

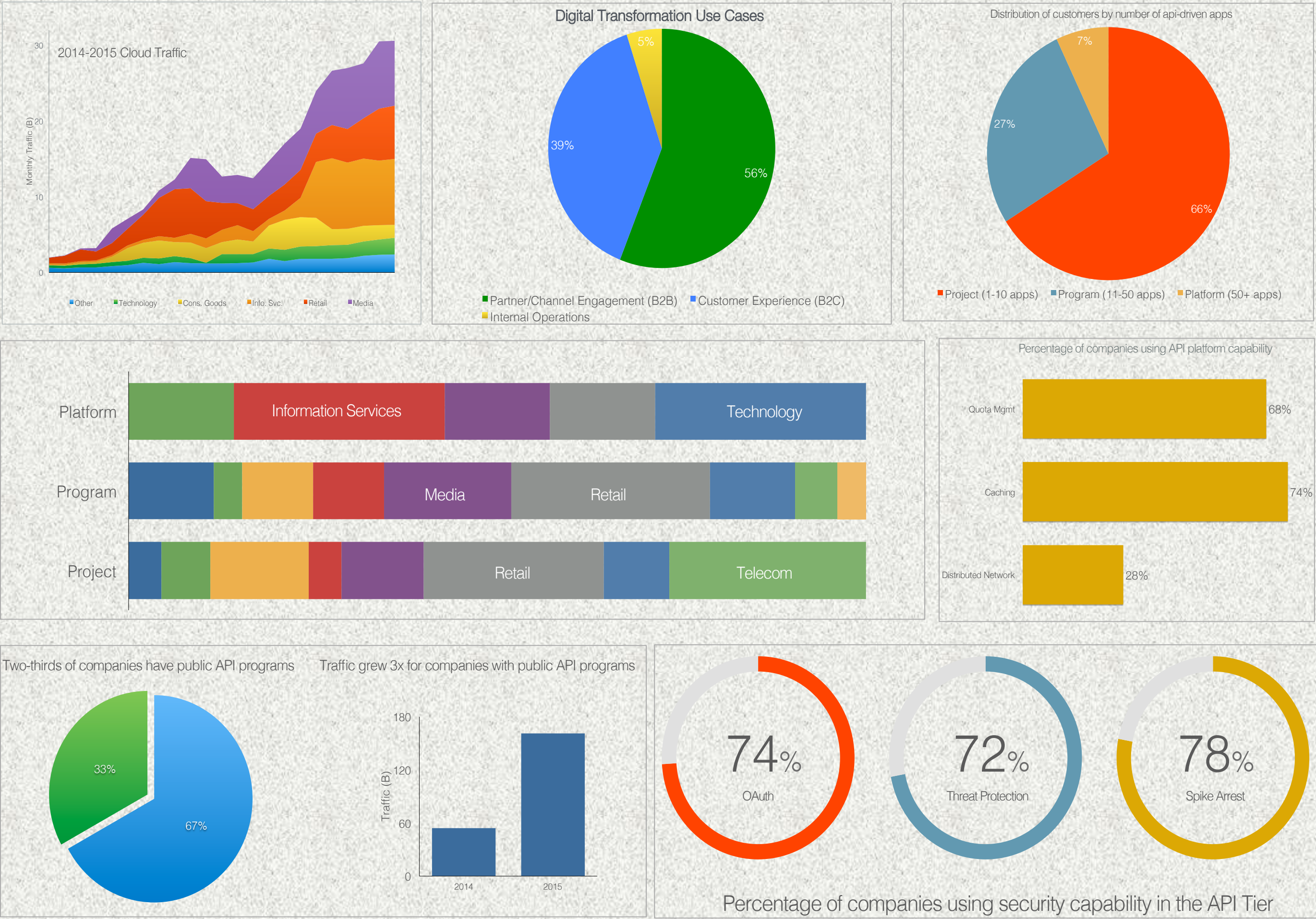


# The State of APIs

2016 Report on Impact of APIs on Digital Business



# STATE OF THE APIs - INTRODUCTION



*APIs are powering digital transformation across industries. Enterprises are aggressively embracing an API-centric approach to grow their digital businesses.*

*This report examines the impact of APIs, use cases driving digital transformation in different industries, and the best practices of API-driven enterprises.*

*This report is based on the hundreds of billions of API call traffic seen in the Apigee Cloud in 2014 & 2015 from hundreds of customers across Apigee's global network of 24 data centers.*



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# Business of APIs

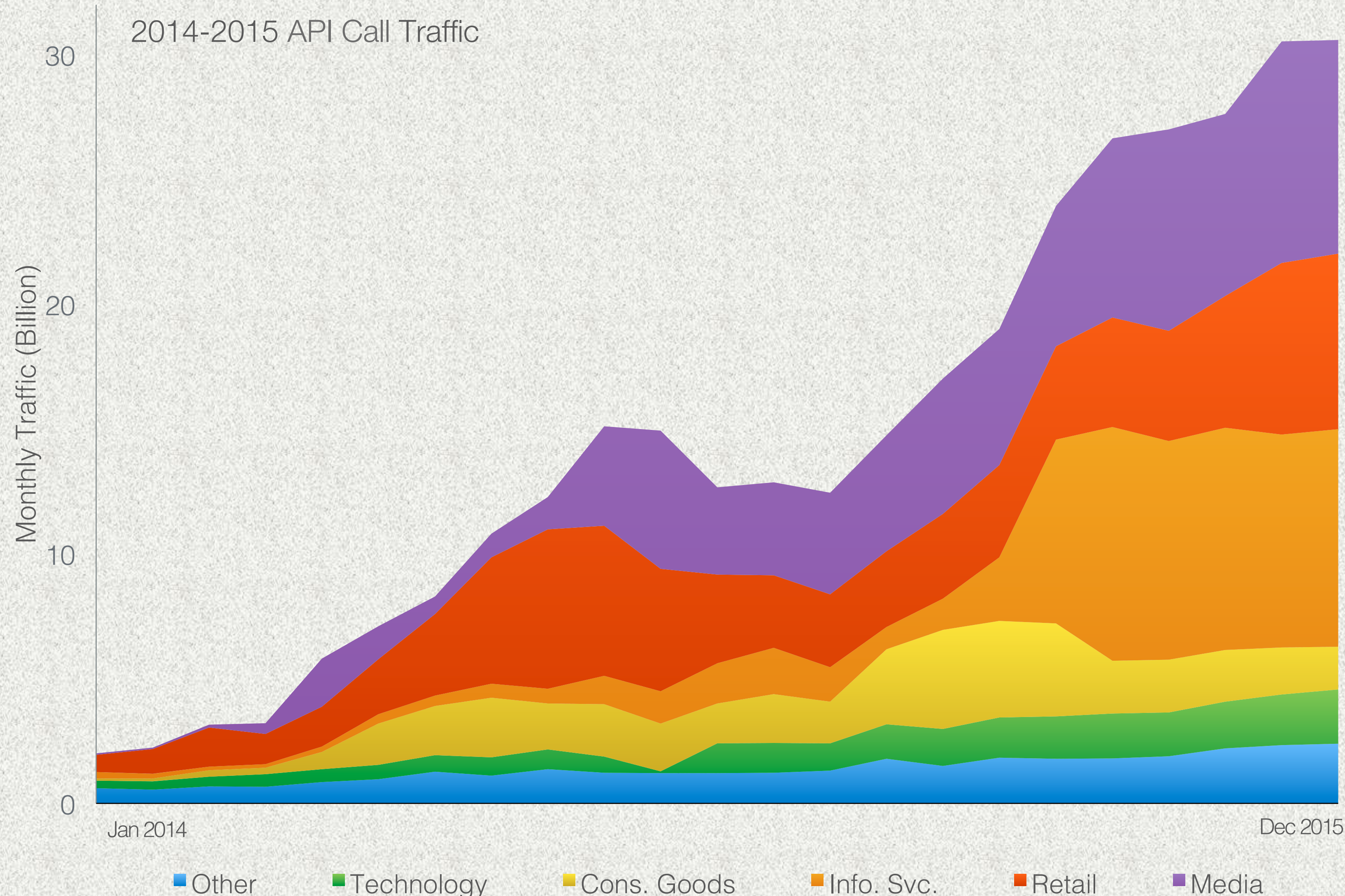
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- + *Pace of Digital Transformation*
- + *Digital Use Cases In The Enterprise*
- + *Impact of Use Cases On API Traffic*
- + *Regional Breakdown Of API Run Businesses*

