MuleSoft®

Top 7 digital transformation trends shaping 2020

About this report

Digital transformation has become a catchall term for reimagining business in the digital age: it can refer to any process that uses digital technologies to solve for changing business and market requirements. MuleSoft's Connectivity Benchmark survey found that 97% of IT decision makers are involved in digital transformation initiatives at their respective organizations.

But what exactly is driving companies to digitally transform in the first place? How do the CIOs of leading companies scope their transformation initiatives? And what can these trends teach us about how to thrive in today's fast-paced world? This report outlines the most timely digital transformation trends for 2020 and explores their impact across industries, sourcing data from both MuleSoft proprietary research and third-party findings.

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Top 7 digital transformation trends shaping 2020

1. **Connecting the consumer experience.** Organizations need to solve for increasing pressure on IT to open up bandwidth for delivering connected, personalized experiences for their consumers—from customers to partners to employees to developers.

2. **Data-driven business.** Unlocking and analyzing data is at the heart of digital transformation. Businesses are putting their data to work in order to improve customer experiences, streamline operations, and quickly launch new products and services.

3. **Artificial intelligence and machine learning.** Organizations are increasingly investing in AI capabilities to expedite and personalize customer service, reduce human bias, and increase productivity. They are learning that the value of AI and machine learning tools are dependent upon the data they are fed.

4. **Multi-cloud computing.** Most enterprises today run on multi-cloud environments, but managing multiple clouds is complicated, specifically when it comes to moving application workloads between cloud environments. API-led application development and containerization are two potential solutions to this problem.

5. **Partnering with IT to turbocharge the business.** To maximize the full potential of technology, organizations are positioning IT as a core enabler to the business.

6. **Co-creating value with external stakeholders.** The best businesses are creating a network effect by building collaborative ecosystems of partners, customers, and external stakeholders.

7. **Fueling business performance with APIs.** Businesses leveraging APIs are experiencing increased productivity, revenue growth, and room for innovation — but they must be productized and easily reusable to deliver full value.

TREND NO. 1

Connecting consumer experiences

TREND 01 | CONNECTING CONSUMER EXPERIENCES

Consumer experience is at the core of digital transformation initiatives...

69%
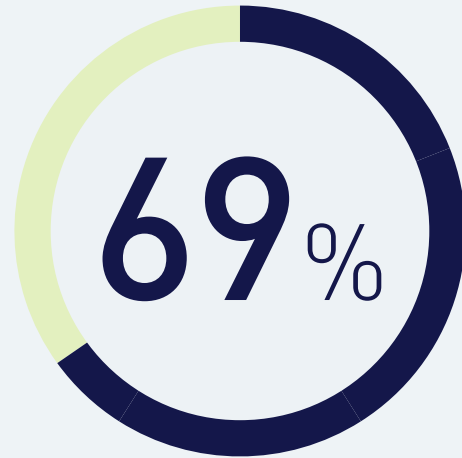
Consumers who say a disconnected customer experience would make them consider changing service providers.

71%
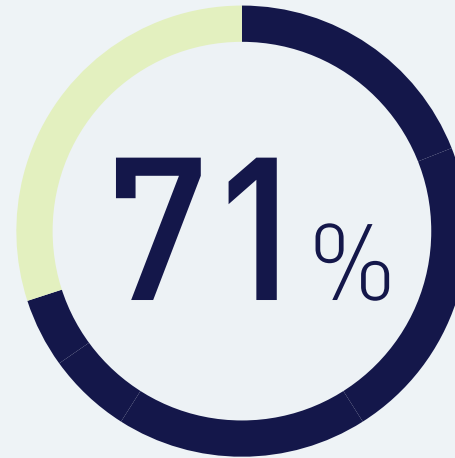
IT decision makers who report customer experience is a top goal of their digital transformation initiatives.

93%
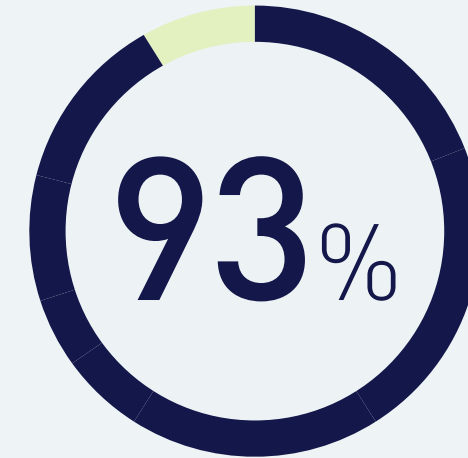
Business leaders who say delivering a relevant and reliable customer experience will be critical to their company's overall business performance 2 years from now.

TREND 01 | CONNECTING CONSUMER EXPERIENCES

...but organizations are struggling to meet expectations

81%
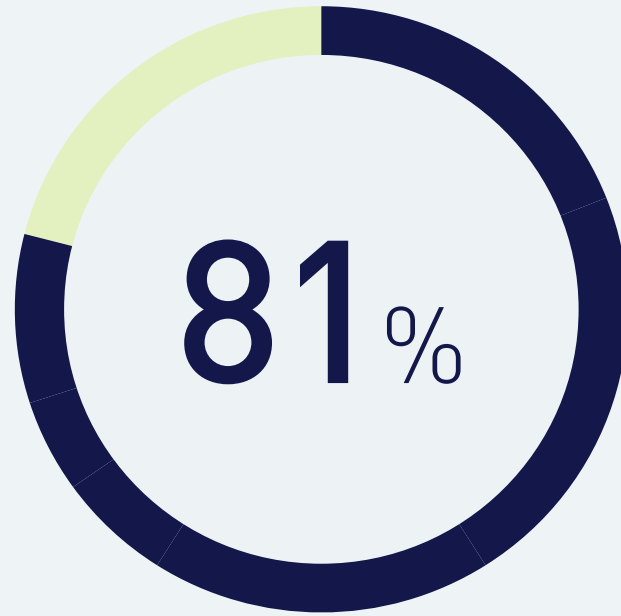
of consumers believe organizations provide a disconnected experience.

Only

36%
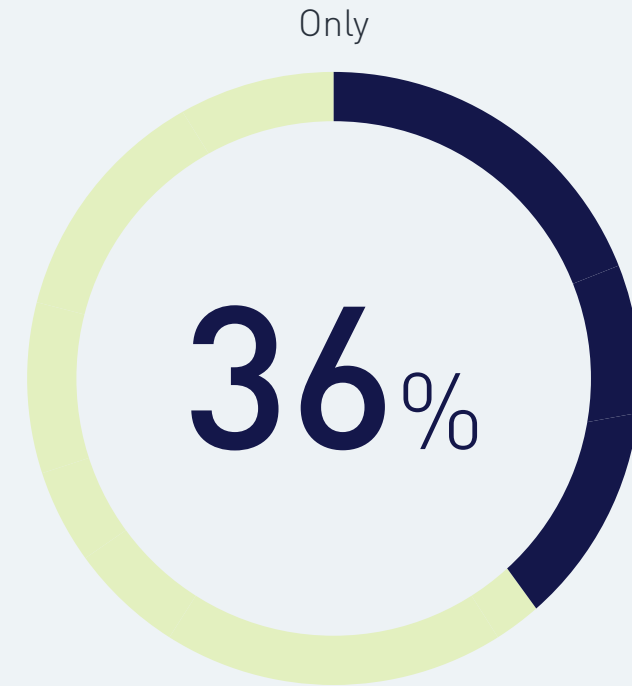
of IT decision makers said their organizations provide a completely connected user experience across all channels.

Source: MuleSoft

Source: MuleSoft

TREND 01 | CONNECTING CONSUMER EXPERIENCES

As complexity increases, it's becoming more difficult to provide connected experiences

900

The average number of applications
used in each organization

29%
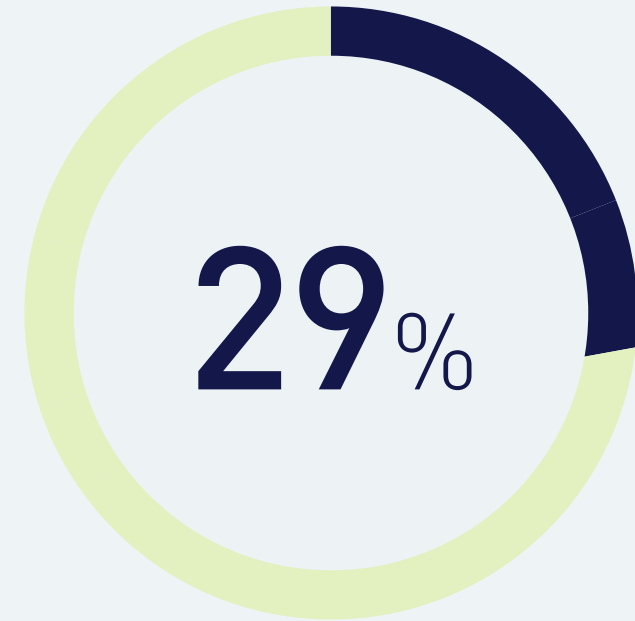
The average percentage of apps
that connect/integrate

Source: MuleSoft

TREND 01 | CONNECTING CONSUMER EXPERIENCES

Meanwhile, consumers expect consistent journeys across multiple channels...

65% of consumers would like to use messaging services such as WhatsApp or Facebook Messenger to interact with organizations.
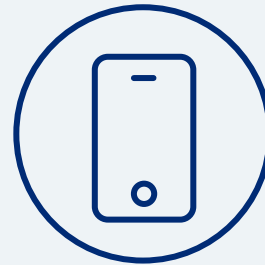
79% of millennials are more willing to buy from brands that have a mobile customer service portal.

Omni-channel customers spend **4% more in store** and **10% more online** than single-channel customers.

Source: MuleSoft

Source: Microsoft

Source: Harvard Business Review

TREND 01 | CONNECTING CONSUMER EXPERIENCES

...and highly personalized experiences

76% of consumers think companies should understand their expectations and needs.

75% of consumers are more likely to make a purchase from a company that knows their name and purchase history and recommends products based on their preferences.

61% of 18-34 year olds would share their transaction data with third party providers if it meant they'd receive a more personalized service.

Source: Salesforce

Source: Accenture

Source: MuleSoft

TREND 01 | CONNECTING CONSUMER EXPERIENCES

The definition of "consumer experience" is expanding

Partner experience

"We're able to expose APIs to help create digital marketplaces so that third-party software developers can build new applications around IP Australia's data and services. With this API program, we're able to jointly create value with our partners to deliver the best experience for our customers."

Damian Giuffre, chief digital officer, federal government agency IP Australia

Employee experience

"It's really becoming a mobile experience for the truck driver….Time is money to a truck driver. That's how they get paid. If they want to maximize their time on the road, what can we do to make that easier? So if I can take five minutes off of reserving a shower by putting it on the app, we're going to do that."

Mike Rodgers, CIO, Pilot Flying J

Developer experience

"Opening up and exposing our internal APIs will help us drive continuous improvement and innovation, and is also key to helping us attract the best developer talent as we are actively looking to expand our team."

Mark Woodfield, head of technology development, UCAS

TREND 01 | CONNECTING CONSUMER EXPERIENCES

In financial services, banks are co-creating value with external partners to deliver better customer service

Expanded offerings

Pacific Life is using APIs to tap into an ecosystem of distribution partners in order to create joint products like "Next by Pacific Life and Blueprint Income."

Aggregated data

HSBC is unlocking its backend systems and connecting them with trusted third-parties to develop a range of new customer-facing services, such as a consumer app that can aggregate data from rival banks.

TREND 01 | CONNECTING CONSUMER EXPERIENCES

In retail, brick and mortar is not dead...

Physical Retail Sales vs. Y/Y Growth, USA

Source: Mary Meeker Internet Trends Report (2019)

...instead, the physical and digital worlds are converging

amazon go

60% of global consumers said they would prefer to shop by having an 'Amazon Go' experience, whereby consumers can purchase goods in-store without using a cashier or checkout.

Source: MuleSoft

Walmart

Walmart was recently granted a patent in which customers would strap on virtual reality headsets and sensor-laden gloves to interact with a Walmart store in a virtual world.

Source: CB Insights Tech Trends

GANT

GANT offers a service called "Online Store Stock Check." If a customer is browsing the website and wants to buy something that's unavailable online, they can search for their size and get a list of nearby stores where the item is in stock.

Source: MuleSoft

TREND 01 | CONNECTING CONSUMER EXPERIENCES

In the public sector, digitization is key to consumer engagement with government services...

51%

of consumers said they would increase their use of digital government services if they could access multiple government services from an online portal.

49%

of consumers want to be able to make payments to government agencies online through a preferred payment method.

54%

of respondents want government digital services to include more options for citizens to customize their user experiences.

TREND 01 | CONNECTING CONSUMER EXPERIENCES

...so government services are building citizen portals

Colorado PEAK (Program Eligibility Application Kit) streamlines and expedites enrollment for food, cash, and medical assistance programs. With PEAK, Medicaid applications can be processed in a single session and citizens can find out their eligibility in real time.

Source: MuleSoft

Service NSW (New South Wales) is a government initiative delivering services like driver licenses and birth certificates through a one-stop-shop network. By increasing digital service delivery by over 60%, Service NSW has achieved a 97% customer satisfaction rating across over 2 million citizens served.

