

A decorative graphic element on the left side of the page consists of several overlapping, diagonal stripes in various shades of red, extending from the bottom left towards the top left.

Building a Business Framework Designed for Hybrid Multi-Cloud Data Management

The IT Landscape is Changing



The Rapid Rate of Change Occurring in Business and Technology is Breathtaking

As organizations evolve to more complex IT frameworks (on-premises, hybrid cloud, multi-cloud) and edge environments that incorporate the Internet of Things (IoT), there's a growing need to understand performance, cost optimization, security, and privacy like never before.

The center of a best practice approach must include a complete view into your organization and its technology framework. Today's enterprises require insight into everything from performance and costs to network flexibility and agility. It's critical to keep an eye on data management capabilities, open-source components, cloud containers, machine learning and AI, and security and privacy functions. When an enterprise has the ability to understand and manage all these processes, it can unlock the full value of technology and maximize innovation and disruption.

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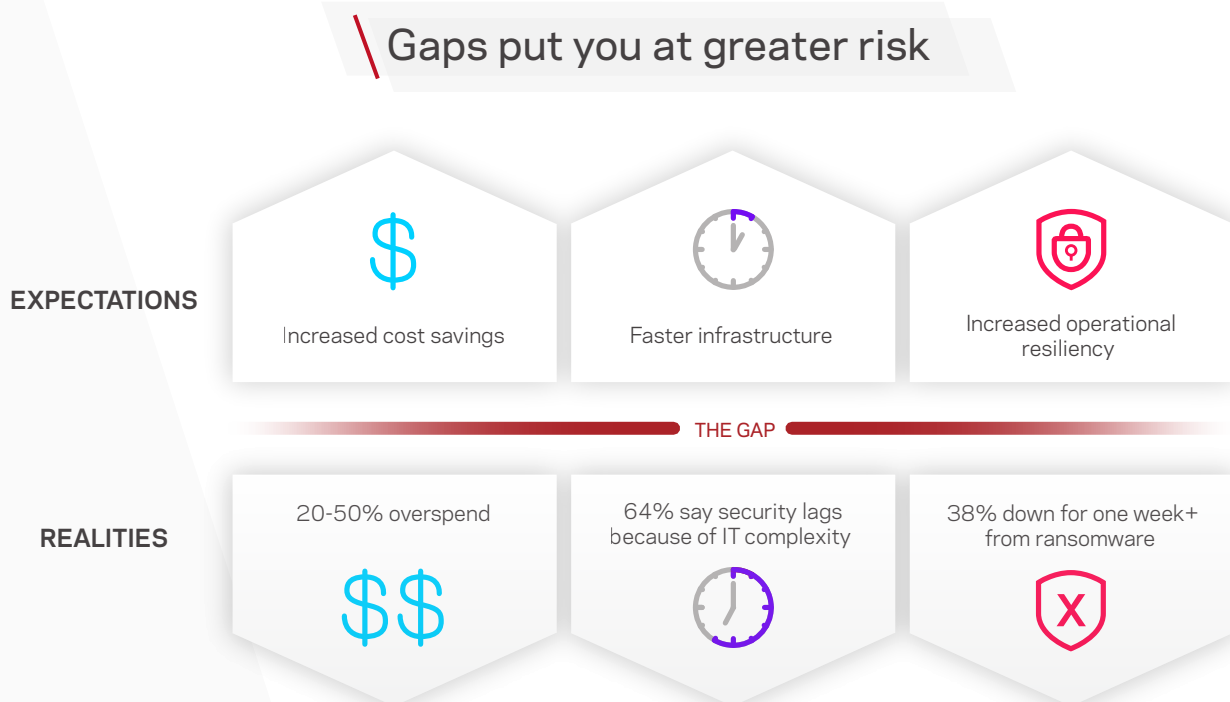
It's Critical to Mind the Gaps

It's no secret that enterprise technology is undergoing radical change. In many cases, business initiatives and digital technology outpace an organization's data management and data insight capabilities. This leads to performance and resiliency gaps like governance challenges and data protection headaches—all exacerbated by a tendency to overspend by, in many cases, 25–50 percent for unnecessary tools, technologies, and solutions.

Unfortunately, these gaps are common. These same gaps open the door to ransomware attacks and other cybersecurity and data privacy risks.

When organizations find themselves mired in this environment, the result is more time and money spent addressing issues on an ad hoc and manual basis. Every event, tool, and process requires a separate discussion. As technical debt grows and the framework becomes more frayed, managing performance, costs, and resiliency becomes more unattainable.

The accumulation of these liabilities introduces roadblocks to business innovation and disruption. It's more difficult for people to do their jobs well because they're devoting more time and energy to dealing with unnecessary tasks. At some point, the situation undermines an organization. As the old saying goes: It's death by a thousand paper cuts.



