

PerfAccel Analytics

Intelligence for Deep Application I/O Profiling

A FULL FEEDBACK FILE SYSTEM FOR DEEP VISIBILITY

Datagres is addressing the challenges of managing large complex data sets across expansive grid environments, by providing the unique ability to improve storage speed, without investing in additional infrastructure. PerfAccel Analytics provides deep operational visibility and intelligence between applications and storage, by tracking data movements to identify and reduce I/O latency. PerfAccel Analytics is a sophisticated, patent pending IO fingerprinting technology that traces every transaction made by an application to the underlying file system. This provides administrators with the intelligence to create new opportunities for application acceleration, by utilizing the resources in the server, networks and/or storage.

The data intelligence and data management capabilities are viewed through a single pane management console, that displays a real-time graphical view of system health status and time-series data for every application I/O in the grid. As a software-only solution, PerfAccel Analytics resides close to the application on the compute nodes, and has low to virtually zero system overhead, providing benefits without any changes to the application.

HIGHLIGHTS:

- Server level intelligence, application I/O performance
- Storage visibility through deep file level analytics
- Higher performance with fewer SSDs used optimally
- Storage cost reduction through server optimization
- Real-time monitoring over time to ID trends and patterns for future capacity planning

ANALYTICS FEATURES



File Level I/O Analyzer

Measures IOPS, latency, throughput and bandwidth at individual file/folder/node or entire grid level



Active Data Identification

Identifies hot data, monitors open/close, cache utilization, read hits/misses, writes/misses



Simulated Acceleration

Models caching behavior to size future cache/SSD requirements – via simulation functionality - aiding in purchase decisions



Predictive Analytics

Collects data over time, deterministically predicting future capacity and performance related outcomes



Performance Analytics

Identifies issues related to file level latency, throughput, IOPS and bandwidth



Real-time Graphical Display

View system health through latency, throughput, cache utilization, read hit/miss, write/miss



Contextual Analytics

Gathers meaningful insights from logical groupings of process, process ID's or process groups, providing the necessary intelligence to create optimal performance



Reports

Storage metrics, trends, predictions, and notifications

USEABILITY FEATURES

- Software deploys in minutes on the server without disruptions
- Data intelligence and data management capability provided through an easy-to-use single pane of glass
- Configurable dashboards and reports provide a comprehensive view of infrastructure and operations
- Secure admin console for real-time IOPS monitoring and control of data in motion
- REST API integration with additional tools for viewing an I/O timeline, providing context for the entire system
- Intelligence to connect to thousands of data sources, from a single machine, to an entire rack, data center or cloud

DEPLOYMENT FEATURE

- Deployed directly to location of choice, transparent and non-disruptive
- Support for all SSD types – SAS, SATA or PCI
- Dedicated partition or a shared mounted directory
- Support for all major file systems: ext3, ext4, xfs, NFS v3, SCSI, iSCSI, on most Linux based distributions: XEN, KVM, VMware, RHEL, SLES, Ubuntu

EMPOWERING SYSTEM ADMINISTRATORS WITH CONTROL

- Produce a consolidated view of the entire data environment and continuously monitor active data or information in motion
- Identify storage performance patterns and enhance data delivery by keeping hot data close to the CP
 - Understand and manage dynamics of hot data to maximize CPU utilization
- Identify bottlenecks in the I/O stack and take corrective action
 - Latency is often a more significant issue than throughput
- Create more effective SLAs and SLOs
- Plan and scale storage network & storage IOPS capacity:
 - Performance and capacity planning
 - Cache sizing
 - SSD sizing
 - Determine high performance storage placement for optimum results
 - Define endurance characteristics

A WIDE RANGE OF CAPABILITIES

SEE & TRACK

- Latency
- Throughput
- Cache utilization
- Read hit/miss, write hit/miss
- Hot files.
- Hot data.
- Nodes & locations.

SEARCH & IDENTIFY

- Downtime patterns
- Storage outage patterns
- Challenges within the NAS appliance & trouble areas in IOPS
- SSD requirements
- I/O bottlenecks creating latency
- Data placements within NoSQL database deployments.

Try

Register for a free trial of PerfAccel software to see how data intelligence can dramatically improve the visibility, control and acceleration of your data network.

FREE TRIAL

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DATAGRES
Application I/O Intelligence

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