SOLUTION BUILDERS®

A SOLUTION BUILDERS PLAYBOOK
2026 EDITION

A PLAYBOOK FOR BUSINESSES MOVING OFF ON PREMISES SERVERS

The Smart Cloud Migration Playbook.

Six migration paths decoded, a cost model with no missing lines, a zero downtime cutover checklist and the five habits that keep the cloud bill flat.

INSIDE THE PLAYBOOK

01 Migration paths, decoded
02 Modeling cloud cost
03 The zero downtime cutover
04 Stopping cloud waste

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30+ YEARS
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WHAT'S INSIDE

Built for companies buying their last server.

A hardware refresh used to be automatic. Now it is a decision, and the better answer is usually a cloud your team can work from anywhere. This playbook shows how to pick the right path for every workload, know the cost before you sign, cut over without a bad Monday and keep the bill honest after you land.

01 **Lift and shift vs. cloud native, decoded.**
Six ways to move any workload, the three most companies actually use, and how to give every server a verdict before anyone opens a console.
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02 **How to model cloud cost before you move.**
What on premises really costs once you count the refresh, the licenses and the people. What a cloud bill is made of, and the two levers that cut it most.
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03 **A zero downtime cutover checklist.**
Pilot group, parallel run, identity, DNS, rollback and communications. The seven week plan that makes Monday morning boring, which is the whole point.
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04 **Stopping cloud waste before it starts.**
Tags, budgets, idle resources, storage tiers and scheduled shutdowns. Five habits that keep the bill flat while the business grows, plus a monthly review that takes 20 minutes.
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WHO IT IS FOR
Owners, CFOs, COOs and IT leaders at companies with 25 to 500 people facing a server refresh, an office move or an end of support date.

HOW TO USE IT
Chapter 02 is the cost model your leadership team will ask for. Chapter 03 is the runbook for the cutover weekend. Both are built to print.

READING TIME
About 25 minutes cover to cover. The 20 minute monthly review in chapter 04 is the part you will keep using long after the move.

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01

Lift and shift vs. cloud native, decoded.

Two proposals can describe the same servers and land on wildly different bills. The difference is the path. Lift and shift moves machines. Cloud native moves the work. This chapter decodes both, plus the four quieter options, so you choose per workload instead of per vendor pitch.

6
verdicts for any workload: rehost, replatform, refactor, repurchase, retire or retain

90%
of organizations will run a hybrid mix of cloud and on premises by 2027, per Gartner

38%
infrastructure cost cut by a 60 user architecture firm that chose cloud native

2027
the January end of extended support for Windows Server 2016, the deadline behind many moves

Every server gets one of six verdicts.

The six R's began as an enterprise framework, and they work just as well for four servers in a closet. Sort the inventory before you design anything. Most of it lands on three paths, and the sorting is where the savings get decided.

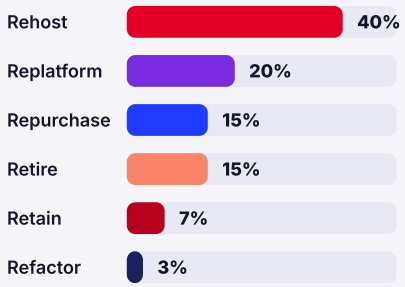
The six paths, side by side

PATH	WHAT IT MEANS	BEST FOR
Rehost	Lift and shift. The VM moves as it is.	Hard deadlines, aging hosts, untouchable apps
Replatform	Same app, managed services underneath.	Anything with SQL or a file share behind it
Refactor	Rebuild the app for cloud services.	Custom software core to how you make money
Repurchase	Replace the server with SaaS.	Email, files, phones, CRM, accounting, HR
Retire	Turn it off.	Servers nobody can name an owner for
Retain	Stay on premises, with a review date.	Shop floor controllers, license locked systems

How to sort an inventory in one afternoon

- **Inventory before architecture.** Every server, what runs on it, who depends on it and when hardware and operating system support end.
- **Ask retire and repurchase first.** If a SaaS product already does the job, or nobody claims the box, you have a cancellation, not a migration.
- **Rehost the rest, replatform the data.** VMs move as they are. SQL and file services move to managed versions that patch themselves.

How a typical inventory sorts out



Illustrative share of servers by path, Solution Builders client data. Retire is the line most first drafts leave at zero, and the one that pays off first.

Refactor is a verdict, not a default

Rebuilding software for the cloud is the longest and most expensive path on the list. Reserve it for the one or two applications that make you money, and only after they have been rehosted. Everything else moves faster, and cheaper, on a different R.

