MIGRATION TREASURE MAP

Data centre migration to the cloud.

A best-practice migration strategy

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aws Microsoft Azure Google Cloud vmware

Data centre migration strategy: Migrate to modernise.

Data centre migration to the cloud is often simplified into a binary choice. Either you lift-and-shift everything, retaining existing inefficiencies. Or you go through a long, expensive transformation initiative to untangle your complex digital and data estate.

This is a false choice. You can exit your on-premises data centre quickly while future-proofing your architecture, reducing ongoing technical debt and driving business value.

You need a strategy where you migrate to modernise

When you migrate to modernise, you meet your data centre exit deadlines while pursuing the best option for each workload – integrating lift-and-shift with modernisation as a continuous service.

Your migration strategy is therefore formulated as a gateway to full cloud benefits. That way, you benefit from expertise, tools and methodologies that help you escape legacy inefficiencies and leverage cloud-enabled ways of working. **And this enables you to optimise costs and performance ongoing.**

This guide is like a cloud migration treasure map

Nordcloud is a European cloud migration leader – and one of the few certified providers across Microsoft Azure, Amazon Web Services, Google Cloud Platform and VMware. We're a Challenger in Gartner's Magic Quadrant[1], recognised for being cloud pioneers with a 100% cloud heritage and for having a proven track record helping companies move to the cloud in a way that maximises ongoing value and ROI.

This guide breaks down the elements of our best-practice migration approach, so you can follow this successful model and plan a data centre exit that achieves your goals.

Frame your migration strategy as a gateway to full cloud benefits – where you migrate to modernise. That way, you can exit your data centre quickly while future-proofing your architecture, reducing technical debt and driving business value.

[1] Gartner, Magic Quadrant for Public Cloud Infrastructure Professional and Managed Services Worldwide, May 2020

MIGRATE TO MODERNISE: AN OVERVIEW.

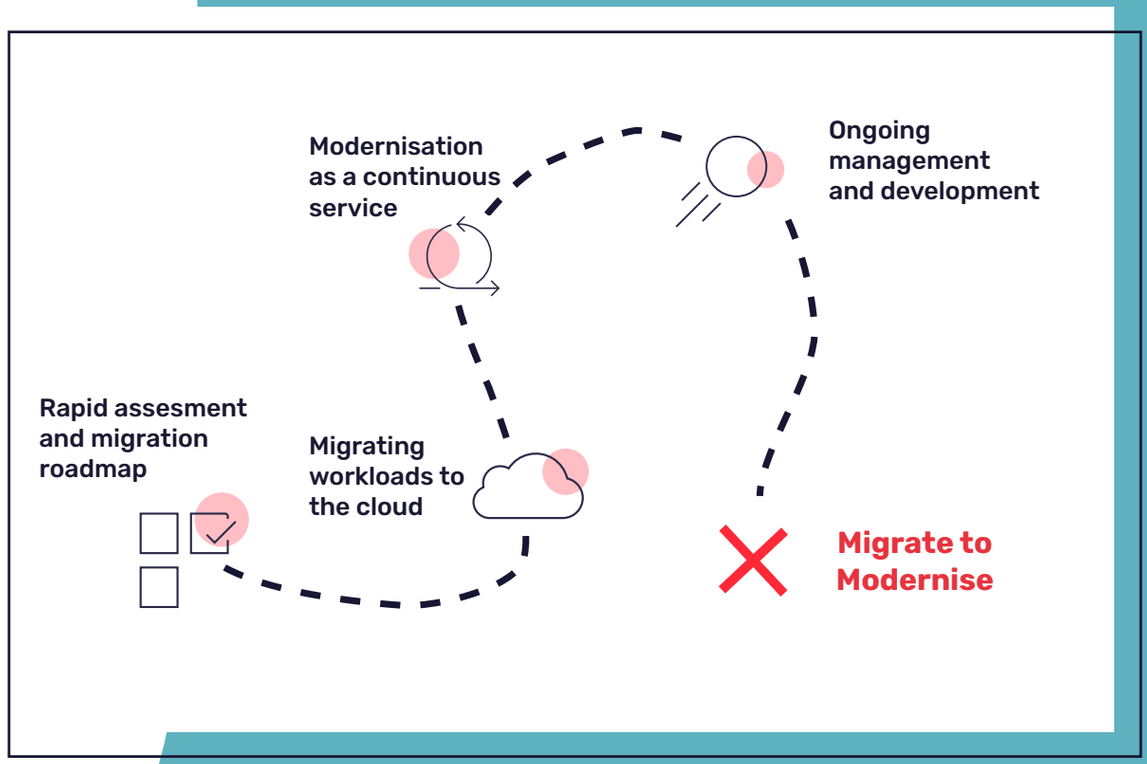
A best-practice migration strategy balances quick wins and long-term value. Importantly, it looks at your **data centre exit as part of a broader cloud journey of ongoing modernisation**, ensuring you have a robust business case driving each stage.

