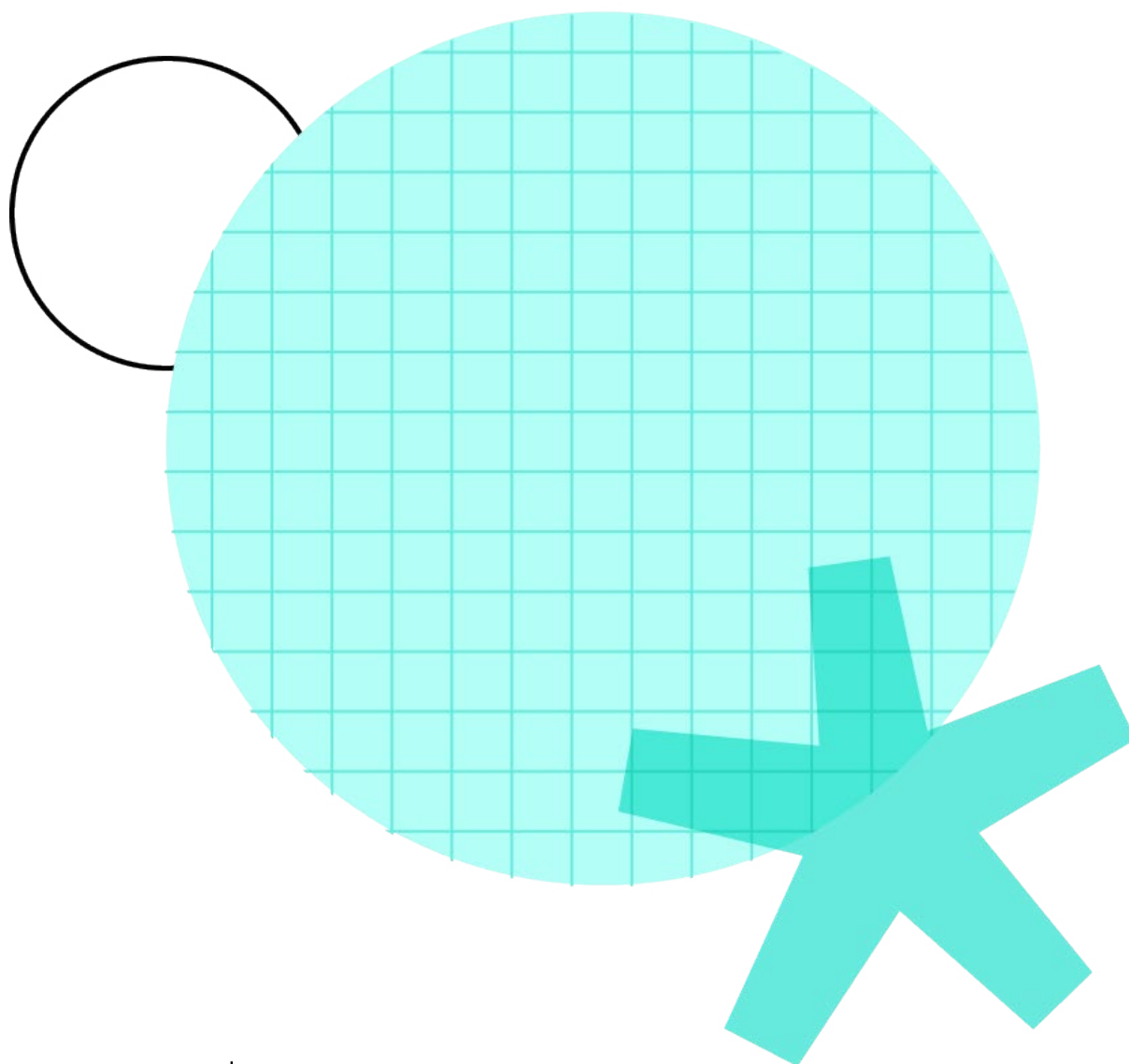


# W\*rk Automation Index 2021

Finance, IT and Data Analytics Saw Biggest Automation Growth During COVID-19 Pandemic



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## Executive summary

Enterprise automation has seen a rapid surge in adoption, but which business processes are being automated the most? Which departments are the furthest ahead and which are behind? And how has the pandemic impacted companies' use of automation? This report sheds light on those questions and more, providing valuable insights that will help businesses to understand where they stand with automation relative to their peers.

This report is based on anonymized data that we collected from our enterprise customer base to identify patterns and trends and to see how automation is being put to work in the real world. We looked at nearly 700 mid-size to large enterprises to determine which workflows are being automated most frequently, and which apps are used to create those workflows. We looked at the automated processes in use before the COVID-19 pandemic, and compared them with the automated processes in use after the pandemic, to see what had changed. Some of what we learned surprised us.

Part of what we're seeing is a general increase in automation across the board, as companies seek to boost productivity, increase sales conversion rates and manage their finances more closely. Our data shows that one-third of enterprises were using automated processes in five or more departments during the past year, up from just 15% in the year before the pandemic began. This indicates that automation has become an enterprise-wide focus.

We also saw the pandemic drive new priorities, as customers turned to automation to increase efficiency and to adapt to the new work environment. Recruitment efforts moved almost entirely online, for example, as businesses automated the process of hiring and onboarding staff. We also saw significant increases in the use of automation for Customer Support and for Sales & Marketing. Many Financial processes were automated as businesses sought to manage their finances more closely.

**Here are some of our key findings, with a more detailed analysis in the sections that follow.**

## Key Findings

### **Customer Support led the way in growth.**

As customer interaction shifted online over the past year, the department that saw the biggest increase in automation use was Customer Support, where the volume of automations increased by more than 290% from before the pandemic. Within Customer Support, the workflow that experienced the biggest increase in automation was processing Returns & Refunds (aka Return Merchandise Authorization, or RMA), which saw growth of 476% from the year earlier.

### **Finance automation is a growing priority.**

After Customer Support, the Finance department saw the greatest increase in automation use during the past year, with the volume of automated Finance & Accounting processes increasing by 199%, or almost three-fold. Finance is the lifeblood of any business, and closely managing revenue and cash flow became especially critical during the uncertainty created by the pandemic.

Order-to-Cash was the single most commonly automated process in Finance and also across all departments.

### **Recruitment saw the highest automation growth of any single process, at 547%.**

With much of the world in lockdown, the process of hiring, onboarding and offboarding employees shifted almost entirely online. As part of this, more companies automated their recruitment process, leading to dramatic growth in this area throughout 2020.

### **Data-pipeline automation surged as companies became more data-driven in response to the disruption around them.**

These pipelines connect business apps with cloud data warehouses such as Snowflake, Google BigQuery and Amazon Redshift, ensuring that current, accurate data is available for business intelligence use. Automations in this area grew by 152% year-over-year.

