meridian IT
UNITED KINGDOM

IBM
Platinum Partner

IBM Storage for Retail

Delivering seamless customer experiences with a scalable, responsive data architecture.

Economic conditions are tough for the retail sector, so converting browsers into buyers and making the most of every sale is a top priority. Customers will abandon online shopping carts and walk out of stores at the first hint of friction. You can't afford data issues to impact their shopping experience. Meridian can help you build a fast, reliable and future-ready data architecture with IBM Storage.

www.meridianit.co.uk

Adopting a data-first strategy

If you were listening to retail analysts in early 2020, the decade ahead was supposed to truly transformational, with new technologies reinventing the way we shop. The pandemic, war in Ukraine and geopolitical instability obliterated this promise of progress. Instead, retailers were met with supply chain disruption, spiralling energy prices, and a cost-of-living crisis that has soured consumers' appetite for spending.

Nevertheless, there's cause for optimism. The lessons of the past three years have been learned, and retailers have found ways to be more resilient and agile when the world turns upside down. Moreover, technology has advanced just as the pundits expected, and a new era of data-driven shopping is at hand. Enter interactive in-store experiences, AI-powered personalisation, and optimizations to purchasing, pricing, inventory management and logistics enabled by machine learning and automation.

But there's a catch. These technologies are data-hungry on an unprecedented scale. Digital in-store experiences can involve potentially thousands of new devices connecting to your network and generating gigabytes of data every day. Deploying AI models for real-time decision-making requires data pipelines that can ingest, store and retrieve huge volumes of data at high velocity. Moreover, retailers must protect all this data across complex hybrid cloud environments and secure it against increasingly sophisticated cyberattacks.

That means retailers need the right storage infrastructure—one that can not only house, secure and protect their data, but also deliver it to the business at speed and scale. In this eBook, we explore why IBM Storage is the right choice for the retail sector in every area: from data protection and cyber resilience to AI adoption and cloud transformation.

IBM Storage for data resiliency

Unexpected outages caused by unreliable infrastructure can severely disrupt operations, block customer journeys, and lead to loss of sales. Every hour of downtime has a significant cost, and the bigger the business, the bigger the losses. In 2021, Amazon notoriously missed out on an estimated $34 million in just 59 minutes of downtime.[i] The costs can be even higher if outages happen during a peak sales period such as Black Friday, as retailers including Argos and Game learned the hard way. [ii]

Moreover, with cyberthreats constantly evolving, securing vital operational and customer data is more challenging than ever. Boots and WHSmith are among hundreds of retailers that have been targeted in 2023 alone[iii], and the financial impact of successful cyberattacks can be significant. The 2022 Cost of a Data Breach report from IBM calculates the average loss at £3.66 million ($4.45 million). Furthermore, 83% of the organisations surveyed said they had suffered multiple breaches. [iv]

Meridian IT can help you implement next-generation IBM Storage solutions that detect, intercept and prevent cyberattacks and predict hardware problems before they damage your business.

45%

Of unplanned downtime is caused by hardware failures[iv]

£213k

Average cost of one hour of unplanned downtime[vi]

£3.66m

Average cost per data breach[vii]

IBM Storage Defender

IBM Storage Defender is a software suite that provides visibility for end-to-end data resilience across all your workloads. It enables early detection of internal and external threats by analysing anomalies in backups and snapshots, as well as other relevant threat indicators. When a problem is detected, such as data corruption resulting from a ransomware attack, it immediately alerts storage administrators and enables quick restoration of data from the latest clean snapshot.

Storage Virtualise Automated data movement, high-availability configurations, synchronous and asynchronous copy services, isolated and immutable copies, encryption, storage tiering, and data reduction technologies.

Storage Sentinel Early detection of malicious activity within your data using full content analysis and machine learning. Reduce false positives and negatives through continuous ML and AI training on your data set by analysing for anomalies at the storage level.

Storage Archive Data Protection on physical tape and giving a graphical interface to manage data stored on tape using a linear file system. Allows devices to access tape files like any network storage location, simplifying access and management, whilst freeing capacity for more frequently used data.

Data Management Service Powerful dashboard for operation and management using SaaS, simplifying your day-to-day management and giving insights into your storage systems in a single dashboard.

Storage Protect Suite Backup and recovery of physical, virtual, cloud and container environments. Simplifying your backup infrastructure by giving the ability to backup your entire environment with a single system.

IBM Storage for hybrid cloud

Many retailers have built their businesses on core warehouse management, logistics and point-of-sale applications that have been running reliably in their data centres for years, if not decades. Yet cloud platforms can also add a lot of value, especially when connecting to a large network of stores. As a result, most retail companies now have a significant amount of infrastructure both on premises and in the cloud. The complexity of managing both can be a major drain on IT time and resources.

IBM Storage is designed to support a hybrid cloud strategy, where you can start by deploying cloud-native technologies on-premises and gradually shift your legacy infrastructure into a more modern, containerised architecture. You can then extend seamlessly into public cloud environments.

