The Need For SaaS Operations Is High, Yet Enterprise Maturity Is Lacking

by Bill Martorelli October 22, 2020

# Why Read This Report

Despite the massive growth of enterprise software-as-a-service (SaaS) adoption and portfolio penetration, a consistent set of operational practices for managing the SaaS estate remains elusive. Managing SaaS is multidimensional, with similarities and key differences from traditional operations. Most notably, infrastructure and operations (I&O) professionals must identify where their SaaS provider stops support and they must begin it. This report pairs this information with key recommendations from your I&O peers.

# Key Takeaways

# Operational Responsibility For SaaS Is Typically Shared

SaaS suppliers take on a heavy portion of real-time operations — but that doesn't mean operations is done. Responsibility for operational support is divided among the SaaS supplier, the buyer, security/identity management, and asset management, which can limit overall effectiveness.

#### **Tackle Each Category Of SaaS Operations**

We sort SaaS operational activities into five high-level categories: 1) classic operations; 2) cost management; 3) asset management; 4) portfolio architecture and management; and 5) security and access management. Solutions are available to tackle each, but the space remains heavily fragmented — even within a single category.

# Power Up SaaS Operations With A Team, Tools, Automation, And Services

Taming SaaS sprawl can be overwhelming. Your peers recommend that you form a cloud center of excellence to tackle SaaS operations, carefully pick tools to tackle each category, and deal with skill shortages by using automation and services.

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# SaaS Operations Is More Crucial Than Ever

SaaS is a key enabler for digital transformation strategies at large and for remote work transitions amid the current crisis. In a recent survey about IT priorities, Forrester found that 57% of global services decision-makers said they invest or plan to invest in SaaS as part of their organization's digital transformation strategy — the top response among listed technologies (see Figure 1). SaaS accelerates time-to-value and offers employees convenient access to work resources anywhere. As a result, SaaS consumption has risen significantly for enterprises of various sizes, for a total global market of \$500 billion. But matching this expanded consumption with equivalent sophistication in operations remains a work in process. Companies need to up their operations game because:

- > SaaS adoption is rising quickly, which leads to SaaS sprawl. SaaS is becoming an everincreasing percentage of installed software functionality. In fact, SaaS makes up a significant portion of total product revenue spend in major application categories 88% of desktop and collaboration apps, 83% of e-purchasing, and 76% of CRM.³ Often, the total number of SaaS solutions in the enterprise is in the hundreds. A 2019 survey by SaaS operations supplier Blissfully found that for enterprises with 1,000 or more employees, the average number of SaaS solutions in use exceeded 200.⁴ Smaller enterprises and startups embrace SaaS-only strategies, while in large enterprises, SaaS coexists with on-premises software as hybrid applications.⁵ Currently, organizations struggle to find an approach to SaaS acquisition and asset management that won't delay access to these innovative technologies but avoids uncontrolled proliferation of duplicate SaaS solutions.
- SaaS decisions are now strategic and at the company level. As with public cloud, initial SaaS purchasing was initially championed by individual departments and user teams. However, this siloed SaaS adoption is yielding over time to more-centralized responsibility as firms recognize SaaS's strategic importance. Organizations are stepping up their game with more-targeted tools allowing visibility and management for SaaS consumption and with governance strategies that encompass SaaS more effectively. In some companies, the role of a dedicated SaaS manager is emerging. This new role not only helps centralize SaaS decisions but also provides an operations plan to address the current fragmented reality.
- Mergers and acquisitions rely on the ability to join forces quickly. SaaS-first strategies have enabled faster creation of new business ventures and more efficient combination and deconstruction of companies in the event of an acquisition or divestiture. For years, Salesforce has boasted that some customers are drawn to its platform simply to become more acquisition-friendly. Using SaaS helps realize potential business synergies more rapidly, an increasingly important consideration, given the rapid speed of the cloud age.
- > Remote work is here to stay, but SaaS makes it happen. COVID-19-related working from home (WFH) is intensifying the already fierce SaaS operations challenge. Regardless of the trajectory of the pandemic, WFH is here to stay.<sup>6</sup> Amid the current crisis, companies have made greater use of



