

FORRESTER®

The Total Economic Impact™ Of The Postman API Platform

Cost Savings And Business Benefits
Enabled By The Postman API Platform

Executive Summary

APIs connect customers and stakeholders to business capabilities. API-focused architecture enables the scalable, digital transformations of customer experiences and organizational processes. Companies that nurture ecosystems and cultures that effectively produce and manage APIs may achieve amplified business impacts beyond engineering efficiencies. The most API-forward organizations optimize product management for API-driven approaches to growth and value.

The [Postman API Platform](#) offers an enterprise-ready platform for developers to integrate the tools and processes that build, manage, publish, and consume APIs. The platform leverages the power of automated workflows related to quality, security, and operations. These automation tools can run in the product, on the cloud, or in CI/CD pipelines and are all brought together within a single platform for developers and other stakeholders.

Postman commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying the Postman API Platform.¹ The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of the Postman API Platform on their organizations.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed four customers with experience using the Postman API Platform. For the purposes of this study, Forrester aggregated the interviewees' experiences

Developer time savings
from improved collaboration

75%



KEY STATISTICS



Return on investment (ROI)

339%



Net present value (NPV)

\$8.17M

and combined the results into a single [composite organization](#) that is an organization with 10 million customers and revenue of \$500 million per year.

Prior to using the Postman API Platform, interviewees noted how their organizations' API development lifecycles were mired with multiple inefficiencies, slowing down overall time to value from early stages of onboarding new developers through to releasing APIs. These limitations also led to poorer code quality and cascading business impacts.

After investing in the Postman API Platform, the interviewees automated phases of API development, which streamlined and democratized their QA testing. Key results include improved time to value with shared collections expediting design, shared workspaces helping new developers onboard faster, improved code quality, improved customer experience, and mitigated API-related challenges that result in downtime prior to the Postman API Platform.

KEY FINDINGS

Quantified benefits. Three-year, risk-adjusted present value (PV) quantified benefits for the composite organization include:

- **Developer time savings from improved collaboration in API design valued at \$4.7 million.** Access to Postman's cloud-native collections, shared repositories, and workspaces saves the composite organization's developers time via improved tooling for designing APIs.
- **Faster developer onboarding and time to value (TTV) worth \$2.3 million.** With easy access to workspaces containing mock servers, tests, and environments, the composite organization institutes a more automated, efficient onboarding process for new developers hired to make APIs. Broader adoption over time enables a collaborative culture in which new developers onboard faster.
- **Improved reliability with the Postman API Platform saving \$453,300 from code-related business disruption.** The Postman API Platform provides the composite organization with multiple levers for quality improvements, including a range of test automations. The aggregate impact of these lead to more reliable code with standardized documentation, greater code confidence, and earlier identification of bugs.
- **QA engineer efficiencies of \$1.1 million reallocated to higher-value activities.** Automating quality and testing conferred time savings and helped upskill QA engineers.
- **Reduced support center costs related to development issues valued at \$2.0 million.** The composite organization's improved API reliability derives from a reduction in the frequency of outages or severe service degradation. It also considers the labor required for remediating disruptions and other far-reaching impacts on customer experience and brand.

Unquantified benefits. Benefits that provide value for the composite organization but are not quantified in this study include:

- **User governance.** Enhanced API policy development and standardization enforced by the Postman API Platform's linting engine.
- **Secure API testing environments and processes.** The composite creates mock environments for API design and testing, which shortens security fencing lifecycle.
- **Savings from decommissioning legacy hardware.** Legacy hardware decommissioning when transitioning from an on-premises API testing architecture.
- **API-first culture.** Enhanced API-first culture across developer teams and departments; improved developer recruitment and experience.
- **Postman customer success.** Postman Customer success engagements accelerate onboarding and platform adoption.

Costs. Three-year, risk-adjusted PV costs for the composite organization include:

- **Postman API Platform fees totaling \$720,000.** The composite organization subscribes to the enterprise level of the Postman API Platform with an organic, land-and-expand deployment across the IT organization.
- **Administrative costs of \$1.7 million.** Administrative costs for the composite organization related to internal labor dedicated to IT and security-related aspects of deployment and to ongoing change management, training, and product administration.

The representative interviews and financial analysis found that a composite organization experiences benefits of \$10.58 million over three years versus costs of \$2.41 million, adding up to a net present value (NPV) of \$8.17 million and an ROI of 339%.



ROI
339%

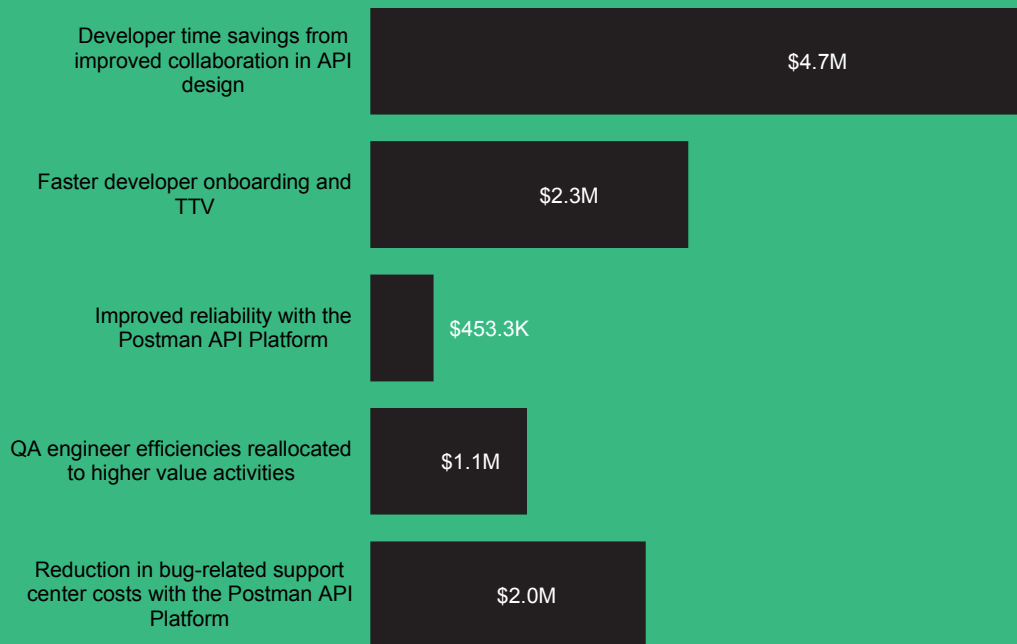


BENEFITS PV
\$10.58M



NPV
\$8.17M

Benefits (Three-Year)



