



WHITEPAPER

Business Resilience in the Age of Hybrid Infrastructure

Navigating the Complexities of Hybrid Infrastructure for a Resilient Future



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Introduction

How prepared is your business to handle the unexpected? With 90% of enterprises adopting multi or hybrid cloud by 2024, according to IDC, it's clear that 'adaptability' is key in today's fast-changing environment.

As organisations increasingly embrace hybrid models and cloud-first strategies, they're not only enhancing their digital capabilities, but also fortifying their ability to respond to disruptions. Business resilience in the age of hybrid infrastructure refers to a company's ability to adapt, recover, and continue operations despite disruptions, leveraging the flexibility and redundancy offered by a mix of on-premises and cloud-based systems.

In the context of achieving such resilience, hybrid infrastructure plays a pivotal role by offering a blend of on-premises and cloud resources, which supports flexibility and adaptability.

Yet, as widespread as hybrid infrastructure has become, the term often means different things to different people, leading to a multitude of interpretations across industries and among tech leaders.

So, what is hybrid infrastructure, and why is it intricately linked with business resilience?

Fundamentally, it integrates on-premises, private cloud, and public cloud resources into a unified, flexible, and optimal infrastructure.

This approach is essential for business resilience because it allows organisations to:

Adapt Quickly: Seamlessly scale resources up or down in response to evolving needs, ensuring that businesses can handle sudden changes or unexpected demands without disruption.

Optimise Costs: Balance between on-premises and cloud resources to manage costs effectively while maintaining performance and reliability.

Enhance Continuity: Leverage diverse environments for backup and disaster recovery, ensuring business operations can continue smoothly even in the face of unexpected events.

Integrate Resources: Combine various IT environments under a unified management framework, simplifying oversight and improving operational efficiency.

Support Development: Provide a flexible and compatible infrastructure that supports all stages of the application development lifecycle, from testing to deployment.

Notably, hybrid infrastructure enhances business resilience by delivering the agility and reliability needed to thrive in a constantly evolving landscape, while also future-proofing operations and enabling organisations to adapt swiftly.



In today's digital age, where companies rely on interconnected systems and data, business resilience—the ability to maintain continuity and quickly recover from disruptions—is crucial. A strong hybrid infrastructure is essential to ensure this resilience amid growing threats and complexities.

Enter multi-cloud strategies: by leveraging cloud services from multiple providers, organisations can enhance performance, mitigate risks, and ensure their applications run smoothly. Multi-cloud simply means using cloud services from two or more providers, offering a flexible and resilient approach to managing business-critical applications.



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In a landscape where threats are becoming more sophisticated, the ability to recover swiftly and maintain operations is crucial.

GABBY FREDKIN,
HEAD OF ANALYTICS AND INSIGHTS, ADAPT

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But CIOs and CISOs face significant challenges in managing the complexity of hybrid infrastructure, which often results in integration difficulties and visibility gaps across diverse environments. This complexity is compounded by heightened security concerns, as hybrid setups can expand the attack surface, making it harder to secure data and applications distributed across multiple locations.

Additionally, ensuring business continuity and resilience becomes more daunting, with the need for robust disaster recovery plans that can effectively cover the varied systems within a hybrid environment.

Balancing these elements is essential and requires advanced strategies and tools to mitigate risks and maintain operational efficiency.

In this whitepaper, you'll learn how organisations can implement hybrid infrastructure to strengthen resilience in a rapidly evolving digital world.



1.

The Evolution of Business Resilience

Historical Context and Traditional Approaches

First, let's examine the evolution of business resilience. In an era where digital transformation is reshaping business landscapes, hybrid infrastructure has become a strategic component of modern IT infrastructures.

Historically, business resilience focused primarily on disaster recovery and business continuity planning, emphasising the maintenance of on-premises IT infrastructure. Traditional approaches often involved duplicating physical resources, which were costly and lacked flexibility.

However, the landscape has shifted. Business resilience now emphasises cyber resilience and adaptability, explains ADAPT's Fredkin.

"Business resilience encompasses several key aspects: cyber resilience, adaptability, and the capacity to manage significant changes, whether they stem from internal strategic shifts or external market factors. It measures how effectively an organisation can adapt to and recover from crises or changes, maintaining operations and flexibility in the face of disruptions."

As a concept, business resilience has remained constant, but the factors driving resilience changes have evolved, Fredkin adds.

"Third-party risk has become a much more critical focus for many organisations due to significant incidents involving third-party applications impacting business operations. While organisations continue to prioritise continuity and adaptability, the specific disruptions they face shift over time in response to changes in the threat landscape."

Like Fredkin, Interactive's Manager of Technical Consulting for Cloud, Lucas Smith, also notes that the concept of business resilience has evolved significantly, largely due to the exponential growth of risk.



Business resilience is the ability of an organisation to withstand a technology-related shock, recover, and continue operating in a timely, effective, and efficient manner.

LUCAS SMITH,
MANAGER OF TECHNICAL
CONSULTING FOR CLOUD,
INTERACTIVE





This involves transferring some risk to third parties, implementing mitigation measures, and eliminating single points of failure. By doing so, you can lower the residual risk to a level that your organisation can accept. Essentially, business resilience now means strategically managing risk through transfer, mitigation or even rejecting some risks if that doesn't align to what the business will accept.

DAVID DOWLING,
HEAD OF PRODUCT AND
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INTERACTIVE

“As organisations have become more reliant on technology, the focus on resilience has intensified. Technology now underpins many aspects of business, from ERP and CRM platforms to websites and apps. As technology has advanced, so too have the threats, which are now more sophisticated.”

Smith explains how the risk and the materiality of risk have grown significantly.

“Maybe 10–15 years ago, it was easier to fall back on pen and paper, but today, especially in a knowledge economy like Australia, no business can afford to be offline for an extended period. Customers are more aware of data, and there’s a whole PR piece around being hacked—it’s a really bad look, especially if it could have been avoided.”

Similarly, David Dowling, Interactive’s Head of Product and Solution Design of Cyber, explains that “business resilience now is about mitigating and managing risk” and reducing “residual risk level to a level that you can accept.”

He stresses the importance of transferring risk to third parties, adding mitigation factors, and avoiding single points of failure. Historically, business resilience was seen purely in terms of disaster recovery, but it has transformed to include these additional strategies.

“Business resilience has evolved beyond its traditional focus on disaster recovery. In Australia, we’ve seen examples like the Brisbane floods and catastrophic bushfires that have taken entire datacentres offline.”

The Shift to Hybrid Infrastructure

Indeed, the rise of cloud computing and advancements in virtualisation have revolutionised how businesses approach IT infrastructure.

Hybrid infrastructure, in particular, offers a dynamic and scalable solution, combining the reliability of on-premises systems with the flexibility and cost-effectiveness of cloud resources.

And the market is growing rapidly as businesses increasingly adopt hybrid solutions to enhance their agility and scalability. In 2021, the global hybrid cloud market was valued at \$US85 billion and is expected to reach \$US262 billion in 2027. Over this period, the Asia Pacific region is expected to grow at the highest rate, according to research from [Statista](#).

