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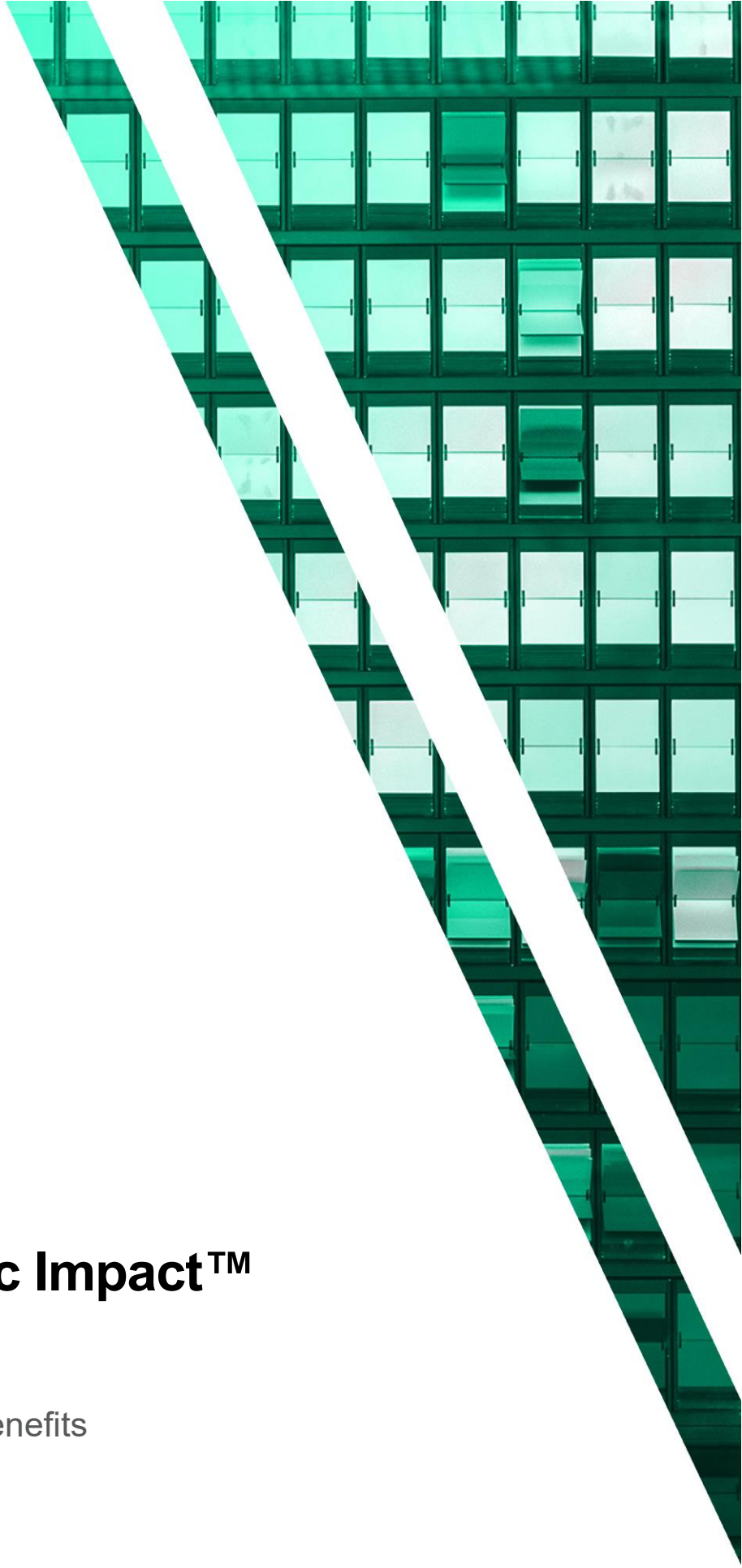

The Total Economic Impact™ Of DigitalOcean

Cost Savings And Business Benefits Enabled By DigitalOcean

August 2022

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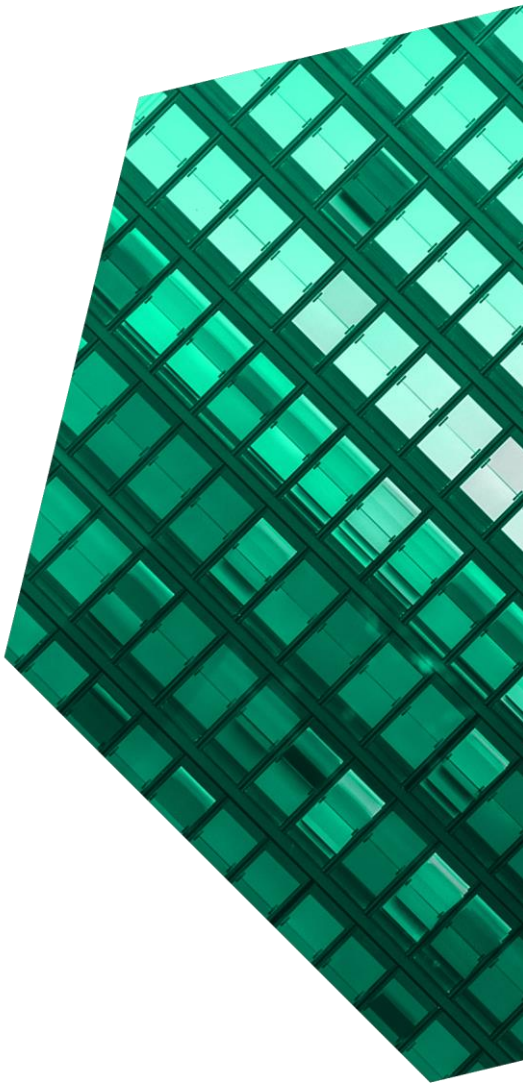


