



The Business Value of Spot by NetApp

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BUSINESS VALUE HIGHLIGHTS



Click on highlights below to navigate to related content within this PDF.

696%

three-year ROI

4 months

to payback

21%

reduced public cloud
related spending

41%

more efficient IT
infrastructure staff

57%

more efficient provisioning
of compute capacity

164%

increased spot instances
usage

57%

faster IT agility to deploy
new compute resources

30%

more productive DevOps
teams

10%

more productive end users

26%

faster time to market

Executive Summary

NetApp's public cloud strategy is increasingly underpinned and driven by a focus on solutions for cloud-native application environments, and on investments that enable consumption of a range of NetApp technologies by cloud infrastructure and operations teams. This focus on cloud operations extends from infrastructure cost optimization to compute operations management, security, and analytics solutions for users looking to provision container-based application environments. The acquisition of Spot in June 2020 was a significant catalyst for NetApp's growth within this expanded market segment, and the vendor's continued investment in the Spot by NetApp portfolio over the past year and a half has been noteworthy.

Spot by NetApp is a solution set designed to optimize the management and use of cloud infrastructure services. It employs analytics and automation to predict ongoing cost, availability, capacity, and workload requirements. Spot by NetApp is designed to continuously maximize efficient use of cloud resources, optimize Kubernetes environments, and help IT teams automate the ongoing day-to-day management of cloud infrastructure. IDC conducted research that explored the value and benefits for organizations in using Spot by NetApp to manage their public cloud resources.

Through a series of in-depth customer interviews and a methodology for determining business value, IDC's analysis found that these companies realized significant benefits from the NetApp offering by:

- ▶ **Improving public cloud** resource management with more efficient provisioning of compute resources
- ▶ **Using automation and other capabilities to boost the productivity of IT staff**, including infrastructure, application development, and DevOps teams, thereby paving the way for the release of improved applications to line-of-business users

- ▶ **Serving business needs** by helping end users be more productive, optimizing compute resource provisioning, and accelerating time to market for products and services
- ▶ **Optimizing the operational costs** associated with managing and maintaining public cloud resources

Situation Overview

The baseline cost of public cloud infrastructure-as-a-service (IaaS) compute and storage services (e.g., price per gigabyte per month for storage and price per virtual CPU or instance per hour for compute) will continue to decline over time to remain in line with customer expectations for low-cost cloud infrastructure. Leading providers have consistently reduced the list price of compute and storage services while releasing free and low-cost tools and services designed for cost management and resource optimization as an alternative way to help customers optimize their cloud infrastructure investment. However, this steady reduction in IaaS resource-based pricing presents a headwind to growth for IaaS providers. As a result, providers must drive adoption of adjacent services (e.g., gateways, containers, data transfer, data protection, and analytics) to offset baseline cost reduction. This demand for more advanced cloud data services (beyond just raw compute and storage resources) is slowly shifting customer conversations away from capacity and cost, toward the value organizations gain from access to adjacent services within a public cloud providers' portfolio or the availability of these services through partner integration.

In summary, what we're witnessing in the cloud infrastructure market is a fundamental shift (albeit a slow one) in the way that infrastructure buyers perceive value. Providers like NetApp are positioning themselves to capitalize on this shift by expanding their portfolio of cloud services beyond baseline infrastructure.

Overview of Spot by NetApp

Enterprises unfamiliar with NetApp may not realize the extent of the provider's capabilities across the Spot portfolio, or the rate at which NetApp has acquired and developed assets under the Spot umbrella of services. Because of the pace of change of NetApp's Spot portfolio over the past year and a half, it is worth providing a quick summary of recent events.

NetApp acquired Spot in July 2020. Spot built business solutions that enable cost analysis and cost optimization of customers' cloud infrastructure services usage. Since acquiring Spot, NetApp has invested heavily in developing a platform of cloud services under the Spot by NetApp umbrella to help enterprise IT manage a broad spectrum of cloud-based offerings, from cloud infrastructure resources to operations and continuous deployment. In June 2021, NetApp acquired Data Mechanics, and has since integrated Data Mechanics into the Spot portfolio via Ocean for Apache Spark. Data Mechanics adds application and infrastructure optimization specific to Apache Spark big data use cases. In October 2021, NetApp announced the acquisition of CloudChecker, a cloud optimization platform focused on security, compliance,

and resource optimization. NetApp intends to integrate CloudCheckr into the Spot by NetApp portfolio, expanding its cloud data management and financial operations capabilities.

