

Cohesity Solutions

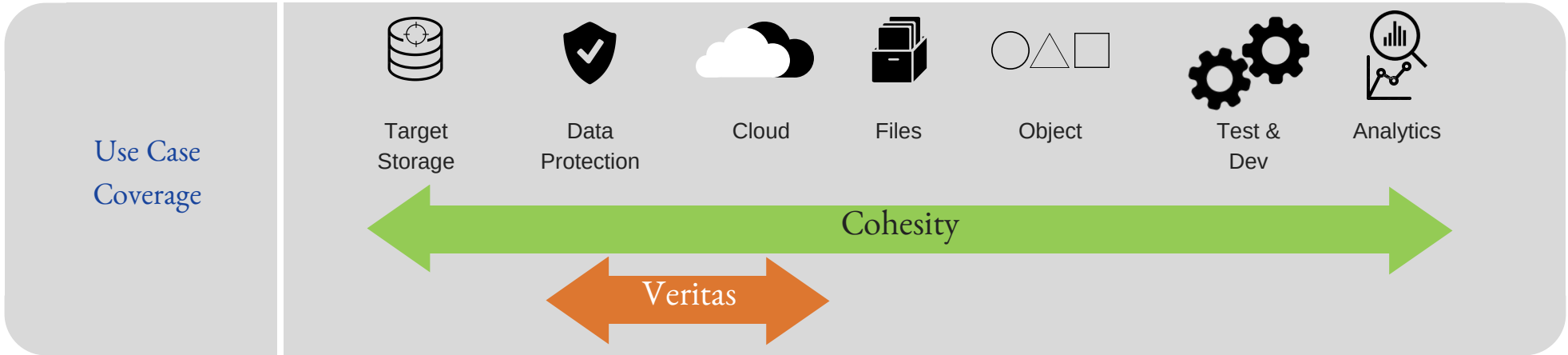
vs.

Veritas NetBackup Solutions

Battlecard



Cohesity vs. Veritas NetBackup Solutions



High Level Comparison

Feature	Cohesity	Veritas
Unlimited scale	*****	**
Global Search	*****	***
Global variable length dedup	*****	**
Non-disruptive upgrades	*****	*
Encryption	*****	***
Instant Mass Restore	*****	*
Cloud Integration	*****	***
Unlimited Snaps & Clones	*****	*
SW Defined	*****	**
QoS & multi-tenancy	*****	***
Target Mode	*****	*

*****100% Functionality; ****90% functionality; ***50% functionality; **Minimal Functionality; *Not supported

Cohesity Differentiation

Converged Storage
Converged Backup
Scaling
Instant Mass Restore
Test/Dev
Analytics
Cloud Integration
Online Upgrades
NDMP-less backup
Global Search
Data Protection
Uptime Protection
Easy POC (virtual or full)
Encryption
Global Deduplication
Sliding-window dedupe
Compression
Save space on source side via dedupe

COHE SITY VERITAS™

*****	*
*****	**
*****	**
*****	*
*****	*
*****	*
*****	***
*****	***
*****	***
*****	***
*****	***
*****	***
*****	**
*****	***
*****	**
*****	**
*****	***
*****	*

Cohesity Advantage

Lower TCO, RPO
Lower TCO
No more forklift upgrades & planning
Lower RTO
Greater agility
Compliance and competitive advantage
Higher agility, lower TCO
Lower TCO, higher SLAs
No vendor lock-in
Compliance, Lower RTO
Risk reduction
Risk Reduction
Lower purchase risk; evidence of low TCO
Compliance, TCO
Lower TCO
Lower TCO
Lower TCO
Lower TCO

*****100% Functionality; ****90% functionality; ***50% functionality; **Minimal Functionality; *Not supported



Transform Data Protection

- a.) **Seamless scaling:** Cohesity scales capacity and performance seamlessly with incremental asset additions and subtractions: no forklift upgrades, no separate dedupe pools in separate data domain boxes.
- b.) **Instant mass restore:** Metadata is always hydrated to support random IO. File data is stored in direct-mountable form. Data Domain and NetBackup lack the random IO for instant restore for all but the very lightest loads. They store backup files rather than directly mountable file systems.
- c.) **Integrated Search and Restore:** Cohesity allows customers to search and restore across local, remote, and cloud backups. Veritas has completely separate products requiring separate resources for global search vs. for restore.
- d.) **Faster Backups:** Scale-out clustering and changed-block tracking is further enhanced by Megafiler that breaks down individual Files/VMDK and streams them across multiple nodes in parallel.
- e.) **Cloud-integrated:** Run at scale in the cloud. Automatically extend local capacity. Make data and VMs portable across storage architectures and clouds.



Strong Foundation

- a.) **Hyper-Converged:** All backup including analysis and reporting are converged into a single scale-out platform. Cross-site, cross-cluster management is converged on the web with no customer hardware required. The platform supports mass instant restore of file systems and VMs with suitable performance for many production loads and test/dev. Metadata and content analytics are converged in the scale-out cluster. Secondary source data can be converged, further avoiding duplicates in the building and unnecessary data flows.
- b.) **Always protected and online:** Cohesity provides no single point of interruption or failure and minimal loss or performance upon failure. Cohesity protects the backup catalog from ransomware by keeping it internal and by making frequent, immutable snapshots. Cohesity supports non-disruptive rolling upgrades which allows customers to perform single-click upgrade of the platform. Veritas does none of those things.
- c.) **Intel-chip-assisted encryption:** Makes compliance and extra cloud security affordable.



