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Veritas NetBackup™ Flex Scale and NetBackup Competitive Advantages

Delivering immutable, indelible, unified data protection at scale across the enterprise.

Summary

NetBackup and the new NetBackup Flex Scale hyperconverged, scale-out appliance offer modern and superior scale-out capabilities with lower operational expenses (OpEx) and overall total cost of ownership (TCO) when compared to legacy scale-out competitors. If there were any lingering doubts about choosing the best data protection scale-out vendor, NetBackup Flex Scale should help eliminate them.

NetBackup Flex Scale Advantages Versus Legacy Scale-Out Solutions	
NetBackup Flex Scale Feature or Capability	**Business Value to Veritas Customers Versus Legacy Scale-Out Vendors**
Deployment and Operations Simple, no-touch installs and configuration across multiple validated partner hardware platforms. Common UI for Simplified Management	Faster time-to-value. No complex manual cluster installation and simplified management.
Automated cloud-like management with Cloud Scale Technology includes scaling and intelligent load balancing. **Completely automated replication to the second site with no need to create same policies, catalogs, etc. on the second site. No manual intervention required for failover and failback thanks to enterprise-class proven clustering technology.** **Recovery resilience with no manual intervention or restart required if the recovery process is interrupted.**	NetBackup Flex Scale is the only deployment option that removes the complexity of manual NetBackup configuration. It automatically configures services, storage, and catalog protection upon initial deployment. No need for any manual configuration resulting in seamless failover and failback. Legacy scale-out vendors require some manual intervention in terms of *failover or takeover*. This raises the risk of activation at both sites, which may lead to chaos and confusion, particularly if there is an outage during recovery.
Intelligent active/active architecture allows clients to be backed up to local and DR sites with no inadvertent crossing of boundaries from a media server in a different location.	Added recovery resilience—reduced backup failures with minimal chance of interruption. Legacy scale-out vendors claim active/active architectures, but do not provide this level of no-touch autonomous intelligence.
Added Security Forced password change to a strong password for default accounts in new deployments and upgrades. Passwords must be managed with an authentication server (Active Directory). In addition to password protection, Flex Scale completely disables all BIOS to prevent destructive operations in the remote console. This effectively prevents intrusion and/or compromise.	Added security by not allowing a breach through weak default passwords. Not all scale-out vendors require default passwords to be changed, allowing for a possible infringement. At least one legacy scale-out vendor has the default password publicly available and does not force reset. Password protection alone is not enough. Flex Scale will completely prevent access to rogue and destructive operations. Other products rely heavily on a BIOS password.

Flex Appliances support clusters that can span geographical distances up to thousands of miles enabling automated DR with increased availability.	Geo clusters provide an additional layer of protection that can avoid downtime and improve workload balancing. Many other scale-out products are limited to metro distances, thus not covering the needs of large enterprise customers.
Enterprise-Class Performance With NetBackup deduplication capabilities working at maximum, Flex Scale can deliver close to a petabyte (PB) per hour of backup speed.	Can deliver two to five times faster backup performance than legacy scale out vendors.
High-Performance Network Connectivity with Zero Production Network Overhead ▪ Fifty percent lower network latency than competitors ▪ Complete internode data communication segregation from workload data communication.	Patented technology for low latency transport implementation helps extract twice the speed from the same network infrastructure compared to legacy scale out competitors. Plus, cluster communication does not use resources from the production network, delivering more efficient scaling.
Optimum OpEx Spend with Multidimension Scaling ▪ Start with a scale-up appliance for initial needs ▪ As the need for capacity grows, add Flex Scale in the same deployment, without having to rip out/rebuild.	The scale-up appliance typically saves substantially on power, cooling, and network, while starting with a small footprint. You can add scale-out Flex Scale appliances as needed to cater to high growth workloads. Legacy scale-out vendors have you drop three to four nodes every time you add a new data center. One size does not fit all.
Backup/Restore Prioritization ▪ Customers have total control of backup and restore job prioritization for application or admin I/O ▪ Universal Share for Oracle Incremental Merge provides full backups at the same cost as incremental, reducing the backup window and network overhead.	NetBackup Flex Scale lets you override machine intelligence with human intelligence, ensuring that application or admin I/Os get sufficient bandwidth—which most competitors do not permit. This feature allows for better alignment with business application needs over internal product maintenance needs.
Lower Data Center Footprint at Equivalent Scale ▪ With up to two times lower power and cooling, three to four times lower network overhead, and up to three times fewer IP addresses than other scale-out products.	NetBackup Flex Scale has relatively lower power, cooling, rack space, and network requirements that reduce operational expenses. Combining Flex and Flex Scale provides further savings on operating expenses and data center footprint.
Superior Data Recoverability ▪ Includes a multilayered approach to help ensure that the backup infrastructure is quickly recoverable, providing a proportionate response, rather than always requiring mandatory brute force recovery. This provides added peace of mind in the face of a disaster of any kind.	Legacy scale-out solutions use open source solutions for metadata that are susceptible to corruption. Recovery from those failures involves reading backup images as well as metadata. This requirement can make recovering backup infrastructure increasingly difficult, while increasing recovery time and costs, which is especially relevant when recovering from the cloud.
Superior Operational Performance ▪ Metadata operations are typically random, small size I/Os with varying block sizes. NetBackup Flex Scale separates metadata store placement from backup data to help avoid performance issues caused by erasure coding in small,	Competitors' legacy scale-out solutions are designed to give the same level of disk and node failure protection to metadata via erasure coding. This can reduce metadata operation performance.

