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Object First’s Purpose-built Backup Storage for Veeam

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Abstract

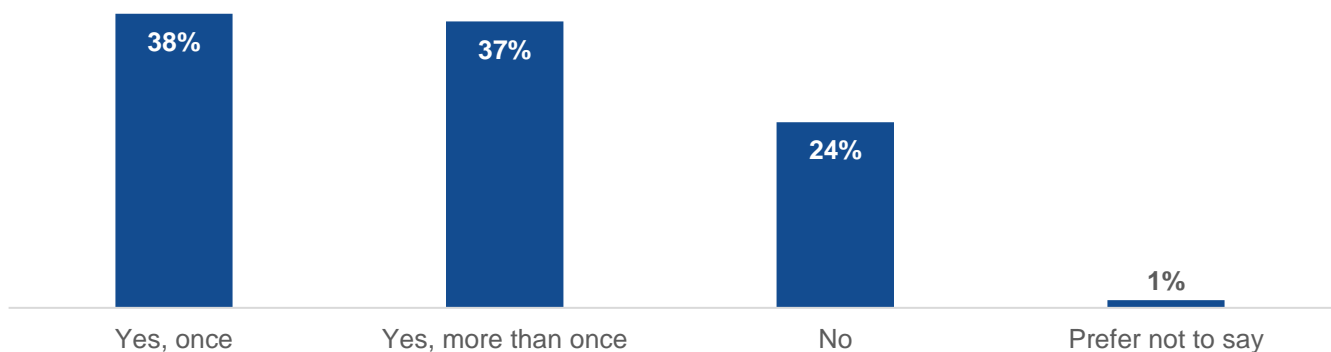
This Technical Review by TechTarget’s Enterprise Strategy Group documents the detailed evaluation of the Object First backup solution for Veeam, including the setup process, scalability, and performance.

The Challenges

Ransomware attacks make the news on a regular basis, so it should come as no surprise that respondents confirm the regular frequency with which they occur. Figure 1 shows that 75% of respondent organizations to a research survey by TechTarget’s Enterprise Strategy Group reported having experienced a ransomware attack within the last year that financially or operationally hindered their business operations. It should also be noted that over one in three organizations reported having been successfully hit more than once, making ransomware a significant and recurring source of business disruption.¹

Figure 1. 75% of Organizations Reported Having Experienced a Ransomware Attack Within the Last Year

Has your organization been the victim of a successful ransomware attack, meaning an attack that had a negative financial impact or disrupted business operations, within the past 12 months? (Percent of respondents, N=451)



Source: Enterprise Strategy Group, a division of TechTarget, Inc.

Zero trust frameworks have been increasingly adopted by organizations to bolster their cybersecurity posture and defend against ransomware. Yet, the three basic principles—assume breach and segment access, verify identities

¹ Source: Enterprise Strategy Group Research Report: [Ransomware Preparedness: Lighting the Way to Readiness and Mitigation](#), December 2023. All Enterprise Strategy Group research references and charts in this Technical Review have been taken from this report, unless otherwise noted.

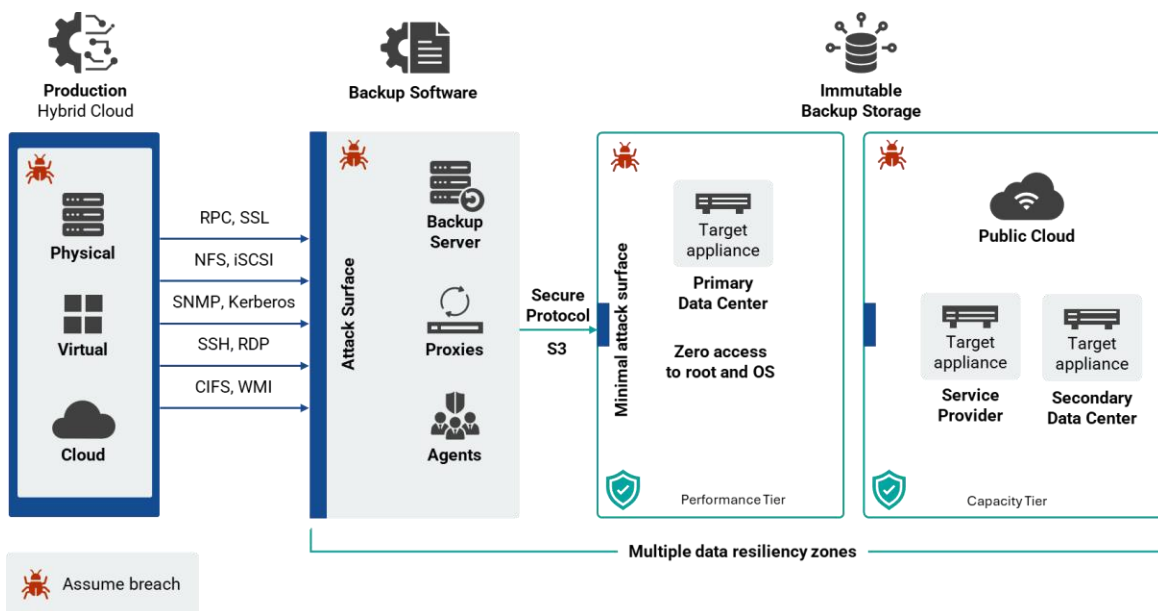
explicitly, and use least privilege access—might not always extend to backup and recovery practices. Since a majority of ransomware attacks target backup data, an organization's most valuable resource, it makes sense to apply zero trust principles to the data backup and recovery infrastructure. Not applying zero trust principles can easily lead to increased security and business risk that organizations cannot afford.