Lower TCO

- a.) **Global sliding-window deduplication:** Cohesity provides global variable-length deduplication across all datasets and protocols. NetBackup appliances require a separate dedupe pool for each 96 TB. NetBackup doesn't meaningfully support sliding-window except when done Data Domain Dell EMC deduplication is limited to within a single Data Domain box. Dell EMC is turning off variable-length dedupe for VMs as a partial workaround to their restore performance issues - greatly increasing the required capacity required to retain changed data, which often includes insertions/deletions.
- b.) **Advanced compression:** Higher savings than older compression methods.
- c.) **Lower operational overhead:** Cohesity simplifies secondary data management by providing a simplified common interface for backups, file/object, test & dev, analytics and cloud data connection. Storing source data on Cohesity avoids needing extra copies in the building. Veritas requires separate interfaces for file, object, backup software, analytics, search, DD backup target, and cloud D/R.

Cohesity Solutions

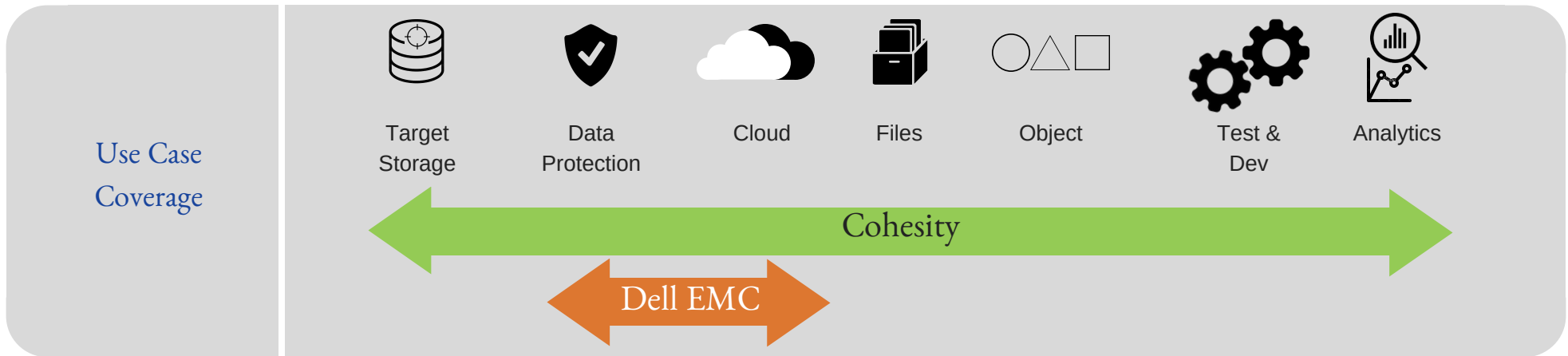
vs.

Dell EMC

Battlecard



Cohesity vs. Dell EMC Backup Solutions



High Level Comparison

Feature	Cohesity	EMC
Unlimited scale	*****	**
Global Search	*****	***
Global variable length dedup	*****	*****
Non-disruptive upgrades	*****	*
Encryption	*****	***
Instant Mass Restore	*****	**
Cloud Integration	*****	***
Unlimited Snaps & Clones	*****	*
SW Defined	*****	**
QoS & multi-tenancy	*****	***
Target Mode	*****	***

*****100% Functionality; ****90% functionality; ***50% functionality; **Minimal Functionality; *Not supported

Cohesity Differentiation

COHE SITY DELL EMC

Cohesity Advantage

Converged Storage

*

Converged Backup

**

Scaling

**

Instant Mass Restore

**

Test/Dev

**

Analytics

*

Cloud Integration

Online Upgrades

Global Search

Data Protection

Uptime Protection

Easy POC

**

Global Deduplication

**

Variable Length dedupe

Compression

Save space on source side via dedupe

*

Lower TCO, RPO

Lower TCO

No more forklift upgrades & planning

Lower RTO

Greater agility

Compliance and competitive advantage

Higher agility, lower TCO

Lower TCO, higher SLAs

Compliance, Lower RTO

Risk reduction

Risk Reduction

Lower purchase risk; evidence of low TCO

Lower TCO

Lower TCO

Lower TCO

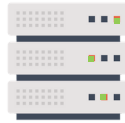
Lower TCO

*****100% Functionality; ****90% functionality; ***50% functionality; **Minimal Functionality; *Not supported



Transform Data Protection

- a.) **Seamless scaling:** Cohesity scales capacity and performance seamlessly with incremental asset additions and subtractions: no forklift upgrades, no separate dedupe pools in separate data domain boxes.
- b.) **Instant mass restore:** Metadata is always hydrated to support random IO. File data is stored in direct-mountable form. Data Domain and NetBackup lack the random IO for instant restore for all but the very lightest loads. They store backup files rather than directly mountable file systems.
- c.) **Integrated Search and Restore:** Cohesity allows customers to search and restore across local, remote, and cloud backups. Veritas has completely separate products requiring separate resources for global search vs. for restore.
- d.) **Faster Backups:** Scale-out clustering and changed-block tracking is further enhanced by Megafiler that breaks down individual Files/VMDK and streams them across multiple nodes in parallel.
- e.) **Cloud-integrated:** Run at scale in the cloud. Automatically extend local capacity. Make data and VMs portable across storage architectures and clouds.



