Ebook

Liquid Web

State of the hosting industry report

2024

Section 1: Overview

At the end of 2022, the hosting industry was worth a whopping $94.9 billion.

Although definitive 2023 figures aren't yet available, experts predict that the market size, currently valued at nearly $100 billion, could reach approximately $125 billion.

As we kick off 2024, this report highlights a promising future for the web hosting industry. Growth is expected at a rate of 18% by 2028 or a 4 to 5% growth rate year-over-year.

However, the next big thing in hosting or AI technology could come along and supercharge industry growth at a rate we can't even imagine. This is why it's important to understand trends and where hosting is going so you can get ahead of the curve.

In this report, we'll cover everything you need to know about hosting in 2024. We'll highlight primary hosting technologies, where they're trending, their challenges, and opportunities you can leverage to stay relevant in a hectic digital marketplace.

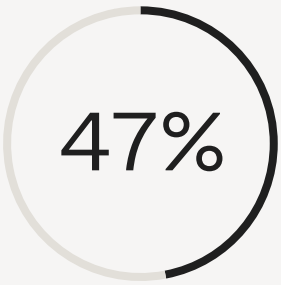
Section 2: Methodology

Our web hosting statistics come from a survey involving 500 director-level and above employees at mid- to enterprise-level businesses. These people serve as decision-makers for the business purchases related to web hosting for their organization. We asked them about their existing website and hosting environments and where they believe the industry is headed.

Section 3: Hybrid hosting solutions

Hybrid hosting solutions are the perfect vehicle to usher in the future of web hosting. As the name suggests, combining the old and new elements of hosting technology and hardware allows companies to seamlessly transition into our current hosting world, a landscape relying almost solely on cloud technology.

Organizations comfortable with the power and resources of large, on-site data centers can slowly transition to a more flexible and agile cloud framework. The same can be said for software applications. Hybrid hosting solutions can easily transition legacy-powered apps to a cloud infrastructure without sacrificing much in the way of downtime or service interruption.



survey respondents who see the benefit of a hybrid hosting model

Those who do use on-premise setups still choose to maintain some form of private cloud hosting. Here's the reasoning participants gave when we asked them why:

- 82% cited compliance and data residency regulations
- 68% said it gives them control over performance with dedicated hardware
- 62% believe cloud infrastructure preserves existing data center investments and backbone
- 48% believe cloud infrastructure preserves existing data center investments and backbone
- 42% find cloud technology lends them an incremental approach aligning with the overall organizational change appetite

For those that still rely on some or all private hosting, the drivers compelling them to maintain private hosting are:

- 70% cited compliance and data residency regulations
- 62% noted security concerns and reliability hesitations due to the lack of control
- 58% cited technology constraints specific to legacy hosting architecture (i.e., older applications unsuitable for cloud migration)
- 45% mention latency and proximity dependencies (performance demands)
- 31% fear cost uncertainty; specifically that they won't be able to justify the potential return on investment (ROI) and total cost of ownership (TCO) compared to their organization's current setup

Challenge: cross-company coordination complications

Of course, leveraging a hybrid hosting environment is not without its challenges. Leveraging both cloud and legacy infrastructure can make coordinating across company environments or teams intricate and cumbersome. The same goes for data.

Constantly moving data between cloud and owned, on-premise infrastructure is a hurdle companies in the hybrid hosting world must overcome. Taking the steps necessary to ensure data loss doesn't occur is critical in this scenario. Your data is your most important asset. A hybrid hosting scenario does no good if you risk losing it.

Opportunity: hybrid hosting solutions

Its ability to provide a gradual, low-risk transition to the cloud is where hybrid hosting shines. Organizations can migrate data to their new hosting infrastructure at their own pace.

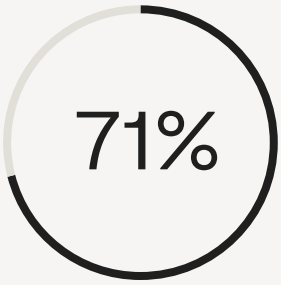
Companies can also optimize their costs within a hybrid hosting setup. Teams can evaluate each software application or processing workload and determine its best location, either within the cloud or on more stable, isolated, dedicated resources. The desired level of security and resource-intensiveness of the application may be factors that ultimately affect this decision.

