

# The Forrester Wave™: Infrastructure Automation Platforms, Q3 2020

The 13 Providers That Matter Most And How They Stack Up

by Chris Gardner

August 10, 2020

## Why Read This Report

In our 26-criterion evaluation of infrastructure automation platform providers, we identified the 13 most significant ones — BMC Software, Canonical, Chef Software, Cisco, Micro Focus, Microsoft, Northern.tech, Puppet, Red Hat, Resolve Systems, SaltStack, Turbonomic, and VMware — and researched, analyzed, and scored them. This report shows how each provider measures up and helps infrastructure and operations (I&O) professionals select the right one for their needs.

## Key Takeaways

### **VMware, Red Hat, Microsoft, And Cisco Lead The Pack**

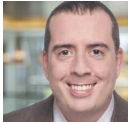
Forrester's research uncovered a market in which VMware, Red Hat, Microsoft, and Cisco are Leaders; Chef Software, Turbonomic, Resolve Systems, BMC Software, Puppet, SaltStack, and Micro Focus are Strong Performers; Canonical is a Contender; and Northern.tech is a Challenger.

### **Modeling, Compliance, And Vulnerability Support Are Key Differentiators**

As siloed I&O, compliance, and security operations (SecOps) capabilities become outdated and less effective, improved model creation and editing, compliance, and vulnerability management support will dictate which providers lead the pack. Vendors that provide strong modeling, compliance, and vulnerability management features position themselves to better deliver on the promise of holistic infrastructure automation and risk management.

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by [Chris Gardner](#)  
with [Glenn O'Donnell](#), [Robert Perdoni](#), and Diane Lynch  
August 10, 2020

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- [Gauge Your Infrastructure Automation Maturity](#)
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## Modeling, Compliance, And Vulnerability Support Differentiate Vendors

As the infrastructure automation platform market matures, customers are seeking solutions that go beyond classic configuration management and automation orchestration use cases, looking for modeling, compliance, and vulnerability management capabilities. The trend is toward holistic automation solutions that address multiple personas: I&O, compliance, and vulnerability management professionals.

As a result of these trends, infrastructure automation platform customers should look for providers that:

- › **Offer advanced visual models that enable cost and capacity analysis.** While all the tools in this Forrester Wave™ offer text-based infrastructure models, some take it to the next level by letting customers manipulate visualizations of not only automation workflows but also the models themselves. Leaders go a step further by providing cost and capacity analysis as part of their modeling capabilities.
- › **Support rich compliance functionality that goes beyond I&O.** The Leaders in this Forrester Wave don't focus solely on I&O use cases — some support common requirements such as CIS, PCI DSS, HIPAA and SOX out of the box.<sup>1</sup> The best also provide dashboards specifically for compliance professionals as well as integration with engines such as Qualys, Rapid7, and Tenable.
- › **Advance SecOps with rich vulnerability management capabilities.** While nearly all the solutions offer custom vulnerability lists to import, some go a step beyond by offering out-of-the-box support for CIS and DISA STIGs.<sup>2</sup> The best solutions also offer their own patch management engines in addition to what-if analysis.

## Evaluation Summary

The Forrester Wave evaluation highlights Leaders, Strong Performers, Contenders, and Challengers. It's an assessment of the top vendors in the market and doesn't represent the entire vendor landscape. You'll find more information about this market in our reports on [infrastructure technologies](#).

We intend this evaluation to be a starting point only and encourage clients to view product evaluations and adapt criteria weightings using the Excel-based vendor comparison tool (see Figure 1 and see Figure 2). Click the link at the beginning of this report on Forrester.com to download the tool.

