Lucidity

The most trusted NoOps for cloud storage that will transform your block storage to deliver.

Azure Edition

99.9% Uptime . 70% Cost Savings. Zero Downtime. No Code Changes

Kickstart your NoOps Cloud Journey

With Lucidity

Lucidity introduces a state-of-the-art autonomous multi-cloud block storage layer, making your Azure Disks economical, reliable, and effortless. It shields away the hassles and complexity of manual capacity planning and provisioning. With its industry's first cloud-native auto-scaler, Lucidity can shrink and expand your block storage with zero downtime and no loss in performance.

99.9%
Availability

70%
Cost Reduction

Zero Manual
Interventions

Trusted By

SpartanNash
Food & Grocery Retail
Fortune 500, US, Rev. $10B

Bobble AI
Conversation Media Platform

DOMETIC
Consumer products
Rev $2.74 Billion

CIFC Asset Management
Asset Management
Rev $250mil

softwareone
Cloud Services
Rev: $8.56B

What is wrong with the current Azure Disk landscape

Azure Disk is the default storage option that DevOps teams provision whenever kicking off a Virtual Machine (VM). Often relegated to a sub-component of the overall VM billing, what most DevOps teams fail to recognize is that the disk bill is still 10% of your cloud cost. In fact, the disk bill can stretch up to 20% if you are self-hosting databases on your instances. DevOps typically have to balance availability, performance, and cost while managing a cloud infrastructure. Doing it manually is no easy feat and bound to have errors. Azure Disk management is no different.

Challenges in managing Azure Disks

A) Cost Wastage – 70% disk volume is over-provisioned

Organizations typically attach disk volumes by default with every VM. The exact amount of disk storage to provision for each application server is not scientifically calculated. Most often, organizations end up utilizing only 25-30% of disk space. There are a variety of reasons quoted by our clients for underutilization.

Technical limitations

The Azure Disks are only available with pre-set size storage options increasing in multiples of 2. This provides lesser control over optimization and leads to worse utilization.

Disk Type	P4	P6	P10	P15	P20	P30	P40	P50	*New* P60	*New* P70	*New* P80
Disk Size	32 Gb	64 Gb	128 Gb	256 Gb	512 Gb	1 TB	2 TB	4 TB	8 TB	16 TB	32 TB (32,767 GB)
IOPS per disk	120	240	500	1,100	2,300	5,000	7,500	7.500	16,000	18,000	20,000
Throughput per disk (in MB/sec)	25	50	100	125	150	200	250	250	500	750	900

During Provisioning

Overestimating the workload

Over provisioned to save DevOps efforts in frequent scaling

To handle peak load in future

During Maintenance

Azure does not give an out-of-box way to scale disks without downtime. It requires a minimum of a 3h downtime to upgrade or shrink a 1TB disk

Jay Dhakar
Cloud Migration Architect
SpartanNash
Fortune 500, US, SIOB Rev
Food & Grocery Retail

Over-provisioning "In order to save DevOps effort, we typically start with 300GB of disk space for 30GB of data."

Disk HEALTH CHECK

The industry average for Azure disk utilization is 35%. Are you doing better than that?

THE TAKEAWAY

If your organization spends $100k in Azure Disk bills per month, you end up paying $50k-$60k every month for volumes you do not use! That's $600k+ wasted annually.

B) Downtime is a tricky situation to avoid

Predicting Peak surge is difficult

Allocating appropriate storage volumes is entirely dependent on an infrastructure team's ability to accurately predict peak load and average traffic. While this seems like an entirely manageable scenario, even industry giants like Google suffer from issues relating to running out of storage space. The industry statistics present that organizations face,

3 downtimes/year where you run out of disk space*

$ 3.6 M of economic losses due to downtime**

Running out of disk space


The Guardian

Google suffers global outage with Gmail, YouTube and majority of services affected

Error was due to lack of storage space in authentication tools causing system to crash

Est. $ 47 M lost as Google ran out of disk space in Dec 2020***

Manual storage management is error prone

Avoiding a storage downtime requires multiple tools across deployment, monitoring and alerting. And juggling them across 100+ VMs can always risk a few slipping out of the cracks leading to financial and reputational loss.

