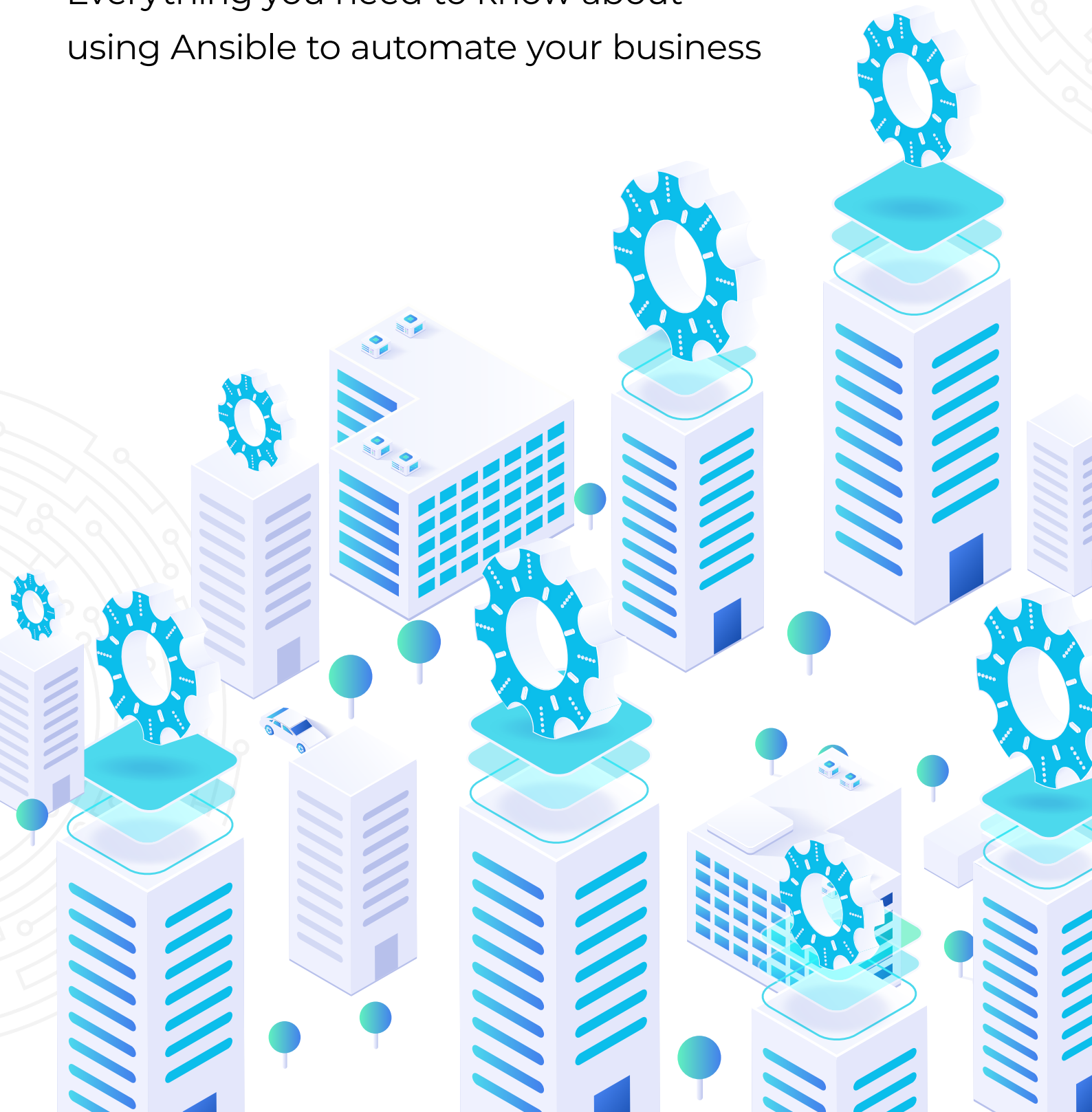
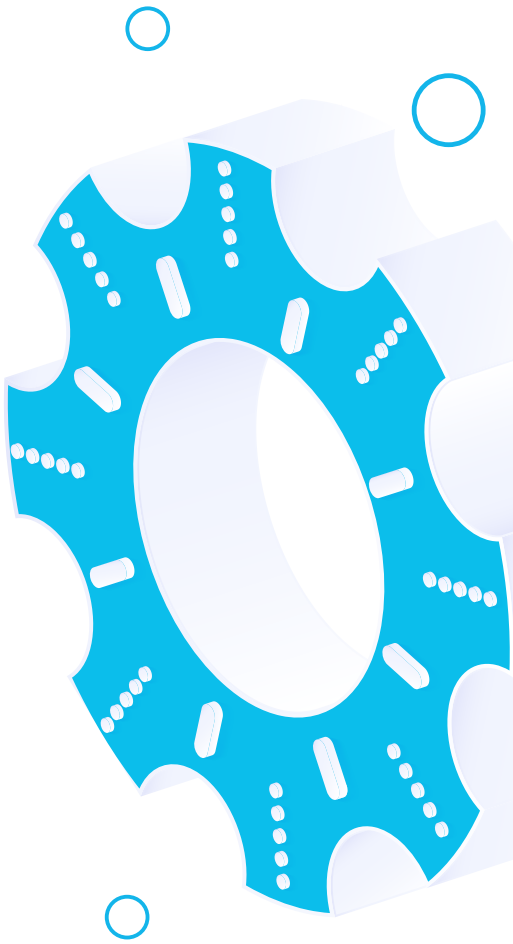
EvolutiON
Systems