ABOUT FORRESTER CONSULTING

Forrester Consulting provides independent and objective research-based consulting to help leaders succeed in their organizations. For more information, visit forrester.com/consulting.

Executive Summary

DigitalOcean offers cloud computing services such as compute, storage, database, and networking products. Its predictable and economical pricing, scalable platform, and curated suite of services deliver a superior developer experience. DigitalOcean empowers developers and tech companies to launch quickly and grow with confidence.

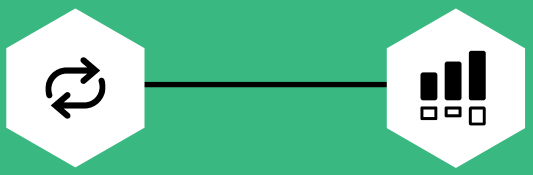
DigitalOcean is a cloud services provider with a focus on the needs of developers, startups, and tech-focused small and medium businesses (SMBs). DigitalOcean offers the flexibility to choose from services that provide optimal levels of control and convenience depending upon the unique needs of businesses including:

- **Compute:** Droplets virtual machines, managed Kubernetes, app platform.
- **Networking.** Virtual private cloud, cloud firewalls, load balancers, floating IPs, DNS.
- **Managed databases:** MongoDB, MySQL, PostgreSQL, Redis.
- **Developer tools:** API, CLI, monitoring, Digital Ocean Teams, deploy to DigitalOcean button, community tutorials.

Tech-focused SMBs and startups make customized selections according to their needs, with the goal of leveraging services to recapture and redirect time toward product development and their core business goals.

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

KEY STATISTICS



Return on investment (ROI)
186%

Net present value (NPV)
$1.55M

"The fact that DigitalOcean has gone from strength to strength in their growth, introducing new products such as Kubernetes and hosted databases, [has] really allowed us to retain the confidence we have that DigitalOcean provides reliable and scalable services that we can use to push the company further."

CTO and founder, cybersecurity

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed four decision-makers with experience using DigitalOcean. For the purposes of this study, Forrester aggregated the interviewees' experiences and combined the results into a single composite organization.

Prior to using DigitalOcean, these interviewees noted that when using public cloud hyperscalers — a group of massive companies that provide cloud, networking, and internet services at scale — they suffered large and unpredictable cloud provider costs and were locked into long-term contracts. It was more cumbersome and time-consuming for developers to learn and use the prior hyperscaler cloud services solutions. Inefficient spin-up of new infrastructure and difficulty transferring workloads between clouds strained startups and tech-focused SMBs as they tried to stay agile and grow.

After the investment in DigitalOcean, the interviewees found a cloud provider that was a partner for growth, reflected in transparent and predictable billing, economical pricing, simple and intuitive products, helpful customer support, and service offerings created with developer-focused startups and tech-focused SMBs rather than large enterprises in mind. Key results from the investment include increased productivity and ability to refocus on developing products, as well as lower and more predictable costs.

KEY FINDINGS

Quantified benefits. Risk-adjusted present value (PV) quantified benefits for the composite organization include:

- **Cost savings hosting on DigitalOcean totaling $1.5 million.** Public cloud hyperscalers charge high fees that do not include key features including bandwidth and customer support usage. DigitalOcean's costs are 50% less than

"The main benefit is that DigitalOcean does so much of the work for you."

— CTO and founder, nonprofit digital publishing

those of hyperscalers, with free customer service and a generous bandwidth allowance typically included at no charge.

- **Increased productivity valued at $300,000.** The simplicity and ease of the DigitalOcean experience enables time savings, greater efficiency, and increased productivity valued at $300,000.
- **Cost avoidance for dedicated IT/DevOps team valued at $545,000.** DigitalOcean frees developers at startups and tech-focused SMBs from spending time on IT and DevOps tasks and allows them to keep their growing team lean by avoiding hiring of a dedicated IT/DevOps team. All these factors translate to a value of $545,000 for the composite organization over the course of the three-year analysis.