With a hybrid hosting solution, organizations can migrate data to their new hosting infrastructure at their own pace.

Section 4: Cloud hosting

Of the respondents using a hybrid hosting model, 57.38% said 50-74% of their architecture is cloud-hosted and another 13.5% reported more than 75%. This is because businesses benefit from the accelerated migration from legacy equipment that cloud environments can provide.

Additionally, the current hosting landscape has given rise to an increase in multi-cloud and hybrid deployment models. Today's business environment requires companies to remain agile and move quickly. Shifting to a hybrid hosting environment allows for more scalability, flexibility, and resiliency than traditional hosting frameworks. This fluidity in resources also provides businesses with significant cost savings and enables companies to keep up with rapidly evolving, complex technologies like AI and machine learning.



of decision-makers say 50% or more of their architecture is cloud-hosted

Challenge: managing, governance and integrating legacy systems

Companies that choose to leverage cloud hosting face a couple of challenges. Firstly, relying on cloud computing can result in complex hosting infrastructures. Multi-cloud environments can become an entangled web of cloud hosting resources as organizations grow larger, especially if these environments lack proper design.

Another challenge comes down to costs. It's true that leveraging a cloud architecture can provide significant cost savings compared to other hosting frameworks. But companies must carefully balance an attractive price tag with the efficiency of their hosting environment. Saving money and improving your bottom line is all well and good, but be mindful of the point of diminishing returns, and don't simply go with your cheapest option at the cost of your business health.

Here is how these two challenges affected our survey respondents:

stated managing and governance of their network became more complex across environments

struggle with integrating legacy systems and bridging data to the cloud

have difficulty optimizing costs with suboptimal resource usage and budgets

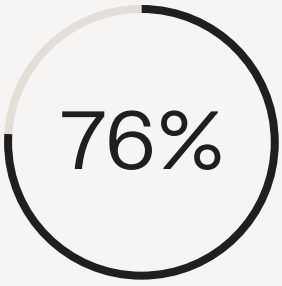
met challenges securing cloud environments with inadequate visibility

lack the talent or skills to handle new cloud technologies

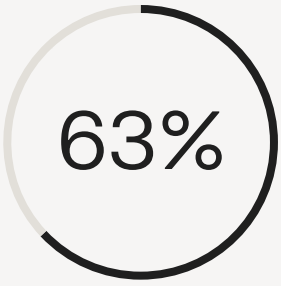
Opportunity: increased flexibility and scalability of infrastructure

Despite the challenges, cloud hosting provides enough opportunities to make transitioning to this technology an overall win for web hosting in 2024. 76.02% of our respondents are experiencing increasing flexibility and scalability of their infrastructure due to the cloud. Another 69.21% are experiencing new levels of resource optimization. This same 69.21% is also leveraging cloud hosting toward newfound levels of cost efficiency, and 49.05% say infrastructure management is no longer a concern.

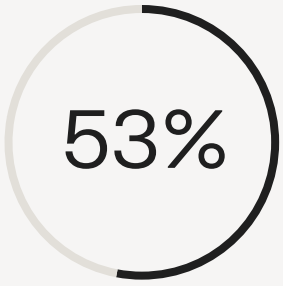
The faster speed and greater agility of cloud is also helping companies move forward. 62.67% of our survey participants say cloud hosting leads to innovation at a much quicker pace in the world of web apps. 55.31% of respondents also discovered that cloud hosting enhances the resiliency of hosted apps.



are experiencing increased flexibility and scalability due to the cloud



say cloud hosting leads to innovation at a quicker pace in the world of web apps



discovered that cloud hosting enhances the resiliency of hosted apps

Section 5: Edge computing integration

According to our web hosting state of the industry survey, edge computing seems to be a very popular integration. Almost all (89%) of our participants said they're using edge computing as part of their infrastructure. 73.71% say edge computing is a key component of their cloud integration efforts. In these scenarios, most of our survey respondents are leveraging major cloud providers' edge computing services and routing.

