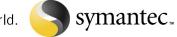
A Practical Approach to Information Management



Confidence in a connected world.

Solution Brief: Information Management

A Practical Approach to Information Management

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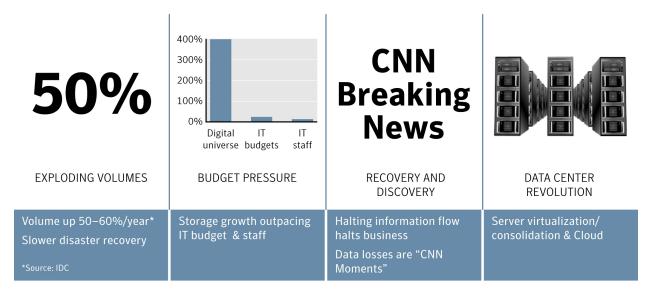
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Information management isn't just a priority, it's mandatory

Information is the fundamental connecting fabric of businesses today. Businesses rely on information technology and systems to run their business and help to drive new opportunities, as well as to operate efficiently and comply with corporate governance practices and industry regulations.

Yet most organizations today are not organized around information, but around infrastructure of servers, storage and applications. The result is information islands – an inability to secure and manage information consistently, leading to duplication, inefficiency and the inability to use information for efficiency and competitive advantage.

The sheer volume of information and its continued growth is one of the main root causes. Over the next four years, IDC estimates that the digital universe will expand by 400 percent, while IT budgets will expand just 20 percent and IT staffing 10 percent¹. Clearly, IT budgets can't keep up with information growth and IT teams are expected to do more with the same staffing levels. At the same time, failure to properly secure and manage information is landing organizations in the news, because halting information flow means halting business. Information outages and data breaches are headline news.



An urgent problem, getting worse

Server virtualization makes the situation worse

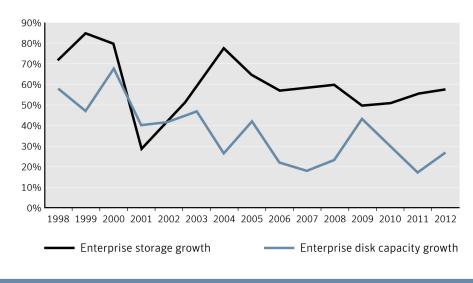
At the same time, organizations have been investing in server virtualization as a way of driving down costs through server consolidation. Yet virtualization projects result in increased storage spending on Storage Area Networks, offsetting the ROI, to ensure that virtualized applications can still access the information they need to function. Add to this the requirement to keep documents or files for regulatory, compliance or legal purposes and you have a recipe for spiraling storage costs.

1-IDC, The Diverse and Exploding Digital Universe, 2008

Cheaper storage will not save us

Enterprise disk storage gets less costly every year, and this means storage expenses do not grow at the same rate as information growth. But this masks a growing problem: storage is consuming more and more of the data center budget because the last time storage technology kept pace with information growth was 2002. IDC calculates that enterprise disk capacities only increase 30 percent per year on average, about half the 60 percent growth rate of information². What's more, the trend in disk price performance is declining while information growth is accelerating: this is unsustainable in the current economy and will squeeze IT spending in many other areas, 2002 was the last year when disk price performance kept up with information growth, Moore's law can't save us this time.

The time for better information management is now: without it, storage costs spiral, information becomes harder to find, risks of legal action and privacy breaches escalate, and the return on virtualization is diminished.



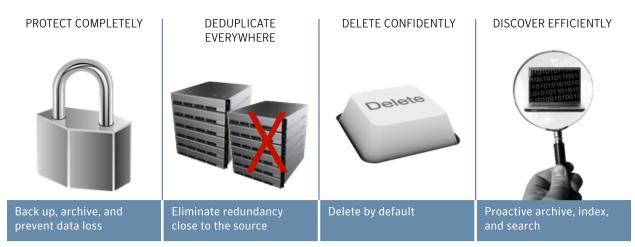
Moore's Law can't save us this time

2002 was the last year when disk price performance kept up with information growth

Information management is the only practical approach

There are four actions every organization should take to eliminate information islands and effectively and efficiently manage information:

- 1. Protect Completely by backing up, archiving for the long term, and stopping data loss
- 2. Deduplicate Everywhere, closer to information sources to reduce storage
- 3. Delete Confidently, to reduce storage and risk from keeping everything, forever
- 4. Discover Efficiently, to deliver a compliance- and litigation-ready information infrastructure



Symantec information management strategy

Protect Completely

Protecting completely means re-thinking data protection technologies, including backup, archiving, and security. Today many organizations back up duplicate information in the data center and an archive or vault, often requiring physical storage of tapes. More and more organizations are deploying active archiving, but only for one or maybe two applications – typically email and file shares.

