

Sponsored by: Stripe

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Business Value Highlights

Impact of Stripe (after deploying)

6.7% higher revenue

59% higher developer productivity

24% lower cost of building/operating online payments platform

81% fewer unplanned outages

The Business Value of the Stripe Payments Platform

EXECUTIVE SUMMARY

Over the past five years, IDC has witnessed a monumental shift as companies adapt their business models and strategies to meet the requirements of the digital economy. From traditional ecommerce to subscription software-as-a-service (SaaS) businesses to multisided marketplaces, digital commerce is enabling businesses to rethink what they sell, how they sell, and where they sell. Businesses are also rethinking how they transact with other businesses, with consumers across borders, and with different currencies and payment methods.

The result is a dramatic shift in how companies engage online, meet increasingly demanding consumer and business expectations, and grow in a complex regulatory landscape by market. Fickle consumer and business buyers have come to expect an intuitive and instantaneous checkout process with support for multiple payment options. However, aging financial infrastructure and complex interdependencies between numerous parties have historically made it difficult and expensive to accept payments online seamlessly and across markets and currencies. In the early days of the internet, businesses wishing to succeed in the digital commerce landscape had no choice but to make large investments in software, services, and employees to build and support homegrown online payments systems.

However, if we look at the current and expected pace of growth in the digital commerce market, this approach of building a "good enough" payments platform from scratch will no longer suffice. Businesses need to transform their payments platforms as soon as possible to compete for customers, reach new markets, and better utilize their increasingly precious developer resources. Stripe meets these challenges with an API-based payments platform, applications, and services that allow customers to streamline the deployment and maintenance of their payments infrastructure. Stripe transforms businesses' payments infrastructures from being systems that narrowly process transactions to being wider networks that support



However, if we look at the current and expected pace of growth in the digital commerce market, this approach of building a "good enough" payments platform from scratch will no longer suffice. complex business models (such as marketplaces and subscriptions). Complexities around payments gateways, acquiring banks, credit card networks, and more are an obstacle to doing business in the digital economy today. Stripe wants to abstract this complexity and turn a unified payments platform into a strategic advantage. To understand the impact of Stripe's products on processing online payments, IDC interviewed Stripe customers and surveyed hundreds of organizations around the world about how they currently process and manage online payments. Many organizations are using Stripe as a foundational platform for their online businesses, with many of those also using Stripe Connect to run their online marketplaces, which facilitates transactions between third-party buyers and sellers.

On average, organizations using Stripe attributed a revenue increase of almost 7% to the Stripe platform. IDC's analysis finds that Stripe customers are realizing substantial value by minimizing the costs of building and running their own online payments platforms and better extending and customizing their ability to accept online payments. IDC calculates that Stripe customers will lower their processing costs of online transactions by 24% over five years by using Stripe, and organizations using Stripe will incur significantly lower costs compared with a broader set of surveyed organizations accepting payments for their online businesses. Stripe customers achieve lower costs through efficiencies related to:

- Development: Organizations can build and extend their online payment systems more
 efficiently with Stripe. Working with Stripe requires less developer time and frees up
 developer resources to support other revenue-generating activities. Meanwhile, Stripe
 Connect users avoid many challenges associated with developing and running robust
 multisided online marketplaces, including complexities around seller onboarding, identity
 verification, routing payments to sellers, and tax forms (1099s).
- Management and support: Through Stripe's API, organizations benefit from consolidation to a single payments platform — managed via a single user dashboard that requires less staff time to manage and support.
- **Compliance and fraud prevention:** With Stripe's fraud prevention tools and built-in regulatory compliance measures, organizations minimize compliance and fraud-related risk, enabling them to operate their online businesses at lower costs in terms of software and staff time devoted to these activities.

Meanwhile, Stripe customers can also leverage functionality to extend their geographical reach with ease, provide streamlined onboarding for partners and sellers, and allow numerous options for accepting payments, including alternative payment methods such as SEPA Debits, Alipay, and iDEAL. This results in both more efficiency for developers and the realization of potential new revenue streams and higher conversion rates.