Other common use cases include:

54%

Internet of Things (IoT) applications

54%

geo-distrubted caching

53%

develop immersive technologies

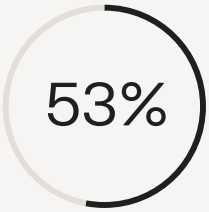
42%

industry-specific use cases

Challenge: employee skillset shortages

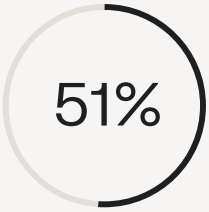
While edge computing is beginning to revolutionize key components of the digital world, like CDNs, there are areas that require improvement. The most common challenge reported by respondents (55.28%) in integrating edge technologies was skillset shortages (talent gaps to architect, develop, and operate edge solutions). It was also one of the top reasons reported for not leveraging edge computing (45.45%).

However, our web hosting state of the industry report participants also saw the following reported challenges:



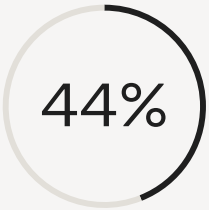
said integrating edge computing creates unnecessary operational complexity

Technicians must monitor and manage vast arrays of distributed edge nodes from one singular location, creating significant problems with geographic coverage.



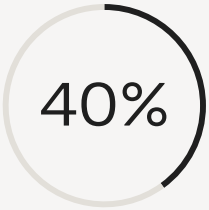
struggle to achieve the appropriate balance of cloud vs edge computing

Workload suitability evaluations become necessary to determine which applications require cloud and which require edge. Identifying this processing split is proving challenging for our respondents, but it is a necessary facet of optimizing edge technology.



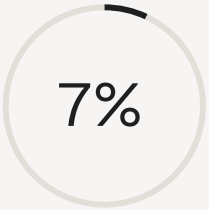
are seeing an increase in architectural complexity

Integrating edge computing into their infrastructure makes designing optimal topology across legacy infrastructure a challenge.



are dealing with ecosystem immaturity

There is a lack of system standards, and their partners' solutions are still evolving.



reported no challenges

Opportunity: faster content delivery, lower latency, and enhanced user experiences

Edge technology is ushering in new classes of dynamic web applications, which represents one of the emerging web hosting trends. It's also exponentially improving the performance of rich media and web apps thanks to the reduced latency it provides.

Here are some of the ways those macro trends manifest within our group of survey participants:

reported seeing the benefits of using edge computing technologies through performance improvements like faster content delivery, lower latency, and enhanced end-user experiences

see edge computing reliably supporting the heavy computing workload necessary to enable complex technologies like AR and VR

are experiencing lower data transfer and cloud processing costs

are seeing the speed of innovation increase, as edge computing helps to accomplish tasks that are simply not possible with cloud technology alone

are seeing improvements to offline functionality and hybrid cloud consistency, making for more resilient applications and infrastructures

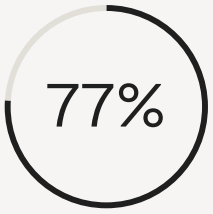
Section 6: Serverless architecture

Serverless architecture is surging in popularity due to the rise of event-driven computer models. Companies in today's landscape require the scalability, flexibility, speed, and efficiency of systems that react to user actions (event-driven). By making hosting architecture serverless, communication and data packet transfer can happen much faster and in a more seamless workflow, allowing event-driven architecture to work in real time as intended.

Another benefit of serverless architecture is usage-based billing. Organizations no longer have to purchase and maintain expensive legacy equipment with resources that may not be used in their entirety. Instead, businesses today can pay as they go, buy the resources they need, and scale as they see fit, making for much more efficient resource procurement and utilization.

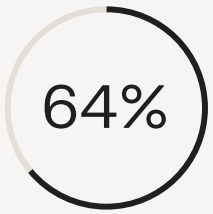
By making hosting architecture serverless, communication and data packet transfer can happen much faster and in a more seamless workflow.