The process starts with a 4-week rapid assessment to define a bespoke migration roadmap aligned to your goals. It continues to execution, with a continual emphasis on transparency, efficiency and value.

It's important to remember that migration isn't an end in itself – it's a means to the end of greater business value. With this mindset and approach, your workloads are migrated. But, more importantly, **your application and data estate are modernised strategically, so you can leverage full cloud benefits, reduce technical debt and drive customer satisfaction**. Management considerations are incorporated from the outset, so you're positioned to drive down TCO and boost value for the long term.

Let's look at each stage of the journey in detail.

Best-practice migration strategy



RAPID ASSESSMENT & MIGRATION ROADMAP.

This migrate-to-modernise approach is so successful because it balances quick wins and long-term benefits. When you work with a cloud-native partner, you ensure the right tools and methodologies are driving your strategy from the outset, so you're not just superimposing legacy inefficiencies on to the cloud.

The process starts with a rapid migration assessment, which is a tool-driven review of your infrastructure and application estate. Importantly, it takes just 4 weeks, and there are 2 deliverables:

Evidence-based TCO assessment – so you understand your savings potential with the cloud (week 2)

Recommended migration strategy – with workloads prioritised based on business criticality. The strategy focuses on early achievements and continuous modernisation and discovery. That way, your migration is fast, cost-efficient and maximises value based on ongoing learnings (week 4)

Let's break down each step of the process.

Rapid assessment and migration roadmap process

STEP 1	**Discovery meeting**
STEP 2	**Technical discovery**
STEP 3	**Evidence-based TCO assesment (week 2)**
STEP 4	**Application discovery**
STEP 5	**R-lane selection**
STEP 6	**Migration roadmap (week 4)**

Step 1

Discovery meeting.

Because the strategy is focused on migrating to modernise, it's not about delving into the technical detail around infrastructure and apps. Rather, it's about understanding the overall strategy and how cloud can drive it to maximise value. That way, you're aligning your cloud journey to business drivers.

One reason 80% of digital projects fail[2] is because people within the business aren't on board with the change. Migrating to the cloud is more than an infrastructure change – to capitalise on the benefits, it involves new mindsets and ways of working (e.g. agile, DevOps). To get people on board with that broader change, you have to involve them early.

The kick-off discovery meeting is essential for aligning business and tech stakeholders – and your migration partner. Include relevant management and IT directors so there can be a holistic discussion of objectives, priorities and potential roadblocks.

Sample discovery meeting agenda

Cloud transformation drivers

Current infrastructure and application estate

- Continuity investments – what can't be retired and must be leveraged
- Legacy application estate – what's your impression, what needs modernisation, what's approaching end of life
- Licencing agreement status and optimisation opportunities – what's flexible, what can be rationalised

Organisational readiness for cloud

- Current support and governance model – what's working and what isn't
- Existing and future skills base – what gaps there are

Current infrastructure and application estate

- Flexibility and scalability requirements
- New application/tech capabilities
- Virtual desktop requirements
- Preferred cost model

[2] Gartner, Majority of Digital Workplace Initiatives Will Fail to Establish New Ways of Working Through 2021, 2019

Step 2

Technical discovery.

This is a tool-driven analysis of your current infrastructure. It gives an accurate view of your existing requirements and performance, so we can determine what cloud capacity you'll need post-migration (taking into account the discovery meeting outcomes). This then forms the basis of your TCO assessment.

Technical discovery analysis elements

- Infrastructure performance
- Infrastructure sizing
- Technical dependencies
- Database performance
- Target infrastructure sizing
- Licence optimisation opportunities

Step 3

Evidence-based TCO assessment.

A TCO recommendation is the output of Steps 1 and 2. Because the process is driven by cloud-native methodologies and tools, you receive this within 2 weeks.