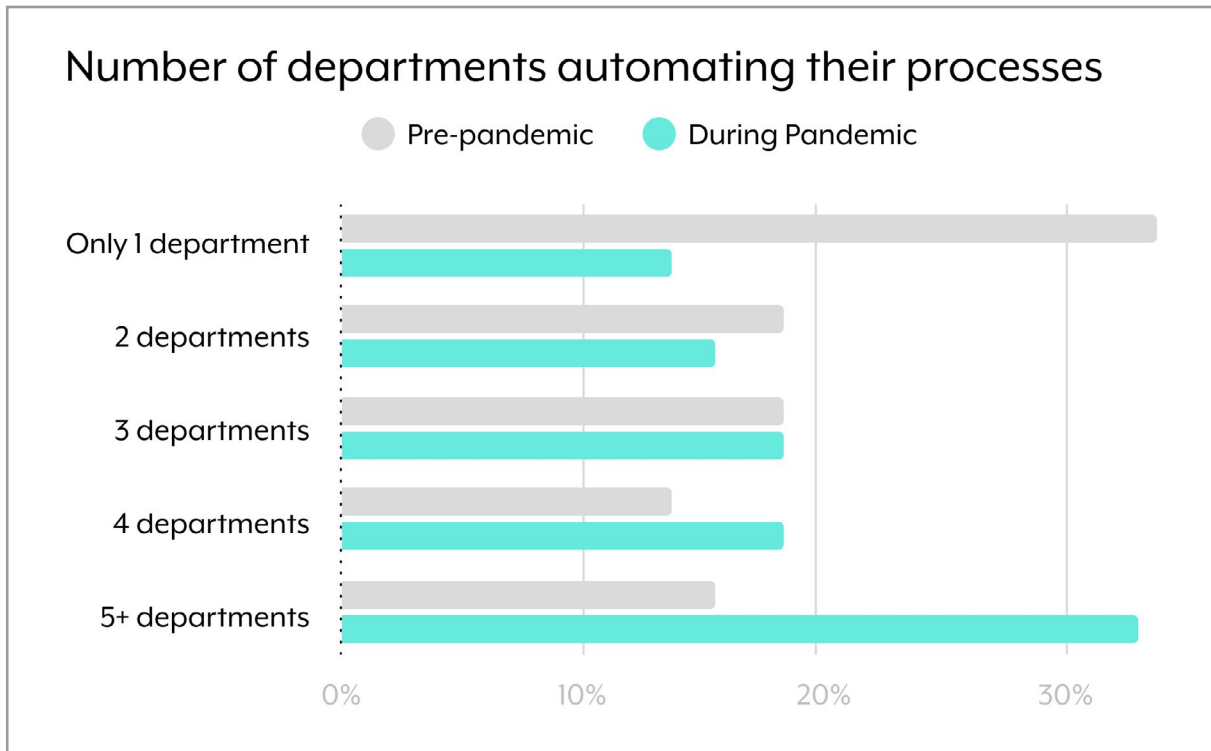
**Collaboration apps like Slack and Microsoft Teams were used in 20% of all automated workflows.** People spend a lot of time in chat apps so it makes sense that they're used to initiate enterprise workflows that happen behind the scenes. Whether it's approving an offer letter or an expense report, or sending a notification, chat apps provide a familiar, friendly interface where employees spend increasing amounts of their time—especially when working from home.

**Security and compliance automations grew by 171%.** With so many employees working remotely last year, enterprises needed to lock down security processes to keep networks and data secure. This behavior, combined with companies increasing their use of cloud and SaaS applications, contributed to this significant growth.

**Automation is a team sport between business and IT.** Looking at which employees are creating automated processes, we

found that IT users accounted for 55% of all workflows created during the year to March 2021, while business users accounted for 45%. Of those business users, product teams made up 19%, followed closely by business operations staff who work in areas like sales ops, marketing ops and finance ops, and who accounted for 18% of workflows created.

With these key findings established, let's take a deeper dive into the top processes, departments and other trends revealed in our data.



## Most Commonly Automated Processes

Top 10 automated processes across all departments

Process	Order-to-Cash	Data Pipelines and Reverse ETL	IT Operations	IT Helpdesk	Sales Operations	Employee Onboarding/Offboarding	Case-to-Resolution	Employee 360	Campaign Operations	Customer Account Management
Percent of all automated processes	19%	12%	12%	10%	6%	4%	4%	3%	3%	2%
Growth from before vs after the pandemic	233%	152%	165%	202%	160%	156%	280%	125%	197%	326%

## Process Definitions

**Order-to-Cash:** This is a catch-all term for the process of fulfilling, invoicing and delivering goods or services, and it's one of the most crucial workflows in any business. Order-to-cash is often a manual, error-prone process, and important sales and financial data can be inaccessible to those who need it. Automating order-to-cash aligns and syncs CRM and ERP systems, speeding order-to-fulfill cycles and reducing day sales outstanding (DSO).

**Data Pipelines:** Data has been critical to helping businesses navigate their way through the pandemic, with many using cloud analytics to better forecast demand and optimize supply chains. Data pipelines pull data from core enterprise apps such as ERP and CRM systems and deliver it to cloud services where it can be analyzed quickly and at scale. Automating these pipelines eliminates human error and ensures that analytics teams and applications have accurate, current data.

**IT Operations:** Enterprises also turned to automation to keep their IT infrastructure up and running. These IT workflows address needs such as application monitoring, database setup and security provisioning,

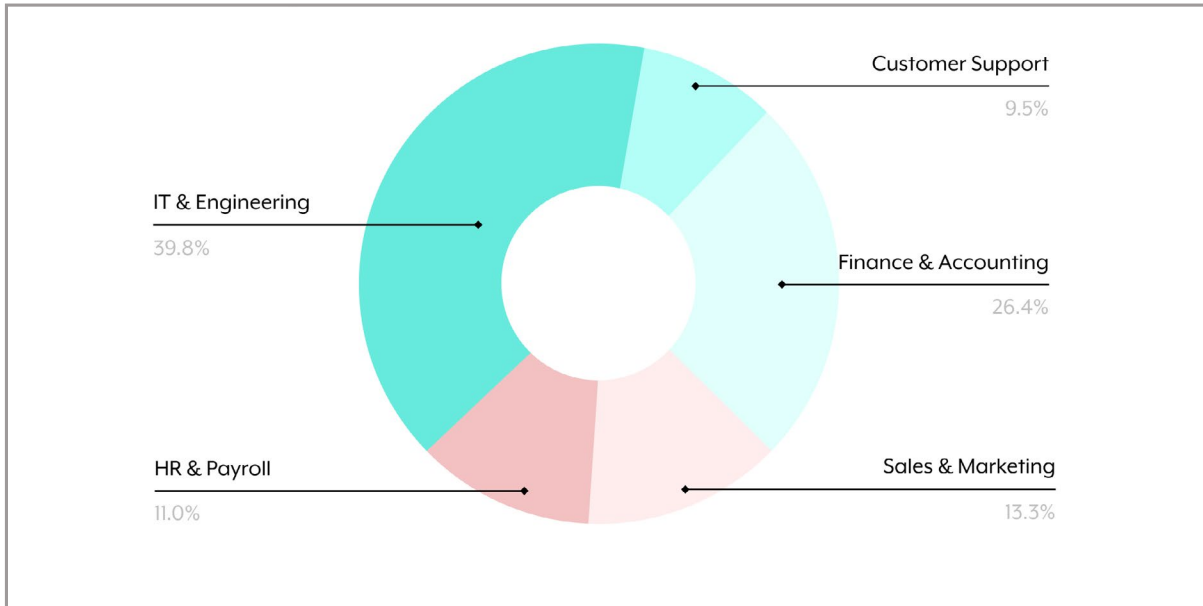
ensuring there is current information about how infrastructure is performing and reducing configuration errors that can result from manual processes. IT Operations accounted for 12% of all automated processes, with the volume of automations across all customers up more than double (165%) from last year.

**IT Helpdesk:** As the pandemic began, helpdesks found themselves inundated with support requests from remote workers to help them get set up at home. IT teams turned to automated workflows to speed the process of setting up VPNs, delivering equipment such as webcams and headphones, and resetting passwords. The total volume of automated helpdesk processes in use more than tripled from 2020, rising 202%, to account for 10% of all automated workflows.

