



## Brochure

IT Operations Management

# Enhance Data Protection with Analytics and Insights

Micro Focus® Backup Navigator for Micro Focus Data Protector

# Micro Focus Backup Navigator

Backup Analytics, Monitoring, and Reporting for Micro Focus Data Protector

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## Executive Summary

In an ever-growing, digitally dependent world, you know information rules above all else. Effectively managing the data created, safeguarding it, locating it quickly, and determining how best to exploit it is the key to business vitality. Because data is a crucial ingredient that organizations cannot do without, the way you handle data throughout its lifecycle is a key factor in remaining at the top of your game, particularly in a fiercely competitive environment.

The challenge is that data is generated at a velocity that makes it difficult for IT to keep pace, and this puts greater pressure on IT executives to create infrastructures that are more dynamic and agile—a demand that results in variety and complexity.

The answer to these challenges, however, is straightforward: if the growth of data remains unabated, and the infrastructure still has to scale up, down, in, and out, then the backup and recovery approach you rely on must provide a high degree of intelligence and analytics to address your needs today and tomorrow.

## Traditional Data Center Boundaries Are Now More Transparent

Data is everywhere. It is growing fast and is no longer confined to the physical boundaries of the data center. Throughout its lifecycle, information exists in various forms and statuses: at the point of creation, during a period of utilization, and in a final phase of disuse or neglect. It resides in multiple locations, with users (local and remote), or spread across the organization often in different versions, different formats, and on different media.

Feeding data growth are end users that demand “everywhere and anywhere” information access. They are no longer confined to an office, or even using a corporate-provided device. The trend of “bring your own device (BYOD),” the mobile workforce, and service conveniences are all part of the new normal.

In this new IT environment, adoption of virtualization and cloud services is expected to deliver the dynamic IT infrastructure needed to address agility and distributed users. But, while virtualization and cloud may be the platform of the immediate future, these newer options are really just another form of data, no longer bound by physical data center boundaries. More importantly, virtualization and cloud are leading causes of extreme data growth, which further dilutes the idea of traditional data center boundaries.

## Address Your Backup and Recovery Needs

How then do you address the backup and recovery needs of data sets that are voluminous, growing at an unabated rate, and are unique and complex? We believe that relying on traditional backup and recovery solutions is no longer sufficient. Instead, your backup and recovery solution must enable the IT organization to make more intelligent decisions by integrating analysis of the backup environment and an adaptive approach to backup and recovery. When your backup and recovery is based on operational analytics and insights, you can create a more adaptive core IT function that can support your business goals.

## Backup Navigator: Analytical Insight and Adaptive Intelligence for Your Backup Environment

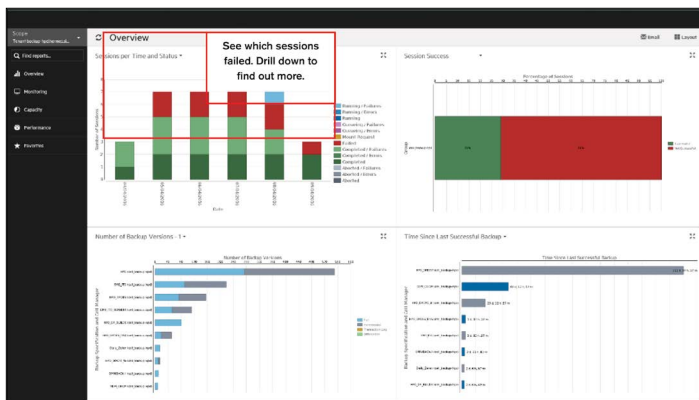
Creating a more agile backup and recovery strategy puts more focus on identifying and extracting business value from the data protection process. Efficient technologies such as deduplication, compression, and quality of service (QoS) will continue to address resource concerns; however, when planning for the needs of today and tomorrow, that is no longer enough.

Creating a healthier backup and recovery strategy that serves tomorrow's needs is more effective when you can extract value and insight from your data protection processes, and from the virtual and physical infrastructure stack supporting it.

