

Get the Best of Both Worlds with Hybrid IT

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IN THIS PAPER

Due to economic, regulatory, and governance constraints, a 100% public cloud approach is out of the question for most organizations. The IT infrastructure of the future is decidedly hybrid, taking the best of public, private, and hosted/managed cloud and running each workload in the right location for its needs. Starting the process with thoughtful questions—and a curated list of business and technology objectives—should make selecting the right partner and transitioning to a hybrid IT environment an empowering endeavor.

Until recently, enterprise IT managers were pressured to decide between adopting the cloud or an on-premises computing model. That's no longer the case. Technology developments have eliminated the "adopt or not-adopt" cloud discussion. The question today is which elements of the enterprise infrastructure should be accessed through a public or private cloud (or combination), and what will stay on-premises or in an off-site data center.

If you're planning to take advantage of cloud services, adequate network performance, low latency, and good ISP connections are crucial, especially for end users geographically distant from data centers.

Per a recent Gartner Inc. report, "Enterprise use of multiple cloud providers is now commonplace; according to McAfee, 60% of enterprises now use 21 or more public cloud services. And, as enterprises add cloud services, I&O [infrastructure and operations] leaders find a growing need to interconnect them (e.g. linking a customer database housed in a colocation center with a new SaaS-based outbound CRM tool)."

Getting Started: Top Questions to Ask Your Cloud Migration Partner

If you're planning to take advantage of cloud services, adequate network performance, low latency, and good ISP connections are crucial, especially for end users geographically distant from data centers. But recycling legacy solutions won't meet expectations. For most companies, connecting the pieces of this complicated puzzle requires specialized expertise. In other words, it requires a partner.

The process of finding the ideal cloud migration partner will likely entail a lot more questions than answers, at

least in the beginning. During your due diligence phase, you need responses to basics, such as:

- How do you help customers make IT decisions that align technology with desired business decisions, while mitigating risk?
- What's your role in creating infrastructure maps (virtual vs. physical)?
- What are the KPIs that determine where those apps should live?

Putting Your Hybrid Cloud Vision in Motion

As you begin your digital transformation journey, it helps to understand the differences between public, private, and hybrid clouds. All of these options often can co-exist with an on-premises solution such as a data center or a co-location facility managed by a service provider.

Public clouds provide infrastructure and services to the public, and resources are shared with other companies. The most widely used public cloud services are those offered by Google, Amazon, and Microsoft.

Private cloud solutions are dedicated to one organization or business, and usually offer more security controls than a public cloud. This appeals to companies that handle sensitive information, such as financial or healthcare organizations.

A hybrid cloud is a mix of public and private cloud solutions. For example, some organizations use private cloud environments for their IT workloads and public cloud resources to handle spikes in network traffic.

Many enterprises choose to adopt a hybrid IT enterprise architecture to improve agility and security and to better align IT with business needs. For example, some organizations want to free up IT staff resources so they can move to higher-value, revenue-producing initiatives. Others are looking to seamlessly scale up to the cloud based on the fluctuating demands of the business, without compromising data security.

An important aspect of any migration plan is the transition roadmap. One way to move forward is to transfer an application to the cloud, validate that it works, and then move data from the on-premises stack to the cloud. Another possibility is to conduct a trial run with a few users to make sure all the affected applications are well-oiled and working before repositioning everyone to the new hybrid IT infrastructure.

Making Your Digital Transformation Path Transparent

These migration procedures should be developed in conjunction with your expert partner—after all, you’re bringing in a third-party vendor because they have experience with this stuff. That’s why choosing the right partner is crucial.

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In terms of experience and expertise, US Signal is one of the best, in part because it leaves nothing to chance. And if it doesn’t, you won’t either. Your US Signal team will help you map out the entire process and develop a plan to get your enterprise hybrid IT configured to realize the best possible business outcomes. If you move to a US Signal cloud, the transition won’t be difficult.

Depending on your needs, the US Signal team can take on some or all of the data migration process, including assessing application cloud-readiness, determining and executing the appropriate migration methodology, and creating a post-migration plan. The US Signal professional services team is experienced in executing successful cloud migrations and making the transition seamless.

Ensuring your business can continue operations and recover crucial data and applications if a disaster

strikes is critical. Continuity is also essential to your organization’s survival and success, so it’s reassuring to have a professional services team consisting of disaster recovery (DR) experts.

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The team can take on the management and monitoring of your backup and data recovery services, freeing your staff to focus on more strategic endeavors.

US Signal Becomes an Extension of Christian Brothers Services’ IT Operations Department

In every business, circumstances change over time, often prompting IT to rethink the company’s technology needs. That was the case with Christian Brothers Services, a nonprofit organization that provides a variety of benefits programs to congregations, organizations, and dioceses throughout the United States and Canada.

After reviewing its technology needs, the organization decided to get out of the data center business and move from an OpEx to a CapEx model so IT department personnel could take on more strategic, higher-value projects.

With leases and service-provider contracts coming due, Christian Brothers Services began vetting prospective partners. End-to-end services, including a hybrid cloud option, and DR management were on the list of mandatory service offerings. Built-in resiliency was also a priority.

Christian Brothers Services selected US Signal to take the reins:

“US Signal was able to put together the complete package of products, services, and people. We found them to be very

knowledgeable, personable and experienced and, all things being equal, we're always going to pick based on people.”