Depending on how your infrastructure estate is currently structured, the assessment is broken down by country and data centre. That way, you have essential, early clarity for your business case – and have benchmarks for demonstrating success within the business.

Step 4

Application discovery.

The technical discovery underpins the TCO assessment, providing the foundation for the cloud migration business case. But infrastructure is only one part of the cloud equation. To formulate your migration strategy, you need a clear understanding of your application estate, too.

Often, because the application estate has grown organically – with different departments investing in different point solutions over time – it's hard to know exactly what's there, who owns what and what patching/updates are lacking. The application discovery gives the clarity needed for an evidence-based plan, so you're positioned to optimise cloud capabilities ongoing.

Like the technical discovery, when you work with a cloud-native partner, this is a tool- and automation-driven process that supplements stakeholder discussions. It analyses elements such as source code, software quality, dependencies, lifecycles, security and maintenance. It also includes important data considerations, because these can be major hidden costs of running legacy apps.

Application discovery analysis elements

Business	Laws & regulation	Internal policies	Total cost	Lifecycle	Vendor support	Technical feasibility
Drivers/change impact	Data sensitivity	Procurement	Contracts	Current stage	External vs internal	HW/SW support (EOL)
Criticality/# business users	Data location	Security policies/ controls	Licences	Life expectancy	Current support	Architecture/ platform/ performance
Availability	Security/ privacy	IT requirements (e.g. SLAs)	Operational costs	Development roadmap	Contract limitations for cloud	Integrations/ dependencies
Process domain & support	Exit requirements	Vendor status	Development costs	Availability as a service	Vendor cloud competence	Data (storage, criticality, volume, access)
Target architecture & functional fit			Optimisation potential		Future roadmap	Deployment model

Step 5

R-lane selection.

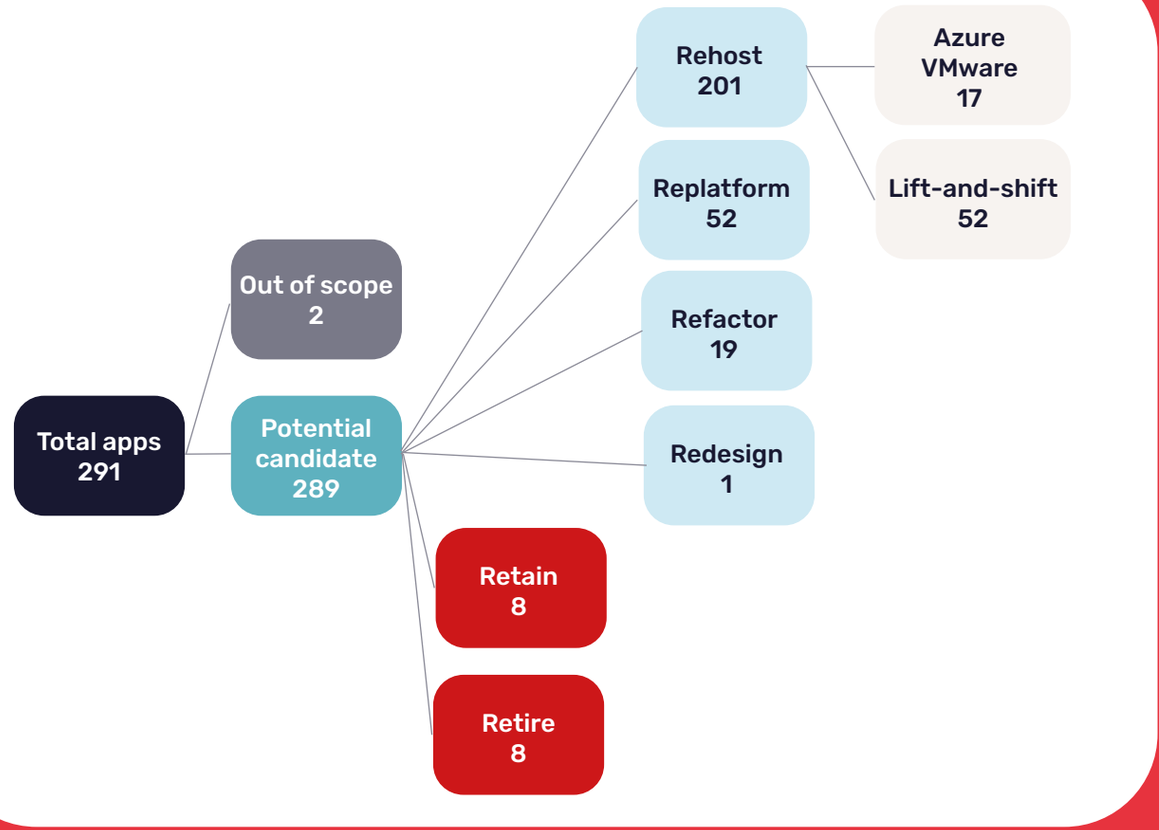
R-lane selection is based on AWS' 6 strategies for migrating to the cloud[3].