These tools and services combined have become key to helping NetApp capture adjacent opportunities that appeal to cloud infrastructure and DevOps buyers looking to adopt services for big data and Kubernetes.

The Business Value of Spot by NetApp

Study Demographics

IDC conducted research that explored the value and benefits of using Spot by NetApp to optimize the management and use of public cloud infrastructure. The project included nine interviews with organizations that were using the Spot solution. Interviewed managers all had experience with and knowledge about the benefits of this solution set and were asked a variety of quantitative and qualitative questions about its impacts on their IT operations, core businesses, and costs.

Table 1 presents the study demographics. The organizations that IDC interviewed had an average base of 2,488 employees. This workforce was supported by an IT staff of 884 engaged in managing 328 business applications. In terms of geographical distribution, five companies were based in the United States, with the remainder in Israel, Canada, and Germany. Several vertical markets were included in the sample size, such as the information technology, financial services, media and entertainment, insurance, and travel/leisure sectors.

TABLE 1
Firmographics of Interviewed Organizations

Firmographics	Average	Median	Range
Number of employees	2,488	550	120 to 16,000
Number of IT staff	884	100	15 to 6,000
Number of business applications	328	33	5 to 2,000
Revenue per year	\$1.4B	\$275M	\$171.6M to \$9.3B
Countries	United States (5), Israel (2), Canada, Germany		
Industries	Information Technology (4), Financial Services (2), Media and Entertainment, Insurance, Travel and Leisure		

Source: IDC Interviews, November 2021

Selection and Use of Spot by NetApp

The organizations that IDC interviewed described typical usage patterns for Spot by NetApp. They also discussed the rationale for choosing the solution set as an optimal means of ensuring efficient use of public cloud resources and helping their IT teams streamline the provisioning of compute resources to lines of business. Study participants cited a variety of reasons for their choice, including the need to find better ways to scale IT resources to meet the shifting requirements of business growth, manage on-demand and reserved instances more efficiently, and run their infrastructure and Kubernetes on a more cost-effective basis.

Study participants made detailed comments on these benefits:

- ▶ **Manage scaling infrastructure needs:**
“The biggest reason was the cost associated with scaling and our development environment. We were starting to grow. We were looking to meet those growth needs and control the costs associated with it.”
- ▶ **Running Kubernetes more cost-effectively:**
“The main challenge was running a Kubernetes cluster in a less costly manner. We wanted a solution that was optimized in terms of cost.”
- ▶ **Better approach to managing instances:**
“We needed a better way of managing how we used instances. We needed a clearer understanding of how to use our instances efficiently—whether reserved or on-demand. Spot manages that for us.”
- ▶ **Improved use of spot instances to keep costs down:**
“We manage a number of Kubernetes clusters and, early on in the year, we started a big migration effort to Kubernetes. Simultaneously, we took on a goal to reduce spend as an organization, a request coming from our CTO. The migration to Kubernetes was expected to reduce costs anyway but I wanted to create a healthy margin, so we talked about moving to Amazon EC2 Spot instances. We were going to build an EC2 Spot management interface and then I got introduced to Spot. That’s when I learned of the Ocean offering, which basically allows us to run Kubernetes on pools of EC2 Spot instances, managed by Spot.”

Table 2 (next page) provides a snapshot of Spot by NetApp usage in the context of the IT environments of interviewed companies. On average, there were 94 business applications and 67 databases being supported using 1,257 compute instances and/or virtual machines and 3,335 cores. The scale of public cloud use across all companies was evident, with an average annual public cloud spend totaling \$9.9M. Additional metrics are presented.

TABLE 2
Spot by NetApp Environment

Spot by NetApp Environment	Average	Median
Number of geographical locations (countries)	8	3
Number of sites/branches	781	4
Number of business applications being supported	94	18
Number of compute instances/virtual machines	1,257	400
Number of cores	3,335	900
Number of databases being supported	67	9
Average public cloud spend per year	\$9.9M	\$7.2M

Source: IDC Interviews, November 2021

Business Value and Quantified Benefits

IDC’s business value methodology evaluates and quantifies the benefits for companies who chose to adopt Spot by NetApp as a core element of their public cloud infrastructure. After adoption, interviewed companies were able to improve public cloud resource management in order to maximize the provisioning of compute resources while increasing their overall efficiency. They were also able to boost the productivity of IT staff, including infrastructure, application development, and DevOps teams, thereby paving the way for an improved application development process for business users. This in turn helped end users to be more productive and accelerated time to market for products and services. In addition, study participants were able to more effectively manage the operational costs associated with the use of public cloud resources.