Micro Focus Backup Navigator, a companion product to Data Protector, provides IT staff with an intuitive and interactive dashboard and over 100 reports based on more than 75 key performance indicators (KPIs) related to backup and recovery operations. Using this dashboard, IT staff can immediately identify inefficiencies within the backup operations and the unbalanced use of backup resources, and uncover failures before they are exposed in the recovery process.

The solution reduces the amount of time IT staff has to spend on isolating data protection problems at a point when business needs are centered on the need to recover vital information. With insight into the physical and logical data protection infrastructure, IT staff can now make smarter decisions on how to best implement the backup and recovery process and can more quickly uncover root causes of issues so that they can be addressed.

With Backup Navigator, you can base your data protection strategy on an assessment, supported by real-time analytics and trending to make certain that maximum infrastructure utilization can be achieved without sacrificing the success of the operation. Backup Navigator allows you to create flexible and customized reports that can be scheduled and shared with key stakeholders or used to collaborate between members of the IT staff. In addition, these reports can be exported into a variety of forms and formats for ingestion into other systems such as broader business analytics, billing systems, regulatory reporting, data center health, etc.



**Figure 1.** Backup infrastructure can be audited on daily/weekly/monthly basis from different points of view. All audit reports can be made global or tenant based.

## Backup Navigator Delivers

- **Simplified use of Data Protector in multi-cell deployments**—centralized management of large or geographically dispersed implementations that require more than one Data Protector Cell Manager.
- **Multi-tenant support**—support for multiple tenants in deployments that require secure access to back up operations by multiple customers such as large enterprises or Service Providers.
- **Intelligent dashboards**—dashboard reports provide valuable insights into KPIs of the backup and recovery process, and more importantly, they're interactive and customizable—allowing the IT administrator to filter, change, and modify views.
- **Real-time predictive analytics**—visual foresight into the backup and recovery process based on daily use, along with trending and forecasting algorithms reveal future performance and capacity gaps and requirements specific to your data set characteristics, infrastructure capabilities, and organizational requirements.
- **Rapid root-cause analysis and problem solving**—potential resource conflicts and systematic/systemic issues can be proactively detected and addressed before they cascade into outages and data loss that negatively impact business operations.
- **Collaboration and cross-system support**—report creation can be automated, scheduled, and shared with stakeholders within the organization, or securely isolated and made available to external customers who rely on the backup and recovery service. The same information can be exported in a variety of formats for inclusion into other organizational systems.
- **Flexible, personalized reporting**—extensible reports can be customized and tailored to match the specific needs of the operator, organization, or customer relying on the details to enable decision-making and trigger appropriate actions.
- **“What-if” scenario evaluation**—intelligent insights into current backup and recovery operations before new data sets are included in the process. These insights can identify whether or not service-level agreements (SLAs) would remain achievable, identify impacts to the backup infrastructure (physical capacity, network load, device utilization, etc.), and reveal the best ways to balance the demands of new data sets within the existing infrastructure.

Simplified Use of Data Protector in Multi-Cell Deployments

In environments that require more than one Data Protector Cell Manager, Backup Navigator can generate reports that present data across cells, with each report scoped and ran across multiple cells.

Multi-Tenant Support

Service Providers or large, geographically dispersed organizations often require multi-tenant support. In these environments, Backup Navigator can generate reports per tenant, which can be defined per Cell Manager, backup spec group, backup spec, or client. Each tenant can receive a separate auditing report which can be global (complete backup infrastructure) or per tenant, and can include chargeback information which can be easily transferred to any billing system. Tenants can be split per department, region, or country for enterprises, or per customer for Service Providers.

Intelligent Dashboards

Backup Navigator’s continual backup monitoring and trending capabilities are captured in a high-level view of the backup and recovery process within the dashboard reports. Dashboards enable IT staff to make informed decisions and take decisive actions, based on real-time information concerning data protection operations. More importantly, dashboard timelines and reports can be customized to provide different views for different stakeholders. Those who rely on the backup and recovery process can be given tenant-based (isolated details only concerning their data) backup scorecards that outline success rates, or information on intervals between backups, amount of data backed up, and backup-set expiration schedules.