THE ANSIBLE AUTOMATION PLATFORM GUIDE

Everything you need to know about using Ansible to automate your business



The need for enterprise automation



IT automation is becoming a top priority for organisations across Australia and globally as they continue to deal with the effects of the covid-19 pandemic and focus on flexibility, agility, and scalability. As a result, over 60% of organisations are currently implementing automation and orchestration across their IT systems and processes to achieve digital transformation goals.[1]

And there's a good reason for it! The key benefits of enterprise automation include accelerating operations, improving agility and responsiveness, increasing productivity, efficiency, security, and compliance. At Evolution Systems, we believe that the Ansible Automation Platform is the simplest and most effective way to automate your apps and IT infrastructure.

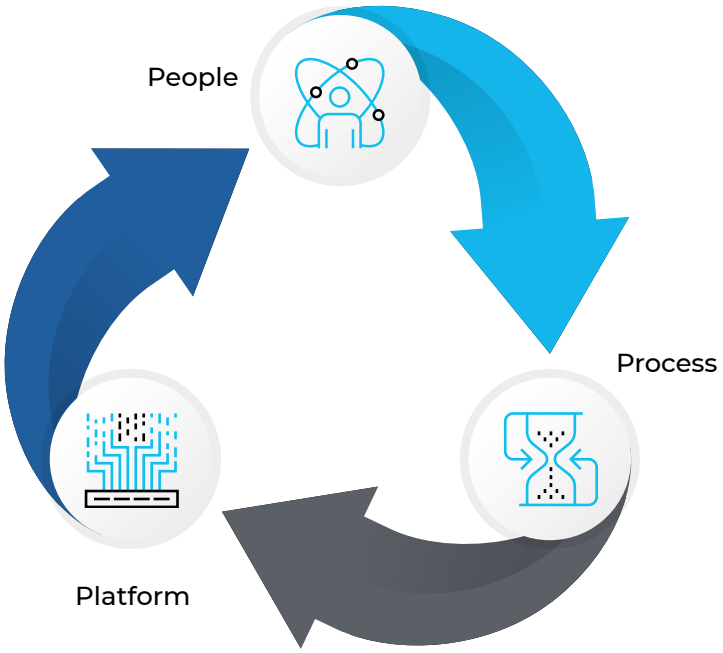
What makes Ansible such a powerful enterprise automation tool and a leader in the Forrester Research reports year after year?[2] This eBook guide answers this question by offering an overview of all you need to know about the Ansible Automation Platform, along with some useful use case examples.

