Using AWS as Your "Cloud-Attached" Data Center
The cloud-attached data center isn’t the future – it’s the present

Today’s data center is always on. To stay that way, it’s leaning heavily on the public cloud. IT decisions have become critical business priorities for companies of all sizes. Internet-based, customer-facing systems have become mainstream. Automation throughout the enterprise is proliferating and permeating every corner of business – with no plateau in sight.

Amid all this, public clouds, such as Amazon Web Services (AWS), have emerged as vital resources that enable the speed of today’s business landscape. Factors like scalability, agility and speed at a cost that fits any IT team’s moderately expanding – or flat – budget make the public cloud an extremely attractive choice. That’s why, according to IDC, more than 65 percent of IT shops are committing to a hybrid cloud strategy in 2016. However, without an effective way to manage resources across your entire environment, you will likely encounter complexity issues that may cripple or dramatically increase the cost of your hybrid IT initiatives. Enter the solution: a “cloud-attached” data center.

What is a cloud-attached data center?

In the same way that network-attached storage (NAS) resources are shared across an IT environment, a cloud-attached data center follows the same principle – logically attach the public cloud to your on-premise environment for a shared pool of resources.

The key to success is streamlining your cloud-attached data center with operational management that easily unifies all of the resources. Gone is the traditional complexity of bringing together two disparate sites. With a modern cloud-attached data center, you get the agility you need, the unified management you want, and the cost savings your CFO demands.
Top use cases for cloud-attached data centers

A cloud-attached data center is valuable for organizations of all sizes, across all industries. It’s no secret that leveraging the public cloud can shrink expensive data center footprints and enable new services to come online quickly. When evaluating workloads and use cases for a cloud-attached environment, these should be first in line.

1. **Disaster recovery and business continuity (DR/BC)**
   A major outage can financially devastate any organization. However, research shows nearly 75 percent of organizations are failing in their disaster readiness efforts. A cloud-attached data center is the best way for any company to secure the protection it needs. With DR/BC often referenced as the “killer app” for the public cloud, having your secondary data center in AWS at low, pay-as-you-go pricing is within the budgetary reach of even small and medium-sized companies.

2. **Bursting to the cloud**
   For many businesses, IT capacity and performance requirements are at a peak during certain months, weeks, hours or even minutes. Public cloud resources are a perfect fit for this use case. Local IT can build out the infrastructure for steady-state, and the public cloud can fill in for the peak loads. This way IT isn’t overprovisioned, and you can benefit from paying for what you need, only when you need it.

3. **Hybrid IT operations**
   As companies migrate workloads to the public cloud, most plan to keep their on-premise data centers. So, a practical way to administer, manage and operate hybrid resources becomes a priority very quickly. A well-integrated cloud-attached data center can extend your existing management environment to public cloud resources like AWS, so you will have a single pane of glass to decrease operational complexity. A seamlessly integrated on- and off-premise computing model is a must-have on your hybrid to-do list.

4. **Development and testing**
   The timeframes from concept to production are rapidly shrinking across every industry. With digital commerce as the new backbone of competition, convergence of dev/test and production environments are creating big challenges as traditional methodologies are becoming obsolete. Cloud-attached data centers are well-designed for easy integration on the front-end and rapid transition on the back-end. To have confidence throughout the lifecycle, a cloud-attached approach is the perfect fit.

A cloud-attached data center creates a **seamless** pool of computing and storage resources at budget-friendly prices.
How to transform your IT infrastructure to support hybrid environments

A cloud-attached data center doesn’t just extend the life of your IT infrastructure — it transforms it. However, this transformation doesn’t just happen. IT needs an architecture for the streamlined management of diverse internal and external resources. But don’t overly complicate it! Here are a few key priorities to help make this process successful:

✓ Management infrastructure is the foundation of a cloud-attached data center. Basic cloud backups or moving a couple of workloads to AWS won’t yield the aggressive gains that an integrated hybrid environment can. Beware of management silos. If you encounter chronic operational hiccups in your hybrid cloud deployment, you are probably not on the road to transformation. Unified management and a single, logical resource pool is vital for any company that aims for a cloud-attached transformation.