“Postman has really helped drive automation and test-driven development and sustainability.”

— Director, quality and process, industrial technology

TEI FRAMEWORK AND METHODOLOGY

From the information provided in the interviews, Forrester constructed a Total Economic Impact™ framework for those organizations considering an investment in the Postman API Platform.

The objective of the framework is to identify the cost, benefit, flexibility, and risk factors that affect the investment decision. Forrester took a multistep approach to evaluate the impact that the Postman API Platform can have on an organization.

DISCLOSURES

Readers should be aware of the following:

This study is commissioned by Postman and delivered by Forrester Consulting. It is not meant to be used as a competitive analysis.

Forrester makes no assumptions as to the potential ROI that other organizations will receive. Forrester strongly advises that readers use their own estimates within the framework provided in the study to determine the appropriateness of an investment in the Postman API Platform.

Postman reviewed and provided feedback to Forrester, but Forrester maintains editorial control over the study and its findings and does not accept changes to the study that contradict Forrester's findings or obscure the meaning of the study.

Postman provided the customer names for the interviews but did not participate in the interviews.



DUE DILIGENCE

Interviewed Postman stakeholders and Forrester analysts to gather data relative to the Postman API Platform.



INTERVIEWS

Interviewed four representatives at organizations using the Postman API Platform to obtain data with respect to costs, benefits, and risks.



COMPOSITE ORGANIZATION

Designed a composite organization based on characteristics of the interviewees' organizations.



FINANCIAL MODEL FRAMEWORK

Constructed a financial model representative of the interviews using the TEI methodology and risk-adjusted the financial model based on issues and concerns of the interviewees.



CASE STUDY

Employed four fundamental elements of TEI in modeling the investment impact: benefits, costs, flexibility, and risks. Given the increasing sophistication of ROI analyses related to IT investments, Forrester's TEI methodology provides a complete picture of the total economic impact of purchase decisions. Please see Appendix A for additional information on the TEI methodology.

The Postman API Platform Customer Journey

Drivers leading to the Postman API Platform investment

Interviews			
Role	Industry	Region	Total Developers
Platform architect	Software	Colorado headquarters, North America reach	445
Director, quality and process	Industrial technology	California headquarters, global reach	3,000
Senior software engineering manager	Education	Utah headquarters, global reach	205
Engineering team lead	Healthcare	North Carolina headquarters and reach	300+

KEY CHALLENGES

Before investing in the Postman API Platform, interviewees noted inefficiencies in developer and other roles throughout multiple stages of designing, building, and testing APIs. In addition to slowing down time to value for net new API releases, interviewees shared how the prior environment produced lower-quality code that could be prone to outages with cascading business impacts, including:

- **Time wasted during the API design process.**

Interviewees came from legacy API production environments with complex design processes that required too much time from developers and other business stakeholders while producing documentation that lacked utility for the API development process.

- The platform architect in the software industry reported that the prior API design workflows required a significant amount of developer time to try and gain clarity between operations and engineers. This inefficiency was exacerbated by manual tooling, such as electronic documents and drawings lacking precision for the ultimate purpose of development. They shared that before the investment in Postman's cloud-native platform, "If we wanted to create a proof of concept, prototype, or a

mock API, it would have required a lot of work, a couple of hundred hours of several engineers' time."

- The engineering team lead in the healthcare sector noted that the process for sharing API documentation in the prior environment was clunky and inefficient. They said: "In the free version of Postman, we would export collections and commit into our repo or send them to each other by email or [instant messaging platform]. I really wanted the cloud version of the enterprise version, where we can share collections for a group of users just in the cloud, so there's a single source of truth."

- **Slower developer time to value.** With siloed teams and inappropriate tooling, developers took longer to grasp API design requirements in the early build phases. The platform architect in the software industry described that as an "imposing cognitive load when trying to intuit mental models for interaction."

- **Poor code quality caused unwanted downtime.** Interviewees' organizations had limited QA resources that conducted manual, time-consuming processes that were susceptible to human error.

- The divisional director, quality and process in the industrial technology sector described the limited testing capabilities with the prior environment: “If you did a five-minute smoke test, you’re basically just going to scratch the surface. It could be anywhere from five minutes to a couple of hours, but the quality of that testing is pretty low.”
- In the prior API production environment, the senior software engineering manager in the education sector noted that developers had measurably lower confidence in the code they produced.
- **Inefficiencies in QA processes.** Relying on manual API testing meant interviewees’ organizations added more time and volume to their ticketing queues and slowed down the time to value for API releases.
 - The divisional director, quality and process in the industrial technology industry shared that there was too much manual testing and review in the prior environment. They said, “There were a lot of manual code reviews, hoping and praying that people would stick to the standards.”
 - The senior software engineering manager in the education industry described a significant time spent testing and manually tracking APIs. They said, “It was the dark ages in the testing world prior to Postman.”
- The interviewees noted several quantified and unquantified cascading impacts of poor code quality across the customer journey and business cycle:

- The senior software engineering manager in the education industry attributed development-related issues to 50% of the organizations’ support center volume.
- The engineering team lead in the healthcare sector noted the time involved with chasing down issues.