This shift allows businesses to optimise their IT environments, enhance resilience, and adapt to changing demands.

For a long time, multi-cloud was seen as the ideal approach, where you could choose the best platform for each workload, according to Interactive's Head of Product for Cloud, David Leen.

"However, many organisations are now facing significant challenges with this model. They're encountering high costs and the complexity of managing different skill sets for each cloud provider. Despite attempts to standardise with tools like Terraform, the promise of seamless multi-cloud management hasn't fully materialised.

"In contrast, hybrid cloud—typically a combination of a hyperscaler and a more traditional private cloud or datacentre —seems to offer a more practical solution. The major issue with multi-cloud is managing and budgeting for cloud spend effectively. Many organisations struggle to control their cloud expenses and haven't fully modernised their applications to take advantage of platform-specific benefits."

This situation is exacerbated by the current economic climate, with high interest rates and a pseudo-recession adding financial pressure. CIOs and IT directors are facing intense scrutiny over their budgets, which often results in spending most of the IT budget on maintaining operations rather than investing in transformation. As a result, organisations are finding it difficult to allocate resources for business agility and new services, focusing instead on keeping existing systems running.

This shift reflects a broader trend of adapting to evolving IT and business needs.

Smith adds another perspective, highlighting that many customers initially migrate to public cloud platforms, but eventually shift to hybrid infrastructure due to various challenges.

"Many customers start their journey with public cloud, but often find themselves unable to complete it, leading to an unintended shift to hybrid infrastructure. This shift isn't always a strategic decision; sometimes, it's accidental. On a more positive note, many platforms are becoming easier to use, with lower barriers to entry. You can quickly get started with just a credit card and access global-scale infrastructure without significant upfront capital commitments."

This flexibility allows businesses to leverage the best platform for their specific workload and align their technology with their business objectives. Additionally, there's a growing pull towards these modern platforms like Microsoft, which are well-known and widely accessible. If a technology department restricts access to these services, employees might bypass these restrictions and create accounts on their own, leading to what we used to call shadow IT.

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Therefore, while multi-cloud promises flexibility, hybrid cloud solutions might be a more manageable and cost-effective choice in today's environment.

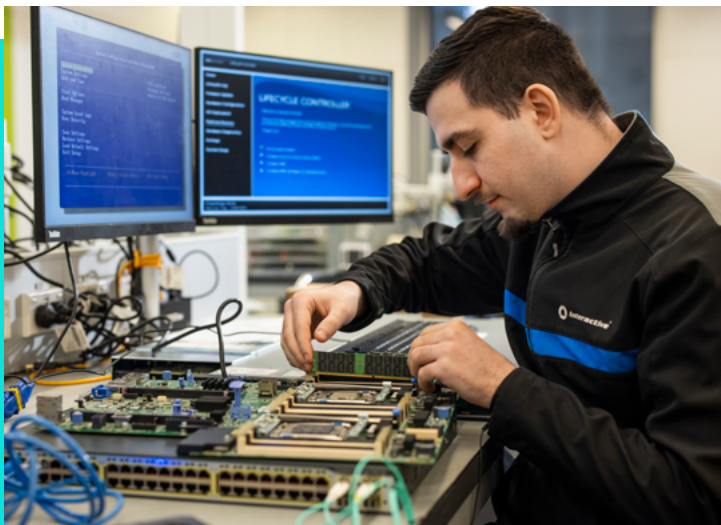
DAVID LEEN,
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ADAPT's Fredkin, meanwhile, sees a high investment focus on multi-cloud unification.

"Multi-cloud migration provides the flexibility to choose the best cloud services from different providers, allowing organisations to tailor solutions that best fit their unique needs. This agility is crucial in responding to rapidly changing market demands and technological advancements. Unifying these cloud environments streamlines operations, reducing the complexity of managing multiple platforms and enabling faster deployment of new services and innovations."



Building the Case for Hybrid Cloud

Increasingly, enterprises are finding that a hybrid cloud approach—integrating on-premises resources with public cloud solutions—delivers the “best of both worlds.”

“Public cloud offers global reach, scale, and dynamism, along with the flexibility to experiment. On the other hand, private or on-premises solutions provide predictability, stability, and can address specific security and compliance needs more effectively,” Smith says.

“Hybrid cloud allows you to avoid putting all your eggs in one basket, mitigating the risk of overspending on public cloud while still enabling business innovation. You’re not restricted by lengthy hardware deployment cycles or delays in securing datacentre contracts. Instead, you can quickly deploy resources and adapt to new opportunities. If implemented well, hybrid cloud effectively combines the advantages of both public and private infrastructure.”

Here are some key use cases driving the adoption of hybrid IT:

Cost Optimisation: Achieve cost efficiency by balancing on-premises and public cloud resources, which is crucial for business resilience. By distributing workloads across both on-premises and cloud environments, businesses can strike a balance between capital and operational expenditures.

Extended IT Capacity: Augment the capabilities of on-premises infrastructure with cloud resources. Hybrid infrastructure allows businesses to scale resources up or down based on demand. This flexibility is crucial for responding to unexpected changes, such as market fluctuations or sudden increases in customer activity.

Backup and Disaster Recovery: Utilise off-site cloud solutions for backup, disaster recovery, and business continuity. Businesses can replicate data across different locations, ensuring continuity and minimising downtime during disruptions.

Unified Management: Integrate disparate IT environments into a single management framework.

Flexible Workload Migration: Move workloads seamlessly between different environments as needed.

Environment-Specific Operations: Run different components of workloads in the most suitable environments.

