

Your guide to making cloud migration happen

Blast through the blockers with this can-do guide to public cloud success



Public cloud: Why, why not – and how

Cloud infrastructure is the future of IT. The cloud in all its forms offers huge benefits, especially for SMEs. So, the question shouldn't be "should we explore the public cloud?", more like – "why haven't we done so already?"

Although the business opportunity is dazzling, your IT department might not be so enthusiastic – and there are other pitfalls to avoid along the way.

Take the opportunity

Public cloud is already the mainstream business choice and it's still growing fast. There are billions of users worldwide. Gartner forecasts that global end-user spending on public cloud services will rise again by 23.1% in 2021.

And no wonder. Public cloud infrastructure offers affordable, rapid access to modern, agile, enterprise-grade IT – and a golden opportunity to both reduce costs and transform your business. It's the perfect platform for innovation, agility and growth.

Public cloud can scale up or down instantly to match IT spending to actual needs – something that's impossible for SMEs with on-premises systems. It makes upgrading ageing in-house data centres unnecessary, replaces CAPEX with OPEX for better cash flow and minimises your IT team's maintenance workload.

Then there's public cloud's high availability and its premium security and disaster recovery at much lower costs compared to on-premises. Storage and processing power is virtually unlimited and, critically in these troubled times, it's purpose-built for remote working too.



Minimise the risk

For a successful project, be aware of the potential challenges in moving to the public cloud.

- There are complex technical decisions to be made early on, for example, choosing the right cloud architecture for SMEs.
- A clear, detailed cloud strategy and migration plan is essential.
- Even if management are convinced, IT may argue in favour of on-premises systems. This may be correct – or a way to stay with familiar technology and avoid possible job losses.
- Resistance to change can stall a project at the outset.
- There is often little technical cloud experience in-house.

We'll address these challenges in this guide, but the most important advice is simple: seek expert guidance from cloud veterans.



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Think hard before you jump in

Cloud isn't "just IT". Compared to on-premises, it's a different world altogether. Sensible SMEs should plan carefully and test the water rather than diving in head-first.





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Plan first, choose wisely

To enjoy the benefits of next-generation IT and lead change effectively, management must take the time to create a formal strategy document before any migration starts. Planning is nothing new but, this time, the subject is unfamiliar – and technical too.

A 2018 survey found 97% of c-level executives said they should have made different strategic decisions during their first cloud migration.

Create your strategy

Start planning early. Creating a high-level, formal, written strategy document is critical and must come before any detailed, technical deployment or migration planning.

Use this strategy document to validate your cloud ambitions. It should highlight the key reasons for moving to the public cloud, for example:

- Modern cloud-native applications
- Instant scalability when you need it
- On-premises systems reaching end of life

And the expected business outcomes:

- Better home working capability
- Lower CAPEX, lower costs
- Increased business agility and innovation

Let your strategy do the talking

Security and privacy

Moving to cloud is a cultural shift for everyone. Use your strategy document to communicate public cloud's benefits to management, IT and every other stakeholder. Make sure it addresses their (and your) main concerns:

Security Loss of control vs on-prem **Backup and Disaster** Recovery (DR) Cost

IT performance standards compliance level



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Educate yourself

It's tough to create a strategy with little or no cloud experience. A staged approach helps. By building a cloud "basecamp" and deploying a pilot workload, you keep learning as you progress while also minimising business risk.

To start with:

 Speak the right language: educate yourself on the public cloud basics. For example, the differences between laaS, PaaS and SaaS. TechTarget and Microsoft's "Cloud Migration Simplified" are great starting points

- **Consume research:** scour trusted sources like Gartner and Forrester
- Build a cloud team: select internal advocates and cloud technology experts
- Find a champion: ask your most senior advocate to sponsor the project
 - Look for expert advice externally: unfortunately, internal IT stakeholders can be biased towards traditional systems

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Organisations that create a cloud strategy gain the most from their use of cloud computing

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Gartner, The Cloud Strategy Cookbook, 2021 SYNAPSE³⁶⁰

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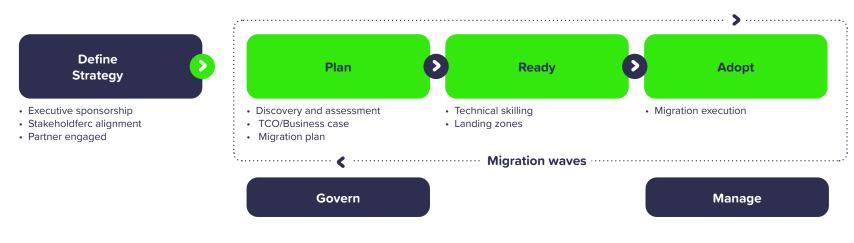
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Migration planning and execution

workload, email is a popular first migration choice.