[1] F5 Networks, "The State of Application Services," 2019

[2] The Forrester Wave™: Infrastructure Automation Platforms, Q3 2020 and The Forrester Wave™: Infrastructure Automation Platforms, Q3 2019

Success = people + processes + platform

Enterprise-wise automation relies on a combination of people, processes, and a platform. Each factor has a significant effect on your automation outcomes. Successful automation requires you to address each element.



Automation tool or automation platform?

Though they may seem like the same thing, automation platforms and tools have contrasting characteristics that can be the difference between efficient enterprise-wide adoption and unorganised, disparate automation efforts.

Tools are effective only for individual and point automation. They do not provide the connection and management capabilities needed for enterprise-wise automation.

Platforms provide a unified foundation for multiple people to automate consistently. They deliver the means for efficiently managing and sharing automation content across an organisation.

Automation by the numbers

Red Hat® Ansible® Automation Platform unites people and processes on a flexible foundation to deliver value across your organisation:

68%
more productive IT infrastructure management teams[3]

41%
more efficient application environment management teams[3]

25%
more efficient IT security teams[3]

53%
reduction in unplanned downtime[3]

135%
more applications developed per year[3]

498%
five-year return on investment[3]

US$1.13M
in additional annual new revenue[3]

[3] IDC White Paper, sponsored by Red Hat. "Red Hat Ansible Automation Improves IT Agility and Time to Market," June 2019. redhat.com/en/resources/business-value-red-hat-ansible-automation-analyst-paper.

Create a strategy for adopting automation across your organisation

Enterprise-wide automation does not happen instantly, and automation is not an all-or-nothing proposition. You need a sustainable automation strategy to guide your journey. Building your strategy requires assessment, planning, and adaptation.

Identify your business objectives

Connect automation efforts with business challenges and goals. This helps you identify where to automate and create top-down requirements for success. For example, you could automate patching to boost system security and stability and meet business needs for higher uptime.

Encourage cross-team collaboration and coordination

Use incentives to promote collaboration across your organisation. Coordination allows teams to create complete automation workflows that deliver more value. Working with others also helps to cultivate shared ownership and accountability for automation.

Build trust throughout your organisation

Build a centralised repository for trusted automation content. Each team should create automation content in their area of expertise and contribute it to the repository for use by other teams. Staff can include boundaries that allow others to use their content more confidently.

Share knowledge and success

Create a core team of stakeholders — often called a community of practice (CoP) or center of excellence (CoE) — that share automation best practices, experiences, and accomplishments across your organisation. These teams should also help others along their automation journey.

Centralise your automation content

Choose an automation platform that provides a unified foundation for collaboration, tools, and content across your organisation. Sharing tools and content in a single, trusted location allows teams to automate more efficiently and avoid duplicate efforts.

Defining automation success

There is no single way to measure automation success - each team has unique characteristics and ambitions. Create realistic goals that align with your organisation's current skills while encouraging teams to learn and expand their abilities.

Examples of long-term automation success include:

- **Adoption** across your enterprise, from vision to execution, with an emphasis on simplicity and shared knowledge.
- **Accountability** with each staff member taking responsibility for their individual goals.
- **Governance** through prescriptive processes that accomplish automation goals and produce repeatable results.
- **Security** with a simplified pipeline, repeatable and reusable practices, proactive vulnerability resolution, and automated investigation and response to incidents.
- **Standards** that provide the foundation and extensibility needed to achieve organisational and team goals.

Use case

Infrastructure automation

Most IT organisations face growing infrastructure size and complexity. With limited time and staff, IT teams often struggle to keep pace with this growth, resulting in delayed updates, patching, and resource delivery. Applying automation to common management tasks — like provisioning, configuring, deploying, and decommissioning — simplifies operations at scale, allowing you to regain control over and visibility into your infrastructure.

Manage IT infrastructure configurations

Your IT environment contains a variety of hardware and software. Consistently managing all of these by hand can lead to higher maintenance costs and inability to meet strict service-level agreements (SLAs).

How can automation help?

Automation gives you predictable and repeatable processes for managing configurations across operating systems to improve consistency, speed changes, and increase uptime.

Automation in action

The British Army Information Application Services (IAS) Branch used automation to simplify infrastructure management, deploy changes faster and more efficiently, and reduce manual errors and unplanned downtime.