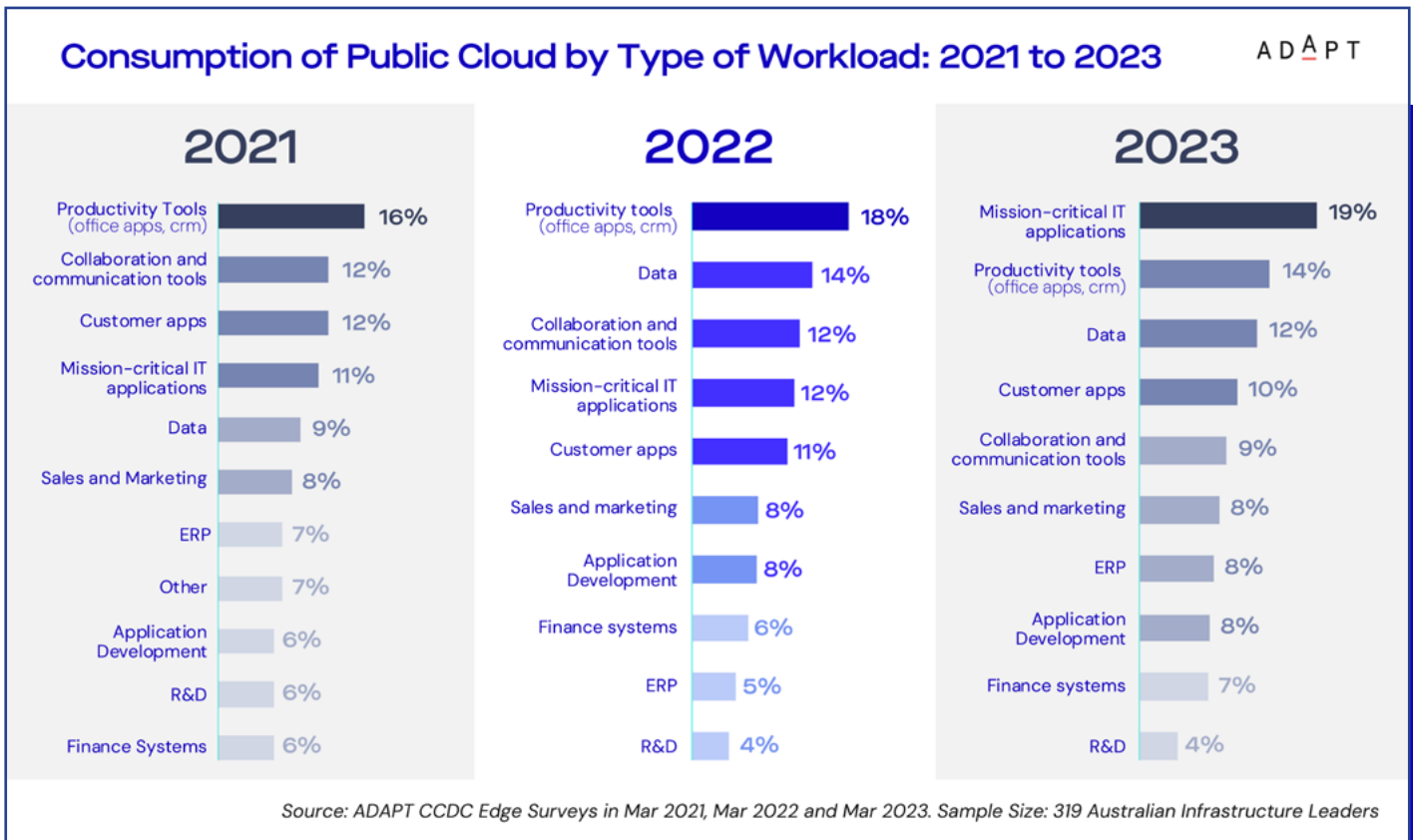
Centralised Application Repository: Maintain a single repository for applications and business processes across various IT environments.

Comprehensive Development Support: Ensure compatibility across all stages of the application development lifecycle.

Operational Cost Savings: Cloud resources, particularly those offered on a pay-as-you-go basis, allow organisations to scale their infrastructure dynamically. This flexibility ensures that businesses only pay for what they use, optimising operational costs.

Efficient Resource Utilisation: Hybrid models enable businesses to allocate resources more effectively, ensuring that high-demand applications benefit from cloud scalability while less critical workloads are handled on-premises. This efficient use of resources helps maintain operational stability and resilience during fluctuating demand.

Taking the Pulse on 'Public Cloud' Adoption



Understanding the current state of public cloud adoption is important for navigating the hybrid infrastructure landscape and its impact on business resilience. According to the 'Adapt Cloud Migration Study 2024: Time for a Reality Check,' several key trends are shaping this shift.

The report reveals that public cloud workloads are projected to reach 56% by 2024, a slight decrease from earlier forecasts. This decline is attributed to several factors, including heightened budgetary scrutiny, cost optimisation pressures, and the complexity introduced by hybrid and multi-cloud environments. Legacy infrastructure and technical debt also play a significant role, as organisations grapple with outdated systems and the financial strain of modernisation.

"This apparent slowdown in aggressive public cloud adoption has had a cascading effect across all forms of cloud, including private and hybrid cloud environments, which have also stagnated at 19% and 5%, respectively," the report notes. This stagnation reflects a broader trend where organisations are reassessing their cloud strategies in response to rising costs and management challenges.

Despite these issues, confidence in the public cloud for mission-critical applications is growing. These critical workloads now make up nearly one-fifth of all public cloud usage. This growing confidence highlights the hybrid infrastructure's role in enhancing business resilience.

Prioritise Cybersecurity for Business Resilience

In a hybrid world, where data flows seamlessly across on-premises and cloud environments, prioritising cybersecurity is essential to safeguarding operations, protecting sensitive information, and ensuring continuity in the face of evolving threats.

That's why business resilience is inextricably linked to robust cybersecurity practices, especially as organisations transition to hybrid infrastructures. Smith emphasises "the critical importance of proactive cybersecurity measures as foundational to maintaining business resilience within these complex environments."

Proactive Measures

At the same time, with increasing reliance on a mix of on-premises and cloud-based systems, the need for a proactive approach has never been more important. As businesses depend more on these integrated solutions, it's essential to anticipate challenges and address them before they escalate, rather than reacting after the fact.

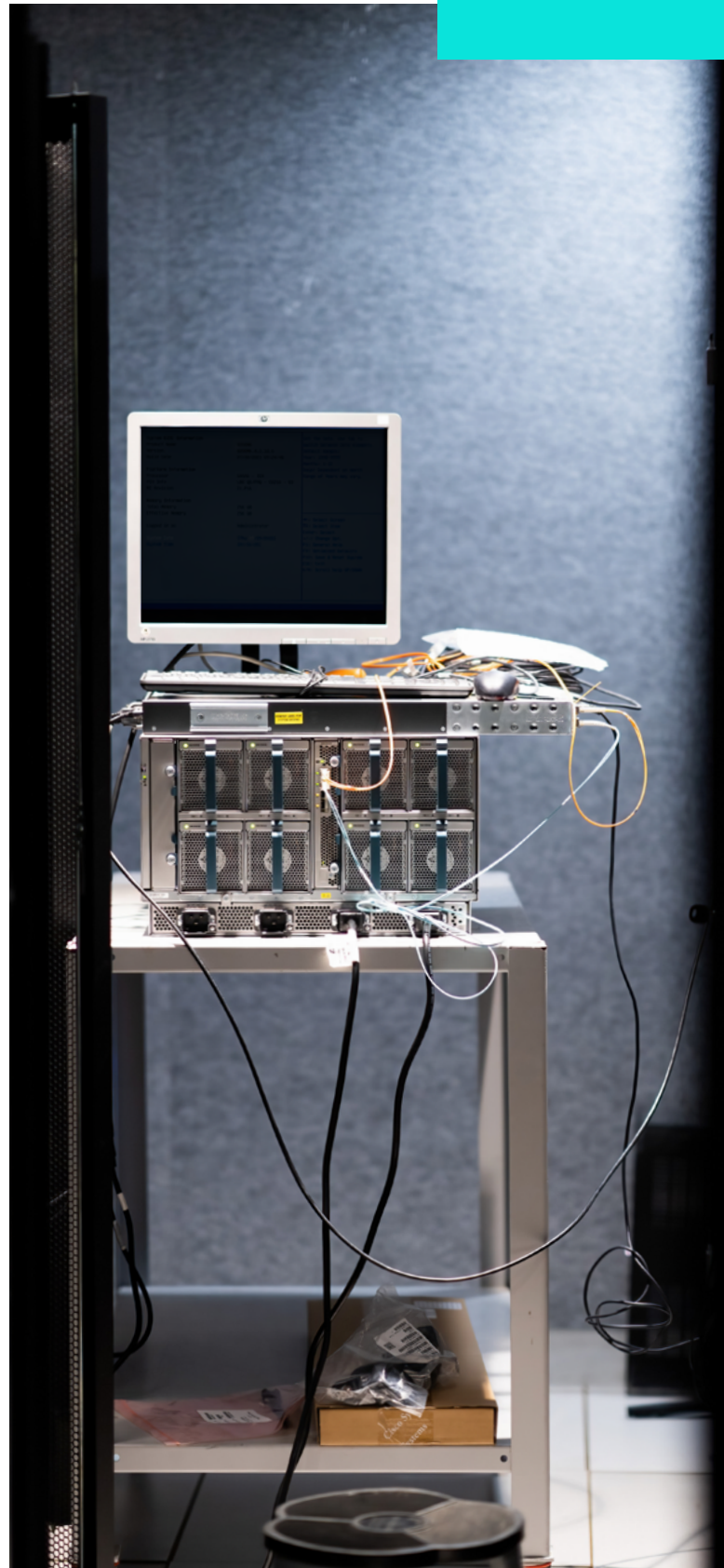
Smith points out that “being proactive rather than reactive is crucial in today’s threat landscape.” This proactive approach is not just a recommendation; it’s a necessity. “In hybrid infrastructures, where data and applications are spread across multiple environments, the ability to pre-emptively address vulnerabilities can be the difference between operational continuity and costly disruptions.”

