Harnessing the Economic Benefits of Veritas NetBackup IT Analytics

By Vinny Choinski, Senior ESG Lab Analyst and Scott Sinclair, Senior Analyst
February 2022

Executive Summary

Data drives the modern business. In a world in which organizations are accelerating their digital transformation pace, it should be no surprise that data is at the heart of many major business initiatives. As organizations continue to digitally transform with the help of technology, the role played by data has never been more central. Data is clearly a business asset, and in many cases, is the business in such sectors as financial services, media, and consulting.

As this data continues to grow in size and importance, efficiently managing it becomes ever more important to the business. ESG validated that the NetBackup IT Analytics solution from Veritas provides an enterprise with the visibility essential to the identification of underutilized, misconfigured, or unindexed IT resources that can be repurposed to achieve significant cost savings. ESG confirmed a 28% reduction in total consumed resources through NetBackup IT Analytics optimization. We modeled a 24% reduction in storage resources consumed, and a 5% reduction in compute resources consumed. ESG also confirmed a 90% reduction in IT management cost through the consolidation of dedicated data protection and storage/server management and analytics infrastructure into a single NetBackup IT Analytics solution.
The Solution

NetBackup IT Analytics is an IT analytics software solution that offers unified insights for all major storage, backup, and virtual infrastructures through a single pane of glass in both on-premises and hybrid-cloud environments. The NetBackup IT Analytics Storage Management Suite helps administrators gain insight into actual consumption of resources, so they can reclaim unused storage, reduce consumption, and increase resource utilization. It provides end-to-end storage capacity reporting from hosts to storage arrays, enabling increased storage efficiency. It also enables confident forecasting by capturing key performance metrics and details of SAN resources across all platforms while providing valuable insight into storage and compute utilization within virtual and cloud environments. NetBackup IT Analytics Protection suite allows administrators to view all attempted backups and delivers insights to solve backup problems such as “false positives” by identifying partial or failed backups that report as successful by the backup software. It reduces the exposure of unprotected data by automatically identifying clients and data sets that aren’t protected under any backup policy.

Figure 1. Veritas NetBackup IT Analytics Overview

NetBackup IT Analytics key capabilities and features include:

- **Single pane of glass**: Organizations can manage all multi-cloud and on-premises storage, compute, and data protection assets from the dynamic, intuitive NetBackup IT Analytics user interface.

- **Massive scalability**: The agentless data collection agents and central analytics engine enables scale that has been field tested with Fortune 10 companies.

- **Flexibility**: Hundreds of predefined reports, built-in report designer, and drag-and-drop dashboard creation make customization easy.

- **Heterogeneous**: The solution offers vendor-agnostic support for a comprehensive set of storage arrays and vendors, backup applications and software, cloud vendors, and SAN devices.

- **Multi-tenancy**: The NetBackup IT Analytics engine and database were designed to support multiple tenants.

- **Extensibility**: IT teams and vendors can leverage NetBackup IT Analytics SDK capabilities to onboard unique subsystems.

- **Multiple personas**: NetBackup IT Analytics was designed from the ground up to support a vast array of user profiles. This includes accounts for executives, operations, department level, and even individual asset level views.
The Challenges

Data drives the modern business. In a world in which organizations are accelerating their digital transformation pace, it should be no surprise that data is at the heart of many major business initiatives. As organizations continue to digitally transform with the help of technology, the role played by data has never been more central.

Understanding the state of the storage industry begins with understanding the challenges that storage decision makers face within their environments. Despite numerous innovations in storage technology, the top two most commonly cited challenges associated with on-premises storage infrastructure are the same as they were in previously conducted ESG research. Specifically, the data in Figure 2 reveals that hardware costs, data migration, and data protection are among the most common challenges across both block and file environments. The overarching issue that drives data storage concerns is relatively unchanged—data growth continues to accelerate, and the resulting infrastructure required to store and protect that data is costly and complex.