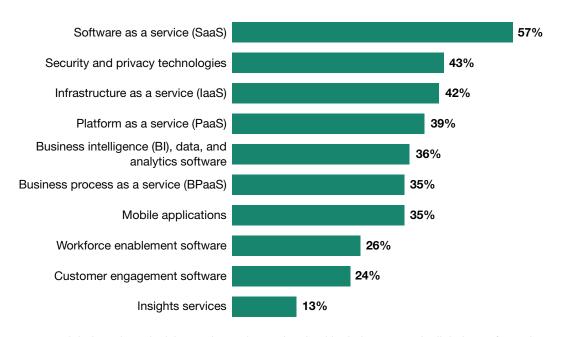
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conference systems like Zoom and collaborative solutions like Box and Slack, which in many cases are expanding the roster of SaaS instances and alternatives, increasing the demand on those platforms, and pressuring IT teams to provide better operational coverage.

Security and costs are greater fears than ever before. Immediate adaptation to WFH in the wake of the COVID-19 epidemic has not only increased the use of SaaS but also amplified its risks. These include existing vulnerabilities such as potential ransomware attacks, social engineering threats, new endpoints to manage, and other security exposures. The pandemic has also had a dynamic impact on employment and the need to provision and deprovision users in the wake of layoffs, furloughs, and new hires. Finally, cost control is paramount in the COVID-19 era, meaning that firms can no longer tolerate orphaned SaaS licenses and dissipated buying power (see Figure 2).

FIGURE 1 Companies Leverage SaaS As Part Of Their Digital Transformation Journeys

# "In which of the following technologies will your firm invest/is your firm investing as part of its digital transformation?"

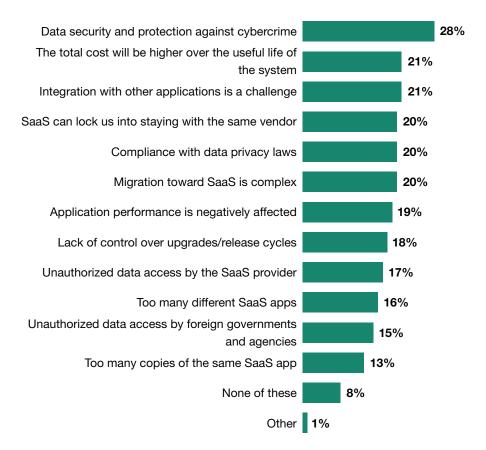


Base: 2,457 global services decision-makers who are involved in their company's digital transformation Source: Forrester Analytics Global Business Technographics® Business And Technology Services Survey, 2019



#### FIGURE 2 Security And Cost Dominate SaaS Concerns

# "Which of the following potential issues is your firm most concerned with around using software as a service (SaaS)?"



Base: 3,598 global software decision makers

Source: Forrester Analytics Global Business Technographics® Software Survey, 2019

# Start The Journey To SaaS Operations Mastery

Moving from on-premises software to SaaS has been a lengthy journey for large existing enterprises, while SaaS has been a starting point for new and emerging companies. For both types of buyers, SaaS operations provides both opportunities and challenges. If you're struggling with how best to manage your burgeoning SaaS estate, you're not alone. Enterprises large and small are grappling with how best to address an expanding set of operational challenges while understanding an emerging solutions landscape. Forrester recommends that operations professionals conquer this challenge by:



- > Understanding the key differences between SaaS and premises software operations. Peculiarities of SaaS acquisition, operations, and financial management create challenges that may lack direct analogues with on-premises software operations. SaaS operations is different and often occurs under the radar of conventional IT service management (ITSM).
- > Tackling each category of SaaS operations. The boundaries of SaaS operational categories remain fluid. For example, a need for security and backup and recovery strategies became obvious with the mainstream usage of Microsoft Office 365, while some requirements, like asset management, have become more acute with broader usage of SaaS. The need for greater understanding of the meta SaaS architecture has only recently become apparent. Accordingly, the solutions landscape for SaaS operations has also been volatile.