Study participants highlighted these and other significant benefits:

► **Organizations save on public cloud infrastructure costs:**

“It helps onboard new and existing applications in a new environment. Spot Ocean makes it much easier. It is like a superglue. Also, I hardly have to log in it is self-sufficient. The selling point was win-win. They only take the money out of what we save in the market. If the instances we use would cost \$100, with Spot it costs us \$40. Both companies are aligned for saving.”

▶ **Improves Kubernetes functionality:**

“There’s definitely efficiency because of Spot. We deploy everything on Kubernetes and all of our business logic is broken down into Docker containers which are combined into a pod. Kubernetes puts these pods out and the idea is you give it a pile of computers and say, ‘I want four of this thing running. I don’t care where you put it. You worry about that.’ Spot takes that one step further and manages the computers under that. Spot tries to bin pack those as tightly as possible automatically, so you get the most efficient set of machines running. Getting that to pack efficiently is actually hard. Kubernetes is not good by itself at being efficient about that. Spot makes Kubernetes able to deploy those things and make them more efficient. And that’s why we like it.”

▶ **Reduced cost and complexity via automation:**

“We’re reducing the number of dollars spent. The other thing is the automated management of the servers because there is substantial complexity there. There’s a lot of concern for infrastructure around autoscaling and headroom calculations and things that allow us to run a fleet of servers while making sure we have enough for any spikes in traffic. Autoscaling helps with costs. You could call this resource efficiency, but really the complexity of managing autoscaling is greater than that. It’s about resource efficiency, cost reduction, and then managing the complexity of our node pools.”

▶ **Reducing the management burden on IT staff:**

“Because Spot is a managed service that handles Kubernetes clusters, it helps us maintain cluster and control costs without the need for hands-on management.”

Operational Impacts for Public Cloud Management

Cloud-centric models are now integral to modern IT environments given the increased need for better flexibility and resilience in business operations. Organizations of all types and sizes now view cloud utilization as an essential aspect of a proactive IT strategy. IDC predicts that, to gain business agility, enterprises will modernize over half of their existing applications by 2022 through the use of turnkey cloud-native development and deployment services.

Spot by NetApp is designed to help companies meet these challenges by optimizing the management and use of public cloud infrastructure services. The solution set employs analytics and automation to predict cost, availability, capacity, and workload requirements and improve Kubernetes functionality. These capabilities are designed to maximize the provisioning of computer resources, increase their overall efficiency, and boost the productivity of IT staff, including infrastructure, application development, and DevOps teams.

The companies that IDC interviewed appreciated that the solution set helped manage costs. They noted that automation and other functionality helped their IT teams be more efficient without the need to add additional resources, especially with respect to managing instances. This allowed IT staff to work on projects that added value to the business. The cost effectiveness of the solution set was also highlighted as were post-adoption improvements in DevOps operations processes that led to better application development and business impacts.

Study participants commented in detail on these benefits:

Fewer resources needed to manage instances:

“From the beginning, everything has been fantastic with the Spot by NetApp Elastigroup service. We spend less time managing instances and, when we need it, we get lots of support from Spot. We had about 15 people managing our instances internally, and we were able to repurpose three to other areas.”

Do not need to grow IT teams:

“We don’t need to scale our staff up. Using Spot is manageable with a very small team.”

Improving DevOps operations:

“There are a lot of challenges to testing in particular. Spot helped us cut down that part of the process by 70%, I would estimate. Otherwise, we would be managing our own instances, which would take longer and be more expensive. Some of that 70% improvement is related to not having to monitor capacity. Spot takes care of that for us.”