Unquantified benefits. Benefits that are not quantified for this study include:

- **Security and reliability for global operations.** Interviewees expressed that DigitalOcean is secure, reliable, and ready to meet the needs of tech-focused SMBs and startups as they grow. Data centers around the world make it possible for DigitalOcean customers to serve a global customer base.
- **Community.** DigitalOcean provides highly personalized customer service at every stage — from tiny, bootstrapped startups to fast-growing tech-focused SMBs and beyond — at no cost. DigitalOcean is well known by the developer community for its support of events, popular online community, and educational resources.
- **Lack of lock-in.** Agility and flexibility are built into DigitalOcean. Predictable, month-to-month billing and the ability to quickly scale up or down or shift workloads between clouds gives growing startups and tech-focused SMBs the tools they need to advance.

“The fact that our technology partners are game to help us with community support by running, hosting, and sponsoring events is really great — to see that human face on a company that’s grown. I’ve used DigitalOcean for many years, and to see it grow so much and keep that human side has been great.”

Costs. Risk-adjusted PV costs for the composite organization include:

- **Total cost of running workload on DigitalOcean of $759,000.** DigitalOcean’s thoughtful offerings geared toward developer-focused tech-focused SMBs and startups are economical, priced transparently, and billed monthly without surprise charges.
- **Implementation and management costs totaling $51,000.** The labor costs needed to shift workloads to DigitalOcean and provide ongoing platform management were valued at $51,000 over the course of the analysis.
- **Training costs totaling $19,000.** The labor associated with ongoing training, review of support documentation, and keeping abreast of new features is valued at $19,000 over the duration of the analysis.

The decision-maker interviews and financial analysis found that a composite organization experiences benefits of $2.37M over three years versus costs of $829K, adding up to a net present value (NPV) of $1.55M and an ROI of 186%.

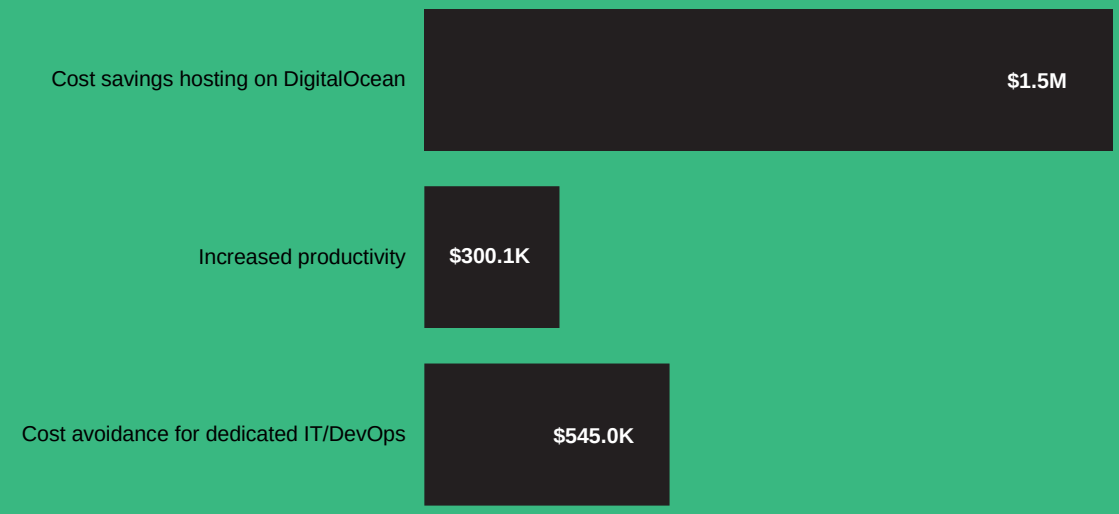
ROI
186%

BENEFITS PV
$2.37M

NPV
$1.55M

PAYBACK
<6 months

Benefits (Three-Year)



“There’s quite simply no way to beat DigitalOcean on price versus performance.”

— CTO and founder, cybersecurity

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 DigitalOcean.

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 DigitalOcean can have on an organization.

DUE DILIGENCE

Interviewed DigitalOcean stakeholders and Forrester analysts to gather data relative to DigitalOcean.

DECISION-MAKER INTERVIEWS

Interviewed four decision-makers at organizations using DigitalOcean 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 decision-makers.

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 DigitalOcean Customer Journey

Drivers leading to the DigitalOcean investment

Interviews			
Role	**Industry**	**Headquarters**	**Annual Recurring Revenue**
CTO and founder	Web hosting	UK	$2 million
CTO and founder	Video and event platform	US	$10 million
CTO and founder	Nonprofit digital publishing	Singapore	$3.9 million
CTO and founder	Cybersecurity	UK	$4.8 million (estimated)

KEY CHALLENGES

Prior to adopting DigitalOcean, interviewed organizations looked to public cloud hyperscalers for their cloud-service needs. The highly technical developer teams at tech-focused startups and SMBs spent more time and resources on DevOps, information technology, and infrastructure management as their organizations grew.