Protecting completely means the elimination of physical tapes by using active archiving for long-term retention of information, and making backup a short-term disaster recovery platform. Fundamentally, information in an active archive is under control: it is deduplicated so it costs less to store, can be deleted when it no longer has any use, but also held for legal or regulatory purposes. The role of backup is to allow rapid restoration of active servers and applications while backups only need to be retained for a few months rather than years.

Data loss prevention technology works adds to the protection as it can identify and track the most critical information: you know where it is, how it is being used, and you can implement policies to retain it and prevent inappropriate use.

Deduplicate everywhere

Deduplication is a critical technology for storage cost reduction, and it should be everywhere rather than the last step in a backup. In virtualized environments, deduplicating at the source dramatically improves the performance of the virtual system, slashes network traffic, and reduces the cost of data protection. Active archiving moves deduplication closer to information source by deduplicating information that previously was copied within and across applications – such as hundreds of copies of the same email attachment. Deduplication also allows backup data to be replicated efficiently to other sites for disaster recovery (DR) purposes.

Delete confidently

Many data center challenges are fundamentally caused by relentless data growth. Deleting information rather than retaining it forever is one of the best ways to reduce information management challenges. Yet it has been hard to do

because it is difficult to judge what information may someday turn out to be useful or needed. Companies seek to retain information for two main reasons: they believe it will be useful for the business, or for legal and regulatory purposes. The latter is the most frightening in terms of fines or even jail time for failing to maintain proper business records (such as public company accounting standards). Electronic discovery rules in the United States and elsewhere have led to new fines and fears related to losing or altering documents required for court cases.

If information is properly managed it can be confidently deleted. There are two reasons for this:

- By tackling the fastest, largest growing area of information unstructured data and getting it under management, you can see what you have and identify the minority of information that must be retained. You get the biggest benefit this way.
- 2. Automated deletion according to a corporate information management policy is legally defensible, so long as it does not directly contradict a specific retention requirement. Ad-hoc deletion by individual users, on the other hand, can be extremely hard to defend because it is arbitrary. The court always wonders why some information has been deleted, and some not and the reasons for those choices.

If backup is purely for disaster recovery, you want to take advantage of automated policy capabilities to delete backups that are no longer required based on age – typically a matter of months rather than years. Long term retention takes place in an active archive, where you can use a combination of automated and user-driven classification to identify only those items that need long term retention. Everything else can be automatically deleted. Of course the active archive itself must be backed up – but again, only for disaster recovery purposes.

There is always the risk that some things will be deleted that will be required later – but this is a risk that can be managed, rather than an absolute. The American Records Management Association estimates that 2-7 percent of records are effectively lost each year because they're misfiled; most companies don't even notice.

Information management helps you reduce the cost to store, the cost to find, and the cost of legal or regulatory review. It also helps you reduce the risk of information breaches and privacy violations, and makes it easier to find what you have so your business can generate more revenue and run more efficiently.

Discover efficiently

Broadly, discovery means finding information for business, legal, regulatory or privacy purposes. In general, discovery means searching to identifying material that is relevant, placing it under hold so it cannot be deleted, and then efficiently reviewing the information to extract the value. In regulatory and legal cases, the value is about learning what happened and using that to formulate a strategy and comply with the court or regulatory requirements for document disclosure. But there are also a wide variety of business uses – one grocery chain uses this approach to review email agreements with suppliers to ensure they have received groceries on the agreed terms.

Active archiving from Symantec ensures discovery is as efficient as possible, in several ways. Firstly, information is stored efficiently in the archive, and unlike other compliance approaches there is no need to make additional physical copies "for compliance reasons". Items are automatically held and cannot be deleted from the archive. Secondly, the archive is efficiently indexed – some search technologies can build indexes that are bigger than the items being indexed. Finally,

data loss prevention technology also helps companies identify high value information and how it is being used, so that it can be brought under management.

There's also an advantage of a centralized store, because so much unstructured data is maintained on PCs, laptops, and in other places that may not be accessible to the broader company. The ability to perform a search on a central store allows a company to use the information it already has to operate more efficiently and generate more revenue.

