

IBM Consulting

A glowing blue cube is positioned in the center of the image. The cube has two cloud icons on its visible sides, each composed of a pixelated pattern. The cube is surrounded by a network of thin, glowing blue lines that intersect at various points. The background is a dark, textured surface resembling a circuit board or a dense array of microchips, with some components highlighted in blue light.

G-Cloud 15

IBM – IT Automation with Red Hat Ansible

Service Definition Document

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IBM – IT Automation with Red Hat Ansible

Service Overview

IBM offers a comprehensive portfolio of services spanning Advisory, Build, and Manage, covering Business and Technology Automation. These services are underpinned by our Extreme Automation Platform, addressing the full stack of transformation needs across industries.

We combine best-of-breed solutions from IBM and our partners to enable digital transformation and modernisation of operations.

What is Red Hat Ansible?

Red Hat Ansible is a simple yet powerful open-source automation engine that automates IT orchestration, application deployment, cloud provisioning, and many other IT requirements.

Ansible has achieved sustained success in the community because it:

- Is simple to install with a minimal learning curve, enabling rapid automation adoption.
- Automates multiple endpoints quickly and in parallel, including infrastructure, network, security, and application automation across hybrid cloud environments.
- Requires no custom agents or additional open ports, leveraging the existing Secure Shell (SSH) protocol.
- Describes infrastructure in human-readable YAML templates called playbooks, requiring no special coding skills.
- Focuses on security with straightforward auditing, reviewing, and rewriting of content.
- Provides user-friendly platform enablement in any dynamic language.

Ansible Options

- **Community Ansible:**
Free, unsupported open-source command-line tool for automation
- **AWX:**
Free, unsupported open-source GUI and API tool that wraps around Community Ansible.
- **Red Hat Ansible Automation Platform:**
A subscription-based enterprise product designed for business customers. It combines 20+ community projects into a fully supported automation platform for configuring systems, deploying software, and orchestrating advanced workflows

- The **Red Hat Ansible Automation Platform** offers:
 - Robust security
 - Certified content and partner ecosystem
 - Life cycle support and legal protections
 - Analytics, Upgrades and migrations
 - Training and consulting services
 - Cloud deployment options
 - Event-Driven Ansible
 - Private automation hub
 - Ansible Lightspeed with IBM Watson Code Assistant

IBM – IT Automation with Red Hat Ansible

Value Proposition

For organisations seeking to disrupt their competition, IBM's offering provides a reliable approach to deploying Ansible automation at scale, enabling an automation-first strategy that enhances agility, continuously improves IT operations, significantly reduces costs, and accelerates business outcomes and revenue streams.

Key Benefits

- **Realize Benefits Faster** — Delivery at scale to achieve up to 30% reduction in IT operating costs and cut IT processes in half the time through self-directed teams.
- **Automation at Scale** — Extend automation across the end-to-end enterprise IT landscape, accelerating development and increasing the number of IT processes automated
- **Increase IT Efficiency** — Reduce demand on critical resources by up to **38%**, freeing time for innovation and high-value business initiatives.

Traditionally, IT operations involve manual provisioning, installation, configuration, and maintenance by human operators. Today, these processes can be automated using instructions programmed via CLI or modern APIs, reducing complexity and risk.

With Event-Driven Ansible, IT actions can be automated using user-defined, rule-based constructs, while Automation Mesh enables independent scaling of control and execution capacity, ensuring automation with minimal downtime. The platform is security-hardened, offering support, performance testing, bug fixes, and standardised practices for a consistent and resilient enterprise environment.

Additionally, IBM's automation solutions infused with generative AI accelerate time-to-value through Digital Workers with capabilities for Robotic Process Automation (RPA), Business Process Management (BPM), and Process Mining.

IBM – IT Automation with Red Hat Ansible

Committed Outcomes, Client Value

Operational Benefits and Realization

- 25–35% reduction in enterprise IT operations costs over three years, with operational benefits payback achieved within three months.
- Automation 360° – Integration across disparate technologies, systems, and domains for end-to-end automation of enterprise IT processes.
- End-to-End Management – Ability to automate IT processes and orchestrate workflows across multiple domains, providing standardisation and the agility to manage automation centrally.
- Automation Adoption – Up to 20% increase in automation adoption year-on-year.