When asked what prompted the move to serverless architecture, the results were:



saw the potential for improved operational efficiency

Serverless architecture allows them to reduce server management and, subsequently, TCO.

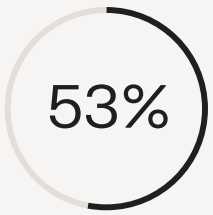


believe serverless architecture is powering their developer productivity

A serverless environment allows them to accelerate feature delivery, time-to-market, and focus on code over operations.

saw serverless architecture as an opportunity to improve scalability and agility

These respondents may rely on auto-scaling and event-driven processing aligned to workload patterns.



cited availability, redundancy, and resilience of critical apps

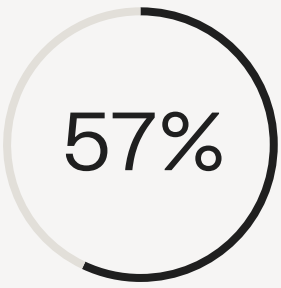
saw a rise in business innovation

Serverless architecture allows them to quickly experiment and deploy new products, services, and capabilities.

Challenge: performance management and lack of visibility

When implementing serverless architecture, 57% of respondents reported issues with managing performance. The auto-scaling nature of serverless functions can lead to inconsistent performance, with noticeable latency delays from cold starts and scaling to handle traffic spikes compared to always up dedicated servers. The lack of visibility into auto-scaling metrics across cloud providers reduces predicting how well functions will handle different loads.

Additionally, 54% of decision-makers said that their serverless architecture lacks visibility. The abstraction of infrastructure with serverless means traditional debugging and monitoring approaches don't transfer, requiring the complex aggregation and analysis of distributed logging to trace issues across ephemeral functions. While vendors provide some serverless monitoring tools, they often lack capabilities expected in application performance management solutions for non-serverless environments. End-to-end tracing of serverless operations thus remains challenging. And the difficulty of holistically monitoring distributed functions and performance can prove problematic compared to overseeing dedicated servers or containers.



of respondents reported issues with managing performance

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Overall, respondents surveyed noted the following challenges:

couldn't easily manage performance

The serverless environment made for inconsistent scaling and latency limitations.

say the architecture lacks visibility

Their experience debugging and monitoring distributed functions was troublesome compared to other platforms.

felt serverless prevented them from designing properly decoupled functions and integrations

felt serverless wasn't mature enough to meet their individual needs

The lack of customizable runtimes and CI/CD tooling caused workflow issues.

had trouble preventing cascading failures and handling redundancy

Serverless architecture allows them to quickly experiment and deploy new products, services, and capabilities.

reported no challenges

For the 38.2% who stated they had not adopted serverless architecture:

expressed worries about vendor lock-in, security, and unpredictable costs

see an education and skills gap

(Don't understanding the benefits and insufficient development experience)

believe that latency and serverless throughput can't meet their needs or integrate with their legacy systems

experienced challenges optimizing and monitoring their architecture. They also cited a lack of a tooling ecosystem

saw a lack of business case clarity

There was some uncertainty surrounding the ROI of the technology, which prompted investment in alternate technologies.

Opportunity: more than 50% of respondents saw more than one benefit realized with serverless architecture implementation

Respondents reported experiencing many benefits when implementing serverless architecture, with over 50% reporting that they experienced more than one benefit following implementation.

When asked about the benefits of serverless architecture, respondents highlighted the following:

say serverless is improving their cost efficiency

Consumption-based pricing and automated scaling options

enjoy an improved rollout process

Thanks to faster releases and feature velocity.

noted the high availability and resiliency

(built-in redundancy, auto-scaling, and failover mechanisms)

like the reduced infrastructure administration

Technicians spend less time and resources on server patching, upgrades, and capacity planning

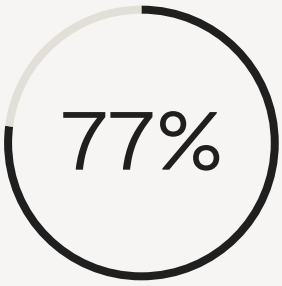
cited operational agility

(faster reactions to user demands, ability to innovate quickly across functions, easier experimentation)

reported no benefits

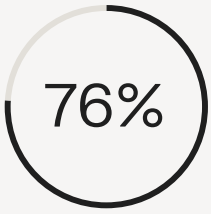
Multi-cloud strategies

Taking a multi-provider approach does introduce central management and data movement challenges. But for many companies, the benefits around risk, breadth of services, costs, and strategic adaptability are driving adoption of hosting solutions across vendors.