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SITUATION OVERVIEW

With the rapid pace of innovation in the digital economy, it is absolutely essential for digital commerce businesses to have a robust payments platform. This is easier said than done because most businesses in the digital economy run on legacy or homegrown solutions. IDC finds that digital businesses face several major payment hurdles:

- **Outdated financial infrastructure:** Digital commerce businesses must interact with numerous financial institutions, including ISOs, credit card providers, merchant acquirers, and depository institutions. In addition to complexity in managing relationships, digital commerce businesses find that payments infrastructure built around these institutions was not designed to support large quantities of transactions between complex interdependencies across countries, which are now typical for internet businesses.
- Increased fraud: With a growing proportion of global commerce occurring over the internet, credit card fraud has also increased. While chip-enabled credit cards have made brick-and-mortar shopping safer, fraudsters are increasingly targeting online sales. On average, every \$1 of fraudulent orders costs an online business an additional \$2.62, according to LexisNexis. Digital commerce businesses that do not have a fraud prevention strategy and fraud protection technology will bleed money.
- Managing online marketplaces: Online marketplaces are disrupting traditional digital commerce business models because efficiency is vastly improved, massive amounts of information are automatically tied into the workflows, and supply and demand pools are broader. With these benefits also come a multitude of complexities, such as processing multisided payments, onboarding and verifying merchants, providing tax paperwork, and operating across borders.
- Processing transactions in foreign markets: Conducting digital commerce becomes much more complex when a company needs to process transactions in foreign currencies, meet country-specific regulations, and align with the requirements of foreign financial institutions.
- **Managing connections to numerous apps:** Payment engines must integrate tightly with a company's back-office and commerce applications.
- Off-putting checkout user experiences: The vast majority of companies that build their own checkout flows make mistakes. In fact, of the top 100 commerce sites globally, almost half do not have autofill set up correctly, and one-fifth do not provide a numerical keypad for entering credit card numbers. This is a major friction point in commerce web and mobile that is caused by long or difficult checkout processes. The digital economy requires exceptional performance at the speed of transaction.



Stripe offers an API-based payments platform, applications, and services. All of Stripe's products aim to satisfy the company's mission of "increasing the global GDP of the internet."

STRIPE PAYMENTS SOLUTIONS

Stripe offers an API-based payments platform, applications, and services. All of Stripe's products aim to satisfy the company's mission of "increasing the global GDP of the internet." Stripe's complete product set includes:

- **Payments** is Stripe's core platform upon which all of the company's products are built. The platform consists of a set of well-documented APIs that scale to meet a business' needs, including accepting, processing, and managing transactions and executing international transactions. Stripe can be quickly integrated into most online commerce environments through an API, and Stripe provides options to easily build intuitive checkout interfaces for both desktop and mobile payment flows.
- Radar is an add-on application to payments that accurately reduces fraudulent payments with machine learning algorithms. Specifically, Radar's algorithms look at characteristics of payments, including IP address, mismatching addresses, type of card, device ID, shipping address, order value, and card issuer. Radar then determines whether to accept or reject the transaction in real time. Radar also provides businesses with tooling for streamlining human workflows such as setting and testing rules or manually reviewing suspicious transactions.
- **Connect** is an offering for digital platforms seeking to build multisided marketplaces, such as ride sharing, crowdfunding, and other businesses. Connect, the first marketplace offering in the payments space and now in its fourth version, assists platforms with the following: onboarding of marketplace sellers, ensuring marketplace participants meet compliance requirements, routing payments to individual marketplace participants, managing the user life cycle on platforms (including tax support), and facilitating international expansion.
- **Subscriptions** is software built on top of Stripe payments that allows businesses with recurring business models to automate their subscription billing processes.
- Sigma is Stripe's analytics add-on application that is built upon Stripe's other modules.
 With Sigma, Stripe customers can quickly query their data on Stripe, answer questions about their business, and use the insights to make better decisions.
- Atlas is a service that provides aspiring internet companies with the foundation to incorporate and run their online business for a flat fee. This includes a company incorporation service, an instant bank account, a Stripe account, one year of registered agent fees, founder stock issuance, a tax ID number, and ongoing tax support, among other services.



This white paper focuses primarily on Stripe Payments, Radar, and Connect for business value comparisons. IDC calculations refer to the average business value a company will see by adopting Stripe, regardless of which applications a business utilizes.

THE BUSINESS VALUE OF STRIPE

Study Methodology Overview and Demographics

For this study, IDC conducted two sets of research:

- In-depth interviews with 10 Stripe customers about Stripe's impact on costs and results related to the customers' online payments platforms
- Online survey with 300 online businesses around the world (The survey was designed to understand the costs associated with building and running online payments operations using a variety of approaches: vendor software-driven, third party-driven, and manual internal processes.)

IDC used the in-depth interviews with Stripe customers to assess the costs customers are incurring for accepting and processing online payments and to understand the impact Stripe has had on their business expansion efforts. Thus these interviews yielded a before and after analysis of the organizations' online payments processing operations with Stripe.

IDC used the broader online survey to establish a benchmark cost analysis for organizations building and operating online payments processing platforms, including segmentation by payment transaction volume, region, and industry/vertical.

Study Demographics

While Stripe's customer base increasingly includes larger online businesses, Stripe customers interviewed for this study were generally small to midsize organizations (median employee size of 65) whose business models are focused on selling products and services online. Some large global enterprises are also included in the research. The median Stripe customer interviewed for this study is operating in more than 100 countries around the world and processes 600,000 online transactions per year that result in annual revenue of \$9 million (see Table 1).



