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Planning a Server or Storage Refresh? Your Old Budget May Be Outdated

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Introduction

Organizations planning server and storage refreshes in 2026 may be in for an unpleasant surprise.

The cost of several core infrastructure components - particularly enterprise memory and solid-state storage - has increased dramatically. For IT leaders building budgets based on their last hardware purchase, this can create a substantial gap between what they expect a refresh to cost and what current configurations actually cost.

This isn't simply a case of server and storage manufacturers raising prices. The underlying DRAM and NAND flash markets have changed significantly, driven by unprecedented investment in artificial intelligence infrastructure, rapidly increasing data center demand, constrained manufacturing capacity, and changes in how semiconductor manufacturers allocate that capacity.

For organizations approaching a hardware refresh, understanding these changes is becoming an important part of infrastructure planning.

Table of Contents

1. What's Happening to Memory and Storage Prices?
2. Why AI Is Affecting Traditional IT Infrastructure
3. What We're Seeing in Real Infrastructure Pricing
4. Why the Impact Goes Beyond Component Cost
5. Why Historical IT Budgets May No Longer Work
6. What IT Leaders Should Be Doing Now
7. Will Prices Come Back Down?
8. Planning for a Different Infrastructure Market
9. Sources and Further Reading

1. What's Happening to Memory and Storage Prices?

Two of the components experiencing the greatest pricing pressure are DRAM, which provides system memory in servers, and NAND flash, the underlying technology used in enterprise SSDs.

The magnitude of the change is significant.

In April 2026, Gartner forecast that average DRAM prices would increase 125% in 2026, while NAND flash prices would increase 234%. Gartner expects meaningful pricing relief to remain unlikely until late 2027.

Gartner also expects worldwide memory-industry revenue to increase from approximately \$216 billion in 2025 to more than \$633 billion in 2026.

That's not a small market adjustment. It represents a fundamental shift in the economics of memory and storage components.

The effects are already visible beyond the semiconductor industry. Gartner separately estimated that the combined increase in DRAM and SSD prices could reach approximately 130% by the end of 2026 compared with 2025, contributing to higher prices for PCs and other systems.

Enterprise infrastructure is facing many of the same pressures. IDC reported in July 2026 that worldwide server spending increased 30.7% year over year during the first quarter of 2026, while server unit shipments increased only 3.3%. IDC specifically identified constrained availability of DRAM and NAND flash as a factor limiting traditional server shipments and expects memory and NAND supply constraints and elevated pricing to continue through at least the first half of 2027.

Key Stats on Pricing Pressure:

- DRAM prices forecast to increase 125% in 2026 (Gartner)
- NAND flash prices forecast to increase 234% in 2026 (Gartner)
- Server spending up 30.7% YoY in Q1 2026 while unit shipments grew only 3.3% (IDC)
- Memory industry revenue: ~\$216B (2025) - \$633B+ (2026)

2. Why AI Is Affecting Traditional IT Infrastructure

Artificial intelligence is one of the largest factors behind the current market.

Modern AI systems consume enormous amounts of compute, memory and storage. Hyperscalers and cloud service providers are investing billions of dollars in new data center infrastructure to support those workloads.

Gartner expects AI semiconductors to represent approximately 30% of total semiconductor revenue in 2026 and says hyperscaler spending on AI infrastructure is expected to increase by more than 50% during the year.

That creates competition for manufacturing capacity.

Memory manufacturers have strong financial incentives to dedicate capacity to high-value products such as high-bandwidth memory (HBM), advanced server DRAM and enterprise NAND products used by AI infrastructure.

The effects extend well beyond companies deploying AI.

A traditional virtualization server still needs DRAM.

A storage array still needs NAND flash.

A database server still needs memory and SSDs.

Those components are ultimately coming from many of the same global semiconductor supply chains supporting hyperscale cloud and AI infrastructure. IDC describes the current server market as being shaped by two interconnected forces: massive AI infrastructure investment and a supply-constrained traditional server market where memory and NAND availability are limiting shipments.

In other words, you don't have to be buying AI infrastructure to be affected by AI infrastructure spending.

3. What We're Seeing in Real Infrastructure Pricing

Industry forecasts are important, but the impact becomes much easier to understand when looking at actual enterprise infrastructure quotes. Consider two anonymous examples based on real enterprise hardware pricing we've encountered.

Enterprise SSD Example

In October 2024, a 1.92 TB enterprise NVMe SSD for a commonly deployed storage platform carried a list price of approximately:

\$12,700

By August 2026, a comparable 1.92 TB enterprise NVMe SSD for the same class of storage platform carried a list price of approximately:

\$37,100

That's nearly a 3x increase in less than two years.

Enterprise Server Memory Example

In September 2024, a 64 GB enterprise server RDIMM for a commonly deployed server platform carried a list price of approximately:

\$3,400

By August 2026, a comparable 64 GB enterprise server RDIMM carried a list price of approximately:

\$20,200

That's nearly a 6x increase.