Business outcomes:

- “Touchless” straight-through processing of 90%+ in certain finance functions.
- 70% increase in productivity through process re-imagination and automation in Source-to-Pay.
- 35% improvement in customer satisfaction.
- 60% reduction in cost to serve customers.
- 98% accuracy in Record-to-Analyse processes.
- 20% reduction in energy consumption in manufacturing.
- Reduction in complex medical claims processing time from 15 days to 1 day.

IBM – IT Automation with Red Hat Ansible

IBM Differentiators

- **Automation Framework** – A prescriptive approach to Ansible adoption, governance, use case deployment, and implementation roadmap focused on delivering measurable business outcomes
- **Automation Quotient** – Proprietary algorithm for assessing and prioritising IT processes based on technical feasibility and stakeholder affinity, driving higher automation adoption
- **Broad, comprehensive capabilities:** Includes process mining, process discovery, co-creation of opportunities, analytics-driven workflows, conversational AI workflows, decision management, content intelligence, data fabric, low-code/no-code process orchestration, operational intelligence, and IBM Garage methodology.
- **Pre-built automation solutions, patented methods and assets:** Access to a reusable marketplace of **2,500+ pre-built automations**, accelerators, frameworks, process libraries, and digital workers to accelerate implementation and deliver value faster.
- **Next-generation technology ecosystem partnerships:** Collaborations with leading partners including Generative AI (watsonx), Celonis, Microsoft, Red Hat, UiPath, Pegasystems, Hyperscience, Blue Prism, Kili Technology, Shibumi, Appian, ABBYY, UneeQ, Automation Anywhere, Krista, and more.
- **Global delivery capabilities:** Over 17,000 expert practitioners in automation, AI, and analytics, supported by 20+ global delivery centres.
- **Extensive Global customer base:** More than 1,200 client engagements across industries, with a strong focus on finance, supply chain, talent, and customer domains.
- **Pod Delivery Model** – Self-contained units of Ansible automation delivery comprising IBM and client experts to co-design IT processes for large-scale digital operations transformation.
- **Pre-Built Automation Technology for SAP**— Reusable, configurable solutions that accelerate build and management of SAP landscapes.
- **IBM/Red Hat Partnership** - Proven track record of deep technology and enterprise automation expertise, helping clients maximise technology investments and accelerate business outcomes.

IBM – IT Automation with Red Hat Ansible

Automation & IT Modernisation

Red Hat Named a Leader in The Forrester Wave™: Infrastructure Automation Platforms

Red Hat has consistently been recognised as a leader in infrastructure automation. Most recently, in Q4 2024, Red Hat was once again named a Leader in The Forrester Wave™: Infrastructure Automation Platforms, reaffirming its position as an industry benchmark for automation excellence.

Red Hat received the highest possible scores in the following criteria:

- Deployment Functionality
- Product Vision
- Partner Ecosystem
- Supporting Products and Services
- Community Support
- Planned Product Enhancements

This continued recognition underscores Red Hat's leadership in delivering robust, scalable, and innovative automation solutions that enable enterprises to modernise IT operations and accelerate digital transformation.

IBM – IT Automation with Red Hat Ansible

Why the Ansible Automation Platform?

Simple

Simplifies automation creation and management across multiple domains.

- Centralised Controller for streamlined operations.
- No client agent installation required.
- Push model for remote execution.

Powerful

Easily integrates with hybrid environments.

- Python under the hood
- Built on Python, offering flexibility and extensibility.
- Rich set of off-the-shelf reusable playbooks.
- Extensible through custom modules.

Agentless

Orchestrate complex processes at enterprise scale.

- Easy-to-read and easy-to-write automation scripts.
- Uses **markup language (YAML)** for defining workflows

Role in Application Modernisation

Red Hat Ansible Automation Platform plays a pivotal role in the application modernisation journey, especially when combined with other Red Hat solutions such as OpenShift (OCP), RHACM, and cloud.redhat.com.

Key capabilities include:

- Automating complex and repetitive tasks to ensure environment consistency.
- Facilitating smooth deployment and management of modern application architectures.
- Handling both ETL (Extract, Transform, Load) processes and application deployment/configuration on target systems, reducing manual effort and risk of errors.
- Automating deployment and management of containerised applications and microservices, working seamlessly with Docker and Kubernetes.

- Integrating with CI/CD pipelines, version control systems, and monitoring tools for end-to-end lifecycle management.
- Supporting rolling updates for zero-downtime deployments, automated testing for validation, and simplifying troubleshooting through a declarative approach.