#### **Understand How SaaS Operations Differs From On-Premises Software Operations**

One reason that SaaS operations is very different from traditional on-premises operations is the very different responsibility profile that SaaS presents. Although SaaS suppliers are taking on many of the responsibilities that would otherwise fall to the customer, the new challenge is understanding how it's being done, if it's good enough, and where that support stops. The SaaS supplier may be operating much of the technology stack, but that doesn't mean the consuming organization has no operational responsibilities. Here are the key differences between traditional operations and SaaS operations:

- Software asset management (SAM) must consider subscription models. Although enterprises are very familiar with SAM, it differs in the SaaS world due to new payment structures. Because SaaS solutions are typically paid for on a monthly recurring basis (even when under a multiyear agreement), they're not software assets in the traditional sense. Subscription management is different from a capital asset purchase. "Most of the SAM products we have seem to be very focused on management of desktop software," said one Forrester customer. "We're looking for something that can access SaaS usage data, apply some defined licensing rules, and determine whether a customer is in compliance with what it's purchased."
- > SaaS sprawl and variable usage mandates cost management and optimization. With hundreds of SaaS applications, all with different consumption models, companies are struggling to understand the associated cost and how best to manage and optimize their SaaS environments. Although these tools have benefited the infrastructure-as-a-service (laaS) market for several years, cost optimization tools have only recently emerged to address SaaS financial management. "Three years ago, SaaS cost management was virtually nonexistent," explained one heavy user of SaaS in a high-tech company.
- > SaaS lacks a unified service model across suppliers. As support responsibilities for SaaS solutions are shared between the customer and the SaaS vendor, how a vendor handles each operational function differs for each supplier/application. This creates inconsistencies in operations and a great burden for IT teams in supporting the SaaS portfolio as a whole. To deal with these differences, companies must create teams that possess skills across their major SaaS applications,



(e.g., Oracle, Salesforce, Slack, and Zoom), recognizing that they can't possibly find individuals with skills that apply across all their SaaS estate. "Supporting Salesforce versus helping a user with a detailed Slack problem are two very different things," said one SaaS administrator, "I need people with skills across all of them. I'm not getting a unified solution from anyone."

responsibility for SaaS governance is fragmented in large enterprises. Governance responsibility is complex when considered across a full SaaS portfolio. As with on-premises operations, governance responsibilities typically fragment across a variety of touchpoints, including the functional consumer of the SaaS solution, which differs depending on the nature of the solution (e.g., HR for Workday or Sales for Salesforce) as well as on security and identity management teams, enterprise architects, SAM groups, data management and integration groups, and procurement organizations. Customers may rely on super admins or super users to take on operational responsibilities. This creates gaps in governance where these areas intersect and communication issues among the various parties.

Some large enterprises are struggling with where to seat SaaS governance. "We're exploring where the organization responsible for SaaS governance should sit," said one Forrester customer. Our vendor management organization is part of procurement, and IT asset management could be involved, but there's a wall between them and global procurement. Should it sit in procurement? In asset management?"

> SaaS usage can be invisible to IT managers. Much of SaaS consumption is driven by business decision-makers rather than technical IT decision-makers and therefore takes place outside the view of IT operations. Unless SaaS decision-makers can "see" the customer, they can't influence who's using what and how they're using it. "Our new EA director has observed that we lack a technology standardization and approval process for SaaS," said one Forrester customer. "Executives and business leaders tend to work directly with SaaS vendors. How can we help make the case for a standardized approach?" For on-premises operations, boundaries are more established and responsibilities across applications are more consistently applied.

