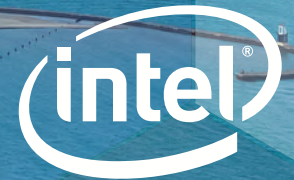# The Pathway to Possible

Hybrid cloud at the speed of business

Introduction

Enterprise transformation is approaching an important inflection point. The next decade will see businesses make major changes to their IT operations to harness new technologies including IoT and 5G, which create new forms of value and drive efficiencies. To find your way in this new world, your business needs choice, control and the readiness to embrace change. Hybrid cloud integration has become a way for enterprises to harness new capabilities in order to take their IT into the future.

We'll look at how a hybrid cloud approach can help propel your IT into more fluid, connected and manageable ways of operating, enabling your enterprise to capture the possibilities of tomorrow.

"Navigating the next decade successfully will test the wits of every enterprise decision maker. The challenge begins here: design an IT strategy that covers everything, from how to integrate digital transformation with current infrastructure, to how to implement automation and next-generation technologies."

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Section 1
How to become
ready for anything

Business never stops. Faster insights, faster progress and faster delivery come from pushing the boundaries of what's possible. Innovation doesn't follow; it leads.

Every modern enterprise wants their IT to become more flexible and agile. The world outside is unpredictable, what you might need today, is unlikely to remain the same next year, or even in six months.

Businesses need to be able to easily adapt to market trends, customer demands and business cycles. They need to be able to implement new technology as and when they need it. But to reach this level of flexibility, companies are realising that they need to replace rigid traditional infrastructure with a new model built on the values they want to achieve.

Here, cloud is key. The cloud is not a destination itself, it's a strategy. Cloud models can empower organisations to scale their resources, easily adapting to changing workloads, application and service requirements, either dynamically, or by reserving resource to prepare for future demands.

Overcoming obstacles

Modern IT infrastructure needs to support nimble decision-making and fast experimentation. But making this a reality is much harder than it sounds. Typically, while businesses may have a number of cloud services in place, they are not realising their full potential. A variety of obstacles result in organisations having rigid or sub-optimal set-ups.

Perhaps your organisation hasn't previously been able to take advantage of public cloud usage due to the compliance or security implications? Or maybe previous efforts to operate 'cloud-first' have resulted in uncontrolled and inefficient usage of public cloud services? You may already be running a combination of architectures and deployments but lack a clear framework for categorising which data or applications should be running in the public cloud and which should be retained in your own data centre.

Whatever the case, serving your business' needs and goals relies on your cloud models working in sync, each serving a separate purpose within a coordinated strategy. This is where a hybrid cloud can offer a valuable solution.

Why hybrid cloud?

With a hybrid model, you have full flexibility and control over your cloud set up, whether that's a combination of your own or a hosted data centre, or public cloud providers' native integrations. You can seamlessly adopt new services, scale usage up and down depending on requirements, and orchestrate your cloud platform usage more easily.

- For your IT team, this means having the flexibility to choose how resources are most efficiently consumed.

- For employees, this enables fast and frictionless access to cloud services in an 'on-demand' basis.

- For your business, this brings the best of both worlds: access to the breadth of choice and limitless resource of the cloud, while running critical or static applications closer to end users in order to retain reliability, security and low latency.

"Cloud is not a destination, it's not a piece of hardware, it's not a piece of software, it's a strategy that you implement in your company that incorporates all the functions, all the features, all the hardware components that you have in the enterprise infrastructure. You then enable that infrastructure to conduct digital transformation inside your company."

Per Overgaard, Executive Director, DCG Business Unit, EMEA, Lenovo

Section 2
Asking the
big questions

To work out the best route to enterprise transformation, you should start with breaking down common complications into simple questions. These questions will help you assess the current state of your IT, find out where your needs aren't being served and identify how to build a practical roadmap for change.

Stepping stones to assessing your IT: Your cloud transformation checklist

To understand the requirements of your hybrid cloud deployment, first, you need to ask the following questions about your IT operating model:

1. Are you clear on which form of cloud implementation best suits your needs?

There's no one-size-fits-all approach to cloud; the right cloud depends on the needs of your organisation. Consider:

- Do you have full visibility over the Software as a service (SaaS), Infrastructure as a service (IaaS) and Platform as a service (PaaS) being used across the organisation?

- Has the usage of these services been aligned with cost, security and compliance requirements?

- Does each service provide the level of performance you need, or would the workload be better served through a different option?

- Can data, applications and workloads be easily ported between public, private and on-premise locations?