01



# BUSINESS OF APIS IS GROWING RAPIDLY



*The increased pace of digital transformation in enterprises is evidenced by a large increase in API traffic, which has grown 2.8 times year-over-year.*

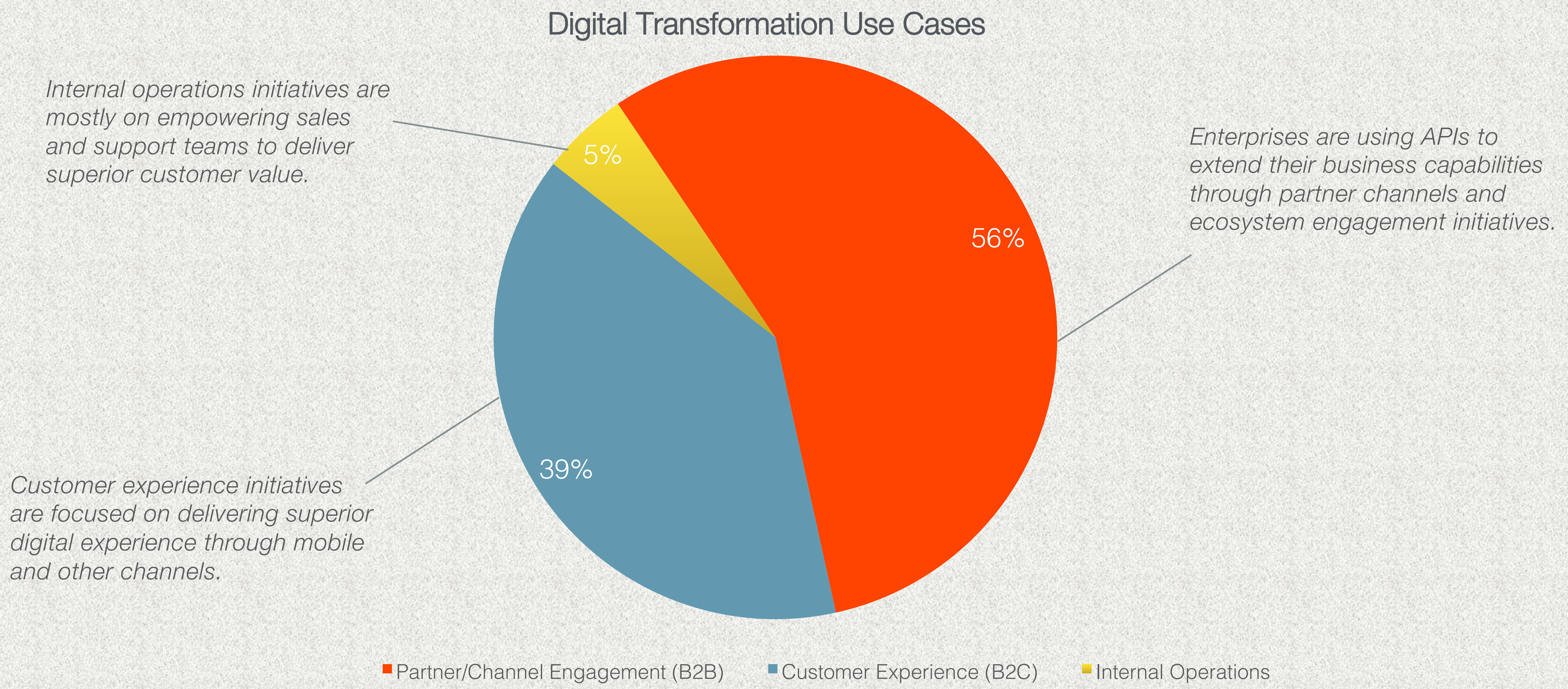
*Media, retail, and information services industries account for 73% of API traffic. Annual peaks are observed in API traffic around Thanksgiving, when retailers experience significant spikes in traffic volume.*

*Salesforce.com generates 50% of its revenues through APIs. Expedia.com generates 90%. eBay generates 60%.*

Source: The Strategic Value of APIs, HBR, Jan. 2015



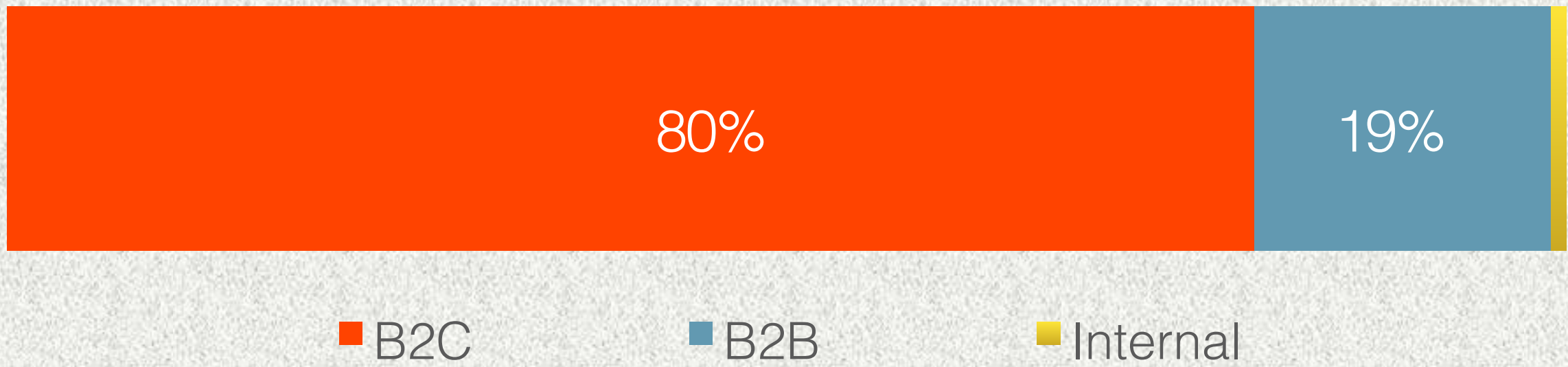
# B2B INITIATIVES ARE THE MAJORITY OF DIGITAL USE CASES





# BUT, B2C INITIATIVES DRIVE 4X MORE API TRAFFIC

API Traffic by use case type



*B2C or customer experience initiatives generate significantly more API traffic, given the millions of end consumers using the apps.*

