

POINT OF VIEW

Hybrid Cloud Considerations

Business needs must be top-of-mind in the planning stage

“The cloud” means something different to every technologist, line of business leader, and CIO. Some think of private cloud. Some think of public cloud services like AWS and Azure. Others think of a hybrid cloud approach, where capabilities are both on-prem and in a public provider. Regardless of which term you use, we firmly believe that **Cloud is not a place. Cloud is a set of disciplines.**[™]

Cloud disciplines deliver a consistent experience for end-users; enable a self-service delivery approach; leverage best-of-breed technologies, whether on-prem, off-prem or through a provider; and deliver capabilities in a secure manner. ●●●



Adopting the 5 Cloud Disciplines

Adopting cloud disciplines provides the adaptability, resilience, and flexibility required for businesses to survive, compete, and grow in an unpredictable world. These disciplines do not automatically exist after adopting a hybrid cloud strategy; your organization must cultivate them to ensure your strategies directly meet your business and workload needs. The five cloud disciplines include:

- 1. Reliability scalability and agility:** Enhanced networking for a hybrid cloud infrastructure enables adaptation, changes, agility, and scalability. A flexible, adaptable network implementation that also effectively enforces security policy expectations allows innovations built on cloud to reach service consumers. This integrated environment, from the data center to the edge to the public cloud, is critical to ensure data is accessible in the right location at the right time.
- 2. Ease of use and self-service adaptation:** An effective hybrid cloud approach allows users anywhere to connect to and access an application or digital service instantly and easily. Services may need to connect to other services located in disparate environments, perhaps provided by a third-party vendor. These complexities should be hidden from the end users while allowing them access to a vast pool of resources to implement their solution. Regardless of the application's underlying resources and where those resources are distributed, the user experience should be seamless.

Use Case

Take a look at how Evolving Solutions has helped clients deploy effective security strategies:

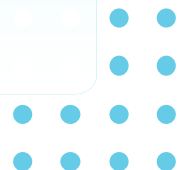
CLIENT PROFILE:
Fortune 250 manufacturer

CHALLENGE:
Develop operational best practices for a new cloud-native application that supports a key business venture before moving it from beta into production.

HOW WE HELPED:

- Implemented well-architected framework best practices
- Migrated the application from a development and test environment into a production environment in the public cloud (AWS)
- Provided client team training on required new practices and remained engaged to support the environment

RESULT:
Delivered a flawless roll-out of the application, which provides production level support in the public cloud that equals client standards for internally hosted applications.





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By leveraging this enhanced approach, an organization can enable a self-service mentality for its technology users, whether they are developers or non-technical employees. An employee should be able to go from an idea to development instantly, without assistance from operations staff. Users can innovate more quickly with the ease of use, control, and rapid access of a hybrid cloud environment.

- 3. Availability, resilience, and elasticity:** The ability to scale to meet business demands is critical and drives important business efficiencies, and automation plays a key role. Availability, resiliency, and rapid scalability are achieved in the cloud by deploying resources across virtual availability zones. This allows for the implementation of the traditional concepts of high availability and disaster recovery without the traditional sunk cost of additional facilities that an organization must manage.
- 4. Security:** Hybrid cloud can create security challenges; your organization is responsible for a cloud security strategy that appropriately meets your business and workload requirements.

You also must examine which cloud products work better within certain environments, and how your security strategy should evolve based on what you are using.

Your hybrid cloud security strategy must be consistently maintained; cloud providers will not do this for you. Security strategies must not become outdated. You should evaluate your business needs in relation to your security measures to ensure security levels for applications, systems and networks are always where they need to be.

- 5. Cost control:** Consider how cost fits in to your hybrid cloud strategy. Most organizations spend years optimizing costs of operations. However, cloud brings a different element to the cost conversation. To fully reap the benefits of a cloud strategy, think about it in terms of cost control, rather than cost savings. Ask yourself, how can I deploy the most effective hybrid cloud strategy, what are the costs associated with it, and how will these investments pay off in the future? A focus only on cost savings can lead to a sub-par cloud strategy that isn't designed to meet organizational needs.