#### **Tackle The Principal Activities Of SaaS Operations**

Effective SaaS operations rely on mastering a series of key processes having to do with SaaS implementation and governance that may or may not correlate with either existing suppliers or emerging startups addressing the unique requirements of SaaS operations. If you're about to kick off a SaaS operations program, tackle each of these principal activities (see Figure 3):

Classic operations. These include BC/DR, ESM, and monitoring. Enterprises need an understanding of performance, business continuity and disaster recovery (BC/DR), recovery of data, and a consolidated workflow management solution across multiple APIs to help with the day-to-day administrative tasks associated with SaaS applications. Each is a challenge. Monitoring must react to issues outside the span of direct control, which has led many customers to embrace the use of synthetic transactions. Solutions like Dynatrace and New Relic are targeting SaaS use



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cases like Microsoft O365.<sup>7</sup> Companies also face a potential for data loss associated with use of SaaS-based collaboration tools like Box, Dropbox, and Slack. A variety of tools have emerged to assist in this category; Forrester calls them data resiliency solutions.<sup>8</sup> SaaS doesn't fit cleanly with ITIL-based incident and problem management processes or within most service management scenarios. Customization only increases service desk requests.

- > Cost management. License and spend management are examples of cost management. Just as with public cloud, a major focus of SaaS governance is on cost control. Companies want to know what they're spending and details of their current licenses. With growing usage of SaaS throughout the enterprise, licenses are neither overprovisioned nor underprovisioned. Identifying unused licenses for repurposing is a big opportunity in this environment. The risks of noncompliance with vendor license requirements are increasing in the current landscape. The risks of noncompliance with vendor license requirements are increasing in the current landscape.
- > Asset management. Asset management includes discovery and SAM. With hundreds of SaaS solutions in place, some official and others unknown, asset management is the first step of SaaS operations. As is true with cloud generally, "shadow" spending can remain hidden unless organizations make specific efforts to identify rogue SaaS. Discovery aims to uncover these assets, and SAM aspires to continually catalog, understand capability redundancies (i.e., duplicative solutioning), and establish a multilayered service/product lifecycle for each of them. 11 Discovering and managing sanctioned and unsanctioned cloud services has been a constant headache for security and risk professionals.
- Portfolio architecture and management. This encompasses capability mapping, integration, and data management. Applications are rarely islands they need to interoperate and often leverage shared data sets. Similarly, business process flows may traverse several SaaS solutions and therefore must be managed carefully. A variety of mechanisms are available to solve the SaaS integration challenge, including data import/export and API-level and even UX-based approaches, but these remain inconsistent and immature. Haphazard SaaS implementation and integration can result in fractured business processes and inconsistent user experience.<sup>12</sup> Data architecture issues can loom very large in SaaS implementation and operations.
- > Security and access management. Examples include access control, security, and user lifecycle management. When it comes to SaaS security, most companies seek to tackle identity and access management (IAM), access of specific data, and full-stack security by filling the gaps of the SaaS supplier. Broad adoption of identity-as-a-service (IDaaS) solutions from vendors such as Microsoft, Okta, OneLogin, and Ping Identity is leading to a partial transfer (or partial synchronization) of internal user-identity information, from purely on-premises repositories such as Active Directory (AD) and LDAP to cloud repositories. This requirement, coupled with the maturing of IDaaS, is also leading companies to consider deploying pure cloud user directories: Some 64% of global enterprise security decision-makers are implementing, have already implemented, or are expanding/upgrading their single sign-on portals to employees for SaaS-based app access.<sup>13</sup>



FIGURE 3 Principle Elements Of SaaS Operations



#### Recommendations

# Master SaaS Operations Using Advice From Your Peers

Failing to come to terms with the needs of SaaS operations will compromise the benefits of SaaS. Getting started with SaaS operations may be intimidating, given the volume of applications your organization already has in its portfolio. Fortunately, there's a vast array of traditional and cloud-native players with solutions and services to support your efforts. What's more, your peers are going through the same struggles. Forrester has completed a series of inquiries and surveys to better understand current best practices for mastering SaaS operations to further aid I&O pros tackling this challenge. To succeed:

> Treat SaaS applications as first-class citizens in your portfolios. The days of treating SaaS like a poor relation are over. If you have an enterprise architecture or an application portfolio management system, track your SaaS applications just as you do your on-premises systems. For those feeling



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overwhelmed by the sheer number of apps, start with a basic understanding of what you've got, and centralize contracts. Getting smart can help identify high-risk items, establish key best practices that can speed along the contracting process, and point out areas of inefficient spend.

- "We had over 500 SaaS applications and no standardized governance in place. Step one for our team was discovery, figuring out what we had and where the biggest risks were. For now, we're only tackling the major vulnerabilities. We're addressing the high-risk items. We want to identify redundant contracts where we might be able to get a better deal by consolidating to a larger deal." (CTO at a multinational food and drink processing corporation)
- > Ensure that end-user experience is a key part of the strategy. SaaS portfolios suffer from a plethora of stakeholders. If a centralized operations team hopes to take on SaaS operations effectively, it must focus its entire plan around delivering operations without compromising the end-user experience. This will mean marketing your efforts in the language of the business, avoiding time delays at all costs, and leveraging end-user experience management platforms to track key metrics on experience.<sup>14</sup>
- > Form a cross-functional team to address SaaS operations. Companies are familiar with cloud centers of excellence (CCOEs); however, these groups primarily focus on ongoing operations for cloud infrastructure and development platforms. SaaS capabilities are often limited to sourcing and vendor management, lacking any unified and standardized operations support. For larger enterprises, facilitate excellence in SaaS operations by forming a cross-functional team. This may be an extension of an existing infrastructure-focused CCOE or a separate group entirely focusing on SaaS. Be warned that this will be tricky for platforms that bridge infrastructure, development, and software functionality (e.g., SaaS marketplaces or low-code platforms). For smaller companies, using a SaaS manager may work, given their more streamlined operating structures.
- buse tooling wisely, but expect forthcoming industry consolidation. Effective tooling is essential to coming to terms with SaaS sprawl. Today, this market is a hodgepodge of 50-plus vendors from various backgrounds. Software startups tend to tackle the newer areas most effectively, so expect a volatile ride amidst ongoing industry consolidation. SaaS operations players like Bettercloud, Intello, and Productiv are pursuing these operational areas, but their offerings bleed across functional categories. Look for suppliers that can ride out the near-term business climate or, at the very least, cover your SaaS with contracting best practices. Intellogenees to be under the production of the p
- "Smaller targeted players often deliver more mature functionality than the classic software vendors. Our only fear is acquisition or lack of organizational stability. But it seems that's a risk we must be willing to take. We just try to cover our backs by doing contracting best practices around cost, flexibility, and data ownership." (Operations professional at a midsize US bank)
- > Strive for highly automated and iterative SaaS operations. I&O professionals are facing a time of transition as conventional guideposts in process management and governance give way to new models such as resilience engineering. With the increasing complexity represented by the growing



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SaaS estate, SaaS operations must be part of this shift. Simply put, there's too much stuff to manage; only Al and automation can help deal with the scale of new demands and the increasing threat landscape. I&O pros must borrow from what they've learned from DevOps. Apply concepts like testing, applications management, release management, and value management to your SaaS operations plan. And similarly, leverage automated tooling, where appropriate, to filter through the noise and focus on critical tasks. It may take a while for your operations team to feel comfortable.

> Remember, you're not alone. With need comes opportunity. There's a whole market of tools that can help you tackle these tasks. Where tooling falls short, there are plenty of services players eager to gain your business.