**Sales Operations:** As businesses seek to optimize their sales pipelines and create more targeted interactions, sales operations is a prime target for automation. By connecting applications in areas like sales, marketing and support, sales teams gain a 360-degree view of customers and prospects that allows them to personalize pitches and capitalize on upsell opportunities.

# Automation Adoption By Department

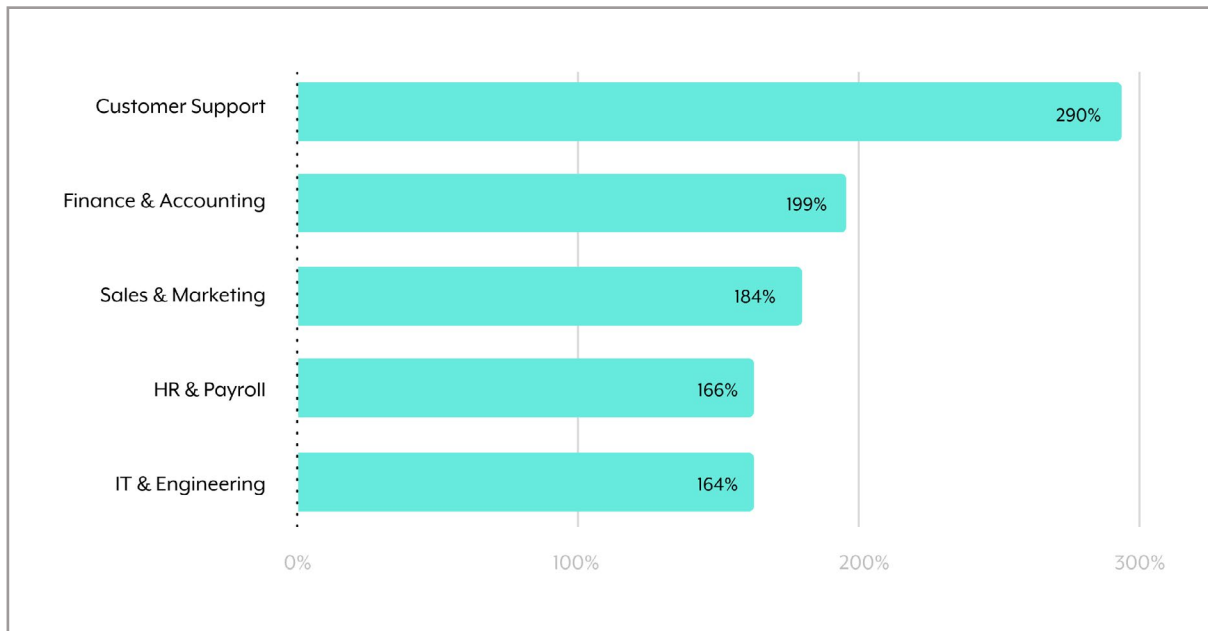
## Which Department Has The Most Automations?



As discussed, Customer Support saw the greatest increase in automation usage over the past year, but this department still accounted for just 9.5% of all automated processes. Far out in front is IT/Engineering, which was the biggest user of automation across all departments. IT was followed by Finance & Accounting, Sales & Marketing and HR & Payroll. We look more closely at these departments below.

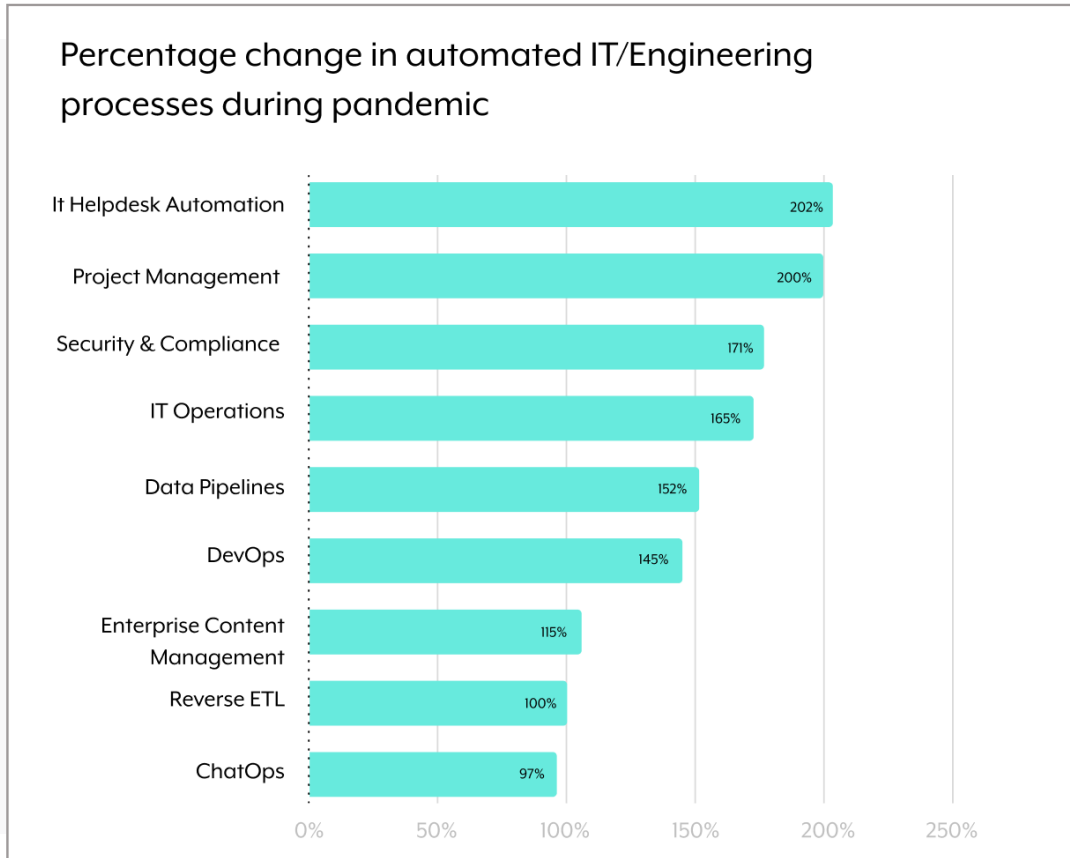


## Growth In Automations During Pandemic, By Department



These YoY growth figures show us where automation is expanding the quickest, which in many ways is a more interesting finding than the absolute share because growth can be an indicator of future trends. Finance & Accounting was the second-fastest growing area, with the volume of automated processes increasing almost 3x from last year (199%), closely followed by Sales & Marketing, where the volume of automated processes increased by 184%. We look into the reasons behind these increases below.

