

# HYBRID CLOUD

## A BEST PRACTICE GUIDE TO IT





## Cloud computing has created a fast-track to business transformation through IT.

With the demand on networks becoming ever-greater, the workforce becoming more dispersed and the cybersecurity landscape constantly changing, organisations are looking to the cloud to provide the flexibility, scalability, security and sustainability they require.

More than 90% of organisations are already using at least one cloud service, and most are switching to a hybrid cloud or cloud-first strategy. Businesses are moving away from legacy (typically on-premises) technologies as they approach end-of-life, become more costly to maintain, or are unable to meet the demands of the modern workplace.

Cloud is not an all-or-nothing proposition and you don't need to relocate every business-critical application at the same time. Indeed, most businesses will adopt a phased approach where their network comprises of on-premises, public cloud and private cloud services; something known as hybrid infrastructure.

So how can you take advantage of the cloud in your business, and when is the time right to do this? In this best practice guide, we look at the benefits of hybrid infrastructure.

We analyse cloud adoption rates, discuss perceived barriers to entry and guide you in planning your journey to hybrid cloud.

Lastly, with a plethora of cloud services and service providers available, we guide you in finding the right partner to suit your needs; present and future.

# CLOUD ADOPTION

Despite some naysayers suggesting the cloud bubble will burst, adoption rates are at an all-time high.

Major analysts, research publications and industry surveys all agree that IT resource and budget is increasingly being allocated to cloud adoption.

Adoption of cloud services continues to accelerate across all industry sectors, with hybrid infrastructure establishing itself as the preferred model.

Hybrid cloud infrastructure has rapidly become the deployment model of choice, with Gartner predicting 90% of businesses will be leveraging a hybrid infrastructure by 2022.

By the same year, Gartner forecasts worldwide public cloud service revenues to be \$354.6bn, with cloud system infrastructure services (IaaS) contributing \$74.1bn to that total.

Whilst security remains a consideration for organisations looking to move to the cloud, it is no longer the number one concern. For many, the reticence to move critical data and applications to the cloud is fading and we are beginning to see more sensitive applications join their non-critical cousins in the cloud.

Organisations are investing much more in cloud infrastructure. Research from Spiceworks shows that over a third of IT budgets are set to be spent on hosted, cloud-based and managed services. The top factor (64%) leading to IT budget increases is the need to upgrade outdated infrastructure.

That said, there still remains a place for 'traditional' IT services. Spiceworks shows that a third of IT budgets will still be spent on hardware, concentrated on laptops (17%), desktops (17%) and servers (14%). While the share of budgets for on-premises infrastructure is decreasing, it does show that organisations are not ready to be 100% cloud just yet.

This makes a lot of sense when you think about it. The majority of organisations will have invested in on-premises technology over the past 10 years and they will still be keen to extract as much business value from their legacy solutions as possible.

“CLOUD IS  
EVOLVING FROM  
ESSENTIAL  
INFRASTRUCTURE-  
AS-A-SERVICE TO  
NATIVE CLOUD  
APPLICATIONS”

# BARRIERS TO ENTRY

Nobody is denying the benefits of cloud, but there is still some resistance to change to be found around the boardroom table. Decision makers don't want to be seen to be "rushing in" to a technology that is unproven within their business, nor do they wish to compromise return on investment for existing infrastructure.

The most common barriers to entry are:

**Network security:** Systems that sit beyond the traditional IT network, outside of a corporate firewall, can raise concerns over cybersecurity.

**Systems integration:** Integrating new cloud-based systems with legacy infrastructure can be difficult and time-consuming.

**Skilled resource:** Not every organisation has an IT department with the required skillset to manage a cloud or hybrid environment, meaning additional expenditure on training and/or recruitment may be required.

**Data privacy:** Transmitting sensitive information over public networks can be of concern, especially in an age where data breaches and cyber crime are at an all-time high.

**Cloud strategy:** Many organisations will not have an effective cloud strategy, meaning there is no clear view of how the technology can be utilised to enhance IT operations.

While these barriers may seem difficult to overcome, when you look closer it is often not the case. Trusted public and private cloud services will utilise leading cybersecurity technologies, including the use of encryption, to mitigate the risks of cyber attacks and data breaches.

Meanwhile, managed service providers (especially those with knowledge of hybrid infrastructure) can aid with systems integration and provide the valuable skills needed to ensure your infrastructure is scoped, implemented and maintained correctly.

Without a clear idea of what you are trying to achieve, and how to go about it, your move to the cloud will inevitably stall. Good service providers will offer assessments and consultancy services that ensure the right parts of your infrastructure are moved to the cloud at the right time, in the right order, and with the maximum commercial and strategic value to your business.