6 Rs: Strategies for Migrating to the Cloud

1. Retire
2. Retain
3. Rehost
4. Replatform
5. Refactor
6. Repurchase

Based on the application discovery, we use a rules engine to decide which R is best for each application. We call this R-lane selection. This cloud-native tooling combines technical and application data and uses customised parameters specific to your needs. It processes more than 7,000 rules to deliver a cloud migration recommendation for each application. These form the basis of your migration roadmap.

Rules engine-driven R-lane selection
Example



[3] AWS, 6 Strategies for Migrating Applications to the Cloud, November 2016

Step 6

Migration roadmap.

The migration roadmap outlines the approach best suited to your objectives, so you achieve the right balance between exiting your data centre quickly, future-proofing your architecture, reducing ongoing technical debt and driving business value.

3 broad data centre migration approaches

When it comes to data centre exit, we look at 3 broad approaches for migrating to the cloud:

1

Lift-and-shift workloads to the cloud using VMware

A fast exit where you rehost workloads without service breaks or IP changes. From your VMware foundation, you have direct access to native services in Microsoft Azure, AWS or Google Cloud Platform. This gives you a foundation for piece-by-piece application modernisation as a continuous service from the migration

2

Hybrid lift-and-shift

An on-time exit using VMware to lift-and-shift most workloads while refactoring/ replatforming in specific circumstances. As above, modernisation proceeds as a continuous service from the migration

3

Migrate and refactor

So you exit your data centre while removing technical debt. You're modernising workloads as you migrate them, so you have you a more gradual data centre exit but faster path to cloud native

Data centre migration approach comparison

	Speed	Cloud native readiness	Risk	TCO
Lift-and-shift VMware migration	Fast data centre exit	Ongoing modernisation/ transformation required	Low risk with no downtime	Low migration cost; further modernisation needed
Hybrid lift-and-shift	On-time data centre exit	Easier transformation to cloud native	Low risk to on-time DC exit; integration and application re-coding	Higher migration cost; lower capacity TCO
Migrate & refactor	Gradual data centre exit	Close to cloud ready with lower ongoing transformation effort required	Risk to on-time data centre exit	Higher migration and development cost; lower technical debt