49% of enterprise IT decision makers say the applications they currently host with public cloud providers will be repatriated over the next two years.

2. Does your organisation have the requisite knowledge and skills to be able to cope with complexity?

Embracing cloud capabilities shouldn't mean sacrificing your in-house IT skills. Instead, public cloud services should be used to enhance what you can do internally. Ask yourself:

- Have you conducted a maturity assessment or audit of your current IT resource?

- Are you confident that you have the skills and capabilities in-house to manage cloud operations?

- Are there specific gaps or weaknesses that have been identified? How do you plan to fill these gaps?

- Is your cloud environment constructed by integrating various vendor-supported components or by an all-in-one cloud platform?

- Which of these environments would accommodate your organisation's workloads, applications and services?

3. Does your IT have the agility to adapt to (internal and external) customer needs?

Your IT capabilities aren't only for the benefit of your customers; they should also provide a better experience for 'internal' customers, i.e. your IT users. Think about:

- What frictions does your business experience when seeking to run new applications or adopt services?

- Where do these frictions lie (e.g. technical – or process-level)?

- Are you able to offer your IT users a range of services aligned with the business that are easy to use?

- Could your IT operating model be better aligned with customers and business-driven outcomes.

4. Does your IT facilitate collaboration with other organisations?

No organisation works well in isolation. A well designed IT model can allow a digital thread to run between partner organisations. Ask:

- Is your organisation's IT operating model aligned with those of you partners, suppliers and other service providers?

- Does your use of cloud resources facilitate frictionless collaboration with external organisations?

- Do the processes and permissions you have set up help support strong data security and data protection best practices?

- Do you have controls in place to govern what information is shared with partners, and to scale up or reduce access based on project-specific requirements?

5. Is your IT set up for innovation?

Your IT model should enable projects which drive efficiency in existing work and open the door to new revenue generation opportunities. Consider:

- Are you able to add new, data-intensive technology capabilities on-demand, without disrupting existing operations or adding prohibitive costs?

- Do you have a roadmap in place for adding innovative new technologies to your organisation's capabilities?

- Do you have the ability to scale up resource to deliver the speed and agility these technologies require?

6. Does your IT strategy make provision to manage risk?

Risk management is central to the success of any cloud strategy. To make sure you're able to cover any blindspots around cost, security or uptime, ask:

- What provision do you have in place to guarantee uptime of critical services?

- Do you have the required levels of visibility, transparency and accountability to effectively manage public cloud services and hold vendors to high compliance standards?

- Do you have well-established internal governance processes around how data is migrated, processed, stored and destroyed?

- Do you have codified processes to manage backups and Disaster Recovery in the cloud?

"The worldwide public cloud services market is projected to grow to $331.2B in 2022, attaining a compound annual growth rate of 12.6%."

Gartner

7. Does your IT strategy cover migration and lifecycle planning?

For any organisation used to longer-term leasing agreements and upgrade cycles, cloud management can present some challenges. Think about the following:

- Does your migration to the cloud align with desired outcomes around which workloads are suited to the cloud and which should remain on-premises?

- Do applications need to be re-hosted, re-platformed or re-factored to cloud native architecture?

- What is the timeframe for the migration?

- Do you have the necessary team skills to manage the transition?

8. Does your IT strategy align with financial requirements?

Modern IT is not just about cutting costs, increasingly IT is being seen as a means of generating additional revenue. To explore potential cost efficiencies and opportunities, consider:

- What is the opportunity cost of retaining legacy infrastructure over expanding public cloud usage?

- What proportion of your team's time is spent on maintaining legacy architecture?

- Have you set realistic budgets, and have these budgets been properly costed?

- What percentage of your budget is allocated to OpEx versus CapEx, and has this changed in recent years?

- Have you assessed the value of a pay-per-use subscription model?

Section 3

You don't need another meeting, you need a plan

How to build your 12-month transformation roadmap

If you've completed the checklist in the previous section, you're now thinking at a deeper level about how your cloud operating model can better align with your enterprise's purposes. You may at this point have a clearer understanding of what your vision looks like, what resources you have at your disposal and some of the challenges you'll likely encounter along your transformation journey.

The next phase is to move from the conceptual to the tangible; taking your vision and putting in place the steps to get there. At Lenovo, we recommend a four-step approach to define your transformation roadmap and put it into action.
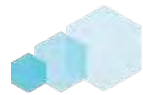
Step #1:
Assess

- Adopt an analytical approach to assess whether your current infrastructure serves the needs of your business.