These examples should not be interpreted as universal market increases. Server and storage platforms, component generations, OEM pricing, configurations, discounts and purchasing agreements all vary.

They do, however, demonstrate the kind of price changes organizations can encounter when comparing infrastructure purchased only a few years ago with today's equivalent configurations.

And the broader market data supports what we're seeing.

Gartner estimates annual DRAM and NAND flash prices will rise significantly during 2026, while IDC reports that component availability and elevated memory pricing are already affecting the worldwide server market.

4. Why the Impact Goes Beyond Component Cost

A DIMM or SSD is only one component of an infrastructure solution.

The problem is scale.

Consider a virtualization cluster consisting of several servers, each requiring hundreds of gigabytes - or potentially terabytes - of memory.

A server containing sixteen 64 GB DIMMs has 1 TB of RAM.

Multiply that across four virtualization hosts and the environment requires 64 enterprise DIMMs.

Even a relatively small increase in the cost of each DIMM becomes significant when multiplied across an entire cluster.

Storage can amplify the effect even further.

An enterprise storage array may contain dozens of SSDs. When the underlying cost of each SSD increases substantially, the total price of a storage system can change dramatically even if the organization's capacity requirements haven't changed.

There can also be secondary effects.

Support and maintenance costs may be influenced by hardware value and replacement costs. Higher component costs can therefore affect not only the initial infrastructure purchase but potentially the ongoing cost of supporting that infrastructure.

The result is that organizations may encounter higher costs in several places simultaneously:

- New server purchases
- Server memory upgrades
- Storage arrays
- Storage capacity expansions
- Replacement components
- Support and maintenance agreements

5. Why Historical IT Budgets May No Longer Work

This is where organizations approaching a refresh cycle can get caught off guard. Suppose an organization purchased a virtualization environment in 2020 or 2021. When budgeting for its replacement five or six years later, it's natural to look at the previous purchase and use that number as a starting point.

Perhaps the previous environment cost \$150,000.

A reasonable budgeting assumption might be \$175,000 or \$200,000 for the replacement, accounting for inflation and modest growth.

In today's market, that approach can produce a significant budget shortfall.

The replacement environment may require roughly the same amount of compute, memory and storage, yet the underlying component economics can be very different.

And component pricing isn't the only factor.

Organizations may simultaneously encounter changes in:

- Software licensing models
- Virtualization licensing
- Operating system licensing
- Support costs
- Implementation services
- Cybersecurity requirements
- Backup and disaster recovery requirements
- Network infrastructure

This does not mean that every server or storage system will cost three or six times more than it did several years ago.

But it does mean that the price of your last infrastructure purchase may no longer be a reliable basis for your next infrastructure budget.

6. What IT Leaders Should Be Doing Now

Organizations with infrastructure refreshes planned within the next 12 to 24 months should consider beginning the planning process earlier than they may have during previous refresh cycles.

The first step is simple:

Validate your budget against current market pricing.

Don't wait until an aging server or storage platform is six months from end of support before discovering that the replacement project costs significantly more than anticipated.

This is also an excellent time to reassess what the environment actually requires. Before replacing infrastructure, organizations should understand:

- How much CPU capacity is actually being consumed?
- How much memory are workloads actually using?
- How much storage capacity is actually required?
- What is the organization's expected growth rate?
- Are existing systems oversized?
- Can workloads be consolidated onto fewer hosts?
- Are there workloads that should move to the cloud?
- Are there cloud workloads that would now be more economical on-premises?
- Are support renewals economical compared with replacement?

Accurate workload assessment and right-sizing have always been infrastructure best practices.

When memory and storage are inexpensive, however, overprovisioning might represent a relatively small portion of the overall project.

When those components become substantially more expensive, right-sizing can translate directly into significant savings.

7. Will Prices Come Back Down?

Probably - but organizations shouldn't build near-term infrastructure budgets around that assumption.

Memory and flash markets have historically been cyclical. Periods of shortage and high pricing encourage semiconductor manufacturers to expand production, eventually increasing supply and putting downward pressure on prices.

We're already seeing manufacturers commit enormous amounts of capital to additional capacity.

For example, SK Hynix recently approved approximately \$38 billion in additional semiconductor manufacturing investments in South Korea. The planned facilities will expand production of advanced DRAM, including HBM for AI servers, as well as NAND flash used for data storage. However, much of that new capacity will not become available immediately; portions of the new facilities are scheduled to come online between 2027 and 2029.