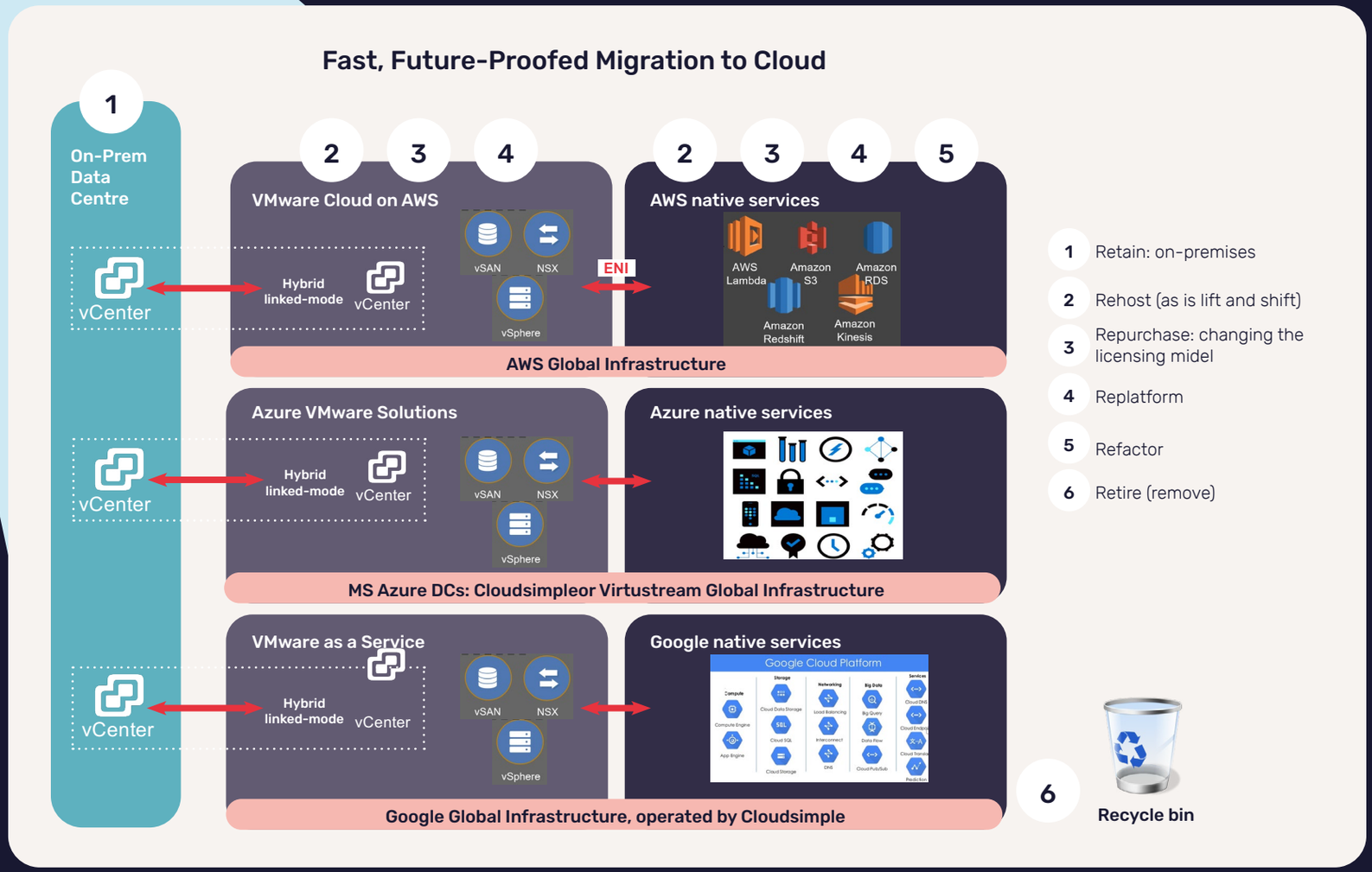
Your migration approach is your gateway to cloud – and your foundation for continuous modernisation so the business maximises the full benefits of cloud.

SPOTLIGHT ON:
VMware for the lift-and-shift migration process.

VMware is a game-changer for many companies we work with, because you can combine the legacy world and the cloud-native world in a way that's best for the business.

VMware like pressing a button to lift-and-shift your on-premises workloads to the VMware solution for your chosen public cloud platform – migration can be done in hours instead of months. There are no service breaks or IP changes, so you move quickly with no risk.

You can then have a foundation for maximising ongoing value, because you can replatform, refactor or retire services in a strategic, iterative way.



Workload prioritisation: The business criticality test.

Once we agree the broad migration approach, we prioritise applications for modernisation. If you're doing a lift-and-shift, some or all of the modernisation will proceed from the VMware foundation. If you're doing a migrate and refactor, it's a progressive migration/ modernisation process.

Based on the rapid assessment findings, we prioritise workloads based on business criticality. Many organisations make the mistake of prioritising based on age and cost, but using business criticality has 2 significant benefits for IT and the wider business.

1

You uncover new efficiencies and opportunities to derive value

You can rationalise old inefficiencies (in terms of processes, integrations and data) because there's more impetus for the business to align with IT. Stakeholders are more engaged with the need to boost competitiveness, improve efficiency and/or enhance the end customer experience.

Therefore, you're not just doing a technical migration and modernisation. Instead, you're driven by what the application or service needs to accomplish – and optimising it so that it works better and faster, and delivers more value.

2 You gain momentum to drive future projects

Achieving a marginal cost saving or migrating an old application can deliver benefits. But that's only the start of the cloud journey, and that's not necessarily enough to gain attention within the wider organisation – or reinforce the business case for ongoing transformation.

When you succeed in migrating and modernising a critical application so it leverages cloud benefits – and have both the quantitative and qualitative evidence to prove it – **you're in a stronger position to secure buy-in and investment for ongoing initiatives.** People notice how much easier it is for customers to make a purchase or how much faster they can generate reports, and the cloud's value is felt more strongly.