The interviewees noted how their organizations struggled with common challenges, including:

- **Time-consuming infrastructure management.** At the startups/tech-focused SMBs, the developer teams had the technical background to self-manage infrastructure, IT, and DevOps — but doing so came at the price of time that could be spent more productively on their products. Managing infrastructure, configuration, debugging, security, Kubernetes, databases, and storage took too much time away from developing and building a business, a problem that worsened as already-rapid scaling accelerated at the organizations.
- **Complicated and expensive prior solutions.** Using a public cloud hyperscaler provider meant paying burdensomely high costs while contending with an attitude that startups and tech-focused SMBs were too small to matter. The interviewees wasted time poring over bills dozens of pages in length with unpredictable and frequently inaccurate charges, and then disputing those charges with an unhelpful customer service apparatus at the hyperscalers.

> **"The reliability of DigitalOcean's offering and services and the fact that we can target numerous regions and keep the same kind of hardware and same kind of offering between those regions is immensely helpful."**
>
> *CTO and founder, cybersecurity*

- Any customer support issue required significant resources in the form of spending time or paying for additional customer service to resolve. The developer experience was the opposite of simple; product offerings were overwhelming, complex, and clearly developed to serve the needs of large

enterprises. The experience was an overall poor fit for a startup or tech-focused SMB.

- Day-to-day use required hours of training and extensive time spent on certifications prior to getting started, plus additional long hours on configuration and management going forward. The organizations dealt with significant lock-in, experienced via the technology and expensive multiyear contracts for cloud service, at an inopportune time in their growth trajectory.

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 decision-makers that Forrester interviewed and is used to present the aggregate financial analysis in the next section. The composite organization has the following characteristics.

Description of composite. The composite organization is a tech-focused startup/SMB company that was founded three years ago and serves customers globally. Annual revenues are $5 million. Growth rates are 75% in Year 1, 50% in Year 2, and 25% in Year 3, with a customer base of 15,000. Monthly visitors to the organization's website average 2 million, but large spikes in traffic for events and promotions means that at times, 10,000 users visit the site concurrently.

Deployment characteristics. The composite organization has global operations and serves a global customer base. In Year 1, seven of 40 employees are developer users of DigitalOcean. The organization adds one to two DigitalOcean users each year while it is growing, scaling, and hiring rapidly. The deployment consists of moving from a public cloud hyperscaler to DigitalOcean.

Products used from DigitalOcean's à la carte selection of customizable offerings are Droplets, Managed Kubernetes, Load Balancers, Firewall, Floating Ips, Volumes, Container Storage, Managed Databases, Customer Service, Educational Resources, and API.

Key assumptions

- **40-employee tech-focused startup/SMB**
- **$5 million annual revenue**
- **High-traffic website**
- **Founded three years ago; experiencing rapid growth**

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	Cost savings hosting on DigitalOcean	$473,504	$643,345	$755,045	$1,871,894	$1,529,425
Btr	Increased productivity	$106,562	$121,645	$136,728	$364,936	$300,134
Ctr	Cost avoidance for dedicated IT/DevOps	$0	$234,000	$468,000	$702,000	$545,004
	Total benefits (risk-adjusted)	$580,066	$998,990	$1,359,773	$2,938,829	$2,374,563

COST SAVINGS HOSTING ON DIGITALOCEAN

Evidence and data. The interviewees used DigitalOcean for workloads that were previously hosted on public cloud hyperscalers.

- Public cloud hyperscalers required long-term contracts, sometimes multiple years in length, in order to secure most competitive pricing. This was a costly inconvenience for scaling and growing the interviewees' organizations.
- Costs were expensive and unpredictable, with high rates and large overage charges for bandwidth.
- Bills were dozens of pages long and required close review to identify and avoid paying erroneous charges.
- According to interviewee feedback, DigitalOcean was at least 50% less expensive than public cloud hyperscalers and included plentiful free bandwidth and only very modest overage charges for additional bandwidth usage.
- DigitalOcean customer support was free of charge.

Modeling and assumptions. Forrester assumes the following for this benefit analysis:

- The composite organization is scaling rapidly over the course of the three-year analysis.
- Use of cloud compute, managed Kubernetes, managed databases, and storage increases over time. Bandwidth use is high.
- Public cloud hyperscaler service costs are assumed to be twice as expensive as costs for DigitalOcean, based on interviewee feedback.
- DigitalOcean's offering includes significant free bandwidth, so total cost savings are more than 50%. The composite organization does not require more bandwidth than what is included.

Savings on services plus generous free bandwidth:

Risks. Benefits realized may vary based on:

- Amount and type of virtual machines, amount of storage, system configuration, and managed services used.
- Amount of bandwidth used.

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 $1.5 million.