Start to identify which elements of your IT systems suit public cloud

best and any priorities for migration. As a standard, well-understood





key pillars of your cloud strategy

Cloud is a complex beast. No two migrations are ever the same, so maximising project success requires strategic focus on the right priority areas.

It all starts with your strategy document, which should be built around these essential pillars:



Categorise your computing

For most SMEs, certain parts of their IT infrastructure won't move to the public cloud. At a minimum (unless your company has no physical base), on-premises systems are required to allow staff to connect to remote cloud infrastructure.

You might also choose to deploy - or already run - private cloud systems, hosted either in on-premises data centres or an external specialist, like Synapse360's Private Managed Cloud.

Don't fear a hybrid IT environment: blending on-premises, private and public cloud can give you the very best of each. Over 90% of businesses use hybrid deployments.

Private cloud and private-public hybrids can ease the transition to public cloud, helping your IT specialists, from application developers to infrastructure teams, safely learn the effective use of cloud-based services.

As you move to public cloud from on-premises, you will have a hybrid deployment initially and, unless you remove all your in-house systems and shut the office, likely forever.



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2) Choose a phased deployment

"Big bang" IT projects are very risky. Many will fail outright. A phased, step-by-step deployment on a solid trustworthy platform will let you learn as you go, evolving your cloud strategy as you develop a full understanding of what the cloud can do and how well it fits your needs.

- Understand what you have now: run a discovery programme first
- "Plant a flag": build your basecamp and explore the public cloud in stages
- Move slowly and steadily: transition over years, not months, switching one service at a time

You can keep your on-premises data centre running in parallel while you move to cloud in a staged, low risk way. Once public cloud is tested and proven, only then start to switch off redundant systems.

3 Estimate your budget

Budgeting is a big challenge. Why? Because you're trying to predict the future.

When you're working out what the first and subsequent migration stages will cost, how new cloud apps might increase business income or where savings might be made over existing systems – be pragmatic and expect some variation in practice.

Public cloud can improve performance and reduce costs for standardised, well-defined processes and systems like email, CRM, and ERP. It's also perfect for exploring new technologies, applications, and development models (agile, DevOps) that support digital transformation (mobile apps, Al/machine learning, HPC) and potentially grow business revenue.

- Carefully measure existing storage, processing, and other usage relevant to future cloud consumption
- Use cloud providers' free tools for estimating future consumption or find someone who can

A recipe for public cloud success

In your high-level strategy document, try to predict:

- Which workloads, applications, and data you think will move to the public/private cloud over time.
- Which are the best ones to start with?
- Which will likely never move to the cloud and where on-premises
 is definitely the best option. Reasons for that include licencing requirements, the size of servers, complex integrations and large sunk costs
- As well as any external cloud partners, talk to cloud services providers and software vendors to gauge how their offerings will evolve. Does their roadmap support or hinder your plans?

remember

Key things to

- Embrace hybrid options if they fit your needs
- Phased deployments are best for most SMEs
- Take cost estimation very seriously

SYNAPSE³⁶⁰

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Overcoming the most common objections

Despite its popularity, some still firmly oppose the public cloud. Overcoming the doubters is much easier if you're a step ahead. Here are some of the most common concerns we hear and our take on dealing with them.

"It won't be compliant"

Public cloud infrastructure isn't "public" – no-one else can see or touch your data – and it is extremely secure. Data centres strictly apply ISO 27001, maintain large teams of security specialists, enforce maximum physical safeguarding, and rapidly implement any security upgrades or patches.

However, you need to play your part too. Under the "shared responsibility" model for PaaS or laaS security, a business is responsible for its platforms, applications, identity and access management, its own

data encryption, customer data backup and many other aspects of a deployment.

