so IT can identify protocol and network latencies in order to tune PowerScale infrastructure for optimal results
- **Client and User Dashboard:** Presents information about protocol operations, protocol latency and network throughput, helping IT precisely pinpoint performance bottlenecks within clusters
- **Filesystem Dashboard:** Features shared directory details which pertain to file access deferment rates, helping identify users/clients consuming system resources (i.e. “noisy neighbors”)
- **Hardware Dashboard:** Presents a view of the OneFS cluster state from a hardware perspective, enabling organizations to discover usage and activity trends down to the granular node and disk level
- **DR/Data Protection Dashboard:** Provides summary information pertaining to OneFS SyncIQ policies, NDMP session events, ICAP and snapshot statuses to ensure replications jobs are performing as expected
- **System Dashboard:** Groups information about top jobs requiring attention (indicated by intensive resource consumption)
- **Deduplication Dashboard:** Displays an overview of deduplication and compression savings and efficiency across clusters
- **Cluster Performance Report:** Contains operations summaries from a cluster point of view, enabling granular drilldowns on protocol operation rates, latency, throughput, etc.



Take the next step

Please contact your Dell EMC sales representative or authorized reseller to learn more about DataIQ and how it can benefit your organization. DataIQ also features unique dataset management capabilities. For a detailed look at this functionality, please read the companion document – [Dell EMC DataIQ: Dataset Management](#).

Also check out the [DataIQ website](#) for more information on how DataIQ empowers you to take a ‘data first’ approach to managing unstructured data.



Learn more about Dell EMC DataIQ solutions



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