Cost Savings Hosting On DigitalOcean

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
A1	Percentage savings using DigitalOcean	Interviews	50%	50%	50%
A2	DigitalOcean cloud compute	A1*A7	$153,900	$230,850	$287,280
A3	DigitalOcean managed Kubernetes costs	A1*A8	$13,680	$27,360	$27,360
A4	DigitalOcean managed database costs	A1*A9	$8,352	$12,528	$16,704
A5	DigitalOcean storage fees	A1*A10	$30,600	$35,700	$40,800
A6	Annual DigitalOcean bandwidth costs	Interviews	$0	$0	$0
A7	Hyperscaler cloud compute	Assumption	$307,800	$461,700	$574,560
A8	Hyperscaler managed Kubernetes costs	Assumption	$27,360	$54,720	$54,720
A9	Hyperscaler managed database costs	Assumption	$16,704	$25,056	$33,408
A10	Hyperscaler storage fees	Assumption	$61,200	$71,400	$81,600
A11	Annual hyperscaler bandwidth costs	Interviews	$144,000	$144,000	$144,000
At	Cost savings hosting on DigitalOcean	A7+A8+A9+A10+A11	$557,064	$756,876	$888,288
	Risk adjustment	↓15%			
Atr	Cost savings hosting on DigitalOcean (risk-adjusted)		$473,504	$643,345	$755,045
	Three-year total: $1,871,894			**Three-year present value: $1,529,425**	

INCREASED PRODUCTIVITY

Evidence and data. Interviewees' organizations experienced the following related to DigitalOcean's effect on productivity:

- Interviewed decision-makers described a simple, intuitive, and easy-to-use experience on DigitalOcean.
- The intuitive platform allowed development teams to manage infrastructure and run workloads more quickly and efficiently than they could on a public cloud hyperscaler.
- Top-notch documentation, phenomenal customer service, and lack of need to obtain certifications to use the solution contributed to the time savings.
- Operational staff saved hours each month given DigitalOcean's simple and short invoices that did not require lengthy reviews and verification. Bills from a legacy hyperscaler public cloud provider were typically dozens of pages long and often contained errors.
- Developers could build and deploy applications and run workloads on DigitalOcean 50% faster than on a public cloud hyperscaler.

Modeling and assumptions. Forrester assumes the following for this benefit analysis:

- The company scales rapidly over the course of the three-year analysis, increasing usage and adding a DigitalOcean developer user annually in Year 2 and Year 3.
- The average fully burdened hourly rate for developers is $75.
- The average fully burdened hourly rate for billing and accounting staff is $48.

Risks. The extent to which organizations experience this benefit may vary based on:

- The time needed to manage infrastructure and run workloads with a cloud provider.
- The number of staff at the organization.
- Whether time saved is repurposed productively.

Results. To account for these risks, Forrester adjusted this benefit downward by 15%, yielding a three-year, risk-adjusted total PV of more than $300,000.

> **"The APIs and documentation in public libraries they provide, allow us to integrate with these services and to automate a lot of repetitive procedures that we'd otherwise have to do by hand."**
>
> *CTO and founder, cybersecurity*

> **"The documentation on how to do everything to do with infrastructure is the best resource on the internet."**
>
> *CTO and founder, nonprofit digital publishing*

Increased Productivity

Ref.	Metric	Source	Year 1	Year 2	Year 3
B1	Number of users	Composite	7	8	9
B2	Fully burdened hourly rate per developer	TEI standard	$75	$75	$75
B3	Percentage of role spent on environment management prior to DigitalOcean	Assumption	35%	35%	35%
B4	Percentage time savings	Interviews	50%	50%	50%
B5	Number of engineer hours saved annually	B1*B3*B4*2,080	2,548	2,912	3,276
B6	Percentage of role spent on managed databases	Interviews	5%	5%	5%
B7	Percentage time savings on managed databases	Interviews	75%	75%	75%
B8	Hours saved annually on managed databases	B1*B6*B7*2,080	546	624	702
B9	Percentage of role spent spinning up infrastructure, capacity, Droplets virtual machines	Assumption	2%	2%	2%
B10	Percentage time savings spinning up infrastructure, capacity, Droplets virtual machines	Assumption	75%	75%	75%
B11	Hours saved annually on spinning up infrastructure, capacity, Droplets virtual machines	B1*B9*B10*2,080	218	250	281
B12	Number of operational business staff — billing and accounting	Assumption	1	1	1
B13	Number of hours saved on cloud provider billing management annually	Interviews	48	48	48
B14	Fully burdened hourly rate per billing and accounting staff	TEI standard	$48	$48	$48
B15	Increased productivity	B2*(B5+B8+B11)+ (B12*B13*B14)	$250,734	$286,224	$321,714
B16	Productivity recapture	TEI standard	50%	50%	50%
Bt	Increased productivity	B15*B16	$125,367	$143,112	$160,857
	Risk adjustment	↓15%			
Btr	Increased productivity (risk-adjusted)		$106,562	$121,645	$136,728
	Three-year total: $364,936			**Three-year present value: $300,134**	

COST AVOIDANCE FOR DEDICATED IT/DEVOPS

Evidence and data. Using DigitalOcean, interviewees were able to redirect technical talent toward high-value, productive work on product functionality and away from less-valuable undifferentiated cloud management work.