> **A server that should have been retired does not get cheaper when you migrate it.**
>
> SOLUTION BUILDERS CLOUD PRACTICE

Lift and shift buys time. Cloud native buys savings.

Rehosting is the fastest way out of the server room and the right first move on a deadline. The mistake is calling it finished: the same VM sizes, billed by the hour, cost about what the old hardware did.

Same server, two futures

LAYER	LIFT AND SHIFT	CLOUD NATIVE
Compute	Same VM sizes, running all day	Right sized, reserved, off when idle
Data	SQL and file servers you patch	Managed SQL, SharePoint or Azure Files
Identity	Domain controllers rebuilt in cloud	Entra ID, domain controllers retired
Monthly bill	**About what on premises cost, or more**	**Typically 20 to 40% lower once tuned**

38%
lower infrastructure cost, 60 user architecture firm

3x
remote productivity, zero on premises footprint

Put the second step on the calendar

Rehost on the deadline, then right size, reserve and replatform within 90 days. Give that work the same owner and project number as the move, or it quietly never happens.

LIFT AND SHIFT, THEN STOP

What usually happens

- The same VM sizes, billed by the hour, around the clock.
- Domain controllers, SQL and files still need patching, elsewhere.
- The bill surprises everyone by month three.

LIFT, THEN MODERNIZE

What should happen

- Rehost on the deadline, then right size and reserve by day 90.
- Move SQL, files and identity to managed services, one at a time.
- Review the bill monthly with a named owner. See chapter 04.

Sources: AWS, 6 Strategies for Migrating Applications to the Cloud (2016), building on Gartner migration research; Gartner press release, November 2024 (hybrid adoption by 2027); Microsoft product lifecycle pages (Windows Server 2016); client outcome from a Solution Builders architecture client, 60 users. Workload shares by path are illustrative.

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02

How to model cloud cost before you move.

Most cloud cost surprises are estimating problems, not cloud problems. The on premises column forgets the next hardware refresh and the people who keep it alive. The cloud column forgets egress, backup and licensing. This chapter fills in both columns, so the comparison your leadership team sees is a real one.

15%
average amount public cloud spending ran over budget, per Flexera 2024

$300K+
what over 90% of mid size and large enterprises say one hour of downtime costs

72%
top end of compute savings from a three year reservation versus pay as you go

5 yrs
the window a fair comparison covers: one full hardware refresh cycle, in both columns

Count every line before you compare anything.

An on premises estimate usually counts the hardware quote and stops. It skips the hypervisor and SQL renewals, the backup appliance, the cooling and the engineer hours that keep it alive. Count them, or the comparison is fiction.

Six lines the on premises estimate forgets

01 Hardware refresh

Spread the purchase over five years, then add the next one. It is coming either way.

02 Software licensing

Windows Server, SQL, VMware and backup renewals, plus the true up nobody budgeted.

03 Power, cooling and space

Buried in the facilities bill. Racks times a loaded cost per rack per year.

04 Support contracts

Warranties end after year three. Extended support costs jump as the gear ages.

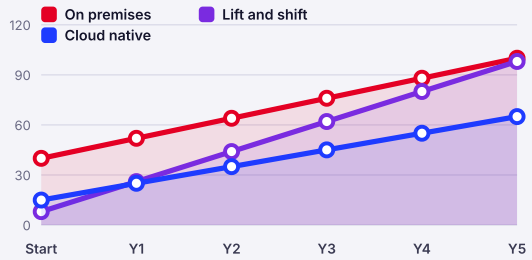
05 People time

Hours a month on patching, firmware, backups and outages, times a loaded rate. Usually the biggest missing line.

06 Downtime and risk

Hours lost per year times what an hour costs. One aging host is the usual outage.

Five year cumulative cost, three paths



Indexed to the five year on premises total (100). Start is up front spend: hardware and licenses on premises, migration effort in the cloud. Lift and shift is left as lifted; cloud native is optimized. Illustrative model.

Price the hour before you price the server

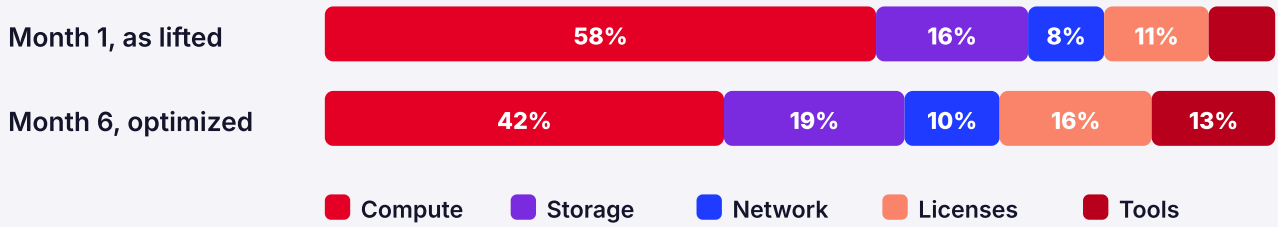
Ask finance what an hour without the ERP or email costs. That number belongs in the on premises column, because one aging host is the most common outage we see. It belongs in the cloud column too if the design skips redundancy.

