INTERCEPT

CHECKLIST

Checklist Azure Cost Optimisation

Practical tips
& best practices.

Intro

Microsoft Azure is one of the leading cloud computing platforms worldwide, with a market share of 25%. Cloud migrations are usually cost-motivated – and for good reason. They can total cost of ownership (TCO) by around 40%.

Like many cloud providers, Azure charges for what you use, so anything you don't need is wasted. And while cloud resources are limitless, they can escalate quickly and become expensive. Your Azure environment might cost just a few euros – or run into the thousands. If you're not careful, you'll pay for things you don't even use.

Are you receiving too high Microsoft Azure bills every month? Or do you want to prioritise cloud spending and improve cost efficiency?

We compiled this Azure cost optimisation checklist, so you don't have to. Just follow along with these expert tips!

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1. Billing & Discounts

Choose the most suitable Azure billing method

Consider which billing method best suits your company or organisation; Pay-as-you-Go (also known as direct, or Creditcard), Enterprise Agreement (EA), Cloud Solution Provider (CSP) or Microsoft Azure Consumption Commitment (MACC).

Consider Microsoft CSP

Use the Microsoft CSP instead of Microsoft's direct model (credit card). This will quickly save you 5% or more on your monthly bill. Check out the different purchase models from Microsoft. In addition, Managed Service Providers (MSPs) like Intercept can further optimise costs and provide expert guidance, letting you focus on your core business.

Understand Azure Pricing Models

Get to know Azure's pricing models: Pay-As-You-Go, Reserved Instances, and Savings Plans. Knowing the cost of each helps you pick the most cost-effective for your workloads.

Leverage Azure Saving Plans for Compute

Azure Saving Plans for Compute is an easy and flexible way to save tremendously on compute services (up to 65%). In this saving plan, you can buy specific capacity for compute resources for lower prices while committing to spending a fixed hourly amount for 1 or 3 years.

Leverage Azure Reservations

Benefit from a discount of up to 72% with Azure Reservations. They are ideal for companies that want to commit to a fixed number of resources for extended periods (1 or 3 years). It includes Reserved Instances for virtual machines and Reserved Capacity for database solutions.

Use Azure Software Subscription

Only available within the CSP pricing model, it offers higher savings. This subscription covers Windows OS and SQL Server, requiring a 12- or 36-month commitment with annual or monthly prepayment. While non-cancellable, it offers higher savings than other models.

Bring your licences with Azure Hybrid Benefit

Azure Hybrid Benefit lets you use existing Windows Server and SQL server licences in Azure, cutting costs by up to 85% over pay-as-you-go pricing. Note, it requires active Software Assurance or Windows Server Subscriptions.