- Companies were able to keep teams lean but still growing during periods of dramatic growth and scaling.
- Developer teams could stay focused on product development without incurring additional costs associated with hiring dedicated IT/DevOps team members.
- As growth continued, hiring focus could remain on product developers rather than dedicated IT/DevOps staff.

Modeling and assumptions. Forrester assumes the following for this benefit analysis:

- The composite organization is scaling rapidly.
- This benefit is realized in the second year after DigitalOcean is adopted.
- The average fully burdened hourly rate for developers is $75.

Risks. The extent to which this benefit is realized will vary based on:

- The hourly rate associated with DigitalOcean developer users.
- The extent of IT/DevOps needs at an organization.
- The rate of growth and scaling at an organization.

Results. To account for these risks, Forrester adjusted this benefit downward by 25%, yielding a three-year, risk-adjusted total PV of $545,000.

> **"DigitalOcean makes it possible for a very small company like ours to achieve outrageous goals (that would have been completely impossible not that long ago) with the products that they have on offer, and that the ratio of systems administrators to the number of customers that we're able to serve is absolutely not going to be possible anywhere else."**
>
> *CTO, nonprofit digital publishing*

Cost Avoidance For Dedicated IT/DevOps

Ref.	Metric	Source	Year 1	Year 2	Year 3
C1	Number of dedicated IT/DevOps personnel needed for undifferentiated cloud management	Interviews	0	2	4
C2	Average fully burdened hourly rate	TEI standard	$75	$75	$75
Ct	Cost avoidance for dedicated IT/DevOps	C1*C2*2080	$0	$312,000	$624,000
	Risk adjustment	↓25%			
Ctr	Cost avoidance for dedicated IT/DevOps (risk-adjusted)		$0	$234,000	$468,000
	Three-year total: $702,000			**Three-year present value: $545,004**	

UNQUANTIFIED BENEFITS

Additional benefits that customers experienced but were not able to quantify include:

- **Security and reliability for global operations.** Interviewees expressed confidence in the reliability of DigitalOcean. As one CTO and founder in nonprofit digital publishing said, "Whenever we're looking to optimize the response time, it's always our software [that's the problem] and never DigitalOcean." With data centers around the world, DigitalOcean provided reliable and secure service on a global basis.
- **Community.** Even as DigitalOcean has scaled to be a publicly traded major cloud provider with a curated suite of managed services, it remained a partner and ally to developers at startup companies. From the active community where developers learned and exchanged ideas, to its support of competitions and events for growing businesses, to the proactive and knowledgeable customer support — decision-makers at startups and tech-focused SMBs expressed satisfaction with DigitalOcean.
- **Lack of lock-in.** DigitalOcean is built to serve agile and growing tech-focused SMBs/startups. Lack of lock-in plus predictable monthly bills with no commitment meant that customers were free to scale up, scale down, switch clouds, meet customer needs, and adjust strategies quickly. The CTO and founder at the web hosting company shared, "[DigitalOcean] keeps things simple. It makes it very easy to make almost snap decisions."

"It's so simple [that] you save a bunch of time and don't need to think about what all moving parts are that all these other companies have."

CTO and founder, video and event platform

"When we approached [DigitalOcean], they were very friendly and happy to have us on board. As a tiny startup, we are not interesting to the [hyperscalers], but with DigitalOcean we felt more at home. They're similar to us in what they are doing. We are trying to build a simple product — we thought they have a simple platform, [so] we might be a good fit together."

CTO and founder, web hosting

FLEXIBILITY

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

- **New features and partnership for growth and scaling.** DigitalOcean services are reliable, scalable, useful for startups and tech-focused SMBs, and frequently updated and expanded. A cybersecurity CTO and founder said that DigitalOcean is "always innovating and providing newer features to their customers and building upon those features, not just creating them and letting them sit idle."

  Startups and tech-focused SMBs are growing fast and need tools that will help them make decisions more quickly, reach higher, and scale intelligently — and interviewees expressed how DigitalOcean makes this possible. A cybersecurity CTO and founder said, "We've got the ability to decision and change a lot faster than otherwise we would have been able to [do]."

- **Open source and multicloud capability.** DigitalOcean's commitment to exemplary service to its community extends throughout the customer lifecycle. From early-stage startup all the way to enterprise operations, DigitalOcean supports developers doing their most productive work, realizing their ideas, and growing their businesses.

  From a CTO and founder at a video and event platform: "It's peace of mind. We're doing things in an open-source way, and we can just move off to something else because it's way less hard to move something onto a different Kubernetes provider versus changing something that assumes [public cloud hyperscaler]."