- Identify current gaps and underserved needs across the organisation.

- Develop high-level architectures, execution strategies and timelines for delivering a cloud solution to address requirements.

Step #2:
Design

- Turn high-level architectures into low-level designs and wiring diagrams, which are reviewed and approved prior to deployment.

Step #3:
Implement

- Use design documents to enable a structured, consistent, and efficient deployment; accelerating your time to productivity and maximising ROI.

Step #4:
Maintain

- Define schedules and responsibilities for ongoing maintenance and review.

- Install universal, 24x7 monitoring to safeguard your IT investment.

One way to implement this process is through a hybrid cloud workshop. These workshops can bring together experts and decision makers from across your business to assess your desired business outcomes and understand where you want to be on your cloud journey, factoring in considerations around security, privacy, risk mitigation, budget and ROI.

An effective workshop should include:

- **Current architecture review.**
  Compare your current architecture against standard cloud operating models.

- **Use cases and application profiles.**
  Define a use case around a specific example of services required, environment specs, and application profiles.

- **Hybrid cloud operations.**
  Discuss strategies for managing cost through consideration of cost drivers, cost reporting, billing, shared costs, and true overall cost.

- **Technology alternatives analysis.**
  Identify management requirements and discuss best practices for monitoring, auditing and logging for the new environment.

- **On-boarding approach.**
  Discuss the process and approach for on-boarding new applications.

Feel uncomfortable doing this alone?

Lenovo can help facilitate every step of the process, helping you to assess, design and implement the transformation strategy that supports your cloud vision. We can even host your workshop, free of charge and entirely solution-agnostic, to help guide you through all necessary considerations and critical discussion points.

The outcomes of this workshop culminate in a 12-24-month roadmap for your hybrid cloud transformation.

Section 4
Lenovo:
why us?

Lenovo offers a complete portfolio of cloud infrastructure and services – from server to software, drawn from our partnerships with industry software leaders and supported by our meticulous professional services. Together we help you find the right solution to support your path to cloud.

We integrate preconfigured and fully tested solutions from industry-leading software from partners like Nutanix, Microsoft, SAP, Red Hat and VMware, to enable any cloud operating model – all delivered through a single partner to make your life easier.

Our broad portfolio of products, solutions, services, and guidance helps to enable success along your chosen path to a cloud-first strategy.

- ThinkAgile products are a range of software-defined building blocks that you can use, to simplify a custom cloud implementation, as well as fully turnkey ThinkAgile Cloud systems ready for business.

- Example products include include ThinkAgile VX (VMware), ThinkAgile MX (Microsoft) and ThinkAgile CP (fully-integrated, on-premise composable cloud platform).

- Customised to your integration and networking requirements.

- Our ThinkSystem portfolio consists of a range of customisable hardware including servers, storage and networking which can be used as foundation for building your cloud platform.

- The product portfolio features 42 world record industry benchmarks and recognised as #1 in server reliability and customer satisfaction.

Our expert engineers offer installation and deployment services for these products, as well as professional services to extend and customise your cloud solutions.

Our professional services include:

- **Migration Assessment**
- **Cluster Deployment**
- **Workload Migration**
- **Health Check**
- **Managed Services**

A new model for consuming IT?

Today's business environment is characterised by uncertainty. Thriving in such an environment needs the flexibility to scale up – or down – as circumstances dictate in order to enable efficient use of resources.

To help businesses find the scalability they need to grow with current needs, Lenovo offers TruScale,a highly innovative pay-for-what-you-use consumption model. TruScale helps you meet growing infrastructure needs by replacing the restrictions of CAPEX investment with a more fluid OPEX model.

Finding your pathway to possible

No one knows with certainty what tomorrow's enterprise will look like. With the pace of innovation and the rapid transformation that's taking place across industries, there is one bet we'd be willing to take: the enterprises that thrive in the coming decade will be those that are most adaptable to change.

The attraction of hybrid cloud is in not only offering the agility, flexibility and scale required to embrace change, but making it a fundamental part of how your organisation operates.

Lenovo provides everything you need to define and accomplish the hybrid cloud model that serves your business's needs. As your transformation partner, we help you shape your vision, compose all the elements (technical and operational) you need to make it possible, and define a roadmap to drive it into existence.

After all, cloud is not a concept, nor is it a destination. It's a way of enabling your infrastructure – building on what you already have today, to prepare for tomorrow.

Want to know more? Get more detail on our hybrid cloud services by visiting our website:

www.lenovo.com/hybridcloud