

IBM Power

The perfect platform for the future of manufacturing

For decades, Meridian IT has been helping manufacturing companies run their core systems on IBM Power servers. Today, the latest-generation IBM Power10 platform offers even greater security, reliability and performance to help manufacturers keep their production lines running at optimum efficiency—and embrace the future with Industry 4.0



www.meridianit.co.uk



Towards Industry 4.0

In a tough economy, manufacturing businesses need to work smarter, not harder. The pandemic and recent geopolitical upheavals have highlighted the fragility of global supply chains and increased the price of raw materials. Meanwhile, a hypercompetitive labour market makes hiring skilled workers increasingly difficult and expensive.

To survive and thrive, manufacturers need to innovate—adopting new technologies to rethink, reengineer and revitalise planning, supply chain management, production, quality control and distribution. To make the shift to an Industry 4.0 operating model, you'll need the right IT infrastructure, and in this eBook, we'll show you why IBM Power10 is the perfect platform.

Why Power10?

Meridian IT can help your business boost growth and innovate with IBM Power10 technology to:

- Provide a rock-solid platform for core MRP systems and data to support 24/7 operations.
- Accelerate batch processes and improve the performance of interactive applications.
- Enable seamless integration of artificial intelligence and Internet of Things technologies.
- Protect production operations against cyberattacks and ransomware.
- Future-proof your infrastructure by adopting hybrid cloud architectures.

Power and performance

Unlike commodity server hardware, IBM Power is designed to “run hot”—using shared pools of processors that applications can access on demand for intense bursts of data processing. This is ideal for a manufacturing business that needs to be able to reassign resources on the fly to support different data processing tasks, from production scheduling to stock control.

Moreover, by making intelligent use of available processor cores and memory, IBM Power can both increase hardware utilisation rates and reduce total resource requirements—unlocking significant IT budget savings.

Meridian’s IBM Power-certified technical experts can help you get even greater benefit from your IBM Power systems by continuously analysing and tuning your workloads to make the best use of available resources.

Proof points

- **50% resource savings:** One IBM client uses 25 Power cores to handle database workloads that previously required 50 Intel processors—slashing per-core software licensing costs.
- **30% faster batch:** One IBM client has reduced the processing window for its long-running batch processes by a third by upgrading to latest-generation IBM Power10 servers.
- **80% hardware utilisation:** The IBM Power 1080 is designed to run with 80% processor utilisation, delivering greater value from your hardware investment.

“Meridian’s High Availability as a Service offering continuously replicates data from our production server to the Meridian Power Cloud – so if our system goes down, we can instantly fail over to their server and keep the business up and running.”

Vicky Orman, IT Director, Harsco

Reliability and availability

Any unplanned downtime in your core systems could impact your production line and play havoc with your ability to manufacture and deliver orders to your customers on time. When every minute of lost production could cost the company thousands of pounds, unreliable systems are a manufacturer’s worst nightmare.

The IBM Power platform is legendary for its reliability, with highly sophisticated data replication and clustering technologies that enable instant failover between machines and across data centres. This helps manufacturing companies dramatically improve uptime and recover from incidents faster.

Meridian’s managed services can help firms take availability to the next level with 24/7 monitoring, infrastructure and application management.

Proof points

According to ITIC’s annual Global Server Reliability Survey:¹

- **14 straight years at #1:** IBM Power servers and IBM Z mainframes consistently deliver the highest availability of any enterprise platform.
- **5-6 nines availability:** 93% of IBM Power users experience just one minute of unplanned downtime per month.
- **40x less downtime:** Compared to commodity x86 servers, IBM Power servers were up to 40 times more reliable.

¹<https://itic-corp.com/itic-2022-global-server-reliability-results/>



Security and encryption

Cybercriminals are getting more sophisticated every day and cyberattacks are successfully targeting even the biggest and best protected companies. For example, in 2022, KP Snacks found itself unable to process orders for several weeks due to a ransomware attack—a loss of production that many manufacturing businesses would struggle to survive.