  DigitalOcean's services and products make it easy to move workloads between clouds, even away from DigitalOcean, if need be. The web hosting CTO and founder shared, "We've got ultimate flexibility, but we could change everything tomorrow if we wanted to or if we didn't meet our needs [with DigitalOcean]."

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

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**
Dtr	DigitalOcean total cost of running workload	$0	$217,930	$322,831	$391,822	$932,583	$759,302
Etr	Implementation and management costs	$34,650	$5,775	$6,600	$7,425	$54,450	$50,933
Ftr	Training costs	$5,775	$4,620	$5,280	$5,940	$21,615	$18,801
	Total costs (risk-adjusted)	$40,425	$228,325	$334,711	$405,187	$1,008,648	$829,036

DIGITALOCEAN TOTAL COST OF RUNNING WORKLOAD

Evidence and data. DigitalOcean costs consist of a transparent schedule of fees billed monthly based on usage of virtual machines for cloud computing, storage, and a varied array of infrastructure-as-a-service (IaaS) and fully managed platform-as-a-service (PaaS) offerings.

- Interviewees customized selections of a range of Droplets virtual machines that were priced according to memory, shared or dedicated CPU, and storage according to their business needs. Based on their requirements, the interviewees' companies used anywhere from less than 100 to more than 1,500 Droplets.
- Storage costs are rated by size and type of storage. DigitalOcean's storage offerings include Spaces Object Storage and Volumes Block Storage.
- Services including managed Kubernetes and managed databases are charged based on usage. DigitalOcean offers a wide variety of managed database services including Managed Mongo DB, Managed PostgreSQL, Managed MySQL, and Managed Redis.

> **"Droplets give us predictability on what we're providing our customers and what it's costing us, and that is a massive benefit for us."**
>
> *CTO and founder, web hosting*

Modeling and assumptions. Forrester assumes the following for this cost analysis:

- The composite organization purchases a variety of Droplet sizes including $6-per-month basic Droplets as well as premium optimized droplets. Average cost per Droplet used by the composite organization is $86.
- Volumes block storage and Spaces object storage are purchased for the composite organization's environment.
- Managed Kubernetes, managed databases, load balancers, firewall, and floating IPs are among the managed services used by the composite organization.

- The composite organization experiences large spikes in traffic and bandwidth usage.
- Usage increases over the course of the three-year analysis as the composite organization grows and scales.

Risks. Workload costs may vary based on:

- Number and type of virtual machines, amount of storage, system configuration, and managed services used.
- Amount of bandwidth used.

Results. To account for these risks, Forrester adjusted this cost upward by 5%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of less than $759,000.

DigitalOcean Total Cost Of Running Workload

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
D1	Number of Droplets virtual machines	Composite	0	150	225	280
D2	Average price per Droplet per month	Interview	$0	$86	$86	$86
D3	Annual Droplet costs	D1*D2*12	$0	$153,900	$230,850	$287,280
D4	Managed Kubernetes clusters	Composite	0	1	2	2
D5	Price per managed Kubernetes cluster per month	Interview	$0	$1,140	$1,140	$1,140
D6	Annual managed Kubernetes clusters costs	D4*D5*12	$0	$13,680	$27,360	$27,360
D7	Managed databases	Composite	0	2	3	4
D8	Price per managed database per month	Interview	$0	$348	$348	$348
D9	Managed databases costs	D7*D8*12	$0	$8,352	$12,528	$16,704
D10	Storage in terabytes	Composite	0	30	35	40
D11	Volume costs per 1,000 GB per month	Interviews	$0	$85	$85	$85
D12	Annual volumes storage costs	D10*D11*12	$0	$30,600	$35,700	$40,800
D13	Spaces costs per 250 GB per month	Interviews	0	$5	$5	$5
D14	Spaces costs annual	D13*12	0	$60	$60	$60
D15	Load balancers, firewall, floating IP addresses, other miscellaneous	Composite	0	$960	$960	$960
Dt	DigitalOcean total cost of running workload	D3+D6+D9+D12+ D14+D15	$0	$207,552	$307,458	$373,164
	Risk adjustment	↑5%				
Dtr	DigitalOcean total cost of running workload (risk-adjusted)		$0	$217,930	$322,831	$391,822
	Three-year total: $932,583			**Three-year present value: $759,302**		

IMPLEMENTATION AND MANAGEMENT COSTS

Evidence and data. Implementation and migration of workloads from a hyperscaler cloud provider to DigitalOcean required an investment of developers' time at interviewees' organizations.

- Interviewees experienced a simple implementation process with the support of the DigitalOcean customer service and solution engineering team. They also found the online community and extensive, easy-to-use documentation to be helpful resources.
- Interviewees described an implementation period of one to two weeks.
- A CTO and founder in cybersecurity reported: "The migration into DigitalOcean was very quick. There was no trouble at all migrating into DigitalOcean. It took maybe a day or two."

