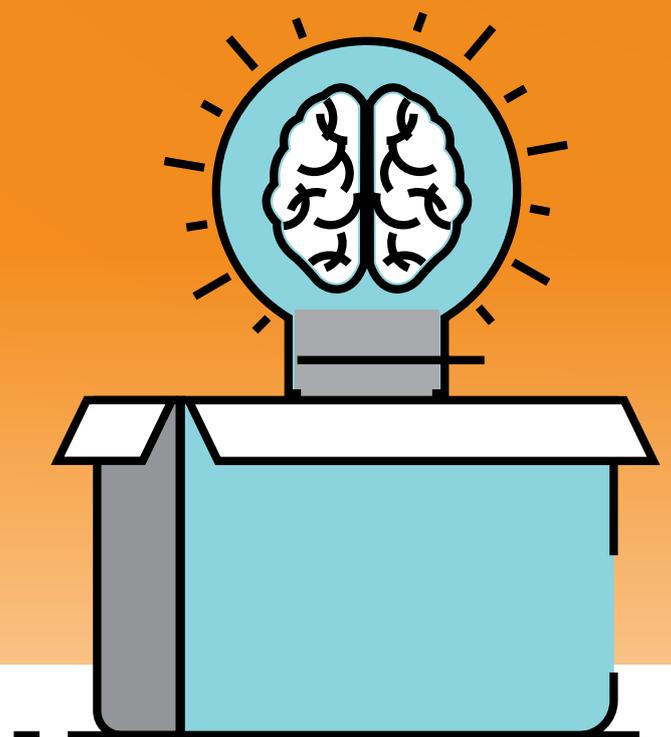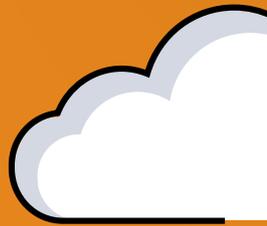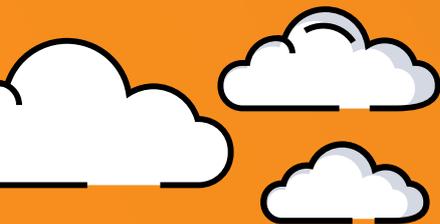# A SOFTWARE DEFINED
ADVANTAGE

ENTERPRISE STORAGE
CHALLENGES

Enterprises are faced with a massive proliferation of data arising from areas such as the Internet of Things (IoT), mobile applications, and their social platforms. In particular, unstructured data such as video content, audio, images, email, and content generated from social media sites is exploding and set to outpace the accumulation of traditional, structured data.

There is an increasing need for flexibility, high availability, capacity and cost-efficiency in storage. Enterprises must be able to provision data rapidly and automatically when engaging in the DevOps that are required to innovate and meet rapidly changing customer expectations, or face frustrating bottlenecks. They need to optimise their big data projects in order to meet expectations around delivering extra agility and a competitive edge to their enterprise.
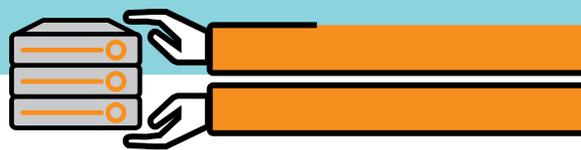
At the same time, they struggle with more complex storage management responsibilities and handling silos of data. They are being asked to be more resourceful in order to meet expectations for "digital transformation" and the wide-ranging re-modelling this requires. The Storage Area Networks (SAN) that replaced locally-connected storage with shared and centralised storage pools in the 1990s improved operational efficiency, but constrain the enterprises of today. Meanwhile, with all of this growth and evolution, there remains one area of stagnation: budget.

Traditional storage can strain under the pressure to be as flexible as the customers and applications of today require. In the past, enterprises have tried to forecast storage demand and bought hardware upfront to respond to these projections. But while this might allow for storage when you need it, it creates excess cost and may end up out of step with actual demand. Both from a financial and usability perspective, the storage model that has existed for many enterprises is limiting and problematic.

Overview: IT challenges that drive demand for new storage models

- Dealing with demands for capacity, performance, functionality, and flexibility.

- Cloud computing, big data analytics, mobility, and social platform integration.

- Cloud computing and the **"Internet of Things"** which drives massive data growth and new storage challenges.

- Limited budget to scale-up IT

- Demand to expand and contract with various workload requirements.

- Expectation of simplified storage management solutions which offer a high level of robustness and security.