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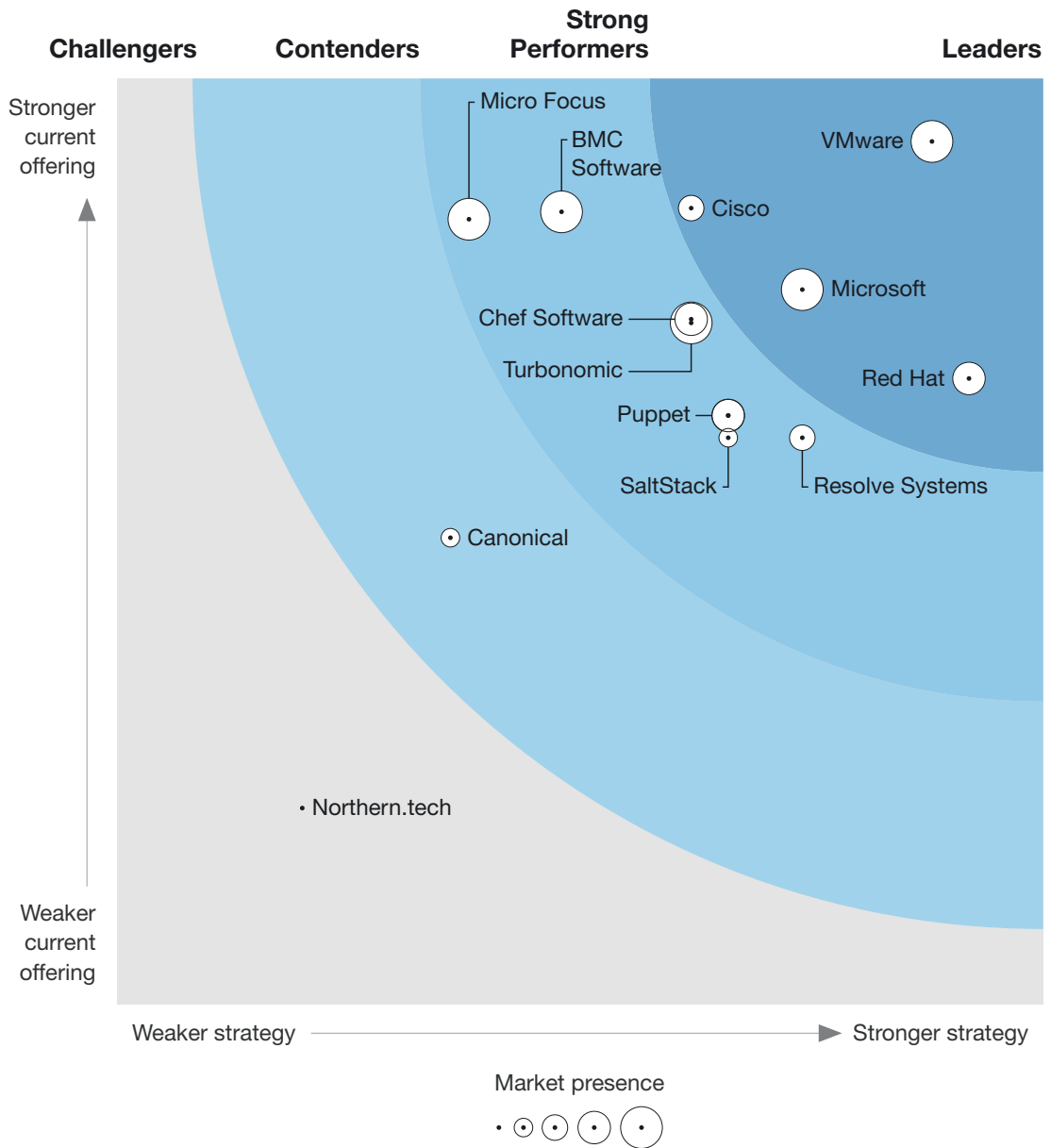
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**FIGURE 1** Forrester Wave™: Infrastructure Automation Platforms, Q3 2020

# THE FORRESTER WAVE™

## Infrastructure Automation Platforms

Q3 2020



**The Forrester Wave™: Infrastructure Automation Platforms, Q3 2020**

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**FIGURE 2** Forrester Wave™: Infrastructure Automation Platforms Scorecard, Q3 2020