Potholes that can lead to a downtime

- Forgetting to enable a monitoring agent
- Not setting a trigger for alerting
- Delayed time to action post a downtime alert

C) Managing Azure Disk manually is inefficient use of DevOps time.

A well-skilled DevOps Lead would set back a firm $200K annually at least. With such a high-profile role comes the preference to work on new cutting-edge technologies like Kubernetes or managing a multi-cloud infrastructure. Manually working on Disk storage would be their last wish, with everything now moving towards automation. There are multiple challenges faced when manually scaling an Azure Disk

- Shrinking of Azure disk requires 8 different manual operations
- A 3h downtime is required during disk upgrade or shrink of a 1 TB disk.

No wonder organizations are moving towards autonomous orchestration to avoid this manual management fatigue.

THE TAKEAWAY

Autonomous orchestration is the future, and critical to managing your Azure Disk storage. Disk volumes hold your customer databases and critical information, and even one downtime can lead to thousands if not millions in losses. With the efforts and costs associated with it, it's high time we start focusing on them. Otherwise, wth the exponential data growth, things can quickly spiral out of control.

*Based on a survey of 100+ Enterprise organizations **Downtime, Outages and Failures - Understanding Their True Costs - Evolven
*** What the Google Outage Can Teach Us About Our Own Services - Coralogix

Introducing Lucidity Managed Azure Disks

Lucidity Autoscaler is an industry-first, state-of-the-art and autonomous multi-cloud block storage layer, making your storage economical, reliable and effortless. Forget capacity planning and manual provisioning of disks. This truly autonomous solution can automatically shrink and expand your Azure disk storage based on your workload, and with zero human effort.

70% cost reduction

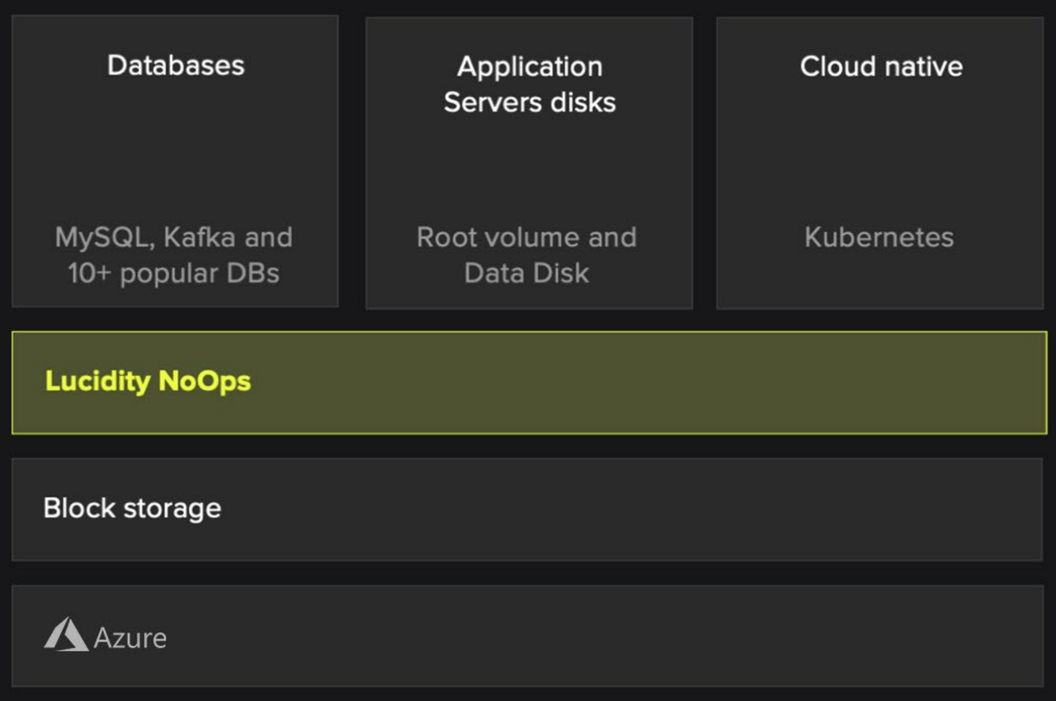
Increase disk utilization from 35% to 80% and reduce overhead by up to 70%.