Strong Foundation

- a.) **Hyper-Converged:** All backup including analysis and reporting are converged into a single scale-out platform. Cross-site, cross-cluster management is converged on the web with no customer hardware required. The platform supports mass instant restore of file systems and VMs with suitable performance for many production loads and test/dev. Metadata and content analytics are converged in the scale-out cluster. Secondary source data can be converged, further avoiding duplicates in the building and unnecessary data flows.
- b.) **Always protected and online:** Cohesity provides no single point of interruption or failure and minimal loss or performance upon failure. Cohesity protects the backup catalog from ransomware by keeping it internal and by making frequent, immutable snapshots. Cohesity supports non-disruptive rolling upgrades which allows customers to perform single-click upgrade of the platform. Veritas does none of those things.
- c.) **QoS:** Cohesity has built-in QoS that allows customers to prioritize backups, recoveries and test/dev workloads over each other. Data Domain doesn't support the required prioritization.



Lower TCO

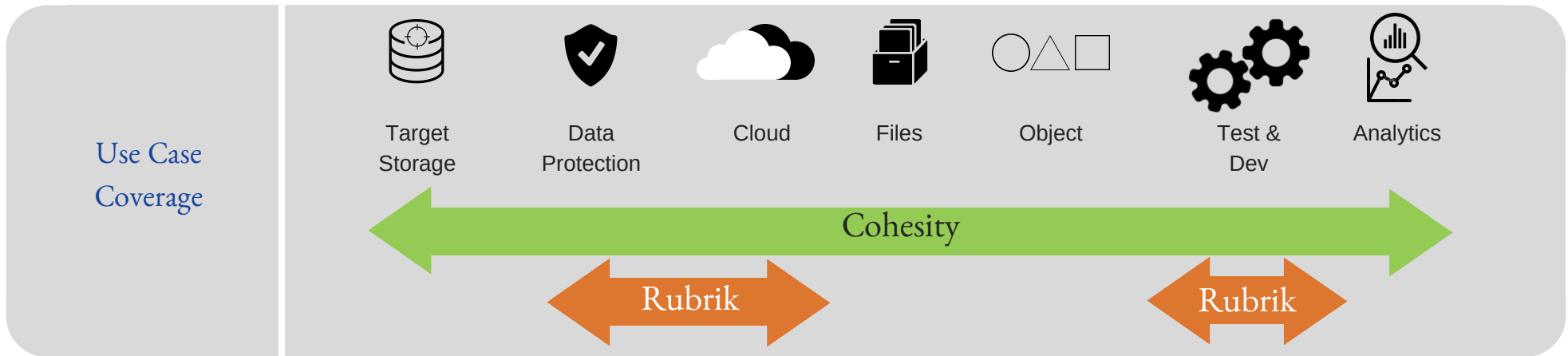
- a.) **Global sliding-window deduplication:** Cohesity provides global variable-length deduplication across all datasets and protocols. NetBackup appliances require a separate dedupe pool for each 96 TB. NetBackup doesn't meaningfully support sliding-window except when done Data Domain Dell EMC deduplication is limited to within a single Data Domain box. Dell EMC is turning off variable-length dedupe for VMs as a partial workaround to their restore performance issues - greatly increasing the required capacity required to retain changed data, which often includes insertions/deletions.
- b.) **Advanced compression:** Higher savings than older compression methods.
- c.) **Lower operational overhead:** Cohesity simplifies secondary data management by providing a simplified common interface for backups, file/object, test & dev, analytics and cloud data connection. Storing source data on Cohesity avoids needing extra copies in the building. Veritas requires separate interfaces for file, object, backup software, analytics, search, DD backup target, and cloud D/R.

Cohesity
vs.
Rubrik

Battlecard



Cohesity vs. Rubrik



High Level Comparison

Feature	Cohesity	Rubrik
Unlimited scale	*****	*
Strict Consistency	*****	*
Global variable length dedup	*****	*
Non-disruptive upgrades	*****	*
Encryption	*****	*****
Instant Mass Restore	*****	*
Cloud Integration	*****	***
Unlimited Snaps & Clones	*****	***
SW Defined	*****	*****
QoS & multi-tenancy	*****	*
Target Mode	*****	*

*****100% Functionality; ****90% functionality; ***50% functionality; **Minimal Functionality; *Not supported

Cohesity Differentiation

COHESITY rubrik

Cohesity Advantage

Unlimited Scale	*****	*	Pay as you grow
Any Point in Time	*****	*	Flexibility for mass restores
Highly Available Recovery	*****	*	Remove Risk
Global Deduplication	*****	*	Lower TCO
Variable Length	*****	*	Lower TCO
5:2 Erasure Coding	*****	*	Lower TCO
Highly Available Distributed Volumes	*****	*	Remove Risk
Strict Consistency	*****	*	No risk of of data corruption
No Chance of Data Loss on Recovery	*****	*	Remove Risk
Linear Scale & Performance	*****	*	No more forklift upgrades & planning
Online Upgrades	*****	*	Bring agility into the environment
Target mode for 3rd party or native backups	*****	*	Flexible and Agile

*****100% Functionality; ****90% functionality; ***50% functionality; **Minimal Funtionality; *Not supported



Business Continuity

Recover Production apps with Instant Mass Restore

- a.) **Scale:** Cohesity can instantly recover an unlimited number of VMs, apps or files in a single operation. With Rubrik restoring VM's or files is a complex and slow operation.
- b.) **Any point in time:** Instant recovery can be to any backup point in time, and not just to the latest images. With Rubrik only the latest backup is kept hydrated.
- c.) **Unlimited points in time:** Cohesity supports an unlimited number of backup points by mapping each backup to a SnapTree snap. Rubrik supports only 14 days of backup after which performance degrades.
- d.) **Availability and performance:** Distributed, fault-tolerant strictly consistent volumes provide high throughput and data resiliency. Rubrik instant restores are done on Managed Volumes, which are accessed through a single physical node, not highly available, and only **Eventually Consistent**. These volumes can lead to application downtime and even data loss.