	Average	Median	
Number of employees	2,584	65	
Number of customers	850,690	150,000	
Total revenue per year	\$1.13 billion	\$15 million	
Percentage of revenue from online payments	70%	80%	
Revenue from online businesses per year	\$63.11 million	\$9.0 million	
Number of online transactions processed per year	979,111	600,000	
Number of countries operating online business	88	130	
Countries	United States, France, Spain, United Kingdom, and Japan		

TABLE 1 Demographics of Interviewed Stripe Customers

n=10 Source: IDC, 2018

The 300 surveyed organizations had an average employee base of 2,275 and are processing almost \$5.5 million in online transaction volume per year (see Table 2). For purposes of this study's analysis, IDC has compared Stripe customers' experiences most frequently with surveyed organizations with more significant online payments transaction volumes (>\$5 million per year). IDC surveyed 69 of these organizations, which process more than 135,000 transactions with an average volume of almost \$21 million per year. For additional details about surveyed organizations, including segmentation conducted for this study, see the Appendix: Survey Firmographics section.

TABLE 2 Demographics of Surveyed Organizations

	Average	Average of High-Volume Organizations (>\$5 million per year)
Number of surveyed organizations	300	69
Number of employees	2,275	3,755
Number of online payments transactions per year	45,111	135,172
Online transaction volume per year	\$5.48 million	\$20.97 million

n=300 Source: IDC, 2018



1.1

Choice of and Use of Stripe

Interviewed Stripe customers reported various digital business models, including:

- Online marketplaces, such as apartment leasing and accommodation rentals
- Online platforms for donations, including political, humanitarian, and crowdfunding
- B2C digital commerce
- Online portals for selling SaaS applications

Because the business and operational models of Stripe customers are oriented toward online transactions, they must be able to build, operate, and extend online payments platforms that accept and process payments. Stripe customers deploying online marketplaces must pay partners in a robust and efficient way. Most Stripe customers interviewed by IDC were using ecommerce platforms from another vendor prior to Stripe.

Reasons for choosing Stripe included:

- Need for a more flexible and robust payments platform: A SaaS provider using Stripe Connect commented: "Stripe gives us the right technology and a robust set of APIs, with a focus on the developer ecosystem and community. ... We switched to Stripe because we needed more flexibility in terms of how we can charge our customers, and Stripe offers some functionality that we didn't have. If we didn't use Stripe, we would have had to explore other options. I don't think we would have built it."
- Need to better deploy scarce or limited developer resources: A Stripe customer running an online marketplace supported by Stripe Connect explained: "Because Stripe handles all of our transaction flows, we didn't have to create an infrastructure for it or hire the people to do that. So that saved us in head count, and it got us to market faster. We built our platform with at most three engineers working on it at one time."

Stripe customers interviewed support a significant proportion of their online payments transactions with Stripe — 66% of online transaction volume on average — equating to \$40.15 million per year on average (\$13.90 million median). Overall, this means that these organizations are achieving almost half of their total revenue (49%) on average on their Stripe platforms, reflecting Stripe's criticality to their digital commerce business models (see Table 3).

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TABLE 3 Stripe Use by Interviewed Organizations

	Average	Median
Number of online transactions processed per year	341,444	312,000
Percentage of online transactions on Stripe	66	69
Transaction volume per year on Stripe	\$40.15 million	\$13.90 million
Revenue run on Stripe per year	\$4.87 million	\$2.32 million
Percentage of total revenue run on Stripe	49%	50%

n = 10 Source: IDC, 2018

Stripe Connect and Online Marketplaces

Many Stripe customers interviewed by IDC use Stripe Connect to create and run robust online marketplaces or platforms. Online marketplaces pose specific challenges related to accepting and processing online payments, including the need to bring new parties into the marketplaces quickly, make payouts expediently, and the ability to handle multiple currencies. Specific regulatory hurdles also exist for online marketplaces to verify the identities of marketplace participants, such as know your customer (KYC), sanctions screening, and money transmission restrictions.

To illustrate that online marketplace companies face more challenges than non-marketplace digital commerce companies, IDC's survey first asked respondents whether they consider themselves an online marketplace; respondents who identified their companies as online marketplaces process significantly more revenue and showed the following:

- On average, 22% higher transaction volume processed on their platform by quantity
- On average, 32% higher likelihood of purchasing a dedicated payment processing system
- On average, 28% higher likelihood of having developers focusing on payments
- On average, 21% higher likelihood of having non-IT employees focusing on payments

Most interviewed organizations put Stripe Connect at the center of their Stripe value propositions, reflecting the importance of Stripe Connect in jump-starting their online marketplaces. A SaaS provider with an online marketplace commented: *"We decided to use Stripe because of their Stripe Connect product. It's geared toward marketplaces and offered most of what we needed in functionality without any special requests or customization."* Interviews with these Stripe customers confirmed the value of Stripe Connect in terms of running their online marketplaces and supporting business associated with marketplaces.