Moreover, the integration of security measures across all platforms within a hybrid environment is paramount to ensuring business resilience. Smith underscores that “integrating security measures into every aspect of the infrastructure” and maintaining “visibility across all platforms” are key to safeguarding an organisation’s assets. In the context of hybrid infrastructures, where the interplay between various systems can create potential security gaps, a unified and integrated approach to security is essential.

Integration and Visibility

This seamless integration and comprehensive visibility enable businesses to detect and respond to threats more effectively, reducing the risk of breaches and ensuring that operations remain uninterrupted. The ability to maintain a holistic view of security across all components of the infrastructure is a critical factor in an organisation’s ability to withstand and recover from disruptions.

“By adopting a proactive stance, organisations can better navigate the complexities of today’s digital environment and protect against the ever-growing array of cyber threats and thrive in the face of challenges,” Smith says.



2.

Three Key Trends Shaping Hybrid Infrastructure

Goals and initiatives for FY24/25 according to Infrastructure leaders

ADAPT

Goals	Initiatives
1 Tech modernisation and simplification	1 Multicloud migration and unification
2 Optimising costs	2 Infrastructure modernisation
3 Building a secure and trusted organisation	3 Cost optimisation
4 Ensuring technology resilience	4 Reduce technical debt
5 Improving operational effectiveness	5 Application modernisation and integration
6 Developing the AI strategy and roadmap	6 Pilot and adopt generative AI
6 Acquiring and retaining customers	7 Streamline and enable processes
8 Attracting and retaining talent	8 Bolster overall cyber security
8 Creating new operating models	8 Modernise mission-critical workloads
10 Digitisation and automation of key processes	8 Staff upskilling and training

ADAPT Cloud and Infrastructure Edge Survey in July 2024. Sample size: 158 Australian Infrastructure leaders

1. Tech Modernisation and Simplification:

Fredkin highlights that across different roles – CIOs, CISOs, Chief Digital Officers – there’s a recurring focus on “tech modernisation and simplification.” This trend reflects a need for organisations to revisit their foundational operations and strive for operational excellence. A simplified and modernised approach ensures that businesses can maintain resilience, adapt quickly to changing demands, and protect against emerging threats.

“Tech modernisation and simplification is the top goal for both Infrastructure leaders and CIOs this calendar year. There is an aggressive need to uplift our technology capability and simplify processes in Australia.”

But Fredkin notes, “Legacy technology and too many manual processes are major barriers,” particularly for CISOs.

Ultimately, it all comes down to delivering value through strategic technology investments. The July 2024 ADAPT Cloud and Infrastructure Edge Survey reveals that 57% of Australian CIOs and infrastructure leaders plan to modernise their legacy infrastructure, as indicated by their spending intentions for the coming year.

“Ninety percent of organisations ADAPT surveyed utilise a mix of in-house, private, public, and/or hybrid cloud environments. Highly modernised organisations generally have higher public cloud consumption, but the relationship between public cloud and modernisation

outcomes is correlation, not causation. While there's a shift toward public cloud migration in 2024, simply moving workloads to the public cloud does not equate to modernisation. CIOs and infrastructure leaders are focusing on where workloads can add the most business value," the results show.

"Organisations are increasingly revisiting their foundational systems to achieve operational excellence. For CIOs, this often involves goals such as enhancing security, trustworthiness, and cost-effectiveness, which are closely tied to their modernisation efforts.

"From a CISO's perspective, legacy technology and excessive manual processes present significant challenges. Similarly, CFOs struggle with gaining clear visibility into sunk costs from on-premises investments, and some engineering teams face financial literacy gaps. This is why the FinOps model has emerged – helping organisations determine where workloads can deliver the most value."

To recap, Fredkin says modernisation drives key business outcomes, including:

Enhancing Cyber Resilience: Modernised organisations are more effective at integrating security from the beginning of projects.

Improving Project Prioritisation: With legacy systems causing frequent disruptions, technology leaders find it challenging to prioritise initiatives that deliver the most business value.

2. Enhanced Security and Visibility:

Additionally, Dowling highlights another significant challenge in the realm of hybrid infrastructure: the difficulty of maintaining robust security due to inadequate visibility.

As organisations adopt hybrid environments, they often face uncertainties regarding the location of their servers, the scope of their external attack surface, and the activities of third parties within their ecosystems. This lack of visibility can compromise their ability to protect critical assets.

"From a security perspective, resilience is about maintaining confidentiality, integrity, and availability. For me, availability means not putting all your resources in one place, whether geographically or with a single vendor."

This approach is increasingly recognised as a key trend in the evolution of hybrid infrastructure.

"By spreading resources across multiple locations and vendors, organisations can enhance their resilience against disruptions such as cyberattacks, natural disasters, or vendor-specific failures. This strategic distribution not only mitigates risk, but also ensures smooth operations during unforeseen challenges, making security and visibility essential elements of business resilience," Dowling says.

3. Simplified Management:

Simplified management – or unified management platforms – has also emerged as an important trend in enhancing business resilience, especially in the age of hybrid infrastructure.

The complexity of managing these diverse environments has grown significantly. This complexity can hinder an organisation's ability to respond swiftly to disruptions and maintain operational continuity – key aspects of business resilience.