✓ Extending existing tools can eliminate the complexities that typically go along with hybrid deployment. If you try to combine too many new products, workflows and skill requirements, success will be elusive. Instead, look at cloud-attached solutions that natively extend your existing IT management environment, which you’ve already mastered and find easy to use.

✓ Modern approaches are software-defined, but walk before you run. Often, software-defined anything means expensive and complicated. Look for technologies that ease the complexity by abstracting management, networking, workload conversions and tool integration — not those that force you to reengineer your environment or purchase a collection of new products. A software-defined, cloud-attached approach should make your life easier, not harder as you incorporate the public cloud into your data center.
VMware vCenter is the gold standard for on-premise virtualization management. By extending its functionality to hybrid platforms, your cloud-attached data center can natively administer and manage resources like AWS natively inside vCenter. You can easily eliminate your networking and security concerns since you are using the same access controls and policies that you have already tested and refined. As a result, the new management process will emulate the proven management process of today. With vCenter as the single point of hybrid management, you’ll have the benefits of a battle-proven operating environment with the flexibility to extend it to public cloud services like AWS. Easy hybrid management examples include:

- Fine-grained host and virtual machine (VM) administration, management and monitoring
- Seamless cross-platform cloning, snapshots and migration
- Provisioning to cloud platforms from existing VMware templates
- Easy automation across hybrid environments using PowerCLI and Orchestrator

You will have even more unique, yet critical features for a cloud-attached environment:

- Consolidated security controls
- Software-defined hybrid networking
- Integrated and automated workload conversion
- Hybrid performance analytics
- Native interoperability with vCenter-compatible tools
A cloud-attached data center isn’t just an interesting idea for the future – it’s critical today

A true cloud-attached data center can augment IT in any industry, with any type of production applications.

Even though most organizations start with AWS, due to its market-leading feature set, it doesn’t have to end there. By taking a cloud-attached approach, you are enabling a vendor-agnostic future, opening doors for endless possibilities for cloud usage of Microsoft Azure, Google Cloud Platform, OpenStack and more.

Once you cloud-attach your existing IT environment to AWS, you can replicate this success with other IaaS providers in the future.

A cloud-attached data center integrated seamlessly with on-premise resources will drive home meaningful ROI for hybrid IT and enable new products and services to come on-line quickly and predictably. With cloud-attached resources leveraged at scale and in production, you can access the agility, scalability and cost-effectiveness of the public cloud and pave the road to your future in the competitive business landscape.

Industry analyst firm Gartner consistently ranks AWS as the overwhelming market share leader for public cloud infrastructure as a service (IaaS), providing 10 times more compute capacity than its next dozen or so IaaS competitors – combined! As AWS leads the pack in IaaS innovation in the private sector, it’s also pulling its weight in the public sector. Government agencies are turning to AWS GovCloud, an isolated AWS cloud region designed for sensitive data, heightened security and regulatory compliance.
Launch your cloud-attached data center today, and start reaping the benefits quickly

Every IT organization stands to benefit from the public cloud. Its scalability, flexibility and economics are unmatched, which enables cloud-friendly businesses to reach their business goals and create the IT computing models that will enable their futures — better, faster and cheaper than their competitors. As the public cloud becomes a more integral part of every industry, a cloud-attached data center is the backbone.

HotLink Cloud-Attach™ is the first technology of its kind to deliver out-of-the-box interoperability between VMware on-premise infrastructure and cloud-based resources like AWS. HotLink’s unique, patented architecture enables users to move seamlessly between their traditional IT systems and cloud-attached resources, and its software-defined approach makes the public cloud virtually invisible to an on-premise operating environment. Users get all of the cloud’s value, with none of the traditional complexity and cost associated with bringing together disparate data center sites.

For more details or to learn more about HotLink Cloud-Attach, please contact us today at sales@hotlink.com.