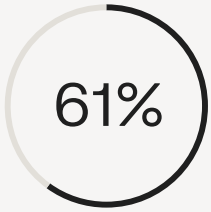


report leveraging multiple cloud providers as part of their hosting strategy

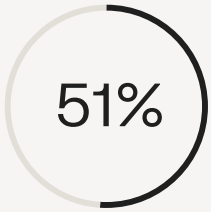
When asked why they were leveraging multiple clouds, here's how our survey participants answered:



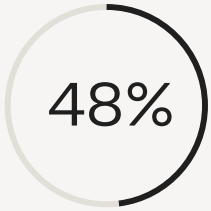
see multi-cloud strategies as an opportunity for migration ability across providers and workload optimization



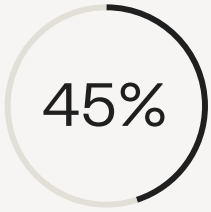
use multi-cloud to negotiate better terms and utilize provider incentives



are avoiding vendor lock-in via multicloud architecture, spreading their solutions across providers to reduce dependence



leverage unique services and prevent standardized architectures with multi-cloud infrastructure



use multiple cloud hosting environments to mitigate service disruptions that may impact a single provider

Challenge: difficulties with standardizing consistency

When leveraging a multi-cloud strategy, some suffer from the complexity stemming from multiple services, such as lack of standardization. Additionally, cloud-specific intellectual property foils simplicity, integration capability, and avoidance of lockin. Consistently securing and controlling the environment also suffers. Progress is being made improving interoperability and compliance tools, but challenges persist around effectively connecting and controlling disparate clouds.

Here are the top reported challenges with managing a multi-cloud environment, according to our survey:

faced challenges standardizing and connecting disparate services/interfaces

had trouble ensuring workloads aren't locked into proprietary platforms

struggled with applying consistent security, governance, and compliance

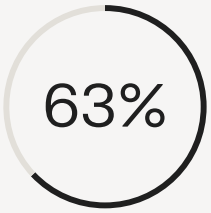
have trouble with manual effort replicating deployments and managing identities. These hurdles tend to increase operational overhead

couldn't gain unified visibility into performance, operations, and spending

Opportunity: multi-cloud strategies consistently provided benefits

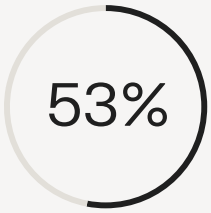
Despite the complexities that can come with multi-cloud setups, the decision-makers reported high rates of benefits, specifically the ability to optimize price and performance across providers (70.65%) with no respondents reporting no benefits experience in leveraging multiple clouds.

Respondents reported the following additional benefits from utilizing multiple clouds:

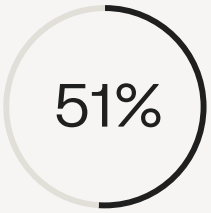


experience increased infrastructure flexibility by flexing each workload to an optimal platform

see multi-cloud as a tool to help them meet data residency or sovereignty policies

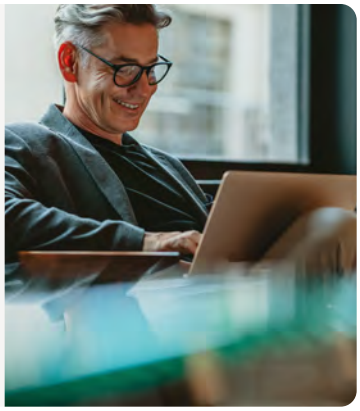


experience innovation much faster, leveraging strengths and capabilities across several cloud vendors



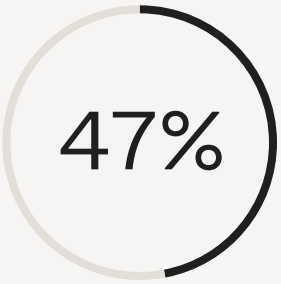
leverage multi-cloud to mitigate against any one vendor outage, ultimately reducing their business continuity risk

Despite the complexities that can come with multi-cloud set ups, decision-makers report high rates of benefits.

