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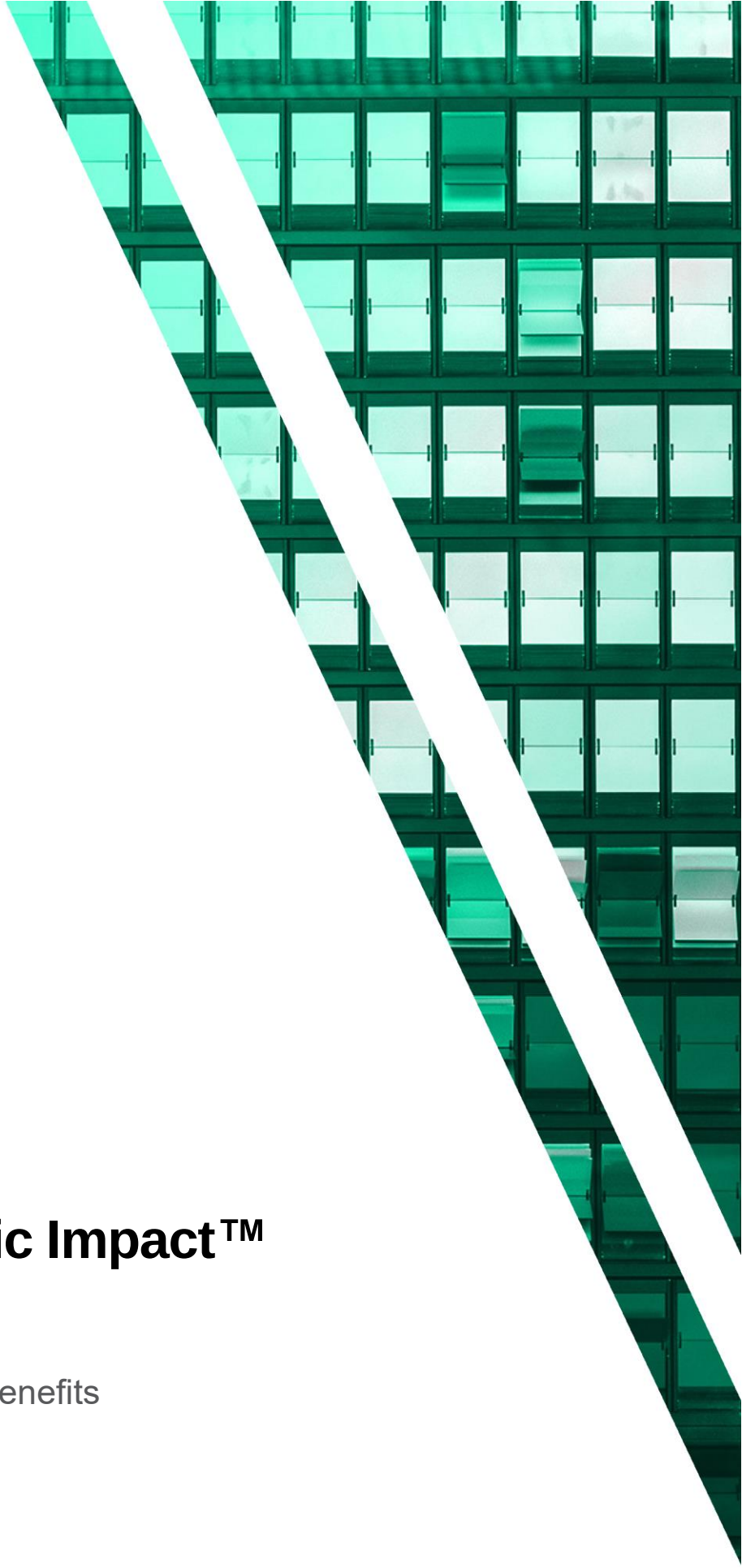

The Total Economic Impact™ Of Infoblox DDI

Cost Savings And Business Benefits Enabled By Infoblox DDI

OCTOBER 2023

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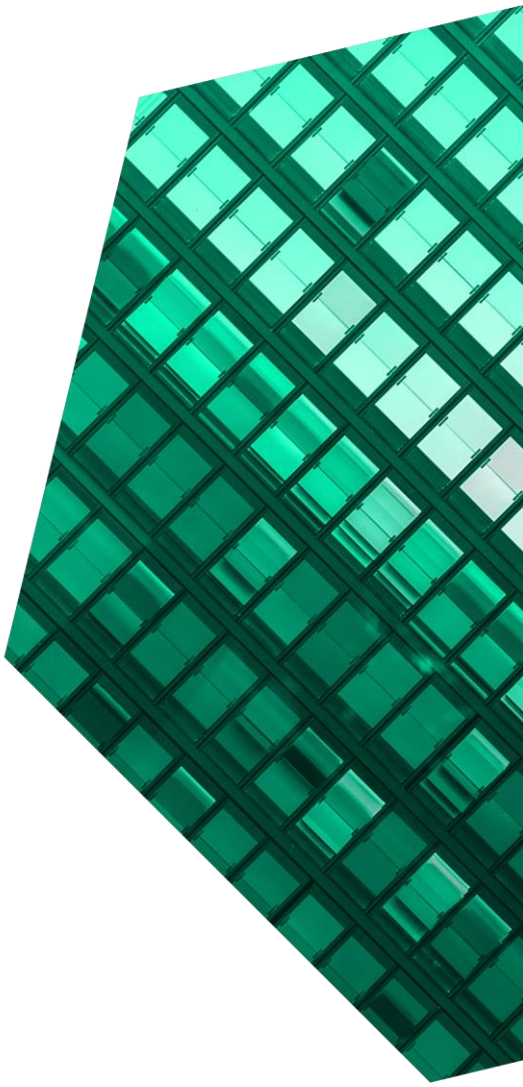


ABOUT FORRESTER CONSULTING

Forrester provides independent and objective research-based consulting to help leaders deliver key outcomes. Fueled by our customer-obsessed research, Forrester's seasoned consultants partner with leaders to execute their specific priorities using a unique engagement model that ensures lasting impact. For more information, visit forrester.com/consulting.

Executive Summary

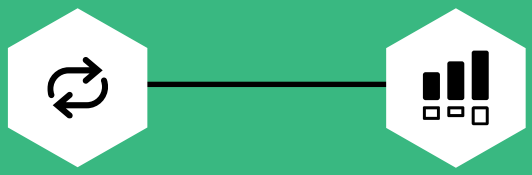
More than 80% of business and technology leaders at modern firms see aligning their tech architecture with the business as a key priority for 2023.[1] When in sync, well-orchestrated core network services can help streamline workflows, spur innovation, and dazzle customers. Conversely, poorly executed network infrastructure can disrupt business continuity and damage an organization's brand promise. Firms modernizing their networking posture seek to leverage agile solutions for core network services.

Infoblox NIOS DDI delivers enterprise-grade network uptime and resiliency through market-leading critical network services that unify global visibility, automation, and control. It's reliable and secure, and it improves experience, agility, and ROI with extensive API integrations for the hybrid, multicloud enterprise.

Infoblox commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying Infoblox DDI.[2] The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of Infoblox DDI on their organizations.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed five customers and surveyed 34 customers using Infoblox DDI. For the purposes of this study, Forrester aggregated the experiences of the interviewees and survey respondents into a single composite organization that is a globally distributed conglomerate with $10 billion in annual revenue.

KEY STATISTICS



Return on investment (ROI)
346%

Net present value (NPV)
$8.75M

Networking engineer time savings from automation

70%

Prior to using Infoblox DDI, these interviewees described their organizations' siloed critical networking services. When these services were outsourced, customers lacked control over and visibility into their data. Those who managed these services internally complained of complex, inefficient sprawl. Either way, customers also cited poor network availability in the prior environment, leading to cascading, costly impacts of unplanned downtime.

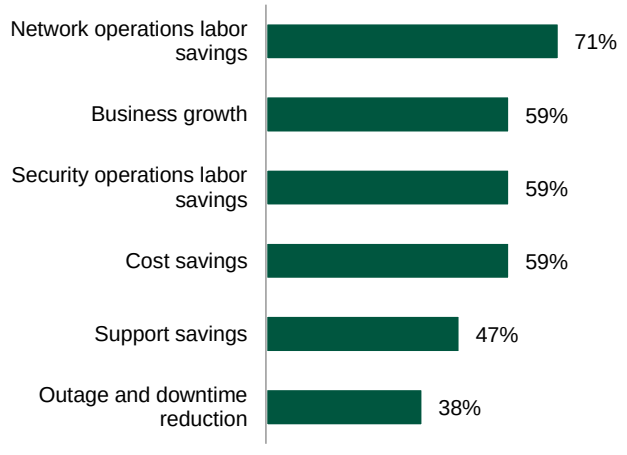
After the investment in Infoblox DDI, the interviewees unified DDI management under a single solution, cutting capex while minimizing internal labor effort through Infoblox automations, templates, and insights. Key results from the investment help the composite organization to optimize critical services in support of revenue goals, improving uptime and availability. The Infoblox DDI adoption also addresses operational objectives to streamline DDI processes with networking resources able to focus on higher-value activities.

KEY FINDINGS

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

- **Up to 18% legacy infrastructure savings from moving to a consolidated environment.** With Infoblox DDI, the composite organization gains control over critical networking services with a simplified management console. By cutting costs associated with maintaining servers, storage, and software in the legacy hosting environment, the composite organization saves $7.1 million over a three-year period.
- **Seventy percent avoided effort to scale DDI through time-saving automations.** With Infoblox DDI, the composite's technology team can automate many tasks associated with managing the IPAM, DHCP, and DNS environment. This saved over 14,000 hours of networking engineering effort, allowing engineering resources to be oriented toward digital innovation. The business value of these efficiencies is $65,000.

Figure 1. Which of the following benefits has your organization realized with the implementation of Infoblox DDI?