NetBackup Advantages Versus Legacy Scale-Out Solutions	
NetBackup Feature or Capability	**Business Value to Veritas Customers Versus Legacy Scale-Out Vendors**
Enterprise-Proven Thirty years of industry leadership with more than 80K customers. Trusted by 95 percent of the Global Fortune 100. Named as a leader in Gartner Magic Quadrant for Enterprise Backup and Recovery solutions for 17 years.	Deploy a solution with proven enterprise capabilities plus familiar NetBackup functionality.
Workload Support Support for enterprise workloads with more than 800 data sources. Instant access to dbPaaS workloads improves RTO and simplicity.	NetBackup helps eliminate point products and third-party software, reducing the attack surface and costs, while increasing support for greater enterprise application flexibility.
All-inclusive licensing model provides **complete data protection with a single license**.	No third-party complexities and dependencies or add-on costs for disaster recovery means lower TCO.
Efficient and Intelligent Data Transfers Source-side deduplication and intelligent stream handlers enable efficient data transfer.	Increased performance and operational efficiency across all workloads with Flex Scale and NetBackup.
Snapshot-free granular recovery from the cloud.	Lower cloud costs with the ability to restore individual files from the cloud without requiring an entire snapshot. Legacy vendors do not offer this level of granular recovery.
NetBackup adds to Flex Scale efficiency by offloading tasks such as malware scanning.	On-premises investment protection by offloading malware scanning to a cloud vault allows Flex Scale processing power to focus on primary data protection needs. Malware scanning in other products takes place on the clusters themselves requiring a greater investment in on-premises appliances. Additionally, some legacy vendors do not support all workloads in their vaults.
Flexible Vaulting Flexible vaulting options for multi-cloud (AWS and Azure), multi-tier (WORM and archive LTR), and multi-region (where AWS and Azure are present). Fully supports 3-2-1 backup strategy (three copies—two on-site, at least one off-site.	More cloud options with NetBackup. Other products are less flexible, while some are not multi-cloud and do not provide archive tier immutability support, and have no option for Asia Pacific. Other products only vault to isolated locations for security, but not all users may have access. Other limitations may include fewer archiving options, and support for only partial workloads. The immutability period for some vendors may be capped at 100 days.
Virtual and physical to any cloud.	Simplified operations, where Veritas can convert from physical machines to the cloud without the need to convert to VM first. Other scale-out vendors require the interim step of converting to VM first.

Mix and match scale up, and scale out.	Flexibility and simplification by mixing and matching Flex (scale up) and Flex Scale (scale out). Other vendors push their one-size- fits- all approach, - but customers would like more flexibility as their environments scale. Other legacy scale-out vendors cannot match the scale up and scale out capabilities of Veritas' scale up and scale out capability.
Front-end terrabyte (FETB)-based licensing.	Significant cost savings, where Veritas does not charge for an NBU license at the secondary site. Some vendors' licensing is back-end terabyte (BETB)-based; therefore, an additional license is required at the secondary site.

NetBackup with Flex Scale—Superior Zero Trust Ransomware Resiliency Versus Legacy Scale-Out Solutions	
NetBackup with Flex Scale Feature or Capability	**Business Value to Veritas Customers Versus Legacy Scale-Out Vendors**
Single pane of glass to manage the entire data protection solution.	A common, single UI for Flex Scale and NetBackup offers maximum management flexibility where users can log in as appliance and/or NBU admin role. Includes a dashboard for cluster nodes, storage, NetBackup services, infrastructure, data reduction, and security.
Snapshot free granular recovery from cloud.	Lower cloud costs with the ability to restore individual files from the cloud without requiring entire snapshot. Legacy vendors do not offer this level of granular recovery.
Immutability on-premises (BYO or appliance) and cloud (BYO or SaaS).	Prevents backups from being deleted by ransomware on-premises with Flex Scale appliances. Uses AWS S3 Object Locks for protecting backups in the cloud. Leverages NetBackup SaaS protection WORM capability for making SaaS backups immutable. Provides added security against ransomware with restrictions for remote single user/rescue more boot options as well as bootloader parameter editing.
Universal Shares feature which provides data ingest into a Flex Scale appliance using an NFS or CIFS (SMB) share, providing space efficiency by storing data directly into an existing NetBackup deduplication pool. Flex Scale divides large file systems/databases/Universal Shares into smaller ones to minimize the risk of losing a single large data volume, and provides parallel multi-channels for increased performance.	Reduces cost by eliminating the need to purchase third-party intermediary storage and reducing I/O throughput when moving data twice. Other scale-out vendors may support Universal Shares, but not the high performance of multi-channel without requiring the purchase of additional software.
Built-in independent, immutable clock.	Eliminates the dependency on NTP clocks, which can be the cause of compromised backup immutability or security overheads. The built-in immutable clock in Flex Scale appliances helps eliminate these threats and overheads.