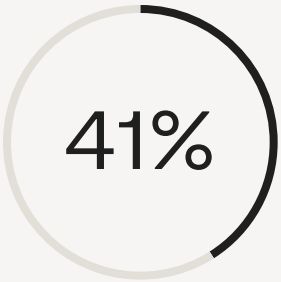


For many businesses, containerization checks multiple boxes around efficiency, ease of management, reliability, and application modernization. Their lightweight encapsulation and standard specifications solve numerous challenges enterprise IT teams face. Most of the decision-makers we surveyed reported leveraging containerization for multiple reasons. Over 60% stated they see containerization as a way to replicate apps across environments with enhanced resilience quickly (69%). Additionally, 61% are using containerization to prevent vendor lock-in and simplify environment mobility.

Other reasons stated for implementing containerization include:



use containerization to transition legacy applications incrementally or “lift and shift”



tap into orchestration and automation capabilities of containerization at scale

Challenge: IT talent shortages lead to a lack of containerized app expertise

Like other trends mentioned in this report, a lack of expertise has caused challenges for businesses trying to leverage containerization and even prevented others from trying at all. According to our survey, 61.58% of respondents who have adopted containerization indicated they are facing talent shortages related to expertise in containerized application development and operations. Of the 24% who reported not utilizing containerization, over 50% cite a lack of containerization and Kubernetes competencies on their teams.

Insights from our proprietary respondent data showed the following as the other most common challenges reported:

issues integrating legacy apps into containers

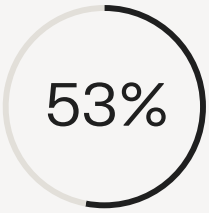
emerging security vulnerabilities

fear of framework complexities

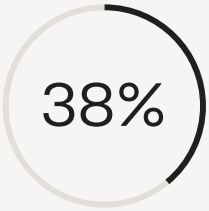
lack of mature monitoring, management, and storage tools

no challenges

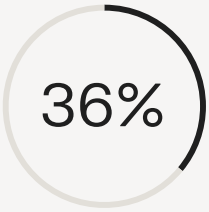
When asked, the 24% who are not utilizing containerization stated the following as reasons why:



cite a lack of containerization and Kubernetes competencies

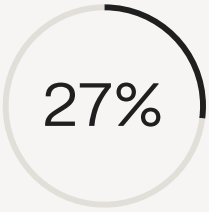


are unsure if containerization will meet regulatory requirements



have concerns about integrating containers with proprietary middleware or databases

are focusing resources on direct cloud migrations over containerization



are undertaking a significant effort to decompose monolithic apps (software combining multiple components into one large app)

Opportunity: containerization opportunities

For those able to take advantage of containerization opportunities, such as application modernization and multicloud flexibility, they rely on effective implementation - having containersavvy teams, securing configurations appropriately, ensuring monitoring/ logging, and thoughtfully architecting how applications utilize containers. When done well, containers unlock game-changing benefits.

Respondents reported the following advantages:

- 64% see the opportunity for faster rollout of application changes
- 62% like the potential for unified runtimes across environments enabling replication
- 58% say they see improved utilization, scaled orchestration, and focused development
- 52% find that container restart policies are improving application resilience and availability via hardening
- 49% see the use of containerization in transitioning legacy apps to containers and cloud
- >1% reported no benefits

