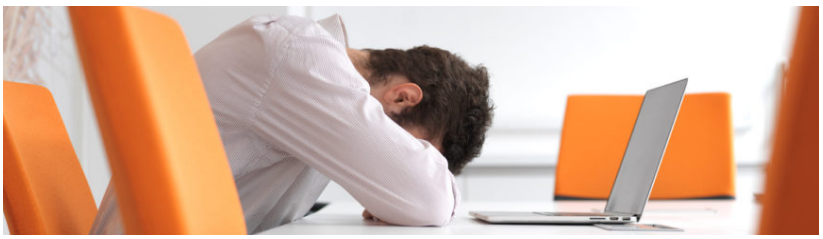
Five tips for optimizing enterprise app migration to Google Cloud Platform

Application Performance, (/blog/?s_acc=&tag_acc=application-performance#content) **Cloud,** (/blog/?s_acc=&tag_acc=cloud#content) **Network Performance** (/blog/?s_acc=&tag_acc=network-performance#content)

By Nelson Chao (https://accedian.com/author/nchao/) April 21, 2020

In our last blog, we shared how you can optimize app migration to the AWS cloud (https://accedian.com/blog/optimizing-the-enterprise-app-migration-to-the-aws-cloud-without-compromising-network-performance/) without compromising network performance. Today, we discuss five tips for optimizing enterprise app migration for Google Cloud Platform (GCP).

When planning to migrate applications and workloads to the cloud, it can be a daunting process for any NetOps and DevOps team to undertake. Upon implementing SD-WAN, to ensure the network is operating at the most optimal performance, they need to account for the migration of applications. It should not slow down users' experience during the transition to the cloud.

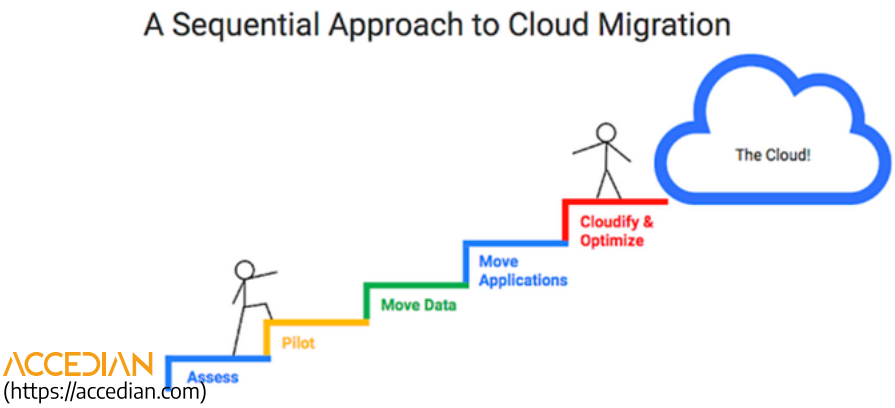


GCP is commonly seen as the infrastructure of choice for enterprises. However, while GCP provides its customers with tools and best practices to optimize their app and workload migrations for the platform, unfortunately, no methodology exists that guarantees a smooth and successful cloud migration. So it is essential to understand the benefits and potential drawbacks of each cloud environment before you attempt to make a move.

The approach enterprise NetOps and DevOps teams need to consider as they make the shift to the cloud includes understanding that a GCP app migration could impact network and application performance. But the good news is that network and application performance can be managed.

Many businesses today are choosing software-defined wide area networks (SD-WANs) because of their built-in intelligence for traffic steering, deployment flexibility, and can be cost-effective when compared to traditional branch routers. Maintaining strong SD-WAN performance is vital for any enterprise during an app or workload migration.

Businesses that enlist the help of a good network and application performance management (NAPM) optimized for SD-WAN can ensure network operations continue to run smoothly during a cloud migration. Using a proven NAPM offering in tandem with the five tips below ensures app and network performance are optimized during and after a GCP migration.



(https://accedian.com)

1. Prepare teams for a Google Cloud migration

Properly training NetOps, DevOps, and SecOps teams is essential for a successful GCP app migration. Businesses need to ensure those teams are taking full advantage of all the Google tools and services they might need to optimize app performance and take full advantage of the cloud.