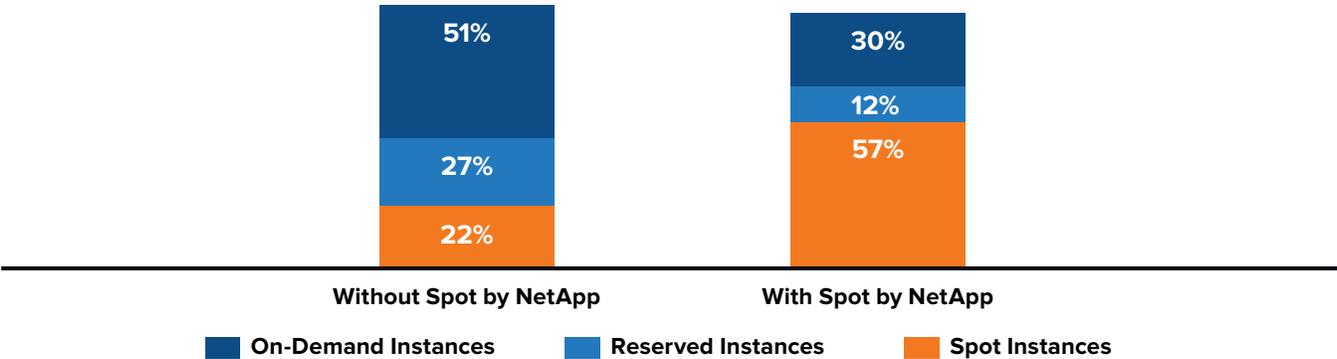
Staff time freed up to work on other tasks:

“Overall, Spot freed up time to work on other parts of the infrastructure, both cloud and non-cloud. This is related specifically to our instances since we now spend much less time monitoring and evaluating. Spot is doing that for us now.”

To fully evaluate and quantify these benefits, IDC examined a number of operational areas, starting with Spot by NetApp impacts on resource management. Study participants reported that, after adoption, they were able to use 164% more spot instances while reducing reserved instances by 54% and on-demand instances by 41%. (Figure 1).

FIGURE 1
Public Cloud Resource Management

(% respondents)

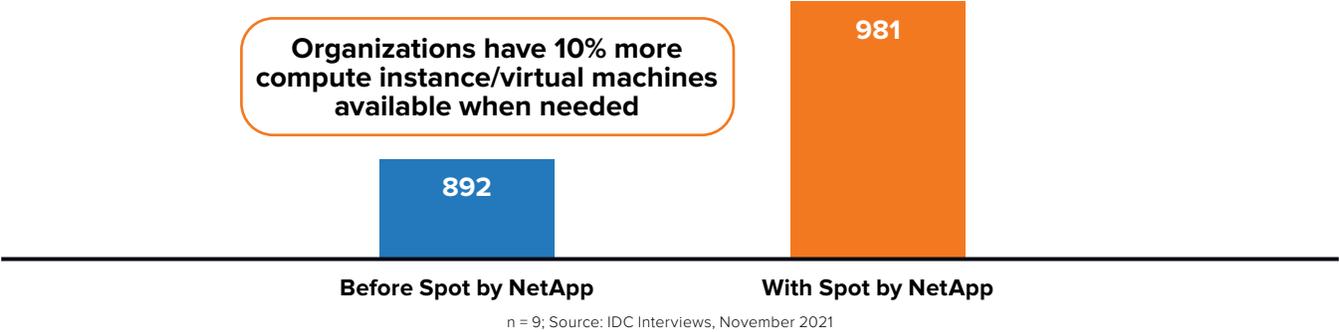


n = 9; Source: IDC Interviews, November 2021

The ability to optimize the provisioning and management of computer resources was identified as another key area where Spot by NetApp had measurable impact. Interviewed organizations told IDC that using the solution set helped their organizations scale up or down to meet the changing requirements of their businesses. As shown in Figure 2 (next page), after adoption, organizations had 10% more compute instance/virtual machines available when they needed to scale up.

FIGURE 2 Maximum Amount of Compute Resources Available

(Number of cloud instances/virtual machines available)