Combine Azure Reservations with Azure Hybrid Benefit

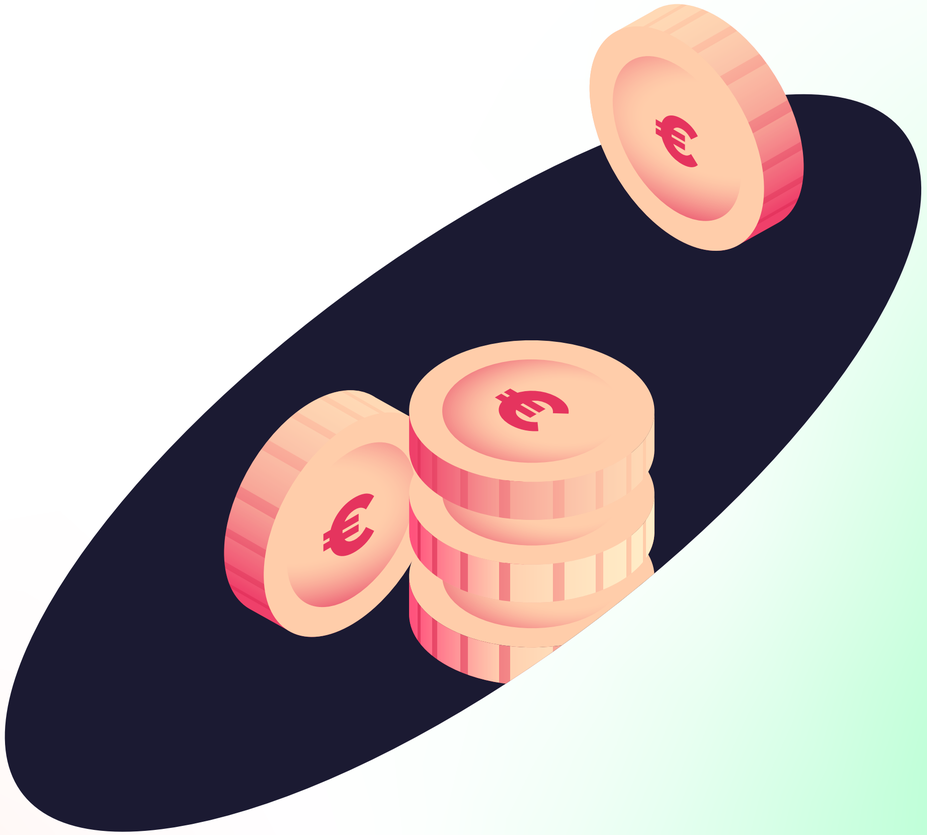
Combine Azure Reservations with Azure Hybrid Benefit to save up to 80%.

Use Test Pricing

Azure provides discounted pricing for development and testing environments through Test subscriptions. These are ideal for non-production workloads like software development and quality assurance. By leveraging these discounted plans, you can experiment, build, and test applications without the high costs of production environments.

Leverage Azure Free Tier

Azure Free Tier lets you explore Azure services at no cost, making it ideal for testing and small-scale projects. It includes limited free usage of key services, allowing you to experiment without upfront investment.



2. Compute and Virtual Machines (VMs)

Pick the right Azure Compute Service

Azure has many compute options, from VMs to serverless. Choose the right service for your app to becost-effective and avoid overprovisioning and wasting money.

Use Azure Spot VMs for non-critical workloads

Azure Spot VMs allow you to run workloads at a discount by using unused Azure capacity. They're great for batch processing, big compute jobs and dev/test environments where interruptions won't be a big deal.

Enable VM Auto-Scaling

VMs are one of Azure's biggest cost drivers, especially if overprovisioned or left running unnecessarily. Auto-scaling adjusts resources based on demand – scales up during peak usage for performance and scales down during low usage to save costs. Pay only for what you use.

Right-Size Your Resources

Don't over-provision by adjusting resource sizes to match workload needs. If a resource has been underutilised for 30+ days, downsizing should be considered.

Spot Priority Mix

combine standard VMs with Spot VMs: Spot Priority Mix is an Azure feature that lets you mix Spot and standard VMs in your workload. It will move workloads to Spot VMs when available and back to standard VMs when not. Use Spot VMs for non-critical tasks and standard VMs for critical ones. This way, you minimise the risk of disruption and take advantage of lower prices for non-time-sensitive workloads.

Leverage B-Series VMs

B-Series VMs save 15-55% compared to standard VMs for workloads that have occasional performance spikes. They run at a low baseline CPU and accumulate credits that can be used for bursts when needed.