Base: 34 current Infoblox DDI customers
Source: A commissioned study conducted by Forrester Consulting on behalf of Infoblox, July 2023

- **A 15% improvement in system availability, mitigating the costly impacts of unplanned system downtime.** With Infoblox DDI, the composite organization improves system availability from 88% in the prior environment to 99.995% after the three-year investment. This leads to a reduction in outages, avoiding costly end-user downtime and ensuring continuity of revenue operations. For the composite organization, the business value of enabling mission-critical availability and uptime amounts to $500,000 over the investment period.
- **IT help desk efficiencies from DDI automation.** With the introduction of self-service networking automations, the composite organization decreases the volume of network-related support tickets that IT help desk agents process on a daily basis. For the tickets that remain, Infoblox DDI improves visibility, leading to a faster ticket resolution time for end users and agents alike. Over three years, IT help desk efficiencies generate over $3.58 million in savings for the composite organization.

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

- **Reduced technical debt.** Time savings from leveraging automation of various tasks--such as DHCP templates and Nameserver Group (NSG) DNS zone configurations—which reduces the need for manual documentation, improving accuracy of network configuration, and thereby reduces technical debt and security holes created by mistakes.
- **Diminished risk.** With improved network availability, reduced unplanned downtime, streamlined compliance reporting, and improved data accuracy, the composite organization improves its overall risk posture.

- **Sustainability related flexibility.** By drastically reducing the physical server and data center footprint (see Benefit A), the composite organization also reduces power consumption with Infoblox DDI, thus also impacting its energy-related greenhouse gas emissions.

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

- **Infoblox fees.** The composite organization's Infoblox DDI subscription fees include software maintenance and support, cloud services and automation, APIs and platform integrations, and reporting and analytics. The composite also engages Infoblox for professional services, training, and hardware and maintenance. Over three years, Infoblox fees total $2.0 million.
- **Deployment and training.** The composite begins a phased deployment by migrating DNS and DHCP services, enabling IPAM metadata to be synchronized with DNS and DHCP objects. DHCP and DNS deployment efforts are both launched in Year 1; DHCP efforts are concluded, and legacy solutions are fully decommissioned by Year 2. DNS is operational with Infoblox DDI by the end of Year 2, with full decommissioning of the legacy DNS solution achieved by Year 3. Total deployment costs, including internal labor, third-party services and technology costs, and training costs total $487,000 over three years.
- **Ongoing administration**. Internal costs for administration ramp up year over year as each element of the DDI solution launches, from 60 hours in Year 1 to 120 hours of annual product administration effort by the end of Year 3. These three-year administrative costs total $22,000.

The financial analysis, based on the interviews and survey found that a composite organization experiences benefits of $11.28 million over three years versus costs of $2.53 million, with a net present value (NPV) of $8.75 million and an ROI of 346%.

CLOUD NETWORKING HELPS BUSINESS OBJECTIVES

As technology leaders move to support digital initiatives, they're coming to the difficult realization that their current network infrastructure can't adequately support their business objectives. Competitive firms use the best resources, such as cloud, to augment their business.[3]

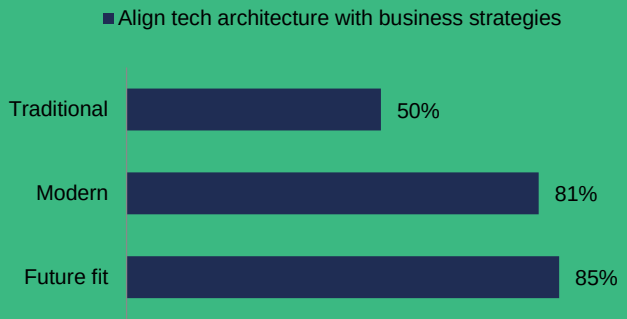
Forrester's five core tenets for virtual network infrastructure (VNI) [4] success are:

- The network comprises both hardware and software components.
- It connects every part of the business.
- It interweaves service layers.
- It has a programmable orchestration and automation layer.
- It empowers others, especially customers, to use it.

Figure 2. IT Leaders See The Value Of Aligning Their Tech Architecture With Business Strategies

What priority will each of the following IT objectives be for your organization over the next 12 months?[5]

(4 and 5 shown from a scale of 1 [not on our agenda] to 5 [critical priority])



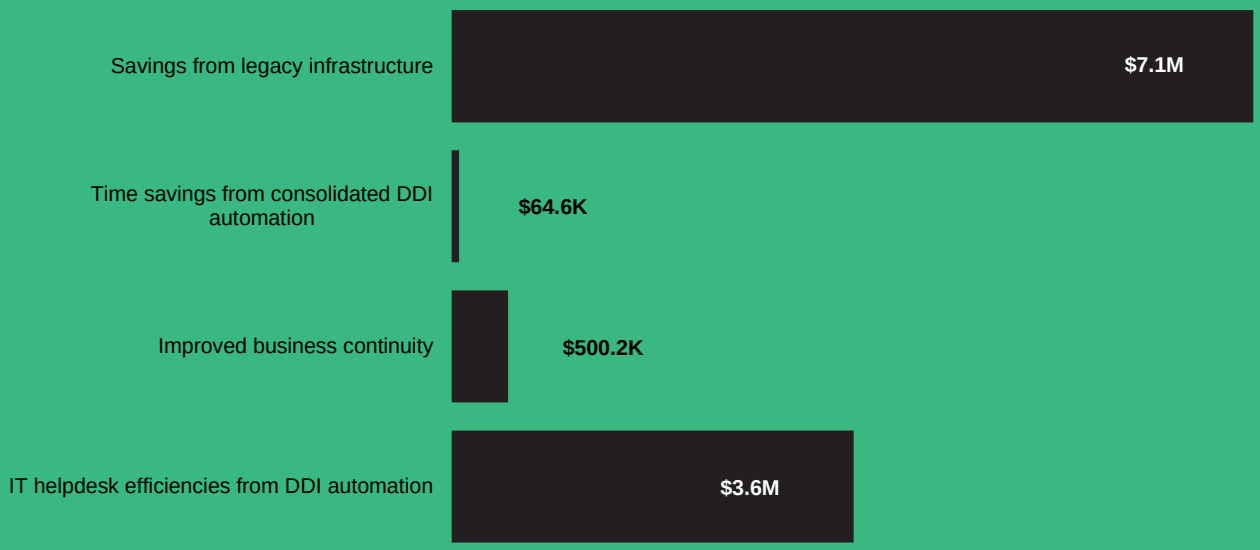
ROI
346%

BENEFITS PV
$11.28M

NPV
$8.75M

PAYBACK
<6 months

Benefits (Three-Year)



“You would need a lot more people or a lot more homegrown automation to be as efficient as you get out of the box with Infoblox DDI. There’s a lot of thought put into how things work together.”

— DDI architect, professional services

TEI FRAMEWORK AND METHODOLOGY

From the information provided in the interviews and survey, Forrester constructed a Total Economic Impact™ framework for those organizations considering an investment in Infoblox DDI.

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 Infoblox DDI can have on an organization.

DUE DILIGENCE

Interviewed Infoblox stakeholders and Forrester analysts to gather data relative to Infoblox DDI.

INTERVIEWS AND SURVEY

Interviewed five representatives and surveyed 34 respondents at organizations using Infoblox DDI to obtain data with respect to costs, benefits, and risks.

COMPOSITE ORGANIZATION

Designed a composite organization based on characteristics of the interviewees and survey respondents.

FINANCIAL MODEL FRAMEWORK

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

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 Infoblox DDI Customer Journey

Drivers leading to the Infoblox DDI investment

KEY CHALLENGES

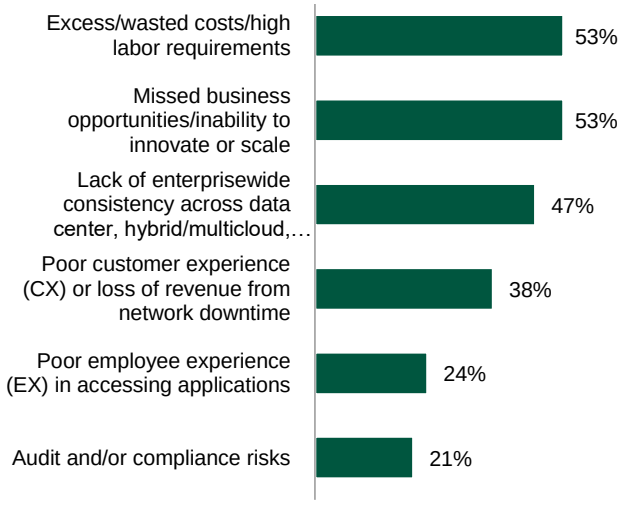
To gauge the Infoblox customer journey, Forrester interviewed five representatives and surveyed 34 respondents with experience using Infoblox DDI. See Appendix B for more on these individuals and the organizations they represent.

Survey respondents pointed to several challenges that plagued their organizations, with internal costs topping the list, followed by limitations on agility and ability to scale (see Figure 3).

Interviewees and survey respondents underscored the increasing importance of maintaining a resilient network, yet they also lamented how their organizations lacked the visibility and tools needed to avoid unplanned downtime for mission-critical apps. Interviewees and survey respondents further shared how their complex prior networking environments caused pain points, including:

Scaling issues. Even as interviewees noted their organizations' growing complexity and costly sprawl, they shared costly hindrances to their organizations' ability to effectively scale DNS in modern systems. The senior DDI engineer at the energy organization described their organization's sprawling prior environment: "[My company] has multiple data centers around the world, multiple corporate offices, multiple branch locations, [and] multiple operational sites both onshore and offshore. … We operate in almost every country. … Everybody is trying to trim costs, and every vendor is raising their prices. It's every vendor. We're seeing anywhere from a 10% to 30% increase in cost, and at the same time, our business is telling us to reduce our cost by 30%."

Figure 3. "What were the top pain points that led you to investigate a single DDI solution?"



Base: 34 current Infoblox DDI customers
Source: A commissioned study conducted by Forrester Consulting on behalf of Infoblox, July 2023

Lack of visibility and control, increasing management costs. Interviewees reported DDI-related silos that limited network visibility across their organizations. They also pointed to the lack of control over, and consistency across, disjointed data sources, especially when they previously relied heavily on outsourcing network support.

- The manager of network services at the transportation organization shared how their organization's lack of visibility added to labor costs: "Only a handful of [our data centers] were really under our control. The rest of them — we're kind of at the mercy of the cloud providers. … We had a lot of excess, wasted costs [around] labor. We were really dependent upon [core services for DNS] all being outsourced and our partner making all the changes and keeping us informed of what was going on. We didn't have good visibility into the platform at all. It became a problem for us, and we spent too much time trying to understand how it was done."