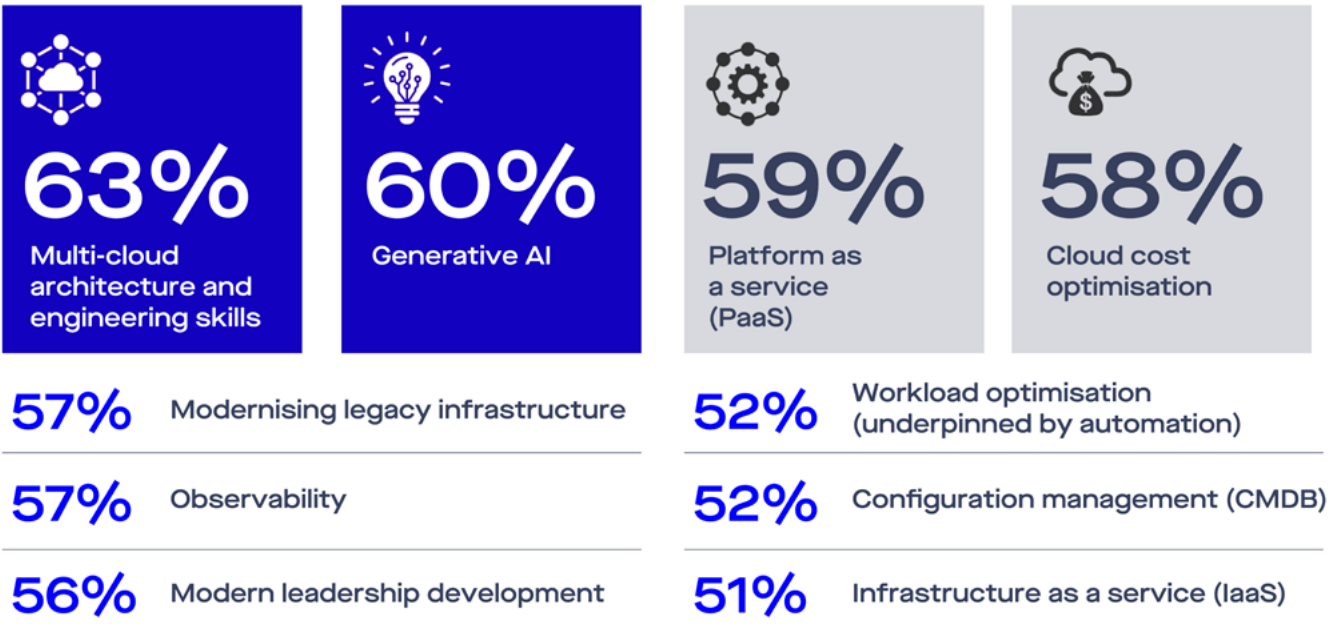
Simplified management addresses this challenge by streamlining the oversight and control of hybrid environments, reducing the operational burden on IT teams, and delivering smoother operations, according to ADAPT's Fredkin.

Tools like Microsoft Azure Arc play a pivotal role in this trend. Azure Arc extends Azure management capabilities across on-premises, multi-cloud, and edge environments, allowing organisations to manage all their resources through a single, unified platform, Smith explains.

By providing centralised visibility and control, Azure Arc helps businesses maintain consistency in security, governance, and compliance across their entire IT landscape. This not only simplifies the management of hybrid infrastructure, but also strengthens business resilience by ensuring that critical systems and data remain protected and available, even in the face of unexpected challenges. In this way, simplified management through tools like Azure Arc is becoming a foundational element of business resilience in the hybrid era.

Intent to spend in the next 12 months

ADAPT



ADAPT Cloud and Infrastructure Edge Survey in July 2024. Sample size: 161 Australian Infrastructure leaders

Additional Trends Shaping Hybrid Infrastructure:

The industry is seeing more trends shaping hybrid infrastructure. Here's a quick overview:

Integration of Edge Computing: As IoT and real-time data processing become more prevalent, edge computing is increasingly integrated into hybrid environments. This integration allows for data processing closer to its source, enhancing efficiency and responsiveness.

Enhanced Security and Compliance Measures: With the expansion of hybrid infrastructures, there's a growing emphasis on advanced security solutions, including zero trust architectures and improved compliance management practices.

Automation and Orchestration: The adoption of automation tools and orchestration platforms is on the rise, aimed at managing complex hybrid environments more effectively. These tools improve operational agility and reduce the need for manual intervention.

Increased Focus on Data Governance: As data is distributed across multiple environments, robust data governance practices become important for maintaining data integrity, security, and compliance.

Cost Optimisation and FinOps: The implementation of FinOps practices helps organisations manage and optimise cloud costs, balancing expenditures across various infrastructure components.

Hybrid Cloud Native Applications: A growing trend is the development and deployment of applications designed to operate seamlessly across hybrid cloud environments, taking advantage of both public and private cloud resources.

3.

Implementing Hybrid Infrastructure for Resilience

Assessing Business Needs and Risk Tolerance

Before implementing hybrid infrastructure, businesses must assess their specific needs, risk tolerance, and compliance requirements. This evaluation helps determine the right mix of on-premises, colocation, private cloud, and public cloud solutions.

Choosing the Right Mix of On-Premises, Colocation, Private Cloud, and Public Cloud

Selecting the appropriate infrastructure components is vital. Businesses should consider factors like data sensitivity, workload characteristics, and budget constraints when choosing between on-premises, colocation, private cloud, and public cloud options.

Integration Strategies and Tools

Successful hybrid infrastructure deployment requires seamless integration across different environments. Businesses should invest in tools and platforms that enable unified management, monitoring, and automation, according to Smith.

“One key consideration in managing a hybrid cloud is the temptation to abstract away all the cloud-specific features to create a uniform experience. While it’s important to simplify operations, over-abstraction can negate the benefits of using different platforms. If your goal is to leverage specific features or advantages of each cloud, too much abstraction can result in just having a private cloud within a public cloud, missing out on the distinct benefits each platform offers,” Smith says.

“Additionally, third-party tooling plays a critical role in hybrid cloud environments. Tools like Azure Arc offer cross-platform capabilities. Managing costs, databases, and other resources across multiple clouds often requires specialised third-party solutions. These tools are designed to work across diverse environments and can

provide effective management and optimisation. Thus, it’s crucial to consider and choose the right tooling to support your hybrid cloud strategy.”

Role of the MSP & Interactive Anywhere

Managed Service Providers (MSPs), such as Interactive, are pivotal in deploying and managing hybrid infrastructure. Their role encompasses overseeing complex environments, ensuring smooth integration, and delivering continuous support.



As an MSP, we handle the critical heavy lifting, allowing businesses to focus on their core operations. This is especially important in today’s environment, where cyber threats and other disruptions are ever-present.

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With recent studies showing that businesses leveraging MSPs experience up to a 40% reduction in downtime and a 30% improvement in operational efficiency, the importance of MSPs in maintaining robust business resilience can’t be overstated, Dowling says.

4.

Challenges and Solutions

Common Pitfalls and How to Avoid Them

While hybrid infrastructure offers numerous benefits, it also presents significant challenges that CIOs and CISOs must navigate. Issues such as data integration, security vulnerabilities, and compliance complexities can derail momentum if not addressed proactively.