Top 3 Industries by use case type

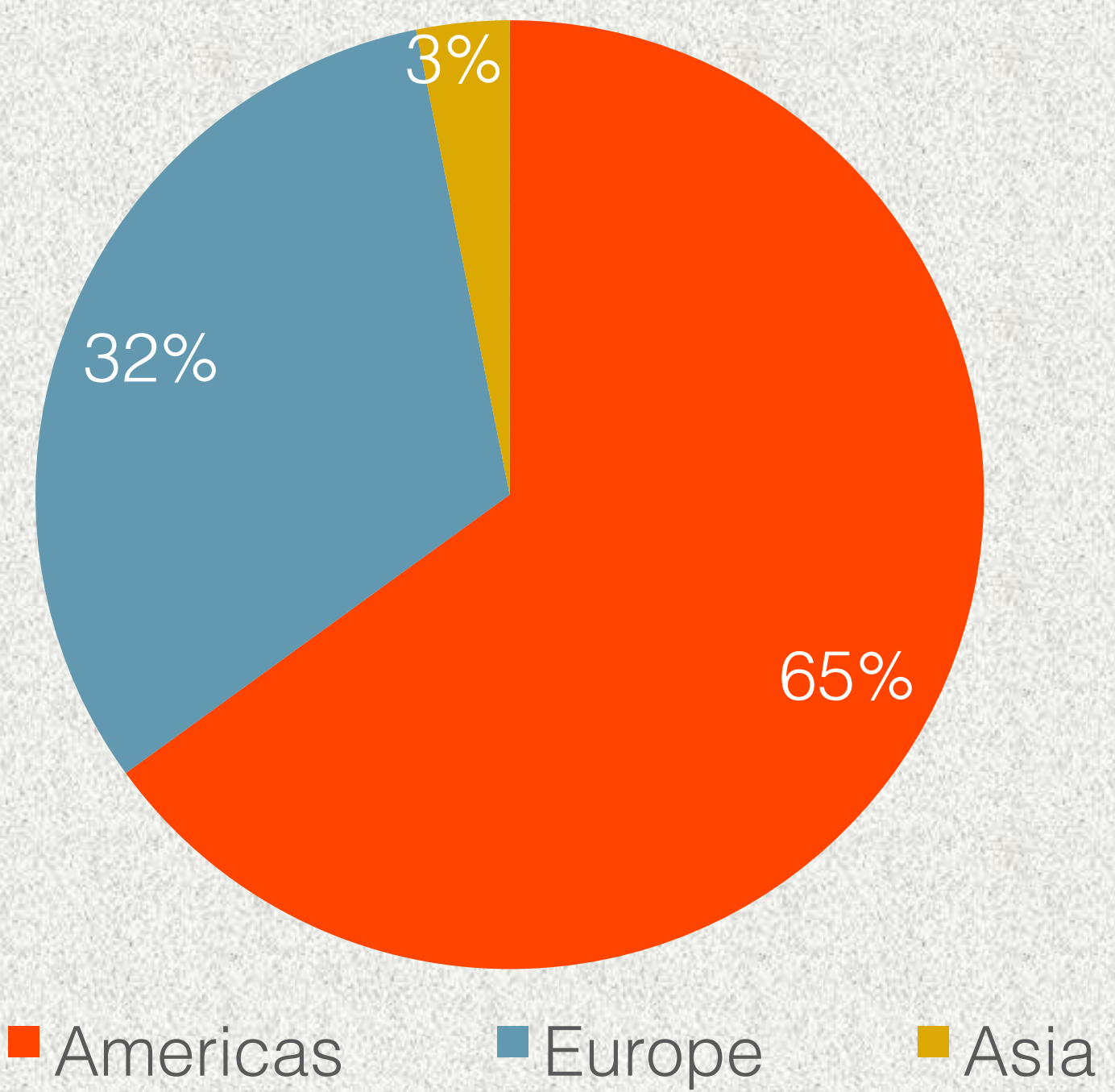


*Media and retail industries have the most B2C initiatives and their apps typically include browsing product catalogs and content, thereby further compounding API traffic.*



# ENTERPRISES IN AMERICAS ARE LEADING THE CHARGE

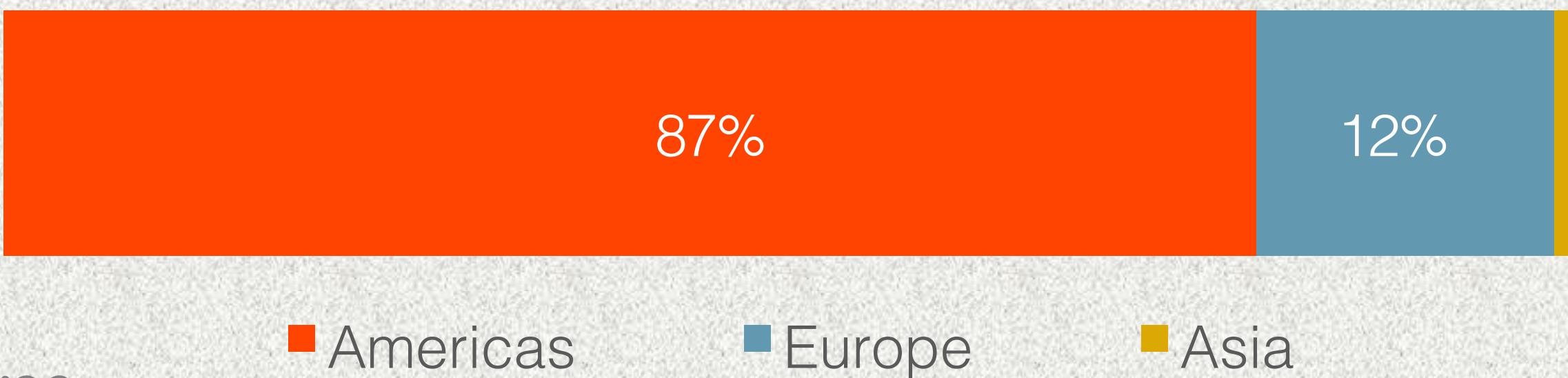
Number of APIs Hosted By Region



*Digital transformation is very active in North America and Europe, as seen by the number of APIs hosted and consumed by app developers.*

*We believe that North American enterprises are typically 6-12 months ahead of their European counterparts in digital transformation initiatives and 18-24 months ahead of Asian enterprises.*