|                                  | Forrester's weighting | BMC Software | Canonical | Chef Software | Cisco | Micro Focus | Microsoft | Northern.tech |
|----------------------------------|-----------------------|--------------|-----------|---------------|-------|-------------|-----------|---------------|
| <b>Current offering</b>          | 50%                   | 4.28         | 2.52      | 3.70          | 4.30  | 4.24        | 3.86      | 1.06          |
| Deployment                       | 10%                   | 4.00         | 3.00      | 4.00          | 5.00  | 5.00        | 2.00      | 2.00          |
| Infrastructure management        | 40%                   | 4.80         | 2.70      | 2.60          | 4.30  | 4.10        | 4.10      | 0.55          |
| Integrations                     | 20%                   | 3.50         | 2.00      | 4.00          | 4.00  | 4.00        | 3.50      | 1.50          |
| Governance and compliance        | 20%                   | 4.80         | 2.20      | 4.80          | 4.40  | 5.00        | 4.60      | 1.20          |
| Community support                | 10%                   | 3.00         | 3.00      | 5.00          | 4.00  | 3.00        | 4.00      | 1.00          |
| <b>Strategy</b>                  | 50%                   | 2.40         | 1.80      | 3.10          | 3.10  | 1.90        | 3.70      | 1.00          |
| Product vision                   | 25%                   | 3.00         | 1.00      | 3.00          | 3.00  | 1.00        | 3.00      | 1.00          |
| Execution roadmap                | 10%                   | 3.00         | 3.00      | 3.00          | 5.00  | 3.00        | 5.00      | 1.00          |
| Planned enhancements             | 30%                   | 1.00         | 1.00      | 3.00          | 1.00  | 1.00        | 3.00      | 1.00          |
| Innovation roadmap               | 10%                   | 3.00         | 3.00      | 3.00          | 3.00  | 3.00        | 3.00      | 1.00          |
| Supporting products and services | 5%                    | 3.00         | 1.00      | 5.00          | 5.00  | 3.00        | 5.00      | 1.00          |
| Partner ecosystem                | 20%                   | 3.00         | 3.00      | 3.00          | 5.00  | 3.00        | 5.00      | 1.00          |
| <b>Market presence</b>           | 0%                    | 4.40         | 2.00      | 3.00          | 2.20  | 5.00        | 4.40      | 1.00          |
| Revenue                          | 40%                   | 5.00         | 2.00      | 3.00          | 1.00  | 5.00        | 5.00      | 1.00          |
| Number of customers              | 30%                   | 3.00         | 2.00      | 4.00          | 1.00  | 5.00        | 5.00      | 1.00          |
| Average deal size                | 30%                   | 5.00         | 2.00      | 2.00          | 5.00  | 5.00        | 3.00      | 1.00          |

All scores are based on a scale of 0 (weak) to 5 (strong).

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**FIGURE 2** Forrester Wave™: Infrastructure Automation Platforms Scorecard, Q3 2020 (Cont.)

|                                  | Forrester's weighting | Puppet | Red Hat | Resolve Systems | SaltStack | Turbonomic | VMware |
|----------------------------------|-----------------------|--------|---------|-----------------|-----------|------------|--------|
| <b>Current offering</b>          | 50%                   | 3.18   | 3.38    | 3.06            | 3.06      | 3.68       | 4.66   |
| Deployment                       | 10%                   | 4.00   | 5.00    | 3.00            | 3.00      | 5.00       | 5.00   |
| Infrastructure management        | 40%                   | 2.20   | 2.20    | 3.30            | 2.30      | 4.50       | 5.00   |
| Integrations                     | 20%                   | 4.00   | 3.50    | 3.50            | 3.50      | 4.00       | 5.00   |
| Governance and compliance        | 20%                   | 3.00   | 4.00    | 2.20            | 4.20      | 1.90       | 3.80   |
| Community support                | 10%                   | 5.00   | 5.00    | 3.00            | 3.00      | 2.00       | 4.00   |
| <b>Strategy</b>                  | 50%                   | 3.30   | 4.60    | 3.70            | 3.30      | 3.10       | 4.40   |
| Product vision                   | 25%                   | 3.00   | 5.00    | 5.00            | 5.00      | 3.00       | 5.00   |
| Execution roadmap                | 10%                   | 3.00   | 3.00    | 5.00            | 3.00      | 5.00       | 5.00   |
| Planned enhancements             | 30%                   | 3.00   | 5.00    | 3.00            | 3.00      | 3.00       | 3.00   |
| Innovation roadmap               | 10%                   | 5.00   | 3.00    | 3.00            | 5.00      | 5.00       | 5.00   |
| Supporting products and services | 5%                    | 5.00   | 5.00    | 3.00            | 3.00      | 5.00       | 5.00   |
| Partner ecosystem                | 20%                   | 3.00   | 5.00    | 3.00            | 1.00      | 1.00       | 5.00   |
| <b>Market presence</b>           | 0%                    | 3.10   | 4.00    | 2.90            | 2.00      | 4.60       | 5.00   |
| Revenue                          | 40%                   | 4.00   | 4.00    | 2.00            | 2.00      | 4.00       | 5.00   |
| Number of customers              | 30%                   | 3.00   | 5.00    | 2.00            | 2.00      | 5.00       | 5.00   |
| Average deal size                | 30%                   | 2.00   | 3.00    | 5.00            | 2.00      | 5.00       | 5.00   |

