How ESO automates cloud storage optimization with Lucidity

ESO at a glance

Industry	Region	Cloud Platforms
Technology and software	**Global**	**Azure**

Challenges

• Faced optimization challenges and operational inefficiencies due to unclear disk ownership visibility

• Lacked clear visibility into significant disk overprovisioning on an ongoing basis

• Cloud spend disproportionately outpaced other investments

• Teams leveraging disk defaults routinely over-provisioned disk capacity by being overly conservative

Solution

• ESO autonomously rightsizes its block storage with Lucidity AutoScaler

• Eliminated their cloud storage waste, freeing up engineering resources

• Significantly improved storage visibility, while reducing cloud spend and downtime

416 hours saved

Through automation of 5000+ provisioning tasks

70%+ storage utilization

From an earlier 30% baseline

50% ROI achieved

With daily-growing cost savings

A digital transformation to support data-driven outcomes

ESO is a multinational software company driven by a mission to improve community health and safety through the power of data. They offer a wide variety of different applications to drive insights for firefighters, emergency medical services (EMS), hospitals, and more. They recognized the potential of the cloud to support their mission early on, and undertook a cloud migration to Microsoft Azure over a decade ago.

ESO began with a classic lift-and-shift migration, and over the past five years, they've focused on modernization with a cloud-native, IaC approach for new development to go hand-in-hand with retrofitting and modernizing older deployments. In addition to their own deployments, they've brought in new companies via acquisitions, leading a diverse and dynamic cloud environment with a multitude of different architectures, technologies, and systems.

Driving cloud and cost optimization in a diverse environment

Tasked with supporting a wide range of technologies and architectures that they must either integrate or maintain, the IT and engineering team had a major initiative over the past twelve months: cloud and cost optimization. They needed to get visibility and accountability for cloud spend, optimize as much as possible, and provide clarity to leadership on where they can save versus spend as required.

"We didn't consider how we would solve this problem before finding Lucidity. We knew it was a problem, but didn't know there was an actual solution for it that made it an easy problem instead of a hard one."

Russell Beggs, SVP of Engineering, ESO

When it came to optimizing their cloud storage, the team faced two major challenges. The first was ownership. With over 440 VMs, there was no clear ownership model or ability to tell which team was responsible for what. The second was overprovisioning. Without established guidance on provisioning and no guardrails to check and enforce them, many disks ended up far over-provisioned.

"When you haven't established a clear model for ownership and you're overprovisioning, it's a tough situation," says Cormac Boyle, Director of Infrastructure at ESO. "We can't go to the person who was responsible to correct over-provisioned disks because there's no easy way to know who that was. This was creating a huge burden on us to sustain."

The team set out to find ways to save costs and solve these challenges, but didn't have an obvious answer for doing so. Then they found Lucidity.

"Lucidity is a must-have. There's no reason to not have it running in your cloud estate. It automates the elimination of storage waste in your disks and it's priced in such a way that you're almost guaranteed to get ROI beyond what you spend."

Russell Beggs, SVP of Engineering, ESO

How Lucidity helped ESO save time, reduce cloud storage spend, and reduce downtime

Lucidity's multi-cloud storage management platform delivers autonomous rightsizing for block storage. With simple onboarding, teams are able to significantly reduce overprovisioning automatically and on an ongoing basis, delivering massive cost savings and automation.

"Lucidity became a no-brainer once we saw the results. The proof of value showed us a great ROI that we would start seeing within 3 months based on the storage costs we could save. It was an easy pitch to our CFO." —

Russell Beggs, SVP of Engineering, ESO

With Lucidity in place, ESO ensures that their disks are properly sized and optimized on an ongoing basis, without having to lift a finger. This contributes to cost savings, but also significant time savings. The team calculated that, prior to Ludicity, it took about 10 minutes to provision a single disk when necessary. Over the past five months with Lucidity, they've automated over 5000 provisioning tasks. That works out to 52 days or 416 engineering hours saved!

"Lucidity is like having an extra person on your cloud ops team whose sole job is looking after disk space, ensuring that your disks are running, optimized and won't run out of space."

Cormac Boyle, Director of Infrastructure, ESO

Beyond time and cost savings, ESO has realized some unexpected benefits from Lucidity. One such benefit has been downtime avoidance. With their ability to easily see disk utilization metrics in Lucidity, ESO can now identify not only over-provisioned disks, but also over-utilized disks that are at risk of causing downtime. They've been able to avoid downtime impact to important development work as a result.

"Lucidity let us identify that a particular development VM that was used by a lot of teams across the company was dangerously close to getting maxed out on disk space," says Boyle. "If that VM had gone down, it would have had a big impact on our ability to achieve our goals and complete important development work across the company. Dozens of developers would have been impacted. Thanks to Lucidity, we adjusted the course before it was too late."

Leveraging the cloud to improve community health

As ESO continues to innovate new ways to improve community health across the globe, the engineering and infrastructure team is excited to find new ways to deliver an optimized, performant cloud environment to support it. With Lucidity, they ensure that their disks are autonomously rightsized, and are looking forward to strengthening the partnership and finding new ways to optimize and manage their cloud storage.