

IBM Storage Insights - Transforming How Storage is Managed

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Evaluator Group

Enabling you to make the best technology decisions



Overview of IBM Storage Insights

Storage management and support in enterprises has undergone a major transformation with cloud-based analytics for storage systems. IBM Storage Insights is the solution that collects and analyzes telemetry data from storage systems enabling proactive product support and providing storage resource management functions. Operating as a cloud-based service, IBM Storage Insights greatly simplifies the tasks of managing resources where valuable information is stored.

Simplifying the way storage is managed and supported allows administrators to focus on other areas in Information Technology, improving the overall operations and productivity. The change to use telemetry data and cloud-based analysis software advances storage technology. The functionality that IBM Storage Insights delivers for enterprises to simplify management and support of storage comes in three key areas:

- Analytics applied to enhance resiliency of storage – proactive maintenance to address potential issues before there is an impact with an ongoing dashboard of storage system health and overall status,
- Storage resource management functions as a service where capacity and performance reporting and planning is a simple, dashboard driven operation,
- Streamlined support to eliminate the escalation process and proceed directly to specialists with full set of support information.

The availability of IBM Storage Insights is a technology advancement for customers that will improve overall operations. Enabled by collection of selected storage system data locally and transmission to IBM Cloud for analytics, administrators have to spend less time performing specialized investigation, data collection, and use of complicated analysis and resource management software to deliver the required level of storage management needed for enterprises.

Advances in Storing Information

During normal operation, storage systems collect information that is typically used by the storage administrator to research suspected problems or for reporting on operations. Collecting this information continuously as telemetry from systems for use by analytics software is the general process for IBM Storage Insights operation. The information from multiple on-premises storage systems is collected using software executing in a local server and sent to IBM Cloud. The analysis software uses the collected information, called telemetry data, to perform health analysis and prediction of potential issues, as source data for storage resource management functions, and for a real-time dashboard, accessible only to a specific IT customer.