Blocked access to appliance operating environment.	Restricts administrative access and time-bound additional authentication to further secure backup environments.
Separation of backup and storage admin privileges and restricted access to the remote management platform.	Zero Trust–based separation between backup/recovery and storage administrators, with restricted access to remote destructive operations helps secure your immutable backups from single account compromise and malicious insiders.
Zero Trust with SELinux mandatory access control.	Built-in mandatory access control in Flex Scale appliances helps stop any unknown code from getting control of backups. This feature allows securing backups against compromised active directory accounts.
Internal software firewall blocks unauthorized traffic.	In addition to network firewalls, an internal software firewall blocks unauthorized traffic that could result from human errors in network firewall setup.

In addition to network firewalls, an internal software firewall blocks unauthorized traffic, helping protect backups from unauthorized traffic that could result from human errors in network firewall setups.

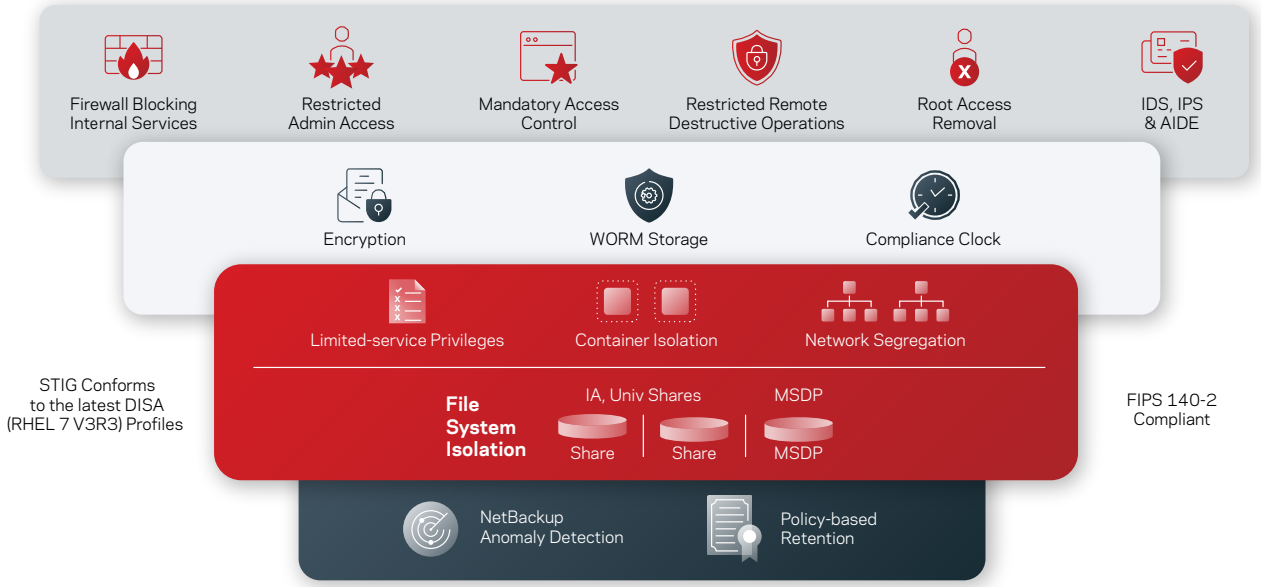

Figure 1. NetBackup Flex Scale Zero Trust model providing multiple layers of protection from ransomware attacks

About Veritas

Veritas Technologies is a leader in multi-cloud data management. Over 80,000 customers—including 95 percent of the Fortune 100—rely on Veritas to help ensure the protection, recoverability, and compliance of their data. Veritas has a reputation for reliability at scale, which delivers the resilience its customers need against the disruptions threatened by cyberattacks, like ransomware. No other vendor is able to match the ability of Veritas to execute, with support for 800+ data sources, 100+ operating systems, 1,400+ storage targets, and 60+ clouds through a single, unified approach. Powered by Cloud Scale Technology, Veritas is delivering today on its strategy for Autonomous Data Management that reduces operational overhead while delivering greater value. Learn more at www.veritas.com. Follow us on Twitter at @veritastechllc.

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