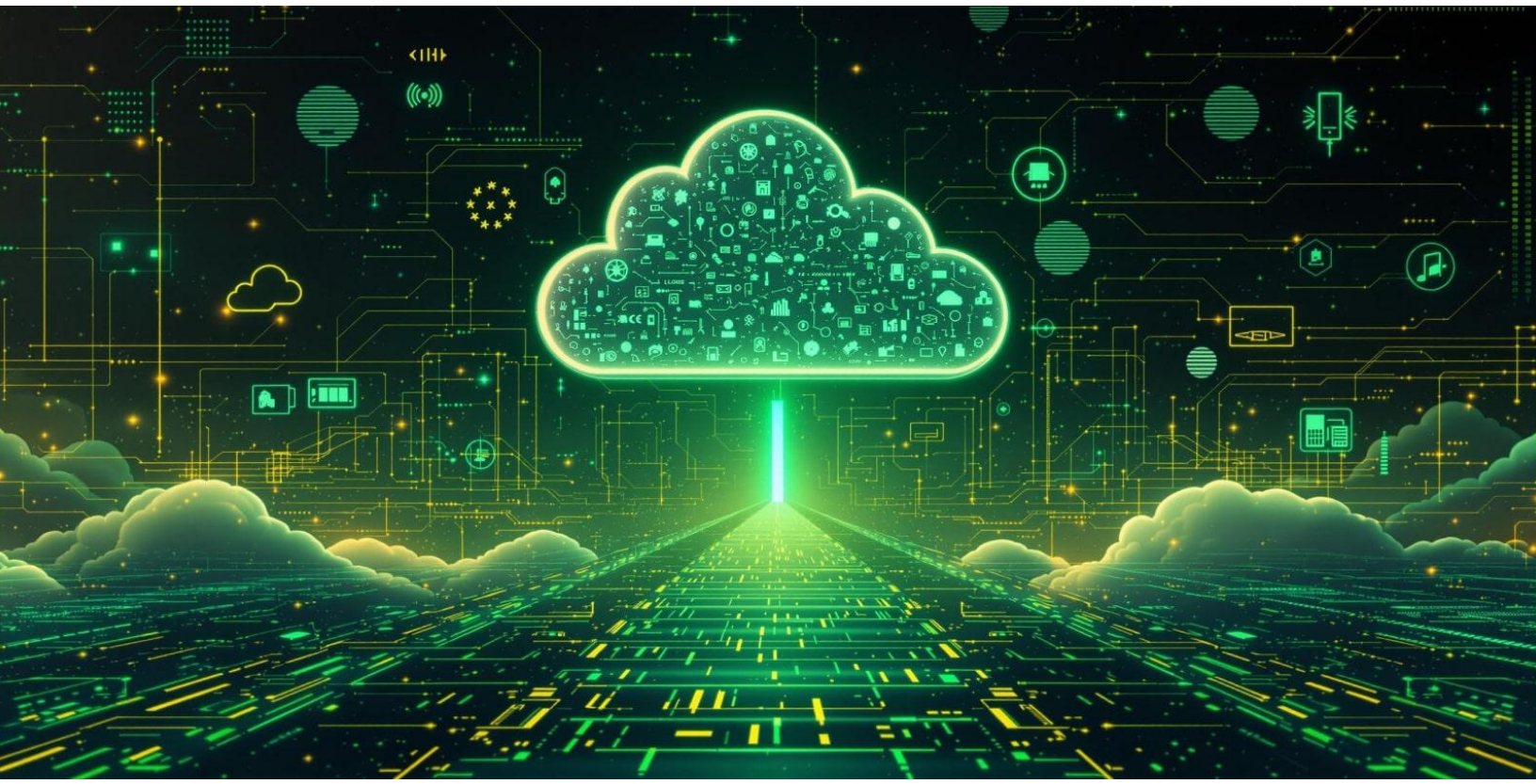
VIRTUALZ
COMPUTING™

A New Era in Storage Modernization:

What Enterprise IT Leaders Must Deliver in 2026



THOUGHT LEADERSHIP PAPER

Executive Summary

Enterprise storage is no longer just about capacity and cost. In 2026, storage has become the execution layer that determines how quickly organizations can adopt AI, modernize applications, ensure resilience, and unlock the full value of their data — across mainframe and cloud environments.

The challenge is no longer whether to modernize. It is how to modernize without disrupting mission-critical systems.

Enterprises are demanding:

- AI-ready data pipelines from core systems
- Elastic storage without hardware lock-in
- Accessible tape archives
- Hybrid cloud resilience
- Lower operational cost
- Reduced MIPS consumption
- Zero-risk modernization paths

This paper explores the architectural shift driving storage decisions in 2026 and how enterprises can modernize safely, incrementally, and strategically.

The 2026 Reality: Storage Is Now a Strategic Platform

Modern enterprises are under pressure to accelerate transformation while protecting the stability of their core systems.

Mainframes still power the world’s most critical workloads — financial transactions, healthcare systems, logistics networks, government

infrastructure — yet surrounding ecosystems are evolving toward hybrid cloud, AI, analytics, and real-time data access.

Storage sits at the center of this tension.