Inefficiencies with manual processes. Multiple interviewees pointed to the lack of internal DDI expertise in their legacy environments, with inefficient approaches to managing DNS, DHCP, and IPAM individually and as a concerted networking effort. This led to excessive labor and outsourcing costs.

- The DDI architect at the professional services organization shared how inefficient processes to manage DNS changes could cause more work than the actual effort to make the requested changes: “Most of the tickets that exist day to day are less about support and more about changes that are needed. Somebody’s moving an application, moving servers, or bringing up new servers, and they just need DNS changes. … [To perform] a single DNS record change for somebody, you’re definitely spending more time in the ticketing process, flipping knobs, and moving the ticket through the system than you are actually making the change.”
- The network engineer at the financial services organization described pain points with manual processes in the legacy environment: “It was really just spreadsheet management. [We had] challenges related to allocations, lack of automation, [and] inaccurate records. I hate to say it, but we’ve been managing IP addresses, specifically network allocations, via spreadsheets, and we’ve been doing it for a long time — way longer that we should’ve been.”
- The senior DDI engineer at the energy organization faced the challenge of mounting technical debt as their organization’s system continued to evolve, explaining: “Obviously, there was a significant amount of technical debt when I came onto the team. And that’s because at the time they designed it, it was appropriate, but no one ever bothered to go through [it]. … People have a tendency … to throw lots of different applications on the server, and they don’t understand that they’re creating collisions. A lot of people throw DNS on those servers, which seems like a good idea until you look at those and you understand that I’ve placed a dependency on a dependency.”

Unplanned downtime due to outages, limiting local survivability. Interviewees lamented poor reliability metrics in their prior networking environments, with unstable systems, failing servers, and frequent outages leading to severe business impacts from unplanned system downtime. Furthermore, a lack of appropriate redundancies contributed to layers of risk.

- The senior DDI engineer at the energy organization explained just how mission-critical network services are for an organization: “Your core infrastructure is what empowers you to make money. If [something] affects the ability to get to the product, make the product, or sell the product, you shouldn’t cut corners on it. It’s a massive cascade of impacts. So DNS and DHCP are absolutely mission-critical for any organization.”
- The DDI architect at the professional services organization shared how Infoblox DDI reduced DNS outages and prevented the cascading impacts of unplanned downtime: “The biggest potential for outage … is DNS resolution. … If you can’t resolve DNS names, you effectively are kicked offline, even if you aren’t actually offline.”

“There were weeks where we couldn’t do anything but troubleshoot problems. … Eighty percent uptime is just not a very high number. From an operational perspective, it was just destroying our ability to innovate or develop.”

Senior DDI engineer, energy

INVESTMENT OBJECTIVES

The interviewees and survey respondents searched for a solution that could:

Centralize and consolidate DDI components into a single solution. Interviewees shared that their organizations merged core network services under one platform to centralize network communications.

- The senior DDI engineer at the energy organization shared: "An organization as large as [ours] is going to have a legacy environment which is the old monolithic flat networks and stuff like that for quite a while. … It's going to take us a while to rearchitect that environment. … If you just pick up your infrastructure and move it to the cloud, you're going to have a very expensive infrastructure. It's going to be much more expensive [than providing the same environment] on-prem, but if you modernize as you migrate into that environment, you can be much more efficient and much more cost-effective."
- The senior DDI engineer at the energy organization shared, "We're trying to move to cloud-centric, cloud software-as-a-service, infrastructure-as-a-service type models, trying to reduce the actual systems' on-prem footprint as much as we can."

Reduce inefficiencies by automating tasks. Interviewees and survey respondents indicated that one of their organizations' primary investment objectives was to automate many of the day-to-day, manual networking tasks. With the time saved, interviewees described several ways in which valuable networking resources' time was reallocated to activities more aligned with business objectives, like flexible DDI scaling.

- The network engineer at the financial services organization mentioned, "[Our interest in Infoblox DDI] really started with our network team in order to get off of spreadsheet management of networks."
- The DDI architect at the professional services organization reported that their organization's main investment objective was to reduce labor costs while improving visibility: "The goal when we began this journey was mainly to get off spreadsheet management — really get [IP] addressing in a platform that [allows] for automation and being able to get a bird's-eye view of our space. … If you can get your development teams and your infrastructure teams to build their environments based on automation instead of traditional manual processes and run books and things like that, that is where your savings comes over time."

> **"We're always looking for ways to shift operability demands off of our engineering staff and our architectural staff and even off of our operational staff."**
>
> *DDI architect, professional services*

Improve network availability and mitigate costs of unplanned downtime. Interviewees noted how their organizations sought to improve network availability and reduce unplanned network downtime caused by redundant activities that introduce mistakes and misconfigurations. The manager of network services at the transportation organization described how the disparate network systems inherited from a merger complicated business continuity: "They used [a network service provider], they used spreadsheets, and they used a lot of active directory for their services as well. It turned out that once we came together, we basically had at least six systems that no longer talk to each other. None of them talk to each other. So, the task was to find a solution that

would take care of everything and be able to communicate. That's how Infoblox ended up winning the RFI in this case against some of the other companies that we evaluated and so that was the driving factor. I wanted a unified DDI platform."

Build out a Zero Trust environment. Interviewees pointed to emerging networking approaches such as Zero Trust architecture as an important component of their organization's digital transformation. The senior DDI engineer at the energy organization shared: "We were also looking at how to modernize and move towards a new Zero Trust environment, and Infoblox fell very well into that. Because of the cost and how it functioned and the scalability of support, it really fell into that modern client [for] Zero Trust architecture very, very well."

WHY INFOBLOX DDI?

Interviewees and survey respondents indicated that their organizations chose Infoblox DDI because it could:

Centralize and modernize DNS, DHCP, and IPAM in a single platform. Interviewees and survey respondents sought to simplify networking with a unified, cloud-native platform.

- The DDI architect at the professional services organization shared why their organization chose Infoblox DDI, saying, "Infoblox allow[s] for control over core network services, so you have a single pane of glass and a single point of management."
- The senior DDI engineer at the energy organization shared: "[Our legacy DNS was] not a sustainable, supportable solution for a large-scale entity like [our company]. You need a single pane of glass, you need templates, and you need configuration management to drive your success. And without that single pane of glass and that configuration management that Infoblox DDI provides, you're not going to achieve success."

Automate networking tasks to reduce bloat and enable scalability. Interviewees and survey respondents pointed to the value that Infoblox DDI automations and templates conferred. The senior DDI engineer at the energy organization pointed out how the centralized management that Infoblox provided reduced their staff's load of managing the overall environment. They shared, "It was a tremendous way for us to refocus our limited resources and staff."

Deliver a marked improvement in system availability. Interviewees noted that Infoblox offered a steady platform known for its reliability. The senior DDI engineer at the energy organization described how their organization put Infoblox DDI to the test: "We were looking at it from a reliability and stability perspective. We put that device through the ringer quite a bit. We put it well beyond the specs that Infoblox gave us … to see what it could do, where it would break. And we were fairly pleased with it."

"Cloud is where everything is. If you talk to the Fortune 100, I think a lot of them are looking at cloud and how to leverage [it and] make it a value point for their organization, not just by saving money but as an empowerment point for them to develop on, save money, and be more efficient."

Senior DDI engineer, energy

COMPOSITE ORGANIZATION

Based on the interviews and survey, 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 five interviewees and the 34 survey respondents, 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 composite organization is a globally distributed conglomerate based in North America generating $10 billion in revenue annually. Its global operations are supported by 40,000 FTEs across 200 sites.

Key Assumptions

- **$10 billion annual revenue**
- **40,000 FTEs**
- **200 sites**
- **3 DDI engineers**

Deployment characteristics. The composite organization seeks to overhaul its virtual network architecture in support of business objectives including revenue retention and cost savings. The composite organization introduces the Infoblox DDI solution in a phased deployment over the three-year investment period in support of these goals.

- During the first year, the composite organization is able to fully transition DHCP services to Infoblox DDI. The composite is also able to start decommissioning the legacy DHCP environment. Finally, the organization completes deployment of the DHCP elements of Infoblox DDI and begins the final phase of DNS deployment during Year 1.
- In Year 2, the composite organization fully decommissions legacy DHCP components and a portion of the legacy DNS environment.
- By the end of Year 3, the composite organization fully decommissions the remainder of its legacy DDI environment.

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	Savings from legacy infrastructure	$953,040	$2,859,120	$5,198,400	$9,010,560	$7,134,944
Btr	Time savings from consolidated DDI automation	$13,343	$26,687	$40,435	$80,465	$64,565
Ctr	Improved business continuity	$40,055	$80,110	$529,213	$725,775	$500,225
Dtr	IT help desk efficiencies from DDI automation	$1,505,617	$1,434,434	$1,361,093	$4,301,144	$3,576,835
	Total benefits (risk-adjusted)	$2,512,055	$4,400,350	$7,129,141	$14,117,945	$11,276,569

SAVINGS FROM LEGACY INFRASTRUCTURE

Evidence and data. Interviewees and survey respondents described how their organizations saved money on infrastructure and labor costs with Infoblox DDI compared to their legacy infrastructure. With the consolidated approach to DNS, DHCP, and IPAM, interviewees and survey respondents also reported how they were able to better structure their core network services in support of business outcomes.

- The senior DDI engineer at the energy organization shared how their firm reaped cost savings moving to Infoblox DDI: "We reduced our footprint when we went from [our prior solution] to Infoblox DDI. They had a lot of boxes deployed that were not really being utilized. … When we shifted to Infoblox DDI, that cost for our servers was basically a savings of 40% overall cost."

"The important thing is that we have a homogeneous platform, so we don't have different systems."

IT architect, government

- The IT architect at the government organization similarly shared how their organization's networking footprint was reduced with Infoblox DDI, from 200 servers down to just 30. However, the interviewee pointed to further value with Infoblox DDI: "The important thing is that we have a homogeneous platform, so we don't have different systems. And we have managed to achieve data consolidation and centralization [with Infoblox DDI], so we're all looking at one set of data."
- The manager of network services at the transportation organization reported that deployment of Infoblox DDI allowed their organization to discontinue outsourcing DNS to a third-party enterprise directory service (EDS). At the same time, the interviewee articulated the value of unifying disparate data into a single platform with Infoblox. They shared: "One of the biggest values we see in it is that it is a unified IP-aware platform. In other words, DNS, DHCP, and IPAM all work seamlessly together with each other. So single pane of glass for administration is a big plus."