A New Era Emerges

A starting point for navigating this fast-changing environment is to recognize that eliminating cost, performance, and resiliency gaps is critical. To extract the maximum value from information technology, an organization must introduce efficiencies that transform the infrastructure. It's critical to keep an eye on four factors en route to a digital enterprise:

Transformation

To build a more proactive organization, key decision makers need the right information at the right time. Data agility, portability, and integration are essential. What's more, as IoT gains prominence and data analytics and AI take place in clouds and at the edge, potential barriers to innovation increase. This debt is no one's fault: It's the byproduct of an IT framework that isn't properly orchestrated. Even the newest and more leading-edge tools, solutions, and capabilities can fall into the gap trap.

Optimization

Orchestration is a core requirement; however, technology must continue to iterate, grow, and change for an organization to adapt and evolve. This helps an enterprise steer clear of digital transformation gaps that eventually lead to breakdowns and failures. A strategy focused on ongoing assessment and action ensures that an organization will stay on track for IT and business initiatives.

Protection

The challenges of protecting an enterprise aren't lost on anyone. Threats are growing, and many types of malware are becoming more risky, costly, and destructive. In many cases, today's ransomware attacks can cost millions of dollars or more—all while old-fashioned data breaches cost millions and erode consumer trust in a brand. Meanwhile, data privacy regulations are becoming more stringent and consumers are becoming more adamant about their data being guarded. Modern approaches must revolve around orchestration, recovery, and governance—lest you want technical debt and other problems to increase.

Visibility

When organizations achieve deep visibility into networks and infrastructure, it's possible to assemble a complete picture of components and the relationships that exist within an IT framework. While this drives performance gains, it also allows the enterprise to understand actual costs.

A holistic, orchestrated framework ultimately leads to digital resiliency at scale. In this environment, an enterprise can transform apps and architectures to:



Meet the new normal in whatever form it takes



Protect against ransomware and business interruptions



Continuously optimize for costs, compliance, and operations using data and analytics

This best practice framework boosts agility, portability, and flexibility across core infrastructures, hybrid and multi-cloud frameworks and devices, and data at the edge. It introduces an API-first strategy and best-in-class integration capabilities that break down IT and data silos. It's a foundation for now and the future.

What you can achieve with Veritas

77%+
cost savings

50%+
faster & more agile

Near
**zero
downtime**

Taking Digital Performance to a New Level

The ability to close data management gaps across core, cloud, and edge infrastructures increasingly determines whether an organization competes or excels.

One thing that has made the task more challenging is the introduction of COVID-19. It has altered work habits, supply chains, consumer behavior, and the information technology required to support a more decentralized, dynamic business framework. In many respects, the pandemic has accelerated changes that were already in motion. It has also made things more unpredictable.

As a result, in either a pandemic or post-pandemic environment, there's a need for organizations to adopt a more strategic, holistic approach to IT and network infrastructure. Digital requirements continue to change—often rapidly and with little warning. Organizations must be agile and flexible enough to act and react without delays. This is only possible with the right data, information, and knowledge. For many enterprises, all signs point to a need for more robust insights and reporting.

There are five critical factors for taking reporting and insight capabilities to a higher level.



Step 1:
Create a Game Plan



Step 2:
Think and Act Holistically



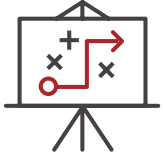
Step 3:
Find the Gaps



Step 4:
Understand the Data



Step 5:
Build a Framework for Success



Step 1: Create a Game Plan

Asking these five key questions will help you better develop an orchestrated business and IT framework.

What's our cloud strategy, and how will it likely change and evolve?

Cloud strategies are complicated. Hybrid and multi-cloud environments—along with the growing use of containers and open source code—introduce an array of strategic and tactical challenges. Developing a strategy is a starting point. It's also essential to maintain and update it as conditions and requirements change.

How do we plan to migrate apps and data to the cloud? And what will the overall data framework look like as the edge and IoT become more prominent?

Migrating apps, data, and other components to the cloud introduces potential snags. If apps don't connect correctly, data flow is disrupted and security vulnerabilities appear. There are also potential costs associated with an inefficient migration. Plus, there are ongoing network congestion and storage costs to keep an eye on. This makes the cloud ideal for long-term data retention. Yet, it's important to confirm that changeovers occur seamlessly.

What does our backup and restore framework look like? And how does it impact cyber threats like ransomware?

Many organizations still rely on tape backups in some form. As an organization migrates to the cloud, these tape backups present speed and performance challenges, as well as risks. If a disaster or ransomware attack occurs, recovery point objectives (RPO) and recovery time objectives (RTO) become critical. There's a need to get data back online fast through a framework that allows disaster recovery (DR) to and from the cloud. To avoid guaranteed downtime, a business must aim for high availability and near-zero downtime. Infrastructure-agnostic recovery is vital, along with orchestrated failover.

What does our cost management framework look like?

Too often, an accumulation of solutions and vendors leads to higher costs and often fails to address problems in the most efficient manner possible. The ability to view everything through a cohesive dashboard allows you to monitor and act on events, increasing awareness, saving money, and boosting results.

Do business units and key executives have input into what the IT and data frameworks look like?

Today, IT and business functions are inextricably linked. As clouds become more pervasive and IT frameworks more complex, it's essential to ensure that key business leaders have input into how systems are designed, data is managed, and access to applications and data takes place.