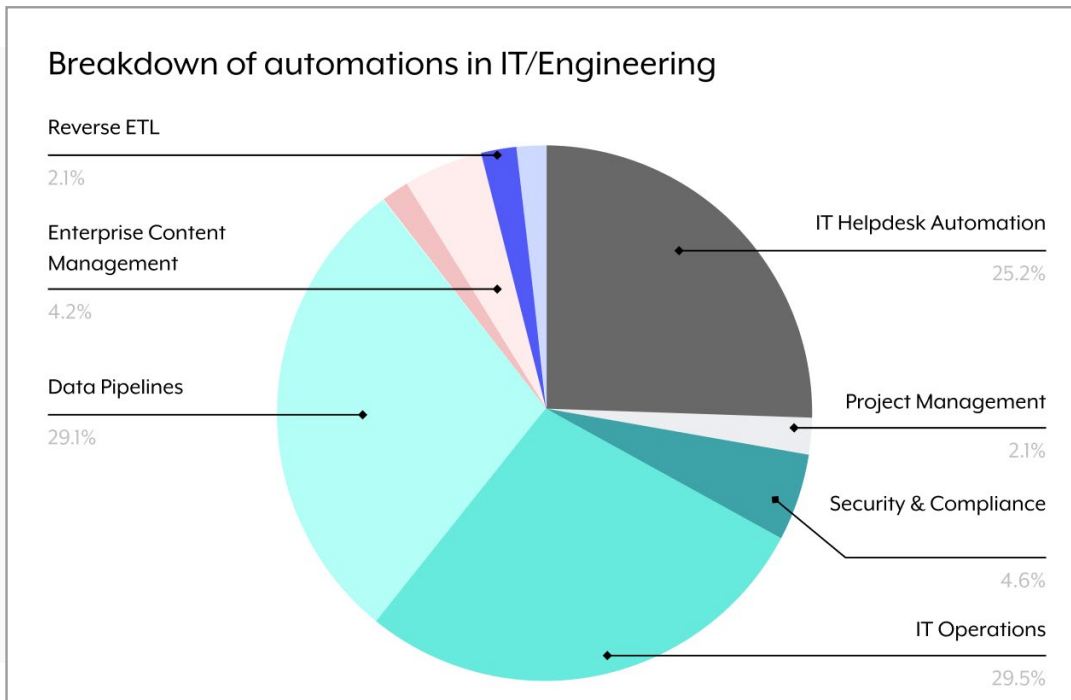
## IT & Engineering



### The Top Apps Connected in IT:

The top apps connected to build these automated IT workflows were ServiceNow, Jira, Zendesk, Okta, Snowflake, Redshift, Amazon S3, Active Directory, SQL Server and PostgreSQL. Slack and Microsoft Teams also appeared frequently, as they were commonly used as the interface to kick off help desk processes.





**Helpdesk was the fastest-growing area within IT**

IT teams are tech-savvy by nature and have always been on the frontlines of automation. With so many people working remotely, helpdesk automation was the fastest-growing area within IT, with the volume of automated processes increasing by 202% compared with before the pandemic.

**Data Pipeline automations grew from last year while remaining the 2nd most automated process for IT**

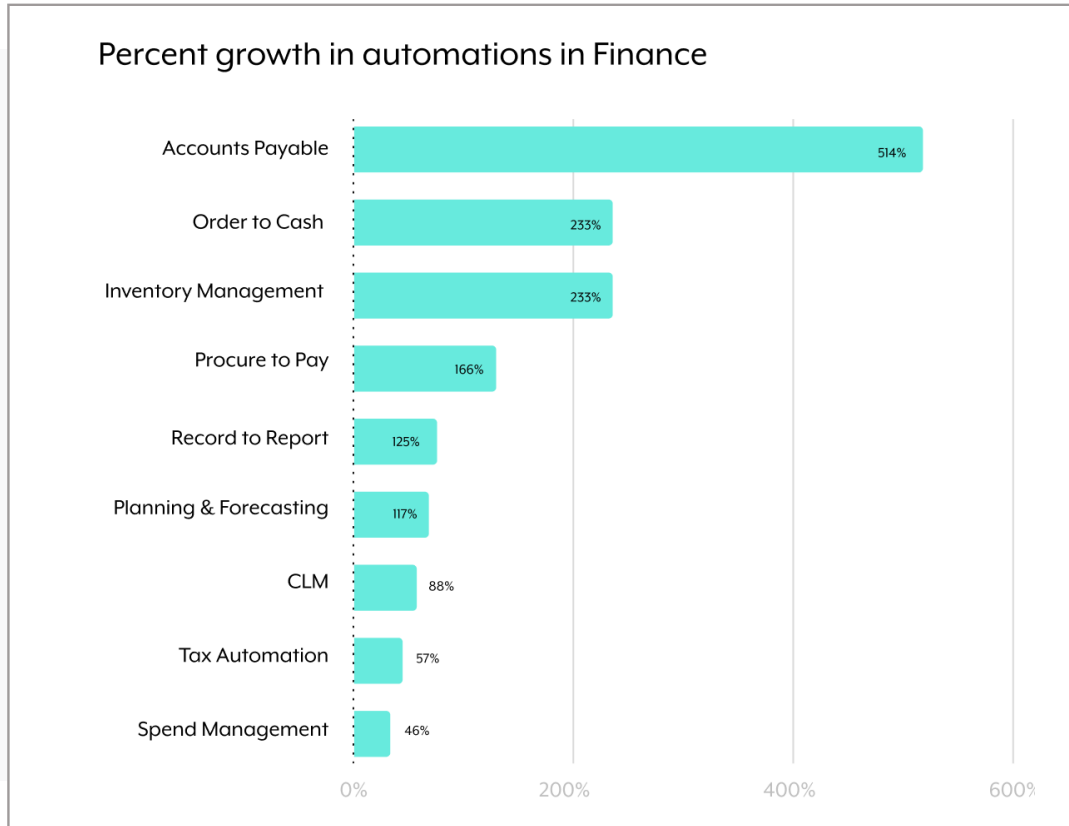
As noted, data pipelines were a big target for automation, as companies sought to become more data-driven to help them navigate the changing world around them. These automations, connecting business apps to

data warehouses, grew by 152% in volume from last year, to account for 29.1% of all automated processes within the IT department.

**Security & Compliance automations surged higher**

With remote work becoming the norm, the security operations team automated a number of security processes with a 171% increase in security and compliance automations. From automating security playbooks by connecting with Security Incident Event Management (SIEM) tools like Splunk, Datadog and Sumo Logic to improving security incident response times by prioritizing, then routing actionable alerts to the right people over Slack, MS Teams or SMS.

## Finance & Accounting



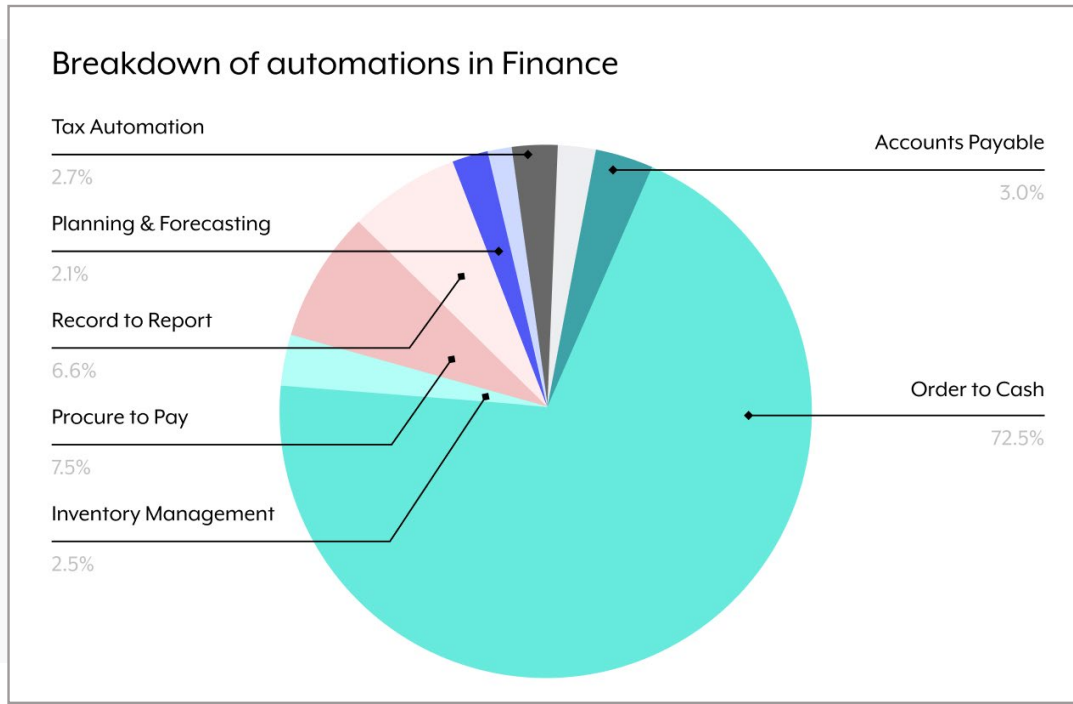
### Order-to-Cash is the top use case for finance automation by a landslide

Automating financial workflows helps businesses to recognize revenue faster and ensures visibility and accuracy for reporting and forecasting needs. With much buying behavior going digital, Order-to-Cash—the workflow associated with receiving and processing customer orders—grew by 233% from last year. This was by far the top use case for automation among finance teams,

accounting for 72.5% of all automated financial processes.