Percentage of App Developers Using APIs Hosted in Region





# Digital Maturity

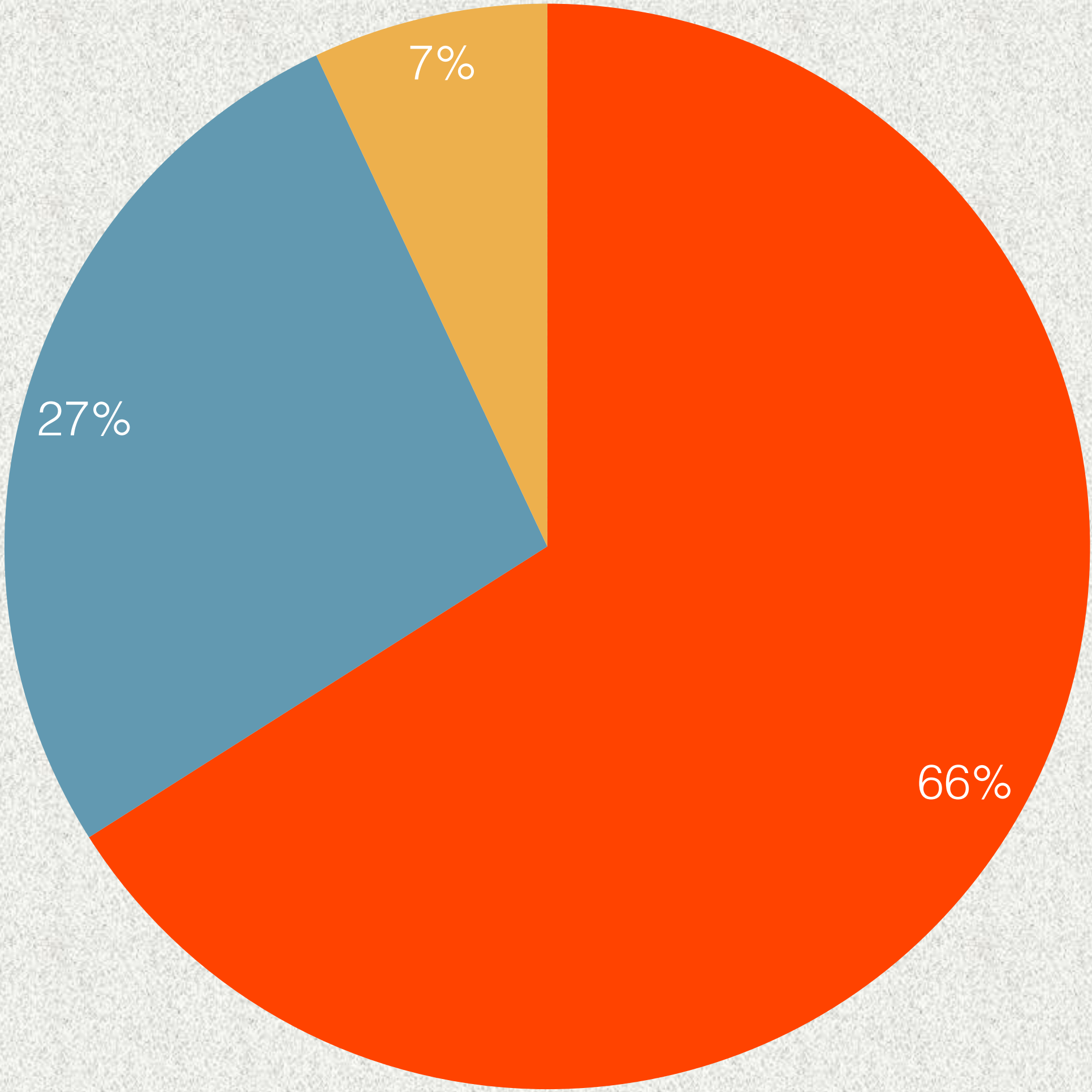
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- + *Project-Program-Platform Journey*
- + *Digital Maturity By Vertical*
- + *Growth of Public API Programs*
- + *Impact of Public API Programs*

02

# MOST ENTERPRISES ARE EARLY IN THEIR DIGITAL MATURITY

Distribution of customers by number of api-driven apps



■ Project (1-10 apps)   ■ Program (11-50 apps)   ■ Platform (50+ apps)

## *The Project to Program to Platform Journey*

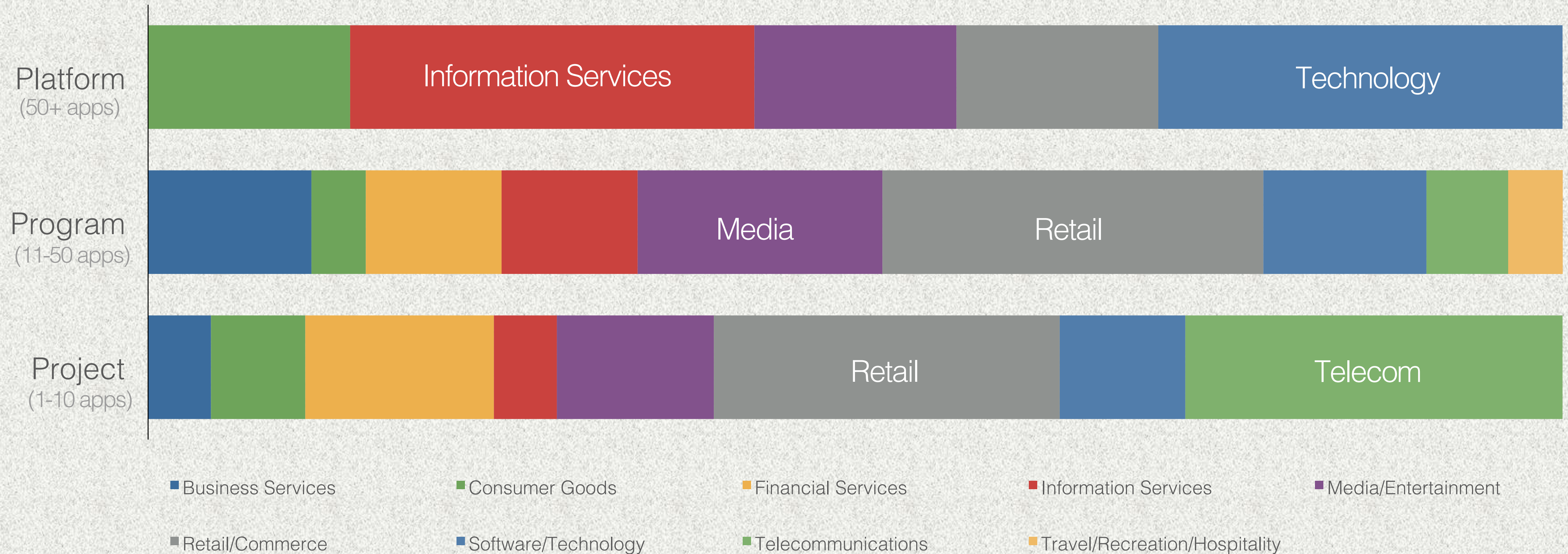
*Successful API run enterprises use the project-to-program-to-platform approach to achieve their digital transformation.*

*Enterprises typically start with couple of discreet digital projects, and, as the number of developer teams and projects grow, they create an API program.*

*Over time, as enterprises build more digital experiences powered by APIs, they grow an ecosystem of developers & partners that leverage their core assets and drive the innovation and network effect of a digital platform.*