ARMY
BE THE BEST

75% less time to deliver infrastructure changes

Read the success story

Maintain more systems with your existing staff

IT teams do not usually grow in size at the same pace as the infrastructure they manage. Teams often struggle to maintain increasing responsibilities with their existing staffing levels.

How can automation help?

Automation helps teams manage large, complex IT infrastructures with their current staff. It can free your staff from tedious, time-consuming tasks and allow them to focus on more rewarding and strategic projects.

Automation in action

Germany's Federal Office for Agriculture and Food, BLE automated its infrastructure to streamline processes, ensure compliance with security requirements, and improve service delivery.

Bundesanstalt für
Landwirtschaft und Ernährung

75% faster IT management and configuration

Read the success story

Choose the right foundation for your automated enterprise

There are many automation solutions available, but not all include the capabilities your organisation needs to become an automated enterprise. The right automation solution can be the difference between cultivating an automated enterprise and automation chaos. Look for automation platforms that offer:

- **Complete support.** Promote IT availability and reliability with platforms that provide enterprise-grade support, including quality and security testing, integration, and clear roadmaps.
- **Vendor interoperability.** Continue to use and automate your preferred third-party technologies through standard, open interfaces that allow other vendors to create modules or plugins for integration into your automation platform and strategy.
- **Easy learning curve.** Allow staff across your organisation to adopt automation quickly and effectively with simple, human-readable automation and intuitive tools.
- **Scalability.** Deploy automation across your entire enterprise in a consistent manner with a platform that scales across infrastructure, operating systems, management tools, and user roles.
- **Datacenter integration.** Unify your entire datacenter and organisation with a platform that integrates with all parts of your datacenter infrastructure.

Move your business forward with Red Hat Ansible Automation Platform

A foundation for building and operating automation services at scale, **Red Hat Ansible Automation Platform** delivers all the tools and features you need to implement enterprise-wide automation. It combines a simple, easy-to-read automation language with a trusted, composable execution environment and security-focused sharing and collaboration capabilities. Multiple roles within your business can use Red Hat Ansible Automation Platform, allowing you to create, scale, and engage your automation across your entire organisation.

Create

Get started faster by accessing Ansible's massive open source community and prebuilt Ansible roles, plugins, and modules. Codify your infrastructure and share automation assets across teams and individuals to deploy and manage infrastructure on-site or in the cloud.

Scale

Easily transfer your automation to multiple domains and across different use cases. Stakeholders in developer, operator, and line-of-business teams can engage with automation in ways that work best for them and make sense for their individual roles without slowing development time.

Engage

Take your automation even further with analytics, policy and governance, and content management. The online tools included with Ansible Automation Platform make day-to-day life more efficient for automation users, allowing teams to solve problems once and share the results with everyone.

No matter where you are in your automation journey, Red Hat Ansible Automation Platform can help you increase agility, improve productivity, and get to market faster.

Security automation

As both infrastructure and networks grow in size and complexity, it becomes increasingly difficult to manually manage security and compliance. Manual operations can result in slower detection and remediation of issues, errors in resource configuration, and inconsistent policy application, leaving your systems vulnerable to compliance issues and attack. Automation can help you streamline daily operations as well as integrate security into processes, applications, and infrastructure from the start. In fact, fully deploying security automation can reduce the average cost of a breach by 95%, but only 16% of organisations have done so.[4]

Threat hunting

Fast threat detection can reduce the likelihood that your organisation will experience a security breach as well as the associated costs if a breach occurs.[2] Manual processes can delay threat identification in complex IT environments, leaving your business vulnerable.

How can automation help?

Applying automation to your security processes can help you identify, validate, and escalate threats faster without manual intervention.

Automation in action

Forrester Consulting interviewed one company that uses automation across their organisation and found that they were able to simplify security updates and improve security standards.

Up to

94% fewer resource hours to recover from security incidents

Read the analyst report

Security incident response

Detecting and containing security breaches within 200 days or less reduce the average cost of a breach by US$1.22 million.[2] However, remediation across multiple platforms and tools can be complicated, time-consuming, and error-prone when performed manually.