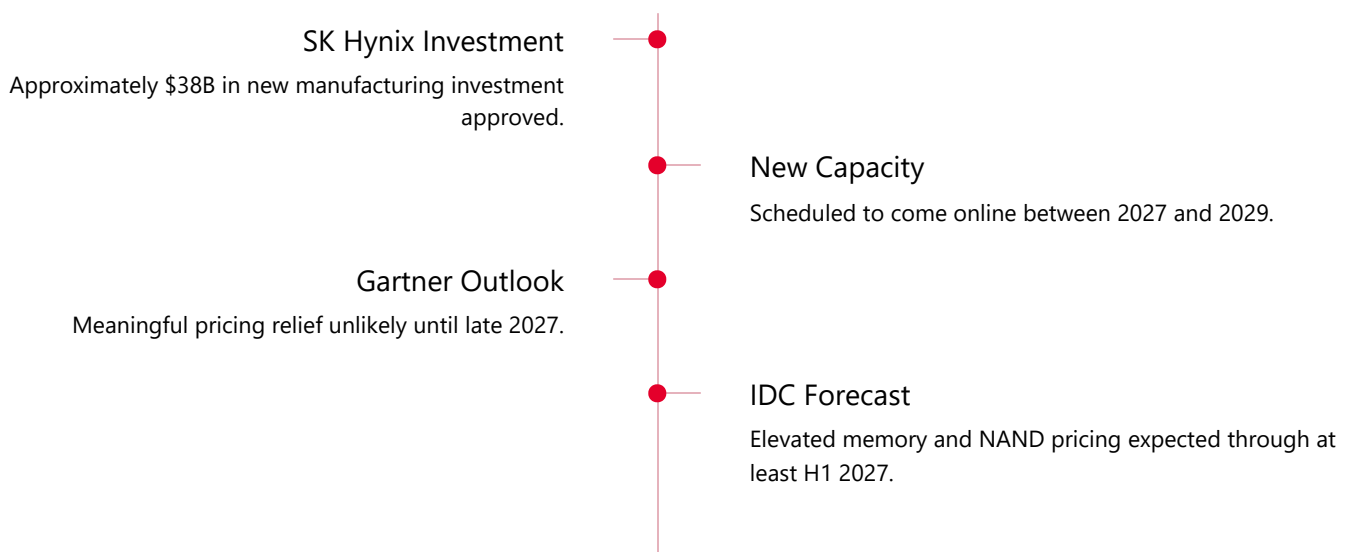
That's an important distinction for IT planners.

Additional capacity is coming.

But building semiconductor fabrication capacity takes years - not months.

Gartner currently doesn't expect meaningful pricing relief until late 2027, while IDC expects elevated memory and NAND pricing through at least the first half of 2027.

Organizations with infrastructure projects planned for the next 12 to 18 months therefore shouldn't assume today's pricing pressures will disappear before they need to make a purchase.



8. Planning for a Different Infrastructure Market

The infrastructure market has changed considerably over the past several years.

AI is accelerating data center construction.

Hyperscalers are consuming unprecedented quantities of compute, memory and storage.

Semiconductor manufacturers are reallocating production toward the areas experiencing the greatest demand.

And those changes are filtering down into traditional enterprise IT. For IT leaders, the takeaway isn't that infrastructure has suddenly become unaffordable. It's that planning matters more than it did during the previous refresh cycle.

Organizations approaching a server, storage or virtualization refresh should begin evaluating requirements and budgets earlier, validate those budgets against current market conditions, and carefully right-size the infrastructure they plan to purchase.

Most importantly, don't assume that what your infrastructure cost five years ago is what it will cost to replace today.

Finding that out during the budgeting process gives you options.

Finding it out after your existing infrastructure is approaching end of support does not.

Contact Focus Technology

To discuss your infrastructure refresh planning, contact Focus Technology Solutions.

www.FocusTSI.com

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9. Sources and Further Reading

- **Gartner - Semiconductor and Memory Market Forecast, April 2026**
Gartner forecasts DRAM prices increasing 125% and NAND flash prices increasing 234% during 2026, with meaningful pricing relief unlikely until late 2027.
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- **Gartner - Surging Memory Costs and Hardware Pricing, February 2026**
Gartner estimates combined DRAM and SSD prices could increase approximately 130% by the end of 2026 compared with 2025.
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- **IDC - Worldwide Server Market Insights, July 2026**
IDC reports server spending increased 30.7% year over year in Q1 2026 while unit growth was 3.3%, and identifies constrained DRAM and NAND availability as a limiting factor in traditional server shipments.
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Reuters reports continued strong demand for flash memory used in AI data centers and significant long-term customer commitments for future production.
<https://www.reuters.com/business/sandisk-forecasts-upbeat-quarterly-revenue-ai-driven-demand-2026-08-05/>
- **Reuters - SK Hynix Expands DRAM and NAND Manufacturing, August 2026**
Reuters reports SK Hynix approved approximately \$38 billion in additional manufacturing investment, including new capacity for advanced DRAM/HBM and NAND flash.
<https://www.reuters.com/world/asia-pacific/sk-hynix-board-approves-38-bln-investments-south-koreas-yongin-cheongju-chip-2026-08-07/>
- **TrendForce - 2026 Memory Market Pricing**
TrendForce reported significant increases in DRAM, NAND flash and enterprise SSD contract pricing during 2026, citing persistent AI and data center demand and constrained supply.
<https://www.trendforce.com/presscenter/news/20260202-12911.html>