The Solution: Object First

Ootbi (out-of-the-box-immutability) by Object First is an S3-compatible backup storage appliance that is specifically designed for Veeam customers and provides an immutable primary object storage target for on-premises Veeam backups leveraging the Veeam Backup & Replication v12 Smart Object Protocol API. Outlined in Figure 2, Ootbi provides the following key benefits:

- Purpose-built for Veeam, Ootbi reduces the risk of ransomware by immutably storing Veeam-encrypted data without the need for any in-house security expertise.
- The simple-to-deploy solution can be racked, stacked, installed, and configured in 15 minutes.
- Users can scale performance and capacity linearly by simply adding a node.
- A factory-hardened Linux operating system protects data integrity.
- Fast backup performance and recovery speed, coupled with Instant Recovery, can run failed workloads directly from backups within minutes.
- The easy-to-use and cost-effective Veeam object storage solution is purpose-built for Veeam backup data and provides high backup performance without the complexity of large enterprise solutions.

Figure 2. Object First Solution Overview



Source: Enterprise Strategy Group, a division of TechTarget, Inc.

With the integration with Veeam 12.1.2 release, administrators can support greater backup storage capacity beyond 3 PB by utilizing Veeam Scale-out backup repositories (SOBR), which can now target multiple object storage targets (Ootbi clusters) as extents.

With Object First, organizations can extend zero trust principles to data backup and recovery by enabling organizations to:

- Segment backup software and backup storage to help enforce least privilege access and minimize the attack surface.
- Implement multiple data resilience zones to comply with the 3-2-1 backup best practice.
- Institute immutable backup storage to protect backup data from modifications and deletions. (For true immutability, organizations ideally protect against external attackers and compromised administrators by enforcing zero access to the root account of the operating system.)

Object First provides an optimized backup storage solution that is specifically tailored for data protection with ransomware resiliency, hardened security, and high performance.

All software updates to Ootbi systems are provided by and curated by Object First so that organizations only need to schedule and apply them when required. Updates also contain changes to protect against emerging threats and attacks, based on Object First's proactive internal and external testing. With Object First, organizations no longer bear the sole responsibility of building and updating backup storage systems to serve their needs.

Enterprise Strategy Group Tested

Enterprise Strategy Group performed a Technical Review of the Object First backup solution for Veeam, including the setup process, scalability, and performance.