Use Serverless Computing

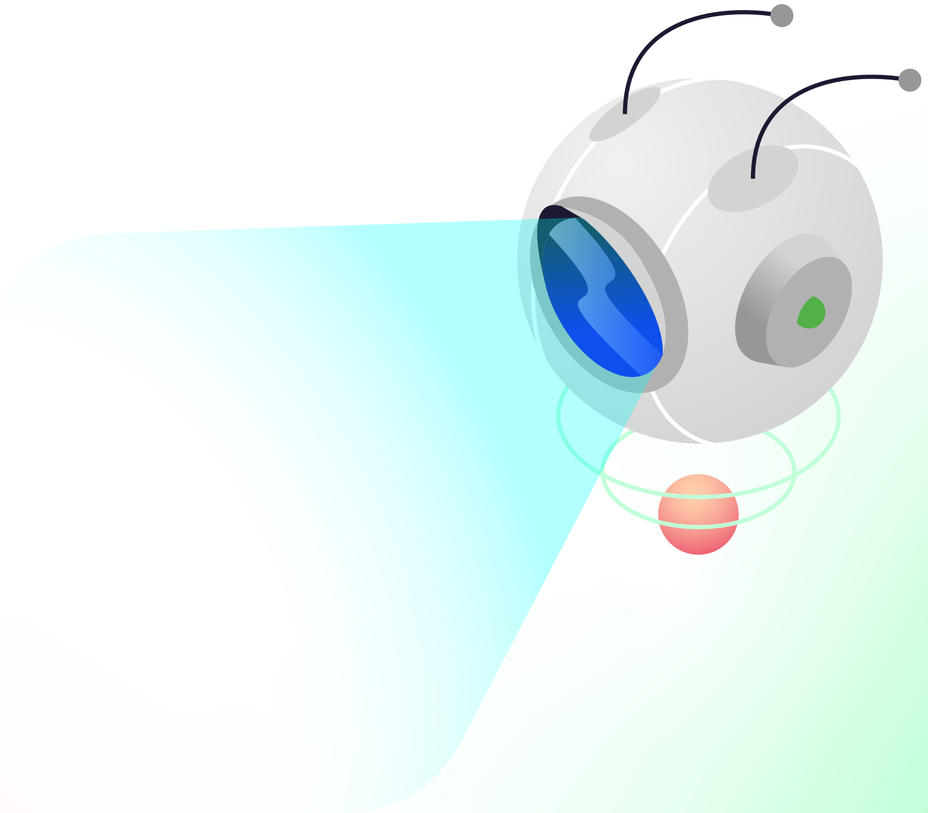
Azure's serverless options, like Azure Functions and Logic Apps, let you pay only for execution, not idle resources. Perfect for event-driven workloads, real-time data processing and automation.

Move from Database VMs to Elastic Databases

Running databases on VMs can be costly and lead to underused resources and inefficient load distribution. Moving to a PaaS like Azure SQL Database reduces costs by charging only for actual usage rather than maintaining complete VM instances.

Shift Workloads to Containers

Moving apps from VMs to containers can cut cloud hosting costs by improving resource efficiency. Containers reduce virtualisation overhead and let you run more workloads on fewer VMs. For example, consolidating 12 VM-based servers into 3-4 with Azure Kubernetes Service (AKS) could save up to 75% on hosting costs (Note: an uptime SLA adds $0.10 per hour).



3. Cost Monitoring and Budget

Unseen Azure Costs

Azure pricing varies by service, usage and pricing model. Unseen costs can come from storage, data transfers or auto-scaling – even when services are idle. Review resource usage regularly and check for surprise charges to avoid going over budget.

Set up Budgets

Set up budgets and notifications from the outset to keep track of your Azure spending and manage your budget effectively.

Use Azure Alerts

Detecting overspending early prevents unexpected charges from piling up. Set up real-time alerts to track cloud expenses and avoid surprises on your Azure bill. Azure Alerts notify you when spending approaches or exceeds your budget, allowing you to adjust usage or expand the budget before costs spiral out of control. For example, if your monthly budget is $5,000, set alerts at 75% and 95%. These notifications give you real-time updates so you can take action – adjust usage or prevent overspending.

Monitor Cloud Bills and Usage

Cloud pricing and workloads change all the time. Review your Azure billing and usage regularly to catch hidden fees, unusual charges or unexpected scaling costs before they get out of control.

