THE
BUNKER

Part of the CYBERFORT group

ARE YOU STORING PROBLEMS FOR THE FUTURE?

HOW BUSINESS SUCCESS TOMORROW WILL BE DRIVEN BY SMARTER STORAGE TODAY

The future is digital — and data is everywhere. In fact, IDC recently reported that data is set to grow 10-fold in the next six years from around 4.4 zettabytes to 22 zettabytes by 2020. Whilst much of this data holds critical business value, the sheer volume is causing a headache of epidemic proportions for IT leaders. Storage costs are devouring IT budgets and in today's fast-moving landscape, the challenges of storing data have never been more demanding. Compliance, security and availability are still top of mind, but in addition, IT leaders now need to make disparate data accessible for analysis and extracting business intelligence.

Vast amounts of increasingly unstructured data is littered across businesses' primary storage systems, causing obstacles for storage efficiency and hampering business's ability to scale. This explosion in data is putting businesses under commercial pressure to put data into public cloud storage, yet this raises the obvious security questions concerning data sovereignty, data availability and can often create compliance challenges.

As companies struggle to squeeze rapidly expanding data volumes into their existing storage solutions, manageability and usability of data is becoming increasingly difficult. As a result, more than 65 percent of current storage spend is on operational costs, and for most companies this number is only set to grow.

Senior IT leaders are in a difficult position. Data will only continue to grow; yet the business expects more from it, and all on a budget. IT decisions taken today will have significant impact on the future agility of the business. Fortunately, new secure, cloud-based storage solutions are emerging which solve this dilemma.

Below, The Bunker presents the key features of smarter storage.

CHOOSE YOUR TYPE OF STORAGE WISELY

IDC tells us that the amount of data in existence is already outpacing the amount of available capacity—while in 2013, the available storage capacity could hold 33 percent of all data, by 2020 it is predicted to be able to store less than 15 percent. Clearly, the type of storage technology is an important decision for growing businesses to take in enabling them to scale securely.

Traditionally, block-based storage — where chunks of data are stored in files in a number of blocks — has been the storage solution of choice. There are however limitations for 'block and file' storage when it comes to coping with growing data volumes. The technology is dependent on a centralised server, which can seriously restrict read/ write capacity and limits the ability to search and gain insight of the overall company data as searches are tied to hierarchical file structures within individual blocks.

Object storage technology is a solution to these issues. This type of storage architecture has been available for some time, but typically limited to multi-petabyte installations in large enterprise businesses. It allows data to be managed as objects in a single storage pool where every object exists at the same level. This set-up makes object storage ideal for the cloud and distributed computing systems — not dependent on a centralised server, the service literally offers limitless capacity, allowing businesses of all sizes to scale for future demands around big data analytics.

The Bunker's technology partner Cleversafe, takes the advantages of object storage even further. The technology is able to 'slice and dice' data, running it concurrently in multiple data centre locations which provides up to 'fifteen nines' of availability. The self-healing object storage technology also offers unprecedented flexibility, infinite capacity and limitless scalability while slashing storage costs by reducing the need for backups.

When delivered in the cloud with a layer of security and governance that gives 100% assurance to UK businesses of data location, object storage is the innovative answer to storage cost, compliance and security issues today, with a clear pathway for big data analytics in the future.

SECURITY IS PARAMOUNT

The public cloud has long been acknowledged as the most scalable and cost-effective answer for tackling the storage needs of growing companies — yet it has fundamental flaws. Public cloud storage has limited security and lacks the controls for compliance and assurance. A growing volume of cyber attacks, data leakages, misuse and fraud has made businesses wary of entrusting sensitive data to cloud-based services.

Reliable, future-proof cloud storage solutions need the very highest level of security built into every aspect of its services — on both a digital and a physical level. Encryption is widely regarded as the safest way of protecting data at rest and in transit. For an extra layer of protection, some encryption providers offer data slicing. The technology allows objects to be encrypted before being sliced and dispersed across different locations. The data can only be accessed if all slices from all locations have been retrieved, making it highly unlikely for malicious outsiders to gain access. Encryption keys should always be held by the business owning the data unless instructed otherwise — no service provider should automatically need to access or hold the keys.