Setup Process

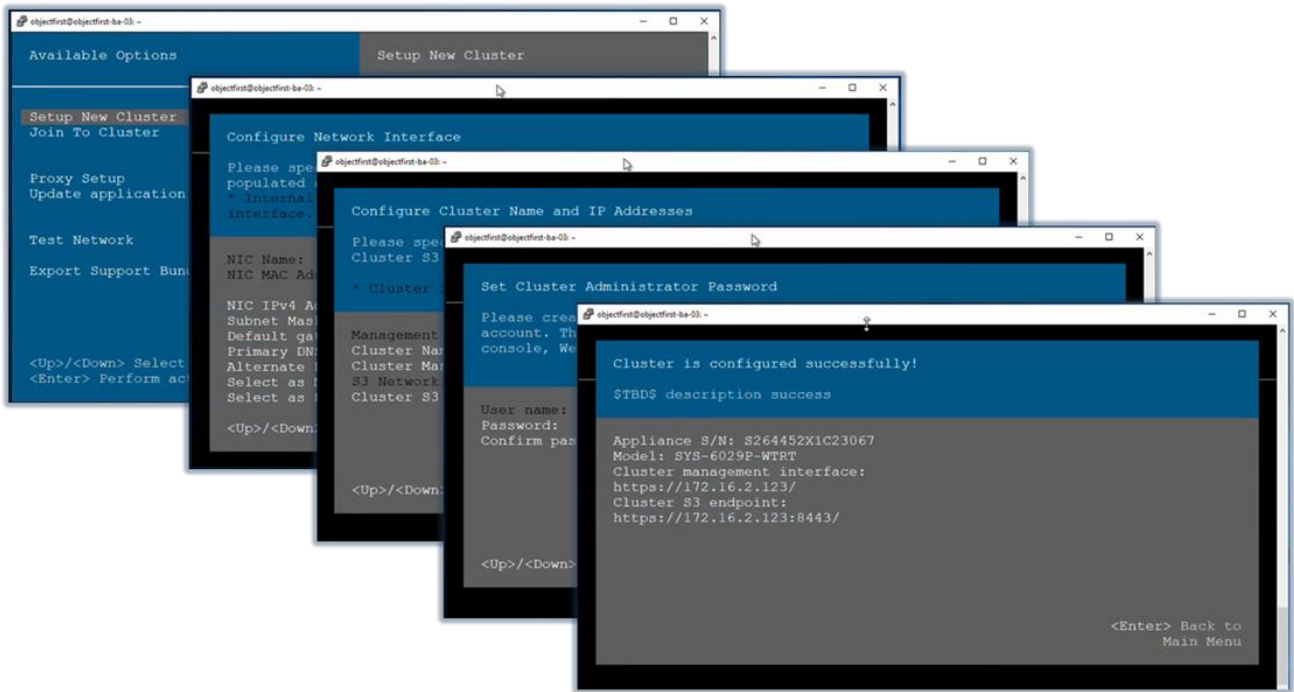
Object storage is the primary storage used in cloud architectures and hardware appliances like Ootbi. With object storage, organizations have a more scalable architecture for storing and protecting backup data. Object storage does not have single file system limits, and it supports immutability in the core protocol. Also, object storage does not have a hierarchy like file systems or block storage. Leveraging these features, Veeam can use object storage as a primary backup destination by leveraging the new Veeam Backup & Replication v12 Smart Object Protocol API.

The test showed how simple it is to set up the backup solution. After the user has racked and stacked the box and configured the hardware, then the user can complete the following steps (see Figure 3):

- Set up a new cluster.
- Configure the network interface by specifying the network interface card (NIC) settings, which are automatically populated according to the existing cluster configuration.
- Specify the cluster name, cluster management IP address, and cluster S3 endpoint IP address.
- Create the password for the cluster administrator.

Then, the cluster configuration is complete.