All scores are based on a scale of 0 (weak) to 5 (strong).

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## Vendor Offerings

Forrester included 13 vendors in this assessment: BMC Software, Canonical, Chef Software, Cisco, Micro Focus, Microsoft, Northern.tech, Puppet, Red Hat, Resolve Systems, SaltStack, Turbonomic, and VMware (see Figure 3).

**FIGURE 3** Evaluated Vendors And Product Information

| Vendor        | Product evaluated   | Product version evaluated   |
|---------------|---|---|
| BMC Software  | TrueSight Automation For Servers, TrueSight Automation for Networks, BMC Helix Cloud Security, TrueSight Orchestration, BMC Helix Vulnerability Management, BMC Cloud Lifecycle Management, BMC Release Lifecycle Management, and MainView Automation | TrueSight Automation For Servers v20.02, TrueSight Automation for Networks v20.02, Helix Cloud Security 20.02, TrueSight Orchestration v20.02, BMC Helix Vulnerability Management v20.02, BMC Cloud Lifecycle Management v4.7, BMC Release Lifecycle Management v5.0.04, and MainView Automation 6.3.02 |
| Canonical     | Juju and MAAS   | Juju 2.7 and MAAS 2.7   |
| Chef Software | Chef Enterprise Automation Stack  | N/A   |
| Cisco         | Cisco CloudCenter Suite (CCS), Cisco Application Centric Infrastructure (Cisco ACI), Cisco Intersight, and Cisco Workload Optimization Manager (CWOM)   | 5.2, ACI 5.0, Intersight.com (SaaS), and CWOM v. 2.3.14   |
| Micro Focus   | Data Center Automation, Hybrid Cloud Management, and Operations Orchestration   | DCA 2020.02, HCM 2020.02, and OO 10.61  |
| Microsoft     | Azure Automation, Azure Policy, Azure Migrate, Azure Cost Management, Azure Security Center, and PowerShell Desired State Configuration (DSC)   | N/A   |
| Northern.tech | CFEngine Enterprise   | 3.15 LTS  |

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**FIGURE 3** Evaluated Vendors And Product Information (Cont.)

| Vendor          | Product evaluated   | Product version evaluated  |
|-----------------|---|--|
| Puppet          | Puppet Enterprise Platform  | Puppet Enterprise 2019.7, Continuous Delivery for Puppet Enterprise 3.8, Puppet Remediate 1.2, Puppet Bolt 2.0, and Relay  |
| Red Hat         | Red Hat Ansible Automation Platform                                       | Red Hat Ansible Automation Platform 1.1 (Ansible Tower 3.7, Ansible Engine 2.9, Automation Services Catalog 1.0, Automation Analytics 1.0, and Automation Hub 1.0) |
| Resolve Systems | Resolve Actions (Automation Product) and Resolve Insights (AIOps Product) | Unity  |
| SaltStack       | SaltStack Enterprise  | 6.2  |
| Turbonomic      | Turbonomic  | 7.22.0   |
| VMware          | VMware vRealize Suite   | 2019   |

## Vendor Profiles

Our analysis uncovered the following strengths and weaknesses of individual vendors.