> **The most expensive server in the building is the one nobody budgeted to replace, and every building has one.**
>
> SOLUTION BUILDERS CLOUD PRACTICE

Five lines on the bill. Two levers that shrink it.

Five lines make up a cloud bill. Compute dominates, which is good news, because both big levers live there: buying the right size, and committing to it for the servers that never stop.

Where a typical cloud bill goes, before and after optimization

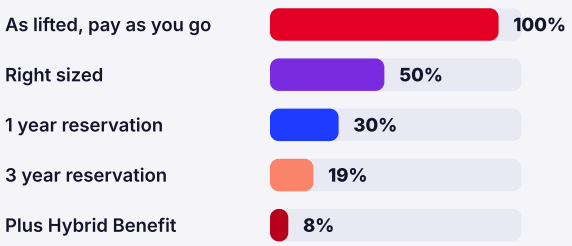


Share of each month's bill. The month 6 bill is about 30% smaller in total, so compute shrinks as a share while fixed lines grow. Illustrative, Solution Builders client data.

The five lines and the lever on each

LINE	WHAT IT IS	THE LEVER
Compute	VMs, billed while they run	Right size and reserve
Storage	Disks, backups, snapshots	Tier by age, delete orphans
Network	Outbound data (egress)	Co locate chatty apps
Licensing	Windows and SQL licenses	Azure Hybrid Benefit
Management	Monitoring, backup, logs	Trim log retention

Two levers on one Windows server, monthly cost



Cost as a share of the as lifted price. Each step builds on the one above it. Illustrative, from published Azure pricing.

Reserve the boring servers

Domain controllers, the ERP host, the file service: they run every hour of every year. Reserve them on day 90, once right sizing has settled. Keep the experiments on pay as you go.

Sources: Flexera 2024 State of the Cloud Report (spend over budget by 15%); ITIC 2024 Hourly Cost of Downtime Survey (over 90% of mid size and large enterprises above $300,000 an hour); Microsoft Azure pricing documentation (reservations up to 72% off, up to 85% with Azure Hybrid Benefit). Five year curves, bill composition and the single server example are illustrative models from Solution Builders client data.

03

A zero downtime cutover checklist.

Nobody remembers a migration that went well. They remember the Monday the ERP would not open. Zero downtime is not luck. It is a pilot, a parallel run, a rollback you have already rehearsed and three messages written for people who do not care about servers.

10%
of users in the pilot group, drawn from every department and every location

300 sec
the DNS time to live to set a week ahead, so a rollback takes minutes, not hours

100+
hours of monthly downtime an 85 user manufacturer eliminated in a 90 day transformation

72 hrs
of hypercare after cutover, when most issues surface and get fixed on the spot

Do the risky parts early, small and in daylight.

Downtime happens when a migration does everything in one night. This plan moves identity, data and a pilot group weeks ahead while the old system keeps running. By cutover weekend the switch has been rehearsed and the surprises used up.

WEEKS 1 TO 2

Discover and design

Inventory, dependencies, the six R sort, landing zone design. Nothing moves.

WEEKS 3 TO 4

Build and seed

Landing zone, network, identity sync. Data starts replicating quietly.

WEEK 5

Pilot

10% of users, every department, a full week in the cloud.

WEEK 6

Parallel run

Both environments live. Rollback rehearsed, timed and written down.

WEEK 7

Cutover and hypercare

Friday switch, Saturday tests, Sunday decision, 72 hours of hypercare.

Technical readiness, signed off two weeks out

- [x] Inventory frozen. Every server, integration, printer and scheduled job has a line and an owner.
- [x] A full backup taken and restored somewhere else, end to end, with the restore time written down.
- [x] Identity synced to Entra ID, so people sign in the same way before and after the switch.
- [x] DNS time to live at 300 seconds on every record.
- [x] Pilot issues fixed and retested, not just logged.
- [x] Rollback rehearsed in the parallel run, with the decision time printed on the runbook.

