

# Maximize value with open hybrid cloud for industry.

Putting more data to work



## Lower costs, drive efficiency and uptime, and advance Industry 4.0.

Cloud, artificial intelligence (AI) and the Internet of Things (IoT) connect the industrial sector to a vast array of dispersed, disparate devices, sensors and machinery and a staggering volume and variety of data. Leading industrial companies are drawing actionable insights from this rich data, enabling them to more effectively manage operations and head off unplanned downtime. New insights are also fueling faster time to market for new and better products, boosting productivity, and driving new services-based revenue streams.

### Insights

#### Abrupt disruptions in production and supply chains

have greatly affected revenue streams, highlighting the urgency for response to shifting marketplace conditions and more accurate, agile and automated forecasting.

**Industry 4.0** is creating new opportunities for gaining insights and driving efficiencies through data, with leaders implementing technologies such as smart factories, digital twins and cyberphysical systems that point the way forward.

**Traditional ways of working** are giving way to more agile and flexible digital models that enhance collaboration and streamline processes, cutting time to market for new goods and services.

**Supply chain processes** are being rethought with cloud to build in greater resilience, using sophisticated data analytics and intelligent automation to predict, detect and respond to supply and demand challenges at the speed of business.

### Key objectives

**Embrace new edge applications, devices and use cases**

**Harness the explosion of data from digitized products, IoT devices and facilities**

**Identify and resolve developing problems before they result in costly production delays**

### Challenges

Distributed software, devices and equipment introduce new challenges, such as latency, intermittent connectivity and security risks from out-of-date software.

Organizations lack the tools and skills needed to access data everywhere and apply new machine learning (ML) and AI models.

Manual processes, unexpected failures, and a lack of real-time historical and asset information slow problem resolution and drive up costs.

## How IBM can help

### Expertise

IBM helps industrial and manufacturing clients get more value from their digital transformation and modernization strategies and investments.

**Deep and broad experience in delivering transformative manufacturing solutions** that spans Industry 4.0, smart factory, enterprise resource planning, customer relationship management, blockchain and other solutions

**The ability to infuse analytics, machine learning and IBM® Watson® AI** into supply chains to create smarter products and workflows

**A proven track record** working with leading clients and IBM Business Partners such as Honeywell, Volkswagen, KONE, Adobe, SAP and Salesforce

### Winning with open hybrid cloud

**Build once, deploy anywhere** with the Red Hat® OpenShift® platform, designated a leader in an evaluation of multicloud container development platforms.<sup>1</sup> Modernize more applications in the right fit environment—on IBM Systems, IBM public cloud, or the cloud or IT infrastructure of your choice.

**Our fully managed Red Hat OpenShift on IBM Cloud®** service leverages the enterprise scale and security of the IBM public cloud to help you automate updating, scaling and provisioning.

With IBM Cloud Satellite™ technology, you gain a **single point of control** to deploy consistent cloud services virtually anywhere. Our marketplace-leading Watson AI and IoT, security, blockchain, and fully managed OpenShift service enable you to deploy and optimize workloads and move freely without lock-in.

### Automate. Optimize. Accelerate.

#### Edge and IoT

*IBM Edge Application Manager* enables autonomous lifecycle management for thousands of diverse edge and IoT devices, apps and servers spanning robotics, conveyors, and security cameras, scanners and more. These capabilities include monitoring, patching and scaling of applications, even when disconnected.

43%

faster application development time<sup>2</sup>

#### Supply chain and manufacturing

*IBM Cloud Pak® for Data with IBM Watson Assistant* technology applies machine learning and AI to production line and supply chain data to continually optimize processes, such as product quality, line throughput, and partner and client interactions.

97%

reduction in production defects by applying AI/ML at edge for quality monitoring<sup>2</sup>

#### Enterprise asset management

*IBM Maximo® Application Suite* software optimizes the lifecycle and performance of assets using visual inspection and predictive maintenance to identify anomalies, pinpoint root causes and deliver direction for corrective action to technicians, and implement self-healing processes.

20%

savings for inventory carrying costs through an 8% reduction in inventory<sup>2</sup>

95%

reduction in costs associated with unplanned downtime for IT and manufacturing environments<sup>2</sup>

#### Client spotlight

#### KONE

KONE worked with IBM to launch 24x7 CONNECTED Services through our Watson IoT on IBM Cloud solution, providing predictive maintenance for more than 1.1 million elevators in buildings worldwide. The offering helps reduce equipment downtime and provides more detailed information about equipment performance and usage.

Up to

30%

yield improvements and 15% waste reduction through AI-powered manufacturing<sup>3</sup>

**Learn more about what IBM can do for industrial companies via this customized digital experience, guided by an expert.**

Take a [tour](#) of IBM Garage tools today or get started with a complimentary virtual Garage framing session.

Learn more

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<sup>1</sup> Forrester, *The Forrester Wave™: Multicloud Container Development Platforms, Q3 2020*, Dave Bartoletti and Charlie Dai, September 15, 2020.

<sup>2</sup> Forrester Consulting (commissioned by IBM), *The Total Economic Impact™ Of IBM And Red Hat For Manufacturing*, February 2021.

<sup>3</sup> Based on prior IBM engagements. The performance data discussed herein is presented as derived under specific operating conditions. Actual results may vary.