Use Case

CLIENT PROFILE

Biomedical manufacturer

CHALLENGE:

Support migration of mission-critical application from the client's data center to public cloud; the client team had a lack of experience with core capabilities in public cloud.

HOW WE HELPED:

- Prioritized and delivered on tasks core to providing foundational capabilities for the new application architecture
- Worked side-by-side with the client team to bring operations up to speed in the new application environment

RESULT:

Launched application on time and without impact to end users.

Hybrid Cloud Best Practices

In addition to the foundational disciplines required to deliver and operate a hybrid cloud environment, organizations should take the following best practices into consideration to maximize the value of hybrid cloud:

ALIGN DEVELOPMENT AND OPERATIONS

A product-based approach to developing services provides agility and flexibility. The cloud is defined by continuous delivery and continuous improvement, both for applications and infrastructure. The focus in the cloud shifts from traditional, completion-driven “deadline” projects to zero-day projects—deliverables that go from concept to delivery in a matter of hours.

EVALUATE COSTS AND TECHNICAL CAPABILITIES

Any feature or capability in the cloud can be tied to billing or usage metrics. As an operational practice, decision trees can be created for adding new capabilities. For instance, ensuring characteristics such as memory usage or bandwidth required are closely aligned with the requirements of a service. Over time, an organization can build approval gateways and parameters based on usage to ensure access to the right resources at the right time.



Cloud Misconceptions

When adopting a hybrid cloud strategy, be careful to avoid the following misconceptions:

THE CLOUD IS AUTOMATICALLY SECURE FOR MY BUSINESS PURPOSE

Hybrid cloud environments are particularly challenging from a security perspective and require a thoughtful and strategic security approach. You must consistently attend to your hybrid cloud security strategy, while adhering to new enhancements. It is important to ensure levels of security are consistent and appropriate for the workloads.

ONCE I'M IN THE CLOUD, EVERYTHING LOOKS THE SAME

There are different sets of tools for public, private, and hybrid cloud strategies. You must make choices as a business on how you want to manage those different clouds, and whether you want to manage them in a consistent way.

THE CLOUD IS ALWAYS LESS EXPENSIVE

While a hybrid cloud approach offers many benefits and allows you to only use the compute you need, savings are not immediate. To fully realize cloud benefits, you must invest in security, resiliency, and automation, which means some added initial costs.

Business Outcomes of Leveraging Hybrid Cloud

Most organizations have existing technology investments that support their core business. Often, it's not feasible to simply rip and replace these environments. The technical debt accrued in this scenario can inhibit an organization from rapidly deploying new capabilities to support business changes. It makes sense for organizations facing these challenges to deploy a hybrid cloud model—leveraging existing technology assets and investments, while combining them with additional capabilities from public cloud providers or as-a-service vendors.

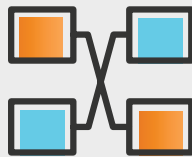
A hybrid cloud strategy, when properly implemented, managed, and maintained, can offer reduced time-to-market, cost control, and the ability to quickly pivot and adapt.

Action Recommendations

There is not a one-size-fits-all hybrid cloud strategy. Instead, you must examine your organization's business needs and goals closely to create a strategy that works best for you. However, there are some immediate steps you can follow while working to develop an effective hybrid cloud strategy:



Ensure the five defining cloud disciplines are in place and develop a plan to implement any that are missing or deficient



Map each discipline to the unique value provided to your business



Create a plan to consistently maintain your cloud security strategy



Align cloud services cost structure to business impact and value to ensure the best outcomes

Use Case

CLIENT PROFILE:

Property and casualty insurance corporation

CHALLENGES:

Required strategy to migrate core applications from on premise to public cloud infrastructure; internal team had limited skills with public cloud and needed to develop capabilities.

HOW WE HELPED:

- Provided best practices for infrastructure as code
- Collaborated to set-up data warehouse capabilities in the public cloud as a first step of the migration

RESULT:

Successfully migrated to public cloud for a workload that is well suited to public cloud, reducing costs and building public cloud capabilities. Data center-based workloads can now begin the process of re-architecture and migration taking advantage of the operational capabilities introduced for the first workload.



We're here to help your organization develop an effective hybrid cloud strategy.

Let's get to work.