THE STATE OF APIS 2018

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APIS IN THE MAKING

While still in recent history, it's good to remember that the modern era of APIs started in the early 2000s, pioneered by Salesforce and eBay.

Fast forward 18 years, we are seeing businesses use APIs as functionality in their applications.

There are now so many different ways to combine and integrate APIs. In spite of this flexibility, companies and developers are still struggling with the build versus buy dilemma when building applications that delight their customers.

At *Pusher*, we've been building APIs for software developers for almost a decade now. We wanted to look beyond the surface on what motivates them to use APIs when they are creating their applications.

So, in September 2018, we interviewed 400 professional application developers based in the United States and in the United Kingdom, looking to understand how they make decisions regarding API development or purchase - this is how State of APIs came about.

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KEY FINDINGS

56% respondents in both countries **use third-party APIs in their applications.**

Large development teams and mid-size companies present the best opportunity for 3rd party API market in the USA and UK.

Developers who use 3rd party APIs claim **they save 40% of development time.**

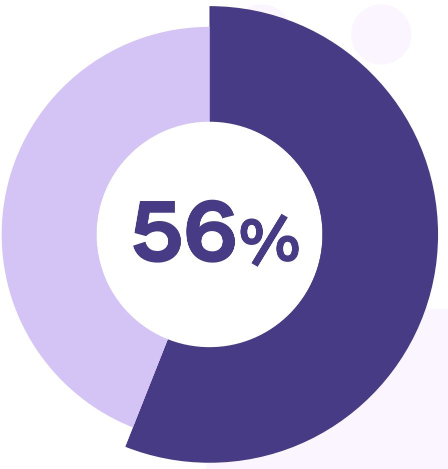
53% of the professional application developers who responded, **anticipate their usage of 3rd party APIs in 2019 to increase.**

56% of the respondents in both countries use third-party APIs in their applications.

However, USA is slightly ahead of the UK in the desire to buy 3rd party APIs.

3RD PARTY APIS IN THE USA

Over half of the American respondents are currently selling their third party APIs.

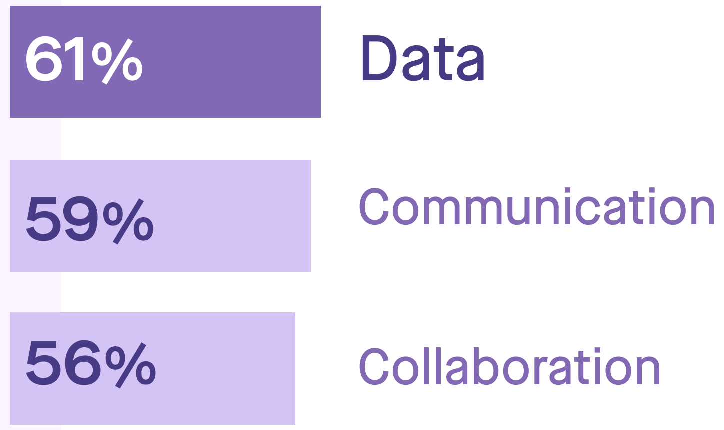


AVERAGE NUMBER OF APIS USED

The average developer in the USA uses at least 18 APIs to power their applications, compared to 12 APIs used by the average UK developer.

TOP API FUNCTIONALITY

Data handling is by far the most common use of APIs across all organisations in both markets.



Across both markets, the inclination to buy API functionality increases in medium sized companies and larger development teams (51+).

Medium-sized companies show the largest usage of 3rd party APIs as they are large enough to have the required resources and needs, but lack internal capabilities of large enterprises.

MEDIUM-SIZED COMPANIES' VIEWPOINTS

48% respondents working in small-medium size companies *(50-249 people)* and 59% respondents in medium-large size companies *(250-499 people)* believe that:

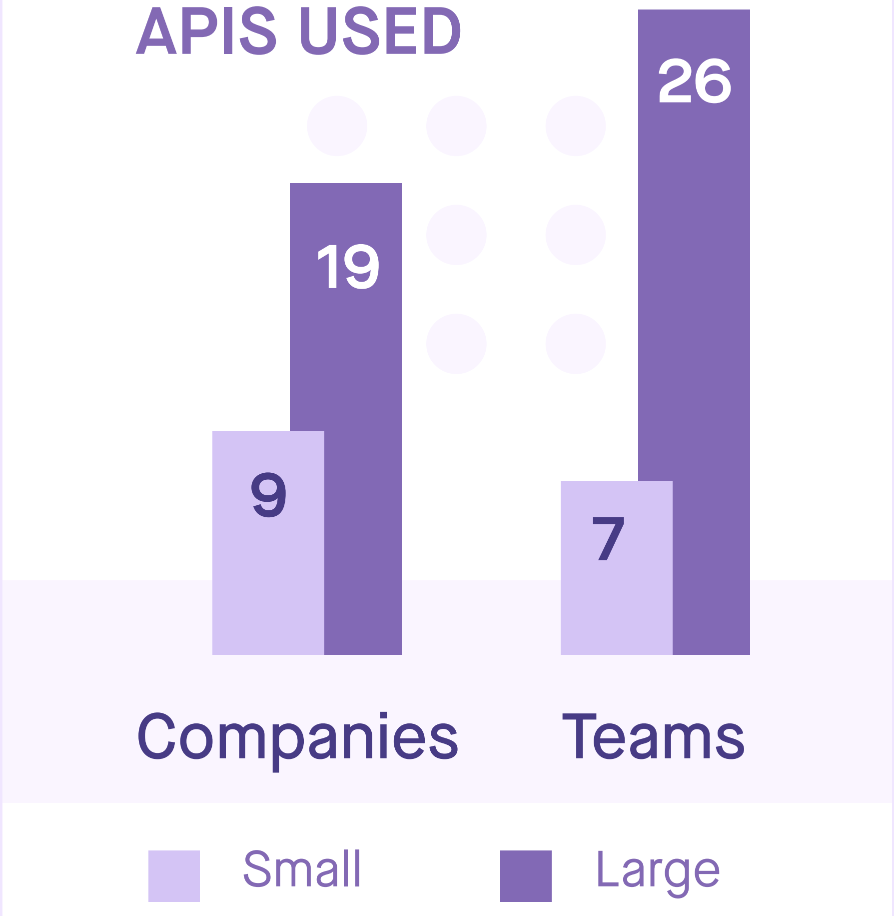
3RD PARTY APIS

- are more cost effective than in-house development
- provide richer features and functionality
- reduce development time compared to in-house development

APIS AND APP DEVELOPMENT

The complexity of app development increases with company size and development team.

NUMBER OF APIS USED



Developers who use 3rd party APIs claim they save 40% of development time.

Time and cost are the driving factors across both markets; time resource is a clearer first choice in the USA (21% of responses), while the UK places almost equal importance on cost (19%) and time to market (18%).

KEY EXPECTATIONS FROM APIS
IN THE USA & THE UK

GOOD DOCUMENTATION AND SUPPORT

«Good documentation with programming examples, comprehensive SLAs.»

USA, medium firm and dev team

RELIABILITY AND QUALITY

«Good documentation, quality product i.e., few errors; meaningful error messages on debugging.»

UK, medium firm and dev team

TIME SAVING

«More resources available and less time consuming when dealing with these APIs.»

UK, large firm, medium dev team

EASE OF USE

«Easy to use with existing in-house code base.»

USA, large firm and dev team

Developers who prefer to buy 3rd party APIs have a higher tendency to be from larger development teams than those who prefer to build APIs in-house and the overall average.

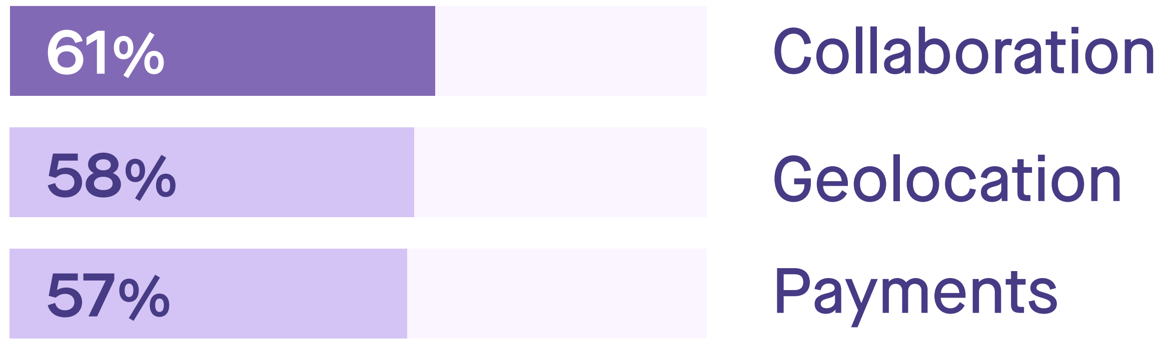
DEVELOPERS WHO PREFER 3RD PARTY APIS

The majority are aged 18-34 *(41%)* and they most likely work in a tech company *(57%)*.