Interviewed Stripe customers provided numerous examples of how Stripe Connect has enabled their online marketplaces, including:

- Development: A SaaS provider commented: "With Stripe, we don't have to build our own payment platform. I don't know what it would take to build our own payment platform. ... I think that if we didn't have a payment platform like Stripe with Stripe Connect, we probably just wouldn't offer payments on our marketplace. ... We would still have the revenue, but it would be more painful for us because we'd have to do more manual work."
- Ease of paying out partners: A donations platform organization noted: "Stripe has allowed us to have far more control in payouts. ... Our partners don't want to do it offline because then it can become hard for them to get paid. So if we can pay them now automatically with Stripe, that opens up a huge new potential revenue source for us."
- **Fast partner onboarding:** A software marketplace explained: "Stripe has made it very easy for us to onboard our merchant partners. With Stripe Connect, it's very seamless and frictionless and easy to get up and running."

For purposes of this study, IDC has quantified the overall costs and value of the Stripe platform. However, where possible, the analysis describes value attributed to Stripe Connect by interviewed organizations through their online marketplaces.

Business Value Analysis

IDC's research shows that Stripe customers are lowering their costs of processing online payments by 24% with Stripe and are even more cost-effective (52% lower) than surveyed organizations processing more substantial online payments volumes (>\$5 million per year). IDC measured the cost of building and operating online payments platforms in three areas:

- **Development work to build and extend platforms,** which requires less staff time to create more robust functionality with Stripe
- **Management and support of platforms,** which take less time due to automation within the Stripe platform and consolidating more online payments operations onto Stripe
- Regulatory compliance and antifraud efforts related to transactions processed on platforms, which are much less burdensome because Stripe handles many compliance requirements and can identify and block with ease potentially fraudulent transactions

IDC's research shows that Stripe customers are even more efficient compared with all surveyed organizations. This results in part from economies of scale due to Stripe customers' larger



Fast partner onboarding: A software marketplace explained: "Stripe has made it very easy for us to onboard our merchant partners. With Stripe Connect, it's very seamless and frictionless and easy to get up and running." transaction volumes, but it also reflects the core efficiencies Stripe offers in terms of building, maintaining, and running online payments platforms (see Figure 1).



FIGURE 1 Total Cost of Running Online Payments Transactions Platform per Year

*The data is based on cost of operations categories shown in Figure 1. Source: IDC, 2018

Development Efficiencies

Stripe customers reported that they can build and extend their online payments platforms much more efficiently with Stripe than with alternatives. This is often especially beneficial in terms of online marketplace operations that are running with Stripe Connect. Several Stripe customers said that they simply could not have built out their current payments environments without Stripe. Others reported that they have leveraged the platform's functionality — including with Stripe Connect — to build out their online marketplaces or accept new payment methods in a substantially more efficient and effective manner.

These customers attributed value to the Stripe platform in supporting their development efforts in a variety of ways, including:

- Leveraging robust APIs and a strong developer ecosystem and community: "The interface with Stripe that the programmers use to write applications is very simple, complete, and well documented. We didn't have to create that infrastructure or hire the people to do it."
- Leveraging automated processes built into the Stripe platform: "The automated deposits and balancing that occurs through the Stripe platform means that we didn't have to build these capabilities."



Leveraging robust APIs and a strong developer ecosystem and community: "The interface with Stripe that the programmers use to write applications is very simple, complete, and well documented. We didn't have to create that infrastructure or hire the people to do it." **Avoiding the need for additional tools:** *"We are avoiding investing in additional tools — at least \$5,000 — and then we would have needed developer time to integrate the tool."*

Stripe customers see more robust online payments processing capabilities driving their businesses, including core benefits such as higher conversion rates with potential customers. This reflects the value gained in terms of both realizing higher developer productivity levels and having a powerful payments platform that can generate more value for their businesses. Several Stripe customers linked improved development to better business results:

- Improving conversion with efficient development: A Stripe customer that accepts and processes online donations explained: "We didn't have enough flexibility before Stripe. With Stripe, we're able to better target and streamline the payments process. The result is that our conversion rate is higher we're up by 2–3% with Stripe. We couldn't have done what we're doing without Stripe."
- Having the ability to put in place the requisite platform: A Stripe customer noted: "I don't think we could have created the features [with our previous solution] that we needed. I don't think that we would have created an online payment platform if Stripe didn't exist ... we'd just try and use what we were using before."