Regularly Review Licensing Options

Azure offers various licensing plans. Review them to make sure you're on the most cost-effective option. Organisations with high resource usage may benefit from enterprise agreements or volume discounts. Evaluate your current subscriptions, explore upgrade opportunities, and leverage special offers to align costs with actual usage. Regular reviews help optimise your licensing strategy to match evolving cloud needs.

Choose the Right Region

Azure prices vary by region, with North America often being the cheapest. Moving workloads to a lower-cost region can save money, but consider network latency and packet loss before making the switch.

Use Azure Advisor Recommendations

Azure Advisor is a free service that analyses your resource configuration and usage patterns to provide cost-saving, performance, security, and reliability recommendations. For example, it may suggest resizing VMs, removing unused resources or reserving instances. Regularly reviewing and implementing Azure Advisor's insights will helpoptimise your Azure environment and save you unnecessary costs.

Use Azure Pricing Calculator

The Azure Pricing Calculator lets you estimate costs before you deploy resources by entering parameters like resource type, region and usage. Use it to compare pricing models like pay-as-you-go vs. reserved instances so you can choose the best configuration for your needs.

Estimate Cost Savings with Azure TCO Calculator

Use the Azure TCO Calculator to compare on-premises vs. Azure costs. Adjust VM count and pricing tiers to get an accurate savings estimate before you migrate.

4. Storage and Data Management

Reduce Data Egress Costs:
While data upload to Azure is free, data egress (outbound transfers) cost money. Keep your data, compute and services in the same region to reduce unnecessary data transfer costs especially for large workload.

Choose the Right Storage Tier:
Azure Blob Storage has multiple access tiers (Hot, Cool, Cold, Archive) each for different data usage pattern. Store frequently accessed data in hot storage, while older or rarely accessed data should be moved to cool, cold, or archive tiers to cut costs. Be mindful of retention periods, as early deletion can incur fees.

Improve Data Transfer:
Reduce outbound data costs by keeping workloads and storage in the same region. Minimise inter-region and internet egress traffic, which can lead to unexpected expenses.

Automate Data Lifecycle Management:
Use Azure Blob Storage Lifecycle Management to set rules to move data between tiers or automatically delete outdated data. For example, keep logs in Hot for 30 days, move them to Cool for long term storage and delete them after 180 days to save unnecessary costs.

Tiering and Data Retention:
Before archiving, combine small files into larger ones (e.g., zip logs) to reduce operations and increase efficiency. Assign retention policies to remove old data and automatically save on storage costs.

Utilise Azure Content Delivery Network (CDN):
Azure CDN caches content closer to users, reduces latency and bandwidth costs, and improves performance. Great for media-rich applications and global services.

Optimise SQL Database Costs:
Choose the right Azure SQL Database pricing tier for your workload. The general purpose is for cost-effective production, while elastic pools help share resources across databases for varying usage. Review performance metrics regularly to save money.

5. Automation and Governance

Tag Azure resources

Tagging resources in Azure helps you track costs by assigning ownership, purpose or project. Tag at subscription, resource group or individual resource level to govern and avoid untracked instances.

Use Azure Policy

Enforce cost saving policies in Azure Policy by restricting VM sizes, blocking resource deployment in dev-test environments and making all new resources tagged.

Leverage Azure Management Groups

Use Azure Management Groups to organise and manage subscriptions efficiently. This helps enforce policies, track costs, and maintain consistency across multiple subscriptions.

Automate Resource Scheduling

Many workloads, like development environments, don’t need to run 24/7. Analyse usage patterns to identify underused resources. Use automation to shut them down during off-hours (overnight or weekends) and start them when needed.

Use Azure Resource Graph

Azure Resource Graph helps you explore and manage resources at scale across all subscriptions. It provides a unified view, allowing you to identify underutilised resources, optimise costs, and better understand spending patterns.