Source: MuleSoft

TREND 01 | CONNECTING CONSUMER EXPERIENCES

In healthcare, a single view of the patient enables more holistic treatment

Integrated care

Mount Sinai exposes patient medical data through secure APIs, improving collaboration with hundreds of community care organizations and healthcare providers across New York City.

Faster test results

NSW Pathology administers 1.6 million tests each through its integrated point of care testing program, where devices are linked to a back-end data quality assessment system, providing patients with faster pathology results and treatment, while eliminating the need to travel.

Informed customer service

Fairview Health Services has integrated its entire health network, spanning more than 5,000 individual providers, to improve customer engagement in its call centers by empowering its agents with relevant customer data from multiple systems on a single screen.

TREND NO. 2

Data-driven business

TREND 02 | DATA-DRIVEN BUSINESS

Unlocking and analyzing data is central to the business

83%
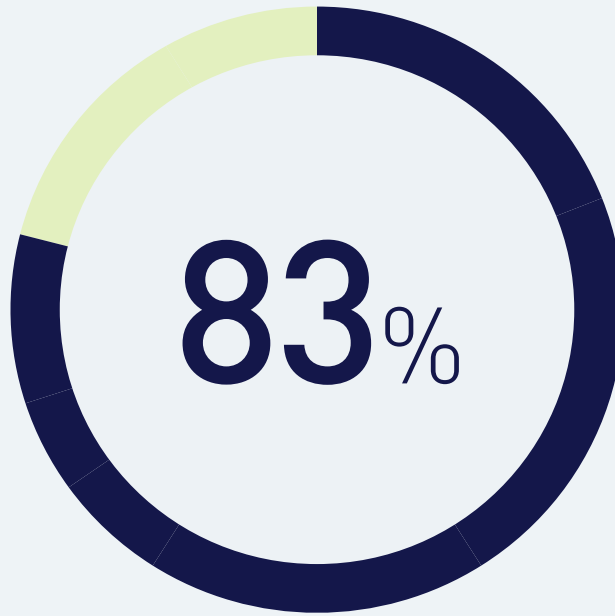
IT decision makers who report data silos create business challenges in their organization.

55%
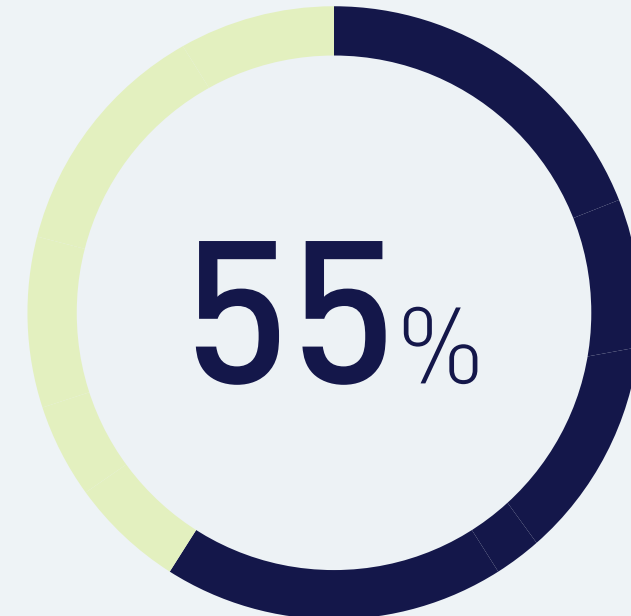
IT decision makers who reported their organization planned to invest in big data / analytics in 2019.

Source: MuleSoft

Source: MuleSoft

TREND 02 | DATA-DRIVEN BUSINESS

breaking down data silos is positively correlated with a company's performance

at the best-run midsize companies, IT groups are more invested in breaking down data and application silos — a critical step towards enabling the sharing of insights across the company.

68.0

7.0

Best-Run   Laggards
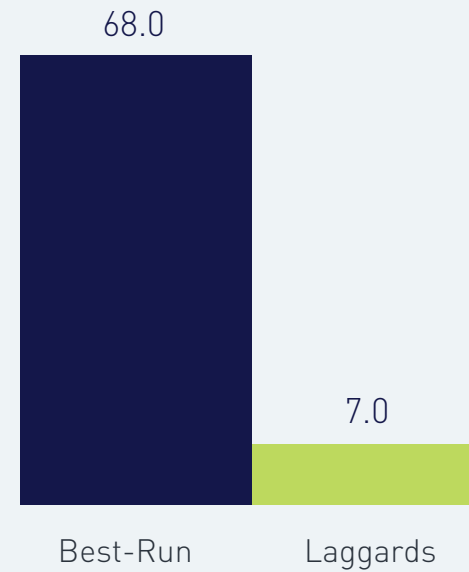
% of IT Respondents Who Strongly Agree that Their Company Is Working to Eliminate Data Silos and Share Insights Across the Company

	Very well	Well	Moderately well	Poorly	Very poorly
Best-Run	64.3	35.7			
Strivers	25.9	61.0	13.2		
Survivors	12.3	63.4	13.2	5.0	
Laggards	16.5	52.9	26.6	4.0	
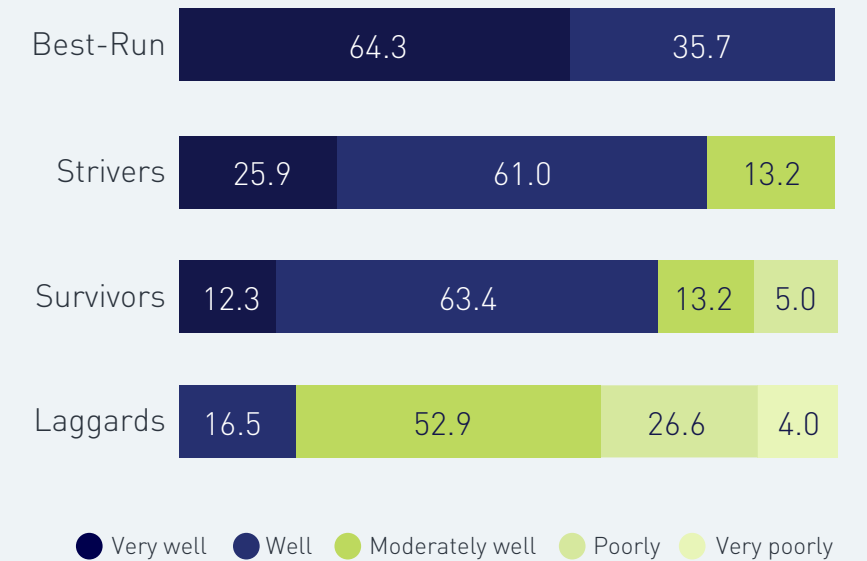
Ability of Our Organization's Technology and Application Infrastructure to Provide Insights Across the Business (% of IT Respondents)

Source: IDC InfoBrief

TREND 02 | DATA-DRIVEN BUSINESS

Companies are putting data to work in order to improve customer service, streamline operations, and innovate at speed

Improve customer service

Streamline operations
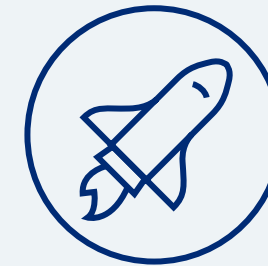
Quickly launch new products and services

TREND 02 | DATA-DRIVEN BUSINESS

Retailers like Lane Crawford are using data to increase customer engagement across mobile, in-store, and online interactions

Improve customer service

Lane Crawford exposed its customer and inventory data through APIs to create a unified data-as-a-service platform. Using these APIs, Lane Crawford launched a mobile app to increase customer engagement, allowing users to shop new arrivals instantly, scan QR codes in-store to view product information, update account information, and receive order status notifications on-the-go.

TREND 02 | DATA-DRIVEN BUSINESS

Airbus provides employees on the shop floor with real-time data so they can make fast, accurate operational decisions

Streamline operations

Airbus is transforming its supply chain and manufacturing processes by building a library of reusable APIs to unlock data from backend and legacy systems. Previously, shop floor operators had to rely on physical workstations to access key information about airplane parts, plans, and project status, causing significant delays in the manufacturing process. Now, Airbus provides a mobile application for shop floor operators to gain real-time visibility into parts and projects, giving employees on the shop floor direct access to data to make better, faster, educated decisions.

TREND 02 | DATA-DRIVEN BUSINESS

Cox Automotive uses APIs to provision access to partners and launch joint offerings, products, and services in seconds

Quickly launch new products and services

Cox Automotive, the world's leading provider of software solutions for automotive dealers and buyers, saw an opportunity to unlock the capabilities and assets from 20+ acquisitions and compose them into new products. With the use of APIs, Cox Automotive makes digital assets discoverable and reusable across the organization, allowing their teams to experiment and launch brand new products and service offerings for dealers. And by provisioning its partners access to relevant data, Cox Automotive is now able to launch joint offerings within seconds by provisioning access to relevant data.

TREND NO. 3

Artificial intelligence and machine learning

3

TREND 03 | ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

Businesses are investing more each year in artificial intelligence

Prioritization

37%
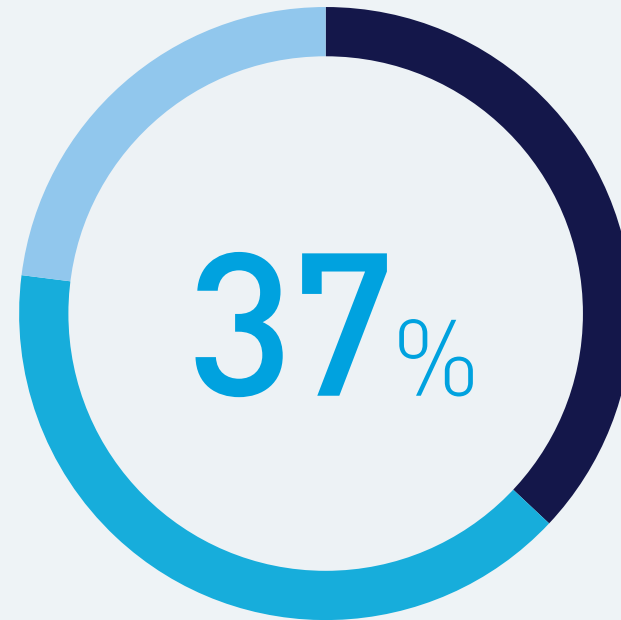
say artificial intelligence
is a high priority

- **37%** | High
- **40%** | Moderate
- **23%** | Low

Adoption of AI

+95%

projected
two-year growth

- **42%** | Currently use
- **40%** | Plan to use within 2 years

Source: Salesforce

TREND 03 | ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

AI is proven to be a powerful tool for personalizing customer experiences, reducing human bias, and automating tasks

Personalize customer experience

"The biggest and most significant shift in the future of customer service will be the use of advanced predictive analytics to drive data-driven customer experience decisions."

Source: HBR

Reduce human bias

AI and machine learning techniques, as well as natural language processing, allow companies to spot patterns, trends, and biases before they become a problem.

Source: Gartner*

Improve productivity

Advances in augmented intelligence suggest that by 2020, 40% of data science tasks will be automated.

Source: Gartner*

TREND 03 | ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

Chatbots are emerging as the standard for customer service

25%

Customer service operations that will use
virtual customer assistants by 2020.

Source: Gartner

What types of AI technology have been deployed in your organization?

ML

56%

Basic task automation

53%

Virtual agent/chatbot

39%

Source: HBR

TREND 03 | ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING
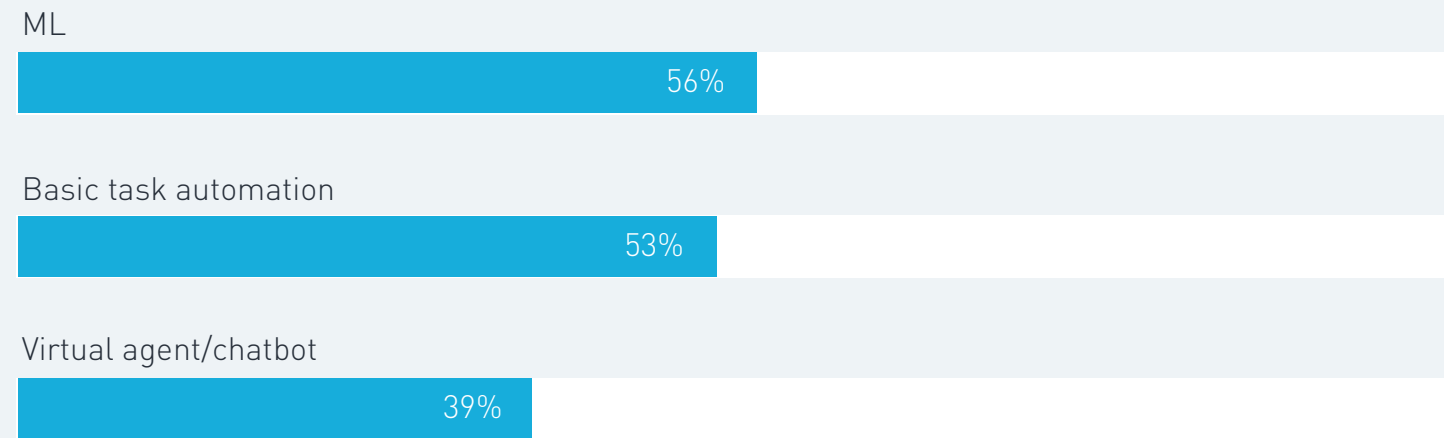
Autonomous robots and drones are increasingly present across industries

Surgical Robots

Are already entering the operating rooms of hospitals as "assistants". This presence will expand rapidly, driven by technical improvements and lower costs, as the surgical bots become more remotely controlled and autonomous.