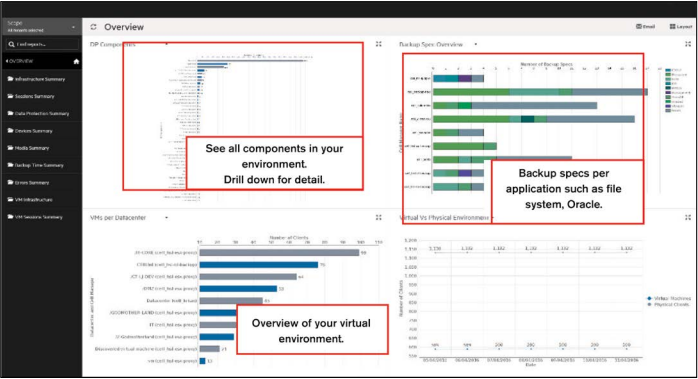


Figure 2. Backup administrators can easily understand their backup infrastructure, i.e., components, backup specs overview, VM infrastructure, etc.



Figure 3. Backup Navigator helps predict future resource needs so that they can be addressed before they happen.

Real-Time Predictive Analytics

Backup Navigator enables you to collect, correlate, and analyze trends in backup and recovery data to isolate and expose patterns in your data protection operation. Designed to rapidly analyze large volumes of operational data, Backup Navigator quickly identifies performance-related information, capacity utilization rates and trends, and future infrastructure requirements based on projected data characteristics and infrastructure capabilities. This analysis can help you plan and reduce your CAPEX and OPEX spending to target 100 percent utilization of your data protection infrastructure and can keep you from resorting to reactionary approaches to problem resolution that often lead to complicated future challenges.

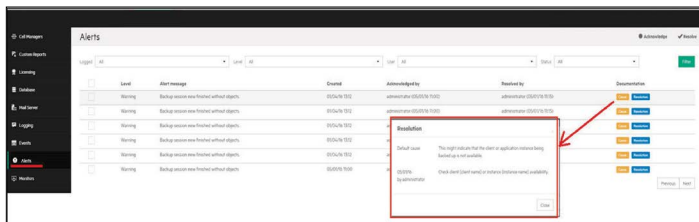
In addition to planning for future infrastructure needs, Backup Navigator also provides insights into the retention characteristics of organizational data. This insight enables IT staff to protect data according to retention requirements defined in SLAs, more consistently meet recovery-point objectives (RPO) and recovery-time objectives (RTO), identify future capacity requirements as data is tiered into a “retain forever” category, and evaluate the potential for reuse in data sets to determine how long they should be retained and on what kind of retention media.

Rapid Root-Cause Analysis and Problem Solving

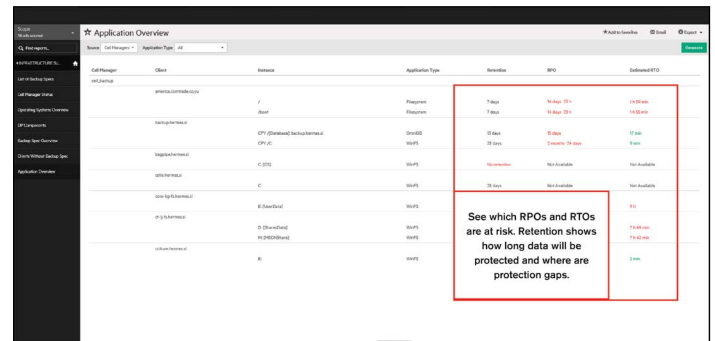
The interactive and inter-relationships of Backup Navigator reporting system enables it to act as an intelligent guide in the analysis, isolation, and recommendations for issues that may exist within your data protection approach. Unlike static reporting tools, Backup Navigator provides summary information concerning the status of each backup infrastructure component, the operating systems involved, and the backup definitions.

