CloudBoost: Cloud-Enablement for EMC Data Protection Suite

With EMC CloudBoost, EMC Data Protection Suite family solutions that include EMC NetWorker enable data protection for enterprise applications running in the public cloud, on-premises in your data center, or both. Data Protection Suite with CloudBoost is a unified data protection solution that centralizes, automates, and accelerates both operational backup and recovery and long-term retention across your entire environment.

Protect your data wherever it resides

Data Protection Suite with CloudBoost is an integrated solution for cloud data protection with optimizations to secure your data everywhere.

Backup in the cloud for scenarios where you have applications running in public cloud VM instances and wish to use public cloud object storage for all backup workloads, including short term backups for operational recovery and long term backups for compliance.

Backup to the cloud for scenarios where your applications are running on-premises and you wish to use public or private object storage for all your backup workloads, including both short term backups for operational recovery and long term backups for compliance.

Backup on-premises and replicate to the cloud for scenarios where you have existing on-premises infrastructure and wish to use public or private object storage instead of tape for long-term retention. Backup copies required for short term operational recovery remain on-premises for fast restore. Optionally, a disaster recovery site can be established for contingency purposes.

Solution benefits

EMC Data Protection Suite with CloudBoost delivers optimized data protection for enterprise applications running in the public cloud, on-premises in your data center, or both. The same solution supports cloud-based backup and recovery for both operational and long-term retention purposes and enables you to decide whether or not to retain on-premises copies of your backups as well.

Data Protection Suite with CloudBoost delivers all the attributes you need for cloud-based enterprise data protection:

- **Scale**: A single CloudBoost instance can support up to 6 petabytes of data in the cloud. Need more capacity? Just add more CloudBoost instances.

Essentials

- CloudBoost cloud-enables EMC Data Protection Suite family
- Protects data wherever it lives: in-cloud, direct to cloud, and cloud as long-term retention (LTR)

Highlights

- **Fast and efficient**: Source-side deduplication, compression, and WAN optimization boost performance and throughput while reducing the consumption and cost of network bandwidth and cloud storage capacity.
- **Cost-effective and flexible**: CloudBoost is available as a virtual, physical, or native public cloud appliance to fit every environment and supports leading public and private object storage clouds.
- **Secure**: CloudBoost delivers enterprise-grade security even when data is stored or transferred outside your firewall. Data is segmented and encrypted in flight and at rest at all times, and all data transfers occur over HTTPS. Add an EMC Elastic Cloud Storage (ECS) private object store or Virtustream Storage Cloud (VSC) public cloud for even greater control.
- **Scalable**: A single CloudBoost instance can manage up to 6PB of data in the cloud. Need more capacity? Just add more CloudBoost instances.

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**Performance and Efficiency**: Fine-grained deduplication, compression, and WAN optimization – all applied at the source – optimize performance while minimizing consumption of network bandwidth and cloud storage capacity.
Security. Enterprise-grade security is assured regardless of where data is stored. Each file is segmented into small, variable-sized chunks, and each chunk is individually encrypted with its own independent AES-256 key. All transfers take place over HTTPS, and data remains encrypted in-flight and at rest at all times.

Enterprise Readiness. With over twenty-five years of experience and a position of market leadership, EMC has invested heavily in architecting proven data protection solutions for the modern, software-defined data center. Also, recognizing that modern IT infrastructure requires a modern customer service experience, we answer the call with a wide range of customer service offerings and capabilities that are personalized, proactive, and predictive.

Solution components

The solution is comprised of the following elements:

- The NetWorker Server is the core component of the solution and supports the policy, scheduling and catalog functions of the solution to manage backup and recovery processes between the NetWorker clients, CloudBoost appliances and cloud object storage. The NetWorker server also coordinates NetWorker Application Modules to create consistent and recoverable backup copies of operating system and application workloads.

- A NetWorker client is a software component deployed in application servers, whether in-cloud or on-premises, to protect the operating system and application data. Once deployed, the client configuration is performed from the NetWorker Management Console and associated with one or more protection policies. These protection policies determine when clients are protected, what is protected, where backup copies are sent, and how long they are retained.

- NetWorker application modules are software components deployed alongside NetWorker clients to integrate the Data Protection service with application workloads. It is recommended that these modules be deployed to provide application administrators with control and visibility of Data Protection services and granular recovery capabilities and to ensure the application state is transaction-consistent at the time of backup.

- NetWorker Storage Nodes are optional components that can co-exist with any NetWorker Client or be installed on a dedicated system. Actual resource requirements are small. Storage node deployment is required for support of NetWorker clients without Client Direct workflow, in which case multiple storage nodes can be used to load balance concurrent operations from large number of clients.

- The CloudBoost appliance provides access to the cloud object storage for backup data. Once deployed and activated, the CloudBoost appliance is considered headless and managed via the EMC Cloud Portal, which is hosted by EMC so CloudBoost appliances can be deployed and managed across any combination of private and public cloud environments.

- Public or private object storage provides storage capacity. CloudBoost supports EMC Elastic Cloud Storage (ECS) private cloud, Virtustream Storage Cloud (VCS), AWS, Microsoft Azure, and Google Cloud Storage, and other leading object stores.