### Automations for Accounts Payable is growing

Automations in Accounts Payable grew the most from last year, by a whopping 514%, but this process still accounted for just 3% of finance automations overall, showing there is plenty of room for further optimization at most businesses.

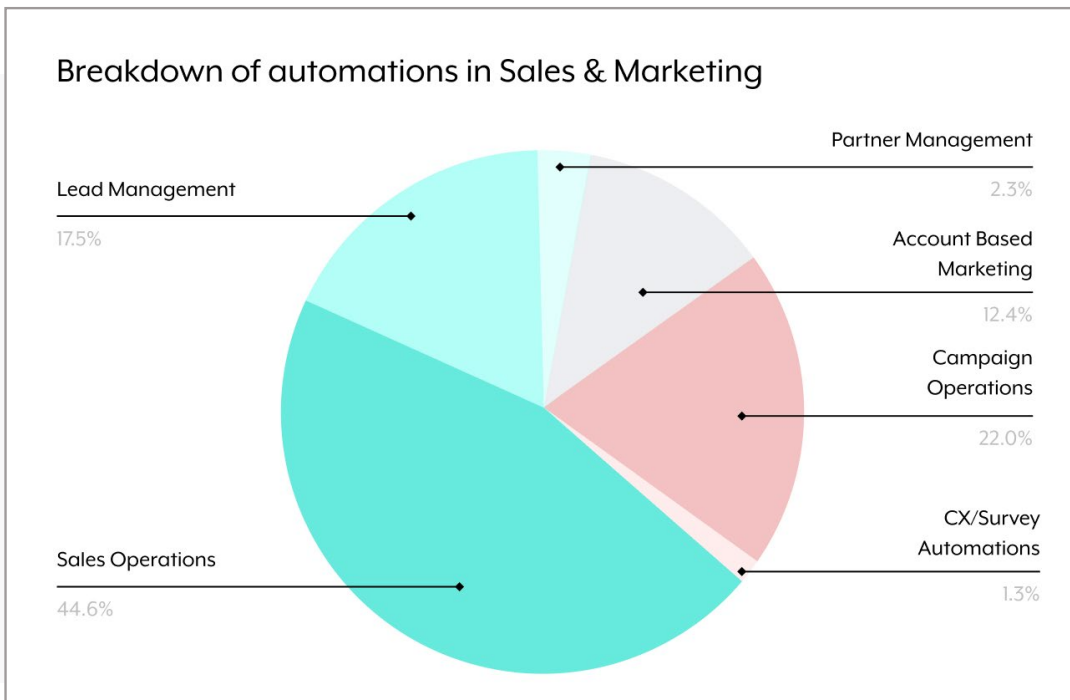
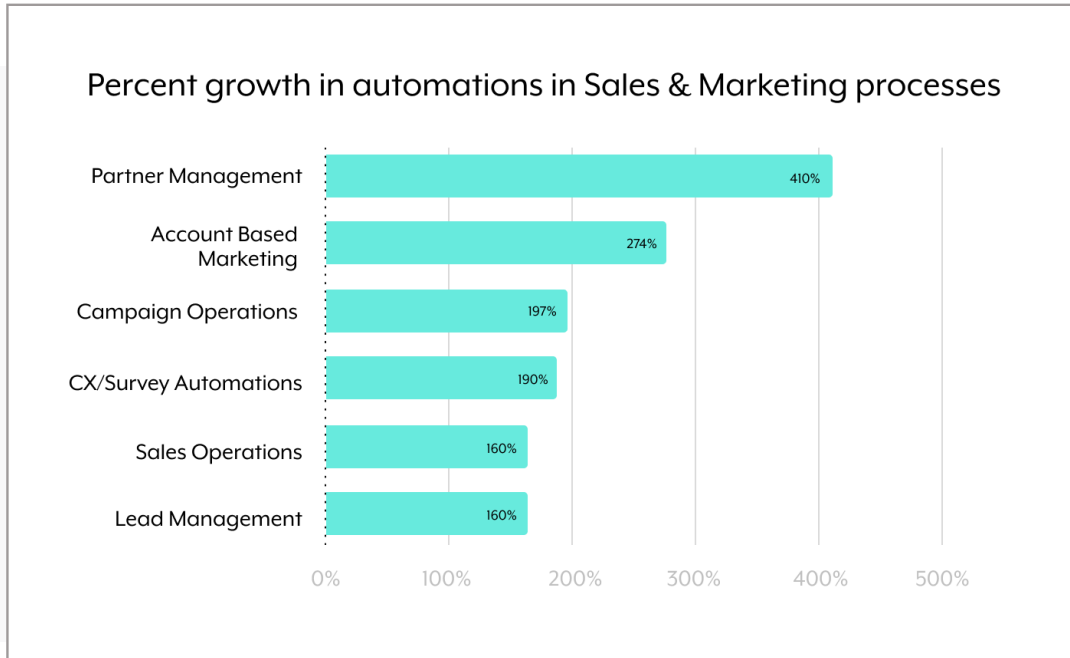


### The Top Apps Connected in Finance: NetSuite and Oracle ERP lead the way

NetSuite was the most common app for financial automations in medium-sized businesses. 28% of all automated financial workflows involved NetSuite. Oracle was the most common app for financial automations in large enterprises. We also saw SAP and Coupa feature heavily in Procure-to-Pay workflows. Zendesk and NetSuite are the top apps used for Returns and Refunds, while Salesforce, DocuSign and Box are the most commonly connected apps to automate Contract Lifecycle Management.



## Sales & Marketing



**Overall, automations increased more than 184% across all Sales & Marketing processes**

**Campaign Operations automations grew,** which we discussed above, Campaign Operations was another popular target for automation, growing 197% and emphasizing the need for accurate reporting in a marketing environment where every dollar matters. This often involves connecting ERP systems to marketing and product management tools, allowing teams to plan, execute and measure the impact of campaigns efficiently.

**Partner Management automations saw the biggest growth from last year**

Partner Management, which primarily includes partner onboarding and offboarding, saw the biggest growth from last year at 410%, although it accounts for

just 2.3% of Sales & Marketing automations overall.

**Lead Management continues to be a top priority**

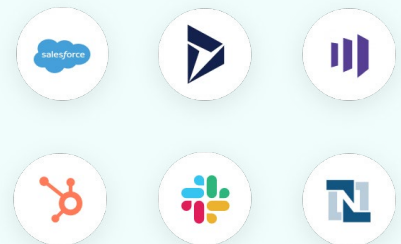
Lead Management was another popular target for automation, accounting for 17.5% of automations within Sales & Marketing. Syncing a marketing automation platform with a CRM system can enrich lead data and route leads through Slack to an assigned sales development rep or account executive. This allows reps to take action faster and convert more leads into meetings.