Understanding these challenges is crucial for maintaining business resilience and ensuring the success of hybrid infrastructure initiatives. Failing to recognise and tackle these obstacles can impede progress and lead to costly setbacks.

To effectively manage these risks, businesses need a robust strategy that encompasses thorough planning, targeted employee training, and the selection of dependable service providers. Addressing these factors head-on will help organisations leverage the full potential of their hybrid infrastructure while safeguarding against potential pitfalls.

Let's explore these challenges in more detail:

Complexity of Managing Multiple Platforms:

Smith explains there are challenges with the "steep learning curves" of different platforms.

"One common issue with hybrid cloud environments is that organisations often have a primary platform and secondary ones. Typically, the focus and attention are on the primary platform, while the secondary ones may not be as well-configured, secure, or optimised. This imbalance stems from the complexity of managing multiple platforms effectively."

Shortage of Internal Skills:

The shortage of skilled professionals presents another significant challenge, according to Fredkin.

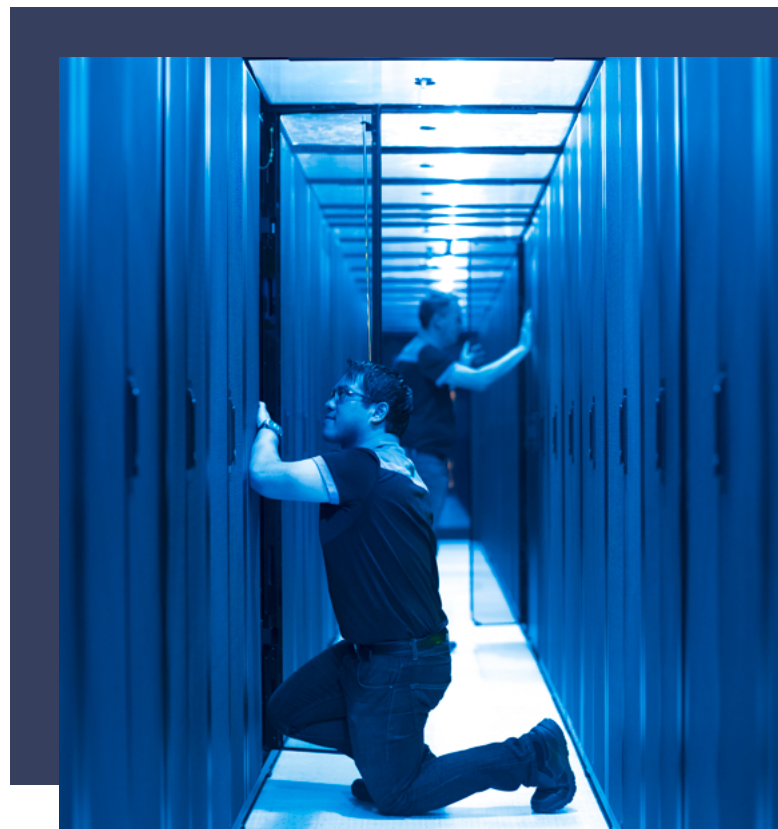
"In multi-cloud and hybrid cloud management, a significant issue is the shortage of internal skills. Finding qualified cloud engineers, DevOps professionals, and security experts, such as those skilled in penetration testing for cloud applications, is challenging," Fredkin notes.

"As a result, CIOs and infrastructure leaders are turning to their vendor ecosystem to identify strategic partners. They seek to leverage external expertise and offerings to address skill gaps and enhance their capabilities."

Lack of Funding:

Fredkin says CIOs and CISOs are grappling with a lack of funding, which has a profound effect on their ability to invest in critical technology and talent.

"Despite not being in a recession, IT departments are experiencing funding squeezes due to rising inflation, which impacts both B2C and B2B environments. Organisations are struggling with price inflation and are trying to mitigate its effects without passing costs onto consumers. This upstream pressure affects downstream operations, even when it's beyond the organisation's control."



Competing Business Priorities:

Competing business priorities often hinder progress, with leaders across the organisation vying for limited budgets and time. Fredkin highlights how these constraints impact roles differently, citing an example where a security leader's plan for cyber awareness training is sidelined when the sales team needs to focus on meeting targets instead.

"This creates friction," Fredkin explains. "It becomes difficult to unify the culture and foster a sense of unity within the organisation. We often see a form of tribalism, where departments like marketing, IT, and sales focus on their own goals rather than working together. To overcome this, there needs to be unity and compromise. Hopefully, in the future, competing business priorities will be less of an obstacle."

Additionally, Smith highlights that security and compliance in hybrid environments can be particularly challenging due to varying platform requirements. "For smaller teams managing multiple platforms, this complexity can become a significant burden, leading to capacity planning issues and organisational tension from conflicting expectations." This situation underscores the difficulties in balancing security needs with other critical tasks, such as day-to-day operations and urgent business requirements.

Lack of Proper Planning and Expertise:

Smith emphasises the importance of foundational planning and expertise. "It's crucial to establish a baseline in your platforms and engage experts from the start," he advises. Proper planning from the beginning helps prevent major issues later, facilitating smoother management of hybrid infrastructure.

Without this proactive approach, organisations risk facing significant challenges and inefficiencies that can undermine their overall resilience and effectiveness.

Legacy Systems:

Dowling identifies "organisations being rich in technology debt" from legacy systems as a major obstacle to transformation, calling it a "stumbling block." He emphasises the need to address these issues to facilitate evolution and modernisation.

Leen adds, "The biggest challenge we encounter is dealing with substantial legacy technology that often impedes transformation. Our approach is to meet customers wherever they are in their journey and help them navigate through their tech debt." He further explains that tech debt is frustrating and limiting, exacerbated by increasing difficulty in maintaining outdated systems with stricter vendor standards.

To address these challenges, Leen advises guiding companies on a "purposeful journey," focusing on their broader business goals. Dowling recommends, "Find a champion and focus on a specific application or critical asset. Start your digital transformation or hardware upgrade with one app and make incremental progress—just like eating a snake one bite at a time." This approach can demonstrate value and encourage further support for transformation efforts.

Cost Blowout:

Leen notes that many organisations struggle with "cloud blowout" and difficulties in managing cloud spend, attributing this partly to the lack of modernisation of application stacks. "Most organisations haven't done the modernisation activities required," he says, leading to higher costs without the anticipated savings.

Like Leen, Smith says cost management is a significant challenge that needs to be addressed, otherwise, uncontrolled cloud spending can erode profits, strain budgets, and hinder the ability to invest in other critical business initiatives.



“Public cloud environments often involve complex and variable commercial arrangements, while on-premises setups are more predictable. Technology professionals, who aren’t always skilled in commercial management, may struggle with the cost implications of public cloud, where every decision – from server deployment to storage – affects the budget.”