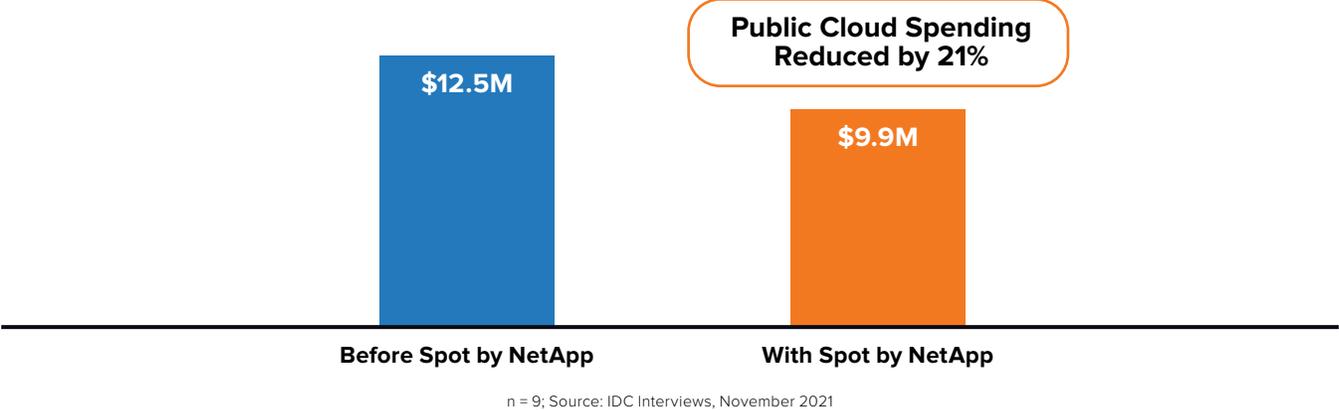


Operational costs for public cloud usage were also examined. IDC predicts that, through 2022, the belief that up to 20% of public cloud spending is wasted will drive enterprises to invest in better public cloud cost management. With the adoption of Spot by NetApp, interviewed organizations were a step ahead of the game and reported significant savings on their public cloud infrastructure-related costs.

These savings were enabled by infrastructure and workload optimization capabilities that supported better utilization of spot instances and also helped companies get the full value from their reserved instances. As one study participant commented: *“Spot helps us save about 60% of the cost on a workload which was basically a CI/CD [continuous integration/continuous delivery] process on Kubernetes cluster.”* As shown in **Figure 3**, after adoption, overall public cloud infrastructure spending was reduced by 21%. These savings include any cloud compute savings that Spot by NetApp is providing.

FIGURE 3 Public Cloud Infrastructure Savings per Year

(\$ Public Cloud Infrastructure)



IDC then looked at impacts of the solution set on IT infrastructure teams. Interviewed companies reported that Spot by NetApp helped them automate key decisions associated with provisioning or budgeting which helped these teams save time and improve their overall performance. As shown in **Table 3**, after adoption, average team productivity increased by 41%. As a result, Spot by NetApp helped free up 5.8 full-time equivalent (FTE) resources out of a team of 14.3 to work on other projects. These improvements translated into an average annual salary savings of \$578,300 for each organization surveyed.

TABLE 3
IT Infrastructure Management Impact

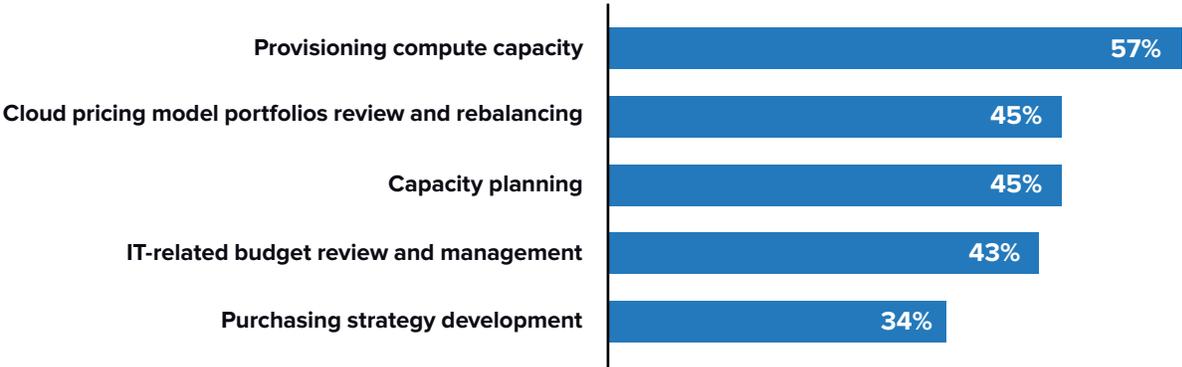
	Before Spot by NetApp	With Spot by NetApp	Difference	Benefit
Management of cloud infrastructure (FTEs)	14	8	6	41%
Salary cost per year per organization	\$1.4M	\$846,700	\$578,300	41%

Source: IDC Interviews, November 2021

IDC drilled down further on IT staff impacts by identifying a range of commonly applied tasks, as shown in **Figure 4**. Study participants reported that the use of Spot by NetApp improved multiple management-related activities. As shown, the greatest improvements were seen in provisioning compute capacity (57%), cloud pricing model portfolios review and rebalancing (45%), and capacity planning (45%).