**Account Based Marketing automations increased**

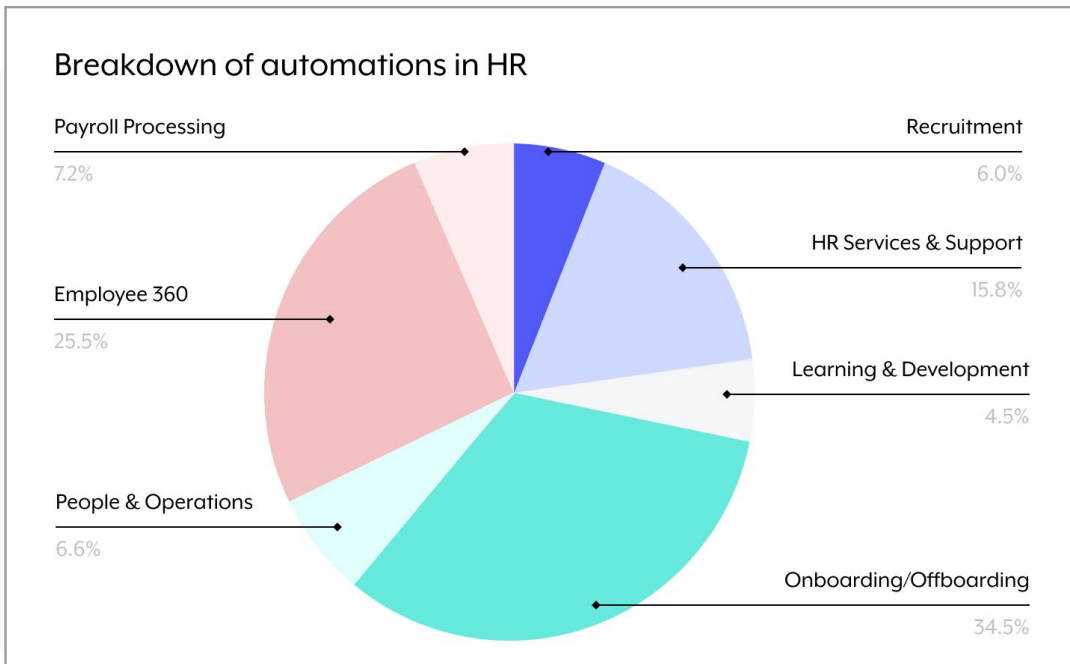
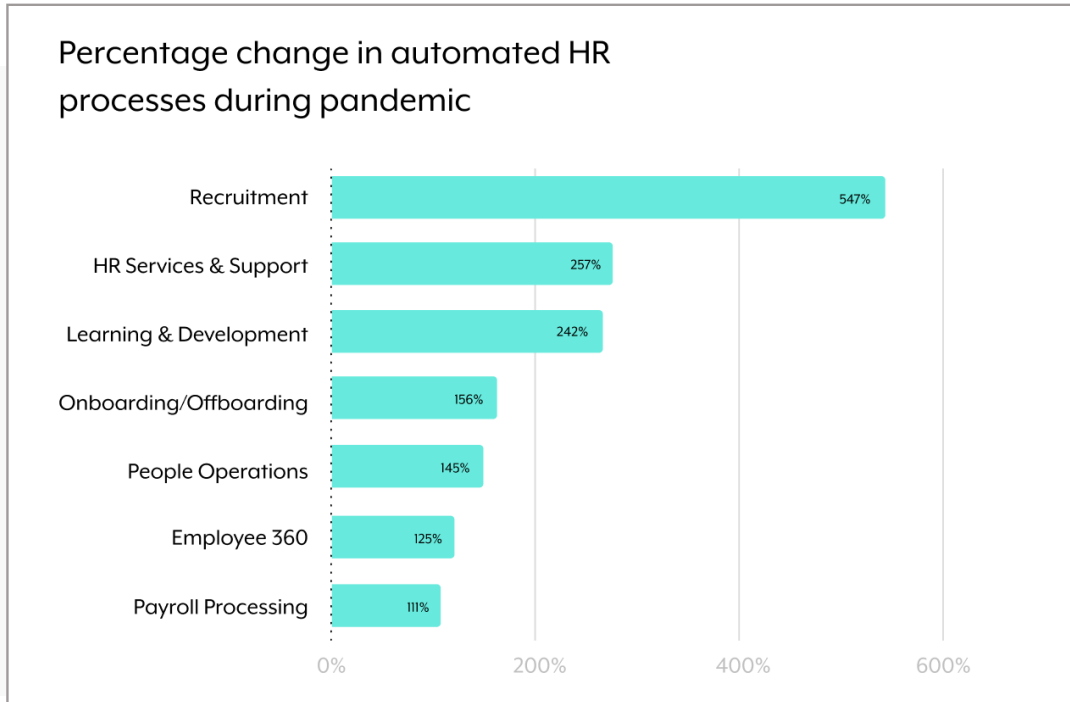
Companies became more targeted in their Sales & Marketing efforts during the pandemic, which explains why Account Based Marketing increased by 274% year-over-year.

**The Top Apps Connected in Sales and Marketing:**

The top applications connected as part of Sales & Marketing workflows were Salesforce, Microsoft Dynamics, Marketo, HubSpot, Slack and NetSuite.



## HR & Payroll





**The volume of HR automations more than doubled from before the pandemic**

HR automation covers the gamut, from recruitment and payroll through decommissioning passwords and equipment when an employee leaves the company. Overall, the volume of HR automations more than doubled from before the pandemic, which is almost certainly due to so many people working from home.

**Recruitment automations are growing**

Recruitment, although it forms only 6% of all HR automations, saw the biggest growth by far, increasing more than six-fold (547%) year-over-year. Besides the fact that all candidates were remote, this was likely also fueled by companies hiring in all regions, not just close to their home office—when an entire process is remote, it makes sense to automate it.