This lack of expertise in managing cloud costs is underscored by findings from ADAPT’s Cloud Migration Study 2024: Time for a Reality Check, which reveals that nearly 40% of Australian cloud and datacentre leaders consider their organisations to be “beginners” in forecasting cloud spending. As companies grapple with balancing innovation and cost control, addressing these financial challenges is crucial for driving value and sustainable growth in hybrid cloud environments.

Visibility and Management:

In the context of business resilience and hybrid infrastructure, Leen identifies a significant challenge: a “lack of visibility” and difficulties in distinguishing “false positives from false negatives.” This issue can impact an organisation’s ability to manage its hybrid environment effectively.

Leen emphasises that managing workloads appropriately is essential to avoid single points of failure. “Even when infrastructure is distributed between on-premises and cloud environments, ensuring comprehensive visibility across all platforms is key to maintaining operational continuity and security. Without effective visibility, organisations risk overlooking critical issues that could lead to system failures or security breaches,” Leen says.

In the age of hybrid infrastructure, where resources are spread across multiple environments, the complexity of managing and monitoring these systems intensifies. Leen’s point underscores the need for advanced management tools and strategies that offer unified visibility and control. This is essential not only for operational efficiency, but also for ensuring business resilience, as it helps organisations pre-emptively address potential vulnerabilities and maintain a robust, agile IT environment.

Single Points of Failure:

Dowling highlights a significant concern with hybrid infrastructure: despite its distribution across on-premises and cloud environments, critical applications—the “crown jewels” relied upon by employees and customers—can still have single points of failure.

He explains, “When we conduct threat modelling using STRIDE, we often encounter vulnerabilities such as denial of service (the ‘D’ in STRIDE) or tampering issues. Even with a hybrid setup, authentication and authorisation systems can become single points of failure, potentially exposing the entire system to outages.”

To mitigate these risks, Dowling says organisations must invest in robust threat modelling, redundancy planning, and resilient architecture to ensure critical applications remain protected and operational, even when individual components fail.



Best Practices for Overcoming Hybrid Infrastructure Challenges

Establish a Baseline: Starting on the right foot is essential for hybrid infrastructure. Smith advises, “Establish a baseline in your platforms, understand what workloads are where they are today, and consider the total cost of ownership mentality. Don’t forget the extra infrastructure you’ll need—more firewalls, network devices, storage, etc.” Begin by assessing your current state and workloads. Determine which environments best support different workloads, considering factors like scaling needs and cost. Engaging experts early can set a solid foundation and reduce future issues.

Define What Success Looks Like: Fredkin highlights the need to align IT with business goals. “When evaluating hybrid or multi-cloud initiatives, start by defining what success looks like for you. Establish clear metrics and ensure IT infrastructure supports broader business objectives.” He emphasises creating a proactive culture of change. “When people are part of the journey, they’re more likely to support and embrace it.” This approach helps manage complexities and ensures smoother transitions.

Understand There’s No ‘IT Nirvana’: Fredkin notes, “When you’re modernising your organisation – whether through a hybrid or multi-cloud journey – the goal is to have modern, fit-for-purpose technology. But there’s no such thing as 100% completion. Technology evolves at an extraordinary pace, and what’s considered modern today can quickly become legacy. This means that resilience isn’t just about your infrastructure; it’s also about mental resilience and accepting that the journey is never truly complete. You might finish a project or modernise a segment of your infrastructure, but there’s no final endpoint. Even if you achieve a perfect state, it’s fleeting and will soon become outdated. I think people are starting to come to terms with this, understanding that the idea of reaching a perfect ‘Nirvana’ in technology is always shifting.”

Get Proof of High Availability: Leen stresses the importance of verifying high availability from cloud providers: “Demand proof of high availability through uptime records, robust architecture, and high-quality technology.” It’s crucial to select providers based on demonstrated performance, not just promises. Ensuring rigorous standards helps maintain operational resilience and reliability.



Match Workloads with Appropriate Platform: Leen advises, “It’s important to be honest about the best placement for each workload.” Instead of following trends, evaluate what is optimal for cost, performance, and resilience. Properly matching workloads to platforms and maintaining consistent management can avoid gaps in visibility and management, preventing potential vulnerabilities.”

Create a Culture of Change: Fredkin highlights the critical role culture plays in adapting to change. “When it comes to culture, IT can either be reactive or proactive. In many organisations, change is simply processed, while in others, they actively enable and promote change throughout the organisation. This is especially true for areas like user literacy and human-centred design, where spending time with people is crucial.”

Fredkin continues, “The takeaway here is that when people are part of the journey, they’re more likely to support and embrace it.” In the context of hybrid infrastructure and business resilience, fostering a proactive culture of change is essential. By involving employees early and actively engaging them in the transformation process, organisations can better manage the complexities of new technologies and ensure smoother transitions. This approach not only enhances user acceptance, but also strengthens the organisation’s overall adaptability and resilience.

5.

Case Studies and Real-World Examples

Success Stories of Businesses Achieving Resilience



HYBRID INFRASTRUCTURE

How Ansvar Strengthens Resilience and Service

Ansvar, a leading insurance and risk specialist, teamed up with Interactive to modernise its IT infrastructure with a hybrid model, enhancing disaster recovery and service continuity. By moving from on-site datacentres to cloud solutions, Ansvar boosted scalability, flexibility, and incident response.

"In today's fast-changing tech landscape, we needed a strong partner to ensure Ansvar's resilience, and Interactive delivered," says Heather Santin, IT Manager at Ansvar.

Focused on sectors like Care, Community, and Education, Ansvar's new approach improves collaboration, communication, and cybersecurity, ensuring long-term agility and security in a dynamic market.

To dive deeper into Ansvar's journey and learn how they've enhanced resilience through hybrid infrastructure, read the full story [here](#).



ELEVATING TRUST

Illion's Cloud Migration Boosts Data Security and Service

Illion, a leader in credit risk management, is enhancing its digital landscape by integrating hybrid infrastructure. Combining on-premises and cloud solutions has bolstered data security, improved compliance, and streamlined operations.

"The public cloud migration will allow us to provide faster and higher quality service to our customers, with limited server and operating system downtimes. This infrastructural change will bring us one step closer to our goal of providing excellent service in times where technology is continuously changing", said Jesse Dumoff – Chief Information Officer, at illion.

Partnering with Interactive, illion modernised its tech infrastructure, enhancing system availability, disaster recovery, and client responsiveness—all while cutting costs and reinforcing its reputation for secure, reliable service.

For a closer look at how illion transformed its infrastructure and boosted resilience, read the full story [here](#).

6.

The Future of Business Resilience with Hybrid Infrastructure

Emerging Trends and Technologies

The future of hybrid infrastructure will be influenced by technologies such as edge computing, AI, and automation, which promise to enhance flexibility, reduce latency, and improve data processing.

As AI stands out as a transformative force, it's worth examining its impact more closely.

AI and Automation:

AI and machine learning are becoming vital for managing hybrid infrastructures. These technologies will automate real-time monitoring, predictive analytics, and incident response, reducing the need for manual intervention and boosting resilience. Fredkin highlights the role of Generative AI (Gen AI), noting, "Gen AI helps write and train internal APIs, streamlines IT support, and creates alarms in hybrid environments." Effective observability, which includes visualising security and costs across multiple environments, is crucial for a comprehensive view.