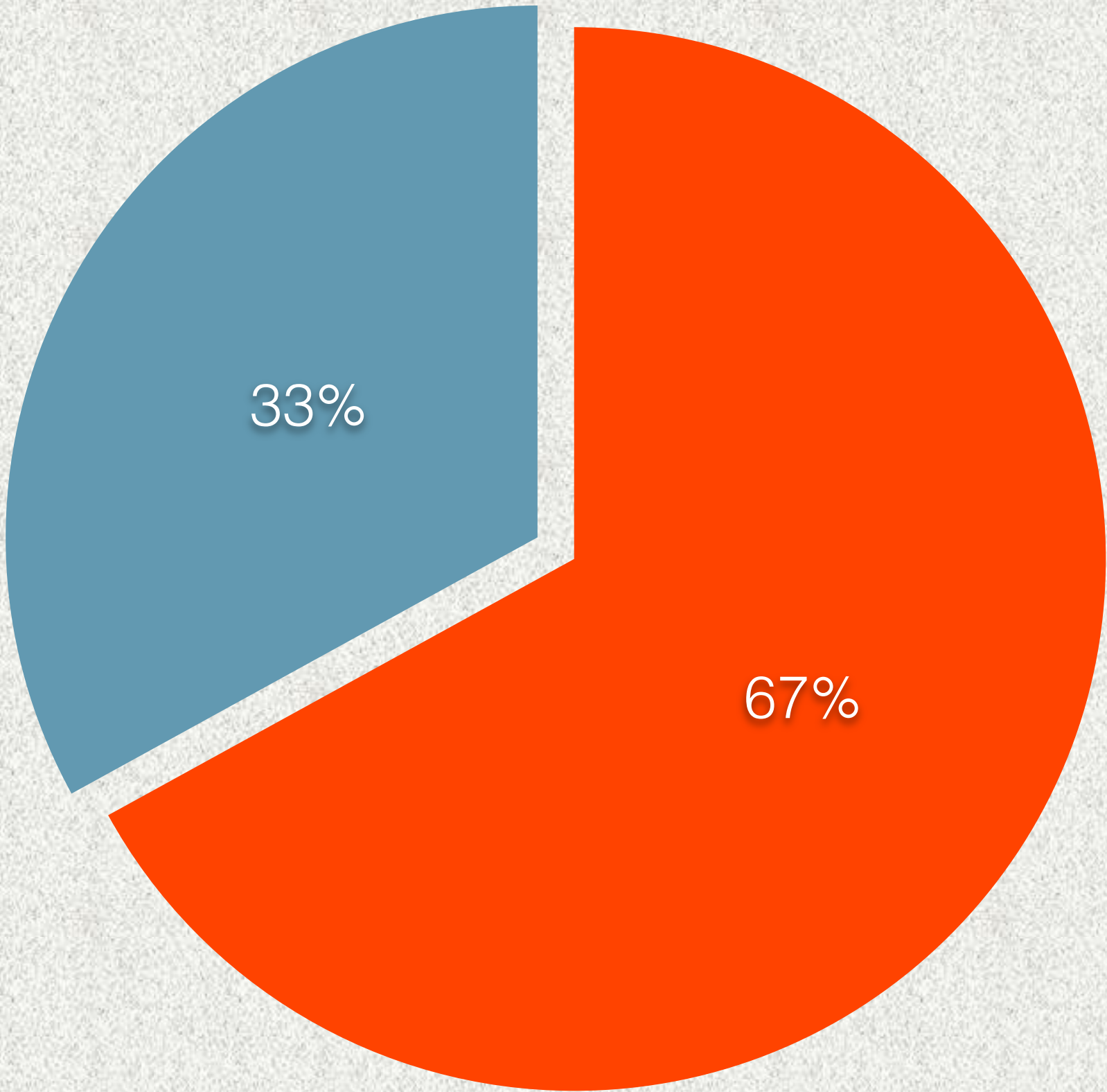
# INFO. SERVICES & TECHNOLOGY VERTICALS ARE THE MOST MATURE



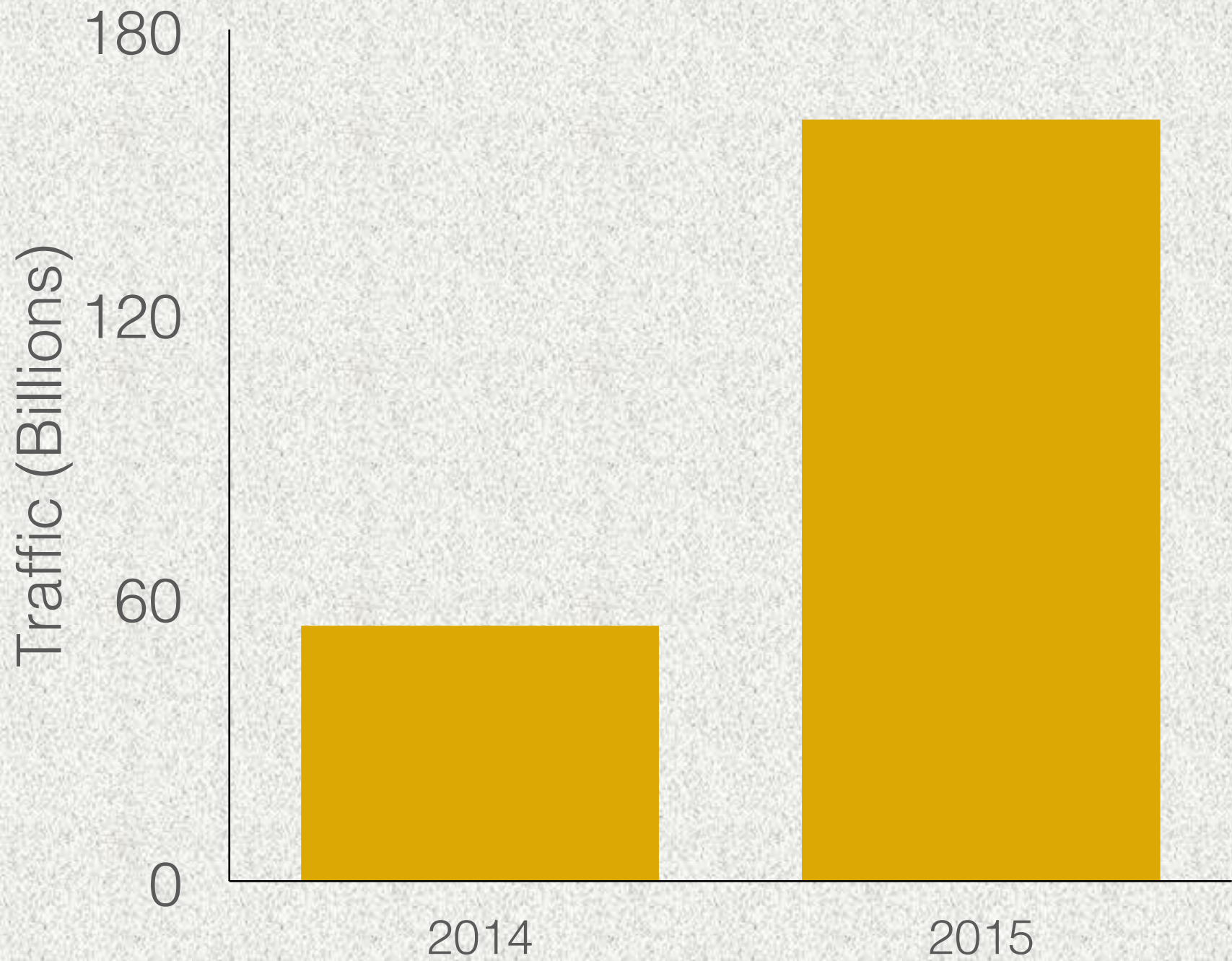
*Information services and technology businesses, whose core assets are digital, are the most digitally mature. Retail and media verticals are next in terms of digital maturity, given the digital nature of their assets and recent disruption from new entrants.*