Once your workloads are prioritised, you can create an evidence-based project plan, complete with timescales and milestones. This enables you to proceed with complete transparency on costs, inputs and outcomes – during migration and ongoing modernisation.

The 3-step migration process

Migration

- Deploy migration tools
- Set up replication, right-size targets
- Test cut-over
- Migrate and cut over servers, applications and data
- Clean up legacy drivers and agents

Integration

- Infrastructure monitoring
- Log management
- Back-up
- Application integrations

Validation

- Security, functional, performance and user acceptance validation
- Perform acceptance reviews
- Go-live
- Onboarding to managed services
- Feedback and optimise migration process

MIGRATION PROCESS.

Now we have the roadmap, migration can proceed in a transparent, efficient way through 3 steps:

1 **Migrating workloads**

A tool-driven process that protects assets as they move from your on-premises data centre to the cloud

2 **Integration**

Ensuring applications and data are properly connected in the new environment, and that the correct monitoring is in place

3 **Validation**

Confirming everything is in place before go-live, and collecting feedback to optimise the process for the next workloads

Nordcloud Migration Factory.

For the rehosting and replatforming elements, our migration factory delivers speed and effectiveness. It combines advisory and tech specialists who ensure migration progresses in line with the established business case and roadmap. The migration factory uses tooling and automation to organise your clusters, move workloads quickly, execute cut over and validate – with a focus on future-proofing your environment. They can also help oversee any decommissioning associated with retiring physical assets.

This is the key advantage of working with a cloud-native partner. On the one hand, you get the **migration speed**. As an indicative benchmark, we can migrate 250 to 300 virtual machines in 1 week with VMware, compared to the standard 25-30. On the other hand, each migration step is executed with **future-proofing** in mind. This helps you maximise ongoing value while minimising TCO, because you have cloud natives helping you eliminate inefficiencies and leverage the flexibility and scalability benefits that come with cloud.

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MODERNISATION AS A CONTINUOUS SERVICE.

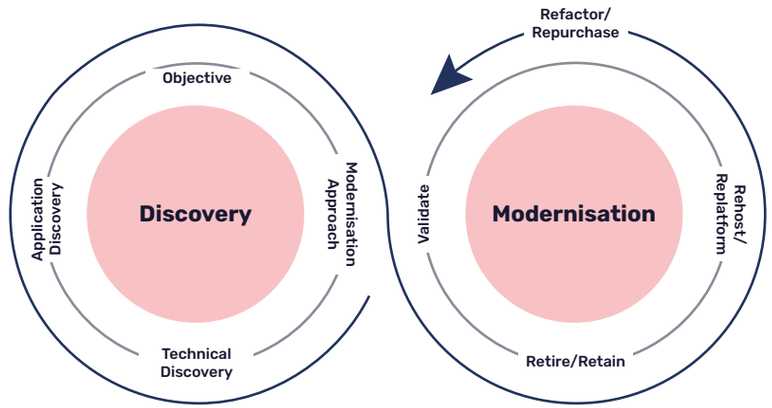
The business maximises value from cloud migration when you approach the process as an enabler for modernisation – not just another way of hosting infrastructure.

Whether you're modernising applications from a VMware foundation or refactoring as you migrate, it's important to think of modernisation as a continuous process of iteration and discovery. That way, you're realising the potential of your migration roadmap, ensuring you're not superimposing legacy inefficiencies on to the cloud.

The benefits of continuous modernisation

Ensure a robust foundation, including governance, infrastructure and data	So you can scale out quickly and cost-effectively
Learn as you go and respond flexibly to changing requirements	Using DevOps and agile
Maximise availability throughout	No concerns about unravelling dependencies, losing data or having downtime

Agile model for modernisation



Our cloud-native application development, database and Kubernetes teams start with the workload priorities based on business criticality, as identified in the migration roadmap. The learnings from the initial workloads then feed into each iterative modernisation, helping you optimise progressive cloud adoption and maximise value for the business.

SPOTLIGHT ON: Upskilling.

Trained organisations are 80% faster to adopt cloud and 3.8 times more likely to meet cloud ROI requirements[4].

You therefore need to factor upskilling into your migration and modernisation strategy. People need the skills and processes to extract maximum value from ongoing modernisation. When they have that knowledge foundation, you're in a strong position to speed up time to market, boost productivity and maximise cost savings with the cloud.