The package of products and services US Signal delivered included:

Redundant MPLS WAN: A diverse last-mile and street-level route design minimized down time, and MPLS WAN provided predictable network performance and a quality end-user experience.

Internet with Cloud-Based Advanced Security +: Centralizing Internet services at the data center provided protection against Internet threats to the data network.

Resource Pools: For the Christian Brothers Services x86-64 servers, enterprise cloud ensured high availability, a HIPAA-compliant-ready architecture, and granular scalability at an affordable cost.

IBM I Series Hosting/Hosted Private Cloud: Providing an IBM I series platform, in a single-tenant IaaS model, enabled locality for the X86-64 servers and a hosted private cloud OpEx model.

Enterprise Backup-as-a-Service: With an established framework for management, monitoring, and remediation, Christian Brothers Services outsourced its backup to US Signal.

Disaster Recovery-as-a-Service: To improve workload resiliency, DR services enabled geographic diversity to a secondary US Signal warm site using a continuous data protection model, and provided a much lower Recovery Time Objective (RTO)/Recovery Point Objective (RPO).

Now, the Christian Brothers Services IT operations team can be more responsive to the business, rather than worrying about hardware or software upgrades. Also, because US Signal is handling IT infrastructure management, DR, and backup, fewer overtime hours are required.

Consolidating data center and data protection operations with US Signal greatly improved the organization's RTO and RPO. On average, RPO is below 20 seconds for items protected by US Signal's Zerto-based DR (**Figure 1**). The RTO for Zerto-protected items is one

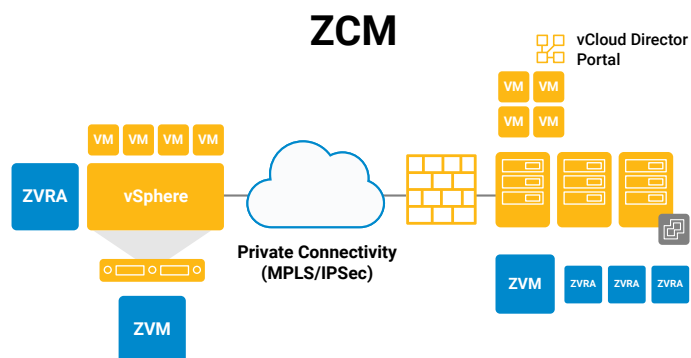


Figure 1: The US Signal Zerto Cloud Manager (ZCM) is a Windows-based service that's used as a management layer above the Zerto Virtual Manager (ZVM)

hour, based on the initial DR test. In the end, Christian Brothers Services finally found a long-term partner instead of just another vendor.

US Signal Hybrid IT Deployments Meet and Beat Customer Expectations

In-house IT professionals are busy. Most are short-staffed and operate on miserly budgets. Researching alternate ways to use cloud technologies, and how to architect and test them, just doesn't make the priority list. The only good option is to partner with a service provider.

While there are certainly other IT solution providers you can choose, here are some good reasons you should consider [US Signal Cloud Services](#):

- US Signal takes a consultative approach. The company takes the time to understand your organization's short- and long-term business goals, current IT strategy, and other factors before proposing IT solutions best-suited to your needs. US Signal also offers rightsizing recommendations to help optimize resource usage.
- Recommendations are workload-based. Unlike "swipe your credit card and go" cloud services, US Signal is designed to run production-class workloads. You'll get the uptime and high-performance environment you need to handle critical enterprise workloads, as

well as web, mobile, and social applications, DR, and industry-specific solutions.

- You choose the resources you need and dynamically allocate them when and where they're needed. And, when more than one cloud service is required, US Signal can help develop a hybrid cloud IT strategy and provide the secure networking connections to move data safely between the various IT environments—including Amazon Web Services (AWS).
- You won't have second thoughts about meeting compliance regulations. US Signal undergoes rigorous independent audits each year to validate its compliance with HIPAA and PCI DSS. Not all the big-name cloud service providers (CSPs) can say the same. Nor do all of them offer the resources of an in-house compliance officer to answer your questions, provide audit documentation, and more.
- You can trust the US Signal network. US Signal owns and operates its carrier-grade network and can minimize network downtime and latency while ensuring reliability, speed, and security. The network is built on leading-edge Cisco technologies, designed with redundant architecture, and continuously monitored by US Signal's Technical Operations Center (TOC).
- Access to [24/7/365 service](#). US Signal's [white glove service](#) means having technical experts available 24 hours a day, every day of the year. Calls to US Signal's TOC are typically answered by qualified technicians within 30 seconds.

The IT infrastructure of the future is decidedly hybrid, which means taking the best of the public, private, and hosted/managed cloud and running each workload in the most suitable location. Starting the process with thoughtful questions—and a curated list of business and technology objectives—should make selecting the right partner and transitioning to a hybrid IT environment an empowering endeavor.

COMPARE YOUR DATA CENTER CHALLENGES WITH OTHER IT PROFESSIONALS

Have you been impacted by ransomware? Are you sure your DR will behave as promised if an unexpected event should strike?

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US Signal asked those questions and others in a study on today's states of data center offerings, which surveyed 110 U.S.-based IT decision makers. See what your peers have to say in the [State of the Data Center](#) survey results.