How can automation help?

Security teams can use automation to rapidly apply remediation to affected systems across your environment concurrently and respond to incidents faster.

Automation in action

IDC interviewed multiple decision makers about their experiences with automation and found that each organisation realised significant productivity, agility, and operational benefits through automation.

75% more efficient IT security teams

Read the analyst report

[4] IBM Security, "2019 Cost of a Data Breach Report," 2019. ibm.com/security/data-breach.

DevOps automation

DevOps brings development and operations teams together to move ideas and projects from development to production faster and more efficiently. This involves more frequent changes to code and more dynamic infrastructure use. Traditional, manual management strategies cannot keep up with this increased demand. Automation helps you accelerate your processes, continuously scale environments, and build continuous integration and continuous deployment (CI/CD) workflows to support fast, agile application and service development and launch. Unsurprisingly, 85% of IT leaders say automation is critical to their DevOps strategy.[5]

Provision environments

DevOps environments encompass a variety of technologies. Provisioning and deploying changes to these complex environments can be time-consuming and requires expert knowledge for each component.

How can automation help?

Applying Infrastructure-as-Code (IaC) approaches with automation allows your IT team to provide self-service capabilities and rapidly deliver preapproved resources and configurations without manual intervention.

Automation in action

ServiceMaster automated processes and infrastructure management to shift to an agile development approach, launch applications faster, and improve collaboration and customer experiences.

ServiceMaster

95% faster virtual machine provisioning time

Read the success story

Accelerate development

Developers require IT resources to create, test, and deploy new applications and services. Manual IT operations can delay resource and service delivery and impede proof-of-concept performance, ultimately resulting in slower development.

How can automation help?

Combining application programming interface (API)-centric design with automation lets your IT team deliver resources faster, supporting rapid proofs of concept, development, testing, and deployment into production.

Automation in action

Elo Servi os S.A. automated its IT environment to deploy, manage, and update its customer service and applications faster and stay ahead of traditional and fintech competition.

elo

More than **97%** faster service time to market

Read the success story

[5] IDC InfoBrief, sponsored by Red Hat, "Automation, DevOps, and the Demands of a Multicloud World," March 2018. https://www.redhat.com/cms/managed-files/cm-idc-automation-devops-demands-multicloud-world-f10589-201803-en.pdf

Hybrid and multicloud automation

Hybrid and multicloud environments add an additional layer of complexity to infrastructure, network, application, and user administration. IT teams need to manage both on-site and cloud-based environments, often using specialised management tools for each. As a result, it can be nearly impossible to effectively maintain, track, scale, and secure resources and applications by hand. Automation can unite hybrid and multicloud management under a single set of processes and policies to improve consistency, scalability, and speed.

Scale multicloud environments

Each cloud provider offers specific tools for operating and managing their own cloud resources. These tools rarely interoperate directly with each other, requiring IT teams to provision, administer, and maintain each cloud differently.

How can automation help?

Automation can help you manage multicloud environments more consistently. You can create automation assets that codify resources across all of your clouds and offer a single API for a given operation, regardless of the cloud involved.

Integrate private clouds environments

Hybrid cloud environments combine both on-site and cloud platforms, resources, and tools. This variety can make it difficult for IT teams to integrate and support both infrastructures consistently.

How can automation help?

A flexible automation platform lets you apply the same automation code to existing on-site systems, current cloud resources, and future assets, ensuring consistency and providing a layer of operational integration.

ascend money

Automation in action

Ascend Money built a central application development and deployment platform that encompasses automation, simplifying operations across geographies and increasing consistency and scale.

57% less time to perform tasks

Read the success story

Evolution Systems + Red Hat

Evolution Systems is a 100% Australian-owned IT consultancy that has been around for over 22 years, specialising in cloud computing and managed services. We are a **Red Hat Ready Partner** and **Red Hat Certified Cloud and Service Provider** in open-source software, cloud deployments and DevOps processes. Evolution Systems help businesses like yours leverage cloud technologies to reduce costs, increase operational flexibility, and get ahead of the competition.

What are your IT automation needs? **Let's talk**

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