“API-first for us is thinking about what our customers want first, how they will integrate with our software, what the developer experience is like, all from the perspective of APIs.”

Platform architect, software

INVESTMENT OBJECTIVES

The interviewees’ organizations searched for a solution that could:

- Facilitate the transition to a more mature, API-first company with trusted tools.
- Make QA testing as easy as possible in production environments.
- Improve documentation abilities by autogenerating documentation and publishing in a standard format.
- Upgrade existing Postman configurations to maximize the adoption of cloud-native features while optimizing platform security.

COMPOSITE ORGANIZATION

Based on the interviews, Forrester constructed a TEI framework, a composite company, and an ROI analysis that illustrates the areas financially affected. The composite organization is representative of the four interviewees, and it is used to present the aggregate financial analysis in the next section. The composite organization has the following characteristics:

Description of composite. The North America-based composite organization is increasing its use of APIs to connect customers to business capabilities. The composite organization has a strong brand, global operations, \$500 million in annual revenue, a large customer base of about 10 million customers, and a strong online presence.

The composite organization has 5,000 employees, 1,500 of which are developers. Before the Postman API Platform investment, the composite organization released an average of 50 net new APIs per year.

Deployment characteristics. About half of the composite organization's developer teams were already using Postman's free, basic configuration before the investment in the Postman API Platform.

The composite took an organic, land-and-expand approach to deployment. In Year 1, it pilots the Postman API Platform with teams that were already power users. By Year 3, approximately 40% of developer teams have fully deployed the Postman API Platform.

Key Assumptions

- **\$500 million annual revenue**
- **50 net new APIs/year**
- **5,000 employees**
- **1,500 developers**
- **\$75 developer hourly rate**

THE API MATURITY JOURNEY

API business strategy doesn't *support* digital transformation, it *is* digital transformation.²

Application programming interfaces (APIs) underpin digital transformation by enabling agile solutions and new business strategies. The extent to which an organization leans into the inherent opportunities to digitally transform largely depends on its API maturity level.

Innovative digital organizations are shifting capital, intellectual property, and human resource risk to a dynamic ecosystem of partners, and they embrace technology to drive unprecedented efficiency and scale. Open APIs, among other new technologies and solutions, are allowing firms to transform their org structures to be open, agile, and ecosystem-powered.³

Moving toward this level of maturity for API strategy does not happen overnight. IT must have a mature API competency, and it requires a culture change in the business organization. When nurtured, however, a virtuous cycle of API-driven insights results in customer- and stakeholder-friendly process improvements.

Analysis Of Benefits

■ Quantified benefit data as applied to the composite

Total Benefits						
Ref.	Benefit	Year 1	Year 2	Year 3	Total	Present Value
Atr	Developer time savings from improved collaboration in API design	\$951,653	\$2,093,636	\$2,854,958	\$5,900,246	\$4,740,388
Btr	Faster developer onboarding and time to value	\$443,358	\$1,064,060	\$1,330,075	\$2,837,492	\$2,281,746
Ctr	Improved reliability with the Postman API Platform	\$89,250	\$193,375	\$282,625	\$565,250	\$453,291
Dtr	QA engineer efficiencies reallocated to higher-value activities	\$379,080	\$466,560	\$524,880	\$1,370,520	\$1,124,555
Etr	Reduction in bug-related support center costs with the Postman API Platform	\$432,000	\$936,000	\$1,080,000	\$2,448,000	\$1,977,701
Total benefits (risk-adjusted)		\$2,295,341	\$4,753,630	\$6,072,537	\$13,121,509	\$10,577,681

DEVELOPER TIME SAVINGS FROM IMPROVED COLLABORATION IN API DESIGN

Evidence and data. Interviewees came from legacy API production environments with complex design processes and tools for general documentation and visualization rather than API design-specific tools. Investing in the Postman API Platform provided developer and product teams with centralized access to standardized API documentation and design tools.

- The platform architect in the software industry interview said: “Today with the Postman API Platform, our product people are firing up mock servers, designing APIs, and calling those APIs. And the great thing is no one in engineering knows they’re doing it. It’s autonomous.”
- The divisional director, quality and process in the industrial technology sector shared the impacts of the Postman API Platform on his team’s agility: “We don’t have to wait for pieces to be done first, so once the API is designed, then the services can be developed, the UI can be developed, and each piece can be worked on together.”

“Developers create what they are going to need anyway with fewer documents, faster, and in a tool that both engineering and product can understand.”

Platform architect, software

Modeling and assumptions. The composite organization saves a significant amount of developer time in the design phase through easy access to individual and group collections.

- Before the Postman API Platform, the composite organization releases 50 net new APIs annually, each requiring an average of 2,400 developer hours for design.
- With the Postman API Platform collaboration tools, the composite organization reduces the number of developer hours per release by 25% in

Year 1, 55% in Year 2, and 75% in Year 3. The fully burdened hourly developer salary is \$75.

- Forrester applies a 50% productivity recapture to developer time savings, indicating that developers repurpose 50% of the time saved to value-add activities.

Risks. Forrester recognizes that these results may not be representative of all experiences and the cost will vary depending on the following factors.

- The number of net new APIs produced.
- The number of developer hours required per release.

Results. To account for these risks, Forrester adjusted this benefit downward by 15%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of \$4.7 million.

“We use Postman’s editor heavily because we can just pull up collections from there that are stored in the cloud. Anybody can just pull down and run the collection. No muss, no fuss.”