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# Supplemental Material

#### **Survey Methodology**

The Forrester Analytics Global Business Technographics® Business And Technology Services Survey, 2019, was fielded from July to September 2019. This online survey included 2,678 respondents in Australia, Canada, China, France, Germany, India, the UK, and the US from companies with 500 or more employees.

The Forrester Analytics Global Business Technographics Software Survey, 2019, was fielded between August and October 2019. This online survey included 3,598 respondents in Australia, Canada, China, France, Germany, India, the UK, and the US from companies with two or more employees.

Forrester Analytics' Business Technographics ensures that the final survey population contains only those with significant involvement in the planning, funding, and purchasing of business and technology products and services. Dynata fielded this survey on behalf of Forrester. Survey respondent incentives included points redeemable for gift certificates.

Please note that the brand questions included in this survey should not be used to measure market share. The purpose of Forrester's Business Technographics brand questions is to show usage of a brand by a specific target audience at one point in time.

#### **Companies Interviewed For This Report**

We would like to thank the individuals from the following companies who generously gave their time during the research for this report.

Amazon Web Services Torii

BetterCloud Twitch

Cleanshelf VMware

Intello Workday

PagerDuty Zylo

#### **Endnotes**

SoftServe

- <sup>1</sup> Base: 2,457 global services decision-makers who are involved in their company's digital transformation. Source: Forrester Analytics Global Business Technographics Business And Technology Services Survey, 2019.
- <sup>2</sup> See the Forrester report "The Global SaaS Landscape, 2019 To 2022: Some Categories Grow, While Some Reach Saturation."
- <sup>3</sup> See the Forrester report "The Global SaaS Landscape, 2019 To 2022: Some Categories Grow, While Some Reach Saturation."



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- <sup>4</sup> Source: "2019 Annual SaaS Trends Report," Blissfully (https://www.blissfully.com/saas-trends/2019-annual/).
- <sup>5</sup> See the Forrester report "The Global SaaS Landscape, 2019 To 2022: Some Categories Grow, While Some Reach Saturation."
- <sup>6</sup> See the Forrester report "The New, Unstable Normal: How COVID-19 Will Change Business And Technology Forever."
- <sup>7</sup> See the Forrester report "The Forrester Tech Tide™: Modern Technology Operations, Q4 2019."
- <sup>8</sup> See the Forrester report "The Forrester Wave™: Data Resiliency Solutions, Q3 2019."
- <sup>9</sup> Source: "Your Underused SaaS Apps Are Prime Targets For Trimming Tech Budgets," Forrester (https://www.forrester.com/fn/1Hjiwne7vt6xaqYr8yd7AV).
- <sup>10</sup> See the Forrester report "The Growing Danger From Software Audits."
- <sup>11</sup> Source: "In Times Of Crisis, Get Your IT Portfolios In Order With Service, Asset, And Technology Lifecycle Management," Forrester (https://www.forrester.com/fn/6XaarwYqy52PG1bIVLlj5i).
- <sup>12</sup> See the Forrester report "SaaS Success Requires Careful Implementation Planning For Cohesive Experiences And ROI."
- <sup>13</sup> Base: 784 enterprise global security decision-makers with network, data center, app security, or security ops responsibilities (at firms with 1,000-plus employees). Source: Forrester Analytics Global Business Technographics Security Survey, 2019.
- <sup>14</sup> See the Forrester report "Now Tech: End-User Experience Management, Q3 2020."
- <sup>15</sup> Follow industry best practices for contracting in regard to security and contract termination. Source: "FedRAMP Control Specific Contract Clauses," FedRAMP, December 8, 2017 (https://www.fedramp.gov/assets/resources/documents/Agency\_Control\_Specific\_Contract\_Clauses.pdf).
- Source: "Guide to Information Technology Security Services," NIST, October 2003 (https://nvlpubs.nist.gov/nistpubs/legacy/sp/nistspecialpublication800-35.pdf).
- <sup>16</sup> See the Forrester report "Research Overview: Modern Technology Operations."



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