**Employee Onboarding and Offboarding is the most commonly automated process**

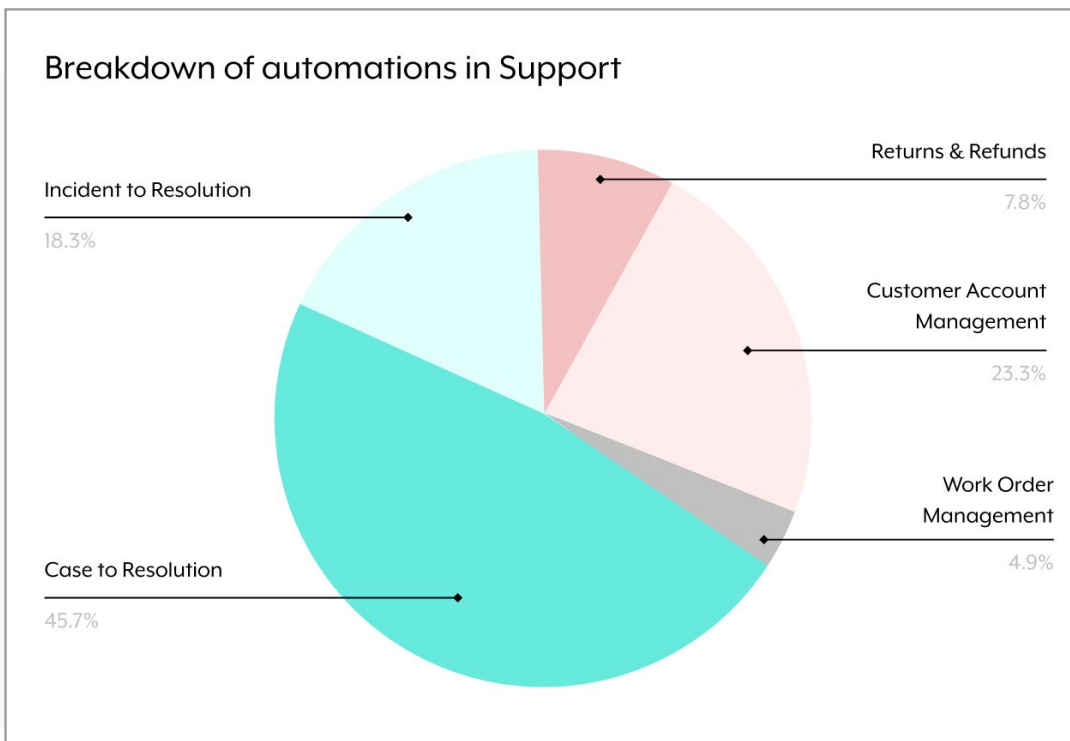
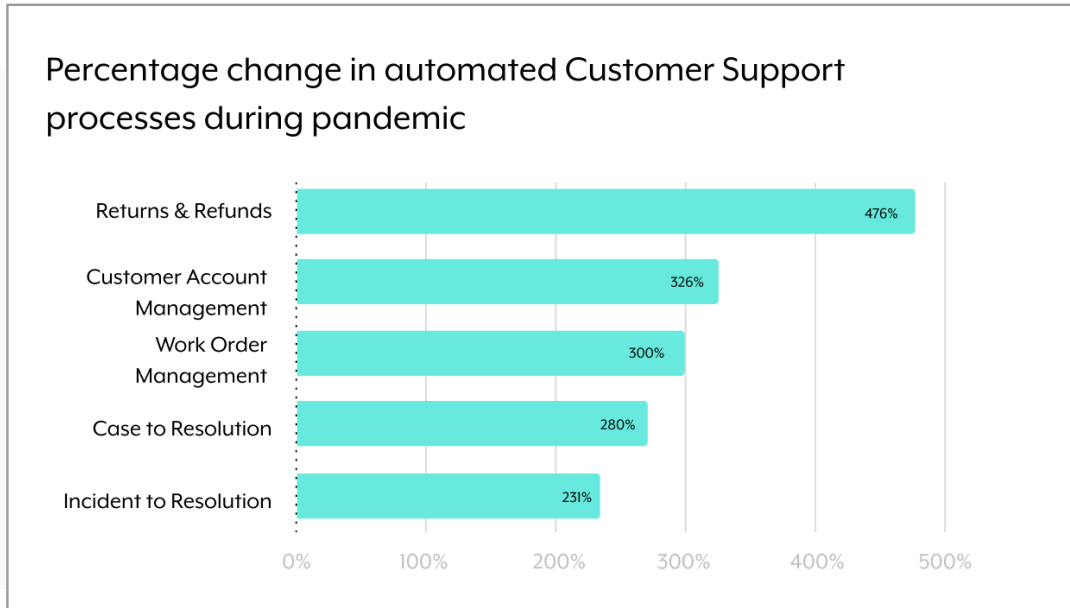
The single most commonly automated process for HR teams was onboarding and offboarding, which accounted for 34.5% of all HR-related automations. Automating this process is often part of a wider effort to improve security and compliance. When a new employee joins, an identity is created in Active Directory along with associated permissions to applications and data. When the employee leaves, companies sometimes forget to rescind these permissions, creating a security threat. Automating the process ensures employees don't maintain access to apps and data after they leave.

**The Top Apps Connected in HR:**

The main applications connected as part of HR automations were Workday, Slack, Microsoft Teams, Okta, ServiceNow and Active Directory. The presence of Teams and Slack once again reflects the use of chatbots—allowing an employee to ask questions like “How many PTO days do I have left?” or “Where can I find my W-2?”—and receive an answer automatically within the chat app.



## Customer Support



**Returns and Refunds automation grew significantly**

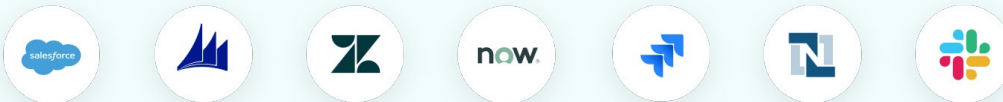
With most Customer Support operations going digital this past year, automations in this department grew by 290%, the biggest increase of any department. Automating the handling of Returns & Refunds grew the most, up 476% YoY.

**Case-to-Resolution automation almost tripled**

The most commonly automated process was Case-to-Resolution, which almost tripled year-over-year (up 280%) to now account for 45.7% of automations used by Customer Support teams.

**The Top Apps Connected in Customer Support:**

The top apps used in these processes were Salesforce, Microsoft Dynamics CRM, Zendesk, ServiceNow, Jira, NetSuite and Slack.