Public cloud vendors offer comprehensive security tools to handle this. But you'll need cloud experts that know how to turn them on, configure and maintain them correctly.

"I don't trust cloud backup and disaster recovery"

Top notch on-premises backup and document recovery – like maintaining a spare data centre – is expensive and complex. Many SMEs don't invest and are vulnerable.

In contrast, public cloud infrastructure offers superb backup and document recovery features at much lower cost.

- Only pay for DR storage when used, no need to buy and maintain just in case
- Your instances are replicated across multiple
 UK data centres

But the IaaS/PaaS shared responsibility model applies again. Following any outage, most cloud providers only guarantee to restore your virtual machines (VMs), not the data housed on them.

The VMs' applications, workloads or services are your responsibility – so implement a properly configured backup and document recovery strategy from the start or risk outages and data loss.

"It's not secure"

Almost every business must comply with multiple privacy and security standards and regulations, for example, GDPR, PCI and SOC. Cloud vendors like Microsoft Azure have excellent compliance tools and privacy policies, such as:

- Azure Security Center
- Azure Compliance Manager

Use these to set up your compliance environment, monitor activity and be alerted automatically to any issues; however, their initial manual configuration is complex and will be different for every business. Choose someone familiar with the process for your first deployment.



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"We'll lose control"

As public cloud makes most of your on-premises servers, storage and other hardware redundant, you'll no longer directly control your IT infrastructure. Often you have little influence on the hardware a workload runs on. You're also trusting your public cloud provider to maintain performance.

But the upside is well worth it. The right public cloud deployment massively simplifies storage, computing, networking, and security maintenance. You'll always have cutting-edge technology on tap, not a six-year-old server. And that frees up your IT team to create real value for the business.

"Can we rely on public cloud performance?"

The public cloud's instant scalability delivers all the performance you need and more, almost all the time. But in exceptional circumstances where everyone needs extra resources simultaneously, its shared nature can mean providers occasionally struggle and speed drops.

At the start of the pandemic, with tens of millions of new homeworking users and demand soaring, every major provider had performance issues. But they rapidly expanded their giant data centres to cope – impossible for traditional on-premises providers to achieve at that scale.

66 There are plenty of pieces in the cloud migration puzzle – design, planning, configuration, implementation, management, training – and they all
 99 need to fit and work together perfectly.

John Pickford, CTO, Synapse360



SYNAPSE 360

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Estimating cost

It's all too easy to underestimate how much a cloud deployment will cost – and equally easy to overspend. Globally, at least 35% of cloud spend is wasted. Follow this advice to be confident that reality will match your predictions.



Know where you're going

Cutting costs often drives public cloud adoption: 76% of organisations use cost efficiency and savings to measure cloud progress. So strive for accurate estimates from the outset.

Forgetting to include essential building blocks will drive spending higher than expected. As well as virtual machines, data, and applications, remember you'll need a firewall and other tools like load balancing, backup and document recovery.

A bad initial deployment on an ineptly specified and configured public cloud platform can bleed money through excessive monthly charges and by making future deployments to the same platform difficult, impossible, or unattractive.

Migrating an unsuitable application and having to repatriate it back on-premises is another costly error. Repatriating a workload is all too common: one survey found 74% of IT managers had been forced to do this.



Accurately estimating initial and ongoing monthly costs requires a closer look at the migration itself.

- How much storage and processing power (number of VMs) will be required now and, ideally, in the future?
- Include less obvious charges like per-Gb data import/export fees
- To avoid buying more than you need, calculate your cloud server requirements based on current application resource consumption
- Take full advantage of vendor discount schemes like Azure Reserved Instances

45% of businesses moving to the cloud with laaS will be over-provisioned by 55% and overspend by 70%.

With <u>61% of organisations planning to optimise their</u> <u>cloud costs in 2021</u>, it's far better to avoid waste in the first place. Use cloud vendors' free assessment tools to automatically analyse your existing infrastructure and predict costs.

These are extremely effective, promoting an efficient deployment that uses the minimum of resources. But you'll need experts that know where they are and how to use them.





Start to look at the detail

For more accurate cost estimates, consider the nature of each workload migration. This technical decision significantly affects initial and ongoing costs, and the potential for long-term savings and true digital transformation.