IBM Power10 helps firms resist cyberattacks and protect their data with a layered security model that spans from the application level down through the operating system to the underlying hardware.

Meridian provides security services designed specifically for IBM Power environments, with 24/7 monitoring by security experts at our state-of-the-art Security Operations Centre (SOC).

IBM Power10 zero trust security model

- **2.5x faster encryption** with built-in cryptographic cores.
- **Quantum-safe cryptography** to protect against next-generation attacks.
- **Highly secure hypervisor** with a superior security track record to major competitors.
- **Built-in multifactor authentication** with IBM PowerSC.



AI and IoT

A key part of the Industry 4.0 vision is the use of technologies such as artificial intelligence (AI) and the Internet of Things (IoT) to transform all aspects of manufacturing. With IoT sensors monitoring your machinery and AI making sense of the data, you can create a “digital twin” of your production line that you can use to simulate operations, experiment with process improvements, and predict breakdowns before they happen.

With four Matrix Math Accelerator (MMA) engines mounted next to each processor core, IBM Power10 brings AI to where your data lives—making it a perfect platform for building your digital twin. Instead of moving data from your core systems and IoT devices to a separate GPU cluster for machine learning, you can run real-time inferencing directly on the same machine.

Meridian’s AI practice can help you take full advantage of IBM Power10 AI capabilities and integrate new machine learning models into your core applications—for example, using computer vision algorithms to detect defects in finished products, accelerating quality management while significantly reducing costs.

Case study

Oxford Cancer Biomarkers uses AI to analyse digital images of tumours and help improve diagnosis of colorectal cancers. Meridian hosts the solution on IBM Power servers running in the Meridian Power Cloud.

[Read the full story on ibm.com](https://www.ibm.com)

“With Meridian’s developers at our disposal, we can adopt a much more agile approach to improving our applications.”

Rebecca Farrimond, Commercial & IS Manager, Futamura

Modernisation and portability

Many manufacturers have run their core systems on IBM Power for decades—and will continue to do so for decades more. With IBM Power10, there’s no need to regard these battle-tested systems as legacy applications, because you can seamlessly integrate them with modern, open-source applications and container platforms on the same box.

Running IBM i, IBM AIX and Red Hat Enterprise Linux together on a single server means you can skip costly network infrastructure and high-latency connections and instead build microservices architectures where the apps live, right next to the data—transforming performance.

Designed to support cloud-native, containerised applications, IBM Power10 also gives you portability, so you can move workloads seamlessly between your data centre and the Meridian Power Cloud, or any other public or private cloud you choose. This allows you to experiment with hybrid cloud operating models—for example, linking IoT edge servers on your production line to analytics and AI services running in the cloud.

Meridian’s managed services and software development teams can help you take the next steps on your modernisation journey—combining the best features of your core IBM Power applications with the flexibility of a modern microservices approach.



Why Meridian?

Today, Meridian IT is home to one of the world's largest teams of certified IBM Power experts. Outside of IBM, few organisations can match our breadth of expertise in the IBM Power platform, the depth of resources in our technical team, or our years of experience in delivering projects large and small.

We work with a wide range of UK and international manufacturing companies to help them maximise the benefits of their IBM Power infrastructure today—and modernise their systems to meet tomorrow's challenges.

Client testimonials

- *"The major advantage of working with Meridian is that they can cover all the bases from infrastructure and managed cloud services to application development and support. Meridian is one of the few partners in the UK that are the right size to offer the full range of services we needed, while still providing a personal service with a team that we know and trust."*

Rebecca Farrimond, Commercial & IS Manager, Futamura

Next Steps

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



Meridian IT Limited

**GNR8, 49 Clarendon Road
Watford, WD17 1HP, England**

W: [THEMERIDIAN.COM](https://www.themeridian.com) | P: 01923 816015