- The DDI architect at the professional services organization pointed to the value of managing DDI in a single environment with Infoblox: “The nice thing I have found about Infoblox DDI is that it does enable you to keep that same single pane of glass for your DNS and your IP space. And despite the fact that we’re in a hybrid network, we’ve got lots of on-prem data centers, we’ve got cloud data centers, we’ve got [a hosted cloud], and we can spin up appliances in all of those locations and they all just work together. They all still talk to the same grid manager, and there’s one web UI that all of those networks are in. All of the DNS records are associated within. All of the tooling that goes along with that, any automation or service requests and things that would need to make changes, they can make in one place. … It’s just all in Infoblox, and you just go in Infoblox and change it, and you’re good to go."
- Of the 20 survey respondents who reported cost savings with Infoblox DDI: 95% reported savings on overhead and operations between 10% and 74%; 75% reported savings from eliminating legacy solutions between 10% and 49%; and 45% reported networking and cloud savings between 25% and 49%.

Modeling and assumptions. Forrester assumes the following about the composite organization:

- Of the composite’s $10 billion in annual revenue, it dedicates 4%, or $400 million, to IT.[6]
- Within the composite organization’s IT budget, it spends 7.6% on networking in the prior environment, or $30.4 million.[7]
- In Year 1 of its investment in Infoblox DDI, the composite organization reduces its legacy IT network footprint, including data center space, servers, and other hardware, lowering infrastructure costs by 10%. This increases to 15% savings in Year 2. By the end of Year 3, the composite organization saves 18% on its IT network infrastructure costs compared to the prior environment.
- The composite decommissions 33% of its legacy networking infrastructure in Year 1, 66% in Year 2, and fully decommissions its legacy networking infrastructure by the end of Year 3.[8]

> **“[Our organization] has grown in terms of the acquisitions, but it is consolidating in terms of network footprint. Like everything, it’s slowly but surely getting more efficient, more simplified, easier to manage, and automated. So people are finding savings where they can to make things simpler and easier to manage rather than sprawling out and getting bigger.”**
>
> *DDI architect, professional services*

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

- The percentage of annual revenue devoted to IT.
- The percentage of the IT budget dedicated to networking.
- The speed and order of Infoblox DDI deployment phases. and the rate at which legacy IPAM, DHCP, and DNS solutions are decommissioned.

Results. To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of more than $7.1 million.

Savings From Legacy Infrastructure

Ref.	Metric	Source	Year 1	Year 2	Year 3
A1	Annual revenue	Composite	$10,000,000,000	$10,000,000,000	$10,000,000,000
A2	Percentage of annual revenue dedicated to IT	Composite	4%	4%	4%
A3	IT budget	A1*A2	$400,000,000	$400,000,000	$400,000,000
A4	Percentage of IT budget dedicated to networking	Composite	7.6%	7.6%	7.6%
A5	Annual IT networking budget	A3*A4	$30,400,000	$30,400,000	$30,400,000
A6	Reduction of IT network infrastructure costs with Infoblox DDI	Interviews	10%	15%	18%
A7	Legacy decommission rate	Composite	33%	66%	100%
At	Savings from legacy infrastructure	A5*A6*A7	$1,003,200	$3,009,600	$5,472,000
	Risk adjustment	↓5%			
Atr	Savings from legacy infrastructure (risk-adjusted)		$953,040	$2,859,120	$5,198,400
	Three-year total: $9,010,560			**Three-year present value: $7,134,944**	

TIME SAVINGS FROM CONSOLIDATED DDI AUTOMATION

Evidence and data. Consolidating and simplifying the DDI environment, as described in Benefit A, meant that interviewees' organizations were able to shift resources' time and attention away from wasteful processes required to manage a disparate legacy environment.

Interviewees discussed networking bottlenecks that were effectively eliminated with the introduction of Infoblox DDI templates and automations, improving SLAs. End users were now able to self-service administrative networking tasks such as managing changes and provisioning virtual machines. In the prior environment, these efforts required submitting a ticket and waiting for IT agents to process and assign the networking tasks before actual work could begin.

The impacts of these time savings were far-reaching across the networking organization, both in general and as they relate to specific administrative tasks.

Broad-based automation efficiencies. With time savings from routine and ad hoc processes for networking administration, interviewees reported that their organizations were able to free up networking resources from manual tasks and onsite work.

- The senior DDI engineer at the energy organization shared their organization's labor savings, stating: "[The labor savings] are massive. If I had to do this with [the legacy solution], I'd have to hire at least two, three, or four more FTEs … or I'd have to hire an outsourcing agency to help me do it. There's no way I could do [all this] with my existing staff if I had any other solution running right now, and we didn't have the features, supportability, and configuration ease that [Infoblox DDI] is offering us today."
- For the 30 survey respondents who reported labor savings with DDI task automation, the majority saved an average of 6 hours per week.

Time savings from specific DDI task automation. Interviewees and survey respondents detailed ways in which their organizations benefited from automating a wide range of tasks and use cases for DNS, DHCP, and IPAM with Infoblox DDI, including:

- **More efficient patching and updates with less unplanned downtime.** The IT architect at the government organization shared how patching efforts were drastically reduced with the Infoblox investment: "With Infoblox DDI, patch management is excellent from my point of view because a patch is only applied to the platform once, centrally. Then there's a mechanism that gradually updates all the machines, and we've designed everything with redundancy so that there's virtually no platform downtime in the update process. And we often [used to] have that. … [Before Infoblox, our team had to patch our servers] often. We now try every quarter. And even if it's only every six months, that's not a big effort at all. So the maintenance of the platform is marginal."

  The senior DDI engineer at the energy organization shared how moving to Infoblox DDI enabled a more streamlined software update process, reducing the management effort required to keep the system running: "[Infoblox just works, and it's the wonderful thing about them. It's really refreshing to have a technology that, once you implement, you can kind of forget about. It's going to do its job."
- **Faster time to deploy and provision.** The DDI architect at the professional services organization reported faster deployment as their organization scaled with Infoblox: "It takes surprisingly little effort to expand an Infoblox grid, spin up a new appliance, and get it connected to your existing grid and start being useful. … And with our move to [a public cloud], since now I personally have more control to spin up these new appliances, we don't have to go through the ordering process for

[physical equipment], where I can just spin up a new instance in the cloud. … In about 15 minutes, [it's] connected to our grid and doing work if I need it to."

The senior DDI engineer at the energy organization shared how Infoblox DDI yielded time savings for deploying DNS servers: "For the time that they deployed the virtual machine to the time we get the DNS server moved, [it went] from days to hours. We went from 24 to 48 hours of deployment [in our prior environment] to less than an hour of deployment, and it was just a no-brainer for us. It saved us on all fronts."

"You don't need to come to my team to have a DNS entry made or change. You go out to a web page on our system, and you go ahead and submit your request, and it happens immediately."

Manager of network services, transportation

- **Quicker processes for change requests**. The senior DDI engineer at the energy organization shared labor savings their organization achieved by automating network change requests with Infoblox DDI, rather than issuing tickets as with their prior environment: "With Infoblox, I can create nameserver groups [NSGs] and just apply them and I'm done. And if I update the NSG, they all get updated. … If I need to make a change to a configuration on a [legacy] DNS server, I have to visit every server individually, either script automatically, or I have to have someone log in and do it."

The IT architect at the government organization shared how their organization automated IP address provisioning: "We have automated quite broadly. In the data center, for example, we don't maintain IP addresses anymore; we have a provisioning platform. That is the advantage of Infoblox DDI. So besides the stability, it's simply the powerful API."

- **Improved processes for M&A and divestments**. Interviewees shared how the Infoblox DDI unified platform helped their organizations navigate the infrastructure aftermath of mergers and acquisitions.

  The senior DDI engineer at the energy organization described how Infoblox DDI streamlined the divestment transition process: "We're able to utilize Infoblox DDI to ease the transition of those divestments. We went from spending months of time to do divestments to weeks. … Right now, we have four divestitures going on. In the past, I would have had to put an entire FTE on each divestiture, and that would have been their only duty for at least three months. Now I literally throw one FTE at it for a week, and then we put it in the steady state and transfer the operational cost and the operational tasks to our operations team rather than our engineering teams."

  The manager of network services at the transportation organization shared their firm's approach to expanding automation capabilities: "Any services that people come to ask us for, the charter is [we do it]. If they have to come to us, we're a bottleneck. Let's see what we can do to automate it and allow them to do it."

  The DDI architect at the professional services organization discussed how Infoblox DDI made the M&A process easier by integrating networks: "Mostly from a DDI perspective, the biggest benefit of having Infoblox in those scenarios is just the ability to get a [data] dump from the

acquired company of the networks that they have in use, assuming they have that information handy, and then easily go into Infoblox and find where things overlap. Find where there's going to be problems integrating the two networks because it's all in one place. It's all in one IPAM database, and everything is organized and has useful metadata associated with the objects, what the existing networks are for, and where they are, and how they're connected to things. Having that single IPAM database to use during those acquisitions makes the process of integrating the two networks a lot easier."

Optimized deployment of networking resources. With time savings from routine and ad hoc processes for networking administration, interviewees were instead redeployed to higher-value activities.

- The senior DDI engineer at the energy organization shared labor savings, stating: "It was a tremendous thing because it freed us up from a work-focused effort to be able to focus on the next-gen products and where we wanted to go. … It also helped with] working on our roadmaps and being able to look at what the business was doing and then be ahead of that gap rather than being reactive to the need."
- The manager of network services at the transportation organization discussed how Infoblox DDI's self-service automations had a significant impact on performance and productivity of end users and networking resources following a large merger: "[We came] from all of these different groups, organizations, and these different platforms. … Once [we put it on] Infoblox DDI, it was all unified onto a single

FLEXIBILITY: NETWORKING AUTOMATION OVERVIEW

Infrastructure connects every business asset together and has a direct impact on how you win, serve, and retain customers — and gain revenue. Use a business-optimized network (BON) strategy to ensure that your network helps deliver specific business strategies. Networking technology, solutions, and architectures are undergoing a transformation, but networking professionals have made little progress in automating networks and continue to drive them manually.[9]

Engineers should focus on innovation, not on babysitting technology. To jump-start network automation, start by focusing on automating monitoring tools, letting software do much of the tedium of network operations.