FIGURE 4
IT Staff Task Impact

(% improvement)



n = 9; Source: IDC Interviews, November 2021

Interviewed companies reported that the above improvements in capacity planning and compute provisioning, along with the use of automation and other value-added capabilities, contributed to better IT agility. This meant that their IT teams were able to more efficiently add compute and other resources to match fluctuations in business requirements. **Table 4** quantifies these improvements. After adoption, companies saw a 57% reduction in the staff time needed to deploy new or additional compute resources.

TABLE 4
IT Agility Impact

	Before Spot by NetApp	With Spot by NetApp	Difference	Benefit
Time needed to deploy additional compute resources (hours)	8	4	4	57%
Staff time required to deploy new compute resources (hours)	5	2	3	57%

Source: IDC Interviews, November 2021

Effective application development continues to be at the core of digital transformation in today’s markets. IDC predicts that by 2024 nearly 60% of organizations’ new custom-developed applications will be built and managed using microservices and containers as foundations for stronger and higher-performing automation.

After adoption of Spot by NetApp, study participants reported that improvements were seen in DevOps team productivity, allowing these teams to be more nimble and to cost-effectively access needed resources. One study participant noted, *“As a result of time savings, we started to convert ourselves from DevOps engineers to platform engineers. Spot is a key part of that. We have more control over the platform aspects of the process with Spot.”*

Table 5 quantifies these benefits showing that, after adoption, DevOps productivity improved by 30%, which means that these teams of 8.8 FTEs can handle the workloads of 11.3 FTEs without needing to add those additional resources. This productivity boost translated into an average annual salary savings of \$258,300 for each organization.

TABLE 5
DevOps Team Impacts

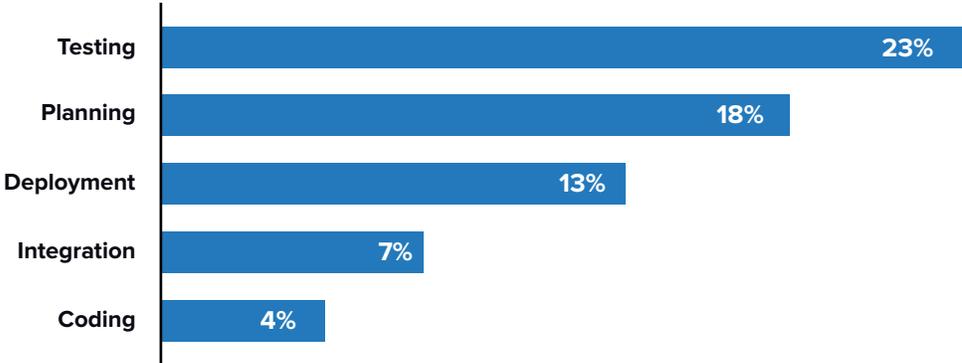
	Before Spot by NetApp	With Spot by NetApp	Difference	Benefit
DevOps productivity levels (FTEs)	9	11	2	30%
Salary cost per year per organization	\$875,000	\$1.1M	\$258,300	30%

Source: IDC Interviews, November 2021

IDC took a more granular look at these DevOps improvements by identifying a number of typical tasks and measuring their post-adoption impacts. As shown in **Figure 5**, the greatest improvements were seen in testing (23% more tests performed), planning (18% more efficiency), and deployment (13% more applications deployed).

FIGURE 5
DevOps Task Impact

(% improvement)



n = 9; Source: IDC Interviews, November 2021

Business Improvements: Cost-Effectiveness and End-User Productivity

Interviewed companies reported that the improvements in public cloud management resulting from the adoption of Spot by NetApp also improved key aspects of their business plans and operations. More specifically, they acknowledged that their businesses were able to scale more cost-effectively and gained more control over costs and growth. They appreciated the benefit of having very high levels of reliability and that they could speed time to market for products and services.

Study participants elaborated on these advantages:

► **Business can scale more cost-effectively:**

“The business benefit is the ability to grow more cost-effectively. Our annual cloud expenditures are projected to grow 5–10% in the next few years, at least until the COVID era fades. Without Spot, our rough estimate would be closer to 12–17%. Spot allows us to use the cloud more efficiently and have more control over costs and growth. That leads to product development and increased revenues and all the rest. But it is the cost of that growth that Spot impacts. That’s why we would not stop developing or growing without it. We would spend more to feed that growth.”