Warehousing

Pick-and-place robots for light assembly and supply chain automation are becoming more functional and lower cost, as are collaborative robots, or cobots.

Drones (Flying and Submersible)

Are already spreading rapidly in agriculture for drought and blight assessment, construction for site management and surveillance, as well as assisting in emergency deliveries and rescues, accident and disaster damage assessment, oil & gas and energy inspections, and more.

Source: Gartner

TREND 03 | ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

In financial services, automation drives faster data-based decisions

Fraud detection

Kount's AI utilizes advanced algorithms and unsupervised machine learning to detect anomalies much faster, more accurately, and on a more scalable basis than human judgment alone.

Investing services

Robo-advisors from fintechs like Sofi are targeting millennials and novice investors by offering automated investing capabilities that leverage machine learning algorithms for data-driven goal planning, rebalancing, and diversification.

Loan approvals

ZestFinance offers a credit and risk modeling solution that helps companies combine thousands of variables for deeper insights that add more creditworthy borrowers while mitigating risk.

TREND 03 | ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

In retail, AI is used to personalize offers and promotions

53%
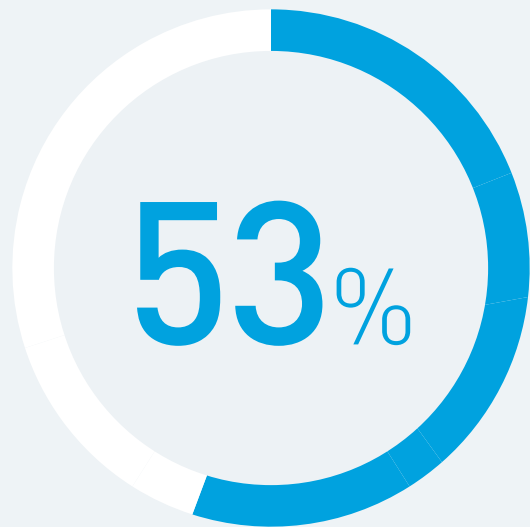
Consumers willing to allow retailers to track their shopping behavior within and outside stores, especially if it means they are able to receive personalized offers and promotions.

Source: MuleSoft

ThreadUp offers subscription "Goody Boxes" containing clothing tailored to match each customer's style. Customers keep the items they like and return the items they don't like. A machine learning algorithm remembers each customer's preferences so that future boxes can better fit their style.

TREND 03 | ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

In the public sector, chatbots provide around-the-clock citizen support

55%
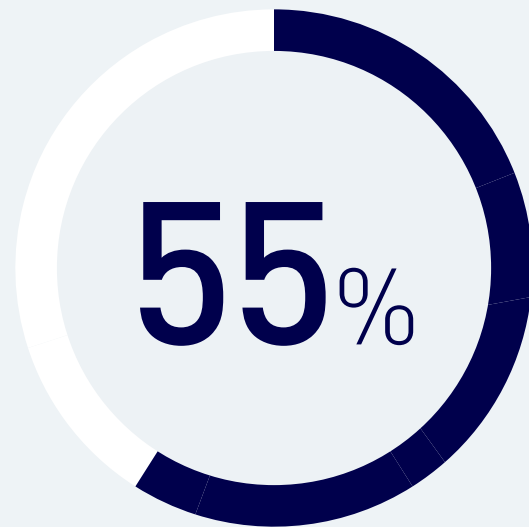
Consumers who would increase their use of digital government services if AI was used to deliver around-the-clock online services.

Source: Accenture
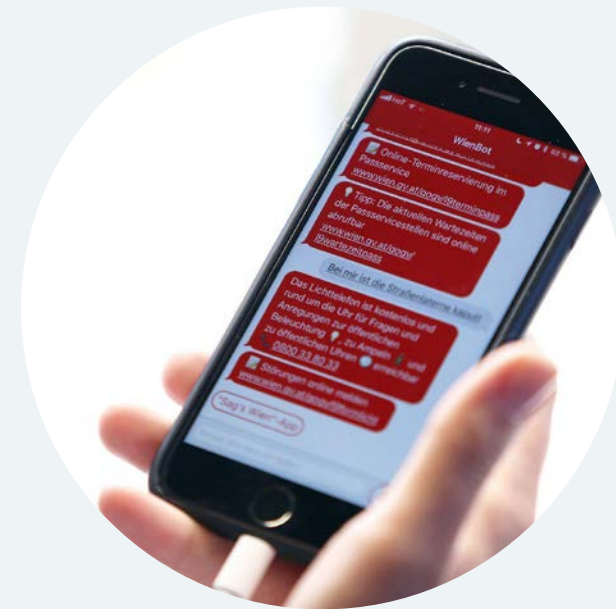
The city of Vienna, Austria deployed a chatbot to help citizens find parking, restrooms, and other critical information. WienBot, available through Facebook Messenger, answers an array of user questions and continuously learns from its interactions — even pre-empting questions as it captures frequently used terms.

Source: Gartner*

*Conversational Artificial Intelligence Will Drive 'Citizen-Centric' Services for Smart Cities, Bettina Tratz-Ryan, 24 May 2018

TREND 03 | ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

Healthcare institutions use machine learning to enhance disease detection and treatment

Diagnostics is a major driver of healthcare AI deals

Disclosed equity funding, Q'13 - Q2'18

Equity funding ($M)

Equity deals
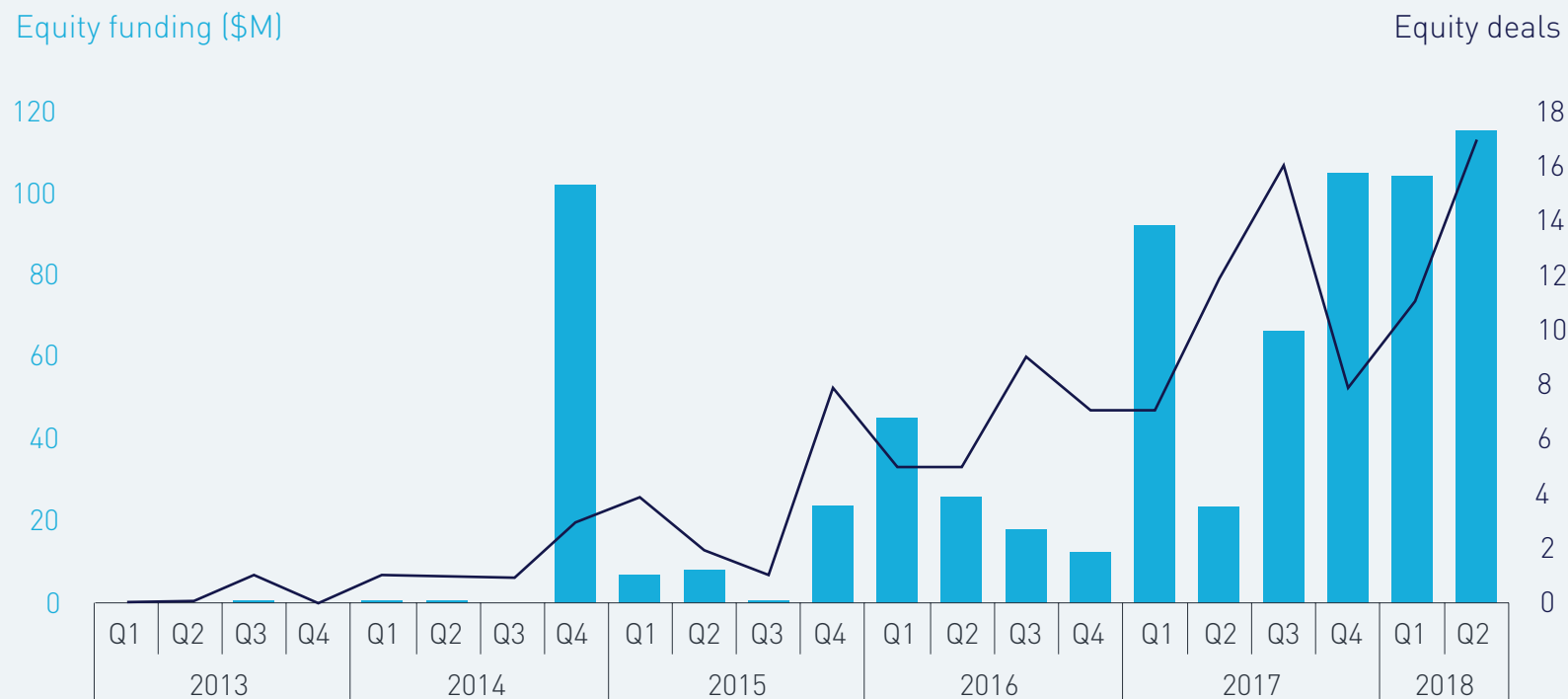
Source: cbinsights.com

Cancer detection

Stanford University researchers trained a machine learning algorithm to detect skin cancer by providing visual processing with deep learning. In its diagnoses of skin lesions, the algorithm matched the performance of dermatologists.

Drug Therapy

IBM Watson for Drug Discovery assists with drug target identification by analyzing multiple sets of life sciences knowledge to reveal connections and relationships among genes, drugs, diseases and other entities.

TREND 03 | ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

How to maximize the value of AI and machine learning:

Begin with data governance

Exceptional data governance is a prerequisite for AI and machine learning success. Before embarking on an AI/ML pilot program, organizations should be prepared to answer the following questions:

1 Can you tell me your five most valuable data sets?

2 How does value get created?

3 Do you have APIs?

4 How is your data quality?

5 Who can contribute data and how is that tracked?

Source: Harvard Business Review

TREND 03 | ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

Maximizing the value of AI: unlock data with APIs

"

Organizations are often restricted by the fact that their data is locked up in siloed systems and applications. As a result, getting that data into an AI engine to start revealing insights can be a major problem. If AI is the 'brain,' we liken APIs and integration to the 'nervous system' to help AI really create value in a complex, real-time business context.

"

Ross Mason

Founder, MuleSoft

TREND NO. 4

Multi-cloud computing

TREND 04 | MULTI-CLOUD COMPUTING

The majority of large enterprises use multiple clouds

Enterprise Cloud Strategy
1000+ Employees

84% | Multi-Cloud

10% | Single public

3% | Single private

3% | No plans

58% | Hybrid cloud

17% | Multiple public

9% | Multiple private
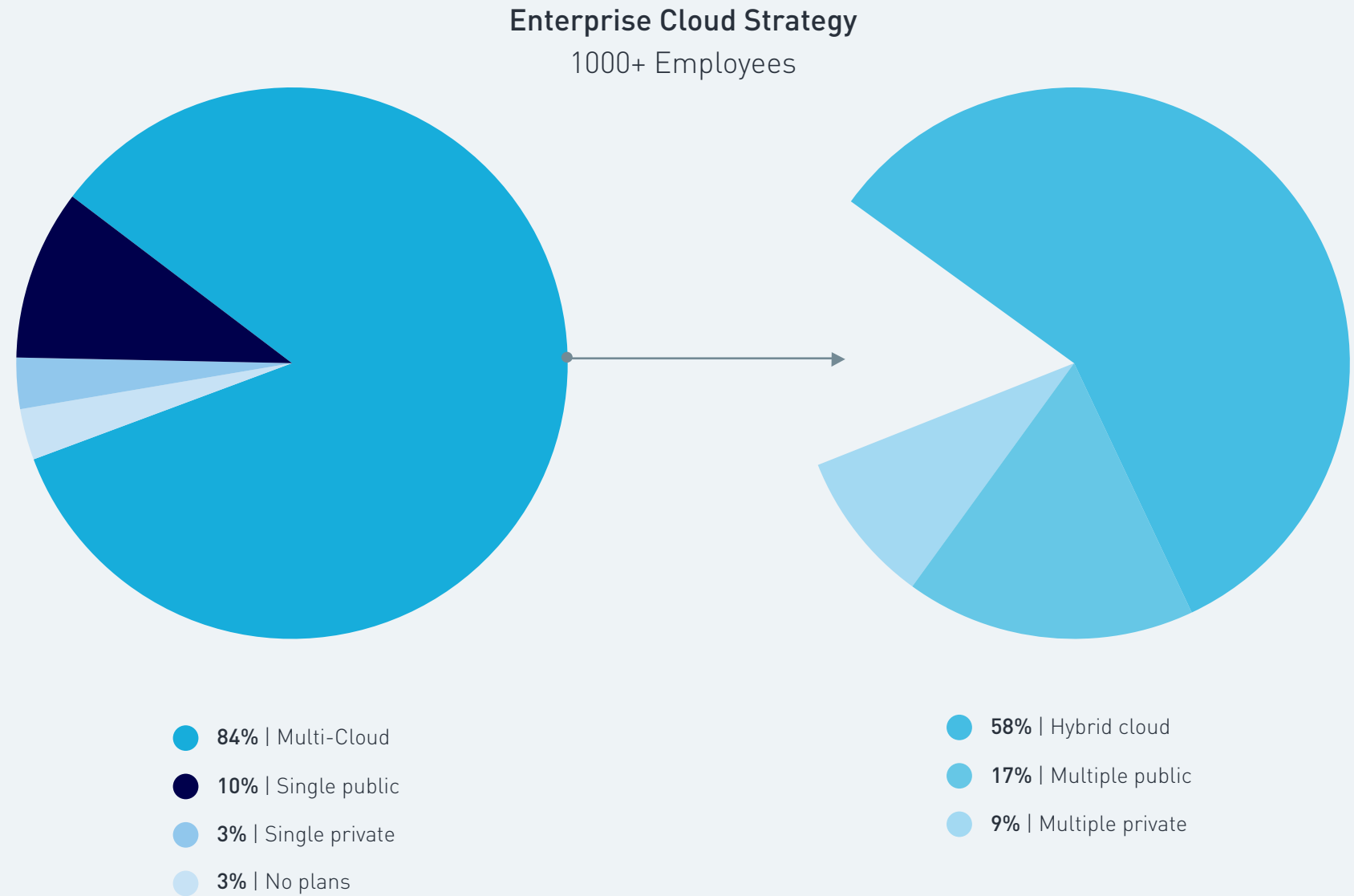
Source: Flexera

TREND 04 | MULTI-CLOUD COMPUTING

Multi-cloud adoption is often driven by specialized needs

"

When asked about reasons for using multiple cloud platforms, respondents heavily focus on flexibility. No single cloud platform meets all enterprise workload requirements.