Interviewees and survey respondents shared many metrics demonstrating how Infoblox DDI automation and templates have driven efficiencies cross and beyond the core networking space.

Figure 4. Networking Automations From Interviewees And Survey Respondents

Metric	Impact With Infoblox DDI
Labor savings	28.50%
Task automation time savings/on administrative tasks to manage DNS, DHCP, and IP addresses	6 hours per week
Certification and compliance reporting	8 hours per cycle
M&A time savings	7.50%
Faster provisioning	98%

platform. Anybody that needed administrative access was given access to the centralized platform that they would use. Slowly now, people have stopped doing anything except the DDI team itself, the four engineers. Everybody else has pretty much backed out of it, and now they submit their own request."

- The IT architect at the government organization shared how Infoblox DDI helped achieve their organization's automation goals: "No one really works manually with Infoblox anymore. [Things are] done exclusively via automated processes. … It's really very powerful. We are trying to get to a point where nothing is done manually in the Infoblox platform."

Modeling and assumptions. Forrester assumes the following about the composite organization:

- Without Infoblox DDI, the composite organization would need to invest an additional 2,080 hours of networking engineer labor annually to scale DDI efforts.
- With Infoblox DDI, the composite organization only needs to deploy 624 hours of networking engineer effort, avoiding 70% of the additional networking engineer effort to scale its DDI program.
- The average fully burdened hourly salary of a network engineer is $72.
- The composite decommissions 33% of its legacy networking infrastructure in Year 1, 66% in Year 2, and fully decommissions its legacy networking infrastructure by the end of Year 3.[10]

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

- The amount of networking engineer labor required to scale DDI efforts.
- The salary and expertise of a network engineer
- The speed and order of Infoblox DDI deployment phases.

Results. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of $65,000.

Time Savings From Consolidated DDI Automation

Ref.	Metric	Source	Year 1	Year 2	Year 3
B1	Networking engineer effort required to scale DDI efforts without Infoblox DDI (hours)	Composite	2,080	2,080	2,080
B2	Percentage of networking engineer effort avoided with Infoblox DDI	Interviews	70%	70%	70%
B3	Networking engineer effort required to scale DDI efforts with Infoblox DDI (hours)	B1*(1-B2)	624	624	624
B4	Fully burdened hourly salary of a network engineer	TEI standard	$72	$72	$72
B5	Legacy decommission rate	A7	33%	66%	100%
Bt	Time savings from consolidated DDI automation	B3*B4*B5	$14,826	$29,652	$44,928
	Risk adjustment	↓10%			
Btr	Time savings from consolidated DDI automation (risk-adjusted)		$13,343	$26,687	$40,435
	Three-year total: $80,465			**Three-year present value: $64,565**	

IMPROVED BUSINESS CONTINUITY

Evidence and data. When DNS experiences unplanned downtime due to outages, business comes to a standstill. Poorly documented IPs and cobbled-together environments can also lead to costly downtime for employees and hinder sales.

Interviewees reported several ways in which the unified Infoblox DDI solution enhanced their organizations' resiliency, increased availability, and improved business continuity in the event of a system disruption, including:

Enabling mission-critical availability and uptime. Interviewees and survey respondents shared how deploying Infoblox DDI helped their organizations prevent outages, improve performance, and reduce troubleshooting costs.

- The senior DDI engineer at the energy organization reported a measurable improvement in system availability, from 80% in the prior environment to 99.999% with Infoblox DDI. This caused a reduction in unplanned downtime, allowing resources to shift their focus to innovation and development. They said: "By moving to a homogeneous environment, we're running a pure Infoblox solution, we gain those five 9s of reliability. That was a tremendous win for our organization. It allowed us to be more effective to refocus, not just us being able to not remove people from [our company] but to redirect effort into other priority workstreams that weren't necessarily doing that work, so it was huge."
- The DDI architect at the professional services organization shared how Infoblox DDI improved redundancy: "[With Infoblox DDI], DNS is still functional even if one of the two data centers goes completely dark, and nobody has to change anything on their servers for that to keep functioning. … [Infoblox DDI] allows you to have that network layer redundancy for a set of IP addresses so that any one location can go offline, and you still get routed to a working DNS server."

> **"[It's] about avoiding downtime and the stability and reliability of the critical network services: DNS and DHCP and NTP. Knowing that your DNS query is going to respond 99.999% of the time, you don't have to worry that the DNS server is down. That's the most visible thing the end users would see."**
>
> *DDI architect, professional services*

- The network engineer at the financial services organization described how automating IPAM in their organization's data centers with Infoblox DDI reduced the potential for outages. They shared how the lack of an accurate IPAM system in their legacy environment led to a routing issue that caused downtime in their data centers, requiring 10 engineers' full attention for up to 2 hours. They said: "[We experienced routing issues in our data centers] because at the time, we didn't have Infoblox. If the [Infoblox DDI] IPAM was in place … if we had that kind of database for somebody to reference and find an available address easily, then that whole issue could've been avoided, and probably would've been avoided. …There would have been less chance of human error which [was the cause]."
- The IT architect at the government organization shared how their organization improved network stability by effectively eliminating outages from human error, which had led to costly unplanned downtime in the data centers in the prior environment. They said, "After the introduction of Infoblox DDI, there were no more discussions about the stability of the two [data centers]."

Derisking costly impacts of unplanned downtime. With Infoblox DDI minimizing outages, interviewees' and survey respondents' organizations were able to maintain operations more consistently, improving productivity and preventing costly impacts of unplanned downtime. With time savings from regular and ad hoc processes for remediating unplanned downtime, interviewees reported that their organizations were able to redeploy skilled resources to innovation and development.

- The senior DDI engineer at the energy organization explained how the Infoblox DDI environment provided valuable segmentation capabilities, adding resiliency to the network: "Either the AD [Active Directory] brought DNS down, or DNS brought AD down. It's a vicious cycle. By creating that segregation of technology, we improved the reliability because we were no longer having that collision on the same box. We removed that cross-dependency, and that actually improved both services. It didn't just improve our DNS services — our Active Directory also got more resilient in the same fold. Our Active Directory admins loved us because we got the service off their box."
- The senior DDI engineer at the energy organization also shared how the improved reliability freed up networking resources from costly and distracting remediation effort: "Before we implemented Infoblox DDI, I would spend about three days a week in what we call SWAT calls, which is basically an all-hands-on-deck emergencies call. … We spent about three days a week just doing emergency calls, and everything that went wrong, DNS was being blamed for it. And now, we don't even get called anymore because DNS just works."
- Survey respondents reported several benefits related to improved infrastructure availability, including reductions in the number of unplanned incidents of downtime and a reduction in data breaches, audits, and fees (see Figure 5).

> **"We've had a bad DNS outage before where basically the entire company was down for about 3 hours. … We missed a tax payment … and I will tell you that the penalty for missing that tax payment was over seven figures."**
>
> *Senior DDI engineer, energy*

Modeling and assumptions. Forrester assumes the following about the composite organization:

- In the prior environment, the composite organization's system availability was 87%.
- With Infoblox DDI, system availability improves:
  - By 1% each of the first two years, to 88% in Year 1 and 89% in Year 2 with the introduction of Infoblox DDI for IPAM and DHCP.
  - A total of 13% by the end of Year 3, bringing system availability to 99.995% with full deployment and adoption of the Infoblox DDI solution.
- The composite organization reduces network troubleshooting effort by more than 600 hours with Infoblox DDI as follows:
  - In the prior environment, the composite dedicated three resources to weekly hourlong network troubleshooting calls, totaling 156 resource hours annually.

- With Infoblox DDI fully deployed for DHCP in Year 1 and DNS in Year 2, the composite organization is able to decrease the frequency of troubleshooting calls by 5% and 10%, respectively.
- By the end of Year 3, the composite organization fully deploys Infoblox DDI, significantly improving system availability, as noted above (see line C3 of the financial model on the next page). This reduces the frequency of troubleshooting calls by 92%, saving 574 resource hours.
- The average fully burdened hourly salary of a network engineer is $72.

- The composite gains $400,000 in end-user productivity from improved system availability:
  - In the prior environment, the composite organization averaged 1.5 hours of unplanned DNS system downtime.
  - With Infoblox DDI, the composite organization avoids 1.5% of this unplanned downtime in Year 1, 3% in Year 2, and 20% by the end of Year 3.
  - The composite has 40,000 total end users affected by unplanned system downtime.
  - The average fully burdened hourly salary of an end user is $50.
- The composite organization reduces business costs of unplanned downtime by more than $223,000 with Infoblox DDI as follows:
  - For every one hour of unplanned DNS system downtime, the composite organization risks losing more than $1.14 million of revenue.
  - With Infoblox DDI, the composite organization reduces unplanned downtime by 1% in Year 1, 2% in Year 2, and 13% in Year 3.

Figure 5. "You indicated that your organization realized outage and downtime reduction through its implementation of Infoblox DDI. By how much were each of the following impacted by the implementation of Infoblox DDI, if at all?"

Efficiency	Percentage
Reduction of average downtime per outage	17.9%
Reduction in the amount of downtime annually	15.6%
Reduction in the number of incidents of downtime (unplanned)	7.7%
Reduction of number of data breaches, audits, and fees	26.6%
Increase of availability or reliability of the infrastructure	29.3%
Reduction in power consumption	10.3%

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

- The percentage of time that DNS was available in the prior environment.
- Total annual resource hours spent in network troubleshooting calls in the prior environment.
- The salary and level of expertise of a troubleshooting resource and of an end user.
- The total number of troubleshooting resources and end users impacted by unplanned DNS system downtime.
- The average frequency and duration of unplanned DNS system downtime in the prior environment.
- An organization's total revenue and the amount of revenue at risk from unplanned DNS system downtime.

- The speed and order of Infoblox DDI deployment phases.
- The rate at which legacy IPAM, DHCP, and DNS solutions are decommissioned.

Results. To account for these risks, Forrester adjusted this benefit downward by 15%, yielding a three-year, risk-adjusted total PV of $500,000.

