



ZESTY DISK SOLUTION BRIEF

Auto-scaling solution for EBS.

Eliminate over provisioning, reduce EBS costs

Ensuring high performance and application uptime is imperative when provisioning EBS resources. Furthermore, In order to avoid service degradation and “EBS Failure” (disk running out of space), it is required to continuously monitor and manage EBS volumes. With this in mind, cloud engineers tend to significantly overprovision disk storage upon the creation of EBS volumes. This ensures service availability, high performance, and on top of that, relieves engineering teams from continuous manual capacity adjustments. Overprovisioning EBS resources results in paying between 2x-5x extra for cloud storage, as for the majority of the time, the provisioned storage remains idle and wasted, but paid for.

REAL-TIME, HANDS-FREE SHRINK AND EXPAND EBS VOLUMES

Zesty Disk™ automatically adjusts storage volumes in real-time based on the application needs, achieving optimal disk utilization and dramatic reduction in EBS spend.



**Reduce EBS
costs by up
to 90%**



**Complete visibility
into EBS volumes**



**Real time
EBS monitoring**



**Prevent EBS
failure**



No downtime



**No MGMT servers
required**



**Out of the box
periodical updates**



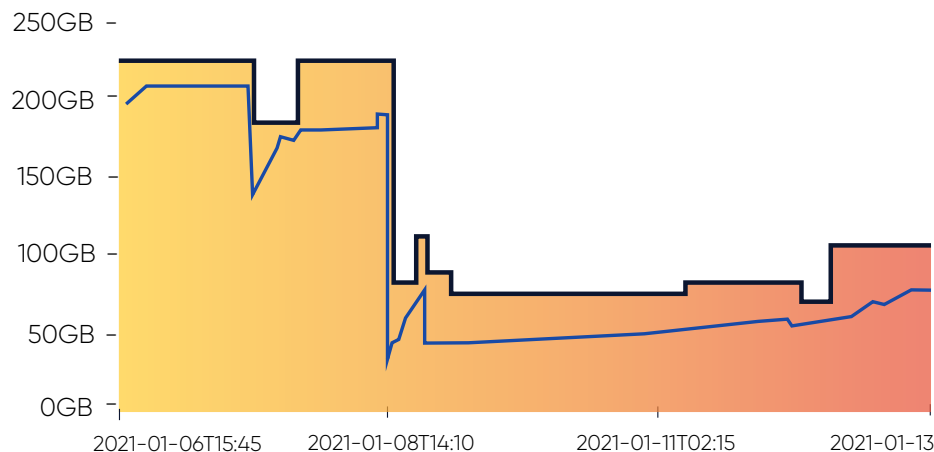
**Data deduplication
in real-time**



HOW DOES IT WORK?

1. Zesty creates a virtual disk which is comprised of several EBS volumes. These Volumes can be detached to reduce provisioned storage or additional volumes can be attached to increase provisioned storage. **Attaching additional EBS volumes to the virtual disk has the added benefit of extra IOPS, for a significantly lower price.**

DISK CAPACITY



2. The Zesty Disk™ agent continuously collects real-time utilization, IOPS, and read/write metrics.
3. Zesty's machine learning algorithm analyzes these data points to predict usage trends. Volumes are then automatically merged or detached in order to ensure the most optimal disk utilization. **Since all operations are performed seamlessly to the running application, they do not require any downtime nor have any negative impact on performance upon merge or detach.**
4. Leveraging BTRFS advanced file system provides the means to perform online resizing and defragmentation to EBS volumes and enables Zesty to merge or detach storage volumes while the file system remains online. **BTRFS unlocks decrease and increase of storage, in real-time, while maintaining desired workload performance.**
5. Users can select between **"Automated"** or **"Manual"** modes:






AUTOMATED

Zesty will merge and detach volumes as necessary.
Every action is logged in the audit log and an alert can be sent to Slack / Teams.




Zesty Disk Notification - Resize Started
Organization: : Cloudvisor Test
Account: 672188301118 (Main account)
Mount Path: /mnt-btrfs
Chunk Size: 46G
Instance ID: i-03f0c5202440992d5

 **Zesty Disk Notification - Resize Started**
Notification from Zesty
Message Organization: : Cloudvisor Test
Account: 672188301118 (Main account)
Mount Path: /mnt-btrfs
Chunk Size: 37G
Instance ID: i-0fcca0c22ad69ecd2



Zesty Disk Notification - Resize Completed
Organization: : Cloudvisor Test
Account: 672188301118 (Main account)
Mount Path: /mnt-btrfs
Chunk Size: 46G
Instance ID: i-03f0c5202440992d5


 **Zesty Disk Notification - Resize Completed**
Notification from Zesty
Message Organization: : Cloudvisor Test
Account: 672188301118 (Main account)
Mount Path: /mnt-btrfs
Chunk Size: 37G
Instance ID: i-0fcca0c22ad69ecd2

MANUAL

A notification will be sent to Slack / Teams with a “call to action” that allows you to approve the “merge” or “detach” action in one click.



Zesty Disk Notification - Resize waiting for approval
Zesty Disk Policy needs approval to extend disk.
Disk usage passed the defined parameters on the policy.
• Mount Path: /mnt-btrfs
• Instance ID: i-0fcca0c22ad69ecd2
• Usage: Disk is 88.00% full
Please visit this link to approve disk resize: [Click here](#)
[Show less](#)

 **Zesty Disk Notification - Resize waiting for approval**
Notification from Zesty
Message Zesty Disk Policy needs approval to extend disk.
Disk usage passed the defined parameters on the policy.
• Mount Path: /mnt-btrfs
• Instance ID: i-0fcca0c22ad69ecd2
• Usage: Disk is 88.00% full
Please visit this link to approve disk resize: [Click here](#)



MERGE EBS



DETACH EBS



Artiom Levinton

Head of DevOps at XM-Cyber

“Zesty provides us with real-time monitoring and automatic expansion, relieving us from manually managing our EBS volumes”



READ CASE STUDY



FAQ

Can I limit the maximum disk size?

Yes, you can configure maximum disk size via our dashboard. A notification will be sent to Slack / Teams when maximum disk size has been reached.

Does shrink or extend require downtime?

No, all operations are performed seamlessly to the running application and don't require any downtime.

How does the auto-scaling impact application performance?

When extending the disk, capacity extension is done by adding an additional EBS volume, which improves write IOPS performance. However, in case of shrinking the file system, reshuffling the data between EBS volumes can consume write IOPS, so in that case, the system automatically identifies the most ideal time window to perform the action (e.g during non-business hours).

When does the system decide to expand the filesystem?

Our AI predicts usage utilization and according to the read / write metrics decides on the timing to automatically merge volumes to fulfill the needed workload capacity.

When does the system decide to shrink the disk?

Once the disk utilization is reduced, our AI predicts usage utilization and according to the read / write metrics decides on the timing to automatically detach volumes in order to reduce the extra unused capacity.

How do you decide how much storage to add?

Zesty runs prediction algorithms to forecast the needed storage capacity in order to enable gradual expansion of storage while being able to react in real-time if extra capacity is needed immediately.

Do you require opening any ports for the solution to work?

Zesty's agent has a one way communication channel with the platform in order to send filesystem utilization metrics using standard HTTPS protocol. (Port 443).

Which OS Types are supported?

In this [link](#) you can find the updated list of supported OS.

READY TO GET STARTED?

[Free Trial](#)[Request Demo](#)