# ENTERPRISES WITH PUBLIC APIS HAD 3X TRAFFIC GROWTH

*Two-thirds of companies have public API programs*



*Traffic grew 3x for companies with public API programs*





# Technology Use

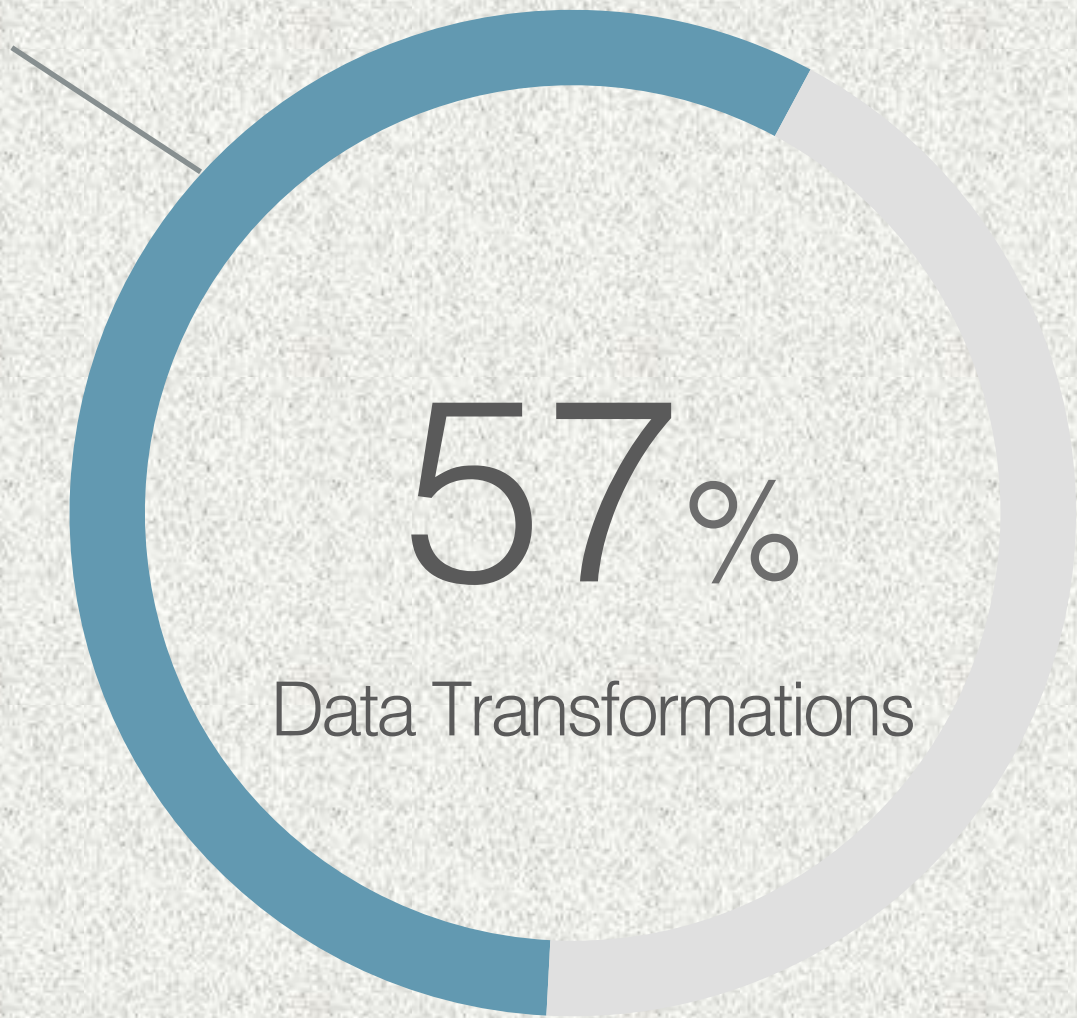
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- + Customer Usage of Key API Platform Capabilities*
- + Security at the API Tier*
- + Leveraging API Tier for App Performance & Availability*
- + API Policy Use by Vertical*

03

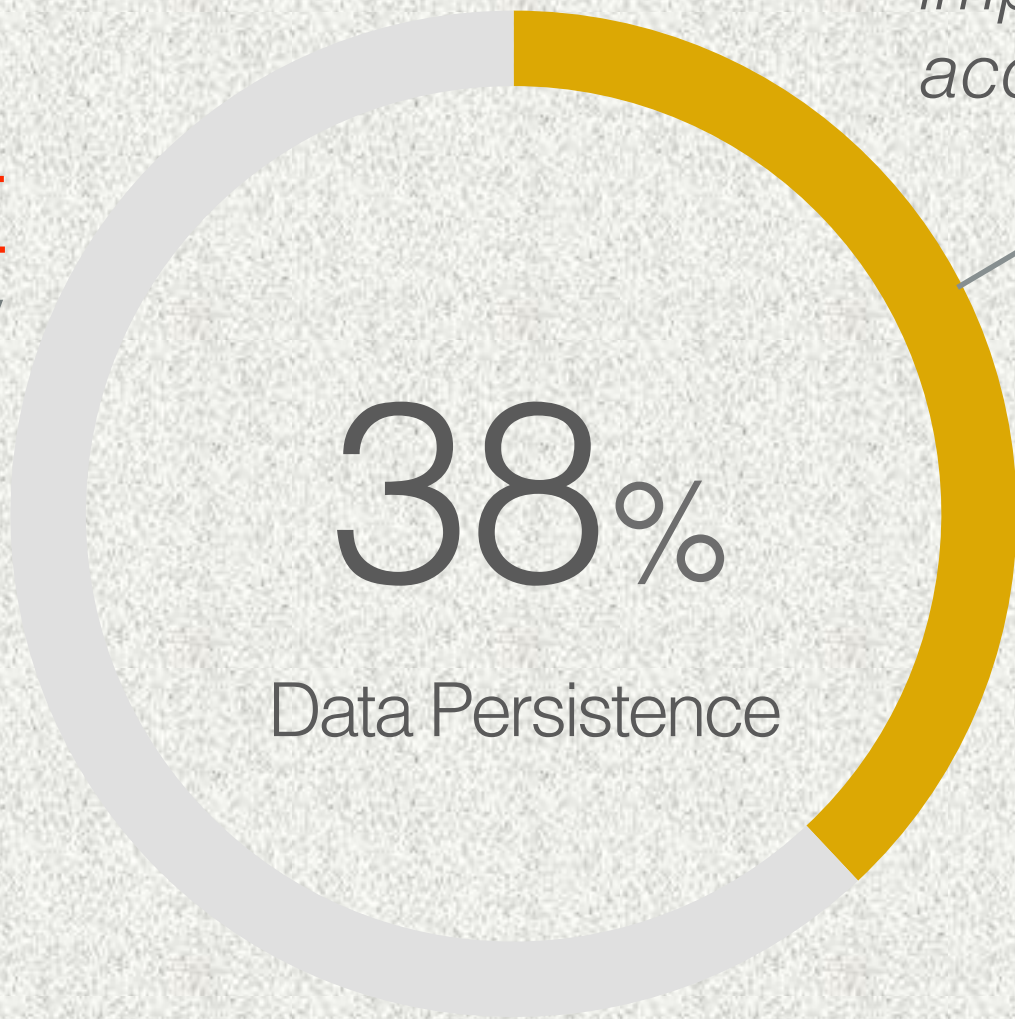
# ENTERPRISES ARE MOVING VALUE INTO THE API TIER

Majority of enterprises are using the API tier for data transformations to tie disparate backend systems and formats seamlessly.