Improved Business Continuity

Ref.	Metric	Source	Year 1	Year 2	Year 3
C1	Percentage of time system was available in prior environment	Composite	87%	87%	87%
C2	Percentage of time system was available with Infoblox DDI	Interviews	88%	89%	99.995%
C3	Subtotal: Improvement in system availability with Infoblox DDI	C2-C1	1%	2%	13%
C4	Total annual resource hours spent in network troubleshooting calls in prior environment	Interviews	156	156	156
C5	Percentage decrease in frequency of troubleshooting calls with Infoblox DDI	Interviews	5%	10%	92%
C6	Total annual resource hours spent in troubleshooting calls saved with Infoblox DDI	C4*C5	31	62	574
C7	Average fully burdened hourly rate of troubleshooting resources	TEI standard	$72	$72	$72
C8	Subtotal: Reduction in network troubleshooting effort with Infoblox DDI	C6*C7	$2,232	$4,464	$41,328
C9	Total unplanned DNS system downtime in prior environment, in hours	Interviews	1.5	1.5	1.5
C10	Improvement in system availability with Infoblox DDI	C3	1%	2%	13%
C11	Total unplanned DNS system downtime avoided with Infoblox DDI, in hours	C9*C10	1.5%	3.0%	20%
C12	Total end users	Composite	40,000	40,000	40,000
C13	Average fully burdened hourly rate of end users	TEI standard	$50	$50	$50
C14	Subtotal: End-user productivity gains from improved system availability	C11*C12*C13	$30,000	$60,000	$400,000
C15	Annual revenue	A1	$10,000,000,000	$10,000,000,000	$10,000,000,000
C16	Loss of revenue from 1 hour of downtime (revenue per hour)	A1/8,760	$1,141,553	$1,141,553	$1,141,553
C17	Total lost revenue from unplanned downtime in the prior environment (revenue per hour)	C9*C16	$1,712,329	$1,712,329	$1,712,329
C18	Reduction in unplanned downtime with Infoblox DDI	C3	1%	2%	13%
C19	Subtotal: Reduced business cost of unplanned downtime with Infoblox DDI	C17*C18	$17,123	$34,247	$222,603
Ct	Improved business continuity	C14+C19	$47,123	$94,247	$622,603
	Risk adjustment	↓15%			
Ctr	Improved business continuity (risk-adjusted)		$40,055	$80,110	$529,213
	Three-year total: $725,775			**Three-year present value: $500,225**	

IT HELP DESK EFFICIENCIES FROM DDI AUTOMATION

Evidence and data. Interviewees shared cascading organizational impacts: providing both automated, self-service networking, as described in Benefit B, and steadily improving business continuity, as described in Benefit C. These outcomes included:

Decreased volume of network-related support tickets. Interviewees described how their organizations deployed the Infoblox DDI solution with multiple options for self-service when the end user needed to submit a support ticket to the IT help desk. This contributed to rapid reductions in associated ticket volume.

- The manager of network services at the transportation organization described the impact of automated, self-service networking on their IT help desk agents. They shared how their networking-related ticket flow went from 100 a day down to 20 at most: "My engineers were working all day doing tickets. With [Infoblox DDI], the automation effort … change controls are automatically in place and happen within seconds. … Now they're involved in a lot more projects. They get involved in troubleshooting, and they're not issuing out as many tickets."
- The DDI architect at the professional services organization shared: "In those automated environments where things are getting spun up using continuous integration pipelines and stuff like that, it's not 100% there yet, but the goal and where things are headed is that those changes just happen as part of that pipeline without any human intervention at all. So as things are spun up, they get DNS records created, they get IPs provisioned, and it's all just in the hands of the developers at that point. Whoever is doing the spinning up of the resources gets all of that happening automatically."

Faster ticket resolution time for end users. For the tickets that remained, interviewees and survey respondents noted that Infoblox DDI helped their IT help desks reduce the time to resolve a network-related support ticket.

- The manager of network services at the transportation organization shared how their organization experienced support savings through reducing the time to detect issues, thereby decreasing the overall time to resolve: "We have alerts set up on the systems to alert the DDI team of issues. We didn't have that before, so that's a plus. Now we know [that] if there's a problem with the platform, the entire DDI team has got a distro, and everybody on the team gets it to make sure that somebody sees it. That's been a time-saver versus somebody calling us up and saying they're having a problem, and [then] we find out our DNS server is down. From that perspective, we've gained some energy there."
- The DDI architect at the professional services organization shared how shifting to automated network change management drastically reduced the time it took for the change to be completed: "Historically, the way those changes are done, we use [an integration] for ticketing, and the requester would submit a ticket, which would then need to be approved by their supervisor. And then it goes into the queue for the service desk to handle. And they usually turned around those tickets in 24 hours for regular old DNS changes, unless there's something complicated or special about it that would require additional back and forth."

Modeling and assumptions. Forrester assumes the following about the composite organization:

- In the prior environment, the composite organization processes an average of 100 networking-related IT support tickets per day, for a total of 36,500 tickets annually. Each network-related IT support ticket required 1 hour to resolve in the prior environment.

- With Infoblox DDI, the composite organization reduces the number of network-related IT support tickets by 70%.
- With an IT help desk agent's average fully burdened hourly salary of $48, the composite organization saves more than $1.7 million in network-related support costs.
- The composite decommissions 33% of its legacy networking infrastructure in Year 1, 66% in Year 2, and fully decommissions its legacy networking infrastructure by the end of Year 3.[11]

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

- The number of network-related IT support tickets in the prior environment.
- The average time to resolve network-related IT support tickets in the prior environment.
- The salary and level of expertise of an IT help desk resource.
- The speed and order of Infoblox DDI deployment phases.
- The rate at which legacy IPAM, DHCP, and DNS solutions are decommissioned.

Results. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of $3.6 million.

IT Help Desk Efficiencies From DDI Automation

Ref.	Metric	Source	Year 1	Year 2	Year 3
D1	Annual network-related IT support tickets in the prior environment	Interviews	36,500	36,500	36,500
D2	Average time to resolve network-related IT support tickets in the prior environment (hours)	Composite	1	1	1
D3	Average fully burdened hourly rate of an IT help desk agent	TEI standard	$48	$48	$48
D4	Subtotal: Network-related IT support costs in the prior environment	D1*D2*D3	$1,752,000	$1,752,000	$1,752,000
D5	Percentage reduction in network-related IT support tickets in the prior environment	Interviews	70%	70%	70%
D6	Total network-related IT support tickets avoided with Infoblox DDI	D1*D5	25,550	25,550	25,550
D7	Total network-related IT support tickets in Infoblox DDI	D1-D6	10,950	10,950	10,950
D8	Percentage reduction in average time to resolve network-related IT support tickets with Infoblox DDI	Interviews	18%	18%	18%
D9	Time to resolve a network-related IT support ticket with Infoblox DDI (hours)	D2*D8	0.2	0.2	0.2
D10	Time saved from faster IT networking ticket resolution with Infoblox DDI (hours)	(D2*D6)+(D7*D9)	27,740	27,740	27,740
D11	Subtotal: Total network-related IT support costs in with Infoblox DDI	D3*D8*D10	$239,674	$239,674	$239,674
D12	Legacy decommission rate	A7	33%	66%	100%
Dt	IT help desk efficiencies from DDI automation	D4-(D11*D12)	$1,672,908	$1,593,815	$1,512,326
	Risk adjustment	↓10%			
Dtr	IT help desk efficiencies from DDI automation (risk-adjusted)		$1,505,617	$1,434,434	$1,361,093
	Three-year total: $4,301,144			**Three-year present value: $3,576,835**	

UNQUANTIFIED BENEFITS

Interviewees and survey respondents mentioned the following additional benefits that their organizations experienced but were not able to quantify:

Reduced technical debt. The senior DDI engineer explained how Infoblox DDI automations and templates helped reduce technical debt at their energy organization: “There was a tremendous amount of technical debt uncovered during the [deployment] process. Undocumented things that people have done and forgotten about, or inconsistent configurations, because there wasn’t any good way to configuration management on [our legacy solution] for the DNS.”

Diminished risk. The DDI architect at the professional services organization shared how their organization reduced risk with Infoblox DDI: “From a risk perspective, we’ve had instances where a change that was made [led to] some inaccurate records of what IP addresses were in use. That had happened recently, and actually, that was right when we purchased Infoblox because we knew it could prevent that. … Reduced risk is definitely a goal of Infoblox and their solution. "

Reduction in power consumption

10.3%

FLEXIBILITY

The value of flexibility is unique to each customer. There are multiple scenarios in which a customer might implement Infoblox DDI and later realize additional uses and business opportunities, including sustainability-related objectives.

Sustainability-related value. Companies that are sustainability-focused see better financial results than their peers due to multiple cascading impacts organizationwide.[12] While the prior environments and cloud journeys of interviewees’ organizations varied, several interviewees detailed people, process, and technology savings related to decommissioning their organizations’ legacy network architecture that also have sustainability-related impacts.[13]

- Interviewees shared how their organizations drastically reduced their server footprint (see Benefit A). With that divestment in hardware also came a reduction in costs to house and maintain physical equipment, as well as the overall embodied carbon associated with the legacy footprint.[14]
- Survey respondents similarly pointed to a 10.3% reduction in power consumption with Infoblox DDI compared to their prior environments. Of the 20 who indicated that their organizations commissioned hardware or data center space, 30% experienced savings of 17%, with 55% reducing hardware and/or data center space by 5%.

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**
Etr	Infoblox fees	$0	$811,125	$811,125	$811,125	$2,433,375	$2,017,148
Ftr	Deployment and training	$154,352	$132,000	$252,648	$4,752	$543,752	$486,722
Gtr	Ongoing administration	$0	$4,536	$9,072	$13,608	$27,216	$21,845
	Total costs (risk-adjusted)	$154,352	$947,661	$1,072,845	$829,485	$3,004,343	$2,525,715

INFOBLOX FEES

Evidence and data. Interviewees and survey respondents shared various configurations of Infoblox fees for the subscription services and integrations that were optimized to address their specific networking needs.

Infoblox subscription fees included elements such as software maintenance and support, cloud services and automation, and reporting and insights. Of survey participants, 73% indicated subscription fees of less than $500,000.

In addition to subscription fees, interviewees and survey respondents reported additional Infoblox costs related to professional services, training, and hardware and maintenance:

- The senior DDI engineer at the energy organization shared that Infoblox had a highly customizable solution that would scale for a range of companies. They said, “Any organization of any size can benefit from [Infoblox DDI], be it a small mom-and-pop store or a massive conglomerate like [our company]. The way this product has been implemented scales very well.”