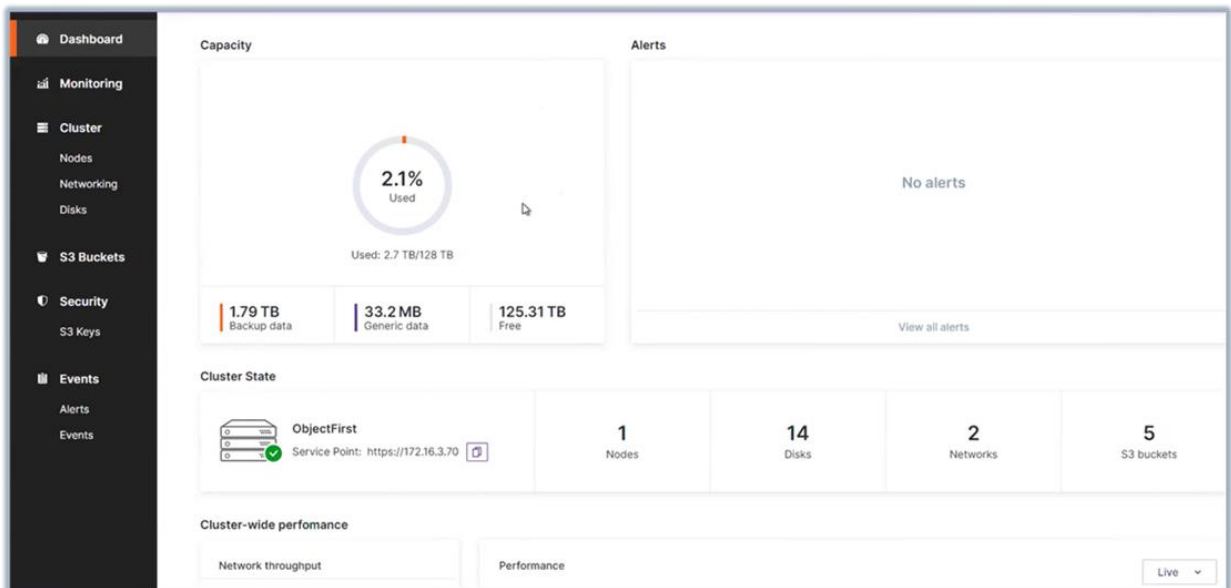
Figure 3. Simple Setup Steps



Source: Enterprise Strategy Group, a division of TechTarget, Inc.

Next, the user will see the Object First Dashboard (see Figure 4).

Figure 4. Object First Dashboard



Source: Enterprise Strategy Group, a division of TechTarget, Inc.

The Object First Dashboard shows the following information:

- **Capacity:** storage used, backup data, generic data, and free storage.
- **Alerts:** cluster health, update availability, warnings, and events.
- **Cluster state:** number of nodes, disks, networks, and S3 buckets.
- **Cluster-wide performance:** network throughput, S3 operations, and performance.

At this point, the user would create an S3 bucket, add a backup repository to Veeam Backup & Replication, and then select the Object First repository for backup and/or copy jobs.

Users can then schedule backup or copy jobs as needed.

Scalability and Performance

Performance, capacity, and network bandwidth scale linearly with each node, with no additional management overhead and no changes on the Veeam Backup & Replication side, without having to reconfigure the jobs.

Additionally, the solution automatically load balances the objects themselves so that users do not have to shift backup jobs to optimize storage or performance. In other words, Object First has already optimized the solution so that users do not need to tweak the system in order to increase performance.

Immutability

Enterprise Strategy Group was also able to confirm the out-of-the-box immutability, which eliminated the risk of ransomware infiltrating backup data. In addition, the factory-hardened operating system helps assure data integrity.

Why This Matters

As mentioned earlier in the paper, ransomware attacks are not going away. Most organizations reported having experienced a ransomware attack within the last year, and very few (16%) reported getting all their data back after paying a ransom. Over half of victims of successful ransomware attacks reported that their affected data included sensitive infrastructure configuration data.

Object First created an object storage solution designed specifically for the backup use case and specifically for Veeam. The solution is aimed at midsize enterprises with constrained IT. The physical appliance provides the defense against ransomware with immutability right out of the box. In addition, Object First delivers a secure and simple solution that can easily scale beyond 3 PB in a SOBR.

Conclusion

Ransomware readiness is essential to business resilience, yet significant gaps exist for most organizations. Enterprise Strategy Group research shows that most organizations believe their ransomware preparedness is stronger today than it was two years ago. In addition, respondents reported preparedness investments coming from a combination of IT, security, and data protection groups. However, one in five organizations reported being unprepared to pay a ransom.²

² Source: Enterprise Strategy Group Research Report, [The Long Road Ahead to Ransomware Preparedness](#), June 2022.

Most organizations have prioritized investments in prevention. Nearly half of the organizations surveyed believe they have gaps in their cybersecurity programs. There is still significant room to grow overall, with 40% reporting that they take extra measures for all their backup copies.

Object First provides a backup storage solution designed explicitly for Veeam customers as well as an immutable primary object storage target for on-premises Veeam backups. Ootbi helps to reduce the risk of ransomware simply with encrypted backup data and aligns with zero trust principles. Object First's close integration with Veeam and automatic software updates, which are informed by constant security and hardening testing, ensure that customers have a highly reliable and secure backup solution.

Enterprise Strategy Group validated that the Object First backup solution for Veeam provides ransomware resiliency right out of the box that is easy to deploy, manage, and scale. In addition, the solution offers fast backups and recovery, including backup storage capacity beyond 3.0 PB in a SOBR of up to 0.5 PB. Veeam customers seeking security, simplicity, immutability, high performance, and an on-premises footprint should consider Object First.

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