Zero downtime

Never run out of Disk space during a surge

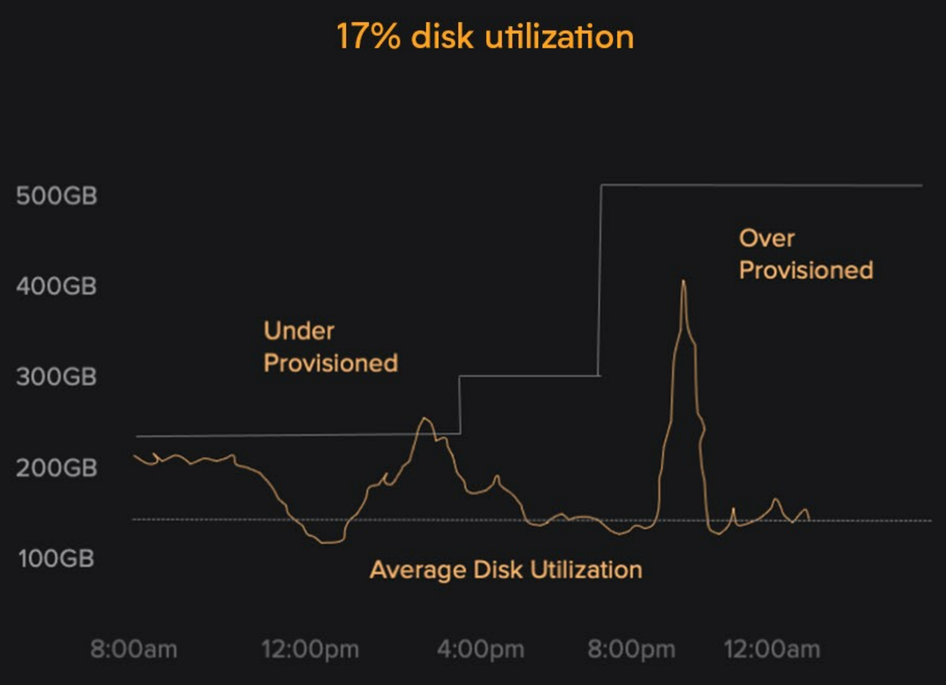
Save DevOPs efforts

Automate capacity planning & provisioning with 2-clicks

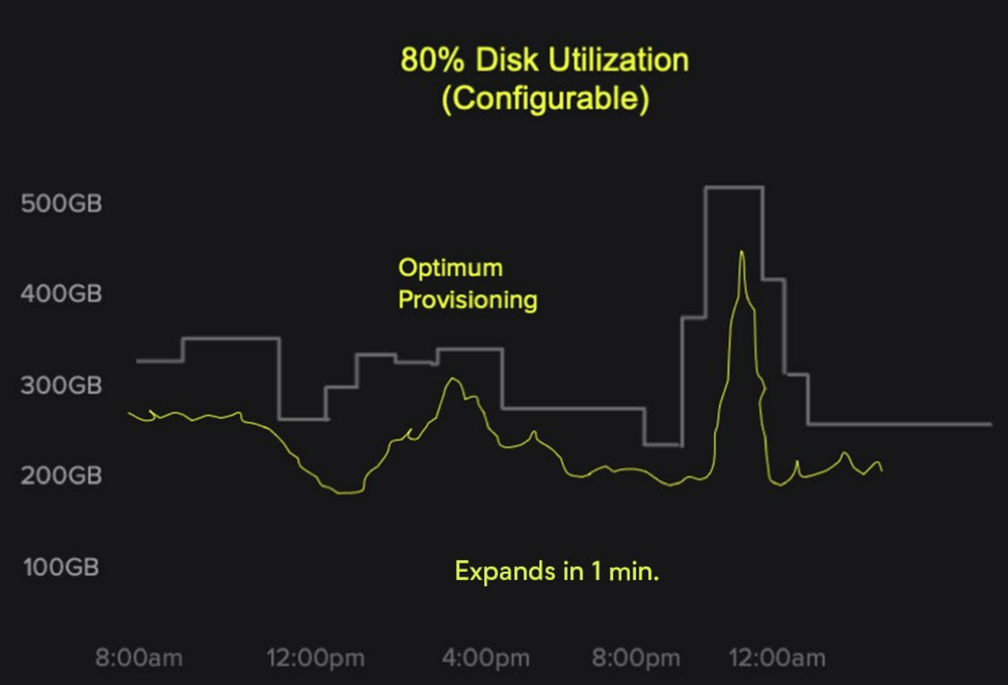


We understand the challenges of optimizing costs, avoiding downtime and maintaining an adequate buffer. And that's why Lucidity shields you from the hassles of manual provisioning and ensures your Azure Disk is optimally provisioned every step of the way.

Before Lucidity



After Lucidity



Lucidity ROI

Storage cost	$2M per year	$600K per year	70% Savings
DevOps time (Days Per month)	1 FTE	0.2 FTE	80% FTE Saved
Downtime due to Infrastructure provision	One every quarter	Nil	Zero Downtime

SpartanNash

Fortune 500
Revenue $9.348 billion

“
With Lucidity, we were able to automate the whole process and reduce our block storage spend by 60%

% Disk Utilization
17% Before / 70-80% After

60% Cost Savings

1 Downtime Avoided

DOMETIC

Consumer products,
Revenue $2.74 Billion

“
Lucidity helped us to eliminate the risk of possible downtimes, and reduce our cloud storage spend by 43%

% Disk Utilization
26% Before / 70-80% After

43% Cost Savings

25 Downtimes Avoided

CIFC Asset Management