NETWORK SECURITY



SYSTEMS INTEGRATION



SKILLED RESOURCE



DATA PRIVACY



CLOUD STRATEGY

# HYBRID CLOUD

The transition from on-premises to cloud is not something that occurs overnight. As organisations adopt new technologies, retire old ones, establish a private cloud or experiment with moving services to a public cloud, they are creating a hybrid infrastructure.

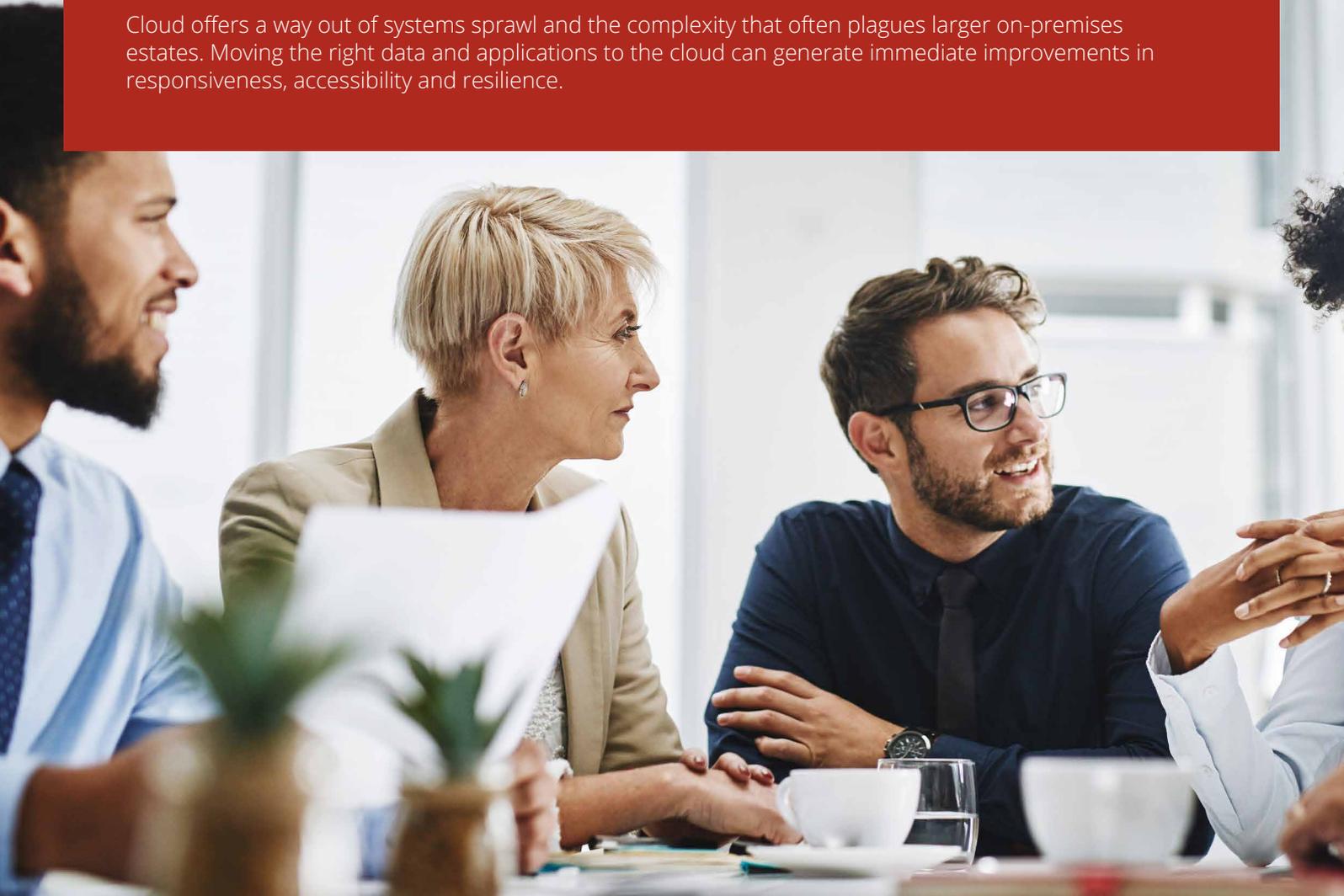
However, hybrid is not simply a transitory state. For most organisations, hybrid is not a journey – it is the destination. The make-up of the hybrid environment will change over time. As a greater proportion of services are moved to the cloud, the composition of public and private cloud services will also change.

Hybrid offers the best of all worlds – the agility and affordability of public cloud, combined with the compliance and security of private cloud and the control and convenience of on-premises solutions.