To accelerate digital initiatives without disrupting their back-ends, companies are adding business logic at the API Tier.

Increasingly, enterprises are storing persistent data in the API Tier to improve app performance and accelerate app development.

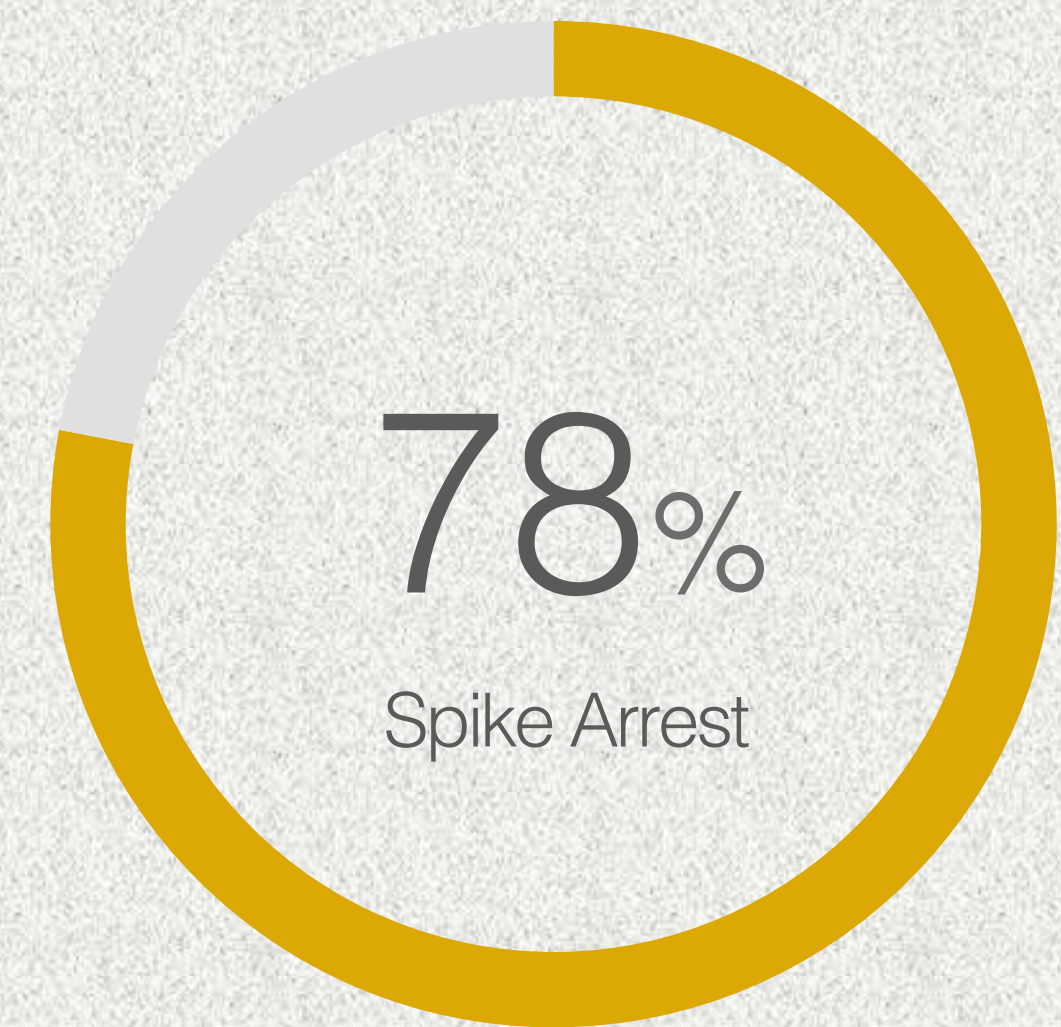
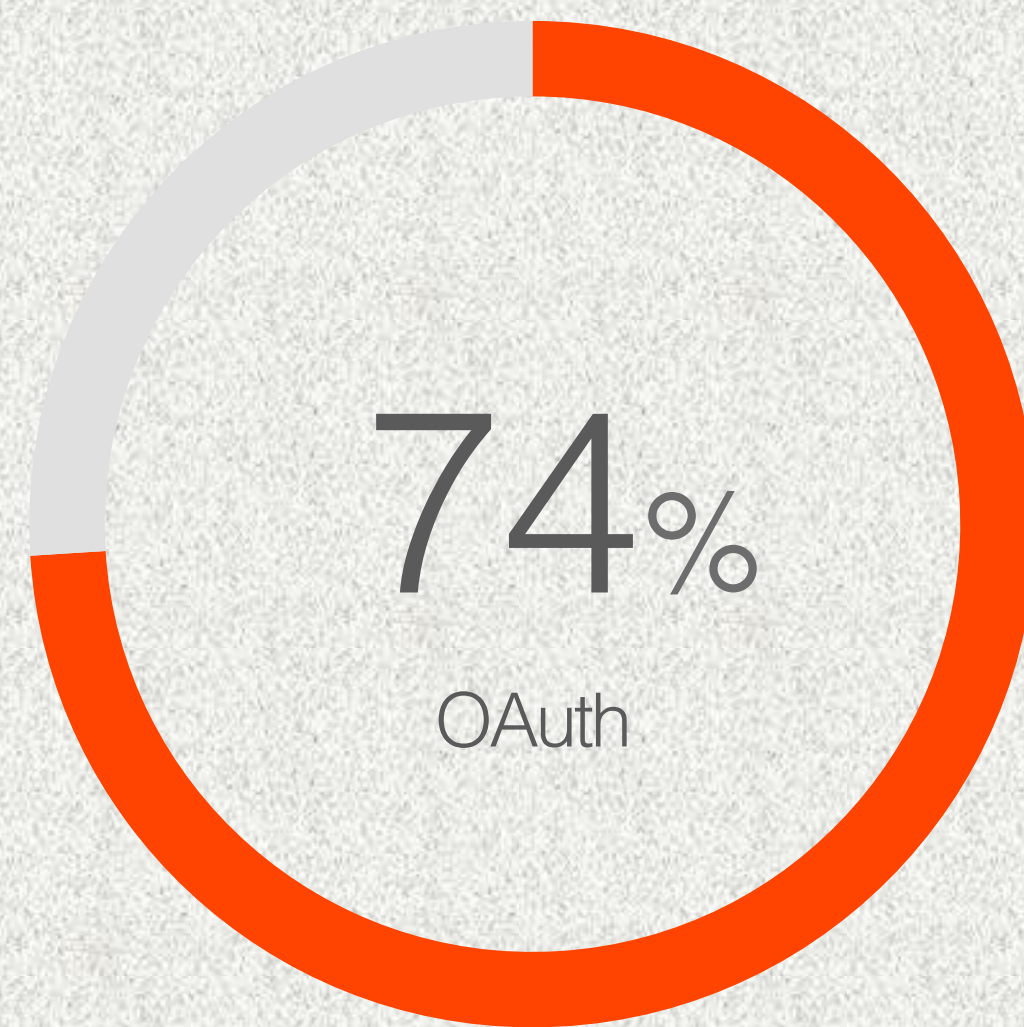


**API PLATFORM USE**  
% of companies using API platform capability



# WIDE ADOPTION OF API TIER FOR SECURITY

Percentage of companies using security capability in the API Tier



*Enterprises are looking to APIs for three key security advantages:*

**Built-in privacy:** It is critical to have security built into the technology and operating environment. APIs inherently have authentication, authorization, auditing, and traceability built into them with OAuth, TLS/SSL, and traceability.