Data Integrity

Always-on Availability with STRICT CONSISTENCY

- a.) **Zero data loss with Strict Consistency:** Cohesity volumes are Strictly Consistent, ensuring data is always protected across multiple nodes. Rubrik volumes are only eventually consistent leading to a risk of data loss.
- b.) **High performance recovery:** Cohesity stores data on distributed volumes that are strictly consistent. In case of Rubrik, these volumes are eventually consistent and are accessed through a single node which limits throughput.
- c.) **Backups:** Backups are uninterrupted by node failure. With Rubrik backups must restart with node failure, leading to longer backups and missed SLAs.
- d.) **Instant Recovery:** Instant Recovery is done on highly-available volumes with zero data loss. With Rubrik instant recovery is done on volumes that are prone to failure and data loss.



Lower TCO

More Efficient GLOBAL DEDUPLICATION

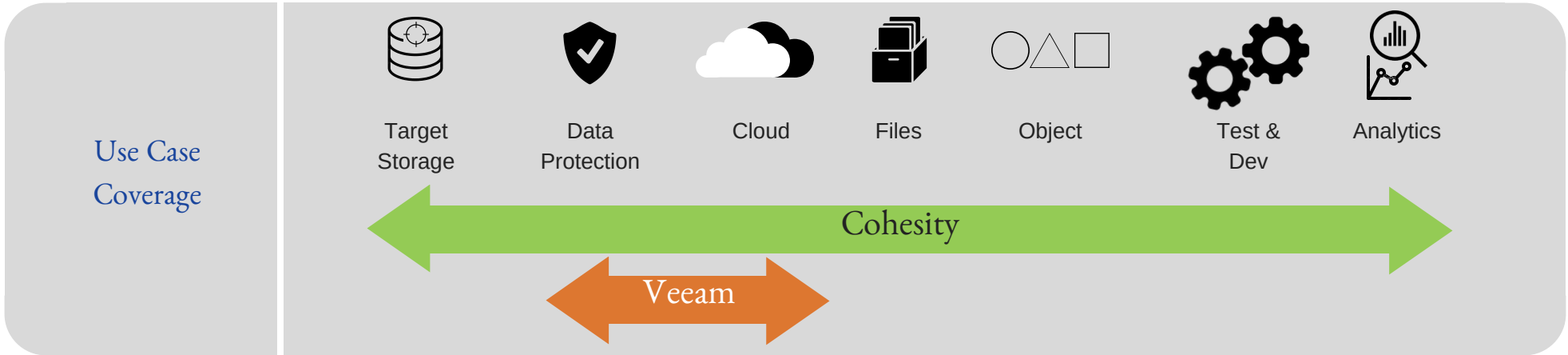
- a.) **Global sliding-window deduplication:** Cohesity provides global variable-length deduplication across all datasets and protocols vs Rubrik provides a fixed length, post-process (SSD landing zone then dedupe) also per workload. De-dupe and de-duping across siloed workloads.
- b.) **Erasur coding & redundancy:** Cohesity provides flexible redundancy options (EC 2:1, EC 2:2, EC 4:2, EC 5:2) vs Rubrik providing just EC 4:2

Cohesity
vs.
Veeam

Battlecard



Cohesity vs. Veeam



High Level Comparison

Feature	Cohesity	Veeam
Unlimited scale	*****	*
Strict Consistency	*****	***
Global variable length dedup	*****	*
Non-disruptive upgrades	*****	*
Encryption	*****	****
Instant Mass Restore	*****	*
Cloud Integration	*****	***
Unlimited Snaps & Clones	*****	*
SW Defined	*****	*****
QoS & multi-tenancy	*****	*
Target Mode	*****	*

*****100% Functionality; ****90% functionality; ***50% functionality; **Minimal Funtionality; *Not supported

Cohesity Differentiation

COHE^SITY VEEAM

Faster Backups	*****	***
Snapshot based NAS Backups	*****	*
Automatic Job Scheduler	*****	***
Linear Scale & Performance	*****	*
Online Upgrades	*****	*
Native Cloud Integration	*****	***
Integrated Copy Data Management	*****	***
Unlimited Scale	*****	*
Any Point in Time	*****	*
Globally Search and Restore at a file level	*****	***
Global Deduplication	*****	*
Variable Length	*****	*
Cloud Efficiency	*****	***
Converged Management	*****	***
Integrated Analytics Workbench	*****	*

Cohesity Advantage

Lower RPO
Broader Application support
Lower operational overhead
No more forklift upgrades & planning
Bring Agility into the environment
More Efficient & Future Ready
High ROI
Pay as you grow
Flexibility for mass restores
Lower operational overhead
Lower TCO
Lower TCO
Lower TCO
Lower overhead
Meet Compliance Requirements

*****100% Functionality; ****90% functionality; ***50% functionality; **Minimal Functionality; *Not supported



Transform Data Protection

- a.) **Scale:** Cohesity can instantly recover an unlimited number of VMs, apps or files in a single operation. Veeam uses traditional full & incremental backups that utilizes the traditional media agent recovery, which can only recover a few VMs at a time. It has to use the explorer functionality for file recovery which requires customer to know where to find a file.
- b.) **Any point in time:** Instant Mass recovery can be to any backup point in time, and not just to the latest images. With Veeam, only the latest backup for a few VMs can be restored in a reasonable time.
- c.) **Search and Restore:** Cohesity allows customers to search and restore across local, remote and cloud backups. In case of Veeam, Indexing is optional and limited to a job/guest.
- d.) **Faster Backups:** With the use of SSDs and scale-out architecture, Cohesity can achieve really fast ingests that is further accelerated by forever incremental backups and snap integration for NAS.
- e.) **Encrypted backups:** Unlike Cohesity, Veeam's encryption has performance penalty and Veeam disables deduplication on jobs that have encryption enabled.