Senior software engineering manager, education

Developer Time Savings From Improved Collaboration In API Design

Ref.	Metric	Source	Year 1	Year 2	Year 3
A1	Number of net new APIs released per year before the Postman API Platform	Composite	50	50	50
A2	Developer hours per API release for design and testing before the Postman API Platform	Composite	2,400	2,400	2,400
A3	Percent reduction in developer hours per release with collaboration tools in the Postman API Platform	Interviews	25%	55%	75%
A4	Fully burdened hourly developer salary	TEI standard	\$75	\$75	\$75
A5	Productivity capture	Composite	50%	50%	50%
At	Developer time savings from improved collaboration in API design	A1*A2*A3*A4*A5	\$1,119,591	\$2,463,101	\$3,358,774
	Risk adjustment	↓15%			
Atr	Developer time savings from improved collaboration in API design (risk-adjusted)		\$951,653	\$2,093,636	\$2,854,958
Three-year total: \$5,900,246			Three-year present value: \$4,740,388		

FASTER DEVELOPER ONBOARDING AND TIME TO VALUE

Evidence and data. With easy access to workspaces, the interviewees reported a more automated, efficient, and collaborative culture that enabled them to onboard new developers at a faster rate than the prior environment.

- The platform architect in the software industry said: “We’re beginning to realize that Postman is a thing. We would expect that an engineer who joins our company would be the kind of person that’s been building APIs and has been around for a while and is using Postman, and we kind of expect people to know what Postman is.”
- The director, quality and process in the industrial technology company shared: “Within a two-week sprint, a developer could be up to speed on what’s going on.”

Modeling and assumptions. Compared to the prior environment, the composite organization delivers efficiencies that increase with broader adoption over time:

- Before the Postman API Platform investment, the composite organization onboards an average of 55 new developers hired to create APIs. The previous new developer onboarding ramp-up time to start developing code is 60 days.
- With the Postman API Platform, the composite organization reduces the developer onboarding period by 25% in Year 1, 60% in Year 2, and 75% in Year 3.
- The fully burdened developer hourly rate is \$75.

Risks. Forrester recognizes that these results may not be representative of all experiences and the cost will vary depending on the following factors:

- The volume of users and teams on the Postman API Platform.
- The deployment model and resulting adoption of the platform.
- New developers’ familiarity with Postman.

Results. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of \$2.3 million.

Faster Developer Onboarding And Time To Value					
Ref.	Metric	Source	Year 1	Year 2	Year 3
B1	Number of onboarding developers	Composite	55	55	55
B2	Developer onboarding period before the Postman API Platform (in days)	Interviews	60	60	60
B3	Percent reduction in developer onboarding period with the Postman API Platform	Interviews	25%	60%	75%
B4	Fully burdened hourly rate per developer	TEI standard	\$75	\$75	\$75
Bt	Faster developer onboarding and time to value	$B1*B2*B3*B4*8$	\$492,620	\$1,182,288	\$1,477,861
	Risk adjustment	↓10%			
Btr	Faster developer onboarding and time to value (risk-adjusted)		\$443,358	\$1,064,060	\$1,330,075
Three-year total: \$2,837,492			Three-year present value: \$2,281,746		

IMPROVED RELIABILITY WITH THE POSTMAN API PLATFORM

Evidence and data. Interviewees described multiple levers of quality improvements leading to higher quality and more reliable code, including standardized documentation, increased code confidence, and faster velocity catching bugs:

- The engineering team lead in the healthcare sector noted: “The Postman API Platform saves a lot of time. But more importantly it maintains accuracy and quality. What was done before wasn’t very useful, whereas what’s done now is infinitely useful.”
- The senior software engineering manager in the education industry institution noted several ways in which the Postman API Platform investment yielded improved API reliability, including:
 - Decreased bugs in production code resulting in better API contracting cycles with their vendors.
 - Features built out against mock servers.
 - A 50% increase in code confidence metrics as better testing led developers to release it with confidence.
- The director of quality and process in the industrial technology sector described the contrast of the limited testing capabilities in the prior environment against the Postman API Platform’s robust testing automations: “If a new field gets added, it just automatically gets tested.”

Modeling and assumptions. The composite organization measures the value of improved API reliability by evaluating its impact on the frequency of outages or severe service degradation. It also considers the labor associated with remediating the disruptions as well as the downstream impacts on customer experience, brand value, and other far-reaching impacts. This is calculated as follows:

- The composite organization experiences 3.5 outages and severe performance degradations directly caused by code errors on a yearly basis in the prior environment. The cost per outage for the composite, including developer time to remediate and executive oversight, is \$200,000.⁴
- With the Postman API Platform, the composite organization reduces the number of outages and performance degradations by 30% in Year 1, 65% in Year 2, and 95% in Year 3.
- The composite organization attributes 50% of this impact to the Postman API Platform investment.

Risks. Forrester recognizes that these results may not be representative of all experiences and the cost will vary depending on the following factors

- The frequency and severity of coding-bug-related outages.
- An organization’s specific impacts to brand, customer revenue, compliance, and other damages and sunk costs from business disruptions attributed to coding bugs.

Results. To account for these risks, Forrester adjusted this benefit downward by 15%, yielding a three-year, risk-adjusted total PV of \$453,300.

“Now, with the use of Postman and our automation test suites, we are catching bugs way faster than we used to. We have noticed code quality getting better over the years.”

Director, quality and process, industrial technology

Improved Reliability With The Postman API Platform					
Ref.	Metric	Source	Year 1	Year 2	Year 3
C1	Outages and severe performance degradations per year caused by coding errors in prior environment	Composite	3.5	3.5	3.5
C2	Percent reduction in number of outages with the Postman API Platform	Interviews	30%	65%	95%
C3	Cost per outage, including developer time to remediate and executive oversight	Composite	\$200,000	\$200,000	\$200,000
C4	Attribution to Postman	Composite	50%	50%	50%
Ct	Improved reliability with the Postman API Platform	$C1 \times C2 \times C3 \times C4$	\$105,000	\$227,500	\$332,500
	Risk adjustment	↓15%			
Ctr	Improved reliability with the Postman API Platform (risk-adjusted)		\$89,250	\$193,375	\$282,625
Three-year total: \$565,250			Three-year present value: \$453,291		

QA ENGINEER EFFICIENCIES REALLOCATED TO HIGHER-VALUE ACTIVITIES

Evidence and data. Testing automation proved to drive a considerable portion of the value interviewees described from their investment in the Postman API Platform.