A cloud migration also gives enterprises a valuable opportunity to review the business processes governing teams that are involved. Are those processes optimized for the cloud, or are they more suited for on-premises app deployments? Processes may be changed or refined to ensure enterprise teams are prepared to take advantage of all the benefits of the cloud.

Access your apps before migrating:

- Easy to move
- Hard to move
- Can't move

2. Use monitoring and automation to safeguard performance

Google understands the importance of network monitoring and alerts and advises its enterprise cloud customers to implement a system to make sure performance standards are consistently being met. NAPM solutions such as Accedian's Skylight (https://accedian.com/platform/skylight/) are ideal for offering a holistic view of the network and delivering proactive alerts for correcting issues before they impact app and SD-WAN performance.

Automation is another important tip for a successful, optimized app migration. Critical jobs like deployments, exchanges and configuration updates may all be easily automated. It reduces the chance of manual errors and prevents valuable human workers from wasting time and money on repetitive tasks.

3. Take advantage of Google's managed service

GCP offers a host of services that can be used to optimize app migration. They're designed to help businesses expand and replace workloads easily without the need to manage or maintain servers or underlying infrastructure.

A few examples include App Engine, which offers serverless web hosting, and CloudSQL for MySQL, which replaces MySQL cluster management. GCP also provides AutoML for tagging and classifying images with the option to deploy workloads on GKE instead of managing Kubernetes clusters.

4. Scale resources to optimize app and network performance

One of the inherent benefits of using cloud infrastructure is the ability to quickly scale resources up and down, or remove them entirely as needed. GCP enables horizontal scaling, which allows users to elastically add or remove VMs, cluster nodes, and database instances. Vertical scaling allows more resources to be added to existing instances without the need for any additional physical infrastructure.

Again, a strong NAPM offering is beneficial when making changes to the network, providing real-time monitoring and alerts about app and network performance. This enables administrators to make changes proactively before they have a negative impact on network operations.

5. Use GCP app migration to reduce costs

One of the key advantages of Google Cloud is its built-in tools that help make cloud migration smoother (https://cloud.google.com/migrate/compute-engine/). Google's migration tools help with in-cloud testing and validation during migration, which can help spot performance issues early. Workloads also can be migrated in phases (known as "migration waves") for a more orderly migration.

By using GCP's built-in migration tools, many of the typical "gotchas" of app migration can be avoided or resolved quickly. When used in tandem with a NAPM solution like Skylight, performance issues can even be eliminated during the move to GCP.

Migrating apps and workloads to the Google Compute Platform clearly offer major benefits to enterprises. By taking advantage of the above tips, businesses can optimize their app migration and glean the most value from GCP.

App optimization during a cloud migration is simply not possible without close monitoring and management of network and application performance. That's why Google actually recommends that its enterprise customers deploy a monitoring and alerting system to ensure applications and networks achieve and maintain optimal performance both during and after a cloud migration.

In the next blog, we will share how to optimize application and network performance during a Microsoft Azure cloud migration.

Related Posts

Optimizing app and network performance during a Microsoft Azure cloud migration (https://accedian.com/blog/optimizing-app-and-network-performance-during-a-microsoft-azure-cloud-migration/)

What you need to know about SD-WAN performance (https://accedian.com/blog/what-you-need-to-know-about-sd-wan-performance/)

Optimizing app migration to the AWS cloud without compromising network performance (https://accedian.com/blog/optimizing-the-enterprise-app-migration-to-the-aws-cloud-without-compromising-network-performance/)

ebook.com/sharer/sharer.php?
%2Faccedian.com%2Fblog%2Ffive-
g-enterprise-app-migration-to-
%3A%2F%2Faccedian.com%2Fblog%2Ffive-tips-for-optimizing-
form%2F)
atent/tweet?
0enterprise%20app%20migration%20to%20Google%20Cloud%20Platform)
%2F%2Faccedian.com%2Fblog%2Ffive-
nterprise-app-migration-to-google-

Successful cloud migrations begin with in-depth planning and end with an ongoing evaluation of the migrated application performance

Read our cloud migration guide **(https://accedian.com/wp-content/uploads/2020/05/Accedian_Cloud-Migration_Solution-Brief-3.pdf)**

(https://accedian.com)

Get the Accedian Top 10

The 10 most valuable pieces of content for network & app performance fanatics. Every 2 weeks.

Sign Up →(https://go.accedian.com/accedian-top-10)