Strong Foundation

- a.) **Linear Scale and Performance:** Unlike Veeam, Cohesity has a web scale architecture that scales performance and storage linearly as the environment grows. Veeam solution requires customers to bolt-on different components like backup, Metadata and Proxy servers and storage together. Usually customer compromise on underlying storage system, risking the entire environment.
- b.) **Online Upgrades:** Cohesity supports non-disruptive rolling upgrades which allows customers to perform single-click upgrade of the platform. Veeam on the other hand requires days/weeks of planning and execution to get all the components updated which causes disruption to the backup.
- c.) **Copy Data Management & API first architecture:** Cohesity has an API first architecture and allows customers to use backup data for compliance, test & dev and analytics. Veeam has limited APIs. The DataLabs functionality which is mainly an orchestrator and is limited by Veeam's ability to clone & create copies.
- d.) **QoS:** Unlike Veeam, Cohesity has built-in QoS that allows customers to prioritize backups, recoveries and test/dev workloads over each other.



Lower TCO & Cloud Integration

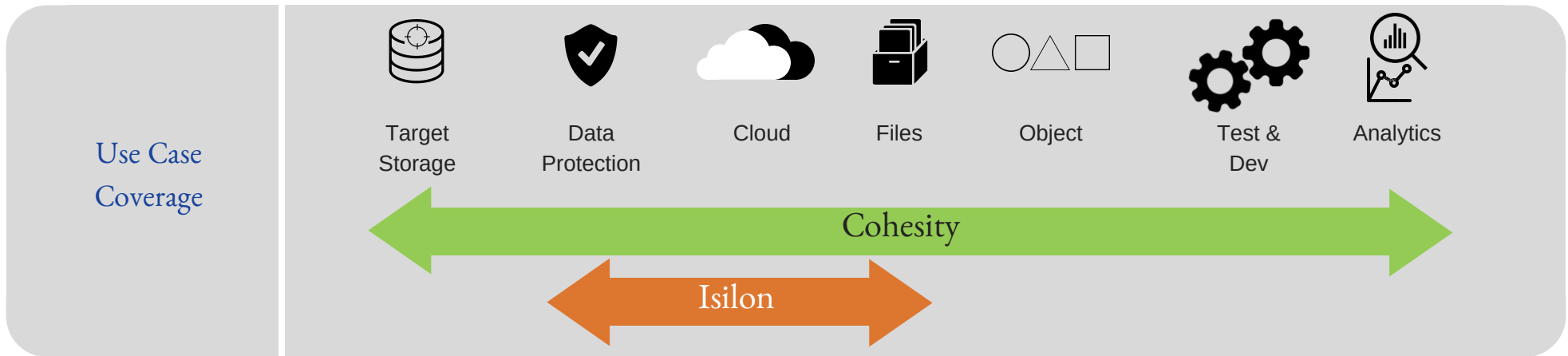
- a.) **Global deduplication:** Cohesity provides global variable-length deduplication across all datasets and protocols vs Veeam providers a fixed length (256KB - 8MB) dedup. Small block sizes can cause performance issues because of increase in metadata. The block sizes are too big to provide any meaningful savings.
- b.) **Lower operational overhead:** Cohesity simplifies secondary data management by providing a simplified common interface for backups, file/object, test & dev, analytics and cloud data connection. Veeam on the other hand is a backup only product which apart from complicated management, could cause a lot of finger pointing even if it is just for the backup use case.
- c.) **Cloud Integration:** Cohesity has a strong integration with public cloud providers like AWS, Azure, and Google with support for functionalities like Cloud Archive, Cloud Tiering, Cloud Replication, CloudSpin, Cloud Retrieval that also supports search and restore back to local site when needed. Veeam has limited support around cloud use cases. It can archive backups to a local service provider, AWS or Azure but is less efficient than Cohesity. Recovery is cumbersome and requires explorer functionality for any granular recovery. GCP integration is non-existent.

Cohesity
vs.
Isilon

Battlecard



Cohesity vs. Isilon



High Level Comparison

Feature	Isilon	Cohesity
Unlimited scale	***	*****
Strict Consistency	**	*****
Global variable length dedup	*	*****
Non-disruptive upgrades	***	*****
Encryption	**	*****
Instant Mass Restore	*	*****
Cloud Integration	***	*****
Unlimited Snaps & Clones	*	*****
Compression	*	*****
QoS & multi-tenancy	*	*****
Target Mode	*	*****

*****100% Functionality; ****90% functionality; ***50% functionality; **Minimal Funtionality; *Not supported

Cohesity Differentiation

Unlimited Scale
Non Disruptive Upgrades
Strictly Consist
Supports Third Party HW
Support for Object
Global Indexing and Search
Built-in Data Protection
Integrated Analytics Workbench
Compression & Global Variable-Length Dedup
Snapshots
Writable Snaps/Cloning
Cloud Tiering
Cloud Archive
Cloud Replication
Cloud Edition
API Support