### Leaders

- › **VMware speeds up automating hybrid cloud infrastructure.** VMware submitted VMware vRealize Suite for this evaluation. Parts of vRealize Suite are available on-premises and as a software-as-a-service (SaaS)-based offering, including Automation, Orchestration, Operations Management and Log Management, and Lifecycle Manager. Together, they orchestrate, monitor, and troubleshoot large hybrid cloud environments. They also provide cost and capacity analysis, perform compliance checks, and accelerate application delivery.

VMware excels in most areas, including scalability, discovery, model creation and editing, application awareness, orchestration, monitoring, and access governance, but compared with its competitors, it's average in compliance and vulnerability management support. Customer references praised the solution's extensibility and stability. They also told us that VMware's customer support is exceptional. However, those same references felt that VMware still needs to address cost and documentation, despite its efforts to improve both. VMware vRealize Suite is best for enterprises that want to automate many different types of infrastructure, both on-premises and across multicloud.



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- › **Red Hat continues to leverage a powerful open source community to grow.** Red Hat (part of IBM) submitted Ansible Automation Platform for this evaluation; it consists of Ansible Tower, Engine, Automation Services Catalog, and Automation Analytics and Automation Hub. Red Hat Insights, included with Red Hat Enterprise Linux (RHEL) subscriptions, augments the solution by providing remediation suggestions. The solution orchestrates reusable automation workflows, performs analytics of workflow runs, and integrates with DevOps toolchains.

Ansible continues to grow quickly, particularly among enterprises that are automating networks. The solution excels at providing a variety of deployment options and acting as a service broker to a wide array of other automation tools. A robust community ecosystem contributes to Ansible's success. Compared with those of its competitors, the solution could do a better job of model editing. Reference customers praised the solution's integration capabilities as well as Red Hat's willingness to reevaluate its licensing model. They were less impressed with Ansible's documentation and modularity of code. Red Hat's solution is a good fit for customers that want a holistic automation platform that integrates with a wide array of other vendors' infrastructure.

- › **Microsoft continues to iterate quickly and leverage open source.** Microsoft submitted Azure Automation, Azure Policy, Azure Migrate, Azure Cost Management, Azure Security Center, and PowerShell Desired State Configuration (DSC) for this evaluation. Azure Automation, a SaaS-based solution, has a rich feature set and integrates with other platforms to configure infrastructure and orchestrate automation workflows. A hybrid runbook worker feature can execute runbooks in on-premises environments. Azure Migrate can discover on-premises servers, infrastructure, and applications. Azure Policy provides additional governance tools and analytics, Azure Cost Management provides analysis and planning around cloud spending, and Azure Security Center compares configuration of resources against industry standards and regulations. These are augmented by PowerShell DSC, an open source project that provides configuration management on Windows and Linux.

Microsoft continues to iterate at a swift pace, and its increasing adoption of open source has paid dividends. Microsoft is better than most of its competitors at DevOps integration, community engagement, and support of its products and services. Reference customers lauded Microsoft's engagement model and end-to-end ecosystem but raised concerns about visibility of costs and where customers could ultimately save money. Microsoft's solution is a good fit for firms that want a swiftly updated automation stack or for those with an established relationship with Microsoft.

- › **Cisco expands beyond basic infrastructure automation with strong analytics.** Cisco submitted Intersight, Workload Optimization Manager, CloudCenter Suite, and Multi-Site Orchestrator for this evaluation. CloudCenter Suite consists of Workload Manager, Cost Optimizer and Action Orchestrator. Together, they combine infrastructure management, governance, and compliance into a very scalable offering. ACI Multi-Site Orchestrator helps simplify network management across on-premises and multicloud.

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Cisco's solution offers rich infrastructure automation capabilities, particularly for its own hardware. Cisco is stronger than most competitors at model creation and editing and application awareness. It's also excellent at monitoring, access governance, and analytics but only average at vulnerability management support and DevOps integration. Reference customers liked Cisco's predictive analytics and reliable support model but told us the company must improve third-party device support. Cisco's infrastructure automation platform is best for customers that need to manage infrastructure with strong analytics, particularly if they're already Cisco customers.