Modeling and assumptions. For this cost analysis, Forrester assumes:

- Seven developers are on staff pre-DigitalOcean and in Year 1.
- The composite organization increases the number of developers by one in Years 2 and 3 as it scales.
- The fully burdened hourly rate for developers is $75.

Risks. The costs associated with implementation and ongoing management of DigitalOcean may vary based on:

- The number and level of technical capability of DigitalOcean users.
- The hourly rate associated with DigitalOcean developer users.
- Characteristics and complexity of the legacy environment.

Results. To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year, risk-adjusted total PV of less than $51,000.

Implementation And Management Costs

Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3
E1	Number of developer users	Composite	7	7	8	9
E2	Implementation and management hours	Interviews	60	10	10	10
E3	Average fully burdened hourly rate per developer user	TEI standard	$75	$75	$75	$75
Et	Implementation and management costs	E1*E2*E3	$31,500	$5,250	$6,000	$6,750
	Risk adjustment	↑10%				
Etr	Implementation and management costs (risk-adjusted)		$34,650	$5,775	$6,600	$7,425
	Three-year total: $54,450			**Three-year present value: $50,933**		

TRAINING COSTS

Evidence and data. Use of DigitalOcean required ongoing training and review of documentation.

- Ongoing training and documentation review were needed to continue to effectively manage workloads on DigitalOcean.
- Users of DigitalOcean spent approximately 1 hour each month familiarizing themselves with new and existing products.

Modeling and assumptions. For this cost analysis, Forrester assumes:

- Seven developers using DigitalOcean are on staff initially and in Year 1.
- The composite organization increases the number of developers using DigitalOcean by one in Years 2 and 3 as it scales.
- The average fully burdened hourly rate for developers is $75.

> **"DigitalOcean's customer support is phenomenal."**
>
> *CTO and founder, video and event platform*

Risks. The costs associated with training for DigitalOcean may vary based on:

- The number of DigitalOcean users and level of technical capability.
- The hourly rate associated with DigitalOcean developer users.
- The usage and workload being run on DigitalOcean.

Results. To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year, risk-adjusted total PV of less than $19,000.

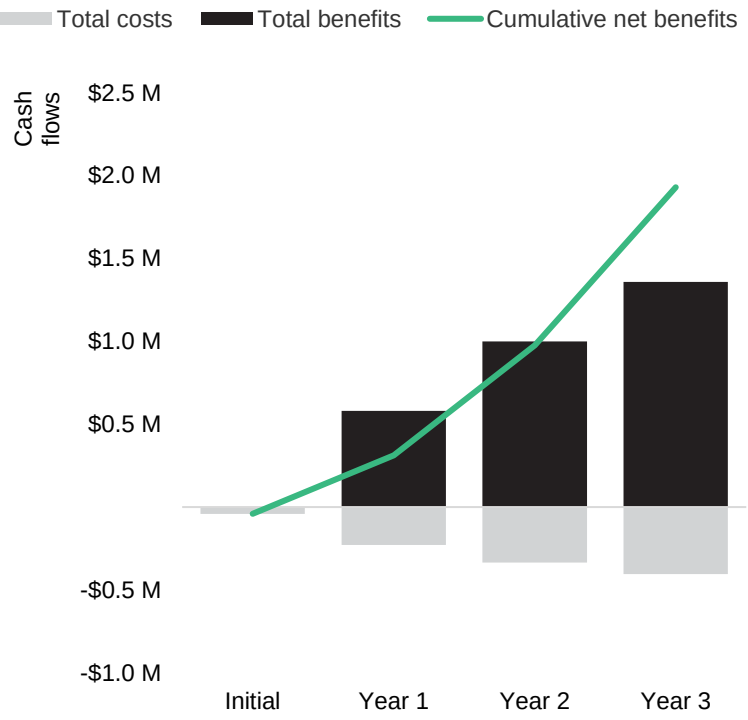
Training Costs

Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3
F1	Number of developer users	Composite	7	7	8	9
F2	Fully burdened hourly rate per developer user	TEI standard	$75	$75	$75	$75
F3	Annual training hours per user	Interviews	10	8	8	8
Ft	Training costs	F1*F2*F3	$5,250	$4,200	$4,800	$5,400
	Risk adjustment	↑10%				
Ftr	Training costs (risk-adjusted)		$5,775	$4,620	$5,280	$5,940
	Three-year total: $21,615			**Three-year present value: $18,801**		

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	($40,425)	($228,325)	($334,711)	($405,187)	($1,008,648)	($829,036)
Total benefits	$0	$580,066	$998,990	$1,359,773	$2,938,829	$2,374,563
Net benefits	($40,425)	$351,742	$664,279	$954,586	$1,930,182	$1,545,527
ROI						186%
Payback (months)						<6

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.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