"

64%
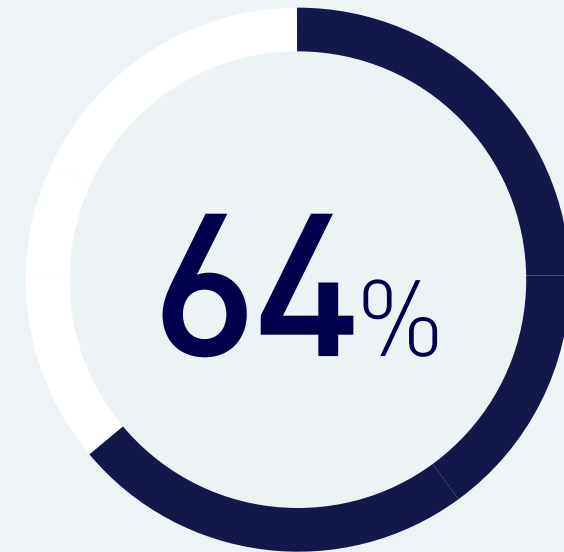
Tech professionals who say they've either already adopted industry-specific cloud services or plan to in the next 12 months.

TREND 04 | MULTI-CLOUD COMPUTING

But multiple clouds are complicated to manage

" Most organizations will use multiple public cloud services, as well as traditional applications and infrastructure, and potentially private cloud services. This will result in a hybrid environment that raises unique security, management and governance issues. "

Source: Gartner

Biggest challenges to a multi-cloud approach
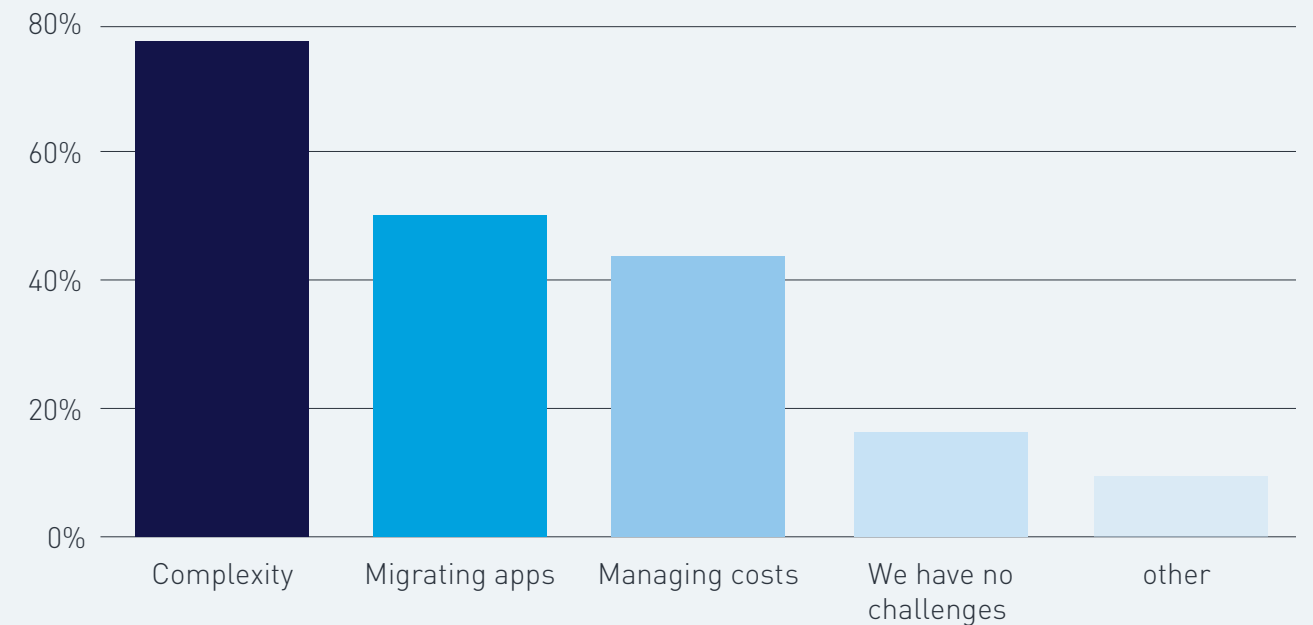
Source: TechRepublic and ZDNet

Specifically, enterprises struggle to move application workloads between clouds:

Enterprises who indicated X as a top challenge of moving workloads across clouds

23%	The ability for applications and data to be fully portable
14%	The ability to manage compliance across multiple platform
13%	The costs incurred when workloads leave cloud providers
11%	The ability to have full visibility of application performance across multiple, distributed platforms
10%	The ability to manage workloads at scale across multiple platforms

Source: Turbonomic

How to design applications to move between clouds with APIs

APIs help unlock the data and unique functionalities of applications residing in multiple cloud environments.

In a recent study, Capgemini articulated the business impact of API-led hybrid integration efforts. "Integrators" who displayed greater confidence in their API and integration capabilities outperformed their peers in key business metrics including revenue growth, innovation and speed to market.

SaaS

Cloud Platforms

Social

APIs

Customers, Suppliers, Partners

APIs

Hybrid Integration Platform

APIs

Mobility and Devices

APIs

APIs

APIs

Custom Apps

Packaged Apps

Databases
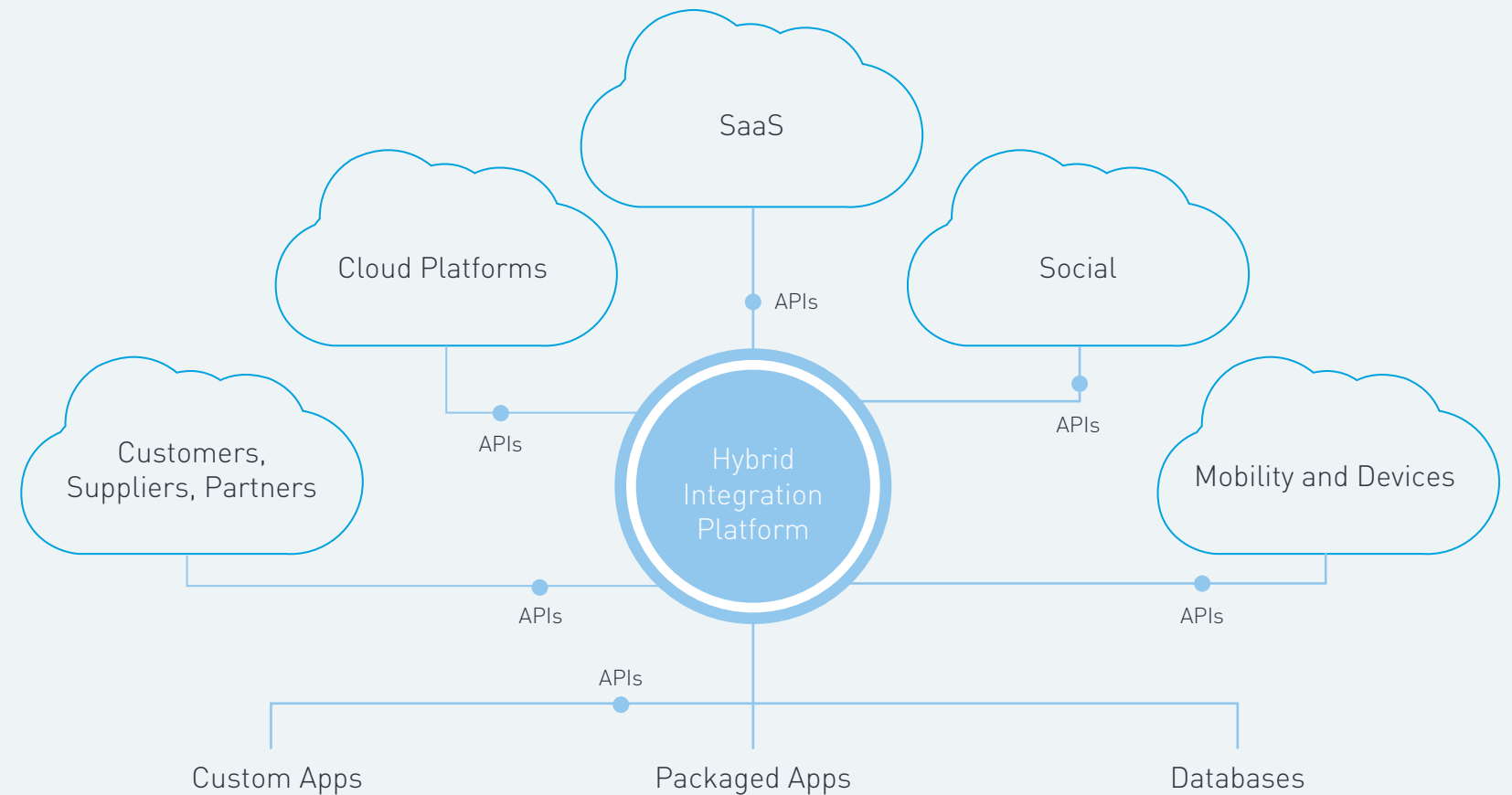
TREND 04 | MULTI-CLOUD COMPUTING

How to design applications to move between clouds using containerization

A container is a standard unit of software that packages up code and all its dependencies so the application runs quickly and reliably from one computing environment to another. Container adoption will skyrocket as businesses increasingly depend on multi-cloud deployments.

Expect 165% growth in the next 18 months

43%
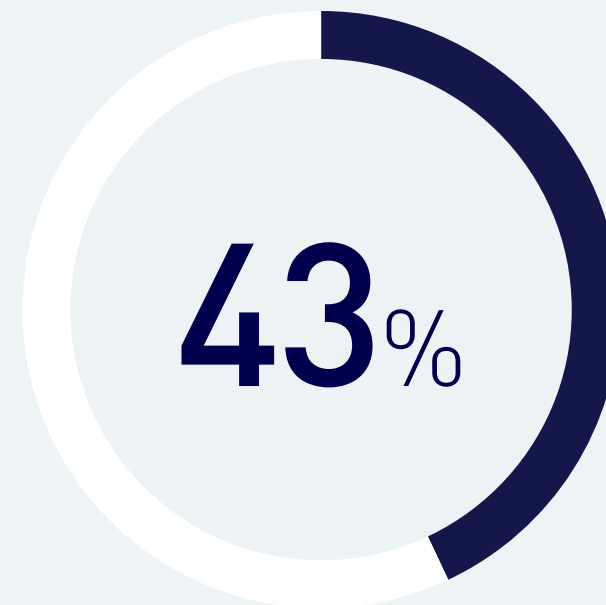
of their environment will
be running containerized
applications within 18 months

26%
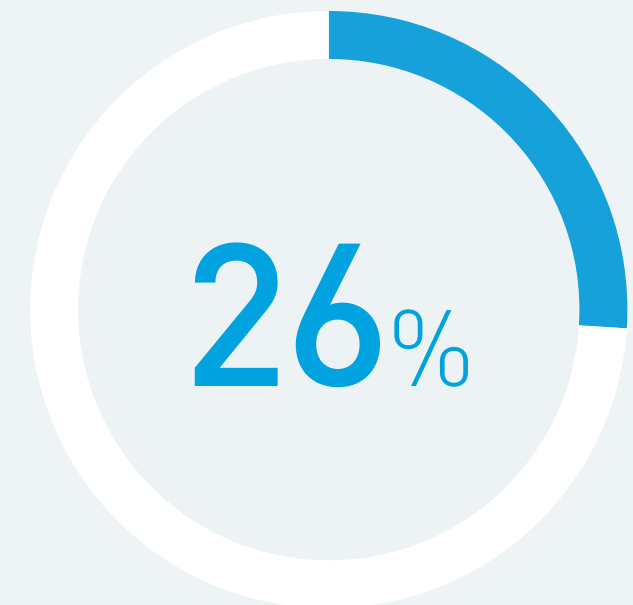
of their environment
runs containerized
applications today

Source: Turbonomic

TREND 04 | MULTI-CLOUD COMPUTING

HSBC's API-led
approach to cloud computing

HSBC, one of the world's largest banks, built a multi-cloud application network to meet growing customer demands. Turning to the cloud to accelerate IT delivery, HSBC built and published thousands of APIs that were deployed across multiple environments using containers to unlock legacy systems and power cloud-native application development. As a result, HSBC produced customer offerings that extended beyond basic finance and insurance needs and helped them realize dreams like buying a home or sending their children to college.