- The director, quality and process in the industrial technology sector described how automated testing through the Postman API Platform allowed a developer team to operate and test after it lost its QA support due to attrition.
- Similarly, the senior software engineering manager in the education industry shared: “With the ability to use enterprise collections across teams, we have gone from a two- to three-day turnover of asking another team to run the test for you to a couple of hours to get it set up and run it yourself.”
- The engineering team lead in the healthcare industry shared that their organization gained efficiencies, as the Postman API Platform enabled them to run integration tests more efficiently as part of CI/CD on a schedule.

“I don’t know if one person could fully test everything in a week, but we can run through the Postman test in a couple of hours.”

Director, quality and process, industrial technology

Modeling and assumptions. The composite organization garners efficiencies in QA and testing as follows:

- The composite organization has 12 engineers dedicated to QA before the Postman API Platform.
- With the Postman API Platform’s automated testing, the composite organization experiences QA testing efficiencies of 65% in Year 1, 80% in Year 2, and 90% in Year 3.
- The fully burdened annual QA engineer salary is \$108,000.
- Forrester applies a 50% productivity recapture to developer time savings, indicating that developers repurpose 50% of the time saved to value-add activities.

Risks. Forrester recognizes that these results may not be representative of all experiences and the cost will vary depending on the following factors.

- An organization’s testing model and lifecycle.
- The extent to which an organization deploys testing automations at scale.

Results. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of \$1.1 million.

QA Engineer Efficiencies Reallocated To Higher-Value Activities					
Ref.	Metric	Source	Year 1	Year 2	Year 3
D1	Number of engineers dedicated to QA before the Postman API Platform	Composite	12	12	12
D2	QA testing efficiencies with the Postman API Platform automations	Interviews	65%	80%	90%
D3	Fully burdened annual QA engineer salary	TEI standard	\$108,000	\$108,000	\$108,000
D4	Productivity capture	Assumption	50%	50%	50%
Dt	QA engineer efficiencies reallocated to higher-value activities	$D1 \times D2 \times D3 \times D4$	\$421,200	\$518,400	\$583,200
	Risk adjustment	↓10%			
Dtr	QA engineer efficiencies reallocated to higher-value activities (risk-adjusted)		\$379,080	\$466,560	\$524,880
Three-year total: \$1,370,520			Three-year present value: \$1,124,555		

REDUCTION IN BUG-RELATED SUPPORT CENTER COSTS WITH THE POSTMAN API PLATFORM

Evidence and data. The impact of code-related disruptions was not limited to IT organizations. Interviewees noted the cascading impacts of improved code quality and reliability.

- The senior software engineering manager in the education industry reported downstream reductions in code-related support center costs with improved reliability using the Postman API Platform. They said: “Call drivers to our support center have decreased drastically. We went from about 50% of the call drivers [being] bug reports down to about 10% of that [being] code related.”
- The director, quality and process in the industrial technology sector reported early insights into the downstream impacts of improved reliability: “We’re catching bugs before anyone notices them through the scripts, so it will be interesting to see over the next year how it improves development, saving bug cases down the road as we start to standardize and consolidate the code.”

“If we have good solid services on the back-end, that is a good foundation for building whatever applications people need.”

Director, quality and process, industrial technology

Modeling and assumptions. With the Postman API Platform, the composite organization is catching more bugs earlier and resolving them faster. This results in higher-quality code, reducing the composite organization’s customer support costs related to development issues as follows:

- In the prior environment, the composite organization experiences 200,000 support center inquiries linked to software bugs and related outages and service degradations. The composite organization’s average cost per inquiry related to coding bugs is \$8.00.
- With improved reliability from the Postman API Platform (Benefit C), the composite organization decreases code-related support center inquiries by 30% in Year 1, 65% in Year 2, and 75% in Year 3.

Risks. Forrester recognizes that these results may not be representative of all experiences and the cost will vary depending on the following factors:

- Total volume of support center inquiries and portion specifically related to development issues.
- Support center costs for escalated code-related inquiries that cannot be resolved by lower cost customer support channels.

Results. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of \$2.0 million.

Reduction In Bug-Related Support Center Costs With The Postman API Platform					
Ref.	Metric	Source	Year 1	Year 2	Year 3
E1	Number of support center inquiries related to software bugs	Composite	200,000	200,000	200,000
E2	Percent decrease in bug-related support center inquiries with the Postman API Platform	Interviews	30%	65%	75%
E3	Cost per customer support inquiry	Composite	\$8.00	\$8.00	\$8.00
Et	Reduction in bug-related support center costs with the Postman API Platform	$E1 * E2 * E3$	\$480,000	\$1,040,000	\$1,200,000
	Risk adjustment	↓10%			
Etr	Reduction in bug-related support center costs with the Postman API Platform (risk-adjusted)		\$432,000	\$936,000	\$1,080,000
Three-year total: \$2,448,000			Three-year present value: \$1,977,701		

UNQUANTIFIED BENEFITS

Interviewees mentioned the following additional benefits that their organizations experienced but that were not quantified for this study:

- **User governance.** The senior software engineering manager in the education industry enhanced governance with the Super Admin feature to better maintain user access platform-wide.
- **Secure API testing environments and processes.** Interviewees reported benefits for security operations, such as improved situational awareness and shortened security fencing lifecycle, that yielded efficiencies for SecOps resources.
 - The engineering team lead in the healthcare industry described the value of the Postman API Platform’s secure design and testing environments: “When teams that make APIs have this view and tooling, they can trim the APIs, make them more efficient, and only pass the information that’s needed, making them easier to maintain in the future and just more secure. ... It’s good to only pass information that you need data-wise, so if somehow the requests are intercepted or someone is trying to hack it, they have less data to work with.”
 - The senior software engineering manager in the education industry noted that their organization’s SecOps resources were using the platform to run white hat testing. Automated harnesses to run their own testing reduced a two-week security fencing cycle to under a week.
- **Savings from decommissioning legacy hardware.** By taking API testing to Postman’s cloud-enabled enterprise platform, the senior software engineering manager in the education industry was able to decommission the legacy on-premises hardware and software and cut their ongoing maintenance costs.
- **API-first culture.** The Postman API Platform instilled API-first principles across teams and reinforced them with agile, product-friendly improvements. Interviewees reported that this led to enhanced developer experience and recruitment.
 - The senior software engineering manager in the education industry reported several initiatives supported by the Postman API Platform investment, including a vendor code quality initiative, student experience and inclusion measures, and quality assurance processes. The interviewee also reported a 42% increase in stakeholder satisfaction, attributed in part to the investment in Postman and the platform-enabled initiatives.
 - The platform architect in the software industry claimed: “I think that the team actually really enjoys working in Postman. I think that it’s a good product and they like working in it.”
 - The director, quality and process in industrial technology praised the value that the Postman API Platform investment was having on the first team of developers to deploy the Enterprise version. They shared: “We haven’t had churn on that team for quite some time. The team is having fun and is one of the better teams for collaboration, so that would help with retention.”
- **Postman customer success.** Multiple interviewees expressed trust in the customer support and partnership in industry-leading solutions from Postman.

- The director of quality and process in the industrial technology sector said this about their organization’s strong partnership with Postman, “Of all the vendors I’ve worked with, I think Postman by far has been more about ‘let’s work together and be successful.’”

FLEXIBILITY

The value of flexibility is unique to each customer. There are multiple scenarios in which a customer might implement the Postman API Platform and later realize additional uses and business opportunities, including:

- **Linting rules for enhanced standardization.**
The platform architect in the software industry was beginning to use Postman’s linting rules. They said it was “so that we can code standards. We are now in the process of figuring out how to implement linting rules so that we can do a quick scan and validate that, for any new piece of software that’s coming out, it conforms to those broader enterprise API standards that we have.”

Flexibility would also be quantified when evaluated as part of a specific project (described in more detail in [Appendix A](#)).

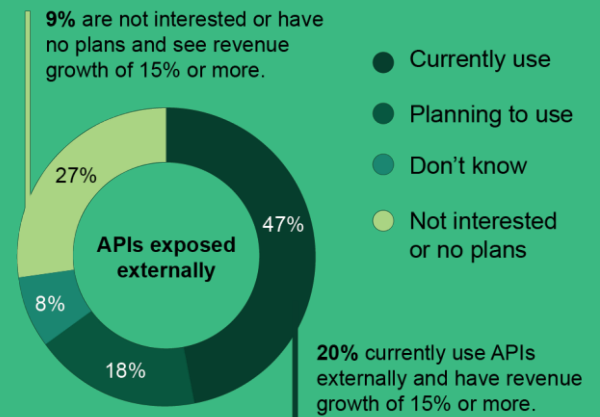
THE API MATURITY JOURNEY

Forrester research correlates infrastructure featuring externally exposed APIs with higher revenue growth.⁵

Mature, agile API infrastructure impacts an organization’s interactions with all stakeholders.

Figure 1: APIs correlate with higher revenue growth

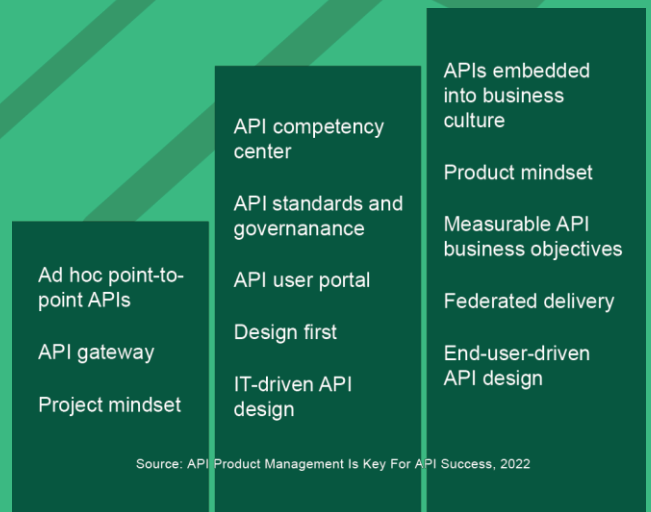
“Which of the following architecture styles does your organization use or plan to use?”



Base: 3,023 developers who work full time
Source: Forrester Analytics Global Business Technographics© Developer Survey, 2019

Organizations can nurture those interactions into measurable and segmented journeys. Leaning into insights that are enabled by higher quality, API-forward underpinnings permit confidence with scaling efforts.⁶

Figure 2: An example high-level maturity path toward Product-managed APIs



Source: API Product Management Is Key For API Success, 2022

Analysis Of Costs

■ Quantified cost data as applied to the composite

Total Costs							
Ref.	Cost	Initial	Year 1	Year 2	Year 3	Total	Present Value
Ftr	Postman API Platform fees	\$0	\$82,500	\$330,000	\$495,000	\$907,500	\$719,628
Gtr	Administrative costs	\$139,113	\$193,137	\$708,149	\$1,051,490	\$2,091,889	\$1,689,939
	Total costs (risk-adjusted)	\$139,113	\$275,637	\$1,038,149	\$1,546,490	\$2,999,389	\$2,409,567

POSTMAN API PLATFORM FEES

Evidence and data. Pricing for the Postman API Platform was a function of the plan type and the number of users subscribed to the enterprise level of the Postman API Platform at the interviewees' organizations.

