



Executive Cheat Sheet

THE 10 GUIDING PRINCIPLES OF CLOUD OPTIMIZATION

WHEN MIGRATING

1 Plan thoroughly and early







Inefficiencies during the design or migration phases are difficult to reverse once you're on the cloud and can haunt your enterprise for the rest of your cloud journey.

It may seem obvious, but it's not always observed. So we'll say it here - thorough and thoughtful planning pays off. You minimize the chances of inefficiencies and process oversights while boosting morale when your builds or migrations go well and don't need rework later.

2 Know what you want out of the cloud

Determine from the outset exactly why you're migrating and what you intend to achieve. Cloud resource planning isn't like on-prem planning, as cloud advantages erase the limitations of on-prem infrastructure:




On-Cloud vs On-Prem Resource Provisioning

On-Prem	 PROVISION BASED ON PEAK USAGE Over-provisioned, inflexible resources based on maximum usage	 CAPACITY ESTIMATES BASED ON GUESSWORK Futile, unquantified projections with no hard evidence	 DISRUPTIVE DOWNTIME ADJUSTMENTS Manual management with high user impact when scaling/upgrading
On-Cloud	 PROVISION MATCHES CONSUMPTION Elastic storage and computation enable scaling with needs	 CAPACITY ESTIMATES BUILT ON DATA Accurate projections with CSP data capture and analytics tools	 MINIMAL DOWNTIME WITH AUTOMATED ADJUSTMENTS Seamless, non-disruptive scaling/upgrades based on abstracted infrastructure

BUT none of the advantages matter unless you know how you intend to leverage them. You can do more with less and enable agility to meet future needs on the cloud - but only if you design for it from the start!

3 Unlock process enhancements with optimized containers

Containers enable applications to be abstracted from their source infrastructure. They are a workhorse tool of cloud operations and enable the following process advantages:

 Specialization	Developers and IT Operations can focus on their respective responsibilities, maximizing each team's velocity, efficiency, and agility
 Sandboxing	Developers can use containers to create consistent and predictable environments with dedicated memory, CPUs, and networks to test apps in isolation
 Versatility	Applications are OS- and CSP-agnostic, allowing them to “run anywhere” - whether in-cloud, on-prem, on VMs, or bare metal

Such advantages are critical in fluid cloud environments, where scalable instances handle dynamic workloads and containers can spin up and don on the fly.

4 Deploy CSP services for superior DR and BCP options

CSPs can store a minimal and scalable replication of your systems, data, and cloud infrastructure in remote and secure data centers.

This “pilot light” backup ensures your DR and BCP failover and failback processes orchestrate quickly and efficiently to any location. RPO and RTO objectives are met in with minimal disruption and data loss.

On-prem DR and BCP are obsolete on the cloud. Familiarize yourself with the various service options and plan for enhanced capabilities to take full advantage while avoiding in-flight adoption.

WHEN OPTIMIZING

5 Optimize solutions to go cloud-native, or retire them

The cloud has no patience for inefficient designs. To be effective, your Cloud Optimization Strategy must either optimize apps for new cloud opportunities or retire them to make way for cloud-native designs. This should happen continuously, before and after migration.

Lifting and shifting legacy applications not only robs you of the opportunity to embrace new solutions, but also entrenches inefficiencies in incompatible environments, making it harder to pivot and neutralizing foundational cloud advantages. And you'll end up paying more than you had been on-prem.

6 Prepare for the long haul

Migrating with operational excellence is a lengthy process of evaluation, development, migration, and optimization. It is normal for enterprises to incur costs in the early stages, including:



Application technical assessments



Re-factoring applications



Code modifications



Migration wave planning



Reconfiguring legacy infrastructure

Initiate cloud learnings and optimization early for initial savings and increasing process efficiency over time. Be patient – it will take time before reuse processes and best practices earn long-term OPEX savings.