Of course, we all too often forget that the security of our digital assets ultimately also depends on physical facilities. Combined, these security measures can not only provide affordable, comprehensive security, but also help address data residency, sovereignty and privacy requirements, compliance with data regulations and legal requirements. Businesses can rest assured that they have full control over their data and are protected from prying eyes as it crosses servers or borders.

THE NEED FOR SMART STORAGE

Cost is a deciding factor for business leaders — it is evident that the most adaptable storage technologies of the future will not only store data, but have the ability to scale, to enable insights to be extracted and operate effectively within a consumption based commercial model.

A consolidated, smart storage solution that can effectively and securely accommodate backup and archive data in a single pool of ultra secure, cloud-based data is the key. It will allow IT staff to quickly and effectively access, retrieve and restore data without the overhead of potential corruption of the data, the disks, obsolescence of storage media and at a fraction of the cost of buying space and disks.

It's also worth looking beyond the immediate needs for security, compliance and cost for data storage — in the future, storage needs to offer more than simply a location for files and objects. It will be a vital tool aiding business insight and intelligence. In a world where companies increasingly depend on data analysis to make informed business decisions, storage solutions that don't support metadata — such as block-based storage — can severely restrict business efficiency and agility. Storage that opens up easy access for data analysis will be a must for businesses looking to gain the edge over their competitors.

Object storage is the smart option for solving the needs of today and tomorrow. It allows extended metadata to be attached to each object, enabling search queries to interrogate all available data, not just a fraction of what is available. This next generation of storage systems will also be capable of offering unprecedented availability and reliability though dispersed data centres and self-healing capabilities.

Perhaps most importantly, the smart storage of the future must be flexible. As businesses change and grow in a highly dynamic and evolving landscape, storage technologies have to adapt to keep pace, scaling up and down on demand. This means new technologies have to be easy to integrate without disrupting workflow or adding complexity. Rather than get locked into a vendor or a costly service, a consumption model allows businesses to only pay for the data storage they use. Leading storage providers also offer a choice of different options of services, from managed infrastructure to managed storage, archive or backup.

WORK WITH THE RIGHT PARTNER

Selecting and setting up a storage system, particularly an innovative solution that is fit for the future can be a complex or uncertain endeavor. IT leaders do not have to embark on this journey alone — qualified expert service providers can provide the consultancy, guidance and support to offer best fit and best price solutions that tick all the necessary boxes of security, compliance and cost.

Businesses should look for a service provider partner that can create a cost-benefit analysis and provide best practice recommendations for how savings can be achieved. All too often, analysis shows that more than 80 percent of data has not been accessed in over year and could easily be moved to a more cost-effective storage environment, freeing up space on expensive platforms. This partner should then guide the IT team through the process step by step — from identifying what and where the data is, to what should be moved and archived, to a risk-free, encrypted data migration.

SMART STORAGE FOR TODAY AND TOMORROW

As businesses brave the balancing act of addressing scale, complexity and security, traditional technologies such as SAN (Storage Area Network) systems often struggle to deliver the scalability and usability businesses depend on to stay competitive.

Instead, a new generation of flexible, Ultra Secure object storage technologies with virtually infinite capacity have rung in a new era. Data storage in the cloud is no longer a forced compromise between cost and security — it is now possible to buy ultra secure object-based storage delivered in the cloud that offers metered usage billing and up to fifteen nines of availability, right here in the UK.

The time where storage was an expensive, complex and time consuming 'must have' is behind us. The future is digital and with the right technology, the right cloud service mix and specialist support, data is quickly becoming the secret weapon helping businesses gain the competitive edge.

THE BUNKER PROTOCOL™

The Bunker Protocol™ is an all-encompassing methodology that secures against risk and ensures the most secure IT delivery in the UK.

The Bunker Protocol™ incorporates physical, human and digital security capability and processes and wraps them with a governance and standards layer that ensures that client data and systems are continually secure against threats to confidentiality, integrity and availability.

THIS IS ULTRA SECURE

Physical Military grade data centres
Human All employees are fully background checked and our culture starts and ends with security
Digital We build and integrate systems in-house, ultra secure, from the source code up