With this level of detail, when issues arise, they can be isolated to the specific point in the backup infrastructure—logical and physical. Once isolated, IT staff can trace the problem to its root cause, quickly resolve current issues, and make use of the trending and predictability aspects of the tool. These capabilities help you address future resource conflicts and systematic/systemic issues before they cascade into catastrophic and expensive failures. For example, Backup Navigator simplifies your troubleshooting approach by automatically and intelligently selecting a

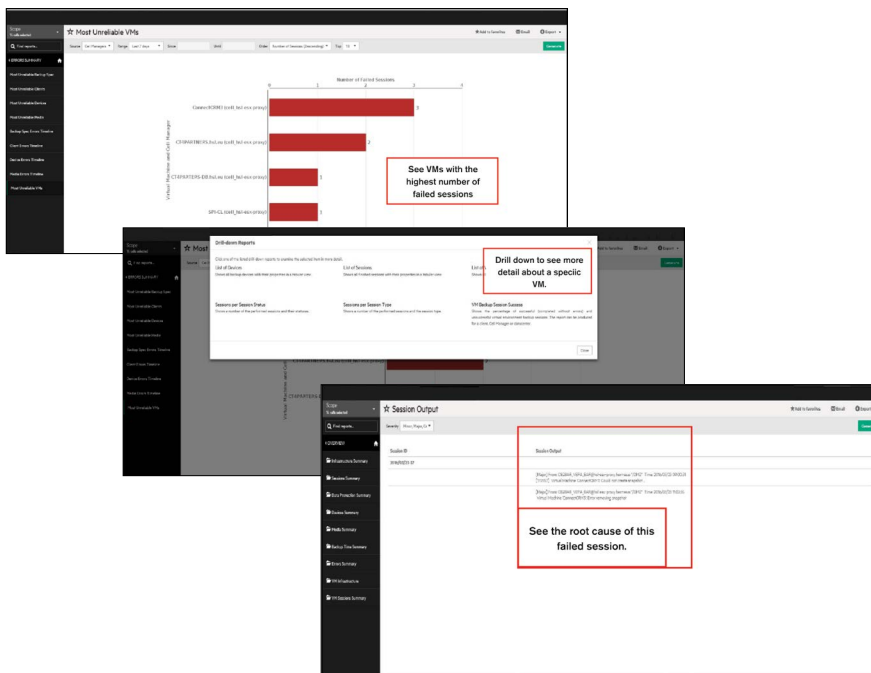
unique set of relevant reports—called “related reports”—that can expedite your root-cause investigation. These small report sets are chosen based on the issue or problem that you are trying to discover and the logical next steps that should be taken to discern more value.



**Figure 4.** Alert messages help identify issues in your backup environment so that they can be resolved faster and more efficiently.



**Figure 5.** Backup Navigator helps to optimize RPO and RTO time with drill-down reports which will show more details for each application.



**Figure 6.** An example of drill-down functionality that helps discover the root cause of a failed session. First drill down to see more details about a specific VM, then view a list of failed sessions that were run on this VM, and finally see what the root cause was for failure in the session you are investigating.



Collaboration and Cross-System Reporting

Collaborative engagement with internal and external stakeholders can lead to greater productivity and performance. Backup Navigator allows you to create collaborative and customized reporting to address constant requests for unique reports. Reports can be exported in various formats and isolated to a specific user's viewpoint. With Backup Navigator, administrators can export reports to Backup Navigator formats to collaboratively share with peers and even export reports as static file formats (images or PDF).

When the collaborative need requires sharing report data across different systems, for example, a billing infrastructure, the data can be exported into different open formats such as comma-separated values (CSV), HTML, and native to Microsoft software (Excel, Word, and PowerPoint). Creating collaborative and cross-system reports can be done in real time or scheduled, and can be sent automatically via email to stakeholders, internal or external.

Flexible, Personalized Reporting

Backup Navigator is designed as a multi-tenant reporting solution that allows IT administrators to create and customize detailed reports through an interactive Web-based interface. Backup Navigator users can personalize their environment, tailoring it to match their specific interests, responsibilities, and approaches to actively monitoring the backup and recovery process. Backup Navigator saves each user's personal preferences to offer a unique user experience for each person accessing the tool.

IT administrators can create customized reports based on how they want to visualize the information from the backup and recovery process. Building custom reports is possible through the preset content definitions listed in the following table. Users simply select the type of report they need, based on a component of the backup infrastructure (logical or physical), and then define how it is to be presented.