Asset Management
Revenue $ 250mil

“
With Lucidity, we were able to free our DevOps resources for more critical projects

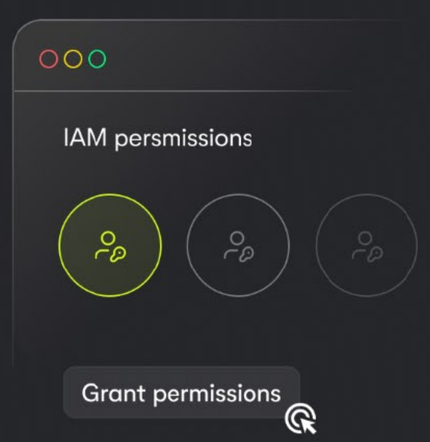
% Disk Utilization
39% Before / 70-80% After

33% Cost Savings

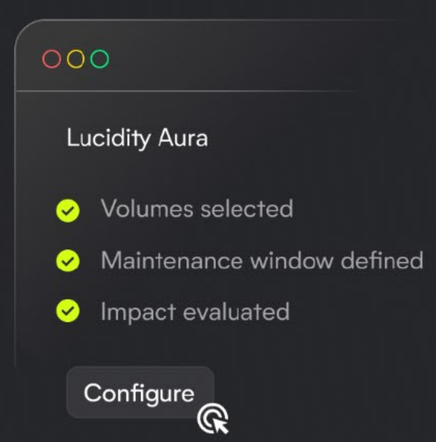
5 Downtime Avoided

So what does it take to start saving upto 70% of your disk bills?

Step 1. Register



Step 2. Onboard



Step 3. Relax

Signs your company needs Disk Auto-Scaler

1. Azure Disk is anywhere between 8-10% of Cloud costs.
2. Overall Disk Utilization is 40-50% of storage.
3. Struggling with DevOps bandwidth.

About Lucidity

Lucidity is a cloud-first software-defined storage NoOps orchestrator. It unlocks cloud block storage capabilities making cloud storage reliable, performant, and economical with zero effort. Lucidity enables cloud optimization even for your legacy applications, as infra ops teams can now unlock cloud-native functionalities for block storage apps without any code changes.

Leading Infra, Devops, FinOps and CIOs alike have all trusted Lucidity in becoming cloud-ready and have adopted the NoOps cloud experience. If you would like to be a part of the NoOps cloud experience as well, visit us at www.lucidity.cloud