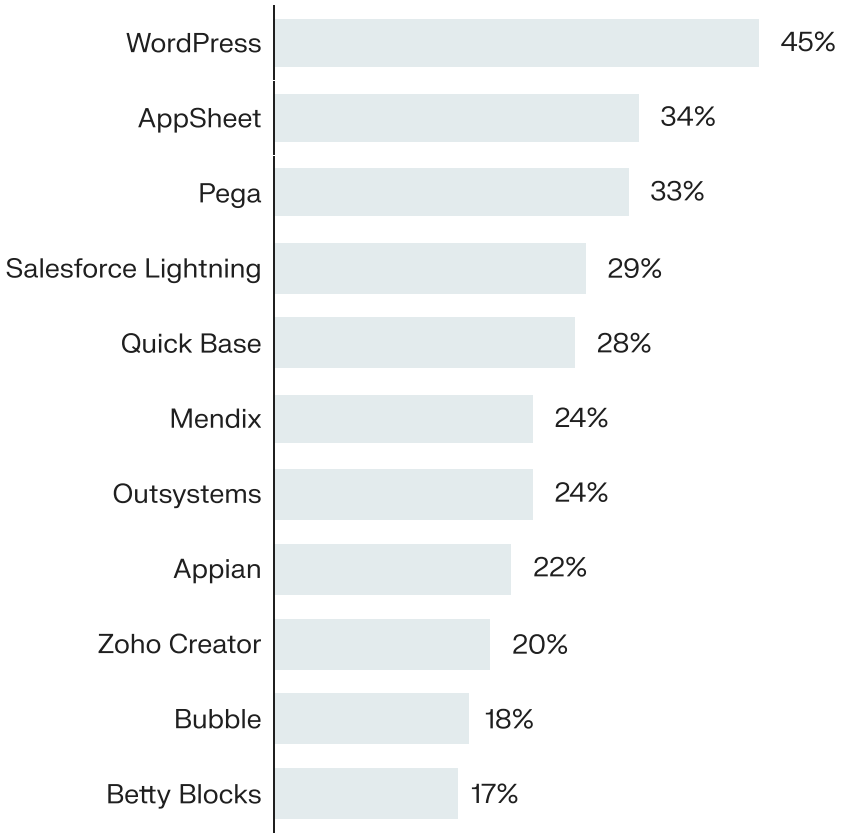
When done well, containers unlock game-changing benefits.

Section 8: Low-code/no-code integration

Low-code/no-code integration platforms have emerged as a major trend due to their ability to accelerate delivery speed through pre-built connectors, templates and visual drag-&-drop interfaces that facilitate rapid workflows between applications and data sources without hand-coding. At the same time, intuitive tooling lowers the skills barrier so that non-technical citizen developers can achieve integration, democratizing these capabilities across the business.

62.8% of respondents reported utilizing low-code and no-code platforms as part of the web stack, with Microsoft Power Apps as the most prevalent tool utilized (71.34%).

Decision-makers reported leveraging a variety of tools including:



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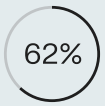
Challenge: functionality limits and compliance restrict wide-scale usage

While fantastic for accelerating prototyping and targeted solutions, functionality gaps around complex scale, governance and compliance make leveraging lowcode platforms wall-to-wall across major enterprises unlikely in the short term. Hybrid approaches blending agile low-code tools with hardened enterprise systems will more likely emerge as a balance.

Of the respondents utilizing low-code/no-code platforms, the following reported these challenges:



are reaching functionality limits with these low or no-code tools, requiring eventual coding

struggle with monitoring, security, and compliance as adoption spreads and scales

deal with surfacing hidden licensing, processing, or data charges

experience challenges connecting to existing systems. They also worry about the risks of potential vendor lock-in

express user traction or adoption uncertainty and UX inconsistencies

Opportunity: low-code/no-code

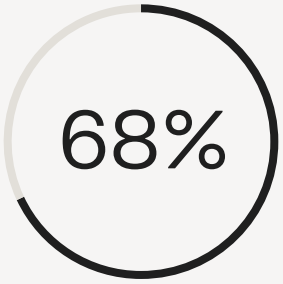
Leveraging the right low or no-code tools allows teams to innovate faster. They can create situational apps tailored to a specific scenario or client base. This flexibility will enable them to better meet client needs, gain new business, and branch out into new audiences at scale.