> **“Infoblox DDI was a low-cost solution that would effectively replace the [legacy] DNS without us having to break the bank. … They offered us a price point that just made sense.”**
>
> *Senior DDI engineer, energy*

Modeling and assumptions. Forrester assumes the following about the composite’s Infoblox DDI fees:

- Annual subscription fees include:
  - Subscription/license.
  - Software maintenance and support.
  - Cloud services and automation.
  - Reporting and insights.
  - Professional services.
  - Training.
  - Hardware and maintenance.
- Pricing may vary. Contact Infoblox for details.

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

- The configuration of Infoblox DDI solutions for IPAM, DHCP, and DNS, including optionality for automations and integrations.
- The level of training and professional services required.
- The speed and order of Infoblox DDI deployment phases.
- The rate at which legacy IPAM, DHCP, and DNS solutions are decommissioned.

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 $2.0 million.

Infoblox Fees

Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3
E1	Infoblox DDI subscription fees	Composite		$727,500	$727,500	$727,500
E2	Professional services	Composite		$15,000	$15,000	$15,000
E3	Training	Composite		$20,000	$20,000	$20,000
E4	Hardware and maintenance	Composite		$10,000	$10,000	$10,000
Et	Infoblox fees	E1+E2+E3+E4	$0	$772,500	$772,500	$772,500
	Risk adjustment	↑5%				
Etr	Infoblox fees (risk-adjusted)		$0	$811,125	$811,125	$811,125
	Three-year total: $2,433,375			**Three-year present value: $2,017,148**		

DEPLOYMENT AND TRAINING

Evidence and data. Infoblox DDI was deployed in various configurations, with IPAM usually serving as one of the earlier deployment phases and DNS tending toward the later phases of full, unified DDI deployment. Organizations that came from more complex prior environments, such as post-merger, saw longer deployment and implementation phases.

- The senior DDI engineer described their energy organization's deployment period and activities: "We had a lot of DNS route mapping that we had to fix. … We had to create architecture that followed more of the best practice doctrines. … We put it into production and tested it thoroughly in a production environment for about six months before we said, 'Hey, we don't get issues with this. It just works.' That's how it's supposed to be. It's supposed to just work."
- The IT architect at the government organization also explained the deployment process, which included some third-party consulting services for deployment: "We had a big migration [during which] you could see that isolated solutions had been built that nobody knew about. … The other thing was the long-term preparatory activities, especially all the approval processes, such as the firewall rules, for example. The actual effort is quite manageable. The resources that we really have to use are well documented."

Modeling and assumptions. Forrester assumes the following about the composite organization:

- The composite organization dedicates two FTEs for each three-month implementation phase up to Year 2 to cover the IPAM and DHCP implementation. This increases to three implementation resources in Year 3 for full DNS implementation and lasts six months.
- The average fully burdened hourly rate of an implementation resource is $72.
- The composite organization further incurs third-party implementation costs, including:
    - In the initial deployment period, $8,000 for third-party professional services; in Year 1, $12,000; and in Year 3, $18,000 for third-party professional services performing DNS deployment.
    - In the initial deployment period, $20,000 for third-party technology costs.
- Internal training costs of $20,000 entail three FTEs, each requiring 40 hours of training in the initial period, and 20 hours of training annually from Years 1 to 3.
- The composite decommissions 33% of its legacy networking infrastructure in Year 1, 66% in Year 2, and fully decommissions its legacy networking infrastructure by the end of Year 3.[15]

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

- The speed and order of Infoblox DDI deployment phases.
- Reliance on third-party deployment partners for professional and technology services.
- The total number, expertise, and salary of implementation resources.
- The rate at which legacy IPAM, DHCP, and DNS solutions are decommissioned.

Results. To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year, risk-adjusted total PV of $487,000.

Deployment And Training

Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3
F1	FTEs required for implementation	Interviews	2	2	3	0
F2	Deployment time (months)	Interviews	3	3	6	0
F3	Deployment time (hours)	F2*40*12	1,440	1,440	2,880	0
F4	Fully burdened hourly rate per implementation resource	TEI standard	$72	$72	$72	$72
F5	Subtotal: Internal deployment costs	F3*F4	$103,680	$103,680	$207,360	$0
F6	Third-party professional services	Interviews	$8,000	$12,000	$18,000	$0
F7	Third-party technology costs	Interviews	$20,000	$0	$0	$0
F8	Subtotal: Third-party costs	F6+F7	$28,000	$12,000	$18,000	$0
F9	FTEs trained	Composite	3	3	3	3
F10	Training required annually (hours)	Interviews	40	20	20	20
F11	Subtotal: Internal training costs	F4*F9*F10	$8,640	$4,320	$4,320	$4,320
Ft	Deployment and training	F5+F8+F11	$140,320	$120,000	$229,680	$4,320
	Risk adjustment	↑10%				
Ftr	Deployment and training (risk-adjusted)		$154,352	$132,000	$252,648	$4,752
	Three-year total: $543,752			**Three-year present value: $486,722**		

ONGOING ADMINISTRATION

Evidence and data. Interviewees and survey respondents shared internal product administration costs, which varied based on deployment configuration.

- The senior DDI engineer at the energy organization shared that Infoblox had a highly customizable solution that would scale for a range of companies without adding undue administrative burden: “It is so important that you can scale without driving your cost up so much, and I’m not just talking about your dollars — I’m talking about your administrative cost. Every time you add devices to your network, there’s an administrative cost, [but Infoblox DDI] does a tremendously good job of minimizing that incremental cost.”
- The DDI architect at the professional services organization also discussed the value of Infoblox DDI’s consolidated platform from an ongoing administration perspective: “[Infoblox DDI] is worth it for the simplicity that it provides. As complex a system as IP and DNS management can be, it is surprisingly simple to manage as a sole person across a global infrastructure.”

Modeling and assumptions. Forrester assumes the following about the composite organization:

- The composite organization devotes one network engineer to administer Infoblox DDI, dedicating:
  - Sixty hours of administration in Year 1.
  - One hundred twenty hours of administration in Year 2.
  - One hundred eighty hours of administration in Year 3.
- The average fully burdened hourly rate of a network engineer is $72.

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

- The experience and salary of a network engineer.
- The speed and order of Infoblox DDI deployment phases.
- The rate at which legacy IPAM, DHCP, and DNS solutions are decommissioned.

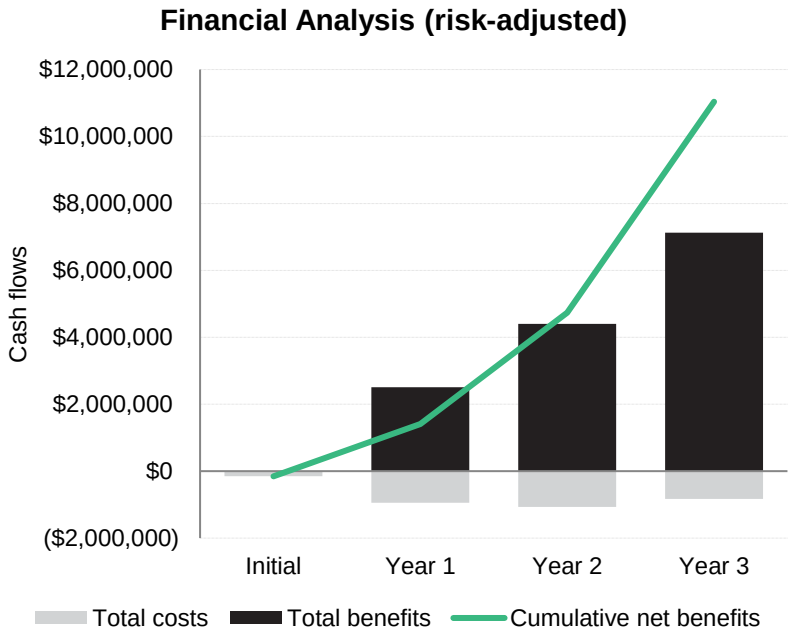
Results. To account for these risks, Forrester adjusted this cost upward by 5%, yielding a three-year, risk-adjusted total PV of $22,000.

Ongoing Administration

Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3
G1	Network engineers administering Infoblox DDI	Composite	0	1	1	1
G2	Time spent on administration per month (hours)	Interviews	0	5	10	15
G3	Time spent on administration per year (hours)	G1*G2*12	0	60	120	180
G4	Network engineer fully burdened hourly rate	TEI standard	$0	$72	$72	$72
Gt	Ongoing administration	G3*G4	$0	$4,320	$8,640	$12,960
	Risk adjustment	↑5%				
Gtr	Ongoing administration (risk-adjusted)		$0	$4,536	$9,072	$13,608
	Three-year total: $27,216			**Three-year present value: $21,845**		

Financial Summary

CONSOLIDATED THREE-YEAR RISK-ADJUSTED METRICS



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	($154,352)	($947,661)	($1,072,845)	($829,485)	($3,004,343)	($2,525,715)
Total benefits	$0	$2,512,055	$4,400,350	$7,129,141	$14,117,945	$11,276,569
Net benefits	($154,352)	$1,564,394	$3,327,505	$6,299,656	$11,113,602	$8,750,854
ROI						346%
Payback						<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

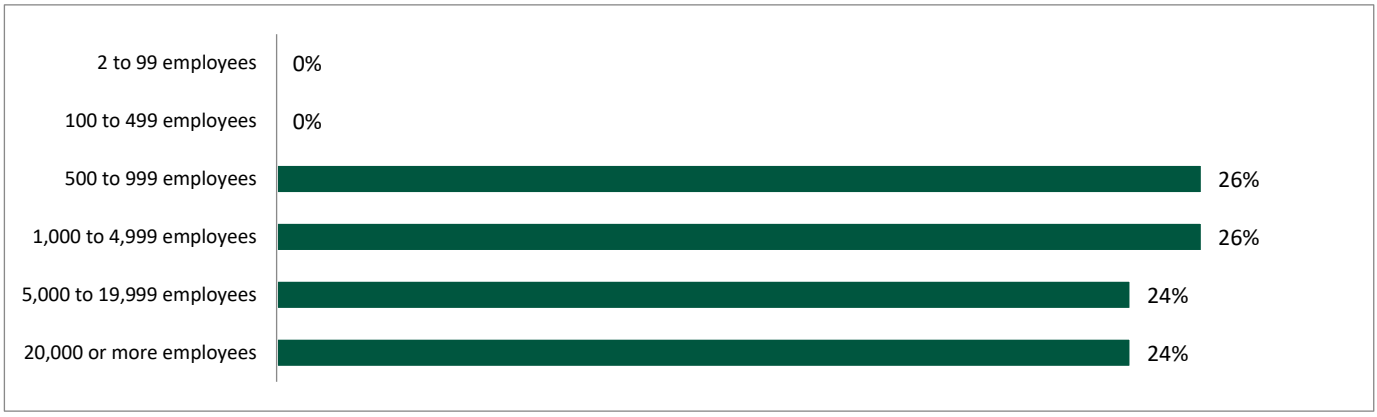
The breakeven point for an investment. This is the point in time at which net benefits (benefits minus costs) equal initial investment or cost.