Ansible automates the deployment and management of IT environment, including:

- Provisioning – Cloud platforms, virtualised hosts, network devices, and bare-metal servers.
- Configuration Management – Manage servers, update OS or applications, install software, and start/stop services.
- Application Deployment – Automate deployments across any cloud environment.
- Continuous Delivery – Deploy with every build cycle for faster releases.
- Security & Compliance – Implement site-wide security policies such as firewall rules and user access controls.
- Orchestration – Enable workflows for seamless orchestration of automation tasks.

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Ansible @ Scale

Ansible @ Scale Offerings deliver a structured, three-phased implementation strategy that provides an end-to-end enterprise IT automation adoption roadmap, rapid automation development services powered by Generative AI, and hosted managed services to meet evolving client needs

Three Phased approach

- **Advisory phase** defines the end-to-end Ansible adoption strategy, governance model, and roadmap for enterprise adoption.
- **Build phase(s)** Enables rapid development of Ansible playbooks powered by Generative AI (Watson Code Assistant + Lightspeed) to accelerate adoption and achieve faster benefits realisation.
- **Managed Services** Offers an IBM Cloud-hosted shared services model for running, managing, and maintaining production Ansible automation playbooks. This model provides centralised support and monitoring at a lower operational cost.

The Ansible @ Scale Automation Journey from IBM is a specialised, agile, and prescriptive approach to delivering Ansible Automation Platform capabilities at scale, ensuring speed, security, and measurable business outcomes.

The journey includes:

- Advise and Build Strategies – Combined to deliver a comprehensive, end-to-end Ansible adoption roadmap.
- Incremental Adoption with a Scalable Delivery Approach – Following the Advisory phase, subsequent Build phases are executed in agile sprints, each consisting of 12-week increments to ensure flexibility and rapid value realisation.
- IBM-Hosted Managed Services – Centralised management and support for the execution of Ansible Automation playbooks via an IBM-hosted Ansible platform, offered on monthly consumption or prepaid yearly/three-year subscription models for small and medium clients.

Reinforce customer value

IBM enables organisations to **invest in innovative IT solutions** while reducing support costs through **automated management** and execution. By standardising and simplifying IT operations with Red Hat Ansible, senior engineers and subject-matter experts can focus on high-priority initiatives, driving greater business impact.

Key benefits include

- Improved operational efficiency by automating tasks, reducing lead times on customer deliverables.
- Accelerated Enterprise IT Automation journey with Ansible Automation—a prescriptive approach for standardising enterprise adoption at scale and achieving measurable business outcomes.
- A proven method that combines implementation strategy and build services, delivering an end-to-end Ansible adoption roadmap with flexibility to scale rapidly and support as-a-service consumption models for evolving client needs.

Core Components of the Offering

- Ansible Advisory – Define strategy, governance, and roadmap for automation adoption.
- Ansible Build – Rapid development of automation playbooks powered by Generative AI.
- Ansible Managed Services – IBM-hosted model for managing and maintaining automation at scale.
- EA Apps – Enterprise application automation.
- DevSecOps – Embed security into development and operations workflows.
- Hybrid Cloud Infrastructure – Automate across multi-cloud environments.
- Network and Security Automation – Streamline network and security operations.
- Mainframe Modernisation – Modernise legacy workloads with automation.
- ITSM Workflows – Automate IT service management processes for efficiency.

Ansible Solutions for Enterprise Applications

IBM provides specialised Ansible-based automation solutions to streamline enterprise application management and improve operational efficiency:

- Ansible SAP Environment Manager
- A one-stop solution to automate key repetitive S/4 HANA administration and environment management activities, reducing manual effort and improving consistency.
- Ansible SAP BASIS Transaction Manager

- Automates database, batch job, performance, spool monitoring, and system health check transactions.
- Enables scheduling and automation of BASIS transaction execution and aggregation of data/transformation outputs.
- Ansible Oracle Cloud Infrastructure Tooling
- Provides a consolidated view of all parameters related to Oracle Cloud administration and provisioning.
- Simplifies management and monitoring of Oracle Cloud environments for improved visibility and control.

Ansible Solution for Custom AMS

Automates ticket creation from configurable email templates (e.g., MS Outlook) and assigns tickets to the appropriate resolver group.