This value is reflected in how efficient Stripe customers execute development efforts both visà-vis their previous platforms and against other organizations. On average, Stripe customers' development teams are 37% more efficient (59% more productive in terms of the amount of work that the teams can handle), meaning that these organizations are improving and extending their development platforms without commensurate increases in development team size (see Figure 2).



FIGURE 2 Developer Productivity Impact of Stripe

Improving conversion with efficient development: A Stripe customer that accepts and processes online donations explained: "We didn't have enough flexibility before Stripe. With Stripe, we're able to better target and streamline the payments process. The result is that our conversion rate is higher — we're up by 2–3% with Stripe. We couldn't have done what we're doing

without Stripe."



Meanwhile, the value of Stripe in terms of development is even more evident compared with surveyed organizations that use a variety of approaches to online payments processing. IDC calculates that Stripe customers see 59% efficiency gains, even when compared with larger surveyed organizations. This spread is even more significant — 85% on average — against all organizations surveyed, reflecting both strong efficiencies with Stripe and economies of scale from having more substantial online payments businesses. Respondents from retail organizations saw the most efficiency gains, likely reflecting the core position of online payments processing to their business operations (for details of development efficiencies segmented by volume, region, and vertical industry, see the Appendix: Survey Firmographics section).

Operational Efficiencies

Stripe customers reported needing much less staff time to manage, support, and secure their payment processing environments. With Stripe, these organizations free up staff time from day-to-day activities related to payment processing to work on other projects and initiatives. Stripe customers discussed the drivers of these efficiencies:

- Ability to consolidate online payments processing operations: A donations platform organization using Stripe Connect commented: "We used to have multiple payment processors, and that was unwieldy to manage. To maintain all of those was really hard. Having just one payment processor that can manage multiple currencies and different accounts is really good."
- **Dashboard functionality**: An online marketplace provider noted: "The Stripe dashboard is really nice. It's much easier to use and helps us find anything we need quickly."
- Security functionality: An organization accepting donations said: "Stripe makes it easy to store tokens instead of payment card information. This means that we don't have to worry about hackers getting into our system and stealing card numbers."

As a result, Stripe customers spend far less time on managing, supporting, and securing their online payments platforms. IDC calculates that on average, organizations using Stripe realize efficiency gains of 39% in management and spend 20% less time on security compared with their previous environments (see Table 4). Efficiencies are even more significant when compared with surveyed organizations — 73% on average compared with high transaction volume organizations. This data point holds true with relatively consistent levels of efficiency across regions and verticals (for details of operational efficiencies segmented by volume, region, and vertical industry, see the Appendix: Survey Firmographics section).



Ability to consolidate online payments processing operations: A donations platform organization using Stripe Connect commented: "We used to have multiple payment processors, and that was unwieldy to manage. To maintain all of those was really hard. Having just one payment processor that can manage multiple currencies and different accounts is really good."

TABLE 4 Online Payments Platform Management and Security

	Before Stripe	With Stripe	Difference	Change (%)
Management (FTEs per organization)	2.1	1.3	0.8	39
Security (FTEs per organization)	1.3	1.0	0.3	20

n=10 Source: IDC, 2018

Regulatory Compliance and Fraud Prevention

Stripe customers cited the reduced burden of ensuring regulatory compliance and preventing fraud as among the most significant benefits they are achieving in terms of both cost efficiencies and operational security. These organizations cited built-in functionality and the ability to easily set their own policy for compliance and fraudulent transactions as driving these efficiencies. Because processing payments typically carries regulatory compliance requirements — including PCI compliance — minimizing risk associated with compliance in a cost-effective way is important to have strong online businesses. Stripe customers discussed the platform's impact in terms of both preventing fraudulent payments and ensuring regulatory compliance:

- Ease of PCI compliance: A technology company running an online marketplace with Stripe Connect explained: "Stripe helps with PCI compliance and saves our team's time. Stripe takes care of the majority of the PCI compliance part. We can just fill in a much easier PCI form that takes a couple of days a year, instead of weeks answering and completing it — I think this would take three to four weeks. Basically, these PCI compliance activities take 16 hours versus one person's time for three to four weeks."
- **Automated fraud actions:** An organization running a donations platform said: "Stripe has helped with fraud because it has a functionality that will automatically reject high-risk payments. If a payment comes from a location or IP that doesn't make sense or for a strange amount, it will reject it, which has been helpful. We didn't have to do anything — Stripe comes with it out of the box, and that has saved us time and money."
- **Ability to easily set fraud rules:** A donations platform organization using Stripe Radar **commented:** "The most significant benefit of using Stripe is the ability to define our own fraud detection rules. Based on these rules, we're able to put warnings in place about payments, which allows the team to review payments manually to determine if they are fraudulent."