People readiness, signed off two weeks out

- [x] Three messages scheduled: two weeks out, the day before, and Monday 7 a.m. with the help desk number.
- [x] One champion per department who used the pilot and can answer "where did my drive go?"
- [x] A 15 minute walkthrough of the three things that change. Nothing longer.
- [x] Help desk briefed, with a separate queue for migration tickets.
- [x] Software vendors told the window, weekend support contacts confirmed in writing.
- [x] The executive sponsor signs the go or no go criteria in advance, not on Sunday.

3

rehearsals before the real switch: pilot, parallel run, rollback

0

changes to the old environment after the Thursday freeze

72 hrs

of hypercare, engineers on site or on a standing bridge

Three things decide the weekend. None are servers.

Servers rarely cause the Monday disaster. Logins, name resolution and the lack of a way back do. Each has a fix you can put in place a week early, while everything still works and nobody is watching the clock.

What breaks on Monday, and the early fix

WHAT BREAKS	WHY	THE EARLY FIX
Nobody can log in	Identity moved with the servers	Sync identity weeks ahead
Users hit the old server	DNS cached for hours	Time to live to 300 seconds
The ERP opens, then crawls	App in cloud, database on premises	Move app and database together
Scanners and printers stop	Hard coded paths to the old server	Repoint scan jobs in the pilot
Rollback is "we will see"	Never written down or timed	Rehearse it, print the decision time

The four gates of the weekend

1. **Thursday noon: freeze.**
   No more changes to the old environment. Final backup verified.
2. **Saturday 10 a.m.: test gate.**
   Logins, email, ERP, files, printing, remote access, each with a named tester.
3. **Sunday 2 p.m.: the decision.**
   Go, or roll back calmly. The time was set weeks ago.
4. **Monday 7 a.m.: hypercare.**
   Engineers on site or on a bridge, status message out before the first login.

BIG BANG

The Friday night gamble

- Everything moves in one window, every problem at once.
- Rollback is a theory, and its deadline passes unnoticed.
- Users meet the new system and its problems the same Monday.

STAGED CUTOVER

The boring Monday

- Identity, DNS and the pilot done in daylight, days early.
- Rollback rehearsed, timed, with a named person to call it.
- Monday is 72 hours of small questions, not one big one.

Sources: ITIC 2024 Hourly Cost of Downtime Survey; Microsoft Entra Connect and Azure Migrate guidance (identity sync ahead of cutover, lowering DNS time to live); pilot sizing, timeline and hypercare practice from Solution Builders client data, including an 85 user manufacturer that eliminated 100+ hours of monthly downtime in 90 days.

04

Stopping cloud waste before it starts.

Cloud waste is not a billing error. It is a thousand small defaults: the test server nobody turned off, the disk left behind when its VM was deleted, backups parked in premium storage forever. None of them are big. All of them compound. This chapter is the habit set that stops them.

27%
of cloud spend is wasted, by the estimate of the companies spending it, per Flexera 2024

70%
of a test server's compute cost disappears when it runs 50 hours a week instead of 168

10x
or more: the price gap per gigabyte between hot and archive storage tiers

20 min
a month: the cost review that catches most waste while it is still small

Six places waste hides on a cloud bill.

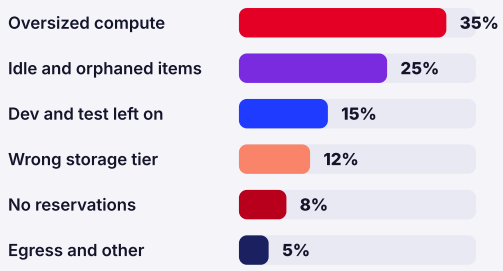
Waste looks exactly like infrastructure on the invoice, so nobody questions it. The table is the list we work through in every cost review. Most environments have three of the six by day 30, and all six by year end if nobody is looking.

The waste sources checklist

WASTE SOURCE	HOW IT HAPPENS	THE FIX	TYPICAL SAVING
Oversized VMs	Lifted with on premises sizing, under 20% busy	Right size quarterly from utilization data	**30 to 50% of that VM**
Idle resources	Projects end, the VMs and IPs stay	Tag an owner and expiry date. No tag, no resource	**Often 10% of the bill**
Orphaned disks and snapshots	VM deleted, disk kept "just in case" forever	Auto delete unattached disks after 30 days	**5 to 10% of storage**
Dev and test running 24/7	Nobody turns it off at night or on weekends	Schedule it: 7 a.m. to 7 p.m., off all weekend	**70% of that compute**
Everything in premium storage	The default tier chosen on migration day	Lifecycle rules: cool at 30 days, archive at 180	**Up to 90% on cold data**
Pay as you go forever	Nobody committed because "we might change things"	Reserve the steady state: identity, ERP, files	**Up to 72% on those VMs**

Typical ranges from Solution Builders cost reviews and published Azure pricing, applied to the affected resource.