Build a bank-wide digital API repository

Run workloads on a hybrid environment

1

3

API

2

Build a single API management plane to unify disparate tools
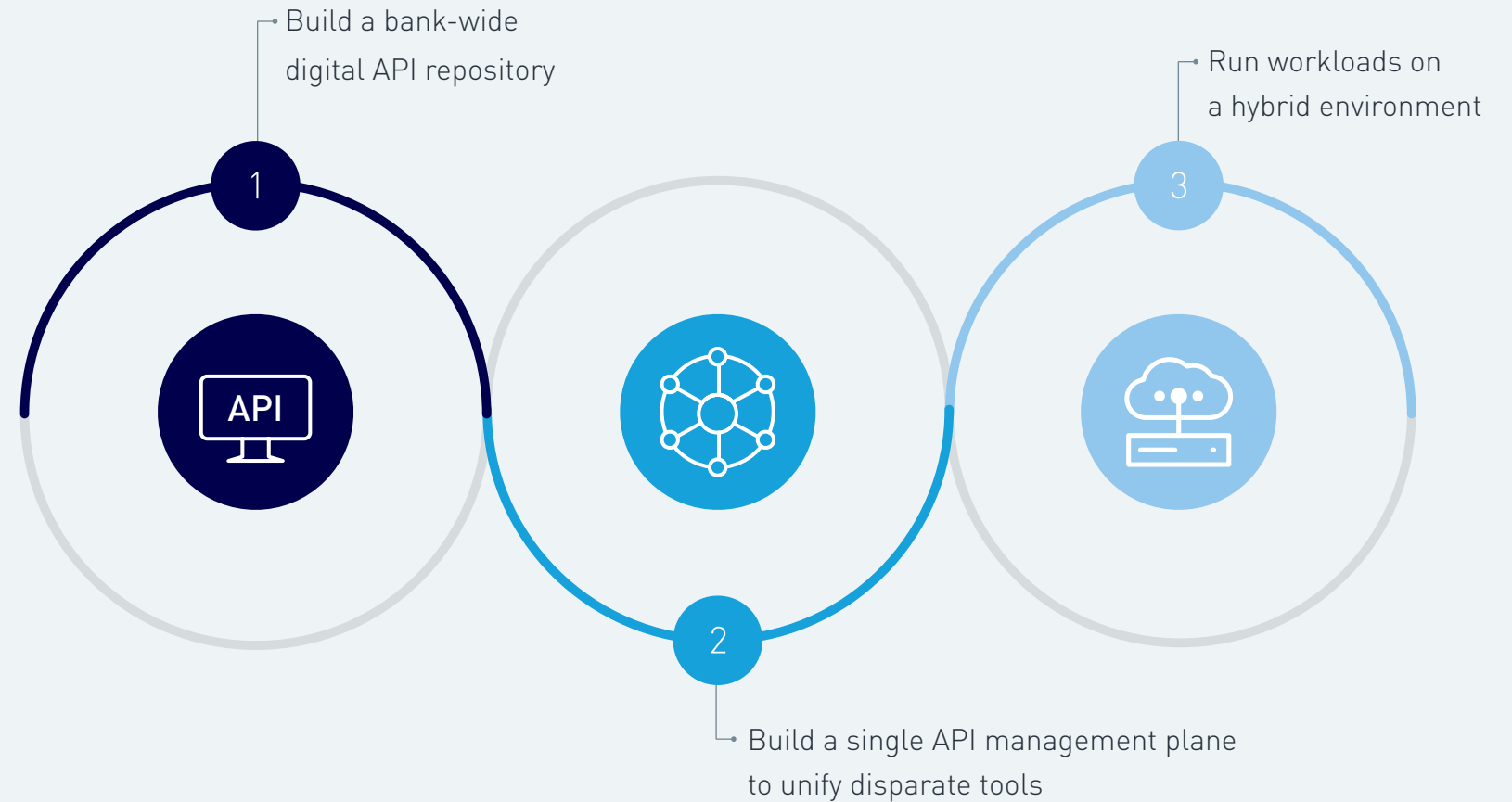
TREND NO. 5

Partnering with IT to turbocharge the business

TREND 05 | PARTNERING WITH IT TO TURBOCHARGE THE BUSINESS

IT efficiency is crucial to the success of digital transformation initiatives

What are the main goals you would most like to achieve with your digital transformation initiatives in your organization?

83%

79%

Increase IT's operating efficiency

2019

2018
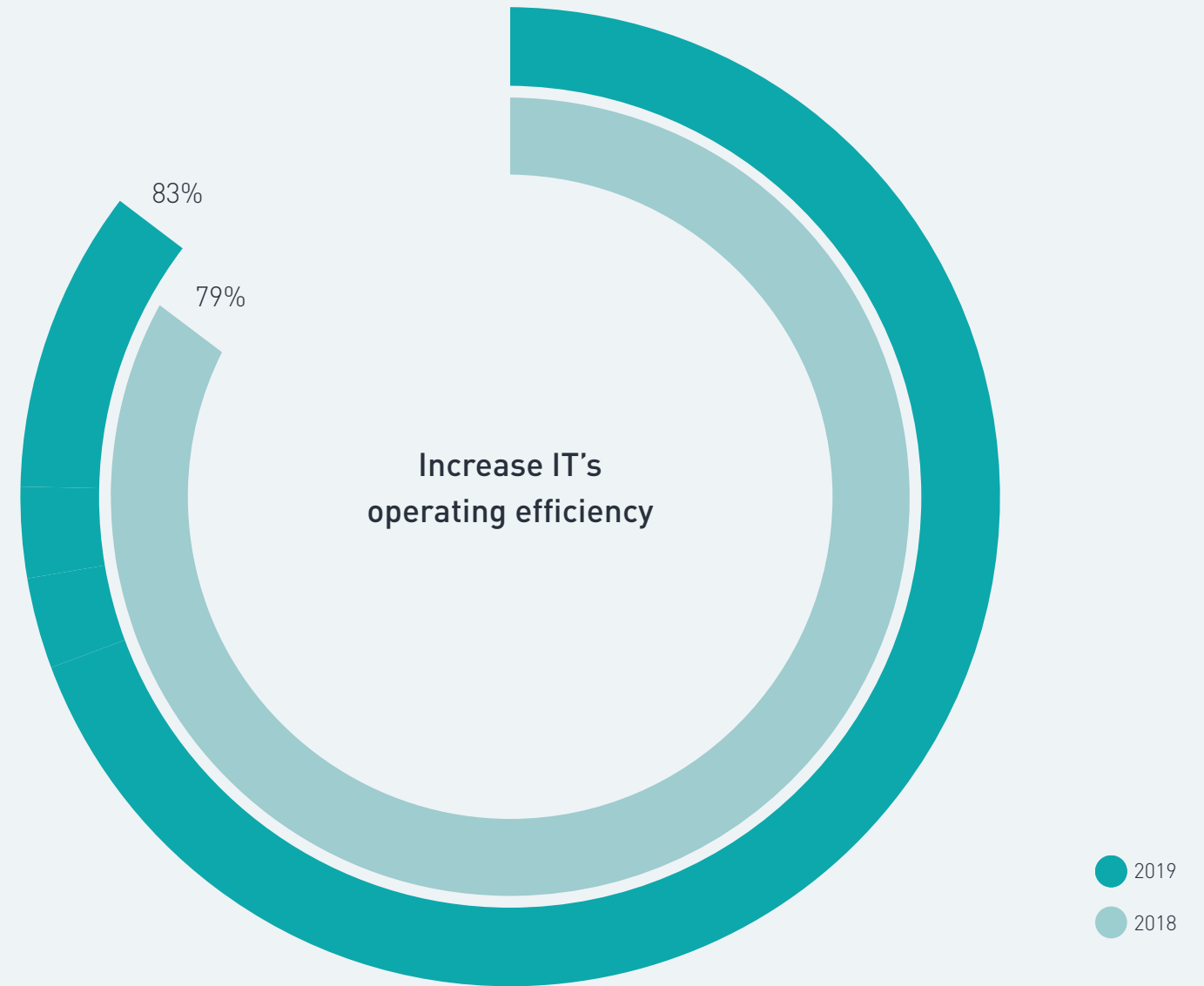
Source: MuleSoft

TREND 05 | PARTNERING WITH IT TO TURBOCHARGE THE BUSINESS

There is an increasing pressure on IT to deliver more, faster
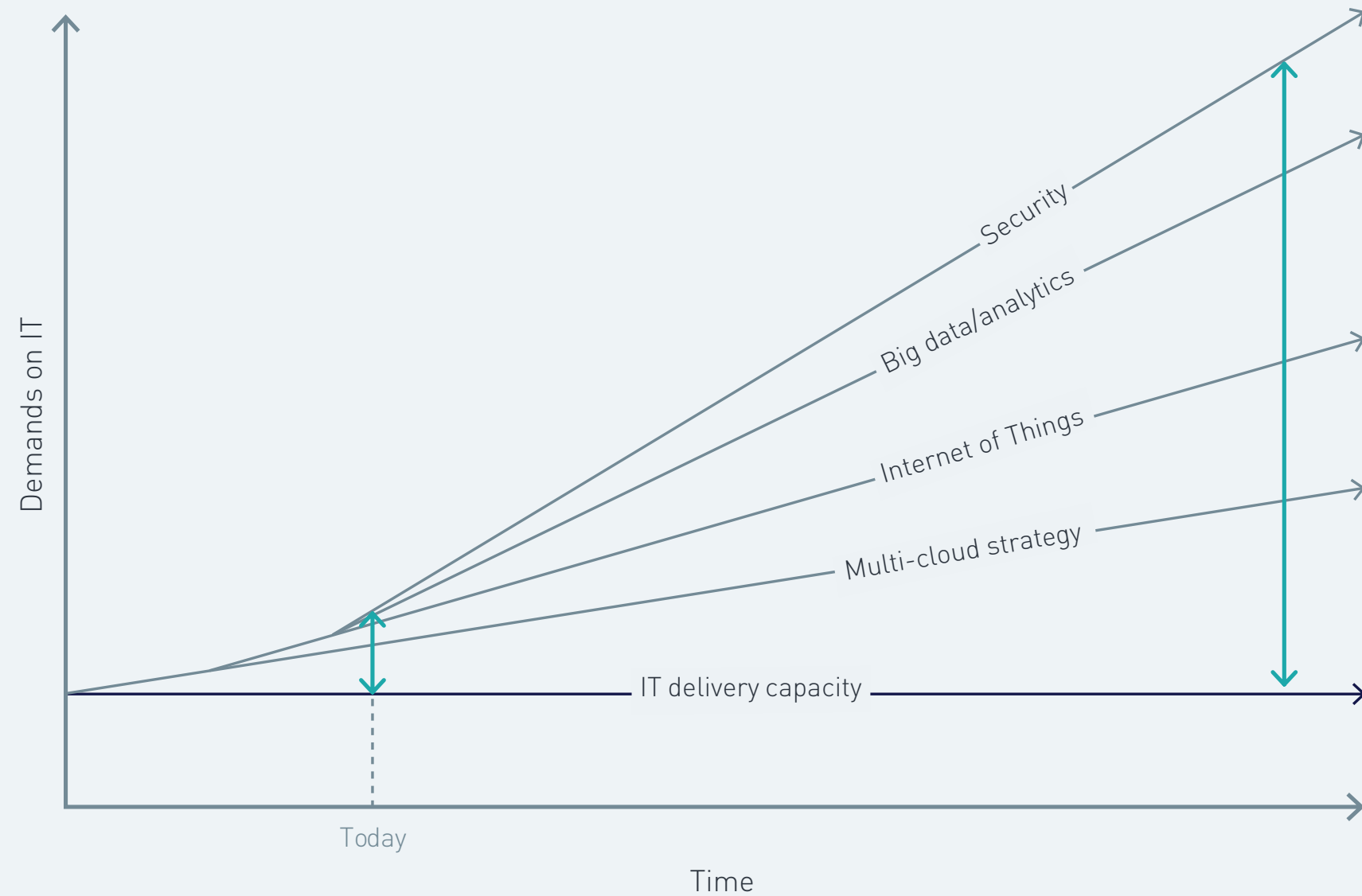
Source: MuleSoft

