

# Backup, Recovery & Archiving

Choosing a data protection strategy that best suits your IT requirements and business needs.



## EXECUTIVE SUMMARY

Data protection has become the hydra of today's corporate IT environment. When the many-headed serpent of Greek mythology lost one of its heads, two more grew back in its place. The spectacular growth of data also seems to spawn new problems for each one that is solved.

The current business environment demands that organizations manage information in a way that supports myriad business, legal and regulatory requirements. However, the massive amounts of data being produced by a new generation of systems and applications are outstripping the capacity of the typical organization's backup, recovery and archiving (BURA) infrastructure.

In one recent survey of over 400 IT professionals, more than 40 percent reported that their backup times exceed 24 hours. In essence, *they are producing data faster than they can back it up*. Even worse, studies show that up to 50 percent of all backups are not fully recoverable. That means organizations are spending extraordinary amounts of capital and manpower on processes that are decidedly unreliable.

There's no end in sight, either. In its 2011 Digital Universe study, technology research firm IDC forecasts that by 2020 organizations will own 50 times more information than they have today, and will require 10 times as many physical and virtual servers to deal with it all.

It is impossible to overstate the importance of a functional data protection strategy. In a very real sense, data is the most valuable asset of any business — and that data can be lost, deleted or corrupted by viruses, hackers, software or hardware failures, human error, or many other variables. Businesses survive disasters only if their data survives.

The good news is that there are a variety of powerful solutions that offer a high degree of flexibility and choice in how to achieve reliable data protection in a manner that best suits your IT requirements and business needs. Atlantic-IT.net has developed a comprehensive BURA portfolio featuring a variety of alternatives designed to help customers become more resilient and less susceptible to down-

time. Choices include traditional onsite backup systems, cloud-based offsite systems and hybrid solutions that offer a mixture of onsite and offsite technologies. With each option, Atlantic-IT.net can also provide a range of managed services that allow customers to transfer the burdens of maintaining and managing backup, recovery and archiving to our highly trained and experienced engineers.

## **ONSITE BACKUP**

Organizations that want to keep tight control of their data and backup processes often choose to build their own backup infrastructure utilizing a broad range of technologies. High-speed tape drives, disk-to-disk backup, SAN- and NAS-based backup, virtual tape, single-instance store, and more enable organizations to backup locally and then replicate a backup copy to another office or to a cloud location.

Typical backups create duplicate data in two ways: repeated full backups and repeated incremental backups of the same file when it changes. Another option with disk-based backup is continuous data protection, in which enterprise database and application information is continuously captured to enable information extraction and rollback to any point in time.

Regardless of the type of backup, key metrics that must be established are recovery time objective (RTO) and recovery point objective (RPO) for each function. The RTO is the allowable amount of downtime before the function is brought back online, while the RPO is the allowable amount of data loss since the last backup.

Rising costs and increasing staffing challenges make onsite backup infrastructures increasingly difficult to manage, however. With more platforms, applications, servers, virtual machines and databases to protect than ever before, onsite data protection requires resources and expenditures that can distract from an organization's core business focus. This is particularly true when it comes to the relentless growth of stored data and server proliferation. Industry studies show that once all the costs are included, in-house storage is at least five times more expensive to own and run per gigabyte than hosted, cloud-based storage.

Atlantic-IT.net offers a flexible, scalable and cost-effective alternative. Our managed backup services allow customers to continue leveraging their existing backup infrastructure while offloading the ongoing management and maintenance burden. We combine management — either onsite or remote — with remote round-the-clock monitoring, incident management, restore requests, planning and optimization assistance, and reporting capabilities. A dedicated service manager oversees all services, supervises day-to-day operations and provides customers with comprehensive monthly account reviews.

## **OFFSITE BACKUP**

Atlantic-IT.net has two models for delivering secure, reliable and automatic offsite backup that allows customers to cut the costs and administrative overhead involved with the management of traditional backup systems. The first approach is a “backup-as-a-service” model in which we leverage the customer’s existing network. The second is a cloud-based model.

In the first approach, critical data backup is replicated over the customer’s existing network to our offsite data vault. Atlantic-IT.net’s offsite data vault is maintained in a Tier IV co-location facility that is SAS-70 Type II certified. The backup platform is FIPS 140-2 certified and all data is private-key encrypted with AES256 ciphers. If a server fails, data can be transferred rapidly from the backup site to meet the organization’s RTO and RPO requirements.

Data is de-duplicated and compressed locally, and only changes are replicated offsite. The architecture streamlines the backup environment and provides support for virtualization. As a result, we are able to resolve many of the challenges associated with traditional data backup while maximizing security and cost-efficiency.

In our cloud model, data is distributed across multiple nodes with our cloud provider partners for full offsite server and application recovery. By providing the storage system, file or block system and all applications necessary for backup, archiving and disaster recovery, customers can access their data from anywhere with a secure Internet connection.

We consult with each customer to determine whether the service or cloud strategy best meets the customer's business requirements. In either case, backup jobs can be run nightly or at more frequent intervals.

Both models allow customers to create an "on-demand" data infrastructure that eliminates the common and costly practice of over-provisioning storage to meet a theoretical peak demand. You only pay for the usable capacity you need. Customers can scale their storage usage up or down as needed, without having to continually grow farms of storage networks and servers. By shifting the capital expense and maintenance of IT assets to Atlantic-IT.net, customers take advantage of economies of scale through access to our hardware, applications, bandwidth and skill sets.

## **HYBRID BACKUP**

Our hybrid approach provides an extra layer of protection. Local backups are made to an onsite NAS device or backup appliance, with replications sent to our data vault or to our cloud partner sites. This local copy provides rapid restoration of individual files or complete systems, while another copy is maintained offsite in case of a data center disaster.

When compared to traditional onsite backup infrastructures, hybrid cloud backup simplifies the infrastructure and decreases power, cooling and physical maintenance requirements. The online storage is highly scalable and can be considered as a storage tier with an unlimited retention period. The customer needs no data retention policies or storage management for this online tier.

The hybrid approach can be particularly beneficial for organizations with bandwidth limitations. Compression and de-duplication can be applied to the local backup, minimizing the amount of traffic being sent across the network or into the cloud. Because cloud storage pricing is often based on gigabytes stored, the ability to conduct local compression and de-dupe can significantly lower monthly fees.

## CONCLUSION

The massive amounts of data being produced by a new generation of systems and applications are outstripping the capacity of the typical organization's storage infrastructure. This growth not only strains an organization's hardware capacity, but creates extreme challenges for data security, availability, system performance and connectivity architecture.

In addition to the ongoing management costs, runaway data growth also creates significant opportunity costs. According to a recent Wakefield Research survey, 93 percent of IT managers surveyed reported that cost considerations routinely keep them from utilizing optimal IT solutions. Cost-conscious companies report being handicapped by unreliable and out-of-date hardware.

Atlantic-IT.net can serve as a valuable extension of existing in-house backup and recovery solutions, but that only scratches the surface of the possibilities. By leveraging the cloud, we can serve not only as the primary data storage for day-to-day operations, but also as a reliable and cost-effective backup and recovery platform and the key component in a sophisticated disaster recovery plan. By delivering such benefits simply and efficiently, Atlantic-IT.net can help customers reduce the money and manpower they devote to traditional storage infrastructures and divert those resources to more business-focused endeavors.



*Aligning Information Technology With Business Strategy*

**www.atlantic-IT.net 877-936-3328**