

Open Source Automation Drives Innovation For Telecommunications Organizations

Executive Summary

100% of telecommunications decision makers report a variety of technology and business benefits from their automation software investments.



Automation is at the core of telecommunications firms' technology strategies. These firms need technology that adapts and scales quickly, reliably, and economically; they typically turn to automation software to do so. Enterprise open source tools can provide a variety of benefits for telecommunications firms at a lower risk profile than their free counterparts.

In December 2019, Red Hat commissioned Forrester Consulting to evaluate infrastructure automation. To explore this topic, Forrester conducted an online survey with 378 total infrastructure automation decision makers, 53 in telecommunications, responsible for their organizations' open source automation strategies. This spotlight highlights those 53 in telecommunications. For the full survey results of all respondents, [read the report](#).

Telecommunications firms automate key processes but still have room for improvement

Telecommunications firms prioritize automation initiatives over an array of competing goals; 72% of respondents report automation as one of their top initiatives.

The most commonly automated infrastructure management tasks include:



64%
Security



62%
Network automation



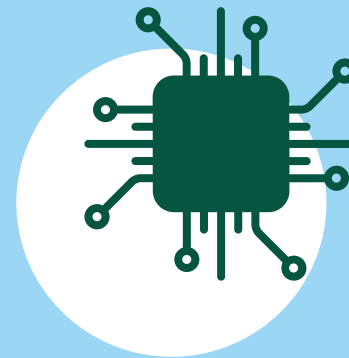
55%
System/security updates

However, some key tasks remain largely manual:

26% Server deployment/provisioning

25% Utilization reporting

23% Issue diagnosis/remediation



These tasks are prime candidates for automation — and are well-suited for a paid solution to handle.

As so many automation priorities are ranked highly, automation platforms must be robust enough to meet multiple customer demands in a privacy-centric way.

Ideally, telecommunications firms will utilize a platform that works across the organization and helps meet the goals of all key stakeholders. Open source enterprise (paid) solutions are key to meeting those demands.

Human-centric challenges drive automation investment and cause tension during infrastructure automation software implementation

Telecommunications firms purchased automation software to:



47% Meet customer demands

45% Address time-consuming manual processes



44% Focus less on necessary operational tasks/have more time for innovation

Telecommunications firms experience challenges with integration and misalignment during implementation:



42% Integration issues

42% Implementors and leadership have different goals



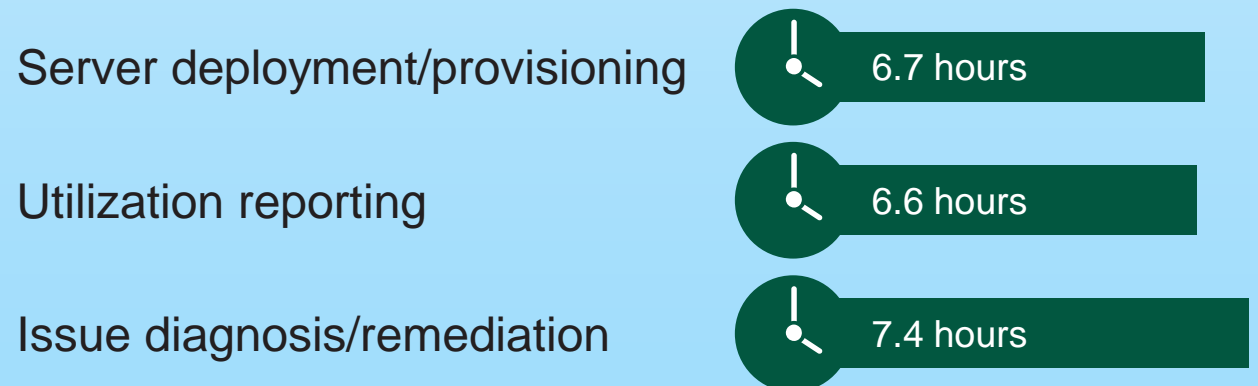
38% Developers and infrastructure/operations prefer different tools

And time spent on manual tasks prevents firms from maximizing their potential

Telecommunications firms waste valuable time on manual tasks that could be automated; most decision makers say that automating these tasks would be valuable. Automating manual tasks frees up time for employees to focus more on innovative, revenue-driving initiatives.

Huge time detriments exist for the tasks that telecommunications leaders most commonly report as manual.






