CommVault Organizes Data Management Sprawl

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Management Summary

When photocopying became cheap and easy, businesses were delighted with the convenience and the productivity improvements it fostered. However, controlling the promulgation of that information became difficult, and assuring that everybody had the current copy of information glutted interoffice mail systems with yet more copies. Silly-sounding rules were instituted to control costs. Gradually, businesses learned discipline.

IT data has been going through a similar inflorescence. Again, it is management practices that have spurred the growth, along with the human tendency to propagate and hoard. Once, data stayed within the confines of an application. Without a pervasive network, data stayed local, as direct-attached storage, or DAS. It was properly flushed from cache to disk, and then the world stopped (from the application point of view) while the data was backed up. When data was moved, it was always by the "copy and compare" method – but storage space was so limited that surplus copies of data on hard disk were purged. (Floppy disks were another matter.) With more networking, the environment got more interactive. Independent database applications were developed that multiple client applications could address, and NAS added another flavor of sharing. To avoid contention, as when paper was king, management - this time IT management - turned to data replication. Replication was an interruptive bandwidth hog until logical snapshots were developed that copied only the pointers to data, postponing the ungainly physical replication until a lull in network traffic allowed it to be done more transparently.

By this time, enterprise data, and the storage needed to house it, were in high-growth mode. Software was developed to copy only incremental changes, with more software to reintegrate the pieces. The litany of data management tools grew from backup and migration copy to remote backup, compliance/archive copy, local copy, and test-and-evaluation copy. As data services have proliferated, these tools have been aggregated to be managed on a single pane of glass, but, in many cases, each service still generates its own replications. **There can still be too many copies of data floating around enterprise networks – copies for which enterprises are paying dearly in IT operational costs.**

In its new release of its *QiNetix Unified Data Management*, CommVault coordinates backup, replication, snapshot, HSM and archive services, not just to a single interface, but to a common code base - a single set of metadata and shared storage pools. This lets an administrator set policies for a class of data once, and catalog or index only once. All services can identify and use already generated replicated data for their operations. This saves administrator time and storage space. For more details, read on.

CommVault Backgrounder

CommVault has been around since the 1980's, when it began as part of ATT. As IT data bloomed at the end of the century, CommVault, by then an independent company, came out with its *Galaxy* backup application. With the first generation of *QiNetix,* launched in 2002, CommVault added contemporary standard accessories of snapshot, exchange archiving, hierarchical storage management (HSM), analysis and reporting, (for tiered service and costing), and storage resource management (SRM). CommVault has enjoyed 12 quarters of double-digit license growth, a worldwide customer base, and active distribution channels of resellers, but they felt that there was more to do to ready their product for the future.

QiNetix Unified Data Management

While storage has been dropping in cost, storage management costs have been skyrocketing. As business processes go digital and disk storage gets less and less expensive, the demand for deft, seamless, transparent management of storage will grow. CommVault feels that this demand will not be met by any approach that involves multiple incompatible processes for replicating and managing data. Instead, data service processes have to be fused into a single platform supporting policy-based automation, relieving the storage administrator of a great deal of complex, but routine, operations. With a common technology engine, the administrator can set policies of how particular kinds of data should be treated. Because the services operate from a common code base and back-end repository, there are no APIs or other interfaces that might be a source of error. Furthermore, all services have access to both the policies and the metrics gathered about the data and its use.

The QiNetix unified data management platform allows its customers to enjoy a more highly automated environment, with no barriers of format or process inconsistency. This approach is one of

centralization, and is network-centric. At this release, it is not a good product for managing remote offices or nomadic laptops.

While it supports a wide variety of platforms[1], QiNetix is particularly deeply integrated with *Windows*. The *Recovery Manager* module can recover a user within Active Directory, and can drop a user into an existing active Directory. CommVault has worked with Microsoft to accelerate disk-based backup. It has document and database backup for *SharePoint 200*3, as well as support for the beta of SQL server 2005. However, it will not work with unlicensed, pirated Windows environments. This unification of Commvault's data services includes an upgrade of all products, giving hundreds of features requested by users.

Unified Approach Enables Effective Use of Resources for Replication

Once an application type is defined and policies set, QiNetix will discover all the volumes used by the application. It will determine whether the arrays on which those volumes sit have local snapshot capabilities. If so, it will use those capabilities. QiNetix has the integration with key applications like Oracle to be able to quiesce them to get a stabile view of the data, giving a snapshot with referential integrity.

Unified Metrics Allow More Comprehensive Analysis of Costs

QiNetix includes a costing module that collects all the metrics relative to a particular application or user group. It cannot only see all of the relevant data, and snapshots, and backups, it can assign a cost to them. It can quantify the quality of service, gather all of the relevant metrics, and weight them appropriately to give the administrator a scorecard of customer satisfaction through a process CommVault calls *Q-Factor.* This flexible costing structure is a significant improvement from charging

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[1] Linux and 5 other UNIX variants, Novell NetWare, Apple Mac OS X, and Windows. For QiNetix Gen 2, Windows 2000 and later are supported, but not NT4.

back based upon only on assigned capacity for the primary copy of data with perhaps a flat fee per backup scheduled. **With the growing use of logical constructs, such as virtualized hardware elements, integrated and detailed metrics will be key to determining the costs that should be charged back to users or customers.** CommVault's unified back end and integrated processes support what enterprises of all sizes need – now.

Unified Management Fosters Data Retention Functionalities

For tiered storage and compliance environments, QiNetix has a full range of functionality to create, manage, and synchronize data copies with a variety of retention periods and a range of availability.

- CommVault *DataMigrator* can use the policies set by the administrator to migrate data transparently to a lower tier, freeing up primary storage capacity.

- Content indexing crosses back-ups and archived data so that search can be done on any instance of the dataset.

- Because CommVault has always supported disk and tape media natively, CommVault's data movement can work natively with what ever you've got – and whatever you need.

- CAS and WORM formats are supported, and CommVault has added migration support for NAS devices. QiNetix is integrated with NetApp, HDS, and Microsoft Storage Server disk-based technologies.

Go-to-Market

CommVault continues to focus specific solutions on such key environments as EMC's *Centera* and Microsoft *Exchange*. It also has solutions for particular industries.

With QiNetix generation two, CommVault is simplifying its pricing from the per-module approach of generation one to an inclusive fee for all modules.

Conclusion

CommVault provides the data services

that enterprises require, with the integration that some enterprises may not yet realize how much they need. QiNetix generation two brings not just more enhancements, but the integration to turn the complexities of data management into a business tool that gives enterprises several ways to save money, even more ways to manage enterprise data efficiently, and, in the end, an important way to make the enterprise more effective. If your enterprise data *status quo* is not all you wish it to be, CommVault offers a *modus vivendi* well worth checking out.
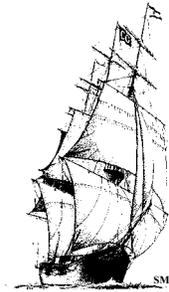
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