TREND 05 | PARTNERING WITH IT TO TURBOCHARGE THE BUSINESS

As organizations invest more in distributed and emerging technologies

Top technology investments of 2019

Technology	
Security	57%
Big data/analytics	55%
Internet of Things	49%
Multi-cloud strategy	41%
AI/machine learning	36%
Blockchain	30%
Streaming big data	29%
Microservices	25%
Virtual reality/augmented reality	25%
API monetization	24%
Business as a Platform	23%
Bots (chatbots + RPAs)	22%
Voice recognition	21%
CI/CD and monitoring	19%
BYO PaaS (PCF, OpenShift)	16%
Streaming events	16%
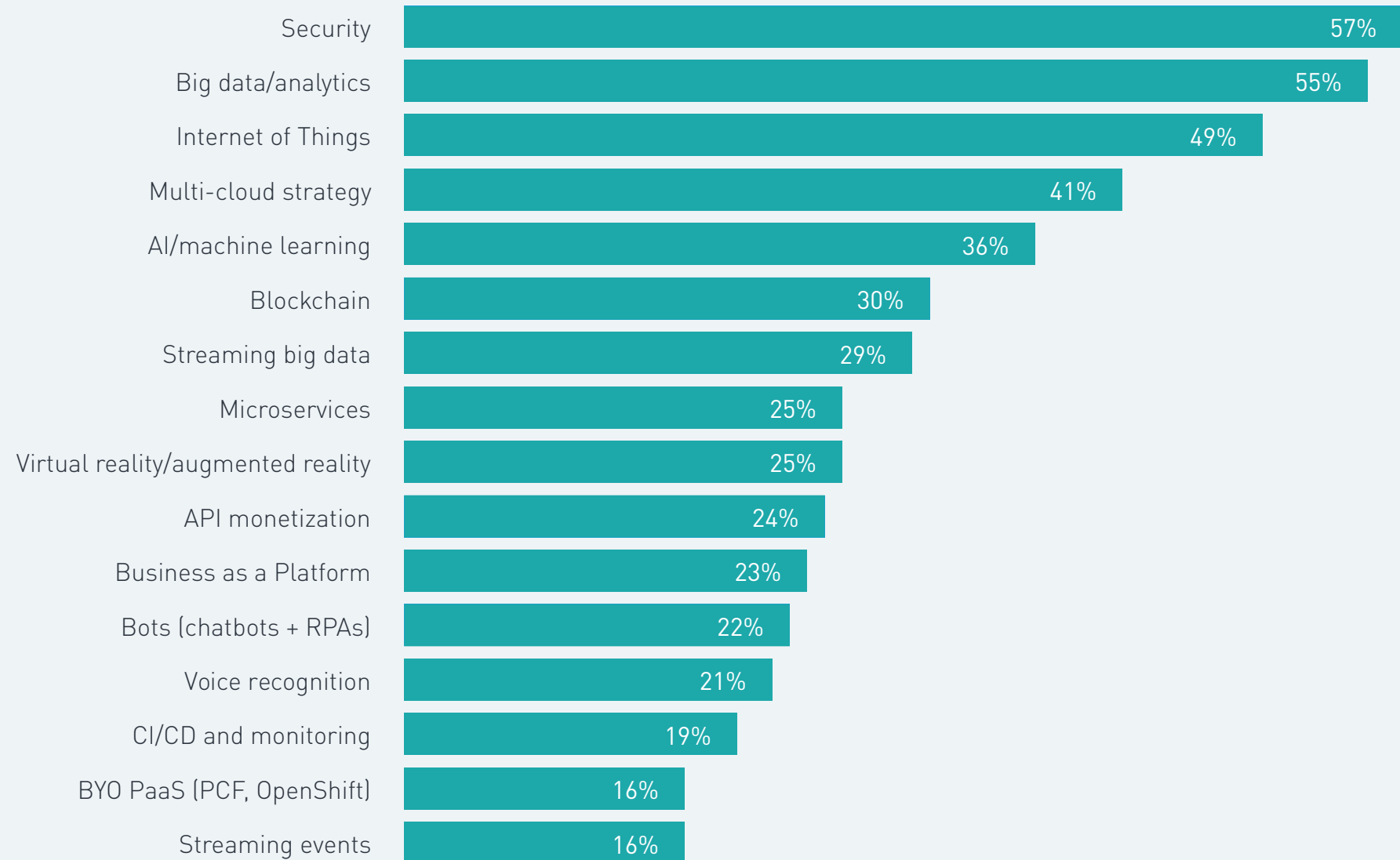
Source: MuleSoft

TREND 05 | PARTNERING WITH IT TO TURBOCHARGE THE BUSINESS

Line of business owners have an increasing need to integrate systems

Nearly all (92%) businesses report integration needs span beyond IT

Category	Percentage
Business analysts	49%
Data science	42%
Application owners	38%
Support	38%
HR	37%
Marketing	36%
Engineering	34%
Sales	33%
None — only IT	8%
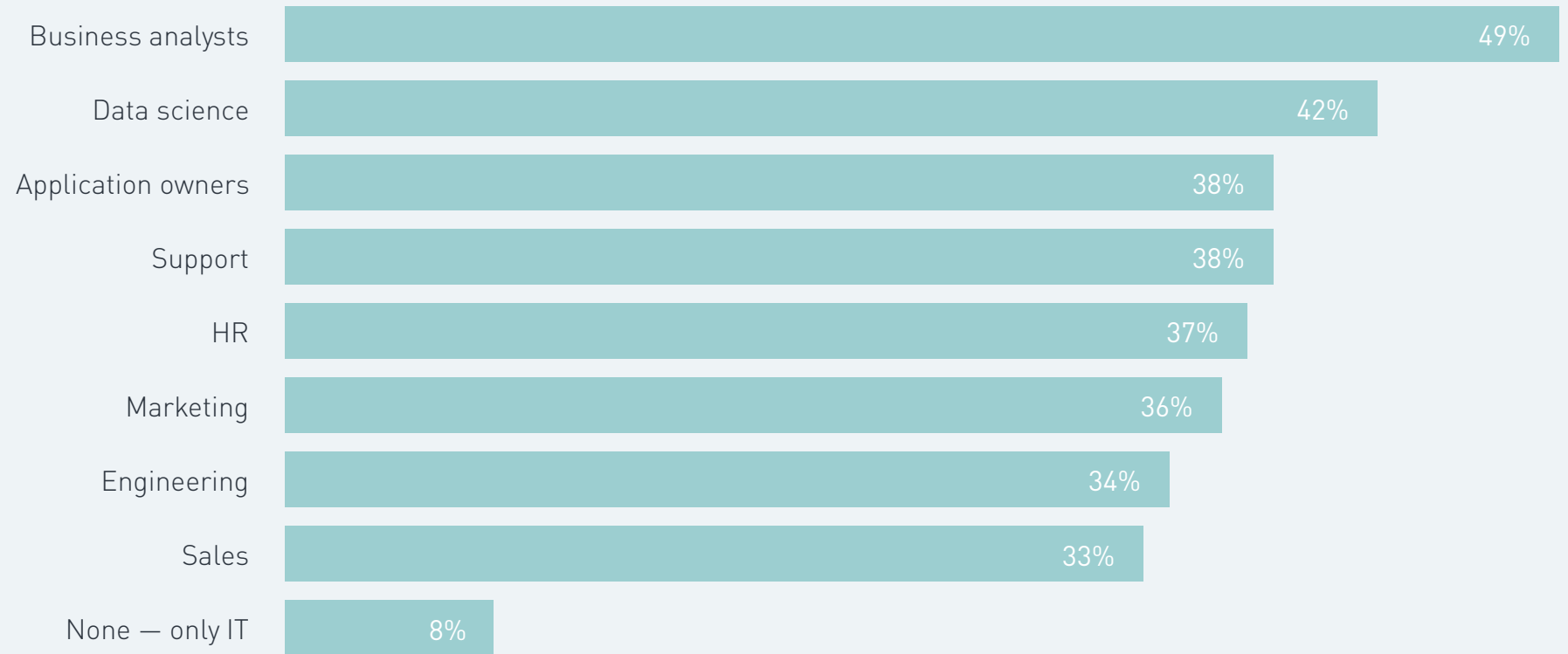
Source: MuleSoft

TREND 05 | PARTNERING WITH IT TO TURBOCHARGE THE BUSINESS

IT can no longer keep up with the demands of the business

36%
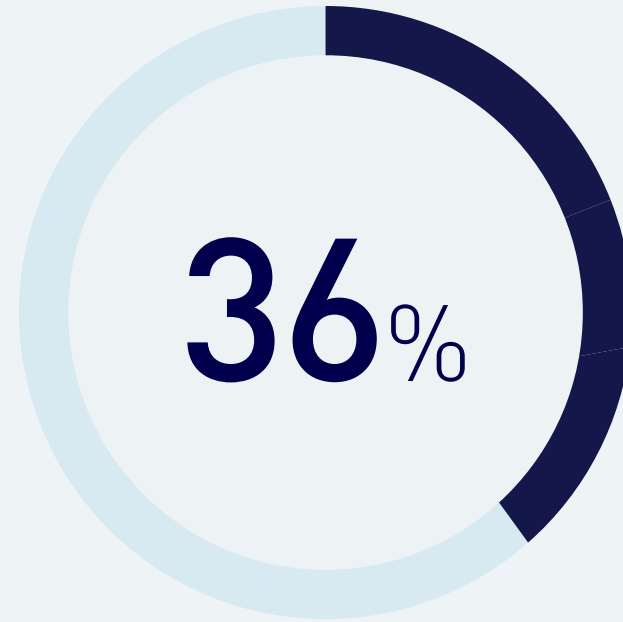
IT decision makers able
to complete all projects
requested of them last year.

69%
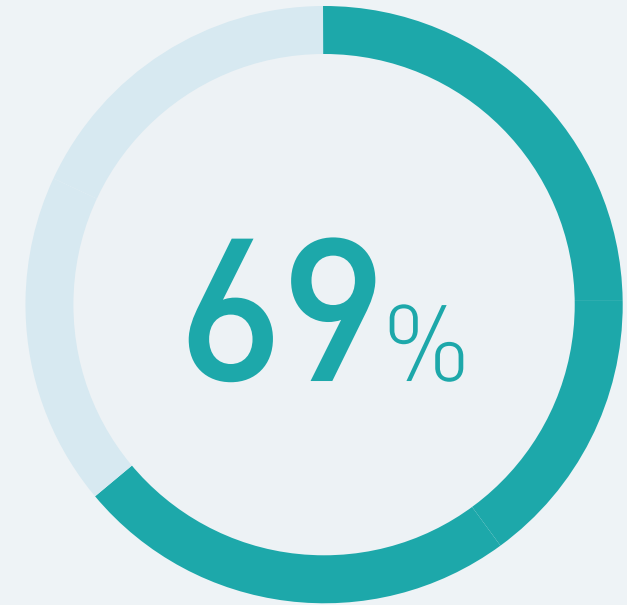
IT decision makers' whose time
remains dedicated to keeping the
lights on rather than innovating.

Source: MuleSoft

TREND 05 | PARTNERING WITH IT TO TURBOCHARGE THE BUSINESS

At the best-run companies, IT drives digital transformation initiatives

Among best-run midsize companies, the CEOs and leaders in finance, HR, customer experience, and IT all cite IT as a top role for leading digital transformation initiatives.

Sponsor of Digital Transformation Initiatives (%)

IT
- 41.0
- 23.4

Senior Management
- 38.1
- 33.8
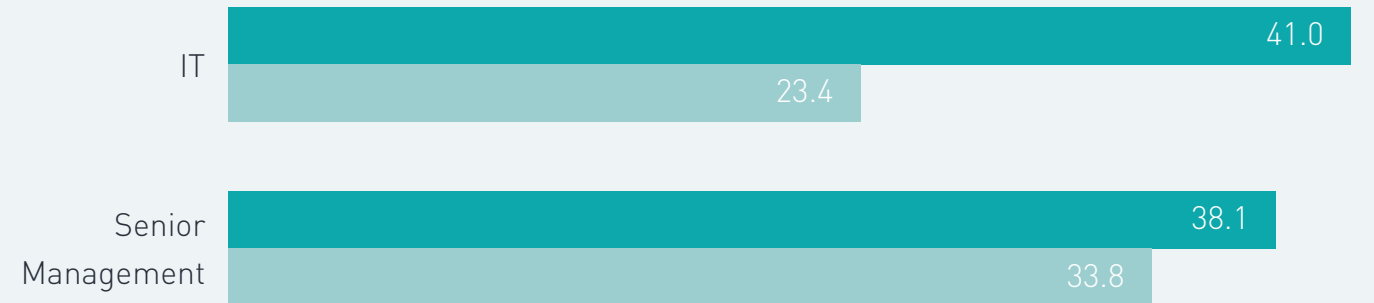
At best-run companies, IT leaders and executives more frequently sponsor digital transformation initiatives.

Marketing
- 18.7
- 36.8
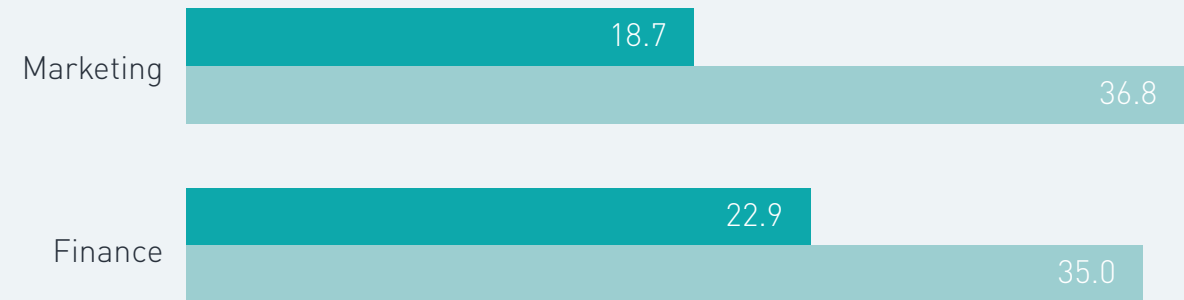
Finance
- 22.9
- 35.0

In contrast, laggards are more likely to drive digital transformation efforts from individual functional areas such as marketing, sales, and finance.