Where the wasted 27% usually comes from



Illustrative share of total waste one year after migration, Solution Builders client data.

No tag, no resource

Every resource gets three tags at creation: owner, cost center and expiry date. Anything untagged lands on a Monday report and is deleted after a 30 day grace period. One rule, more savings than any tool.

> **The cloud never forgets to bill you for the server you forgot you had.**
>
> SOLUTION BUILDERS CLOUD PRACTICE

Five habits, one owner, twenty minutes a month.

FinOps is a grand name for a simple routine: know who owns every dollar, set a budget that warns before it is blown, and look at the bill for 20 minutes a month. The habits below are ordered by payoff.

The five habits, in order of payoff

1. **Tag everything from day one.**
   Owner, cost center, environment, expiry. Policy blocks anything untagged from being created.
2. **Set budgets with alerts at 80%.**
   One per cost center, one per environment. An alert at 80% leaves time to act. At 100% it is a receipt.
3. **Right size quarterly.**
   Anything under 20% busy for 30 days drops a size at the next maintenance window.
4. **Tier storage automatically.**
   Lifecycle rules move data from hot to cool to archive by age. Backups never sit in premium.
5. **Schedule the shutdowns.**
   Dev, test and reporting servers run business hours only. 50 of 168 hours is a 70% cut.

The 20 minute monthly review

CHECK	LOOK FOR
Top ten resources by cost	Anything new, untagged or unexplained
Utilization under 20%	Right size candidates for the next window
Unattached disks, old snapshots	Delete after the 30 day grace period
Budget alerts that fired	Raise a budget only with a reason attached
Reservation coverage	Steady workloads still on pay as you go

Give the bill an owner

Someone outside engineering reads the bill every month: a controller, an operations lead, a virtual CIO. Engineers optimize what they are asked about.

80%
budget alert threshold that leaves time to act

30 days
grace period before an untagged resource is deleted

20%
utilization ceiling under which a VM drops a size

Sources: Flexera 2024 State of the Cloud Report (respondents estimate 27% of cloud spend is wasted); FinOps Foundation, FinOps Framework; Microsoft Azure and AWS published list prices for storage tiers and reservations (hot versus archive gap of 10x or more, reservations up to 72% off). The shutdown saving is arithmetic: 50 of 168 hours. Waste shares are illustrative, from Solution Builders client data.

The cloud, done right.

Solution Builders has run infrastructure for Minnesota businesses since 1995. Our cloud practice follows the RISE framework, is delivered by 50+ engineers and is watched by a 24/7 security operations center from the first workload onward.

R

Resilient

Cloud infrastructure with immutable backups and tested recovery built in from day one.

I

Integrated

Identity, network, Microsoft 365 and line of business apps moved together, not in pieces.

S

Secure

Landing zones hardened to our SOC 2 standard and monitored around the clock.

E

Evolving

A cloud foundation ready for Copilot, analytics and the AI tools your team asks for next.

01

Cloud Readiness Snapshot

A 30 minute conversation about your servers, deadlines and goals. You leave with a first cut at which path each workload deserves.

FREE · 30 MINUTES

02

Migration Assessment and Cost Model

Two weeks of discovery: full inventory, the six R sort and a five year model for on premises, lift and shift and cloud native.

FIXED FEE · 2 WEEKS

03

Managed Cloud

The migration, the cutover and the FinOps routine, run for you: monthly cost reviews, right sizing, security monitoring and backup testing.

MONTHLY · ONGOING

Find out what your servers should become.

Book a free Cloud Readiness Snapshot with a Solution Builders solution architect. No pitch, just a candid read on your six R sort and your five year numbers.

Book my cloud snapshot

THE SHORT VERSION

Three things to remember.

If this playbook ends up in a drawer, keep these three ideas. They separate the migrations that end in a smaller bill from the ones that end in a bigger one.

01 **One verdict per workload.**

Rehost what must move now, replatform the data, repurchase and retire what you can. Refactor only the software that makes you money.

02 **Two complete columns, or no comparison.**

Count the refresh, the licenses and the people on premises. Count egress, backup and licensing in the cloud. Then decide.

03 **The habits start on migration day.**

Tags, budgets, right sizing, storage tiers and shutdown schedules. Twenty minutes a month keeps the bill flat while the business grows.

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START THE CONVERSATION

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