The inherent flexibility and scalability of cloud services means organisations can make the move to cloud at their own pace. Trial services on a temporary basis, add services incrementally as legacy systems reach end-of-life and add capacity during periods of high demand without over-committing capital expenditure.

A hybrid approach to IT can help mitigate the risk associated with change. Running cloud alongside legacy systems minimises the need for on-premises systems integration, reduces the overall investment risk and helps maximise returns on legacy equipment.

Cloud offers a way out of systems sprawl and the complexity that often plagues larger on-premises estates. Moving the right data and applications to the cloud can generate immediate improvements in responsiveness, accessibility and resilience.



# BUSINESS TRANSFORMATION

While individual organisations' objectives vary considerably, some core principles are consistent across all market sectors, no matter the size of your organisation.



Reduce  
Fixed Costs



Increase  
Business Agility



Optimise IT  
Environment



Improve  
Workforce Productivity



Enhance User  
Experience



Drive Increased  
Revenues

Delivering against these objectives requires that organisations understand the business case for cloud and weigh up the risks and rewards associated with business transformation.

Organisations seeking to gain a competitive advantage through process or performance improvement will often turn to the cloud. Relocating centres of operation, streamlining core business processes or adopting innovative technologies can all help improve performance.

However, IT needs to avoid the pitfall of over-provisioning new services. Up-scaling new services and users is a core component of cloud computing and it is easier to add resources when needed than to over-commit and find yourself burdened with excess capacity.

Cloud offers the ideal environment for accelerating the delivery of projects or bringing new services to market without committing additional CAPEX. Migrating resource-intensive workflows to a flexible cloud infrastructure can provide an optimised development environment, without adding overhead to your legacy systems or impacting on customer service levels. It also relieves pressure on finite IT resources and can reduce the overall cost of IT ownership.

Fluctuations in demand for technical resources can arise for a number of reasons – seasonal variation, crisis management, on-boarding new services, addressing new markets and more.

A hybrid approach to infrastructure will allow your organisation to add cloud capacity alongside existing services to accelerate development times, maintain quality of service and minimise financial risk.

Rapidly growing organisations wishing to maintain service quality can leverage a hybrid infrastructure to ensure resource availability and avoid step-changes in service provision that can result in inefficient periods of under or over-capacity.

As big data becomes an integral part of everyday operations, many organisations will opt to outsource expensive on-premises storage capacity and resource-intensive back-up and recovery processes. Hybrid cloud provides burstable storage capacity and reliable file back-up without adding significant latency to the network.

If your objectives are more ambitious, a hybrid cloud infrastructure can provide the flexibility, scalability and performance required to support radical change management and business transformation programmes.

# FINDING THE RIGHT PARTNER



## ADVISE

Wherever you are on your journey to the cloud, choosing the right cloud partner can make the difference between a smooth journey or not getting there at all.

The right partner doesn't need to be a cloud only provider. Without on-premises experience, your provider may have a limited perspective and not know how to extract the best value from your legacy systems. A hybrid infrastructure requires an understanding of both.

Before you start talking technology with any potential partner, they should be in a position to understand your objectives, identify your stakeholders and map out your transformation journey; helping you to build a business case for your investment in cloud.



## DESIGN

Designing the right hybrid infrastructure means understanding how users will interact with the new solutions and systems integration will be a key consideration. Transformative solutions frequently require process change alongside new technology.

Extending the life of your existing systems is a core component of systems integration; it is rare that a technology change requires a complete rip-and-replace solution, so legacy systems and process integration play a major role in maximising your return on investment.



## IMPLEMENT

Deployment is a crucial phase of cloud migration. Your chosen partner should have a proven, best-practice methodology for systems implementation that features robust project management and quality assurance processes.

They should remain engaged with you throughout the process and seek feedback and acceptance at every key stage of the project. In particular, they should have a focus on risk avoidance or mitigation at all times.

Your relationship with your cloud service provider doesn't end with systems go-live. An ongoing programme of management and optimisation will ensure your new systems remain aligned to your business objectives and ensure you maximise the returns on your investment.



## MANAGE

Finally, make sure your partner offers a transparent and viable exit strategy. Knowing where your responsibilities lie at the end of your contract will help with continuity planning or future systems development. This is particularly useful if you are using cloud as a short-term solution.



## AVAILABLE FROM ONI:

- Managed Services & Support
- Hosting & Colocation
- Networking & Connectivity
- Back-Up & Disaster Recovery
- Cybersecurity Solutions
- Contact Centre Solutions
- Mobility & Collaboration
- Unified Communications
- Public & Private Cloud Infrastructure



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