- Data migration needs

There is an increasing need for flexibility, high availability, capacity and cost-efficiency in storage.

WHAT IS SOFTWARE DEFINED
STORAGE?

As hardware-reliant storage has become outdated as a storage model for the enterprise there's been a shift away from storage whose functionality is contained within the storage hardware itself. In its place, software defined options which offer greater scalability, security, control and cost efficiency have emerged. These alternatives are known as **Software Defined Storage**.

Software defined technologies separate the control plane of the storage from the data plane, with provisioning and management determined by software. With this abstraction, physical storage capacity that is geographically dispersed can be aggregated into a shared storage system with consolidated management.
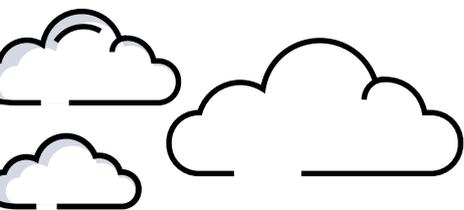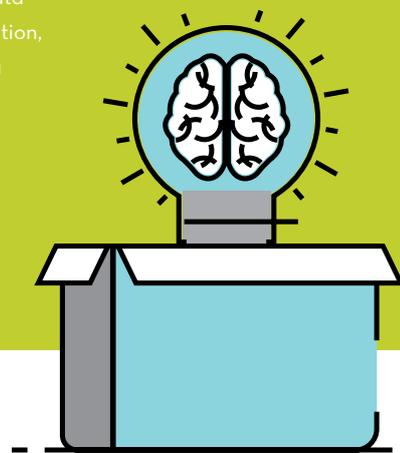
HOW IS SOFTWARE DEFINED STORAGE
DIFFERENT?

Here are a few reasons why Software Defined Storage has emerged as a front-runner solution to the range of data storage challenges that organisations are facing today:

- Provides a level of elasticity that simply isn't possible with other storage options. Shift your storage capacity quickly in line with changes in your workloads, at lower cost.

- Offers better storage efficiency, thanks to a centralised management interface & simple "auto-tiering" that non-disruptively relocates data depending on usage.

- Adjustable storage capacity without disruption or having to scale up other areas of the business in order to achieve the increase you need.

- Reduces requirement to 'rip and replace' existing infrastructure or to suffer from vendor lock-in as there is no proprietary hardware involved.

- Enables management of cloud and on-premise storage environments without introducing additional complexity.

- Offers high availability which enables unlimited access to data for critical applications. This allows you to take on more demanding workloads and move faster.
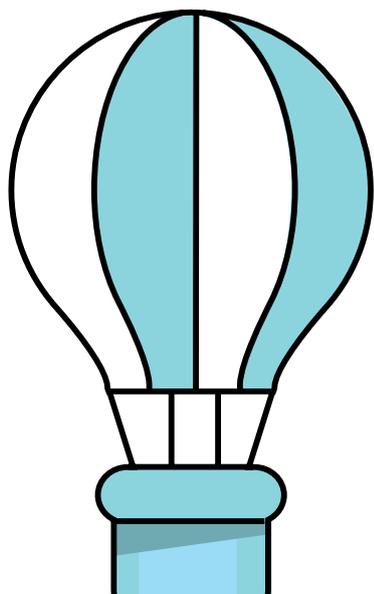
A SOFTWARE DEFINED
ALTERNATIVE

Enterprises are in dire need of alternatives that make storage and its management more simple and cost-effective, yet supportive of the work they need to do with their data to stay competitive. Choice of storage options, given their direct link to optimised big data analytics, DevOps and cloud transitions, are a major part of laying the right foundation for ongoing resilience and success as an enterprise.

Software defined storage has been defined in different ways by vendors and this has left some businesses seeking a solution that doesn't fit their needs or enhance their outcomes. However, with a strong focus on your business outcomes, budget and current infrastructure, as well as the help of a provider with significant experience, the right, strategic software defined storage solution can be found.
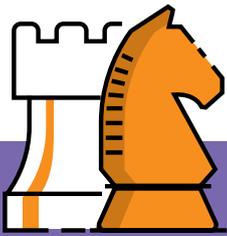
IBM is one of the organisations that has been leading the charge in creating software defined storage solutions based on proven technology. The Missing Link has longstanding and field-proven capabilities in delivering IBM storage solutions, including software defined storage.

Get in touch if you are interested in learning more about what Software Defined Storage delivered by The Missing Link can do to help your business keep up with its potential.

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