INC. MASTERS

Distributed Cloud: What's in It for Enterprises? What exactly is the distributed cloud, and why should enterprises care?

BY KELLY DYER, FOUNDER & EXECUTIVE CHAIRMAN, INVENTORY SOURCE, AND CO-FOUNDER & CO-CEO, SOURCEFUSE

FEB 3, 2022

Getty Images

According to research firm Gartner, "distributed cloud" is one of the top tech trends for 2022. The company's research predicts that, "by 2024, most cloud service platforms will provide at least some distributed cloud services that execute at the point of need." In addition, Gartner predicts that enterprises will be allocating more than 45 percent of their information technology (IT) budgets on public cloud.

But what is unique to distributed cloud computing, and how might enterprises benefit? Let's explore distributed cloud and the potential benefits which are attracting a lot of attention.

Understanding distributed cloud

The distributed cloud model can be defined as a public cloud-computing service running in multiple physical locations. Previously, physical location has never been considered relevant when defining cloud models – until now. This newly defined model, the distribution of multiple clouds, has been largely driven by other key trends, such as artificial intelligence (A.I.) and the internet of things (IoT). But don't confuse distributed with disparate. Despite being distributed, the multiple clouds remain interconnected, so that all of the cloud services can be managed centrally from a single computer.

In essence, distributed cloud computing brings together all the components of public cloud, hybrid cloud, and edge computing, behaving as a single cloud. The reason this makes such a compelling development is that applications and servers no longer rely on a centralized cloud infrastructure. Instead, they can be served by location-specific data centers for improved performance and governance.

Distributed cloud: What's in it for enterprises?

While the cloud provider preserves overall control of security, governance, updates, and reliability of the distributed cloud, the ease of operation for enterprises can unleash many benefits, including:

- **Increased regulatory compliance.** In terms of country-specific data privacy regulations, distributed cloud computing ensures data is retained at the source, simplifying regulatory compliance regarding the transmission and access of personally identifiable information (PII).
- **Enhanced scalability and agility.** Additional devices or applications can be incorporated at any location without disrupting the entire system, enabling rapid scalability. Since workloads are handled by local servers, extra resources can be seamlessly deployed, minimizing downtime, and increasing productivity and efficiency, which leads to improved cost effectiveness.
- **Better performance.** Since cloud services are in closer proximity to where they are being used, system responsiveness is much improved, as latency is considerably reduced.
- **Reduced downtime and increased resilience.** Being distributed, if one system goes down, it won't affect the entire cloud system. If this were to happen, communication is re-routed via the next closest server, which significantly improves overall resilience.

Bottom line

Whether you prefer a hybrid cloud or a multi cloud environment for your organization, the associated management and operational discrepancies in these approaches can be resolved with a distributed cloud model. You still get the choice and flexibility of where you want to locate your distributed public clouds, with all the visibility and operational control of working in a single environment.