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Inspire the Next

Four Steps To Accelerate Distributed Cloud Advantages

E-BOOK

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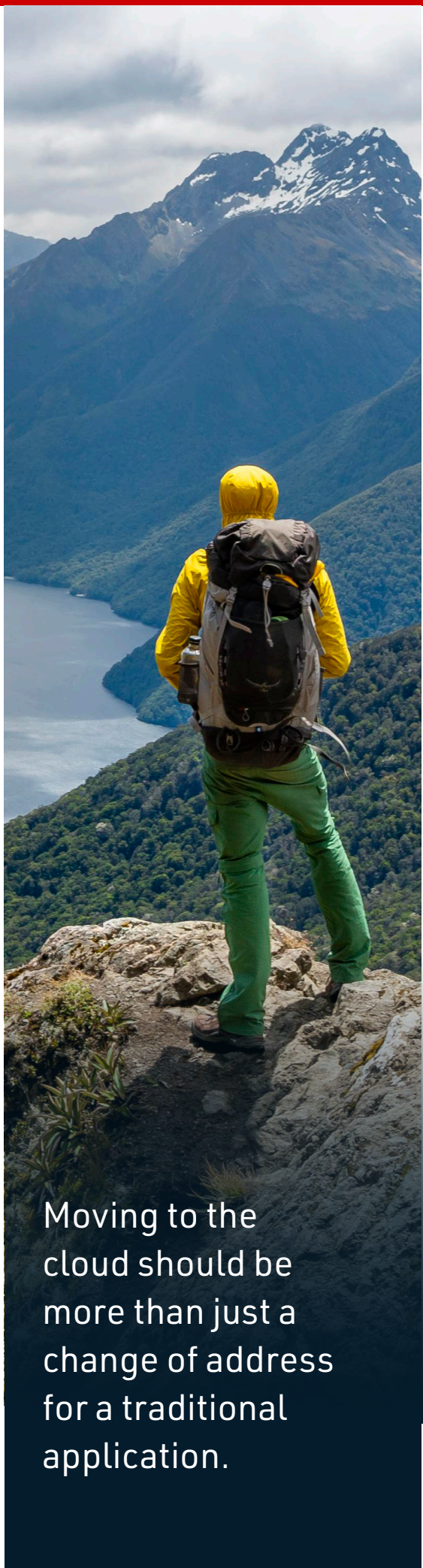
A Strategy That Moves Beyond the Advantages of Hybrid Cloud

It seems like only yesterday that the cloud was considered the destination. For technology decision-makers, choices boiled down to: “Do I want this thing in my data center, or would it be better, cheaper and faster in the cloud?” The cloud was the place to be.

Today, most IT organizations find themselves operating with what has been called a “hybrid cloud.” They run some infrastructure on premises and other infrastructure in the cloud, and sometimes they even run the same application in both places, as requirements dictate. That last bit, doing the same thing in two places at once, indicates a limitation many organizations have experienced in adopting a simple, infrastructure-focused, hybrid approach. In the end, a simple public infrastructure-as-a-service (IaaS) cloud. It’s an opportunistic choice, a purely financial decision that is in many ways no different than the choice to move to a new data center.

Even as you read that, you might be wondering, “That can’t be all?” And you’d be right. It turns out that while enterprises have been on this road to the cloud, the goals changed. We know now that moving to the cloud should be more than just a change of address for a traditional application. If implemented appropriately, the distributed cloud can offer significant advantages. An infrastructure that is organically partitioned to support modern and agile applications offers an innovative approach to meeting IT needs, which makes operations more efficient, flexible and capable.



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What Makes an Application-Focused Distributed Cloud Different?

The rising "distributed cloud" concept is a mature approach to massively distributing cloud services beyond the traditional IaaS method. Is there a best practices guide for businesses looking to identify which approach is best?

In the past, companies relied mostly on the analysis of previous business transactions to make decisions. For example, executives might have looked at historical data regarding what colors and sizes of sweaters sold the most in the past to help determine future orders. When companies modernized their applications via state-of-the-art cloud services, it became clear there are many easily accessible data points about consumer sentiment and preferences available through the cloud. So, they further enhanced their applications to look at available data to help make better choices: They began putting a microscope on consumer sentiment, improving the quality and granularity of inventory tracking and forecasting, and so on.