6. Networking Costs

Save on Azure Virtual Network Costs

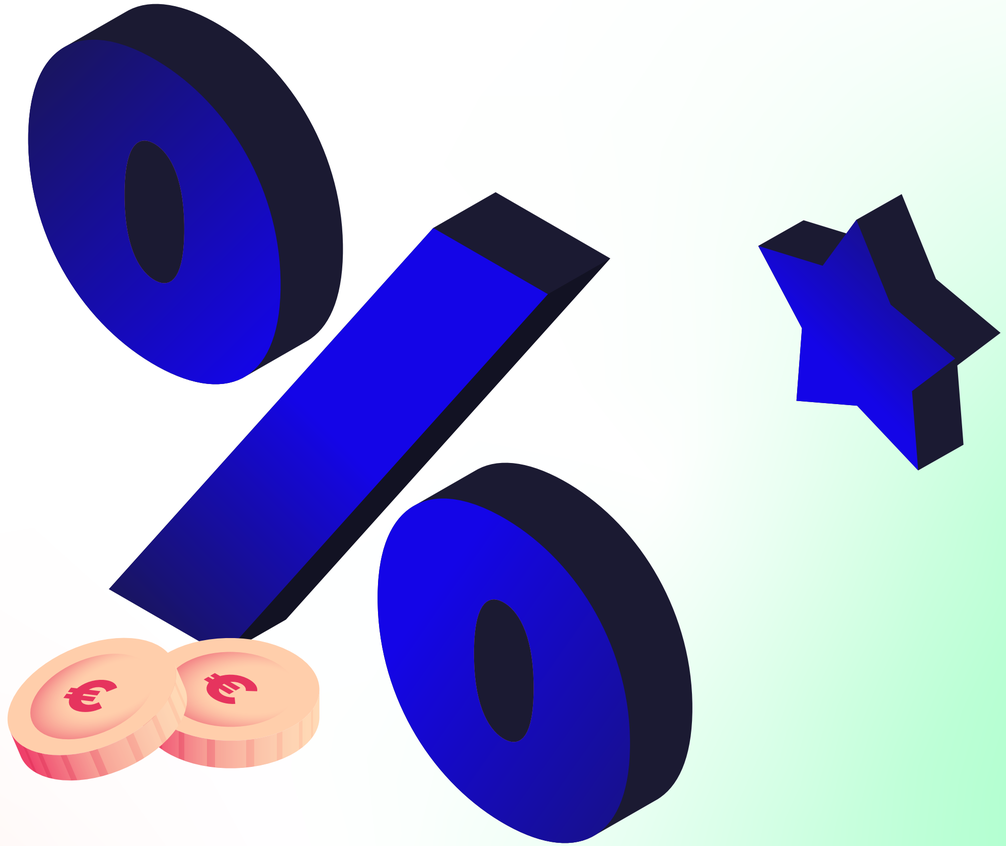
Minimise cross region data transfers to avoid extra costs and latency. Keeping resources in the same region helps with cost and network efficiency. Subnetting and strategic IP allocation can further help with cost and scale.

Use Azure Network Watcher

Monitor and diagnose network performance issues with Network Watcher. It will show you inefficient routing, data transfer and potential bottlenecks so you can optimise costs.

Use Network Security Groups (NSGs) for Cost-Efficiency

NSGs help manage traffic flow, prevent bottlenecks, and enhance security. Implementing NSGs properly can optimise resource usage and prevent overconsumption, reducing overall network costs.



Bottom Line

While you can achieve significant savings through Azure's scalable infrastructure, you must plan carefully and understand the Azure platform to get there. It all depends on how much you use and what services you run.

Just lifting and shifting VMs won't cut the costs. It's all about architecting for Azure.

Azure Cost Scan

At Intercept, we'd like to help you make sense of your costs. Our in-house experts provide professional savings recommendations based on your current Azure cloud usage.

This scan reveals where your company might miss out on cost-saving opportunities, from immediate savings to more substantial adjustments that could reduce your current Azure spend by up to 60%.

Yes, I want an Azure Cost Scan

If you have any questions or comments, please email us or schedule a 15-minute session with one of our experts. We would be happy to assist!

contact@intercept