**Strong Performers**

- › **Chef Software's focus on governance and compliance is still a key differentiator.** Chef submitted the Chef Enterprise Automation Stack for this evaluation; the stack consists of Chef Infra, Chef Automate, Chef, Compliance, Chef InSpec, Chef Habitat, and Chef Workstation. Infra provides basic management of infrastructure automation, while Automate enhances this with enterprise-class dashboards and analytics. InSpec and Compliance provide a rich workflow for compliance professionals to verify that automation is running as intended. Habitat provides application-centric automation lifecycle support, and Desktop enables laptop and desktop management and compliance.

Habitat's growing maturity improves Chef Software's application automation story. Chef Software is stronger than most of its competitors at compliance support, vulnerability management support, and community ecosystem. It's average at discovery and orchestration and weaker at model creation and editing. Reference customers praised Chef Software's customer support and told us the company is underselling its compliance capabilities. However, they also find licensing confusing, and they have to rely on other tools for deeper device management. Chef Software's solution is a good fit for customers that want class-leading governance and compliance features.

- › **Turbonomic applies application insight to optimize infrastructure automation.** Turbonomic submitted its namesake Turbonomic product for this evaluation. It focuses primarily on automated workload placement, scaling, and cost analysis. To do this, it dynamically matches application demand to infrastructure resources on-premises and in multicloud. Infrastructure is modeled in a simple GUI, and full dependencies are mapped out. The solution uses AI to drive decisions, fueled by rich knowledge of the system stack. Integrations with tools such as AppDynamics, Datadog, Dynatrace, New Relic, and Prometheus drive additional telemetry into Turbonomic's recommendation engine. Integrations with ITSM (IT service management) solutions such as ServiceNow are also available.

Turbonomic excels at model creation and editing, application awareness, scalability, monitoring, and analytics but isn't as good as its competitors in compliance support. It doesn't offer vulnerability management support. Customer references told us that the solution runs reliably and scales well. However, they also said that the interface could use some polish. Turbonomic's solution is best for firms that wish to optimize resource usage while also automating infrastructure changes.

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- › **Resolve Systems moves toward combining automation and AIOps.**<sup>3</sup> Resolve Systems submitted its Resolve Platform for this evaluation; it consists of Resolve Actions and Resolve Insights. Actions models the creation and editing of infrastructure-as-code, executes configuration changes, integrates with DevOps toolchains, automates across IT domains such as service desk and SecOps, and performs analytics. Insights is an AIOps platform that uses machine learning to do discovery and dependency mapping, event validation, and root-cause analysis and perform predictive analytics. The combination enables Resolve Systems to identify issues and launch automated resolution procedures.

Resolve Systems has increasingly been interested in applying intelligence to automation, and the acquisition of FixStream provides a greater opportunity to do so. The Resolve Platform is better than most of its competitors at orchestration and access governance; however, it's weaker at compliance and vulnerability management support. Customer references told us that Resolve Systems provides a good runbook builder and does well at guided resolution. They also said that the solution isn't as fleshed out as they had hoped and that the vendor is slow to implement improvements. Resolve Systems' solution is a good fit for enterprises that want to leverage AIOps with their infrastructure automation while also having solid orchestration capabilities.

- › **BMC Software has a strong pedigree.** BMC Software submitted TrueSight Automation For Servers, TrueSight Automation for Networks, BMC Helix Cloud Security, TrueSight Orchestration, BMC Helix Vulnerability Management, BMC Helix Discovery, BMC Cloud Lifecycle Management, BMC Release Lifecycle Management, and MainView Automation for this evaluation. Many of the products are available as SaaS, and some are architected to run on containers. The combination of products enables bare-metal automation, hybrid cloud management, infrastructure-as-code capabilities, and discovery of unmanaged resources, both on-premises and in the cloud.

BMC Software has had products in this space longer than some of its competitors have existed. Its combination of products is ahead of those of most competitors at discovery, model creation and editing, and application awareness. It also has better access governance and dashboards than most of its competitors, as well as strong compliance and vulnerability management support. It's average at DevOps integration and analytics. Customer references appreciate the tools' extensibility; in fact, some said they were able to retire certain other vendors' tools in favor of using it. However, they also told us that some of BMC Software's interfaces are dated and that integration with the cloud is lacking. BMC Software's solution is a good fit for firms that need to manage myriad systems: mainframe, infrastructure-as-code, physical servers, and network switches.