Symantec's approach is fresh and different

Instead of keeping everything forever, Symantec allows you to efficiently manage information by deduplicating everywhere and deleting with confidence.

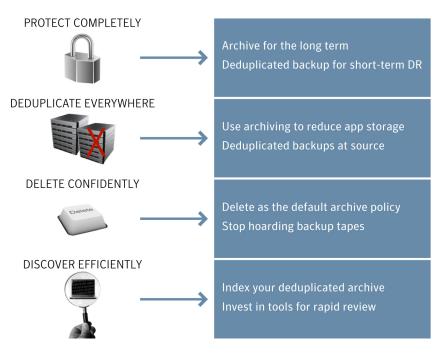
Instead of indexing uncontrolled information and hoping that it's still there when you need to find it, Symantec gets information under control, stores it efficiently and manages it for rapid recovery or discovery.

Fundamentally, Symantec allows you to move away from information islands to an information management platform that is architecture and infrastructure agnostic.

Benefits of Symantec information management

- Symantec Information Management solutions are optimized for any sized business small business to large enterprise and provide broad end-to-end support.
- Symantec technologies are powered by disk at the core and integrate next generation technologies
 (deduplication, replication, continuous data protection) in order to improve reliability, reduce operational costs,
 recover more quickly and reduce downtime.
- Symantec offers complete heterogeneity with broad database, application, and OS support, as well as complete support for physical and virtual environments and storage technologies and architectures.
- Benefits of next generation information management
 - Reduce Costs and increase efficiencies: NetBackup integrated deduplication reduces backup storage growth and network utilization by up to 80-90 percent.³
 - Virtualize: Find and protect virtual machines easily; One platform for VMware[®] and Microsoft Hyper-V[™]

How to get started



Why Symantec?

- Symantec is the market leader for information management (backup and archiving)
 - According to Garter, Symantec is the market leader for data protection/backup (Symantec NetBackup[™] and Symantec Backup Exec[™] respectively) and the market leader for archiving (Symantec[™] EnterpriseVault).⁴
 - Backup Exec is the gold standard in Windows[®] Protection.⁵
 - #1 email archiving solution.
- Symantec delivers innovative solutions
 - Because Symantec solutions require only a single-pass backup to provide full disaster and granular recovery they can save storage space and administrative time.
- · Symantec information management solutions lead in virtualization support
 - · Backup Exec and NetBackup simplify protection of virtual environments and deliver highperformance in backups and recovery data.
 - Symantec information management solutions backed up VMware environments more than twice as fast as CommVault's[™] new VMware agent.⁷
 - Symantec solutions were able to perform a full image restoration from the VMware backup up to 45 percent faster than CommVault.8
 - Symantec backup and recovery solutions reduce the time required to backup virtual environments by up to 350 percent over EMC[™] NetWorker by eliminating the need to perform file and folder level

backups.⁹

⁴⁻Symantec Backup Exec 16.2% Gartner Enterprise Distributed System Backup/Recovery Market, October 2009

⁵⁻Symantec Backup Exec 16.2% Gartner Enterprise Distributed System Backup/Recovery Market, October 2009 6-Symantec Backup Exec 16.2% Gartner Enterprise Distributed System Backup/Recovery Market, October 2009 6-Symantec Enterprise Vault, Leader Gartner Magic Quadrant for E-mail Active Archiving, May 2009 7-The Tolly Group May 2009, June 2009 8-The Tolly Group May 2009, June 2009

⁹⁻The Tolly Group May 2009, June 2009

- Symantec solutions were able to perform full image level backups of virtual environments twice as fast as EMC NetWorker.¹⁰
- Symantec information management solutions lead in Microsoft® Exchange environments¹¹
 - Symantec's backup solutions deliver a significant time savings versus EMC NetWorker or CommVault Simpana[™] across a range of Exchange backup and recovery scenarios.¹²
 - Symantec solutions reduced Exchange backup time by more than 4,000 percent over EMC NetWorker. (Symantec takes 28 minutes, EMC takes ~22 hours!).¹³

10-The Tolly Group May 2009, June 2009 11-The Tolly Group May 2009, June 2009 12-The Tolly Group May 2009, June 2009 13-The Tolly Group May 2009, June 2009

About Symantec

Symantec is a global leader in providing security, storage and systems management solutions to help consumers and organizations secure and manage their information-driven world. Our software and services protect against more risks at more points, more completely and efficiently, enabling confidence wherever information is used or stored.

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