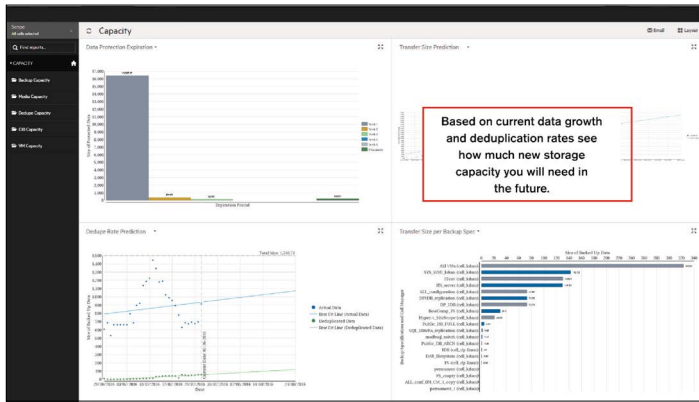
Report Type	Product Status
Capacity Reports	Backups sessions Media (D2D, disk, tape, VTL) Sizes of internal databases Source and target capacity
Performance	Backup sessions Devices Hosts
Availability Reports	Top device, backup specs, client, media failures Concurrent device use
Media Use	Media quality Space/utilization of media Deduplication rates/ratios (StoreOnce)
Session Reports	Session overview Session status Session performance Session-related failures Resources used in the session
Device-Related Reports	List of all devices Device utilization Device performance Device-related failures Devices used in backup/restore Device changes
Trending and Future Prediction	Volume capacity Media capacity Deduplication device capacity
Infrastructure Changes	Media-related changes Media-pool-related changes Backup spec changes Device-related changes Backup schedule changes

Table 1. Backup Navigator reports.

“What-If” Scenario Evaluation

Backup Navigator collects, correlates, and analyzes data associated with how the backup and recovery infrastructure is used. From this analysis, IT administrators can formulate future requirements for backup infrastructure and can proactively and cost-efficiently address storage gaps before they happen.

In Figure 7, various capacity reports show an ongoing data growth and how the available storage media is being filled up. A deduplication report indicates how much new storage will be needed if data continues to grow at a certain rate while backup protection is being extended. This kind of forward-looking analysis, when compared with “what-if” questions, creates an intelligent and adaptive backup and recovery system that can be as agile as the rest of the data center infrastructure.



**Figure 7.** In the “What-if” analysis, you can see the data growth and how the storage media is being filled up. Based on current deduplication rates, see how much new capacity will be needed in the future to properly back up your data.

## Micro Focus Data Protection Suite of Software Products

Micro Focus offers a suite of integrated software products that deliver a comprehensive backup and recovery solution that allows you to protect your data and meet your business continuity goals with centralized management across all locations (from data center to branches/remote offices and DR sites), all formats (structured and unstructured data, applications, databases, etc.), and environments (physical and virtualized servers). It also allows you to proactively plan for future capacity needs based on insights derived from your backup environment. Our Data Protection suite includes:

- **Data Protector** provides a comprehensive, high-performing, and scalable backup and replication across different repositories in both physical and virtual environments.

- **Backup Navigator**, a Data Protector companion product described in this brochure, leverages analytics to identify protection gaps, provides rapid root-cause analysis of backup issues, and enables IT to plan for future backup needs. It presents the content graphically in the form of dashboards, graphs, and charts on backup performance and capacity utilization.

## Conclusion

Organizations that want to better understand their approach to data protection—how the backup and recovery infrastructure is currently addressing their needs, and how it must change to address their future needs—need a way to gain insights that go beyond what is already known. Relying on disparate reporting tools that require customized scripting or programming to ingest data associated with daily backup operations can fall short in providing an intelligent approach to backup and recovery. Instead, to truly understand the ever-changing behaviors of perpetually connected backup and recovery components (logical and physical), it is important to focus on a backup and recovery solution that can address the future of IT.

Micro Focus delivers enterprise-class backup and recovery software paired with collaborative, intelligent, analytical, and insight-driven trend analysis to help you manage your backup and recovery today with an eye on addressing the needs of tomorrow.

The ability to maintain an agile data protection strategy allows you to adapt to fast-changing markets, organizational demands, and the new demands of acquisitions. Gaining the power of adaptive intelligence from the data protection process allows you to refine your backup and recovery processes and respond quickly and successfully to data loss so you can stay ahead of your competitors.

## Learn More At

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