- › **Puppet's move to simplify task automation adds to its features.** Puppet submitted the Puppet Enterprise Platform for this evaluation; it consists of Puppet Enterprise, Continuous Delivery for Puppet Enterprise, Remediate, Bolt, and Relay. The open source Puppet engine enables complex automation workflows across a wide array of hardware and software platforms, and Puppet Enterprise improves upon the engine with analytics and governance capabilities. Puppet Bolt and

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Relay open up orchestration and task management that go beyond the traditional I&O user. The Puppet Forge enables enterprises to download prebuilt modules, significantly shortening the time it takes to stand up new automation workflows.

The addition of Bolt and Relay adds to Puppet's already strong functionality. Puppet is stronger than most competitors at DevOps integration, community ecosystem support, innovation roadmap, and supporting products and services but weaker at model creation and editing. Reference customers like the extensibility of the platform, particularly with DevOps toolchains, but they expressed concerns about price and network automation capabilities. Puppet's solution is best for those looking to expand task automation while tightly integrating with DevOps workflows.

- › **SaltStack rides strong compliance and vulnerability support into SecOps territory.** SaltStack submitted SaltStack Enterprise, Comply, and Protect for this evaluation. SaltStack Enterprise focuses on the automation of infrastructure both on-premises and in the public cloud. Comply is an add-on that enables risk management professionals to define compliance policies and remediate issues; Protect is another add-on that leverages a proprietary database to track and remediate vulnerabilities. SaltStack can also integrate with products like Qualys, Rapid7, and Tenable.

SaltStack has always had strong engagement with I&O professionals and now plans to replicate that success with the security community. This vendor is better than most of its competitors at scalability, compliance, and vulnerability management support. The solution isn't as strong at model creation and editing. Customer references told us that SaltStack is easy to set up and relatively inexpensive. However, they also said that the GUI isn't as strong at model visualization, that SaltStack has fewer modules than its competitors do, and that integrations are somewhat difficult to implement. SaltStack's solution is best for firms that need an infrastructure automation platform to serve compliance and security professionals.

- › **Micro Focus' well-rounded offering has strengths in compliance.** Micro Focus submitted Data Center Automation, Hybrid Cloud Management, and Operations Orchestration for this evaluation. The Data Center Automation product automates physical and virtual servers, databases, and middleware and has compliance and vulnerability risk management features as well as remediation capabilities. The Hybrid Cloud Management product enables design, deployment, and management of services across public, private, and hybrid cloud environments. Operations Orchestration understands application topology and can automate the deployment of applications.

Micro Focus' solution is particularly strong in compliance and some parts of infrastructure management. It does better than most of its competitors in dashboards and excels at model creation and editing. It's average at discovery and community engagement. Customer references said the tools are quite stable and that they can orchestrate workflows easily; however, they told us they still need to rely on other tools (for example, element managers from OEMs). Micro Focus' solution is best for enterprises that want a stable offering for I&O that they can also use for compliance professional needs.

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## Contenders

- › **Canonical leverages its open source pedigree to focus on application enablement.** Canonical submitted Juju, MAAS, and Landscape for this evaluation. Juju provides application and infrastructure-as-code configuration and orchestration. MAAS supports infrastructure automation down to the bare metal, and Landscape provides vulnerability management capabilities.

Canonical focuses on application automation and enablement. It performs better than its competitors at application awareness and also does a good job with compliance and vulnerability management support. The solution is weaker than those of its competitors in orchestration, access governance, and analytics. Customer references told us that the company is adventurous and willing to try new things but that community engagement needs improvement and the learning curve for Juju is too steep. Canonical's solution is a good fit for firms that are willing to explore new ways to tie application and infrastructure automation together.

## Challengers

- › **Northern.tech is an automation veteran focused on efficiency.** Northern.tech submitted CFEngine Enterprise for this evaluation. The solution quickly gets infrastructure resources into a desired state using a custom Domain Specific Language (DSL). The engine itself is very small and can run on embedded devices. Use cases include preventing configuration drift; enabling infrastructure reporting; and automating application deployments, data center systems, and edge devices. It can also automate systems in public clouds.