Appendix B: Interview And Survey Demographics

Interviews					
Role	**Industry**	**Region**	**Sites**	**IP addresses**	**DDI engineers**
Senior DDI engineer	Energy	Multinational	1,000	1.1 million	7
Manager of network services	Transportation	Multinational	900	1.4 million	4
DDI architect	Professional services	Multinational	30	100,000	10
Network engineer	Financial services	North America	1,000	60,000	30
IT architect	Government	Europe	8	8 million	20

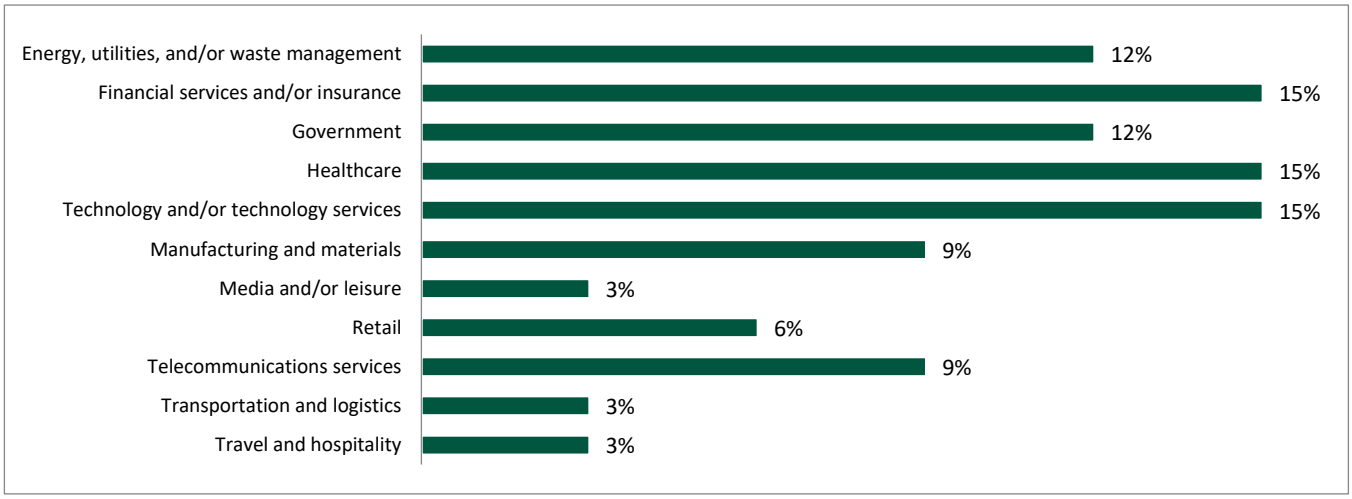
Survey Demographics

"Using your best estimate, how many employees work for your firm/organization worldwide?"

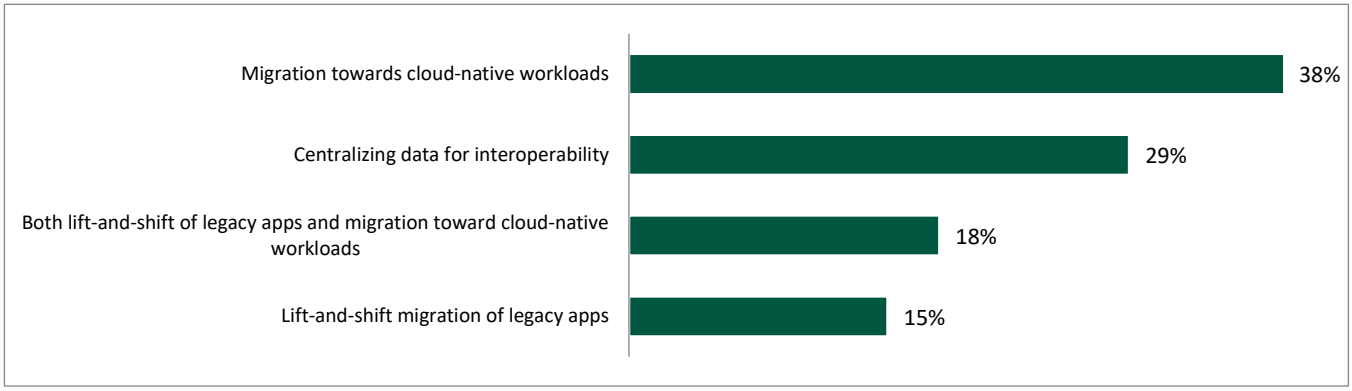


"Using your best estimate, what is your organization's annual revenue (USD)?"

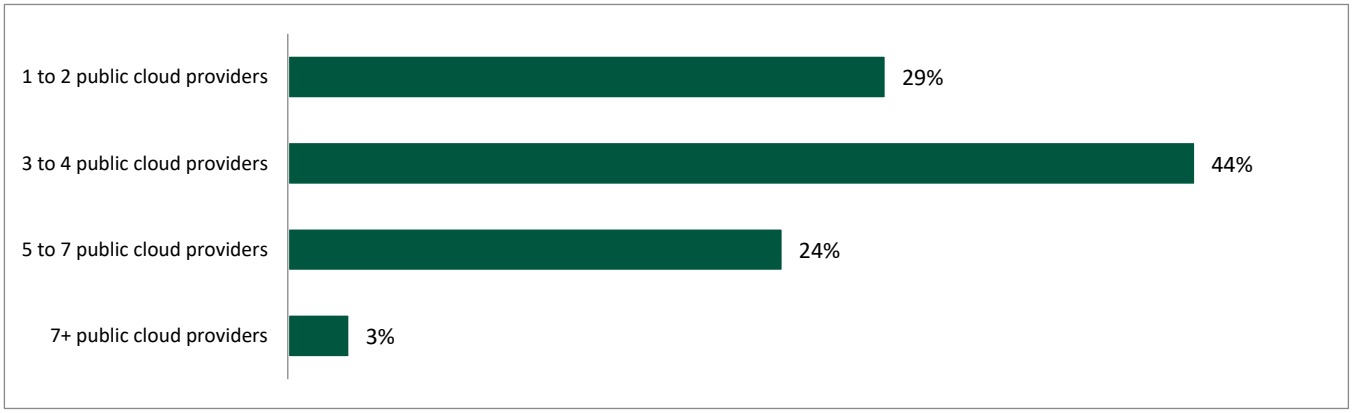
"Which of the following best describes the industry to which your company belongs?"



"Which of the following best describes your data migration to the cloud?"



"How many public cloud providers does your organization currently have?"



Appendix C: Supplemental Information

Related Forrester Research

Let Business Outcomes Drive Network Design, Forrester Research, Inc., April 6, 2023

Future Fit Organizations Align Their Tech Architecture To Optimize Business Outcomes, Forrester Research, Inc., April 17, 2023

Appendix D: Endnotes

[1] Source: Future Fit Organizations Align Their Tech Architecture To Optimize Business Outcomes, Forrester Research, Inc., April 17, 2023.

[2] 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.

[3] Source: Let Business Outcomes Drive Network Design, Forrester Research, Inc., April 6, 2023.

[4] Ibid.

[5] Ibid.

[6] The average enterprise spends about 4% of revenue on IT. Enterprise spend on IT varies from 2% to 5% of their annual revenue; the average is 4%. This includes running, growing, and transforming applications and infrastructure as well as maintaining and managing these functions. Source: 2023 IT Network Benchmarks, Global, Forrester Research, Inc., August 7, 2023.

[7] The average enterprise spends 38% of its IT budget on infrastructure. Networking consumes 20% of the infrastructure budget. Source: 2023 IT Network Benchmarks, Global, Forrester Research, Inc., August 7, 2023.

[8] Some organizations using legacy solutions for DNS and DHCP may not completely decommission all of their legacy servers, especially in cases where they are providing other services such as Active Directory Domain Controllers. In these cases, the legacy decommission rate must be adjusted to less than 100% to accurately reflect the benefits gained on licensing, labor, or other cost savings related to those servers.

[9] Source: Adapt Your Networking Strategy To The Emerging Network Environment, Forrester Research, Inc., August 15, 2023.

[10] Some organizations using legacy solutions for DNS and DHCP may not completely decommission all of their legacy servers, especially in cases where they are providing other services such as Active Directory Domain Controllers. In these cases, the legacy decommission rate must be adjusted to less than 100% to accurately reflect the benefits gained on licensing, labor, or other cost savings related to those servers.

[11] Some organizations using legacy solutions for DNS and DHCP may not completely decommission all of their legacy servers, especially in cases where they are providing other services such as Active Directory Domain

Controllers. In these cases, the legacy decommissioning rate must be adjusted to less than 100% to accurately reflect the benefits gained on licensing, labor, or other cost savings related to those servers.

[12] Source: The Forrester Technology Sustainability Framework, Forrester Research, Inc., July 26, 2021.

[13] Source: "Guide Your Sustainability Program With The Forrester Sustainability Maturity Model," Forrester Research, Inc., October 27, 2021.

[14] Source: Personal communication with Forrester Principal Analyst Andre Kindness.

[15] Some organizations using legacy solutions for DNS and DHCP may not completely decommission all of their legacy servers, especially in cases where they are providing other services such as Active Directory Domain Controllers. In these cases, the legacy decommissioning rate must be adjusted to less than 100% to accurately reflect the costs organizations may incur.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