It is no longer a backend utility. It is the bridge between:

- Legacy systems and modern platforms
- On-prem and cloud
- Historical archives and AI pipelines
- Stability and innovation

Enterprises that modernize storage gain speed, agility, and resilience. Those that delay modernization face rising cost, growing risk, and limited innovation capacity.

What Enterprises Are Asking for in 2026

Across industries, IT leaders are asking:

- How do we feed AI systems with mainframe data?
- How do we scale storage without buying more DASD?
- How do we modernize tape without breaking applications?
- How do we reduce MIPS tied to storage?
- How do we build hybrid storage architectures safely?
- How do we strengthen disaster recovery without adding complexity?

These are not exploratory conversations. They are funded priorities.

Top Storage Trends Shaping 2026

1. AI-Ready Hybrid Architectures

AI initiatives require fresh, accurate, accessible enterprise data. Storage must support structured pipelines from core systems into modern analytics platforms.

Challenge: Legacy storage environments were not designed for AI-era data flow.

2. Hybrid Cloud as Default Architecture

Storage now spans mainframe disks, cloud object stores, archives, and analytics platforms simultaneously.

Challenge: Proprietary storage models slow hybrid integration.

3. Tape Modernization & Archive Accessibility

Tape is no longer just retention — enterprises want archives to be usable and searchable.

Challenge: Tape cannot simply be "lifted" without application awareness.

4. Elastic Capacity & Cost Optimization

Hardware-bound storage is financially unsustainable. Enterprises want pay-for-use elasticity.

Challenge: Scaling legacy storage introduces risk and unpredictability.

5. Resilience & Business Continuity

Zero downtime expectations require multi-location redundancy and rapid failover.

Challenge: Legacy storage architectures were not designed for instantaneous recovery.

The Shift: Storage Becomes an Execution Layer

The winning architecture in 2026 treats storage as a programmable platform that:

- Spans mainframe and cloud seamlessly
- Enables AI and analytics pipelines
- Abstracts physical media
- Scales elastically
- Protects business continuity
- Reduces operational complexity

This shift unlocks transformation without destabilization.

VirtualZ: Enabling Modern Storage Without Disruption

VirtualZ delivers the execution layer enterprises need to modernize storage safely.

Three complementary solutions power this model:

- **PropelZ**™ — structured data delivery + tape-to-cloud modernization
- **FlowZ**™ — file-oriented hybrid storage integration
- **Zaac**™ — instant virtual mainframe storage

Together they allow incremental modernization, not risky replacement.

PropelZ™

Structured Data & Tape-to-Cloud Modernization

PropelZ delivers structured mainframe data into modern platforms — including AI, analytics, and governance systems — without custom coding.

It also enables **tape-to-cloud migration**, transforming archives into accessible, searchable datasets.

Key use cases

- AI and ML pipelines
- Analytics modernization
- Report migration
- Integration platforms
- Tape archive modernization
- Governance & compliance access

Benefits

- No-code deployment
- Reduced MIPS consumption
- Rapid installation
- Repeatable enterprise scale

“PropelZ is a very straightforward install… ready to go in just a couple of hours.”
— Jerry Edgington, Pellera

FlowZ™

Hybrid File Movement for Modern Storage

FlowZ moves and shares mainframe-generated files directly to cloud or on-prem storage:

- No device emulation
- No ETL pipelines
- Fast configuration
- Immediate value

It modernizes backup, archive, and tape workflows at file level.

Use cases

- Tape-to-cloud migration
- Backup modernization
- Archive retrieval
- Analytics staging
- Cross-platform sharing

Zaac™

Instant Virtual Mainframe Storage

Zaac virtualizes disk and tape devices over cloud or SAN storage.

Applications see native storage. Enterprises gain:

- Elastic capacity
- Lower cost
- Hybrid resilience
- Instant scaling

No application changes required.

“Perhaps most challenging to conventional thinking is the company’s Zaac solution… bringing flexible storage to the mainframe world.”
— Freeform Dynamics

Industry Validation

VirtualZ’s momentum is reinforced by independent recognition:

- **ISG Provider Lens®** named VirtualZ a *Contender* in the 2026 Mainframes Services & Solutions study.
- **CRN** recognized VirtualZ among the **50 Coolest Storage Vendors**.

  “*VirtualZ develops technology that moves data between IBM Z and cloud applications without custom coding.*” — CRN
- Partners echo the impact:

  “Our partnership with VirtualZ strengthens our ability to deliver modernization without disruption.”
  — Jeff Rusk, CRO, Mainline

Conclusion

Storage modernization is no longer optional. It is the foundation of AI adoption, resilience, and enterprise agility.

The enterprises that succeed in 2026 will not replace their mainframes — they will extend them.

They will treat storage as an execution platform that enables innovation while protecting stability.

VirtualZ provides the architecture to make that possible:

- Incremental modernization
- AI-ready data access
- Hybrid storage interoperability
- Elastic scalability
- Reduced operational risk

With the right storage execution layer, enterprises can modernize confidently — and unlock the full value of their data.

VirtualZ Computing

Your AI Needs Data.
We Deliver All of It. Instantly.