Source: IDC InfoBrief

● Best-Run   ● Laggard

TREND 05 | PARTNERING WITH IT TO TURBOCHARGE THE BUSINESS

Thus, a new IT operating model is emerging

"

Instead of trying to deliver all IT projects themselves, the IT team's new role centers around building and operating re-usable assets that the rest of the business can use to create the solutions they need. Essentially, IT is turned into IT-as-a-Service.

"

Ross Mason

Founder, MuleSoft

TREND 05 | PARTNERING WITH IT TO TURBOCHARGE THE BUSINESS

IT teams are optimizing their time and skills by enabling self-service across business units

Removing bottlenecks

Unilever created an Adaptive Integration Capability team to ensure that Central IT maintains a standard degree of control while giving business units enough freedom to innovate. The team functions like an internal integration consulting group, removing bottlenecks by solving integration pain points.

Unlocking data

REA Group is building an application network of business cloud apps to unlock data that was previously accessible only through its Enterprise Technology team. This enables other business units to self-serve, increasing productivity.

Packaging assets

Amgen is building out reusable APIs to hide the complexity of backend systems, so that internal consumers can easily access pre-packaged system, process and experience information without having to build their own mechanisms.

TREND NO. 6

Co-creating of value
with external stakeholders

TREND 06 | CO-CREATING OF VALUE WITH EXTERNAL STAKEHOLDERS

Digital ecosystems are on the rise

"

When markets become disrupted by new technologies and competitors, many legacy companies struggle to keep up. They are often simply ill-prepared to develop new products and services in the midst of the uncertainty. Rather than attempting to go it alone in such circumstances, some companies reach out to partners with an eye toward **building a broader ecosystem** that will boost their competitive strength.

"

Source: MIT Sloan Management Research

With digital ecosystems, companies are seamlessly incorporating new products and services into their customer experiences

> "
>
> We believe an increasing number of industries will converge under newer, broader, and more dynamic alignments: digital ecosystems. A world of ecosystems will be a highly customer-centric model, where users can enjoy an end-to-end experience for **a wide range of products and services** through a single access gateway, without leaving the ecosystem.
>
> "

Source: McKinsey Digital

TREND 06 | CO-CREATING OF VALUE WITH EXTERNAL STAKEHOLDERS

Ecosystems create significant economic potential

"

As much as **$1 trillion** in total economic profit globally could be up for grabs through the redistribution of revenues across sectors within ecosystems. That makes APIs, which play a crucial role in linking organizations and technologies in ecosystems, a significant competitive battleground capability.

"

Source: McKinsey Digital

"

Firms **that use APIs externally** are nearly three times as likely to have revenue growth of 15% or more.

"

Source: Forrester

Apple, MasterCard , and Plaid exemplify the gold standard

Open source

Apple offers two open-source frameworks — ResearchKit and CareKit — to build apps for medical researchers and patients. Using capabilities such as the iPhone's facial recognition technology and Apple Watch data, third parties have created apps to predict seizures, detect autism, track sleep habits and more.

Platformification

Mastercard has turned many of its core services into a platform of APIs. The Mastercard Travel Recommender allows travel agents and transportation providers to access customer spending patterns and to offer customers targeted recommendations for restaurants, attractions and activities based on their previous behavior.
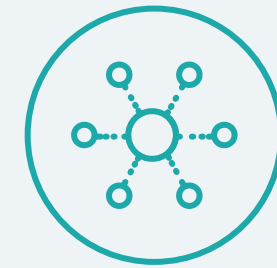
Data aggregation

Fintech company Plaid markets itself as "the technology layer for financial services," connecting consumers, traditional financial institutions, and developers. By providing technical infrastructure APIs and data analytics capabilities, Plaid gives everyone the ability to create new and innovative finserve products.

TREND 06 | CO-CREATING OF VALUE WITH EXTERNAL STAKEHOLDERS

Open APIs help businesses co-create value with external stakeholders

"

Uber exposes its Uber API, Driver API and Deliveries API in hopes the market will discover new uses, such as food delivery, driver rewards, and more, which of course drive new revenue streams and suggest new investments by Uber itself. The company enables others to create customer journeys powered by its API, rather than try to retain complete customer ownership.

"

Uri Sarid
CTO, MuleSoft

"

In 2018, Airlines Reporting Corporation (ARC) settled more than $91 billion worth of airline ticket transactions purchased through U.S. travel agencies, including online sites. This means we have a tremendous amount of data and insights that we offer to airline carriers and travel agencies. ARC is leveraging API-led connectivity with MuleSoft to help us securely open up that data as an API portal to drive new channels of revenue and improve the customer experience.

"

Damian Danowski
Managing Director of Data Services, ARC

TREND NO. 7

Fueling business performance with APIs

TREND 07 | FUELING BUSINESS PERFORMANCE WITH APIS

APIs power businesses across every industry

91%
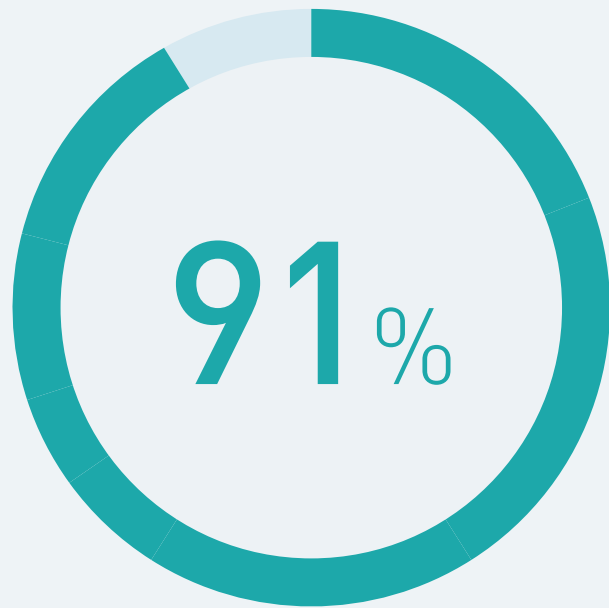
Respondents who report their organization owns public and/or private APIs are experiencing significant business outcomes as a result.

Source: MuleSoft

> As the digital economy continues to grow, more organizations are starting to realize the benefits of an API strategy and the financial benefits it can bring.

Marshall Van Alstyne
MIT Digital Fellow and Boston University Professor

> The API economy unlocks countless new value chains, allowing businesses across nearly every industry to position themselves as platforms for collaboration.

Vala Afshar
Chief Digital Evangelist, Salesforce

APIs enable organizations to innovate faster and smarter

What business results has your company realized from leveraging APIs?

Category	Percentage
Increased productivity	53%
Increased innovation	46%
Increased employee engagement and collaboration	40%
Increased speed in meeting LOB demands	34%
Greater agility across teams to self-serve IT	33%
Decrease in operational costs	30%
Experienced revenue growth as a direct result	29%

Source: MuleSoft

But the magic doesn't
happen unless the APIs
are managed correctly...

TREND 07 | FUELING BUSINESS PERFORMANCE WITH APIS

Businesses that manage APIs like products see a measurable increase in performance

> "Like any product or service, a successful API program requires a thoughtfully managed adoption campaign backed by rigorous performance management."

Source: McKinsey Digital

> "Treating APIs as products with an accompanying product life cycle increases the chances of digital business success."

Source: Gartner*

*Create the Role of API Product Manager as Part of Treating APIs as Products, Mark O'Neill, Paolo Malinverno, Joachim Herschmann, Elizabeth Golluscio, Deacon D.K Wan, 24 January 2017

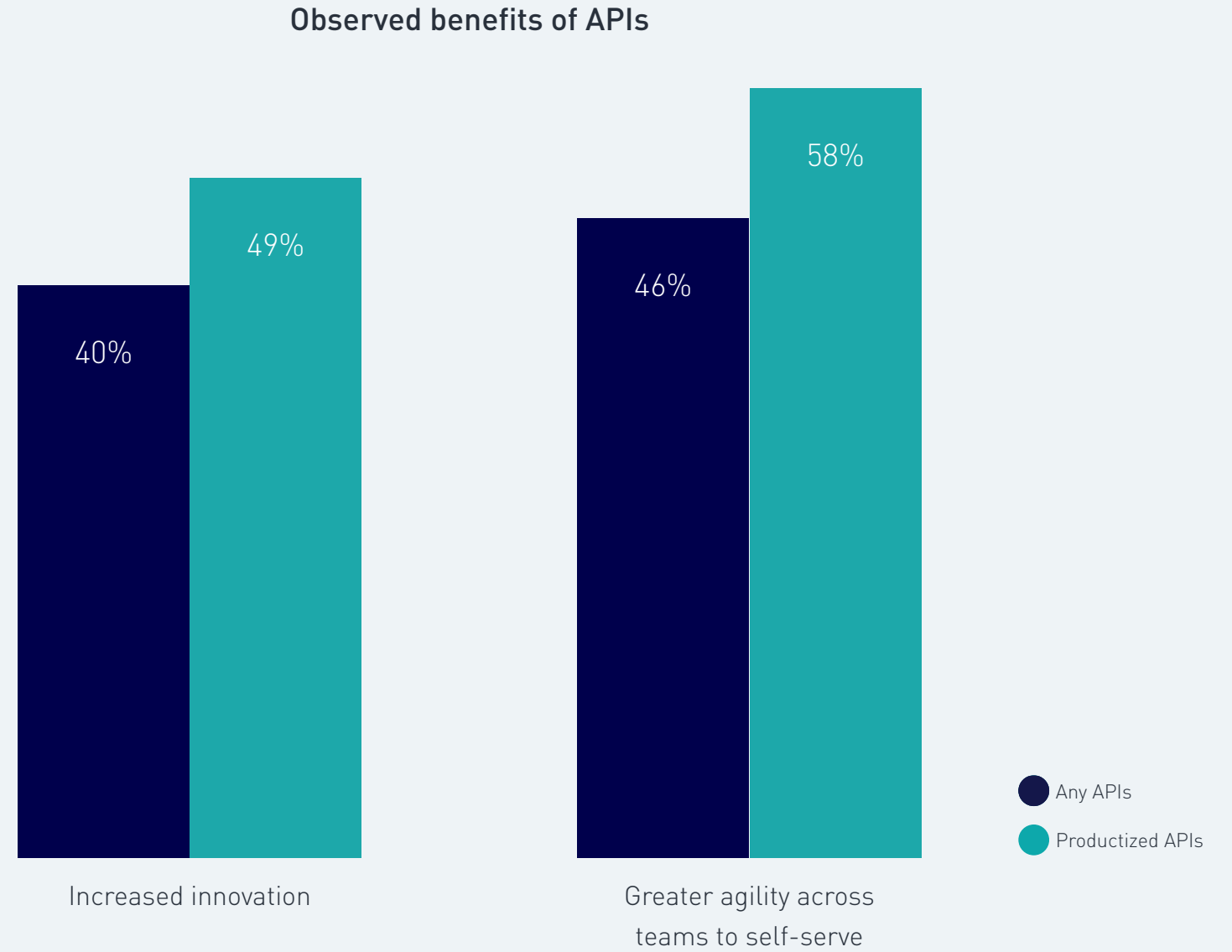**TREND 07 | FUELING BUSINESS PERFORMANCE WITH APIS**

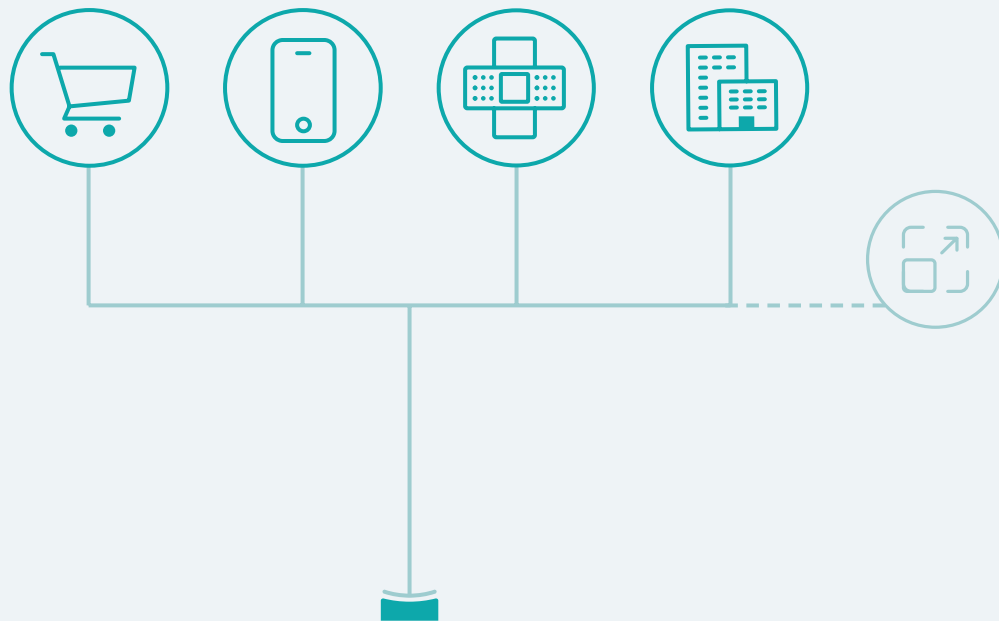# The more sophisticated the API strategy, the greater the business outcomes

Companies that manage APIs like products report greater business benefits that their peers who simply own APIs.

