



Your One Stop Spot

for Simplified, Automated & Cost-Effective
Cloud Infrastructure



Cloud computing is a fundamental component of digital transformation and is being rapidly adopted by organizations – from small start-ups to Fortune 500s – around the world. According to Microsoft CEO, Satya Nadella, the COVID-19 pandemic has accelerated user adoption substantially. He stated that Microsoft saw two years of digital transformation in just two months, as organizations quickly stood up cloud infrastructures. [1]

Ushering in an era where cloud technology leads the way, opens up companies to an array of new modern infrastructure opportunities including innovation, easier and more efficient deployment methods, business agility via faster time to market and the potential for cost savings. While cloud brings many benefits, some of which are listed above, it also presents new challenges that users must be aware of and ready to tackle.

Cloud technology challenges include:

- Not knowing how to appropriately extract value from reserved instances – and therefore minimizing ROI opportunities or worse, costing to organization additional capital.
- Struggling with container infrastructure complexity and the amount of time and resources involved in appropriately setting up, deploying and modifying containers.
- Having an unclear view and understanding of the actual costs associated with your cloud technology and how to optimize them.
- Needing to manually scale, revision and monitor your applications to ensure they have the resources they need to operate without interruption.

While these challenges might sound overwhelming and cause you pause as to whether cloud infrastructure is the right decision for you – there is no need to reconsider your decision – it is. There is a simple solution to help you ensure you are maximizing the most out of your cloud technology and avoiding possible challenges: Spot by NetApp. Spot by NetApp is a leading-edge platform that enables users to automate, simplify and optimize their cloud infrastructure.

What is Spot by NetApp?

Spot by NetApp is your “one stop spot” to simplify and automate your cloud infrastructure. It integrates seamlessly with a wide variety of cloud platforms, tools and services giving you the ability to customize deployment and support your unique workloads and application structures. Designed to help optimize your cloud computing by increasing comprehensive visibility while maximizing cost-efficiency, Spot by NetApp offers 4 different solutions to aid you on your journey:

- **Reserved Capacity Management:** [Eco](#) – Reserved Instances & Savings Plans optimization



- **Container Infrastructure:** [Ocean](#) – Serverless infrastructure engine for containers
- **Cloud Cost Analysis:** [Cloud Analyzer](#) – Visibility, insights and automation to control cloud costs
- **Autoscaling Applications:** [Elastigroup](#) – Automated infrastructure for autoscaling applications

A Cloud Commitment Portfolio to Meet Your Needs & Save you Money

Reserved Instances are a reservation of capacity and resources over a defined period of extended time, usually a 1-year or 3-year term, where you commit to paying for all the hours for a particular availability zone within a specific region.[2] Not only is the rate substantially lower than on-demand, therefore allowing you to save money, but this also ensure that you have secured the capacity you need in that particular availability zone.[3] While in theory Reserved Instances are ideal – you’re securing what you need while saving money – they often do not work out the way intended. It can be challenging to accurately predict how much capacity and resources you truly require, particularly when you are just getting started with Cloud infrastructure. In many instances organizations end up wasting money on unused Reserved Instances and saving plans – undoing the cost savings they thought the had secured.

To help mitigate this issue, Eco from Spot by NetApp, automates reserved instance lifecycle management. It does this by identifying and selling off unused capacity and in turn buying appropriate short-term, third-party reservations on the AWS Marketplace. This allows you to realize the benefits of a long-term pricing strategy, similar to that you would get with a reserved instance, without being contractually obligated or financially locked-in. It also easily allows finance and dev ops teams to collaborate and maximize ROI by giving both teams full visibility of compute consumption and automation of optimal reserved instances.

The best part? You can get up and running with Eco almost instantly – no changes need to be made to your existing environment – which means you will see cost savings quickly. Once you have implemented Eco, using robust data analytics, the system will continually monitor and evaluate your account and execute on strategies to ensure you’re optimizing your reserved instance and Savings Plan – creating the cloud portfolio you need to meet your needs today - and tomorrow - while maximizing your ROI.

Keep it Simple, Increase Efficiency and Put Dollars Back in Your Pocket

The term, “containers,” sounds simple enough and the definition is straightforward, “Containers are a form of operating system virtualization... Inside a container are all the necessary executables, binary code, libraries, and configuration files.”[4] However, container infrastructure

is anything but easy – it can be complex and costly. Whether you use Your Kubernetes, OpenShift, AKS, EKS or a different container infrastructure there are still many time consuming, [manual components such as needing to trim over-provisioning or checking to ensure that Pods are able to run without any issues.](#)

Ocean by NetApp Spot gets users started quickly and creates a streamlined experience for everyone involved by automating cloud infrastructure for containers. It evaluates your container resource needs and continuously resizes and scales your cluster infrastructure based on those needs. This helps organizations ensure they are always able to deliver on the Service Level Agreements (SLAs) – you do not require team members to be manually monitoring and addressing resource needs to avoid instance interruptions, Ocean ensures availability and performance through real-time surveillance and makes an adjustments needed .”[5] By automating and optimizing the scaling and placement of Kubernetes worker nodes Ocean reduces the cost and management burden of operating cloud native applications. In some cases costs can be reduced by up to 90% for cloud-native applications.