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Business and Revenue Growth

As online transactions become more important to their overall businesses, organizations need a payments platform that provides strong performance and real-time scalability. If organizations cannot provide the experience their customers require — in terms of usability, access, and payment options — then they will miss business opportunities and risk customer churn. IDC's interviews with Stripe customers show how they have used the platform to support and grow their businesses. IDC's analysis shows that on average, these organizations will realize almost 7% higher revenue by running on Stripe, worth almost \$324,000 in higher revenue per year (see Figure 3).



FIGURE 3 Business Impact: Additional Revenue from Online Transactions

Agility

Stripe customers explained that they need an online payments platform that can keep up with the speed at which their businesses move. Especially for organizations operating online marketplaces or working with partners that process transactions through their platform, this means extending platform access quickly and based on demand. Interviewed organizations using Stripe to accept and process online payments reported achieving these objectives, thereby better positioning their businesses for immediate growth in the digital economy.

A Stripe customer using Stripe Connect to build and run an online marketplace explained that it can now onboard new partners far faster: "There is a significant time savings with Stripe for onboarding partners when they handle their own payments. ... Without Stripe, the time to onboard a partner would be three to four weeks on average."





A Stripe customer explained: "With our previous provider, we asked them to allow us to be paid out in different currencies, so we would be paid in the original currency rather than our currency. And this was really complicated — but Stripe allows us to do this easily."

"We expect to increase the number of successful transactions in some markets with Stripe, especially where there are certain payment methods that are used. For example, in Germany, customers really like the SOFORT payment method, which we can support with Stripe. And if you offer this type of payment method, there will probably be more bookings and more revenue."

Expanding to New Markets

Stripe customers also stated they are now in a better position to expand to new markets in a timely and cost-effective manner. Geographic expansion can present various complexities in terms of processing online transactions, ranging from language to currency to regulatory requirements. Stripe's functionality and ability to accept 135+ currencies help organizations alleviate the burden of building out and running their payments platforms in new markets.

One interviewed Stripe customer running a customer-facing product portal supported by Stripe Connect commented: "Without Stripe, we would need to hire five additional engineers to expand to the same countries we have with Stripe." Another discussed the benefit of being able to easily handle multiple currencies with Stripe, when it otherwise would have had to architect its payments platform to account for this. A Stripe customer explained: "With our previous provider, we asked them to allow us to be paid out in different currencies, so we would be paid in the original currency rather than our currency. And this was really complicated — but Stripe allows us to do this easily." The result is that Stripe customers have the flexibility and ability to move into new markets as opportunities arise, thereby capturing additional revenue and increasing their geographic presence.

Ability to Accept New Payment Methods

In the digital economy, payment preferences change rapidly to support improved transaction experiences. Stripe customers must monitor customer preferences to ensure that they are able to accept preferred payment methods, which are constantly evolving. This is related to both longer-term trends such as the emergence of new forms of payment (e.g., Apple Pay, Alipay, WeChat Pay) and market-specific trends where customers have ingrained payment preferences. Functionality built into the Stripe platform reduces the complexity and costs for organizations of preparing their online payments platform to accept new forms of payment. One Stripe customer running an online marketplace commented on its ability to grow the types of payment methods it accepts and linked this to revenue: *"We expect to increase the number of successful transactions in some markets with Stripe, especially where there are certain payment methods that are used. For example, in Germany, customers really like the SOFORT payment method, which we can support with Stripe. And if you offer this type of payment method, there will probably be more bookings and more revenue."*



Performance and Reliability

Stripe customers also noted that, at base, they now have the performance and robustness from their payments platforms that they need to support and grow their businesses. With Stripe, they have reduced the risk of losing customers due to poor performance of their payments platforms. One Stripe customer explained that it has increased its conversion rate and lowered its abandonment rate with Stripe simply by improving the user experience in making payments. Further, interviewed Stripe customers reported minimizing the frequency and impact of online payments platforms outages. While they generally took steps to architect their previous platforms to minimize business losses, some of them nonetheless reported business losses associated with platform outages, which they have reduced by 39% on average with Stripe (see Table 5).