User-friendly interfaces serve as an easy onramp for targeted use case integration before potentially expanding to enterprise-wide workflows.

With cloud-native architectures scalable at affordable operational costs, low-code/no-code presents a faster, more accessible integration option for stakeholders while paving the way for broader initiatives.

Leveraging the right low or no-code tools allows teams to innovate faster.

With a consistent movement toward virtual and cloud resources in the web hosting industry, our respondents expressed an overall sentiment of concern regarding data privacy compliance. 68.2% said they were concerned or very concerned, with only 3.6% reporting that they were not at all concerned. Unfortunately, no data set is ever 100% safe, but despite their concern, 92% of respondents feel that their current hosting provider offers adequate capabilities and guarantees around data privacy.



said they were concerned or very concerned regarding data privacy compliance

Challenge: differences in international privacy regulations

The fragmentation of the regulatory environment surrounding data is one of the major challenges businesses face. The rules in Canada, the U.S., and the UK are rarely the same. Each geographic area has its own complex legislation protecting its people's data. This veritable sea of regulatory red tape can become particularly troublesome for organizations to navigate.

Additionally, some companies struggle to capture their privacy controls in action to meet regulatory audit requirements. Teams are left to focus on capturing screenshots of backup settings, encryption settings, or lists of users for certain platforms. But, sometimes, that may not be enough to satisfy auditors.

Opportunity: data privacy compliance

For the remaining 8% who did not feel that their current hosting provider was doing enough, most of their concerns revolve around ambiguity and transparency. Many of which present as areas of opportunity for data protection growth with a low barrier to improvement for hosting providers:

have concerns about the transparency of encryption standards

feel there's a lack of clarity regarding notification policies and precedents

are uncertain if controls and compliance are sufficiently robust

have a sense of ambiguity around provider data usage and residency restrictions

experience vagueness or evasiveness addressing privacy standards and guarantees

The need for on-premise data centers is dwindling. As we move toward an era of cloud and virtualization adoption, companies rely less on server rooms containing vast walls of server blades. Even the teams that still rely on legacy, on-site equipment appear to be leveraging technology like hybrid hosting to usher their infrastructure into the new age. As a result, legacy equipment is being decommissioned since it's no longer in use and retiring it will ultimately reduce costs and improve the company's bottom line.

Challenge: many still see traditional, private data centers as important

Despite the overall trend, 49.6% of survey respondents stated that traditional data centers have increased in importance. Reasons why respondents believed traditional data centers have grown in importance varied, but many commented that traditional data center performance and security have improved over the past 5 years. Those who stated traditional data centers have decreased in importance (34.32% of respondents) said that it's due to the lag in keeping up with technological advances.

The breakdown of the remaining respondents:

expect their company's use of private data centers to increase in the next 5 years

believe it will remain the same

expect their usage to decrease

For the 22% who reported expected decreases:

reported transitioning 50-74% of their infrastructure away from private data sources in the next 5 years

reported 25-49%

reported 75% or more

expect their usage to decrease

Opportunity: data centers

Those that do decide to migrate to cloud or virtual resources will free up significant financial resources. This newly available capital can be spent to spur innovation and fund other areas of focus specific to each team. The physical footprint leftover from decommissioned data centers could also be repurposed for other highest and best uses.

Section 11: Takeaways

We hope our 2024 report has shed some light on where the web hosting industry is heading. Technologies like edge computing and mobile-first hosting seem to be moving to the forefront of our digital landscape. At the same time, some companies are slow to let go of traditional on-site infrastructure configurations and many struggle with finding experienced IT talent.

One consistent theme we see throughout our survey data is how the trends we're seeing within the web hosting industry are supercharging innovation. Teams are seeing more focused development efforts, faster releases and feature rollouts, and quicker go-tomarket timelines than ever before. These indicators have the experts at Liquid Web excited for what the future holds.

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As an industry-leading web hosting provider for nearly 30 years, we have the experience, knowledge, and expertise to help you find the perfect solution for your unique needs.

To get started, connect with us by phone or live chat. Our highly trained experts are standing by, ready to assist you 24 hours a day, 7 days a week.

Contact us