

Building a smart cloud strategy

Taking the complexity out of computing

There's a wealth of information out there today about cloud – as well as a great deal of marketing hype from different vendors. As an experienced technology decision-maker, you'll rightly be wary. How often has IT's next best thing failed to deliver on its initial promise? From PC to client server computing and three-tier architecture to n-tier architecture and SOA, we've rarely seen a technology genuinely deliver the universal improvement promised, with projects instead so often failing or under-delivering on a grand scale.

So what makes cloud different?

For the first time, organisations like yours can buy technology as a pay-as-you-go service across infrastructure, platform and software. This gives you real benefit without any upfront technology investment, freeing you up from managing all the variables in a complex and shifting IT equation. As a result, you're able to concentrate on adding real business value through application and architecture innovation.

The higher up the cloud stack you go, the better the benefits become

Stay on-premise

In an on-premise environment, you're responsible for running it all in-house. To start delivering applications to your users, you need to ensure that:

- The networks and pipes are working
- The server hardware is performing
- Each OS is up to date and patched
- Data is stored and backed up
- Security is managed and configured
- Databases are resilient
- Application runtimes are working
- The applications themselves are running

Enjoy real elasticity with Infrastructure as a Service (IaaS)

With IaaS, the burden of managing your networks, servers, operating systems, virtualisation and logical storage is taken away, leaving you to concentrate on security, databases and application and development runtimes as well as the applications themselves.

IaaS lets you provision servers quickly and use them for a fixed time while retaining the flexibility to support vital services such as database provisioning, security and runtimes. While this gives you infrastructure elasticity, you're still required to manage your platforms on top, keeping them updated and primed to support your business needs.

Provision at speed with Platform as a Service (PaaS)

PaaS takes you further up the stack, providing an execution environment on top of your core infrastructure. This removes the complexity of delivering an up-to-date platform and means you no longer have to wait for environments to be provisioned.

You're freed to focus on applications while enjoying key cloud benefits such as computing elasticity, pay-as-you-go pricing and rapid time to delivery.

Take the final step with Software as a Service (SaaS)

Take the final step along the continuum and you remove virtually all responsibility from your IT organisation, moving your applications into a managed environment so you're simply left having to manage application use, not the application itself or any of its supporting infrastructure.

Benefits versus costs: Striking the right balance

So what's the right cloud mix and which way forward should you choose? The truth is that each of these different models provides varying levels of flexibility and performance benefit, so there is no 'right' answer.

What you need to do is develop a bespoke cloud strategy, identifying how your unique business can benefit while leveraging its existing technology investments.

Private (on-premise)

An on-premise platform provides the flexibility and uniqueness of delivery that's often needed to drive differentiated applications that are seen as 'special' ingredients in an organisation's portfolio. Applications need to consider key computing and operational aspects from security to speed through to integration with specialist internal platforms. Take a trading platform inside a modern investment bank for example, where rapid speeds are critical and implementations take advantage of cutting-edge technology to squeeze that extra performance needed to stay ahead of the competition.

The cost of this flexibility is the cost of the platform itself: having to manage unique platforms running leading-edge systems on super-fast dedicated networks is expensive. Couple this with

a limited need to invest in serious data centre capacity and the result is very high capital and operating costs compared to other models. The benefit though is a highly tailored and differentiated application that can be the difference between success and failure.

IaaS

This isn't as flexible as on-premise, but with providers able to buy in vast quantities the cost savings can be significant – especially when coupled with real flexibility in the delivery and provisioning of services. You can deploy development and live platforms very quickly in a whole range of configurations, knowing that your underlying infrastructure is rock solid.

PaaS

Paas is the smart way forward with commodity networks, operating systems and platforms such as .NET capable of delivering solutions. You can reap huge savings whilst enjoying greater flexibility of provision, especially useful in end-user computing as well as with large-scale applications that could previously only have been run at high expense on-premise. One good example is sites that attract large-scale consumer interaction with predictable, seasonal or exceptional load variations such as Ticketmaster.com.

SaaS

SaaS is the least flexible approach but it also offers the biggest potential benefits in terms of cost savings and speed of deployment. By delegating software provision to a third party who is happy to deploy software on behalf of several thousand customers, very low prices can be passed on to users. This is particularly attractive in software services such as CRM and email and with office productivity tools where the software is uniform and commoditised but the user base is large.

Segment your application base to deliver strategic clarity.

Figure 1 shows that as you move across the cloud spectrum from a private cloud to SaaS, the costs decrease and time to market increases while your flexibility and ability to specialise reduces. As a result, you need to build a target platform architecture that segments your application base into buckets aligned to cloud and your existing application architecture strategies. This will help you develop real clarity in your platform approach, so that you can move ahead making the best-informed decisions.