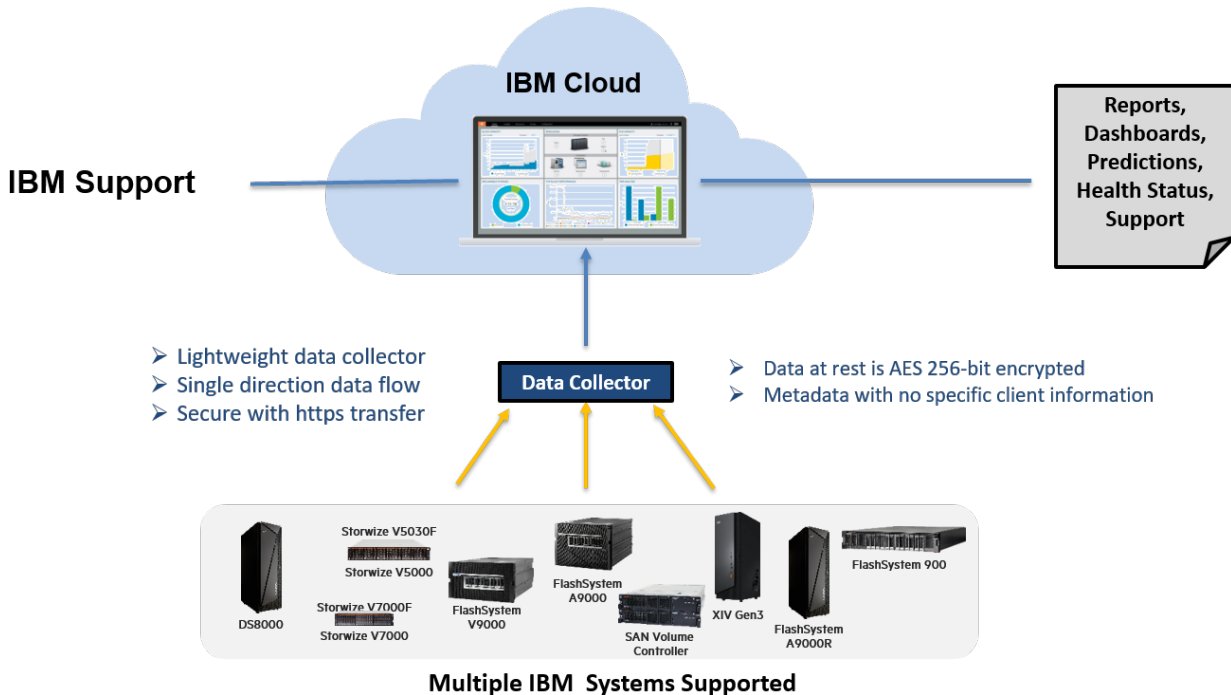


Figure 1: IBM Storage Insights Telemetry

The information collected from storage systems can be quite varied including configuration details, performance data, capacity information, and operational logs that contain specific event details pertaining only to that storage system. The on-site Data Collector software executes in a small server or virtual machine collecting information and streaming the data to IBM Cloud. Multiple storage system's information is collected and transferred, allowing the analytics software to deliver both system-specific information as well as aggregated status information across multiple systems and sites.

The collected information produces content used in both dashboards and reporting for areas such as:

- Health insights and predictive analytics
- Performance insights
- Capacity insights
- Optimization analysis

Key to IBM Storage Insights value is simplicity – the systems selected and information presented in dashboards and reports can be done without specialist training required. Storage Insights is SaaS: there is no software to install apart from the data collector and the latest version is always used.

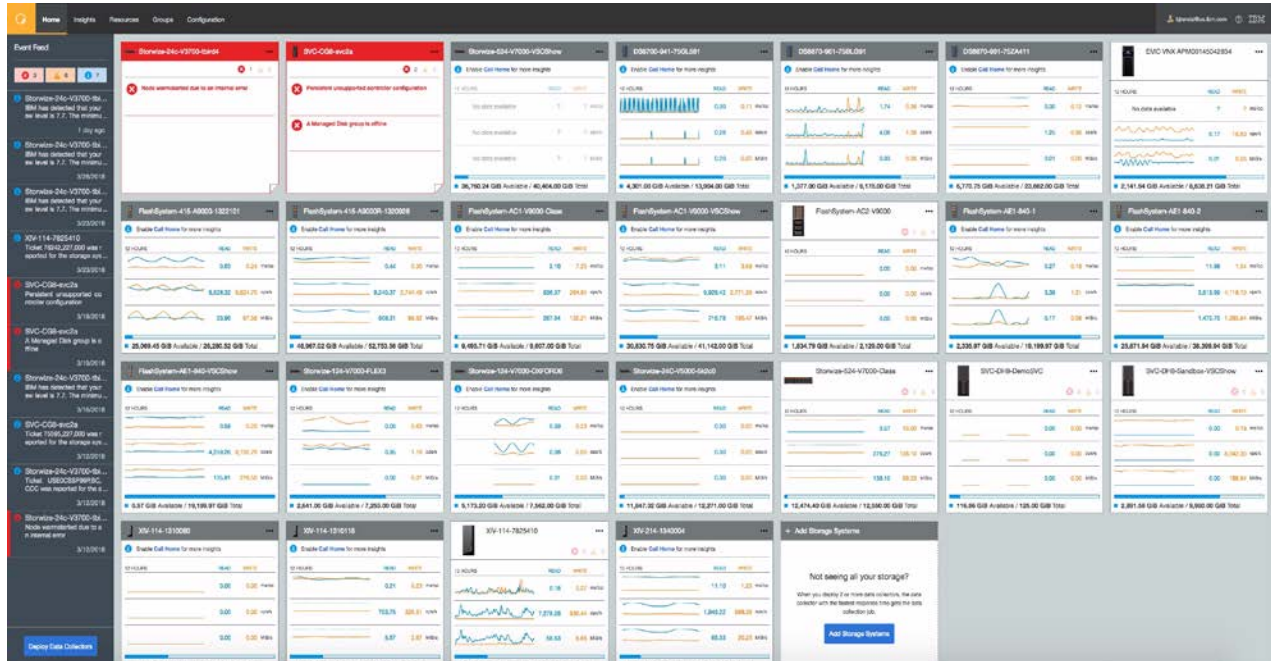


Figure 2: IBM Storage Insights Dashboard Example

Service operations are also streamlined where initiation of a service ticket is done through the web interface with attachment of relevant information that is sent directly to support engineering, which will aid in resolving the issue more quickly. The Storage Insights dashboard shows the open tickets and status eliminating the need to call IBM for an update.