COHE ^S ITY	ISILON [®]
*****	***
*****	***
*****	**
*****	*
*****	**
*****	*
*****	*
*****	*
*****	*
*****	*
*****	***
*****	**
*****	*****
*****	*
*****	*
*****	*
*****	***

Cohesity Advantage

No more forklift upgrades & planning
Reduced Risk
Data Consistency & Reduced Risk
Flexibility
Flexibility, Lower TCO & Operational Overhead
Lower Overhead
Reduce Risk & TCO
Meet Compliance Requirements
Lower TCO
Lower RPO
Save Time and Reduce TCO
Full Cloud Integration
Full Cloud Integration
Full Cloud Integration
Full Cloud Integration
Automation Ready

*****100% Functionality; ****90% functionality; ***50% functionality; **Minimal Funtionality; *Not supported



Transform Data Protection

a.) **Zero data loss with Strict Consistency:**

Cohesity follows a strictly consistent model which ensures data consistency and no data loss. Isilon is usually configured as an eventually consistent system, which can lead to data inconsistency and data loss for open files in case of a node failure. Session data is not protected, leading to stale handles.

b.) **Non Disruptive Upgrades:** Cohesity supports non-disruptive rolling upgrades which allows customers to perform single-click upgrade of the platform. Isilon only supports NDU for minor releases and doesn't distribute metadata evenly across the nodes: it can lead to stale application handles during NDU or unplanned node failure.

c.) **Scalability and Performance:** Cohesity performance scales linearly with the number of nodes in the cluster. Isilon is limited to 144 nodes in the cluster with a limitation of maximum file size of 4TB. Isilon's performance drops if there are a lot of small files or a file size is greater than 1TB.



Strong Foundation

a.) **Global deduplication:** Cohesity supports global-variable length dedup which can be enabled both Inline and post process. Isilon only support post process fixed-length dedup.

b.) **Compression:** Cohesity supports inline compression. Isilon doesn't support compression.

c.) **Snapshots:** Cohesity supports limitless and fully-hydrated snapshots for granular Cohesity Views (file systems). There is none to minimal performance impact. Isilon is limited to 20,000 snapshots per cluster which includes both regular and replication snapshots. Also, Isilon's snapshot performance drops with the increase in number of snapshots.

d.) **Writable snapshots:** Cohesity supports writeable snapshot clones that provide instant creation of view-based datasets for various use cases like test & dev, testing of DR data for consistency etc. Isilon can only clone individual files, and not at the D/R site, making it very difficult to even test DR consistency.



Lower TCO & Cloud Integration

a.) **Simple converged management:** Cohesity simplifies secondary data management by providing a simplified common interface for backups, file/object, test & dev, analytics and cloud data connection. Isilon, on the other hand is a point solution and can be used only as a NAS filer that requires a separate backup software.

b.) **Replication:** Cohesity uses Snaptree diff to ensure only changed blocks are sent from the source to DR site. With Cohesity's clones, customers have instant read/write access of data at the DR site. Isilon provides only read only access to data at the DR site.

c.) **Software based encryption:** Cohesity supports software based encryption. Isilon doesn't support software based encryption.

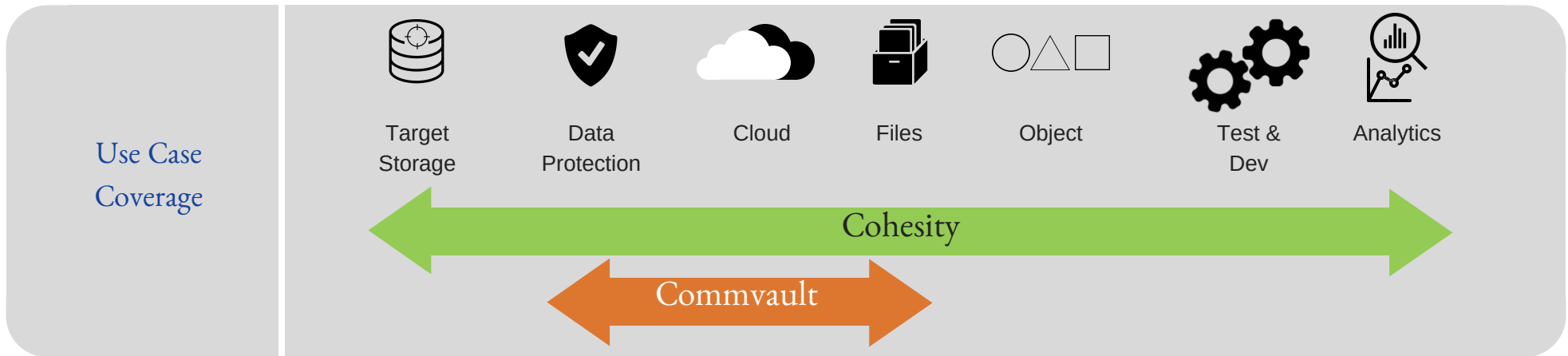
d.) **Global Indexing and Search:** Cohesity allows customers to search and restore files across local, remote and cloud tier. Isilon has no such capabilities and requires third party software.