AI in Security:

AI enhances security by identifying abnormal patterns and improving threat detection, according to Dowling. However, Leen points out that AI also brings challenges, such as more sophisticated phishing attempts. Dowling emphasises that security should focus on foundational practices, stating, "Effective security involves reducing your attack surface, managing vulnerabilities, and improving internal communication." Leen agrees on the importance of integrating basic cybersecurity measures into daily operations to prevent vulnerabilities.

Balancing Innovation with Core Security Practices

AI plays a pivotal role in enhancing business resilience, but it also brings new vulnerabilities. The key challenge is finding the right balance between adopting advanced AI technologies and upholding essential security fundamentals. Integrating innovative tools with strong, foundational security measures is crucial to creating a resilient and secure hybrid infrastructure.

Ultimately, AI is a double-edged sword in the realm of business resilience—it enhances threat detection and response, but also introduces complex security challenges. Striking the right balance between cutting-edge solutions and core security practices is essential to maintaining a strong security posture.

Preparing for Future Challenges and Opportunities

To thrive in a hybrid infrastructure, businesses must stay ahead of tech advancements and evolving threats. Continuous investment, employee training, and strong partnerships with top service providers are essential for resilience and growth.

Partnering with leading experts provides access to cutting-edge tools and helps manage hybrid environments effectively. Balancing on-premises and cloud solutions requires both the right technology and expertise. Collaborating with seasoned providers ensures adaptability, risk mitigation, and maximises the benefits of hybrid infrastructure.



The Path Forward

Hybrid infrastructure is a powerful tool for business resilience, offering flexibility, scalability, and cost efficiency. With strategic planning and implementation, businesses can enhance their ability to respond to disruptions, protect critical data, and optimise operations.

As we've heard from industry thought leaders, resilience in hybrid infrastructure means harnessing the strengths of diverse environments to maintain continuous operations amidst challenges. Prioritising flexibility, redundancy, security, and efficient management is crucial for building a robust foundation for long-term success.

Fredkin emphasises this point, reminding us: "It's a mindset shift. Just because something correlates—like the percentage of workloads in a certain environment or a strategy that worked for other organisations—doesn't mean it will work for you."

"It's important to consider these statistics in the context of your own business. While it's useful to know what others are doing, you should always think about what makes sense for your specific situation. It's risky to adopt a strategy just because someone else is doing it."

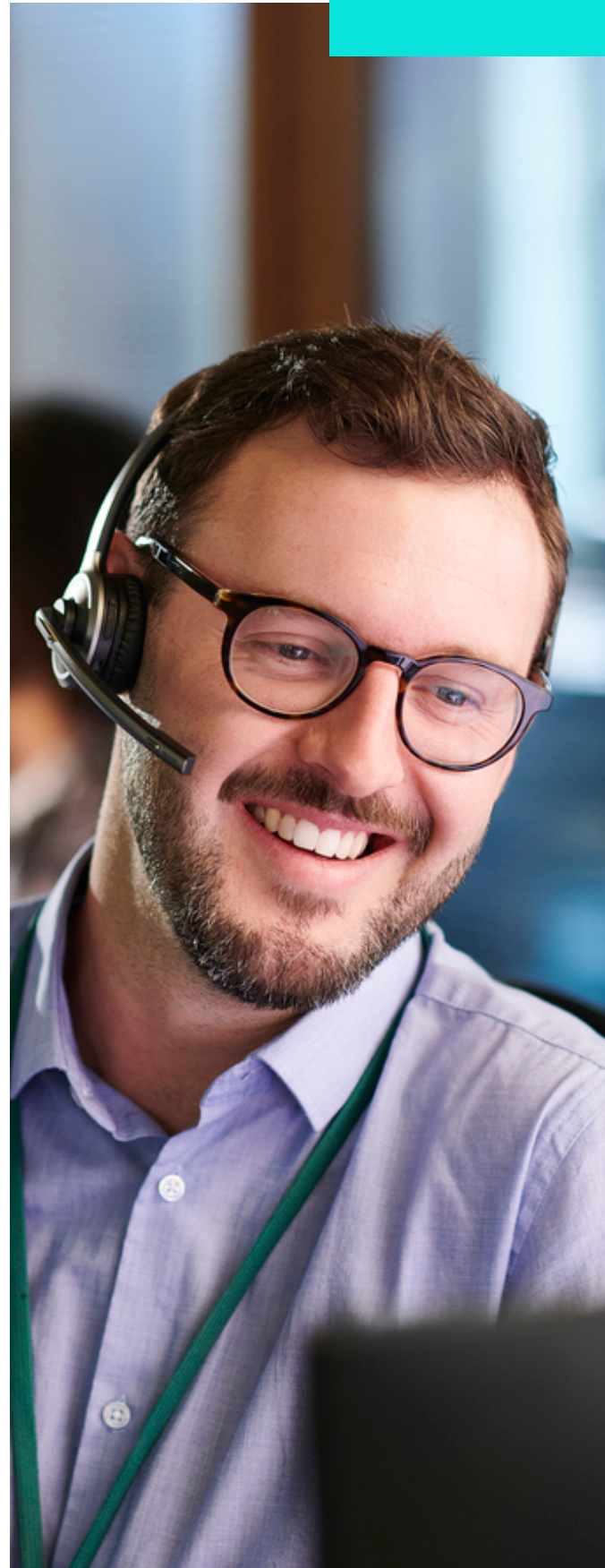
Get in Touch

Navigating hybrid infrastructure complexities requires expert guidance, and that's where [Interactive Anywhere](#) excels. Our comprehensive suite of services supports organisations at every stage, from initial exploration to optimising existing setups. Our team of experts is equipped to help you manage your IT environment effectively.

As a trusted outsourced IT managed services provider, Interactive Anywhere handles your IT operations, sites, and staff, allowing you to focus on core business priorities. Whether you're transitioning to the cloud or mitigating cyber risks, we offer tailored support to meet your needs, ensuring seamless management and enhanced resilience.

[Contact us.](#)

**Start your journey to
resilience with us today.**



About us



Interactive is a leading IT service provider. We keep technology human for our customers.

Established in 1988 we are renowned for delivering unparalleled expertise and impeccable service to the highest standards of security and compliance. Through our strategic alliances with leading global technology partners, providing organisations with access to best-in-class solutions.

As a trusted technology partner for more than 2,500 customers, we deliver an integrated suite of managed and professional services in Cloud, Cyber Security, Data Centres, Business Continuity, Network Services, Systems Maintenance, Serviced Office, and Digital Workplace.

Interactive is +600 innovative people. Our customers trust us to hold their most important data, support their critical devices, and secure their systems, so they can focus on growing their business. From manufacturing to finance, healthcare to entertainment, we support a wide range of organisations across many industries.



Microsoft (Nasdaq "MSFT" @microsoft) enables digital transformation for the era of an intelligent cloud and an intelligent edge. Its mission is to empower every person and every organization on the planet to achieve more.



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