Step 2: Think and Act Holistically

Adding more tools and technologies doesn't always equal better results. When they are added, it's vital to ensure they are thoroughly integrated and orchestrated.

There are multiple factors to keep an eye on: protecting all your data, moving to the cloud for long-term data retention, migrating mission-critical apps, enabling DR to and from the cloud, optimizing cloud costs, and achieving near-zero downtime. Of course, it's not unusual to encounter questions and objections, including whether a less expensive or more reliable solution exists. However, it's crucial to remember that fast, cheap, and reliable are unattainable within a single product—the goal is to find the best solution at the best price.

In addition, a best practice approach promotes a high level of integration through an API-first strategy. This strategy should tie together any workload on any cloud in any architecture, including proprietary and homegrown stacks.



Step 3: Find the Gaps

Digital transformation efforts are accelerating. Tasks that used to take months or years must now take weeks—sometimes days. In addition, the sheer number of IT initiatives taking place ensures that potential gaps will appear. Organizations that approach cloud migrations and multi-cloud frameworks haphazardly increase their exposure to ransomware risks, shoddy infrastructure, data protection issues, and other problems.

It's wise to rely on a technology framework that offers the right tools to identify problem areas. This includes e-discovery, migration paths, and orchestration tools and software. When these tools work synergistically, the risk of a gap diminishes.



Step 4: Understand the Data

Data is the currency of digital business. It drives business performance and unlocks value, so it's vital to classify data so it can be appropriately managed and protected. This includes cloud-based archiving that's compliance-ready. Regulatory requirements from the EU's General Data Protection Regulation (GDPR) to the California Consumer Privacy Act (CCPR) necessitate insight into data so it can be protected, managed, and shared appropriately.

But the challenge doesn't stop there. AI and machine learning increasingly take place in the cloud and at the edge. Organizations must share data with business partners and even competitors. When an enterprise successfully manages its data, it's possible to use protection tools like data de-identification, tokenization, and encryption to maximum advantage.

The Rewards of Orchestration

- Renault lowered its IT costs by 60 percent through an orchestrated hardware-agnostic approach.
- Ecuadorian bank Produbanco slashed recovery time for core systems from 48 hours to 7 hours.
- Nokia reduced total cost of ownership (TCO) by \$2.5 million using an orchestrated Veritas framework.
- Kyocera lowered disaster recovery operational costs by 60 percent by adopting a holistic framework.





Step 5: Build a Framework for Success

A best practice approach revolves around a framework of total integration. This means that every application, device, cloud, and network component is connected and the enterprise has a complete understanding of what's out there and where it is.

Yet, the value of a holistic framework extends beyond IT. It also supports business-level visibility and unlocks the full value of data and systems. This can catapult an enterprise into the realm of business innovation and disruption.

The answer is a single platform that supports all major cloud providers and container platforms. It should:

- Be cloud-agnostic
- Deliver total data portability across hybrid infrastructure
- Offer granular recoverability
- Support ultra-high levels of data compression
- Be able to seamlessly tie together edge, core, and cloud
- Achieve elastic scalability

This framework, with end-to-end infrastructure awareness, can spot failed backups, vulnerabilities, and other concerns proactively. It's a recipe for digital business success.

The Benefits of Deep Visibility: Achieving an Optimal State

Organizations that adopt a connected, resilient framework gain far greater insight across heterogeneous technologies, clouds, and other infrastructure. They can:

- Achieve business unit-level views of consumption
- Analyze hybrid and multi-cloud resource consumption
- Adopt behavior-driven alerts to prevent overutilization
- Use a single dashboard for physical, virtual, and multi-cloud resources
- Introduce enhanced chargeback techniques, regardless of the asset location
- Dramatically improve data management, including disaster recovery
- Advance cybersecurity and data privacy initiatives
- Adopt more sophisticated IoT-edge and AI/ML data models

Getting to Intelligence

As digital technology matures and a borderless world of data takes shape, organizations must evolve from manual and disconnected tools and processes to a more unified approach for data management and data security.

The ability to view, understand, and act on data through a centralized dashboard is critical. And the ability to automate disparate processes across an array of technologies is imperative.

The end goal is availability, protection, and insights. Organizations that adopt a best practice approach lower their costs and improve performance. They unlock the full value of digital technology.

Learn more at veritas.com/solution/cloud.

ABOUT VERITAS

Veritas Technologies is a global leader in data protection and availability. Over 50,000 enterprises—including 87 percent of the Fortune Global 500—rely on us to abstract IT complexity and simplify data management. The Veritas Enterprise Data Services Platform automates the protection and orchestrates the recovery of data everywhere it lives, ensures 24/7 availability of business-critical applications, and provides enterprises with the insights they need to comply with evolving data regulations. With a reputation for reliability at scale and a deployment model to fit any need, Veritas Enterprise Data Services Platform supports more than 800 different data sources, over 100 different operating systems, more than 1,400 storage targets, and more than 60 different cloud platforms. Learn more at www.veritas.com. Follow us on Twitter at [@veritastechllc](https://twitter.com/veritastechllc)

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