Cohesity
vs.
Commvault

Battlecard



Cohesity vs. Commvault



High Level Comparison

Feature	Cohesity	Commvault
Unlimited scale	*****	**
Global Search	*****	***
Global variable length dedup	*****	*
Non-disruptive upgrades	*****	*
Encryption	*****	***
Instant Mass Restore	*****	*
Cloud Integration	*****	***
Unlimited Snaps & Clones	*****	**
SW Defined	*****	*****
QoS & multi-tenancy	*****	**
Target Mode	*****	*

*****100% Functionality; ****90% functionality; ***50% functionality; **Minimal Functionality; *Not supported

Cohesity Differentiation

Frequent Backups
Megafile-sub file level streaming
Encrypted backups
Linear Scale & Performance
Online Upgrades
Target mode for 3rd party or native backups
Integrated Copy Data Management
Unlimited Scale
Instant mass recovery to any Point in Time
Globally Search and Restore at a file level
Global Deduplication
Variable Length
Cloud Efficiency
Converged Management
Integrated Analytics Workbench

COHE SITY COMMVAULT

*****	***
*****	*
*****	***
*****	*
*****	*
*****	*
*****	*
*****	*
*****	*
*****	*
*****	***
*****	***
*****	*
*****	***
*****	***
*****	*

Cohesity Advantage

Lower RPO
Faster Backups
No performance overhead
No more forklift upgrades & planning
Bring Agility into the environment
Flexible and Agile
High ROI
Pay as you grow
Flexibility for mass restores
Lower operational overhead
Lower TCO
Lower TCO
Lower TCO
Lower overhead
Meet Compliance Requirements

*****100% Functionality; ****90% functionality; ***50% functionality; **Minimal Funtionality; *Not supported



Transform Data Protection

- a.) **Scale:** number of VMs, apps or files in a single operation. Commvault uses traditional full & incremental backups that utilizes the traditional media agent recovery, which can only recover one VM at a time.
- b.) **Any point in time:** Instant Mass recovery can be to any backup point in time, and not just to the latest images. With Commvault, only the latest backup for one VM can be restored in a reasonable time.
- c.) **Search and Restore:** Cohesity allows customers to search and restore across local, remote and cloud backups. In case of Commvault, Indexing is optional and limited to a sub-client.
- d.) **Faster Backups:** With the use of SSDs and scale-out architecture, Cohesity can achieve really fast ingests that is further accelerated by forever incremental backups and CBT. Also, since Cohesity doesn't rely on NDMP for NAS backups, it can finish backups really fast without any vendor lock-in.
- e.) **Encrypted backups:** Unlike Cohesity, Commvault's encryption has 40% performance penalty.



Strong Foundation

- a.) **Linear Scale and Performance:** Unlike Commvault, Cohesity has a web scale architecture that scales performance and storage linearly as the environment grows. Commvault solution requires customers to bolt-on different components together. Even with Hyperscale, Commvault has bolted on Commvault software on top of GlusterFS with no integration between the two. Commvault's key component, CommCell doesn't support scale-out.
- b.) **Online Upgrades:** Cohesity supports non-disruptive rolling upgrades which allows customers to perform single-click upgrade of the platform. Commvault on the other hand requires days/weeks of planning and execution to get all the components updated which causes disruption to the backup.
- c.) **Native Cloud Integration & Copy Data Management:** Unlike Commvault, Cohesity allows customers to use backup data to run test & dev and it has a more complete cloud functionality with Cloud Archive, Tiering and Replication.
- d.) **QoS:** Unlike commvault, Cohesity has built-in QoS that allows customers to prioritize backups, recoveries and test/dev workloads over each other.



Lower TCO

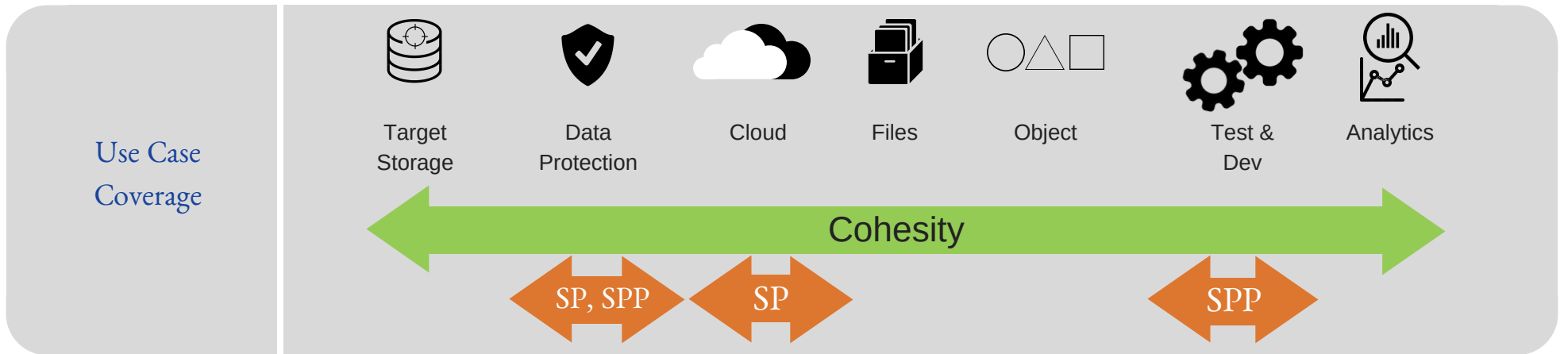
- a.) **Global Deduplication:** Cohesity provides global variable-length deduplication across all datasets and protocols vs Commvault provides a fixed length (128KB) dedup that is recommended to be siloed based on application and copies in a storage policy. Also in case of Commvault's Hyperscale solution, the dedup is limited to a group of 6 nodes. Commvault Dedup DB (DDB) is exposed to possible data corruption because it is accessible via individuals who have access to the MediaAgent. It requires a full reread of backup to rebuild.
- b.) **Erasur coding & redundancy:** Cohesity provides flexible redundancy options (EC 2:1, EC 2:2, EC 4:2, EC 5:2) vs. Commvault provides just EC 4:2
- c.) **Lower operational overhead:** Cohesity simplifies secondary data management by providing a simplified common interface for backups, file/object, test & dev, analytics and cloud data connection. Commvault has two separate interfaces (CommServe and the web based Admin console). It's Hyperscale solution uses two different layers (CommCell and Redhat Gluster) with limited converged management. Their Dedup DB has to be frequently backed up and scaled, increasing the number of components to be managed.