Start with assessment checklists and in-depth training recommendations in this free playbook – **Upskilling: A Toolkit to Enable Cloud Success.** The tools help you map how your workforce's current skills compare with what's needed, so you can make informed decisions on what training is required.

[4] IDC, Train to Accelerate Your Cloud Strategy, October 2017

ONGOING MANAGEMENT AND DEVELOPMENT.

Cost reduction is often the top reason for migrating a data centre to the cloud[5]. But simply moving and modernising workloads won't maximise those savings.

Once you're up and running on the cloud, you face 3 different cost types:

The cost of use

How much it costs to run the systems, incorporating capacity, development and support

The cost of unavailability

From service instability to security breaches, these are costs of not being able to run systems as desired

The cost of inflexibility

The real and opportunity costs incurred when systems can't keep up with changing market and customer needs

[5] Gartner, Preparing for Data Centre Consolidation and Migration Projects, November 2018

Your cloud environment – be it Microsoft Azure, AWS or Google Cloud Platform – gives you capacity. You're responsible for running your environment, managing incidents and ensuring application security. Therefore, you need a strategic and cloud-native approach to ongoing management and development to minimise these costs and unlock opportunities for additional value.

You're then in a strong position to reduce those 3 costs, because you're benefiting from:

Optimised capacity and performance

So you manage cloud spend and achieve higher customer satisfaction (with better application performance and seamless operation)

Increased resilience

With automated service requests and patching, 24/7 incident management, monitoring, alerting, threat analysis, back-up and disaster recovery, all of which help reduce risk and maximise uptime

Greater development efficiency

So you accelerate the pace of innovation cost-effectively, empowering the business to capitalise on new, revenue-driving opportunities

Generating ongoing business value from the cloud

IDC surveyed 27 organisations globally to quantify the business value gained from migrating to public cloud[6]. These give an indication of what you can achieve when you work with a cloud-native provider for migration, modernisation and ongoing management.

- **51%** lower cost of operations
- **62%** more efficient IT infrastructure staff
- **94%** less unplanned downtime
- **25%** higher developer productivity
- **Almost 3x** more new features delivered
- **637%** 5-year ROI

[6] IDC, Fostering Business and Organizational Transformation to Generate Business Value with Amazon Web Services, February 2018

CLOUD-NATIVE MANAGED SERVICES.

To minimise TCO and maximise ongoing value from the cloud, managed services need to be part of your migration strategy – and your provider should be involved early in the process.

Use this checklist to ensure your managed service provider will position you for short- and long-term success.

Cloud-native managed services checklist – what to look for

- ☑ **No vendor lock-in, long contracts, enforced software or minimum purchase requirements** – beyond the service experience
- ☑ **Scalability on demand** – so your service model reflects the way you use cloud
- ☑ **Full end-to-end service portfolio** – including managed capacity, environments, applications and security, so everything works together efficiently to maximise savings and value
- ☑ **Maximised use of PaaS and automation** – to reduce support costs
- ☑ **Integration with your internal teams** – using DevOps and agile, to accelerate innovation velocity

Migrate to the cloud – with zero upfront investment and immediate savings.

Nordcloud is a European leader in cloud migration, application modernisation, managed services and training.

Clients say working with us is like having a compass for their cloud journey – you have cloud-native experts guiding best practice, pre-empting pitfalls, providing essential technical support and helping you achieve better, faster results.

Now you migrate with zero upfront investment

Partnering with us is an easy way for IT to drive demonstrable value while under pressure to manage budgets.

From a fast lift-and-shift to re-factoring and re-platforming, we help you migrate in a way that balances quick wins, immediate cost savings and sustainable value.

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FT 1000 Europe's Fastest Growing Companies 2019 statista

vmware

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Gartner Magic Quadrant

Faster results

We're cloud pioneers with a 100% cloud heritage. This means we're not just jumping on bandwagons or superimposing trends on to legacy ways of working. You get better, faster results because you have cloud natives guiding your journey.

Empowered teams

We're commercially focused, using proprietary tools and technologies that help you maximise the cost savings and value potential of the cloud. From technology to training, from design to DevOps, you get the support needed to capitalise on cloud benefits.

Global cloud leadership

We're a leading partner for all 3 public cloud platforms – Microsoft Azure, Google Cloud Platform and Amazon Web Services – and are featured in Gartner's Magic Quadrant. You get impartial advice that accounts for your entire tech stack – and is based on your best interests.

Contact us to discuss your data centre migration

Contact us

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