TABLE 5 Impact on Unplanned Downtime

	Before Stripe	With Stripe	Difference	Change (%)
Unplanned outages per year per organization	7.8	1.5	6.3	81
MTTR (hours)	4.5	0.6	3.9	88
Revenue lost per hour of unplanned downtime	\$5,423	\$1,010	\$4,413	81
Revenue lost per year due to unplanned outages per organization	\$106,995	\$41,426	\$65,569	39

n=10 Source: IDC, 2018

Cost and ROI Analysis: Survey

IDC's analysis shows that Stripe customers build, run, and operate online payments platforms substantially more efficiently than non-Stripe customers from our quantitative survey. Stripe customers spend significantly less developer time on building and extending their payment operations as well as functionality related to regulatory compliance and fraud prevention. This means that much less staff time must be spent on these payments efforts and can instead be directed toward other projects. While economies of scale also help Stripe customers maintain lower costs, the cost advantage of Stripe on a per-1,000-transactions basis is clear: IDC calculates that Stripe customers incur much lower costs (73% lower than the costs incurred by average organizations, 52% lower than the costs incurred by higher transaction volume organizations surveyed) related to online payments processing platforms (see Table 6).



IDC's analysis shows that Stripe customers build, run, and operate online payments platforms substantially more efficiently than non-Stripe customers. IDC projects that even higher-volume organizations surveyed could achieve a five-year ROI of 245% based on development, management, and compliance/fraud staff time efficiencies with Stripe, while average organizations have a significant potential ROI of 775%. Organizations on Stripe see a significant opportunity to build out or extend their online businesses to a digital commerce platform, bringing in large returns on their investments. IDC projects that even higher-volume organizations surveyed could achieve a five-year ROI of 245% based on development, management, and compliance/fraud staff time efficiencies with Stripe, while average organizations have a significant potential ROI of 775%. For details of IDC methodology for analyzing and segmenting survey results, see the Appendix: Methodology section.

TABLE 6 Potential Benefits of Stripe Compared with Surveyed Organizations

	Lower Cost of Running Online Payments Processing Platforms (%)	Five-Year ROI of Using Stripe (%)	Development Efficiencies with Stripe (%)
Average	73	775	85
High volume	52	245	59
Medium volume	71	703	83
Low volume	90	2,859	96
EMEA	68	594	81
APAC	74	810	84
North America	75	857	88
Financial services	87	1,959	94
Retail/consumer	71	680	82
IT services/telecoms	84	1,563	92
Healthcare	87	2,014	94
Manufacturing	79	1,075	87

Note: The analysis was completed on a cost-per-1,000-transactions basis. Source: IDC, 2018

CHALLENGES AND OPPORTUNITIES

Digital commerce and payment platforms are still in a relatively immature state, meaning that the technology, buyer sentiment, and competitive landscapes are likely to change drastically over the next five years. For Stripe to achieve its ambitions of "increasing the global GDP of the internet," it will have to take advantage of opportunities and overcome numerous challenges in the market. In the sections that follow, IDC discusses the challenges and opportunities for Stripe.



Challenges

Stripe has been growing rapidly. In 2017 alone, Stripe increased its employee base by nearly half. This growth will challenge Stripe's ability to scale and remain agile. This is especially important considering the pace of innovation in the digital commerce market. Stripe executives have expressed that they are well aware of this challenge, and IDC believes that Stripe will continue to be successful as long as it keeps a customer-centric culture.

Stripe has quickly become the go-to payments platform provider for internet businesses and start-ups. This success was driven by Stripe's focus on providing excellent APIs and documentation, which helped win over developers. However, to see sustained success, Stripe will need to expand its product development and marketing efforts and win over more traditional businesses and line-of-business users in upmarket segments, many of whom do not specialize in technology. To do so, Stripe will need to focus on making all of its applications interface first and enable no-code configuration.

A potential challenge for Stripe lies with Apple's and Google's control over the iOS and Android mobile operating systems, respectively. With digital commerce moving increasingly to mobile devices, Apple and Google will hold more influence on how mobile users make digital commerce transactions in browser and in mobile applications. For example, Apple could expand the scope of Apple Pay to the detriment of Stripe and other payment companies. To prevent this, Stripe will need to maintain its close relationships with Apple and Google.

Opportunities

Because Stripe's business model is based on a per-transaction basis, Stripe benefits directly if its customers' businesses grow. IDC expects sustained growth in the digital economy over the next 10 years, meaning Stripe's customers will process more transactions online and directly benefit Stripe itself. In fact, less than 8% of business today is conducted online.

The payments technology market is not lacking vendors. However, Stripe does not have a direct competitor with its breadth of offerings. While most payments vendors focus on offering products that satisfy specific commerce need — such as payment gateways, consumer payments, or recurring billing — Stripe has a broader solution set as a platform on which businesses can build their entire digital commerce strategy. This value proposition resonates highly with Stripe customers in this study, who declared Stripe an integral component of their success.