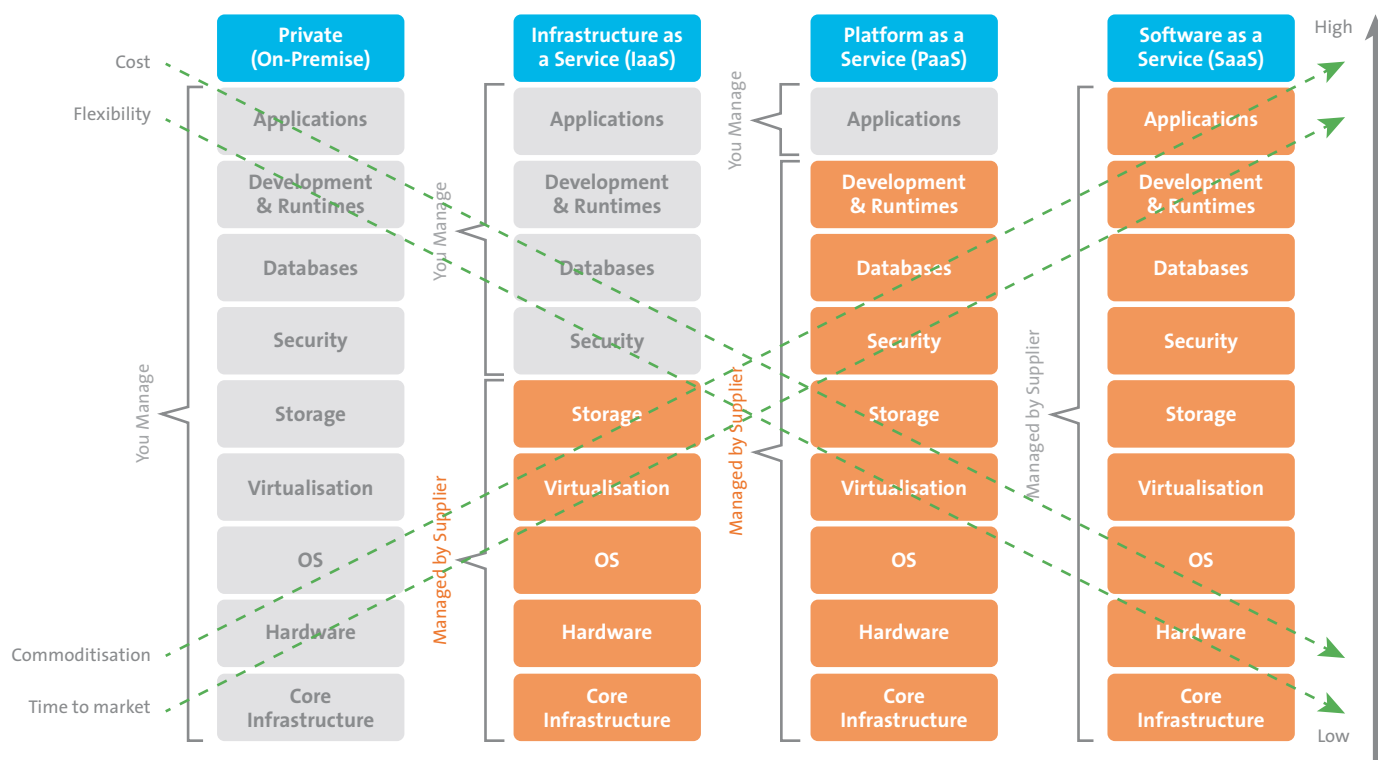


Figure 1: Moving across the cloud spectrum changes key cloud drivers

Developing a bespoke cloud strategy

So we conclude that cloud is not an all or nothing approach, some apps will stay on-premise, some will move out to managed services – others will sit in the middle taking advantage of platform and infrastructure as a service to allow some flexibility. The key is to look at your application portfolio from your commodity applications to your core differentiating systems and decide based on some of the factors outlined earlier, which option forward makes most sense for you.

To illustrate this consider commodity platforms, these could well be suited to SaaS, as they require only simple configuration changes. However for core applications such as molecular research

or trading applications which need a 99.999% uptime plus nanosecond response times and local data protection, an on-premise approach is almost certainly better suited. In the middle sit departmental apps, websites and other applications that suit the cloud model but require a certain level of differentiation and customisation – perfect candidates for PaaS.

By segmenting applications in this way, quick and unambiguous decisions can be made, business cases developed and new services delivered quickly in line with one, bespoke cloud strategy.

How can Avanade help?

As a specialist solution provider working closely with Microsoft, we can deliver the whole spectrum of cloud services from on-premise, private cloud, IaaS, PaaS and SaaS – all designed around your unique business challenges to maximise your investment.

Let us help you build a smart cloud strategy that's able to support your growing business. From simple application assessments to strategy development and the final implementation, Avanade is powerfully placed to help.



About Avanade

Avanade provides business technology services that connect insight, innovation and expertise in Microsoft® technologies to help customers realize results.

Avanade consultants apply unsurpassed expertise in the Microsoft platform to create innovative solutions that enable large organisations across all industries to improve performance, productivity and sales.

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