Modeling and assumptions. The composite organization subscribes to the enterprise level of the Postman API Platform. In Year 1, it tests deployment of the platform with one business unit, rolling out to three more by the end of Year 3 in an organic, land-and-expand fashion.

Pricing may vary. Contact Postman for additional details.

Risks. Forrester recognizes that these results may not be representative of all experiences and the cost will vary depending on the total number of licensed users.

Results. To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of \$720,000.

Postman API Platform Fees						
Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3
F1	Postman license fees	Composite		\$75,000	\$300,000	\$450,000
Ft	Postman API Platform fees	F1		\$75,000	\$300,000	\$450,000
	Risk adjustment	↑10%				
Ftr	Postman API Platform fees (risk-adjusted)		\$0	\$82,500	\$330,000	\$495,000
Three-year total: \$907,500				Three-year present value: \$719,628		

ADMINISTRATIVE COSTS

Evidence and data. Reported administrative costs for interviewees' organizations included deployment and implementation costs as well as training, change management, and product administration costs.

- Deployment and implementation costs related to the initial setup of the enterprise version of Postman used developer SecOps resources as well as developer manager oversight.
 - The interviewee from the insurance industry described a three-part deployment process for the Postman API Platform after purchase. First, SecOps led a security evaluation and established a single sign-on (SSO) authentication. Next, change management processes for developers and non-developer stakeholders were conducted parallel to the transfer of collections and workspaces from the prior environment.
 - The director of quality and process in the industrial technology sector described their organization's process converting their team to an enterprise account, with two developer managers overseeing the subscription and licensing purchase agreement, legal matters, and internal integrations, with additional involvement from IT to facilitate SSO with the organization's multifactor authentication (MFA) vendor.
- Interviewees also described the following training, change management, and product administration costs:
 - The interviewee from the education industry described the training process: "They actually provide training engineers to come in and train our engineers. And, of course, there's ongoing training as new features and tools come out."

- The director of quality and process in the industrial technology sector said that their company's change management efforts included a push to highlight APIs to help drive adoption. Activities included meetings with organizational stakeholders; consultation with development teams about their systems' integration needs; giving presentations about onboarding and using Postman; and writing articles and documentation around the deployment process.

“The Enterprise version of Postman is a cloud-hosted [software-as-a-service] (SaaS) solution, so a security review by your enterprise security team is an important step.”

Engineering team lead, healthcare

Modeling and assumptions. The composite organization deploys the Postman API Platform as follows.

- The initial deployment period is three months, during which time:
 - Three FTE developer resources are fully dedicated to deployment and implementation of the Postman API Platform for the composite organization. The fully burdened hourly developer rate is \$75.
 - SecOps resources dedicate four hours for security reviews and facilitating SSO integrations. The fully burdened hourly SecOps rate is \$78.

- A developer manager is 10% dedicated to oversight of the project, mainly as a function of their developer coordination duties. The fully burdened hourly developer manager rate is \$81.
- To support broad adoption, the composite organization invests:
 - Continuous developer training and updating of development policies totaling 20,000 hours.
 - Platform administration that takes 2 developer hours a month.
 - Developer manager oversight totaling 208 hours.

Risks. Forrester recognizes that these results may not be representative of all experiences and the cost will vary depending on the following factors.

- Number of users.
- SSO and other security procedures.
- Fully burdened hourly rate of resources, including developers, developer managers, SecOps, and any other related resources.
- Level of product and process oversight from IT management.

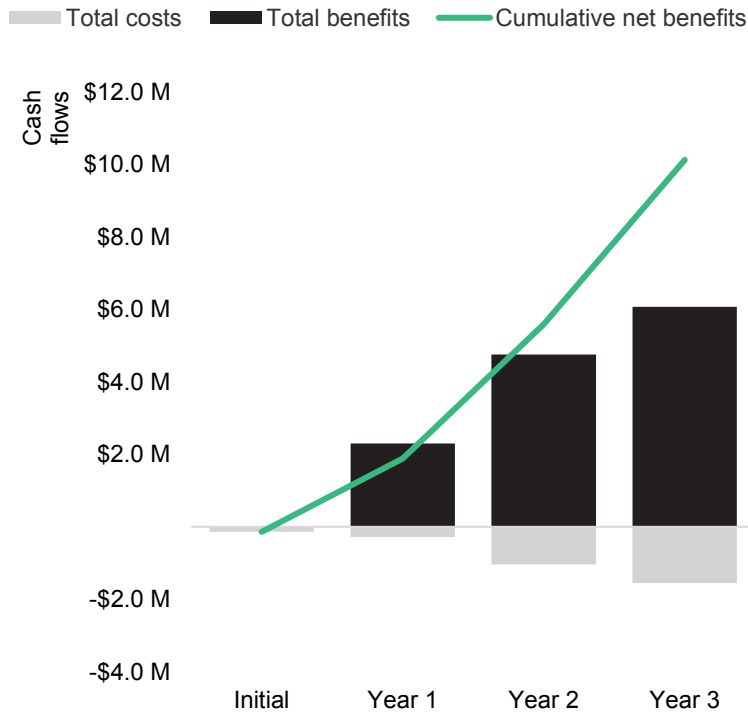
Results. To account for these risks, Forrester adjusted this cost upward by 15%, yielding a three-year, risk-adjusted total PV of \$1.7 million.