Figure 2. Top Five On-premises Storage Challenges

In general, what would you say are your organization’s biggest challenges in terms of its on-premises storage environment, for block and for file environments? (Percent of respondents, N=372, five responses accepted)

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Block storage-related (SAN) challenges</th>
<th>File storage-related (NAS, object) challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardware costs</td>
<td>26%</td>
<td>30%</td>
</tr>
<tr>
<td>Data protection</td>
<td>30%</td>
<td>27%</td>
</tr>
<tr>
<td>Management, optimization, and automation of data placement</td>
<td>19%</td>
<td>24%</td>
</tr>
<tr>
<td>Rapid data growth rate</td>
<td>25%</td>
<td>24%</td>
</tr>
<tr>
<td>Data migration</td>
<td>23%</td>
<td>27%</td>
</tr>
</tbody>
</table>

Source: ESG, a division of TechTarget, Inc.

Given the important role that data plays for many organizations, it makes sense that IT organizations are storing considerable amounts of data. In fact, more than four in ten respondent organizations have at least 1 PB of primary storage capacity. Not only are organizations already tasked with managing large quantities of data, but also many see little to no abatement of data growth on the horizon. There has and continues to be a general perception that this is an era of rapid data growth, with more than one in five organizations reporting more than 50% annual growth in storage capacity across on- and off-premises resources.

---

3. ibid.
NetBackup IT Analytics Operational Efficiency

Digital transformation has fundamentally changed the IT landscape, driving up the diversity of applications, number and types of devices to be managed, data volumes, and hybrid architectures consisting of traditional and cloud-native applications running within on-premises data centers as well as in public and private clouds. However, when ESG recently conducted a survey that asked organizations what they believe are the most important objectives for their digital transformation initiatives, more than half (55%) of the respondents identified becoming more operationally efficient as one of their top initiatives. With all these new transformation initiatives, data growth challenges, and new architectures, becoming operationally efficient can seem like an imposable task to achieve.

Advanced Analytics

In this section of the report, we demonstrate how NetBackup IT Analytics can help improve an organization’s operational efficiency by making it easy to visualize key components of an IT infrastructure. Specifically, we explore the storage IT metrics we used in the value proposition section. As shown on the left side of Figure 3, NetBackup IT Analytics now includes a dropdown tab called Solutions. These solution packs currently include Storage Optimization and Risk Management workflows. In this report, we focus on the storage optimization workflow. The storage optimization workflow was developed by NetBackup IT Analytics based on customer requests to automate the process of identifying underutilized, misconfigured, or unidentified resources so they could be repurposed to extend the life of existing storage and compute resources and defer CapEx investments. The parameters shown at the top of Figure 3 are used for storage optimization. These parameters include Inactive LUNs, Overprovisioned Hosts, Unallocated LUNs, Undiscovered LUNs, and Unused LUNs.

Figure 3. Storage Optimization

Source: ESG, a division of TechTarget, Inc.

The center of Figure 3 shows the ease of use and granularity of the NetBackup IT Analytics solution. The pie chart is from a storage optimization dashboard and can be easily adjusted to what you want to view by simply clicking on the parameters.

---

you do not want displayed. In this case, we are focused on the Overprovisioned Host category. The table on the right, Overprovisioned Hosts Summary, shows the parameter, filesystem utilization information, and the cost associated with the resource.

Next, as shown in Figure 4, we explored compute optimization. In this case, we are looking at Virtualization Optimization parameters. Those parameters include Non-VM files, VM Aged Snapshots, VMs Low CPU, VMs Not in VM Inventory, VMs Powered Off, and VMs Undiscovered Disks. Here, as seen in the table on the right, we focused on the cost associated with the VMs Powered Off by VM Server category.

**Figure 4. Compute Optimization**

(Usage Detail by Powered Off VM Servers)

Why This Matters

In today’s complex and constantly changing data centers, it’s often difficult to understand the state of your IT ecosystem’s compute, storage, and data protection resources (e.g., capacity, utilization, and operational success rate metrics). The complexity of IT environments and increased criticality of IT business systems has made the use of manual procedures or even disparate tools for storage, compute, and data protection analytics obsolete. Now more than ever, dynamic and automation analytics are required to deliver the results the business demands. An organization needs to have full insight and control over all protected systems on the network to make smart IT infrastructure decisions.

ESG confirmed that the NetBackup IT Analytics solution from Veritas helps organizations address the challenges associated with today’s complex and constantly changing data centers by quickly and easily providing detailed insight across the entire IT ecosystem. NetBackup IT Analytics not only provides performance and risk insight but also details how efficiently IT resources are being utilized and identifies resources that can be reused/redeployed.
**The Value Proposition**

This section of the report is designed to demonstrate the economic efficiency the NetBackup IT Analytics capabilities can deliver to the IT professional. Specifically, we focus on the value of identifying existing storage and compute resources that can be repurposed and cost reduction associated with the consolidation of multiple analytics and management solutions.