Meridian IT can help you make a controlled, low-risk transition to a hybrid cloud architecture, harnessing state-of-the-art IBM software-defined storage solutions to prevent complexity from spiralling out of control.

60%

Of infrastructure and operations leaders will implement a hybrid cloud architecture by 2025[viii]

29%

Of decision-makers say mixing on-premises and cloud storage is a leading cause of IT complexity[ix]

75%

Of decision-makers want to simplify their IT operations[x]

IBM Storage solutions

IBM Storage Fusion is a software-defined storage solution designed as a data orchestration layer for Red Hat OpenShift. It delivers a simple, consistent and scalable experience for containerised applications, powered by Kubernetes.

IBM Storage Fusion HCI System is a purpose-built, all-in-one hyperconverged infrastructure system for OpenShift applications that facilitates faster deployments with integrated compute, storage, networking and services.

The Meridian Power Cloud provides both compute capacity and high-performance IBM Storage as a service to help Meridian clients modernise applications running on the IBM Power platform and move them into the cloud for greater cost-efficiency and ease of management.

IBM Storage for data and AI

As retailers begin harnessing technology to augment the in-store experience for their customers, there's a clear direction of travel. The evolution from traditional checkouts through self-service tills to a fully checkout-free experience depends on deploying an ever-increasing number of IoT-connected devices. Crucially, the amount of data those devices generate is multiplying year-on-year.

In the online realm, the technology is different, but the result is the same. The pervasive adoption of AI to predict customer behaviour, anticipate needs and dynamically reshape customer journeys to maximise sales opportunities relies on the ability to capture, store, retrieve and analyse vast quantities of data at speed and scale.

In both cases, the speed, availability and scalability of the underlying storage architecture is critical to success. Meridian IT can help you build an effective scale-out storage architecture for AI and IoT use cases, leveraging the latest IBM Storage solutions to deliver extreme performance and rock-solid reliability.

71%

Of organisations have hit the limits of their on-premises infrastructure for AI[xi]

90%

Of organisations have struggled with AI infrastructure limitations in the cloud[xii]

65%

Of IT practitioners prefer scale-out solutions such as IBM Storage Scale for AI workloads[xiii]

IBM Storage solutions

IBM Storage Scale provides a software-defined file and object store that connects data silos throughout the organisation into an open ecosystem, creating a policy-based global information supply chain that makes data available at lower cost for AI and other data-intensive applications.

IBM Storage Scale System is a hardware appliance that makes it simple to deploy IBM Storage Scale on thousands of nodes and achieve I/O performance in the range of terabytes per second.

IBM Storage Ceph is the IBM distribution of the open source Ceph platform, which provides massively scalable object, block and file storage in a single system. Designed to consolidate data and operationalise AI, IBM Storage Ceph is engineered to be self-healing and self-managing, making it simple to build a data lakehouse for next-generation AI workloads.

Why Meridian?

As one of the very few IBM Business Partners in the UK to achieve Platinum status for both IBM Power and IBM Storage technologies, Meridian IT has one of the largest, best trained and most experienced teams of IBM Storage experts in the country.

We work with a wide range of UK and international retailers to help them build the scalable, high-performance, cost-effective and compliant storage architectures they need to protect their data, resist cyberattacks, deliver cloud transformation, and adopt next-generation IoT and AI technologies.

Next steps

Reach out to us today at info@meridianit.co.uk to discuss how we can help your firm achieve its goals.

[i] https://www.independent.co.uk/news/business/amazon-down-internet-outage-sales-b1861737.html

[ii] https://www.theretailbulletin.com/general-merchandise/a-fifth-of-ecommerce-websites-experience-downtime-before-9am-27-11-2015/

[iii] https://www.retailgazette.co.uk/blog/2023/06/boots-hit-by-major-cyber-attack/ and https://www.retailgazette.co.uk/blog/2023/03/whsmith-cyber-attack/

[iv] https://www.ibm.com/reports/data-breach

[v] https://www.servicemax.com/docs/servicemaxlplibraries/white-papers/unplanned-downtime-whitepaper.pdf

[vi] https://www.servicemax.com/docs/servicemaxlplibraries/white-papers/unplanned-downtime-whitepaper.pdf

[vii] https://www.ibm.com/reports/data-breach

[viii] https://newsroom.ibm.com/2022-10-04-IBM-Redefines-Hybrid-Cloud-Application-and-Data-Storage-Adding-Red-Hat-Storage-to-IBM-Offerings

[ix] https://www.ibm.com/downloads/cas/XJXABYE2

[x] https://www.ibm.com/downloads/cas/XJXABYE2

[xi] https://www.ibm.com/account/reg/us-en/signup?formid=urx-49721

[xii] https://www.ibm.com/account/reg/us-en/signup?formid=urx-49721

[xiii] https://www.ibm.com/account/reg/us-en/signup?formid=urx-49721

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