Simplified infrastructure and cost savings are not the only benefits, positive impact on efficiency for IT teams is tremendous, As Michael Waltz, Principal DevOps Engineer said, “Using Spot, it was simple to set up the clusters, choose the CPU and memory. What is amazing is that we have not needed to go back in and make any adjustments since. It's much less labor overhead for us since Spot makes sure our clusters always have the resources they need.”

The “Spot” to see, Understand and Take Action to Improve Your Cloud Efficiency

You have started down your cloud technology journey and you are not looking back – but you are also not quite sure how to look forward and ensure you are getting the most out of your cloud investment. There are a lot of costs, there is a lot of data (and it is in a lot of different places) and there are lot of different ways to move forward, but you want to make sure you are thoughtfully evaluating your cloud efficiency and maximizing your cloud ROI before you make your next step. With Spot by NetApp’s Cloud Analyzer tool, it is easy to do.

Cloud Analyzer helps you paint a holistic picture of all the costs associated with your cloud infrastructure so that you can make more informed decisions. Using advanced analytics, it easily surfaces comprehensive insights into your cloud costs across all your cloud accounts and the best opportunities for you to optimize your cloud efficiency. Your efficiency score is calculated on data for your actual cloud usage – meaning the optimization actions suggested, such as eliminating idle resources and right-sizing, are tailored to your unique, specific needs.

Implementing the cost saving suggestions is as simple as just a few clicks in the software – from there you will be able to continually optimize capacity, utilization, purchasing and scaling without having to have a dedicated team member focused on these functions. You no longer

have to wonder what your actual cloud spend is or focus on gathering data to make decisions on how to get the most out of your investment as you continue through your cloud journey; not only do you have all the information you need – your investment is being constantly optimized for you.

Scaling to new Heights and Saving Money Along the Way

Scaling to new heights? Are we talking about taking your cloud journey to the top of the tallest skyscraper? No – in IT terms, scalability is the ability to easily add or subtract compute or storage resources.^[6] While many people think the word only implies an increase, it is important to recognize that it also acknowledges a decrease. In all organizations, there is a fluctuation of demand on compute and storage resources – sometimes your business needs more and sometimes it needs less.

With cloud infrastructure you can expand to meet traffic and contract when demand levels are not as high. While this can save your organization money in the long term, it can also be very labour intensive –if you manually scale your infrastructure that means you must have a resource who is dedicated to watching the fluctuations in traffic to know when to scale up or down. Alternatively, you can schedule your network to scale up or down at specified parts of the day – but the challenge with this is that you need a comprehensive enough understanding of your usage flows to be able to configure the fluctuation appropriately. Otherwise, you could find yourself in a spot where you are not appropriately provisioning and don't have the resources you need.

Spot by NetApp's Elastigroup enables you to auto scale – taking the guesswork and manual labour out of provisioning your networks. Using advanced AI-driven analytics, it proactively determines possible spot interruptions and automatically rebalances workloads. Elastigroup takes the manual guess work out of scaling up and down, making sure your applications always have the resources you need, when they need them. Not only does this free up your team to focus on other critical, value add activities but helps to minimize the risk and room for error that comes with manual intervention.

With Elastigroup, you are also able to minimize costs and maximize returns. By ensuring that your cluster is running in the most efficient way possible through a mix of on-demand, spot and reserved instances. The system will automatically determine if there are underused reserved instances and use those before launching a spot instance. You have real time visibility into your cluster activities and costs – making sure you know exactly how things are functioning and where your money is going.





MOBIA, Spot by NetApp & You: The Ideal Trio

Regardless of where you are in your cloud journey – whether you are just starting out or are well established – working with the MOBIA team, who lives and breathes digital transformation daily, will take your initiatives to the next level and extract the most out of your investment.

Partnering with Spot by NetApp, MOBIA will empower you to harness the cloud more effectively and unleash the benefits of speed, efficiency and cost effectiveness that are detailed above. Together, we can help you get the most effective solution in real time and transform your business.

To get started email Inquiries@mobia.io.

[1]

<https://www.microsoft.com/en-us/microsoft-365/blog/2020/04/30/2-years-digital-transformation-2-months/>

[2]

https://support.cloudability.com/hc/en-us/articles/204307758-AWS-101-Reserved-Instances#:~:t_ext=A%20Reserved%20Instance%20is%20a,hourly%20rate%20is%20lowered%20significantly.

[3]

https://support.cloudability.com/hc/en-us/articles/204307758-AWS-101-Reserved-Instances#:~:t_ext=A%20Reserved%20Instance%20is%20a,hourly%20rate%20is%20lowered%20significantly.

[4] <https://www.netapp.com/devops-solutions/what-are-containers/>

[5] <https://spot.io/products/ocean/>

[6]

<https://cloudcheckr.com/cloud-cost-management/cloud-vs-data-center-what-is-scalability-in-cloud-computing/>