The cloud has evolved beyond serving as storage for data and apps to a source that supports a sophisticated "cloud-native" design. The volumes of data and integration points available in the cloud change the way applications can work, with tools such as Hadoop and object storage supporting this distributed approach. There has been a steady increase in the use of techniques like microservices and containerization that make it possible to abstract the function or service aspects of your application to support infinitely more integration opportunities.

The most effective app will be the one that makes the best use of multiple resources and is built of many services, each running wherever they can be most efficient, powerful and impactful. This type of architecture focused on consuming a wide variety of services helps make the most of the distributed cloud. Today, the primary question a business should be asking is not, "Where is the cheapest place to stick my app?" Instead, it is, "What helps me sell more?" This question is more salient to business purposes, but it raises the necessity of complicated decisions.

Developing a Road Map for the Distributed Cloud

How can we evolve from today's hybrid, IaaS-based construct to the application-focused distributed cloud? The two biggest levers to accelerate progress toward distributed cloud are:

- Unrestrained access to distributed services functions, potentially thousands of microservices that can be called upon to support any applications.
- Pervasive awareness of the constraints and requirements related to latency, performance and security that ensure productivity, user experience and so forth. One slow service that doesn't scale can do enormous damage.

To move your evolution forward, consider these four recommended steps:

Step One: Evaluate

Start with a top-down inventory of all the traditional applications and cloud services currently in use. This may include such offerings as Google Analytics services, Oracle's cloud and Amazon's compute services, as well as what's in your data centers. Develop a detailed inventory of your application footprint: all the services that are in use in your organization today. Don't just look for the big ones. Be comprehensive.

Step Two: Look Forward

Try to envision how those services will be used in your organization's future and consider what additional services may be used. We often see a significant portion of customer applications retired at the end of their natural life as a result of other planned consolidation and migration activities. A forward-looking approach may be tricky, but it has the benefit of forcing us to evaluate places where needs overlap and how different services might be coordinated to better solve your cloud challenges. A distributed approach enables the cherry-picking of the best and most valuable services from a mix of cloud vendors rather than having to choose a single vendor. This will become the norm in future application design.

Do you fully understand the risks and rewards of the path toward distributed cloud?

Step Three: The Physics

Think about the nuts and bolts of what makes your applications fit expectations. Where do you have latency issues? Where would increasing latency introduce problems to your traditional non-cloud-native apps? What will your data volumes look like five years from now? 10? These are the practical considerations of the physical requirements for cloud services that will help identify where processes need to evolve to meet these new needs. What is working today and what will your organization need tomorrow?

Step Four: Instituting Change

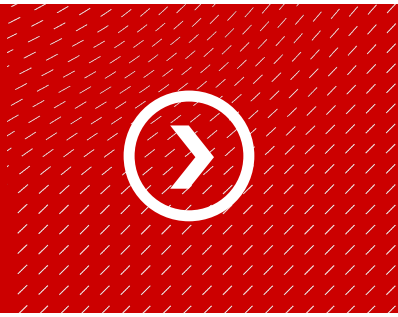
Consider what will hold your organization back from adopting distributed cloud. Do you intend to go it alone, running a two-year experiment that may, or may not deliver the results? The risk is high as most of these projects ultimately fail. Do you fully understand the risks and the rewards of this path? Maybe it would be better to have a partner who has already done much of the work and can match your road map with results.

Distributed Cloud: Assemble What Your Business Needs, As it Needs It

In the distributed cloud, applications are not monolithic. They are the result of thousands of best-of-breed microservices that you will mix and match to achieve a business goal. Cloud-native computing makes it possible for you to grab the services you need today and replace them quickly when something better comes along. You're not throwing away years of development: Instead, you are assembling what's best as needed, whether that is compute power, a new data pipeline, or AI-driven analytics. Distributed computing makes it possible for IT to adapt at the speed of business. While adopting this approach can be timely and complex, the end result is an application and data landscape built for integration — to better and more rapidly respond to the business challenges of tomorrow.

Choosing the right partner to guide you in your journey is vital. At Hitachi, we take a holistic approach to cloud modernization and draw from 25+ years of cloud consulting expertise and 700+ cloud migrations. Our experts will guide you on your cloud journey so that you can make smart modernization decisions and build your cloud your way.

To learn more about how we can help you develop a road map for distributed cloud that produces results, contact your Hitachi Vantara representative or visit our Modernize the Digital Core webpage.



We Are Hitachi Vantara

We guide our customers from what's now to what's next by solving their digital challenges. Working alongside each customer, we apply our unmatched industrial and digital capabilities to their data and applications to benefit both business and society.

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