- Part of a big company
  250-500+ people **61%**
- Part of a big development team
  51+ people **30%**

TYPES OF APPLICATIONS

They develop a more diverse array of apps including Mobile *(74%)*, TV *(41%)* and IOT *(33%)* and adopt a wider array of features in their apps, especially:



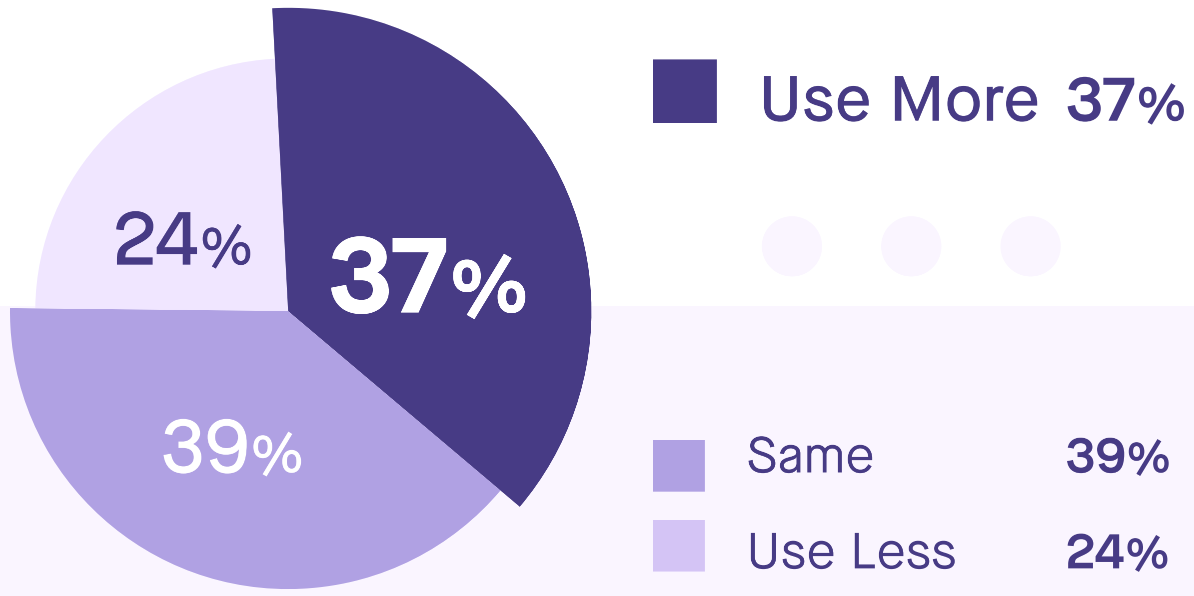
BENEFITS OF USING 3RD PARTY APIS

Professional application developers anticipate using 3rd party APIs more in 2019.

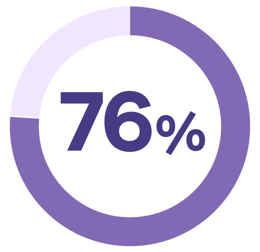
Increased propensity to use may be attributed to strong belief that 3rd party API are more likely to improve functionality and time/cost savings.

API USAGE IN 2019

As development team size increases. the potential future use of 3rd party APIs also increases with 60% in very large development teams *(51+ people)*.



FUTURE API NEEDS



Use more APIs or as much

In the USA and UK

Mid-size small *(50-249 people - 43%)* and mid-size large companies *(250-499 people - 51%)* show the greatest opportunity for using APIs.

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OUR THOUGHTS ON THE FUTURE OF APIS

PREDICTIONS

At Pusher, we're certain that the future of APIs is going to be bright.

As more and more people get online, and there is increased demand for apps across all platforms, the number of developers out there is not keeping up with that demand. Using 3rd party APIs will therefore serve as a "shortcut", allowing more apps to be shipped faster.

ZAN MARKAN,
DEVELOPER EVANGELIST

We predict that APIs will take bigger and bigger roles in apps, often providing entire features at a time.

Chat, identity, and accepting payments are only 3 important features that existing APIs can provide and save months of development time for each feature.

Another area we are excited about is what the paradigms of serverless and edge computing are bringing to the table in 2019. We feel that the industry is bringing back the idea of using APIs to "mash" together new functionality with ease, with the addition that now we can use them everywhere and anywhere computing happens.

Even though API mash-ups are nothing new, their ability to run custom code in the form of functions across different API vendors, and combine several APIs together to build computing pipelines is nothing short of exciting.

Since the API mash-ups are relying on realtime services to push their output code to clients, at *Pusher*, we are best positioned to support the needs of this market. With edge and serverless computing, we believe the API landscape has the opportunity to grow considerably in 2019 and beyond!

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METHODOLOGY

Raw data can be found here.

- The data was collected and analysed by Radius Global Market Research in September 2018 on a sample of 403 software developers from the USA and UK *(UK, n=145, USA, n=258)*.
- A sample of people working with App Development within the UK and USA were interviewed via a self completed online questionnaire to understand their views and behaviours around API usage and 3rd party providers.
- No quotas were imposed on the survey collection although a target of n=150 in each market was aimed for. Due to the relative size of the industries in each market and the amount of available, potential respondents it was expected a larger proportion would come from the USA. Controls on an absolute minimum of n=100 in the UK was imposed to allow for individual market analysis and comparisons.