

Cloud Repatriation TCO Worksheet

Model your honest exit case from public cloud, line item by line item.

For infrastructure, finance & procurement teams · aenix.io

How to use this worksheet

This worksheet lets you build a **board-grade TCO comparison** between your current public-cloud architecture and a target destination (private cloud, colocation, on-premises, or hybrid). It is designed to surface the costs that are **typically missed** in informal estimates: egress, Reserved Instance / Savings Plan underutilisation, cross-region replication, observability vendor fees, idle or over-sized resources, and hyperscaler managed-service premiums.

It is the same analytical framework Aenix uses during the cost workstream of a Platform Readiness Assessment.

Workflow (allow roughly 2–4 hours of combined finance and platform-engineering input):

- ☐ Section 1 — Public Cloud State: record your current cloud spend.
- ☐ Section 2 — Destination Architecture: enter your destination assumptions across a five-year horizon.
- ☐ Section 3 — Workload Classification: list workloads and classify each.
- ☐ Section 4 — Cost Trajectory: compare year by year and find the break-even point.
- ☐ Section 5 — Decision Framework: reach a board-ready recommendation.

Fill in every "Your figure" column. Where a figure is calculated from others, the formula is noted so you can reproduce it in your own spreadsheet.

1. Public Cloud State

Capture the honest annual cost of your current public-cloud footprint. Pull the numbers from your billing reports rather than from memory — the missed line items are usually where the case is won or lost.

A. Monthly bill breakdown — last full month

Cost item	Notes	Your figure (per month)
Compute spend (EC2 / GCE / Azure VMs)	Aggregate across all accounts	
Storage spend (object + block + file)	All tiers	
Network — intra-region	Internal traffic, NAT, load balancers	
Network — egress (cross-region + internet)	Often missed — pull from billing reports explicitly	
Managed-service premium (RDS, Aurora, EKS, etc.)	Versus self-managed equivalent on raw VMs	
Observability / SaaS data-egress fees	Datadog, New Relic, Splunk, etc.	
Backup / DR egress	Cross-region or vendor egress for backup tooling	

Cost item	Notes	Your figure (per month)
Other (security tooling, CI runners, misc.)		
Direct monthly spend	Sum of the rows above	

B. Commitment posture — Reserved Instances / Savings Plans

Item	Notes / formula	Your figure (per year)
Total RI / SP commitment, annualised	Sum of all active commitments	
Actual utilisation against commitment (%)	Pull from cost tools (0–100%)	
Realised commitment discount	Commitment × utilisation × discount assumption	
Underutilisation waste	Commitment × (1 – utilisation)	
Effective monthly RI / SP burden	Commitment ÷ 12	

Tip: the realised-discount assumption defaults to 30%. Adjust it if you have a measured figure from your cost-management tool.

C. Hidden costs — frequently missed

Cost item	Notes	Your figure (per month)
Cross-region replication egress	DB read replicas, S3 cross-region replication	
Cross-cloud / inter-account traffic	If multi-cloud or multi-account	
Idle / over-sized resources	From rightsizing tool — only the waste portion	
Snapshot / backup retention storage	Long-tail snapshot accumulation	
Marketplace / partner-billed services	Often invoiced through the cloud bill	
Egress to vendor SaaS (observability, security)	Separate from section A	
Hidden-cost subtotal	Sum of the rows above	

D. Output — annual public-cloud TCO

Item	Formula	Your figure (per year)
Direct annual spend	Direct monthly spend × 12	

Item	Formula	Your figure (per year)
Hidden annual spend	Hidden-cost subtotal × 12	
RI / SP underutilisation waste	From section B	
Total honest annual public-cloud TCO	Direct + hidden + RI waste	

2. Destination Architecture

Enter the assumptions for your destination architecture across a five-year horizon. Fill in one "Your figure" column per year (Year 0 through Year 5); the table shows Year 0 and the annual pattern — replicate the year columns in your own spreadsheet.

A. Hardware capital and refresh — 5-year horizon

Component	Notes	Your figure (per year)
Compute servers (initial + growth)	Refresh-cycle assumption: 4 years (default)	
Storage (capacity + tiering)	Include both performance and capacity tiers	
Network (switches, fabric, edge)		
Datacenter / colocation contract	If owned: amortised; if rented: contract spend	
GPU / accelerator hardware (if applicable)	Per-card pricing (with vendor support)	
Hardware total	Sum of the rows above	

Tip: the default refresh cycle is 4 years, with Year 4 carrying a 25–50% replacement charge. Adjust to match your own asset policy.

B. Operations — 5-year operating cost

Operating cost	Notes / formula	Your figure (per year)
Platform-engineering team headcount	Heads × loaded salary	
Average loaded annual salary	Loaded = salary + benefits + tax + tools	
Platform-engineering total	Heads × salary	
Network bandwidth (internet + transit + peering)		
Backup + DR infrastructure		

Workload	Type	Criticality	Compute pattern	Cloud (per month)	Destination (per month)	Net delta (per month)	Effort (1–5)	Recommendation

Column reference

Column	How to fill it
Type	VM / Container / DB / Object storage / File storage / ML training / ML inference / Other
Criticality	Tier 1 (mission-critical) / Tier 2 (important) / Tier 3 (non-critical)
Compute pattern	Steady / Spike / Elastic / Batch / Idle-prone
Net delta (per month)	Destination – Cloud. Negative = saving; positive = cost increase.
Effort (1–5)	1 (lift-and-shift) through 5 (rewrite required)
Recommendation	Apply the rules below

Recommendation rules

- ☐ Net delta < 0 and effort ≤ 2 → "Repatriate now"
- ☐ Net delta < 0 and effort ≤ 4 → "Repatriate phase 2"
- ☐ Net delta < 0 and effort = 5 → "Reassess — high effort"
- ☐ Net delta ≥ 0 → "Stay in cloud"

Insight: in most cases the top 10 workloads by absolute delta account for 60–80% of the cost case. Focus discovery and migration planning on those, not on inventory completeness.