Administrative Costs						
Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3
G1	Number of developers managing deployment and implementation	Composite	3			
G2	Hours of deployment and implementation effort per developer	Composite	520			
G3	Fully burdened hourly developer rate	PayScale	\$75	\$75	\$75	\$75
G4	Hours of SecOps resources for SSO integrations	Composite	4			
G5	Fully burdened hourly SecOps rate	TEI standard	\$78			
G6	Hours of developer manager oversight for deployment and implementation	Composite	52			
G7	Fully burdened annual developer manager salary, rounded	TEI standard	\$81	\$81	\$81	\$81
G8	Subtotal: Deployment and implementation costs (rounded)	$(G1 \cdot G2 \cdot G3) + (G4 \cdot G5) + (G6)$	\$120,968	\$0	\$0	\$0
G9	Hours change management per developer users	Composite		2,000	8,000	12,000
G10	Hours of training per developer users	Composite		24	24	24
G11	Hours of platform administration	Composite		24	24	24
G12	Hours of developer manager oversight	Composite		208	208	208
G13	Subtotal: Training, change management, and administration costs	$(G3 \cdot (G9 + G11)) + (G7 \cdot G12)$	\$0	\$167,945	\$615,782	\$914,339
Gt	Administrative costs	G8+G13	\$120,968	\$167,945	\$615,782	\$914,339
	Risk adjustment	↑15%				
Gtr	Administrative costs (risk-adjusted)		\$139,113	\$193,137	\$708,149	\$1,051,490
Three-year total: \$2,091,889			Three-year present value: \$1,689,939			

Financial Summary

CONSOLIDATED THREE-YEAR RISK-ADJUSTED METRICS

Cash Flow Chart (Risk-Adjusted)



The financial results calculated in the Benefits and Costs sections can be used to determine the ROI, NPV, and payback period for the composite organization's investment. Forrester assumes a yearly discount rate of 10% for this analysis.

These risk-adjusted ROI, NPV, and payback period values are determined by applying risk-adjustment factors to the unadjusted results in each Benefit and Cost section.

Cash Flow Analysis (Risk-Adjusted Estimates)

	Initial	Year 1	Year 2	Year 3	Total	Present Value
Total costs	(\$139,113)	(\$275,637)	(\$1,038,149)	(\$1,546,490)	(\$2,999,389)	(\$2,409,567)
Total benefits	\$0	\$2,295,341	\$4,753,630	\$6,072,537	\$13,121,509	\$10,577,681
Net benefits	(\$139,113)	\$2,019,704	\$3,715,481	\$4,526,047	\$10,122,119	\$8,168,114
ROI						339%
Payback period						<6 months

Appendix A: Total Economic Impact

Total Economic Impact is a methodology developed by Forrester Research that enhances a company's technology decision-making processes and assists vendors in communicating the value proposition of their products and services to clients. The TEI methodology helps companies demonstrate, justify, and realize the tangible value of IT initiatives to both senior management and other key business stakeholders.

TOTAL ECONOMIC IMPACT APPROACH

Benefits represent the value delivered to the business by the product. The TEI methodology places equal weight on the measure of benefits and the measure of costs, allowing for a full examination of the effect of the technology on the entire organization.

Costs consider all expenses necessary to deliver the proposed value, or benefits, of the product. The cost category within TEI captures incremental costs over the existing environment for ongoing costs associated with the solution.

Flexibility represents the strategic value that can be obtained for some future additional investment building on top of the initial investment already made. Having the ability to capture that benefit has a PV that can be estimated.

Risks measure the uncertainty of benefit and cost estimates given: 1) the likelihood that estimates will meet original projections and 2) the likelihood that estimates will be tracked over time. TEI risk factors are based on "triangular distribution."

The initial investment column contains costs incurred at "time 0" or at the beginning of Year 1 that are not discounted. All other cash flows are discounted using the discount rate at the end of the year. PV calculations are calculated for each total cost and benefit estimate. NPV calculations in the summary tables are the sum of the initial investment and the discounted cash flows in each year. Sums and present value calculations of the Total Benefits, Total Costs, and Cash Flow tables may not exactly add up, as some rounding may occur.



PRESENT VALUE (PV)

The present or current value of (discounted) cost and benefit estimates given at an interest rate (the discount rate). The PV of costs and benefits feed into the total NPV of cash flows.



NET PRESENT VALUE (NPV)

The present or current value of (discounted) future net cash flows given an interest rate (the discount rate). A positive project NPV normally indicates that the investment should be made unless other projects have higher NPVs.



RETURN ON INVESTMENT (ROI)

A project's expected return in percentage terms. ROI is calculated by dividing net benefits (benefits less costs) by costs.



DISCOUNT RATE

The interest rate used in cash flow analysis to take into account the time value of money. Organizations typically use discount rates between 8% and 16%.



PAYBACK PERIOD

The breakeven point for an investment. This is the point in time at which net benefits (benefits minus costs) equal initial investment or cost.

Appendix B: Endnotes

¹ Total Economic Impact is a methodology developed by Forrester Research that enhances a company's technology decision-making processes and assists vendors in communicating the value proposition of their products and services to clients. The TEI methodology helps companies demonstrate, justify, and realize the tangible value of IT initiatives to both senior management and other key business stakeholders.

² Source: "Keep API Strategy On Track With An API Taxonomy," Forrester Research, Inc., August 30, 2022.

³ Source: "Embrace New Organizational Structures To Drive Digital Transformation," Forrester Research, Inc., August 9, 2022.

⁴ Costs incurred from external sources due to a security incident/breach may include response and notification to affected parties; regulatory fines; customer compensation; customer lawsuits/punitive damages; additive audit and security compliance costs; lost revenues/loss of business due to system downtime; lost revenues from customer loss; cost to rebuild brand equity; customer churn/cost to acquire new customers.

⁵ Source: "Keep API Strategy On Track With An API Taxonomy," Forrester Research, Inc., August 30, 2022.

⁶ Source: "API Product Management Is Key For API Success," Forrester Research, Inc., October 1, 2022.