Cohesity
vs.
IBM TSM

Battlecard



Cohesity vs. IBM TSM Spectrum Protect & SP Plus (SPP) Backup Solutions



High Level Comparison

Feature	SP	SPP
Unlimited scale	*****	**
Global Search	*****	*
Global variable length dedup	*****	***
Non-disruptive upgrades	*****	*
Encryption	*****	***
Instant Mass Restore	*****	**
Cloud Integration	*****	**
Unlimited Snaps & Clones	*****	*
SW Defined	*****	**
QoS & multi-tenancy	*****	**
Target Mode	*****	*

*****100% Functionality; ****90% functionality; ***50% functionality; **Minimal Funtionality; *Not supported

Cohesity Differentiation

COHE SITY

IBM

Cohesity Advantage

Converged Storage
Converged Backup
Scaling
Instant Mass Restore
Test/Dev
Analytics
Cloud Integration
Online Upgrades
Online Upgrades
NDMP-less backup
Global Search
Data Protection
Uptime Protection
Easy POC (virtual or full)
Encryption
Global Deduplication
Compression
Save space on the source side via dedup

*****	*
*****	*
*****	**
*****	**
*****	**
*****	*
*****	***
*****	*
*****	**
*****	**
*****	**
*****	***
*****	**
*****	**
*****	***
*****	**
*****	***
*****	*

Lower TCO, RPO
Lower TCO
No more forklift upgrades & planning
Lower RTO
Greater agility
Compliance and competitive advantage
Higher agility, lower TCO
Lower TCO, higher SLAs
No vendor lock-in
Compliance, Lower TRO
Risk reduction
Risk reduction
Lower purchase risk; evidence of low TCO
Compliance, TCO
Lower TCO
Lower TCO
Lower TCO
Lower TCO

*****100% Functionality; ****90% functionality; ***50% functionality; **Minimal Functionality; *Not supported



Transform Data Protection

- a.) **Seamless scaling:** Cohesity scales capacity and performance seamlessly with incremental asset additions and subtractions: no forklift upgrades, no separate dedupe pools in separate data domain boxes.
- b.) **Instant mass restore:** Metadata is always hydrated to support random IO. TSM SP lacks instant restore. Bolt-on TSM SP VE and TSM SPP provide some instant restore but add a lot of complexity to the environment and do not scale well.
- c.) **Integrated Search and Restore:** Cohesity allows customers to search and restore across local, remote, and cloud backups. TSM requires bolt-on components for limited search.
- d.) **Faster Backups:** Scale-out clustering and changed-block tracking is further enhanced by megafile that breaks down individual Files/VMDK and sstreams them across multiple nodes in parallel.
- e.) **Cloud-integrated:** Run at scale in the cloud. Automatically extend local capacity. Make data and VMs portable across storage architectures and clouds.



Strong Foundation

- a.) **Hyper-Convergence:** All backup functions including analysis and reporting are converged into a single scale-out platform. Cross-site, cross-cluster management is converged on the web with no customer hardware required. The platform supports mass instant restore of file systems and VMs with suitable performance for many production loads and test/dev. Metadata content analytics are converged in the scale-out cluster. Source data can be converged, further avoiding duplicates on site and unnecessary data flows.
- b.) **Always protected and online:** Cohesity provides no single point of interruption or failure and minimal loss of performance upon failure. Cohesity protects the backup catalog from ransomware by keeping it internal and by making frequent, immutable snapshots. Cohesity supports non-disruptive rolling upgrades which allows customers to perform single-click upgrade of the platform. The TSM SP family does none of those things.
- c.) **Intel-chip-assisted:** Makes compliance and extra cloud security affordable.
- d.) **Multitenancy:** is integrated and advanced, rather than 3rd party or bolt-on with limited scope.



Lower TCO

- a.) **Global, fine-grained, sliding-window deduplication:** Cohesity eliminates the need for any duplicate data at a given site, even removing small areas of duplicate information, even when insertions or deletions change the block boundaries. TSM SP sees only larger blocks while TSM SPP is fooled by insertions and deletions. Only Cohesity provides for a single, web-scale repository per site, including source file and object data. TSM needs extra copies even within just backup, due to lack of scaling and lack of unified repository for short-term multi-VM instant restore and longer term retention.
- b.) **Advanced compression:** Higher savings with Zstandard than older LZ4 compression methods.
- c.) **Lower operational overhead:** Cohesity simplifies secondary data management by providing a simplified common interface for backups, file/object, test & dev, analytics and cloud data connection. IBM requires separate interfaces for file, object, VM-centric operations, proxies, backup software, analytics, file restore, maintenance, multitenancy, and backup target storage.