▶ **Business doesn't need to worry about infrastructure:**

"On the business side, they don't need to know what they're running the business on whether reserved, on-demand, or spot. The beneficial aspect of this engagement was saving money on the on-demand infrastructure. We have 100% reliability, which we could not do ourselves. As an infrastructure team, we could not previously guarantee 100% reliability to the business and the business users."

▶ **Reduced costs and help when needed:**

"[We value] its cost and that magical abstraction of being able to configure Spot the way we want and to optimize how our jobs run. Under the hood, we have confidence that Spot is working in our best interest."

▶ **Faster time to market because of less management burden:**

"The biggest benefit is definitely speed. It is because users don't have to manage the instances themselves."

IDC business value calculations confirmed that public cloud infrastructure improvements from the use of Spot by NetApp had direct and measurable impacts on end-user performance. Improved scalability and agility, as described previously, were both instrumental in this outcome. The end users of interviewed companies were more productive, in part because Spot by NetApp was able to improve application delivery and effectively scale cloud-based compute resources up or down according to varying business needs and requirements.

Table 6 quantifies these improvements and shows gross productivity gains of 10% with 6 productive hours per user gained per organization. These benefits translated into an annual productivity-based business value of \$372,000.

TABLE 6
End-User Impact

Enhanced User Productivity	Per Organization
Number of users impacted	53
Gross productivity gains	10%
Productive hours gained per organization	9,990
Productive hours gained per user	6
End-User impact (FTE per organization per year)	5
Value of increased end-user productivity	\$372,000

Source: IDC Interviews, November 2021

ROI Summary

Table 7 presents IDC’s return-on-investment analysis for study participants’ use of Spot by NetApp. IDC projects that interviewed companies will achieve three-year discounted benefits worth an average of \$8.7M per organization (\$695,900 per 100 virtual machines, or VMs) through improved public cloud management, cost savings, and IT team/end-user productivity gains as described. These benefits compare with total three-year discounted costs of \$1.1M per organization (\$87,400 per 100 VMs). These levels of benefits and investment costs are projected to result in an average five-year ROI of 696% with a break-even point occurring in four months.

TABLE 7
Three-Year ROI Analysis

Three-Year ROI Analysis	Per Organization	Per 100 VMs
Benefit (discounted)	\$8.8M	\$695,900
Investment (discounted)	\$1.1M	\$87,400
Net Present Value (NPV)	\$7.7M	\$608,500
ROI (NPV/Investment)	696%	696%
Payback	4 months	4 months
Discount factor	12%	12%

n = 9; Source: IDC Interviews, November 2021

Challenges/Opportunities

NetApp’s Cloud Volumes portfolio laid the groundwork for the vendor’s expansion into the cloud infrastructure market, helping NetApp to capture opportunity associated with the growth of shared file storage in the public cloud. NetApp has also successfully pursued partnerships with leading cloud services providers to deliver services that act as force multipliers for its own cloud business (e.g., Azure NetApp Files, Amazon FSx for NetApp ONTAP). NetApp now looks to expand on the success of its cloud infrastructure portfolio with the addition of Spot. The adjacent cloud services provided by Spot will allow NetApp to address a wider range of public cloud workloads (e.g., big data, container-based application development, serverless functions, and virtual desktop infrastructure, or VDI), and buyers (DevOps and cloud infrastructure architects). The latest addition to the Spot by NetApp portfolio is Spot PC, built out of NetApp’s CloudJumper acquisition. Spot PC adds fully managed VDI for Azure. Spot PC is a prime example of an adjacent cloud service designed to complement new and existing NetApp cloud services customers that are looking to expand their footprint beyond cloud infrastructure (in this case, ANF and Elastigroup).

Expanding Spot's capabilities and/or integrating it with infrastructure management tools for dedicated clouds is another promising opportunity for NetApp. As end users increasingly move to adopting hybrid and multi-cloud strategies, their demand for products and services that would allow seamless management of infrastructure resources and workloads across various deployment models will be growing.

Expect NetApp to continue providing customers with immediate access to a range of enterprise-grade cloud storage and data management capabilities required to run file-based workloads in the cloud — such as replication, backup and recovery, multiprotocol access, and tiering. This infrastructure foundation will then act as an on-ramp for higher-level services for application development, orchestration, and optimization, helping solidify NetApp's value and relevance in an ever-expanding universe of public cloud services.