CFEngine focuses on efficiency and performs on par with its competitors at scalability. However, the solution isn't as strong at DevOps integration, dashboards, and reporting and lacks features to support discovery. This vendor provided no reference customers. Forrester client inquiries have mostly focused on the speed of the platform but not much more. CFEngine's solution is best for firms that prize automation speed above all else.

## Evaluation Overview

We evaluated vendors against 26 criteria, which we grouped into three high-level categories:

- › **Current offering.** Each vendor's position on the vertical axis of the Forrester Wave graphic indicates the strength of its current offering. Key criteria for these solutions include deployment, infrastructure management, integrations, governance and compliance, and community support.
- › **Strategy.** Placement on the horizontal axis indicates the strength of the vendors' strategies. We evaluated product vision, execution roadmap, planned enhancements, innovation roadmap, supporting products and services, and partner ecosystem.
- › **Market presence.** Represented by the size of the markers on the graphic, our market presence scores reflect each vendor's revenue, number of customers, and average deal size.

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**Vendor Inclusion Criteria**

Forrester included 13 vendors in the assessment: BMC Software, Canonical, Chef Software, Cisco, Micro Focus, Microsoft, Northern.tech, Puppet, Red Hat, Resolve Systems, SaltStack, Turbonomic, and VMware. Each of these vendors has:

- › A single solution, which may include multiple products, that could be purchased as of April 27, 2020.
- › The ability to model and configure bare metal hardware and infrastructure-as-code.
- › The ability to automate more than the vendor's own infrastructure.
- › Been referenced by Forrester clients on inquiry calls.

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## Supplemental Material

### Online Resource

We publish all our Forrester Wave scores and weightings in an Excel file that provides detailed product evaluations and customizable rankings; download this tool by clicking the link at the beginning of this report on Forrester.com. We intend these scores and default weightings to serve only as a starting point and encourage readers to adapt the weightings to fit their individual needs.

### The Forrester Wave Methodology

A Forrester Wave is a guide for buyers considering their purchasing options in a technology marketplace. To offer an equitable process for all participants, Forrester follows [The Forrester Wave™ Methodology Guide](#) to evaluate participating vendors.

In our review, we conduct primary research to develop a list of vendors to consider for the evaluation. From that initial pool of vendors, we narrow our final list based on the inclusion criteria. We then gather details of product and strategy through a detailed questionnaire, demos/briefings, and customer reference surveys/interviews. We use those inputs, along with the analyst's experience and expertise in the marketplace, to score vendors, using a relative rating system that compares each vendor against the others in the evaluation.

We include the Forrester Wave publishing date (quarter and year) clearly in the title of each Forrester Wave report. We evaluated the vendors participating in this Forrester Wave using materials they provided to us by May 22, 2020, and did not allow additional information after that point. We encourage readers to evaluate how the market and vendor offerings change over time.

In accordance with [The Forrester Wave™ Vendor Review Policy](#), Forrester asks vendors to review our findings prior to publishing to check for accuracy. Vendors marked as nonparticipating vendors in the Forrester Wave graphic met our defined inclusion criteria but declined to participate in or contributed only partially to the evaluation. We score these vendors in accordance with [The Forrester Wave™ And The Forrester New Wave™ Nonparticipating And Incomplete Participation Vendor Policy](#) and publish their positioning along with those of the participating vendors.

### Integrity Policy

We conduct all our research, including Forrester Wave evaluations, in accordance with the [Integrity Policy](#) posted on our website.

**The Forrester Wave™: Infrastructure Automation Platforms, Q3 2020**

The 13 Providers That Matter Most And How They Stack Up

## Endnotes

- <sup>1</sup> CIS is the Center for Internet Security; PCI DSS is the Payment Card Industry Data Security Standard; HIPAA is the Health Insurance Portability and Accountability Act; and SOX is the Sarbanes–Oxley Act.
- <sup>2</sup> DISA STIG is the Defense Information Systems Agency Security Technical Implementation Guide.
- <sup>3</sup> Forrester defines AIOps as software that applies AI/ML or other advanced analytics to business and operations data to make correlations and provide prescriptive and predictive answers in real time. These insights produce real-time business performance KPIs, allow teams to resolve incidents faster, and help avoid incidents altogether.



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