4. Cost Trajectory

Compare public-cloud TCO against destination TCO plus migration cost, year by year, and identify the break-even point.

Period	Public-cloud TCO	Destination TCO	Migration cost	Net annual	Cumulative net
Year 0 (current)					
Year 1					
Year 2					
Year 3					
Year 4					
Year 5					

Period	Public-cloud TCO	Destination TCO	Migration cost	Net annual	Cumulative net
5-year total					

How each column is derived

- ☐ Public-cloud TCO: Section 1 total, grown by (1 + cloud growth rate) each year (default 8%).
- ☐ Destination TCO: from Section 2, Section D.
- ☐ Migration cost: from Section 2, Section C.
- ☐ Net annual: public cloud – (destination + migration). Positive = saving.
- ☐ Cumulative net: rolling sum of net annual.

Break-even

Item	How to read it	Your figure
Break-even point	First month at which cumulative net turns positive (or "does not break even within 5 years")	
5-year cumulative net	Final row of the cumulative-net column	

Sensitivity drivers — adjust to test scenarios

Driver	Default	Your value
Cloud growth rate (annual %)	8%	
Destination utilisation (%)	70%	
Workload growth (annual %)	15%	
Egress volume change (multiplier)	1.0×	

5. Decision Framework

Turn the figures above into a board-grade recommendation.

Decision matrix

Indicator	Favourable threshold	Your value
Share of workloads with negative net delta (savings)	Higher is better	
5-year cumulative net	> 0 = favourable	
Break-even point	< 36 months = favourable	
Concentration risk (single-workload share)	< 30% = favourable	

Recommendation logic

- ☐ Break-even < 24 months and 5-year net > 0 → **Full repatriate — strong case**
- ☐ Break-even < 36 months and 5-year net > 0 → **Partial repatriate — top-10 workloads**
- ☐ 5-year net > 0 (but slower payback) → **Optimize within cloud first — revisit in 12 months**
- ☐ Otherwise → **Stay in cloud — destination economics not favourable**

Risk-factors checklist

- ☐ Hyperscaler commitment expirations align with the migration window
- ☐ Platform-engineering capacity is available without delaying other initiatives
- ☐ Vendor support commitments for destination hardware are confirmed
- ☐ Workload portability (IaC, container-native, no proprietary services) is confirmed for "Repatriate now" workloads
- ☐ Sovereignty / regulatory requirements are verified compatible with the destination
- ☐ Pilot scope is agreed (typically 2–3 representative workloads over 8–12 weeks)

Next steps

Self	Assessment	Engagement
Use this worksheet to model your own case. Walk through it with finance and platform engineering, and refresh it quarterly.	Aenix Platform Readiness Assessment (14 days) extends this analysis with workload-by-workload sizing, a destination-architecture sketch, and a phased migration plan. Fixed fee.	Full repatriation engagement: a multi-month build covering architecture, build, migration waves, and operational handover. Scope is set after the assessment.

Need help interpreting your results? This is the working surface; a 30-minute discovery call is offered free. See our cloud-repatriation services for engagement options at aenix.io.

Glossary

Term	Definition
TCO	Total Cost of Ownership — the sum of capital, operating, hidden, and migration costs over a defined horizon (5 years in this worksheet).
RI / SP	Reserved Instance / Savings Plan — a pre-paid commitment to cloud usage in exchange for a discount. Underutilised commitment is sunk cost.
Egress	Data transferred out of a cloud region or to the public internet. Often missed in informal estimates.
Workload portability	The ability to deploy a workload to a different substrate without rewriting it. IaC + container-native + no proprietary cloud services = high portability.

Term	Definition
Loaded salary	Engineer salary + benefits + payroll tax + tooling allocation. Used to estimate the true cost of a platform-engineering team.
Refresh cycle	Hardware replacement cadence — 4 years by default in this worksheet; adjust to your asset policy.
Cumulative net	The running sum of annual net cash flow (savings minus migration cost). Crosses zero at break-even.
Break-even	The month at which cumulative net first becomes positive — i.e., when repatriation has paid for itself.
Concentration risk	The share of total spend on a single provider, region, or workload class. Often a board-level concern in regulated sectors (DORA / NIS2).

Methodology notes

- ☐ The cloud growth-rate default of 8%/year is conservative. Many organisations see 15–20% in the absence of FinOps discipline.
- ☐ The destination-utilisation default of 70% reflects typical Kubernetes-native dense scheduling. VMware / VM-only environments often reach only 30–45%.
- ☐ Migration cost is bottom-up only — it does not include the opportunity cost of slowing other initiatives. Add an explicit line item if that is material.
- ☐ Hidden costs (Section 1C) are typically 15–30% of direct spend. If your figure is below 15%, audit your billing reports — you have likely missed line items.
- ☐ This worksheet does not include sovereignty or regulatory-compliance gains, exit-readiness value (DORA / NIS2), or strategic optionality. Those are separate analyses.

Disclaimer: this worksheet produces estimates only and is not financial advice. Validate all figures with your finance team before making decisions.