When done manually, these tasks require*:








* Averages calculated based on total time per task

Telecommunications firms experience myriad benefits when they adopt enterprise versions of open source automation software, including but not limited to:

Technical benefits

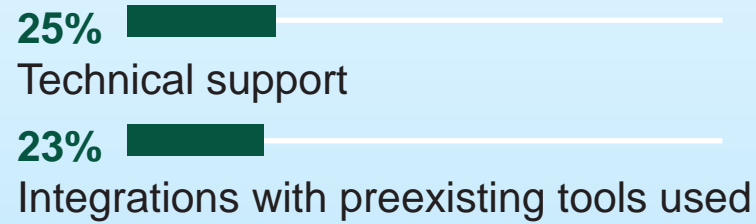
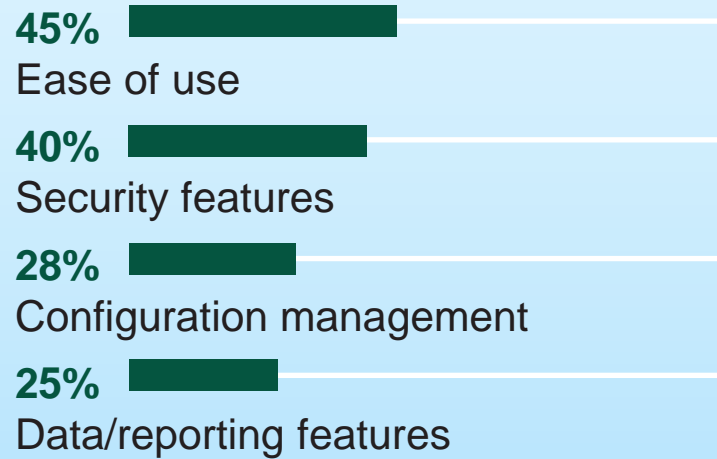
-  53% Better system performance
-  53% Improved consistency
-  53% Improved security
-  49% Improved integration
-  45% Improved scalability

Business benefits

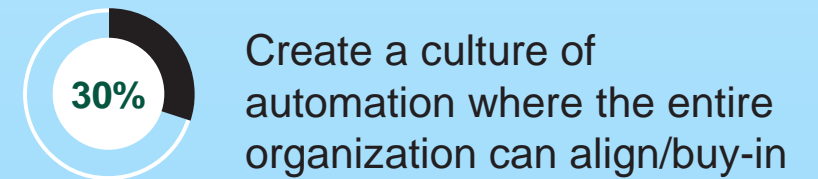
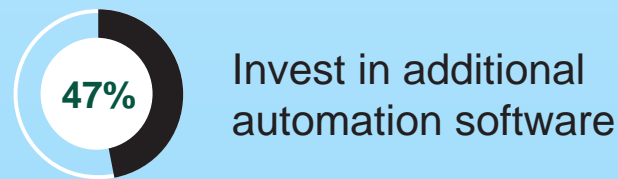
-  59% Better risk management
-  53% Improved/faster innovation
-  49% Faster time-to-market
-  49% Increased product revenue
-  47% More employee time spent on higher-level strategic initiatives

Organizations have big plans for automation and seek key features from their tools to achieve these goals

When evaluating automation software/tools, telecommunications firms look for:



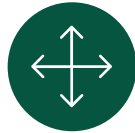
In the future, telecommunications firms plan to:



Recommendations



Automate manual tasks to increase value. While there are numerous benefits of infrastructure automation software solutions, firms can find immediate value by addressing the low-hanging fruit: manual tasks. Telecommunications firms' most common manual tasks take up to almost one business day. Having these hours back to devote to more innovative tasks can increase value.



Focus on the intersection of security and infrastructure automation. Many respondents cite automating and integrating security responses to threats as a key priority, alongside provisioning of infrastructure and software. As security operations shift left, holistic tools can address both needs.



Keep both business benefits and technical benefits in mind. Respondents cite better integration and system performance as key technical benefits. However, business benefits, such as faster innovation and increased product revenue, are just as critical. A proper automation strategy should address business deliverables directly, not just infrastructure.



Ensure the automation platform is robust enough to meet all key priorities. Across the board, telecommunications decision makers rank numerous functionalities and automation initiatives as key priorities. Firms shouldn't have to pick and choose between those that are most important; the right platform should address most, if not all, of these needs in one fell swoop.

Methodology

In this study, Forrester conducted an online survey of 53 infrastructure automation strategy decision makers at telecommunications firms to evaluate firms' automation initiatives and use of open source technology. Respondents were offered an incentive as a thank you for time spent on the survey. The study began in and was completed in December 2019.

The data in this deliverable is a subset of a larger study with a custom survey of 378 professionals in healthcare, finance, technology, telecommunications, utilities, and government. Click [here](#) to access the full study.

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