Improves execution efficiency and SLA adherence by:

- Significantly speeding up the ticketing lifecycle, saving time, cost, and effort compared to manual processes.
- Offering seamless integration with popular ticketing tools such as ServiceNow and Remedy.

IBM Z and Ansible Mainframe Modernization

IBM Consulting's **Ansible @ Scale** offering and **IBM Z Ansible Collection** help clients build an integrated ecosystem of IBM Z platform products and technologies across a hybrid multi-cloud landscape, delivering **enterprise-grade solutions** for standardised IT operations management as part of an enterprise automation strategy.

Ansible for IBM Z and IBM Z System Automation can:

- Configure and provision middleware to support application testing in CI/CD processes.
- Enhance visibility and control of access roles throughout the DevOps lifecycle.
- Maintain consistency and stability when interacting with resources actively managed by System Automation.

Ansible Platform Migration Assistant

The Ansible Platform Migration Assistant provides an automated, template-driven full-stack platform build solution, enabling continuous integration and provisioning of environments across hybrid and multi-cloud platforms.

Provisioning capabilities include:

- VM Instances Provisioning
- Autoscaling environments
- Custom Network setup
- Load Balancing
- DNS Management
- Cloud Storage to DB integration
- Middleware and Application Setup

Ansible @ Scale Hosted Ansible-as-a-Service Offering

A centrally managed Ansible Automation Platform with an evolving library of Ansible roles, playbooks, and best practices, delivered through isolated tenants for each client or consumer.

This robust and secure IBM Cloud-hosted infrastructure automation solution is designed for small and medium clients, enabling:

- Faster time-to-value for IT automation.
- Flexibility to scale up or down as needed.
- Access to pre-built assets and best practices to accelerate automation efforts.

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About IBM

Supporting Government

We help government organisations in the UK and worldwide deliver and transform essential public services – our teams are passionate and proud about helping you to make a real difference to people's lives.

Government Services Supported by IBM:

	Defence and Intelligence
	Public Safety and Policing
	Healthcare
	Life Sciences
	Tax & Revenue Management
	National Infrastructure
	Social Care
	Education
	Work and Pensions

The problems we solve for clients are complex and cannot be satisfied with technology alone. They require a partner that can also offer deep industry expertise and a relationship of trust.

IBM combines the portfolio, people and sense of purpose necessary to meet today's enterprise demands. Every day, we support and manage complex delivery for government clients where the impact of delivery has wide-reaching impact on citizens and national services.

We bring access to the industry experience, insight and technology capability to deliver and operate secure, scalable, optimised and available services for government.

We support you by bringing:

- Industry expertise – Professionals who understand and are passionate about delivering quality public services and can bring industry insights and apply innovation to your business processes
- Trust and security capabilities – Protecting valuable data and insights and deploying new innovations responsibly
- Innovative technology – Expertise in areas such as AI, blockchain, 5G, Automation, IoT, cybersecurity and quantum, delivered in a Hybrid Cloud environment
- Experienced Services professionals to support strategy, innovation and deliver transformation and change to processes, applications, and cloud infrastructure
- Global alliances – valuable partnerships with the world's leading vendors

This is IBM in the UK

We have worked together with organisations in the UK for over 100 years, with a rich history of joint innovation and achievements, built on trusted relationships.



Cloud

Together, IBM and Red Hat are working to deliver the world's only **next-generation hybrid multicloud platform**



Changing the world

IBM was awarded **World Changing Company of the Year 2019** by Fast Company



Tech talent

IBM runs P-TECH schools in 18 countries, helping **>100,000 students build skills for careers of the future**



Economy

IBM has been **integral to the UK economy for >100 years**, and is one of its largest tech employers



Royal recognition

29 UK IBMers received **honours from the Queen** for contributions to tech and society



Inventors

IBM UK is home to many Master Inventors, with **>250 patents filed last year alone**



R&D

In the UK alone, IBM **invests £170 million in R&D** each year



Diversity

IBM won the **Global Diversity Award 2019** and the ENEI's **Gold Standard**



Labs

IBM Labs comprise the **largest group of UK software talent** in any single company



Graduates

IBM is committed to developing future talent – we are **Target Jobs' Graduate Employer of the Year 2019**



Quantum

IBM Q, the world's most advanced quantum computing initiative for commercial use, is being used by CERN



Volunteering

IBM dedicates **>20,000 volunteering hours every year** for a better society



Environment

IBM's **focus on sustainability** began in 1971 with our first environmental policy