Will you "lift and shift" workloads (rehosting) with little change and short-term cost savings or invest in completely re-engineering them to make them cloud-native and so fully exploit the cloud's benefits? Or steer a middle course?

Considering this is vital so that you can make informed decisions on:

- which apps to migrate and which to leave on-premises
- whether it is technically feasible to migrate an on-premises system
- optimising the cost of running previously on-premises applications in the cloud
- retiring some of today's applications services instead



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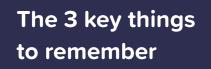
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Finding real-life cost reductions can be challenging

Cost reductions are certainly possible with public cloud but are far from inevitable.

- OPEX will increase initially if you switch to cloud while keeping all your on-prem hardware and software running.
- Your IT staff will have less to do but it can be tough to reduce headcount, especially in smaller businesses where everyone has multiple roles.
- Do you have more productive work to switch IT staff onto, like exploring and creating new business applications?



- Assess on-premises in detail with cloud experts, don't guess
- Apply automated tools for precise cost estimates
- Pick the right migration method for each workload



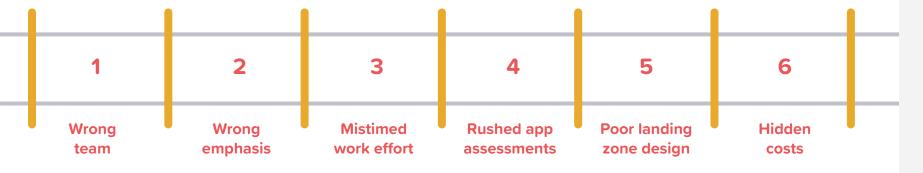


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6 ways cloud migration costs go off the rails





Avoid these common public cloud traps

Do anything for the first time and your risk of failure will be higher. These are some of the most frequent mistakes that businesses make when moving to the public cloud – and how to avoid them.

Piecemeal deployments

With the public cloud so accessible, it's tempting to just sign up for a service and hand it to your IT team to get it running. But as we've warned earlier, you can end up with badly designed or over-customised deployments that become expensive blind alleys.

Avoid this with:

- expert support
- the right initial platform, properly configured, so you can build on it in future
- training for your IT team.
- a clear roadmap

Struggling to define dependencies

A workload can be simple – a single basic application – or a complex, interconnected web of applications, databases, servers, and other components. Mapping all the dependencies (relationships) within complex IT-delivered services is notoriously difficult.

In fact, understanding application and server dependencies is the top challenge in cloud migration.

- Start analysing application dependencies early
- Will you need to link components that reside both on-premise and in the cloud?
- Overlooking dependencies in a migration can cause severe performance issues and paralyse remaining on-premise applications

The solution? Exploit free cloud-based tools like Azure Application Discovery, Migrate or Data Migration Assistant. These analyse different on-premises workloads and show how best to migrate them.

Training

Don't ignore it. Public cloud is a very different animal to traditional installed systems. Your IT people may know next to nothing about cloud applications and make very expensive mistakes. Training is essential.

All cloud providers offer a short-course foundation certificate. These are an excellent starting point for your IT team, building familiarity with and confidence in their new environment. Remember you'll need to train business staff on their new cloud applications too.

Keep the home fires burning

Even if most – or all – data and applications are in the cloud, you will still need solid on-premises infrastructure.

- Company firewall
- Backup/spare hardware
- Reliable connectivity/bandwidth



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Gain business-wide buy-in for your public cloud ambitions

For a successful public cloud project, the whole company must work together. Executive sponsorship and backing from IT are both vital.

The high-level strategy document is central to gaining consent. It should show how moving to public cloud works for the entire business. Evangelise with a vision of how everyone will benefit.

O For senior management

Focus on the bottom line, business resilience and future growth. The public cloud is a huge opportunity to re-build business processes opening the door to increased income.

