CliQr®

USE CASE

Multi-Cloud High Availability & Disaster Recovery

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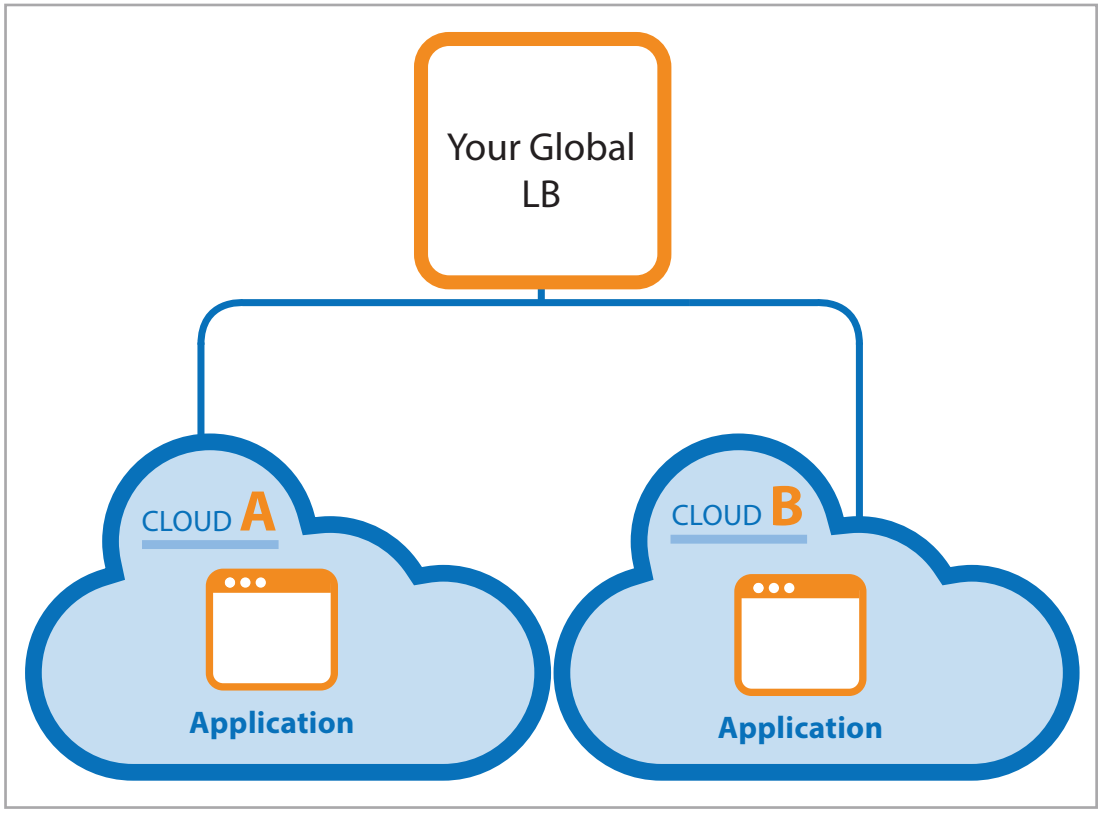
Businesses must maintain multiple instances of their applications and data in different locations to comply with service-level agreements and to ensure business continuity in the event of a disaster. Technically, the cloud offers an excellent platform to maintain high availability of applications, but in practical terms, high availability/disaster recovery (HA/DR) is a daunting task to achieve on the cloud.



And yet, every organization requires a disaster recovery plan for their information systems. Most organizations also require those systems to be up and running all the time, or as close to all the time as possible. It has become the norm, therefore, for companies to think about both proactive high availability (HA) and reactive disaster recovery (DR) environments for their information technology investments.

To successfully implement HA/DR, it is a good idea to deploy public cloud workloads in multiple public clouds instead of just multiple regions on a single cloud. Over the last few years, several operational mistakes have taken down entire clouds or multiple regions of a public cloud, making a multi-cloud deployment the best possible high availability insurance.

Clearly, when you rely upon a single cloud provider or a single region within one provider's cloud, you reduce the efficacy of any HA/DR plan. Instead, you want to put your eggs in as many baskets as possible – leveraging multiple regions and cloud providers to all but guarantee 100% uptime and the ability to recover from even the most catastrophic disasters.

Unfortunately, even when you could extend HA/DR across clouds, getting a single view of the deployment using nothing but each provider's console is impossible, since they are all incompatible with each other. CliQr CloudCenter solves this problem.

HA/DR with CliQr CloudCenter

CliQr's CloudCenter is a hybrid cloud management platform that provides an ideal toolset to set-up and manage both HA or DR use cases between on-premise and public cloud environments, or across multiple cloud providers.

Organizations can maintain business continuity by adding policy-based failover and recovery within a cloud or between clouds. The different scenarios include database-level disaster recovery (DB DR), database-level high availability (DB HA), application-level disaster recovery (App DR), or application-level high availability (App HA).

Using CliQr, application deployments can span cloud regions within a single vendor's cloud or across two or more vendors with HA/DR enabled Application Profiles, CliQr's mechanism for describing the infrastructure needs of an application in a cloud-agnostic way. The administrator specifies how much of each workload runs where and uses the single CloudCenter dashboard to maintain a view of overall application health across multiple clouds as simply as a single cloud.

The Challenges of High Availability and Disaster Recovery

HA depends upon three core principles: elimination of single points of failure, detection of failures as they occur, and reliable failover in the case of a problem. Leveraging multiple redundant clouds eliminates the single point of failure. However, running several clouds simultaneously complicates the management of the detection of failures, and reliable failover can be arduous and challenging in a multi-cloud environment.

Furthermore, there are different levels of DR, depending upon how much time systems may become unavailable should a disaster strike. The simplest level to achieve involves recovering from a backup medium like tape, which might take days or even weeks in the case of a major

data loss. The most stringent level – and hence the most difficult and expensive to achieve – is HA/DR, which is the ability to recover from even a major disaster (say, a hurricane taking out an entire data center) with no downtime whatsoever.

With CliQr CloudCenter, organizations can provide cross-cloud disaster recovery for their private cloud by replicating data and then switching over to another private cloud site when necessary. CliQr's cloud-agnostic Application Profiles and data synching between clouds enables "one-click-and-switch" cold disaster recovery capabilities to any of CliQr's supported public clouds as well. Such cold DR capabilities even prove useful in a disaster scenario in which all private cloud sites were somehow taken down at the same time.

Find out how CliQr can empower and simplify your high availability/disaster recovery plans at www.cliqr.com.

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