Figure 5 shows the total reduction of resources consumed in an environment over a three-year period. The model is based on a five-petabyte environment with 2,500 virtual machines. The model assumes approximately $700 dollars per terabyte of enterprise-class storage and approximately $230 dollars per virtual machine. The storage and virtual machine costs are based on net pricing of field configurations that were actually purchased and deployed by customers. The data represents an average cost from multiple enterprise storage, compute, and hyperconverged configurations. For storage and compute, and also based on actual field data, the model assumes a 20% reduction in storage and a 5% reduction in compute resources. Years two and three assume an additional 2% reduction in consumed resource reduction based on the larger first year optimization analysis efforts and real-world field results. The management and analytics savings assume the elimination of the licensing cost and supporting hardware costs of a dedicated data protection and a dedicated storage/server management/analytics solution consolidated on a single NetBackup IT Analytics deployment.

**Figure 5. Resource Optimization**

![Resource Optimization Chart](chart.png)

What the numbers mean:

- Based on real-world modeling data NetBackup IT Analytics helped customers reduce total consumed resources by **28%** in their existing production environments.

- Storage resources were reduced by **23%** and compute resources were reduced by **14%**.
• Because of the comprehensive NetBackup IT Analytics solution, consolidation efforts allowed management and analytics resources to be reduced by 90%.

• The overall value of the reduced resources is approximately $1.2 million.

Next, as shown in Figure 6, ESG analyzed the IT value associated with the reduction in consumed IT (e.g., storage and compute) resources over time. As Figure 6 shows, the biggest gain in resource optimization happens in year one. Years two and three, because the environment is running more efficiently, account for an additional 4%. It should be noted that a 10% data growth rate is included in the three-year analysis.

**Figure 6. Value of Resources**

![Veritas NetBackup IT Analytics Optimized Environment](chart)

- The year one value of the optimized (i.e., reclaimable) IT resources is $702,472.

- Over the three-year period, the value of optimized resources totals $829,558.

**Why This Matters**

ESG research reveals that businesses feel that managing IT systems and applications isn’t getting any easier. In fact, most businesses say that IT is more complex than it was two years ago. Many factors are driving this increased complexity, including the number and type of endpoint devices, higher data volumes, and an increase in the number and types of applications. Businesses are finding that this increased complexity and capacity can make it more difficult for IT to cost-efficiently manage their IT environments.

ESG confirmed that NetBackup IT Analytics from Veritas provides not only detailed architecture, performance, and troubleshooting visibility but also the insight needed to operate IT in a more cost-efficient manner.

---


© 2022 TechTarget, Inc. All Rights Reserved.
The Bigger Truth

The IT landscape is more diverse and disaggregated than ever before, with the typical environment spanning multiple application environments, multiple orchestration technologies, and multiple disparate infrastructure locations. Modern organizations are no longer confined to the data center; the world is hybrid and/or multi-cloud and will be for the foreseeable future.

IT operations and infrastructure management must evolve to address this new reality without having to rely on a myriad of element managers, disparate APIs, cobbled together spreadsheets, and tribal knowledge. IT operations are simply too vital to modern environments. In an ESG study, line-of-business executives were four times more likely to consider IT a business inhibitor than a competitive differentiator for their business (25% versus 6%). Among executives who believe IT inhibits business success, 43% say that the IT organization’s processes to deploy services take too long. The need to expedite operations is not just an opportunity; it is, according to IT’s consumers, a necessity.

With multiple IT organizations already struggling to keep pace with modern business demands, the recent events have added new complexities, making it even more difficult, costly, and risky to perform manual IT tasks onsite. Technologies such as NetBackup IT Analytics are vital to deliver consistent and efficient operations for modern organizations. With this single software package, IT organizations are reducing their resources consumption by a third. For any business, that level of optimization offers the opportunity to save costs and free up IT personnel for higher value tasks. During times when business uncertainty is higher, however, NetBackup IT Analytics’ impressive cost savings can be the difference between a business growing and thriving and having new opportunities stall out as budgets hit their limits.