- **Prioritise investment:** Target new cloud platforms to where they can drive increased revenues and improved margins. Cloud lets you pilot easily and scale quickly
- Build innovative applications: Access thousands of web services
 that you can tie together into new business offerings, from naturallanguage processing to facial recognition
- Effective automation: Using DevOps, IT can release updates and respond to business needs in days or even hours, not months. That can increase efficiency of development teams by over 50%

Obviously, the public cloud cuts costs too. As well as gains like low CAPEX, it saves money in many other ways

- Scale up or scale down: only pay for what you use each month
- Less set-up time: switch on new users instantly
- Smaller or no data centre: lower energy and other costs
- Less waste: fewer fixed-term software licences
- Low-priced hardware: switch to thin-client PCs and laptops
- Security-first architecture: slash on-premises security, backup and DR costs



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For IT teams

Reassure them. A public cloud initiative often starts with management who see the benefits early but then IT push back out of fear of the unknown. After spending decades learning to run on-premises, it's hardly surprising.

- Job security: cloud can spell redundancies as on-premises hardware fades away
- Starting from scratch: learning completely new cloud applications frightens some veterans
- Lack of set-up knowledge: powerful cloud features like
 software-defined infrastructure can be complex to manage and code

Try to be as open as possible about your plans and invest in training. Your best IT people will respond to the challenge.

- Career progression: if staff learn the latest technology, they will become more valuable
- Less drudgery, more creative: code modern apps, don't just "keep the lights on"
- Fewer emergencies: relax and let someone else worry
 about hardware
- Security-first architecture: slash on-premises security, backup and DR costs



Cloud application users have little to lose but they will still have to transition to revamped or completely new apps and interfaces.

- More functional applications: make their job easier to do
- Convenient access: simple mobile and home working
- No waiting around: higher performance and availability

Win the public cloud debate:

- Is building and operating data centres a core part of our business? Unlikely. So why are we putting so much time and energy into it?
- Sell the idea of cloud first to those who will benefit early and most, like the Finance Director or the IT person responsible for security and disaster recovery
- Pick your first potential migration workload, plan it in detail to prove it will work, and use projected benefits like cost and functionality to convince doubters
- Make a clear list of savings and benefits
- Publicise all early migration successes



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FREE EXPERT ADVICE



At Synapse360 we help you build your strategy document and create a persuasive presentation to gain company-wide buy in.



Public Cloud Foundation: Fast, secure, optimised

Synapse360's PCF – your competitive advantage in the public cloud

Moving to the public cloud could be your best business decision ever. Make that a certainty by selecting Synapse360's Public Cloud Foundation.

common objections Public Cloud Foundation is the perfect starting point for Your public cloud issue How PCF solves it > Estimating cost your cloud journey and a safe home for your existing PCF ready in 5 days or less cloud environment. Slow platform deployment cloud traps Cost-effective, standardised PCF (>)Expensive, error-prone configuration Synapse360's experienced team $\left(\right)$ Lack of in-house cloud experience Synapse360 Assessment and first migration included **Risky initial migration** (>)were the most 99 responsive. DIY security, poor backup and DR $\left(\right)$ State-of-the-art protection with PCF listened to our needs carefully Platform missing vital components (>)PCF is a proven complete package and proposed Clear pricing with fixed cost options a simple but Unexpected costs highly effective >solution that Poor performance Optimised from the start was reasonably FREE EXPERT ADVICE No roadmap (>)Strategic guidance with guarterly innovation sessions priced. Learn more Myers Group Poor integration with private cloud > PCF fits perfectly with Synapse360's Private Managed Cloud Book your 1hr free chat with us today



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Discover refreshingly uncomplicated cloud

Fast. Secure. Optimised.

Public Cloud Foundation from Synapse360 is the UK's quickest, simplest route to an optimised public cloud deployment.

Migration-ready in **5 days or less**, the PCF package includes all the essential components, combined with over 300 pre-configurations and workflows that deliver the best architecture for security, connectivity and availability. We've gone through months of scripting, task automation and testing – so you don't have to.



12x faster cloud set-up

Our pre-designed, automated and tested workflows ensure you get over 300 configurations and all of the components required for a robust cloud platform.

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4x better security rated

Compliance and security focussed. Public Cloud Foundation gets a 4x better security rating compared with the average platform.

48% reduced cost

Don't be one of the 45% of businesses that move to the cloud with laaS that will be overprovisioned by 55% and overspend by 70%.

WHY SPEND MONTHS TO MIGRATE TO THE CLOUD WHEN YOU CAN DO IT IN 5 DAYS!

Start your cloud journey or migrate your cloud environment...

Click here to learn more about Public Cloud

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