7 Establish metrics to mark and quantify progress

How do cloud capabilities and an optimization strategy translate to concrete operational advantages and business benefits? Specific instances are both “hard” (quantifiable in a business case) and “soft” (enhance processes that improve business outcomes):



Hard Benefits

(Quantifiable in a Business Case)

- / Reduced IT costs
- / Reduced overhead costs
- / Increased labor productivity



Soft Benefits

(Improved Business Outcomes)

- / Rapid, flexible scaling to changing business conditions
- / Agile, modular product expansion and scaling with microservices
- / Consistent tech service availability and performance
- / Improved process vision and cost transparency

While “hard” benefits impress in the short-term, it is the intangible soft benefits emergent over the long-term that make cloud enterprises worth the investment. Be sure to include said benefits in any business case.

8

Optimize processes along the entire SDLC

Many cloud enterprises focus on technical best practices to produce high-performance solutions. But an optimization strategy is more than technical excellence.

Take these 3 actions to leverage optimizations along commercial, technical, and cloud provider lines:



Commercial

Take full advantage of CSP enterprise agreements and discounts

Negotiate cross-organizational CSP service discounts based on capacity forecasts and planned services. Watch out for options with better pricing and ensure you’re only paying for what you actually use



Technical

Build cloud-native solutions via cloud design and development best practices

Replace legacy with cloud-native solutions, or re-architect them to leverage elastic cloud infrastructure. Standardize and reuse common solutions, and re-factor for PaaS containers, options, and functions



Provider

Select the right CSPs by business need, strengths, and focus

Establish ground rules for provider selection, compare provider strengths against optimization performance, and formulate criteria to drive discount program evaluation

WHEN INTEGRATING

9 Enable the broader business with a Cloud Operating Model

The best Cloud Optimization Strategy can't make a difference unless its learnings and benefits are applied enterprise-wide. Cloud operations must integrate with the broader business and complement their operations to foster trust and relevance.




Your **Cloud Operating Model (COM)** formalizes how your optimized cloud enterprise connects with the broader organization. Best practices should:

- 1 **Enable direct communication between** cloud operations and business units
- 2 **Introduce new ways of working** that enable cohesive, efficient, and effective teams
- 3 **Ensure standards, processes, and levers are executed consistently** across teams and solutions

In short, cloud governance, expertise, processes, and standards must add value to business operations. Your COM will establish the communications channels and transparency needed to let that happen.

10 Demonstrate progress, performance, and success at every stage

A cloud enterprise is a long-term investment, and sustained stakeholder support is critical to ensure it has time to do its job. Adding value alone is not enough – the contribution must be seen, too. It is imperative that major stakeholders have a front-row view of cloud impact:

 C-suite	Top-line reporting on roadmap rollout, cost savings progress, cohesion with business units, and performance impacts
 CloudOps	Demonstrate the enhanced agility, efficiencies, and transparency afforded by new cloud tools and processes supporting regular activities
 FinOps	Deploy dashboards with a granular view of strategy cost savings and other data by organization, department, domain, solution, or project

Plus, remember to share your progress and milestones with the broader enterprise, including leadership and owners, to build and retain momentum. Everyone is on this journey, even if they're not fully aware of it. Keeping them looped in builds camaraderie, acceptance, and morale.

When it comes to integration, the ultimate resources are trust and time. Communicating progress will keep the flow of support open and prevent occasional missteps and lulls from reducing the cloud to a collection of solutions with no staying power.

Want more insights to a successful cloud experience?

Read our full guide, **“Everything You Ever Wanted to Know About Cloud Optimization (but didn't know how to ask)”**.



Want to speak with Keith Worfolk, author and senior partner with 20+ years' experience leading and advising enterprises in their cloud journey? Email keithmworfolk@wavestone.com or call **646-341-9753**.

About Wavestone

Wavestone is a global leader in all aspects of Cloud deployment. Our Cloud experts combine functional, sectoral, and technical expertise, and work with C-Suite leaders in an array of industries around the work.

To reduce costs and optimize resources, cloud-native and third-party cloud tools provide increased visibility to identify what each application needs, as well as options for equal or better performance at lower cost. Applying the right analytics readily available in cloud environments, IT, and FinOps can better balance performance and cost goals, and more easily manage classic on-prem issues with containers (underutilization, instance sprawl,