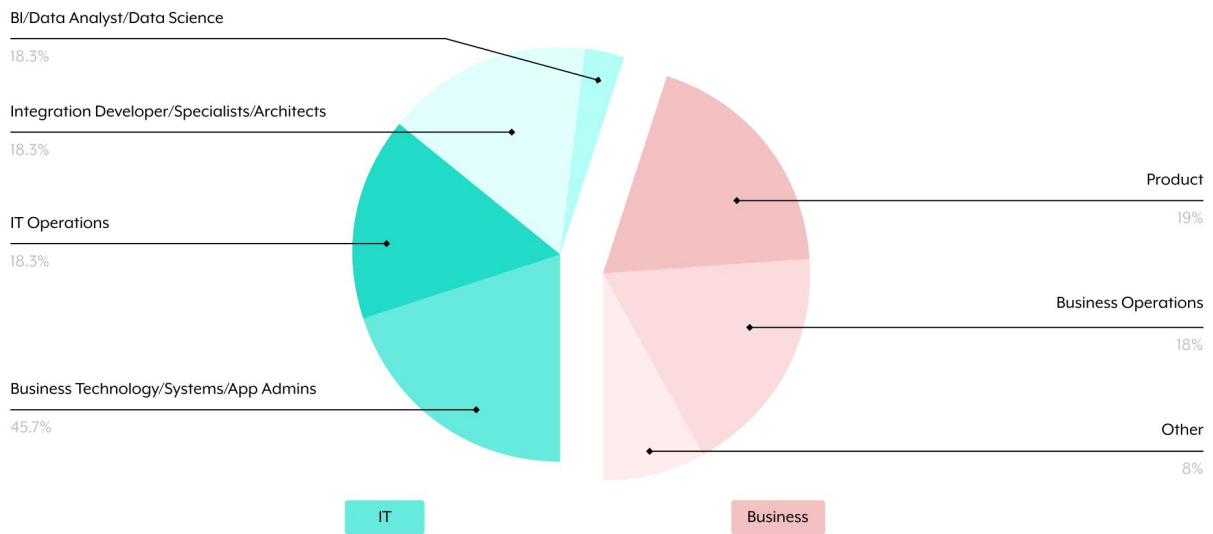


## Business + IT: The creators of automated workflows

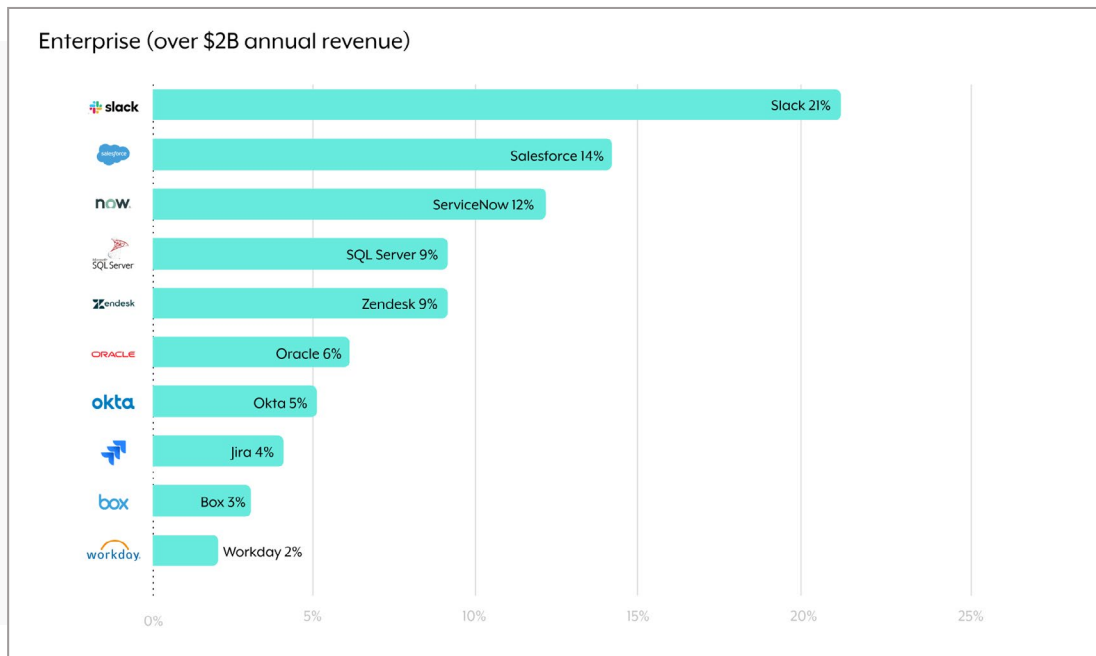
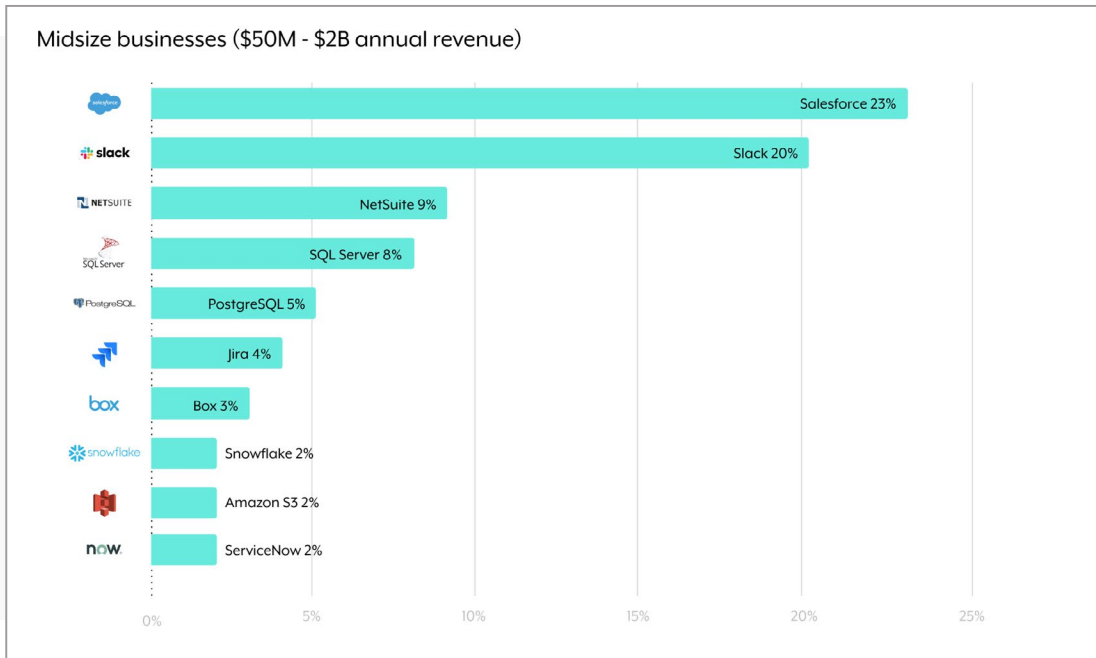
As automation platforms become easier to use and incorporate strong governance capabilities, a wider pool of users can take part in building automated workflows. Over the past year, automation became a team sport, with business and IT collaborating to streamline processes.

In IT, business systems specialists, integration specialists and those in IT Operations were the employees who most commonly created automated workflows. On the business side of the house, the main creators were business operations specialists (including those in sales operations, marketing operations and financial operations), as well as product teams.

## Who builds Automations



# Top 10 apps used across all automated workflows



**CRM is a hub for automation.** The customer is king, and CRM systems store a wealth of information that can be used for sales, support, billing and other processes. Salesforce was a part of more automated workflows than any other app, appearing in 23% of all automated workflows for midsize businesses.

**Chatbots are at the center of all human interactions in enterprise workflows.** As noted, Slack and Microsoft Teams are common starting points for automated processes. These consumer-like apps are often connected to mission-critical enterprise applications behind the scenes, such as ERP and CRM systems, providing a more familiar interface for employees. Slack was the most dominant, used in 21% of workflows in enterprises and 20% in medium sized businesses.

**NetSuite and Oracle are the brains of financial operations.** These popular ERP systems contain critical data about orders, invoices, inventories and product SKUs, and were connected in 9% of automated workflows in midsize businesses, and 6% in large enterprises, as a way to bring efficiency to financial operations. Order-to-Cash was the most popular process in financial automations, followed by Procure-to-Pay. Another common target was closing the books for monthly and quarterly reconciliation, known as Record-to-Report. Automating this process reduces errors and can cut the closure cycle from a typical 11-15 days to just 3-5 days, providing companies with an accurate picture of their financial situation more quickly.

**SQL Server, Microsoft's database, is a repository for all manner of enterprise data.** Popular use cases include loading data, such as product data, into SQL Server from various applications that can then be leveraged by BI tools and bring further relevant insights into processes and end applications like CRM and ERP systems.

## Conclusion

As enterprises seek to increase their productivity and streamline operations, they are turning to integration and automation to connect a fragmented sea of applications, data, and processes, and to provide a better experience for both customers and employees.

Our data shows that the pandemic resulted in a significant increase in automation use across all departments in midsize businesses and enterprises. Further, it indicates that automation is becoming a team sport, with IT and Business users collaborating to build these automated processes.

We also found that chat products like Slack and Microsoft Teams are increasingly used for automated workflows that involve human activity (e.g., approvals, escalations, notifications). These consumer-friendly collaboration apps are where employees spend much of their time anyway, and they mask the complex integration and connectivity that happens under the hood to make these processes robust and secure.

But the adoption of automation isn't distributed evenly across departments. IT is ahead in its use of automation today, followed by Finance, and Sales & Marketing. While the past year has seen significant growth in certain departments embracing automation, there remains an opportunity for other departments to streamline their own workflows. For example, as hiring picks up after the pandemic, we expect HR will be a particular target for further automation, as teams look for ways to streamline talent acquisition, people operations and onboarding.

We hope this data has helped you to assess where your organization stands relative to those of your peers, and gives you ideas and inspiration for where to streamline processes inside of your own business. Automation will be among the most transformational technologies of the 21st century, so we urge you to explore ways to utilize automation to continually improve your customer and employee experience within your own organization—and not get left behind!