However, Stripe does not have a direct competitor with its breadth of offerings. While most payments vendors focus on offering products that satisfy specific commerce need — such as payment gateways, consumer payments, or recurring billing — Stripe has a broader solution set as a platform on which businesses can build their entire digital commerce strategy. IDC predicts that the digital commerce applications market will see a CAGR of 9.6% through 2021 (see *Worldwide Digital Commerce Applications Forecast, 2017–2021*, IDC #US42910015, July 2017). This number is much faster than the market average in software. This number is also a proxy for growth of traditional B2B and B2C businesses, meaning it underscores total growth of digital commerce as businesses process more transactions over the internet.

Similarly, IDC expects marketplaces to capture a larger portion of digital commerce in the coming five years. With Stripe Connect, Stripe is positioned to benefit as this market expands.

CONCLUSION

With the rapid pace of growth in the digital commerce market, businesses can no longer afford to spend resources building their own payments systems from scratch. Outdated financial infrastructure, near-constant maintenance, fraud prevention, and added complexity for marketplaces are significant barriers for businesses that "reinvent the wheel" in this area, preventing them from deploying their valuable developer resources in more strategic ways.

Stripe is an end-to-end payments platform that empowers organizations to improve their entire digital commerce platform by delivering intuitive checkout experiences for end customers, preventing fraud, enabling international transactions, and significantly lowering the costs needed to support online marketplaces. IDC's research shows that Stripe customers see definite efficiency gains because they can reallocate monetary and employee resources in more strategic areas of their businesses, which will lead to improvements in their bottom lines. Meanwhile, Stripe customers also leverage the functionality of the Stripe payments platform to enter new markets, onboard new partners and sellers with ease, and accept new payment forms, all of which helps them increase their customer base and earn more revenue.

IDC's research shows the benefits — from both a cost perspective and a business growth perspective — that can be realized now by organizations using Stripe as an online payments platform. IDC believes that Stripe customers will see even more value from the Stripe payments platform in the coming five years, as the digital economy accelerates.

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APPENDIX: SURVEY FIRMOGRAPHICS

Table 7 provides an overview of surveyed organizations segmented by transaction volume size, region, and industry vertical.

TABLE 7 Survey Demographics and Online Payments Processing Environments

	Number of Employees	Number of Online Payments Transactions per Year	Online Transaction Volume per Year (\$M)	Sample Size
Average	2,275	45,111	\$5.48	300
High volume	3,755	135,172	\$20.97	69
Medium volume	1,954	28,626	\$1.60	93
Low volume	1,656	11,720	\$0.31	137
EMEA	2,379	52,377	\$4.90	99
APAC	1,835	37,918	\$6.10	100
North America	2,611	45,114	\$5.43	101
Financial services	5,330	65,053	\$16.88	22
Retail/consumer	1,601	36,888	\$3.03	148
IT services/telecoms	3,787	85,412	\$7.22	47
Healthcare	2,790	14,672	\$3.22	16
Manufacturing	972	15,785	\$5.23	26

Source: IDC, 2018

APPENDIX: METHODOLOGY

For purposes of the analysis, IDC has segmented survey participants as follows:

- By size: large = >\$5 million per year online transaction volume; medium = \$1 million to \$5 million per year online transaction volume; and small = <\$1 million per year online transaction volume
- By region: EMEA = Denmark, Finland, France, Germany, Ireland, Netherlands, Norway, Sweden, and United Kingdom; APAC = Australia, Hong Kong, Japan, New Zealand, and Singapore; and North America = Canada, Mexico, and United States
- **By industry:** financial services = financial services, insurance, and security and investment services; retail and consumer = consumer services, retail trade, and wholesale



trade; IT services and telecommunications; healthcare; and manufacturing = discrete manufacturing and process manufacturing

IDC's standard ROI methodology was utilized for the analysis in this project. This methodology is based on gathering data from organizations currently using Stripe and other organizations with online businesses as the foundation for the model. Based on interviews with these study participants, IDC performs a three-step process to calculate the ROI and payback period:

- Measure the savings associated with using Stripe on a per-1,000-transactions basis in terms of staff efficiencies related to development, management, and regulatory compliance/fraud prevention.
- Ascertain the investment made in deploying and using Stripe on a per-1,000-transactions basis.
- Project the costs and savings over a five-year period and calculate the potential ROI.

IDC bases the ROI calculations on a number of assumptions, which are summarized as follows:

- Time values are multiplied by burdened salary (salary + 28% for benefits and overhead) to quantify efficiency and manager productivity savings. For purposes of this analysis, IDC has used assumptions of an average fully loaded salary of \$100,000 per year. IDC assumes that employees work 1,880 hours per year (47 weeks x 40 hours).
- The net present value of the five-year savings is calculated by subtracting the amount that would have been realized by investing the original sum in an instrument yielding a 12% return to allow for the missed opportunity cost. This accounts for both the assumed cost of money and the assumed rate of return.

Note: All numbers in this document may not be exact due to rounding.

About IDC

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