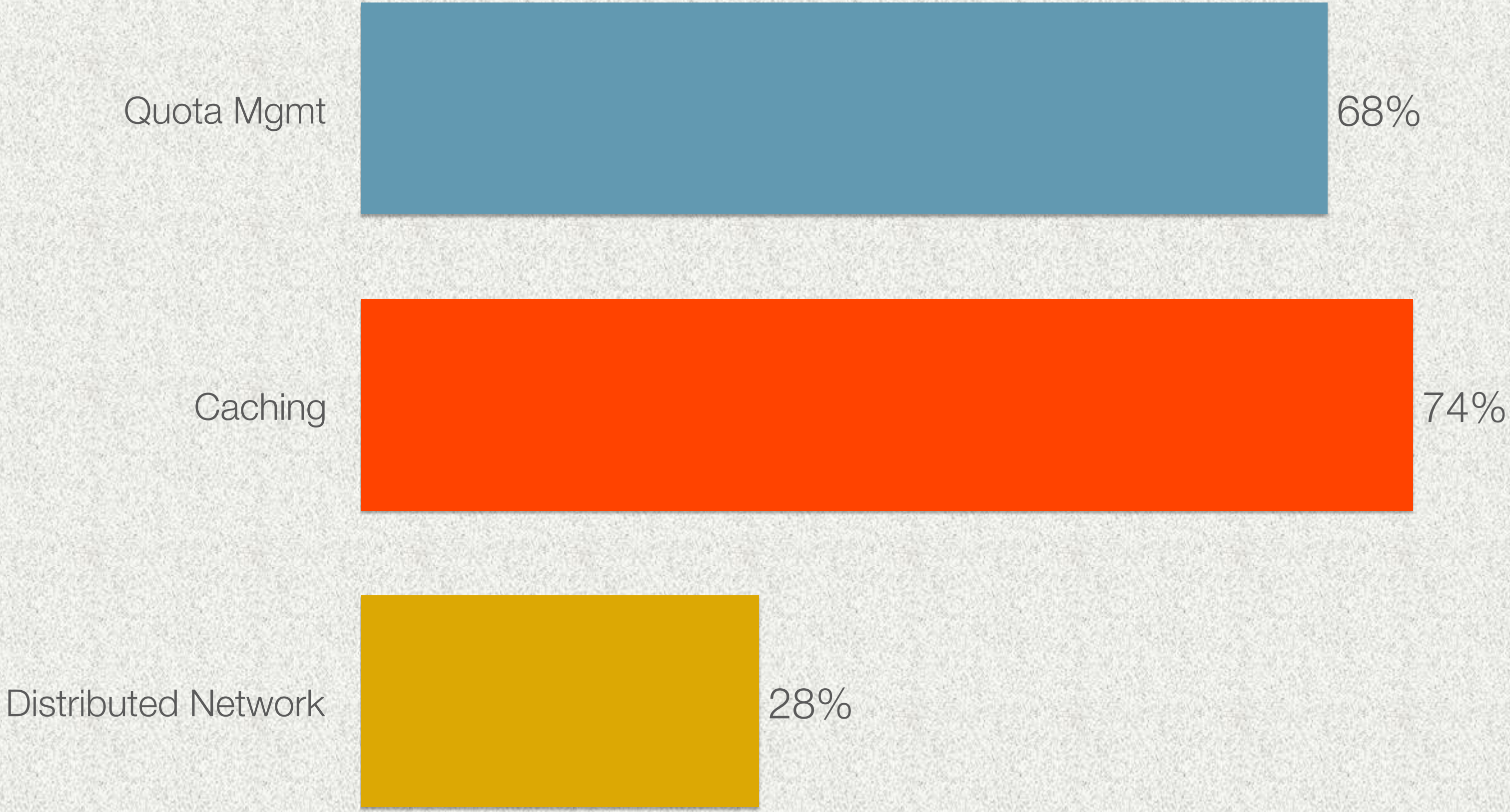
**Threat protection:** API-based policy management enables an enterprise to automate detection and protection from OWASP's top 10 threats (such as SQL injection and XSS), and adaptive threats such as bad bots.

**Visibility and governance:** APIs provide visibility into which enterprise data is accessed, by which apps and which users. Role-based access control (RBAC) at the API tier ensures the right level of protection, while giving visibility and transparency.



# LEVERAGE API TIER FOR APP PERFORMANCE & AVAILABILITY

Percentage of companies using API platform capability



*Enterprises use a variety of techniques to deliver a superior end user experience and high availability for the APIs that power applications.*

*Majority of enterprises use caching at the API Tier to improve responsiveness of apps. Enterprises are using distributed global network of data centers to ensure app performance for global audiences.*



# API POLICY USE VARIES DEPENDING ON THE VERTICAL

Most popular API platform capabilities being used in key industries

Retail	Information Services	Media
Business Logic Data Transformation	Business Logic Data Transformation Security – OAuth V2 Security – API Key	Business Logic Data Transformation
Quota Management Caching		Security – API Key Quota Management
<i>The focus is to deliver content like product catalog quickly, hence high use of caching and access without authentication</i>	<i>Extensive use of security policies, including OAuth and API keys to ensure core digital assets are protected</i>	<i>Protect digital assets with API keys and quota policies to protect backend systems from abuse</i>



# ARE YOU MOVING FAST ENOUGH?



*Successful digital businesses are leaving their competition behind. An API-centric approach will enable you to accelerate your digital initiatives and grow your business.*

*Hundreds of Apigee customers have accelerated their digital initiatives with our API management platform.*

*Contact us at [info@apigee.com](mailto:info@apigee.com) to gain further insights on best practices and explore how Apigee could help accelerate your digital initiatives.*



## About this Report

The State of APIs Report compiles information about digital transformation trends, the impact of APIs on businesses across industries, and best practices across API-driven businesses.

Unless otherwise noted, findings in this report are based on hundreds of billions of API calls made through the Apigee cloud during 2015 and distributed across Apigee's global network of 24 data centers from customers spanning 20 vertical industry sectors. Year-over-year comparisons use 2014 traffic data.

If you have questions regarding the report or its findings, please email [info@apigee.com](mailto:info@apigee.com) or tweet [@apigee](https://twitter.com/apigee).

## About Apigee

Apigee® (NASDAQ: APIC) provides an intelligent API platform for digital business. Many of the world's largest organizations select Apigee to enable their digital business, including 30 percent of the Fortune 100, five of the top six Global 2000 retail companies, and five of the top 10 global telecommunications companies.

Apigee customers include global enterprises such as Walgreens, Burberry, Morningstar, and First Data. Apigee is headquartered in San Jose, California and has over 400 employees worldwide.

For more information, visit [apigee.com](http://apigee.com).