Storage technology has advanced tremendously with Flash-based solid-state devices and software functions such as snapshots and self-protecting capabilities. IBM Storage Insights is a commensurate advance in storage management and support based on collection and analytics on telemetry data.

Operational Gains from IBM Storage Insights

IT operations will realize the greatest benefits from IBM Storage Insights. In addition to the simplification of managing storage systems noted earlier, the improvements in resiliency of storage systems have direct business value. Proactive, automated analysis and actions for storage systems prevent potential issues from impacting business operations. Impacts to business are measured in thousands of dollars per minute. Eliminating impacts translates directly to savings for business operations and indirectly to savings for time spent in recovery and the non-quantifiable impact on perception of company and individuals. Continued enhancements by IBM including adding deeper analytics will continue to improve the resiliency of IBM storage.

IT administrations will visually see the value of IBM Storage Insights directly with their view of storage. Now, they can get a complete dashboard of their storage environment – across multiple sites. Details of IBM storage systems or aggregated information from multiple systems are selected for administering storage. Visibility into the storage systems is understandable by non-storage administrators and can be used to initiate support actions. The consolidated view across multiple sites is achieved with a Data Collector at each site.

Optimizing use of virtualized storage resources depends on capabilities to utilize capacity and performance. Storage systems such as FlashSystem V9000, Storwize, and SVC using IBM Spectrum Virtualize software deliver this capability and have tools to monitor and report on capacity utilization and performance. Customers of FlashSystem A9000, DS8000, and other non-virtualized storage systems have the similar information collected and tools available to gain value from simplifying management. With these tools, commonly called storage resource management or SRM, capacity planning and performance planning are possible, leading to optimized use of resources. Historically, SRM solutions have been complex, expensive, and requiring discipline for regular use. IBM Storage Insights includes capacity and performance information for planning.

Storage Insights is included with the purchase of IBM storage systems for no charge with a basic set of capabilities. Advanced functionality comes with IBM Storage Insights Pro version, available as a subscription model based on a fifty-terabyte increment license charge per month. The following chart illustrates the differences between the two versions.

Category	Function	IBM Storage Insights	IBM Storage Insights Pro
Monitoring	Resource Management	IBM Block Storage	IBM and non-IBM Block Storage
	Logical Configuration	Basic	Advanced
	Health	Call home events	Call home events
	Capacity	Basic – 4 metrics	Advanced – 25+ metrics
	Performance	Basic – 3 metrics	Advanced – 100+ metrics
	Data history	24 hours	Up to 2 years
Service	Filtering of events	Included	Included
	Automated log collection	Included	Included

	Show active PMRs and ticket history	Included	Included
Analytics and Optimization	Best practice violations		Included
	Customizable alerting		Included
	Business impact analysis		Included
	Optimize data placement with tiering		Included
	Optimize capacity usage with reclamation		Included
Security	ISO/IEC 27001 Information Security Management Standards certified	Included	Included

The additional functionality available with the Pro version and the support for non-IBM storage are unique in the market currently. Deeper analysis and a broader view across storage platforms increases the value for managing the overall environment with comprehensive capabilities from a single, SaaS tool.

Evaluator Group Assessment

Evaluator Group believes that the technology advance of using telemetry data from storage systems and Software as a Service analytics transforms how storage will be managed in the future. IBM Storage Insights delivers on the analytics for improved resiliency of storage and provides necessary storage resource management information. Beyond those functions, Storage Insights Pro delivers optimization recommendations based on usage analysis, additional resource information, and a much longer history of system information for deeper analysis. Probably more important, the Pro version of IBM Storage Insights adds support for non-IBM block storage systems, greatly increase the value for use in enterprise environments. IBM Storage Insights should be utilized by enterprises for simplifying and improving their storage management operations.

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