Observed benefits of APIs

- Any APIs
- Productized APIs

Increased innovation — 40%, 49%

Greater agility across teams to self-serve — 46%, 58%

Source: MuleSoft

Advanced Disposal increased speed by 2x by reusing APIs

> By establishing a foundation of easily discoverable and reusable APIs, we are moving nearly two times faster than before. For example, our first Oracle CPQ integration project took a year to complete, but we were able to reuse those APIs to complete another CPQ integration project in less than 7 months.
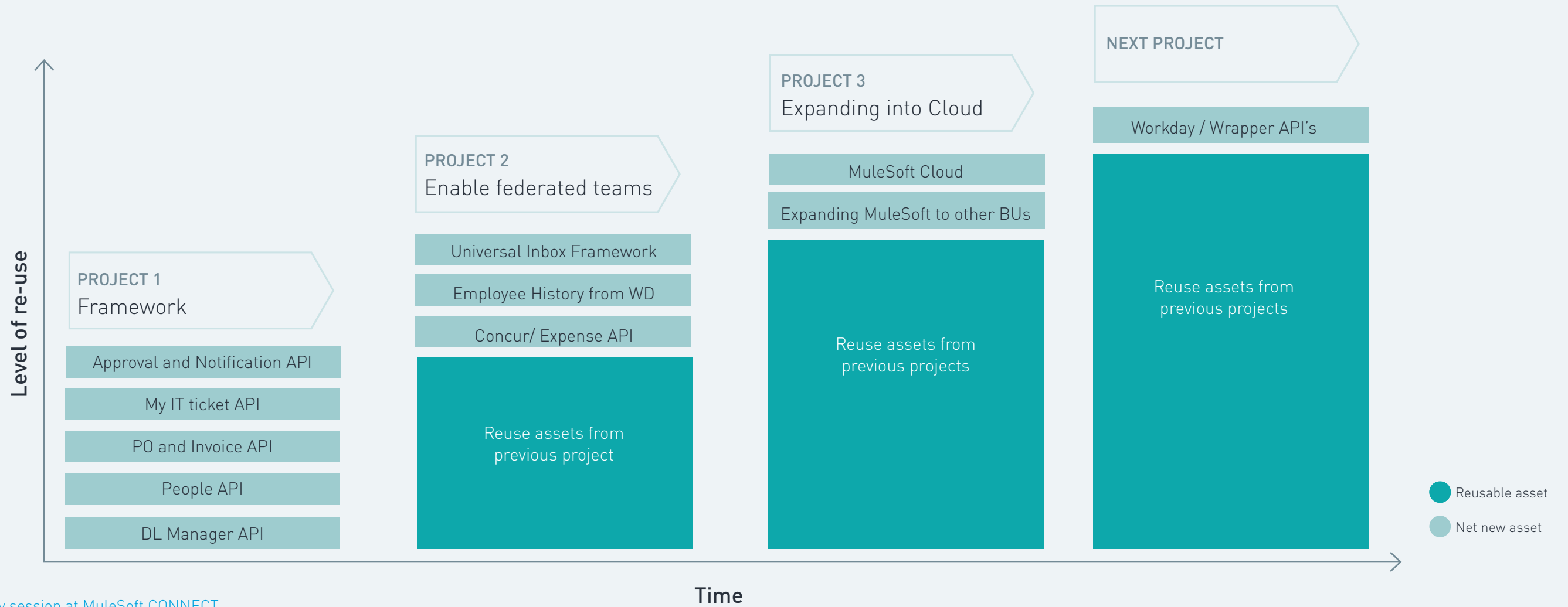
Doug Saunders
Chief Information Officer, Advanced Disposal

"Reusable APIs save time, effort and money and help create an infrastructure that is designed for change."

Source: Wishworks

The benefits of reuse compound with each new project

Level of re-use (y-axis)

PROJECT 1
Framework
- Approval and Notification API
- My IT ticket API
- PO and Invoice API
- People API
- DL Manager API

PROJECT 2
Enable federated teams
- Universal Inbox Framework
- Employee History from WD
- Concur/ Expense API
- Reuse assets from previous project

PROJECT 3
Expanding into Cloud
- MuleSoft Cloud
- Expanding MuleSoft to other BUs
- Reuse assets from previous projects

NEXT PROJECT
- Workday / Wrapper API's
- Reuse assets from previous projects

Reusable asset
Net new asset

Time (x-axis)

Source: eBay session at MuleSoft CONNECT

TREND 07 | FUELING BUSINESS PERFORMANCE WITH APIS

Companies that always reuse APIs see greater productivity and revenue growth than those who simply own APIs

Observed benefits of APIs

Increased productivity — 53%, 63%
Revenue growth — 29%, 41%

- ● Reusable APIs
- ● Any APIs

Source: MuleSoft

TREND 07 | FUELING BUSINESS PERFORMANCE WITH APIS
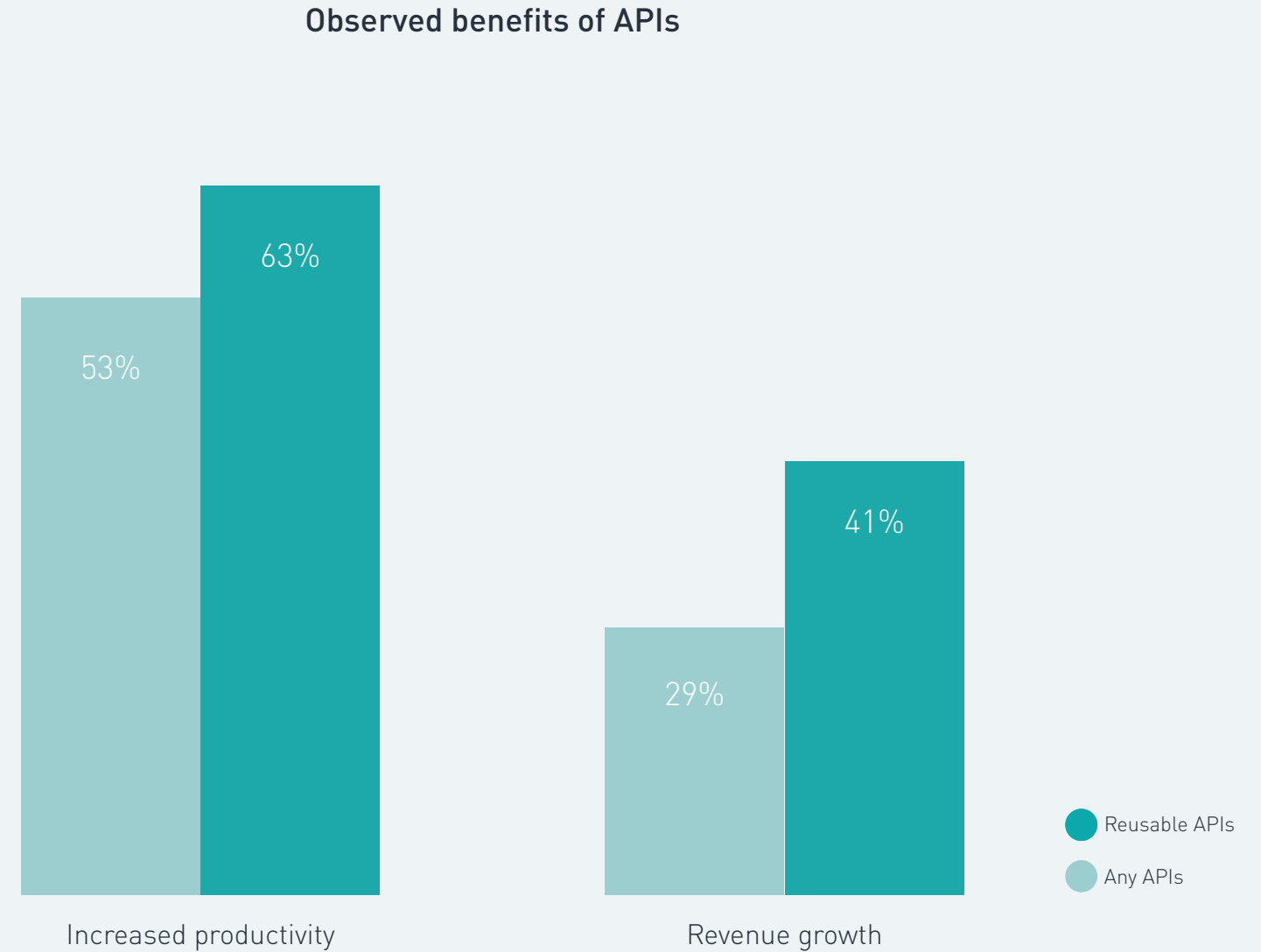
Business benefits of APIs by the numbers

"

One bank created a library of standardized APIs that software developers could use as needed for a wide variety of data-access tasks rather than having to figure out the process each time. Doing so reduced traditional product-development IT costs by 41% and led to a 12-fold increase in new releases.

"

Source: McKinsey Digital

Banque de Luxembourg overhauled their web banking solution and reused the APIs to launch a mobile app **2x faster** than their previous standard delivery time.

Tic:Toc used APIs to connect the various systems required for evaluating loan applicants, reducing the home loan processing time down to **a matter of minutes** compared to the industry average of 22 days.

TREND 07 | FUELING BUSINESS PERFORMANCE WITH APIS

Business benefits of APIs by the numbers

2.5x
IT delivery speed

ASICS launched a new
e-commerce platform in just 2.5
months, leveraging reusable APIs
to delivery IT projects **2.5x faster.**

4x
Faster launch

Unilever unified its eCommerce
experience across its global
portfolio of brands with reusable
APIs — launching new digital
initiatives **3-4x faster.**

36%
Increase in sales

Dixons Carphone leveraged
reusable APIs to bring digital tools
to brick-and-mortar experiences —
increasing sales by 36%.

Business benefits of APIs by the numbers

26%
Revenue increase

Big Bus Tours **grew its revenue by 26%** by enabling 1,000+ partners to use APIs to search Big Bus products, availability, and more.

290K
Daily transactions

BP underpinned its BPme app with APIs to ensure application reliability and scalability. The app now allows to process over **290,000 transactions daily.**

3x
Speed to deploy

Air Malta launched a joint flight planning solution with Lufthansa. Previously, it would have taken 18 months to deploy the solution, but with reusable APIs, it took **one-third of the time.**

Fuel your digital
transformation strategy.

Download MuleSoft's
Digital transformation blueprint

Digital transformation blueprint

Making integration
your competitive advantage
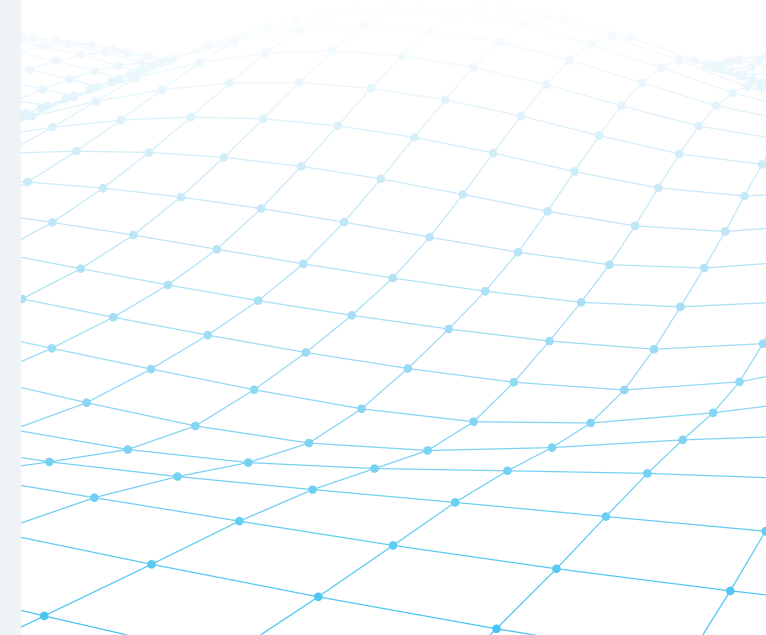
MuleSoft's mission is to help organizations change and innovate faster by making it easy to connect the world's applications, data and devices. With its API-led approach to connectivity, MuleSoft's market-leading Anypoint Platform™ empowers thousands of organizations to build application networks. By unlocking data across the enterprise with application networks, organizations can easily deliver new revenue channels, increase operational efficiency and create differentiated customer experiences. For more information, visit https://www.mulesoft.com.