Conclusion

Over the past several years, NetApp has focused on growing its cloud services portfolio. It has done so via organic expansion and strategic acquisitions. NetApp's quest has been to shift to a hybrid cloud data services business model, one that is increasingly tied to public cloud infrastructure services and cloud-native workloads. NetApp has leveraged its acquisition of Spot to launch several new initiatives designed to deliver a suite of products for cloud cost visibility, as well as cloud infrastructure automation, management, and optimization. The integration of Spot into NetApp's portfolio marks a major expansion in NetApp's cloud service portfolio. The natural synergies between the offerings — including the cross-selling opportunities across both of their existing target markets and the ability to deliver a completely managed cloud-native platform inclusive of data services to enterprises — create market opportunities across the landscape of traditional and cloud-native workload requirements. Cumulatively, these can position NetApp to become a more holistic partner to the enterprise along its cloud adoption journey.

Appendix:

Methodology

IDC’s standard business value/ROI methodology was utilized for this project. This methodology is based on gathering data from organizations currently using Spot by NetApp as the foundation for the model.

Based on interviews with organizations using this technology, IDC performed a three-step process to calculate the ROI and payback period:

- 1. Gathered quantitative benefit information during the interviews using a before-and-after assessment of the impact of using Spot by NetApp.** In this study, the benefits included security, staff time efficiencies, development productivity gains, reduced costs associated with risk, and higher revenue.
- 2. Created a complete investment (three-year total cost analysis) profile based on the interviews.** Investments go beyond the initial and annual costs of using Spot by NetApp and can include additional costs related to migrations, planning, consulting, and staff or user training.
- 3. Calculated the ROI and payback period.** IDC conducted a depreciated cash-flow analysis of the benefits and investments for the organizations’ use of Spot by NetApp over a three-year period. ROI is the ratio of the net present value and the discounted investment. The payback period is the point at which cumulative benefits equal the initial investment.

IDC bases the payback period and ROI calculations on a number of assumptions, which are summarized as follows:

- ▶ Time values are multiplied by burdened salary (salary plus 28% for benefits and overhead) to quantify efficiency and manager productivity savings. For purposes of this analysis, based on the geographic locations of the interviewed organizations, IDC has used assumptions of an average fully loaded salary of \$100,000 per year for IT staff members and an average fully loaded salary of \$70,000 per year for non-IT staff members. IDC assumes that employees work 1,880 hours per year (47 weeks x 40 hours).
- ▶ The net present value of the three-year savings is calculated by subtracting the amount that would have been realized by investing the original sum in an instrument yielding a 12% return to allow for the missed opportunity cost. This accounts for both the assumed cost of money and the assumed rate of return.
- ▶ Because IT solutions require a deployment period, the full benefits of the solution are not available during deployment. To reflect this reality, IDC prorates the benefits on a monthly basis and then subtracts the deployment time from the first-year savings.

Note: All numbers in this document may not be exact due to rounding.

About the Analysts



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Andrew Smith’s research focuses on public cloud infrastructure-as-a-service platforms and solutions, with specific focus on storage services. Andrew contributes to market sizing and forecast efforts across IDC’s Public Cloud IaaS segments, as well as adjacent markets like multi-cloud data management, data protection as a service, and public cloud cold storage.

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Harsh V. Singh is a Senior Research Analyst for IDC’s Business Value Strategy Practice, responsible for developing return-on-investment and cost-savings analysis on enterprise technological products. Harsh’s work covers various solutions that include datacenter hardware, enterprise software, and cloud-based products and services. Harsh’s research focuses on the financial and operational impact these products have on organizations that deploy and adopt them.

[More about Harsh Singh](#)



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Natalya Yezhkova is a Research Vice President within IDC’s Enterprise Infrastructure Practice. In this role, she leads IDC’s syndicated research on Enterprise Infrastructure Workloads and semi-annual Enterprise Infrastructure Workloads Tracker. Other areas of Natalya’s research coverage include forecasting of IT infrastructure markets, custom data modeling, and infrastructure buyer research. As a key member of the team, Natalya supports several of IDC’s syndicated research programs including storage systems, dedicated cloud infrastructure and services, Internet of Things and intelligent edge infrastructure, and release of IDC’s data products under the Enterprise Infrastructure Tracker umbrella. Natalya also manages primary research projects focused on end-user purchasing plans for infrastructure products and adoption of technologies shaping the infrastructure market.

[More about Natalya Yezhkova](#)

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