

LEADING CLOUD PROVIDER SPOTLIGHT

How Google is Building a Massively Scalable Cloud

Tariq Shaukat, President, Partner and Industry Platforms, Google Cloud

“Cloud, which originally started as a convenient way to get access to relatively elastic computing infrastructure, has really become a core engine of business growth and business transformation in many ways. It is not just a CIO and CTO conversation, but a CEO, board, and a line-of-business conversation.”

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Google built its own infrastructure to handle the vast loads of compute and data processing for its search engine, YouTube, and Gmail. It entered the cloud service business by introducing applications rather than raw storage or compute.

Tariq highlights how Google leveraged its internal treasure trove of state-of-the-art technology and externalized it in its journey to the cloud.

In the words of Tariq Shaukat:



I am the President of Partner and Industry Platforms at Google Cloud, with responsibility for three main areas within the cloud organization here. One of those main areas is our strategic partnerships with the tech ecosystem; like those service providers who work with us on the cloud.

Google has always operated in a cloud-like environment. In fact, if you look at many of the technologies that are now foundational in the cloud, whether that is MapReduce or data analytics for data management purposes, or Kubernetes for container management purposes—the list goes on—these are all technologies that were developed and deployed inside of Google for the operations of Google.

We have seven different global applications that have over a billion users each. These require very high throughput and very low latency. We truly have been architecting in a cloud-oriented way since the very early days of the company. It was, therefore, logical to move into the cloud platform space, and into the G Suite cloud-based software space, as an extension of what we were already doing.

We already had the state-of-the-art technology being used internally at Google. What we had to do was externalize that. From a product standpoint, we needed to make it accessible and usable by companies that are not Google, and then we needed to build a go-to-market capability to acquire customers. That really was the journey. It started from a technology standpoint and thinking about the capabilities needed to run Google Search, Google Maps, YouTube, etc., and then extending that to our customers.

I think, like many things at Google, there's a lot of innovation that happens across the whole company versus in a top-down manner. A lot of things start as the famous "20% project." Every engineer is encouraged to spend 20% of his or her time on projects outside of the engineer's regular scope. Our evolution to G Suite started with the consumer version of the apps that we had—Gmail, Docs, Slides, and Sheets. It was a set of grassroots initiatives and kept with the mission of Google to organize the world's information and make it universally accessible and useful. From that original heritage, it eventually grew into the small business realm and then enterprise world.

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Within Google, we have different pieces that make up the cloud. There's G Suite, a highly secure and available cloud-native set of applications. Several large, traditional companies use this platform, including Airbus, Colgate-Palmolive, and Verizon. In addition, over four million smaller paying businesses use G Suite. And then there is Google Cloud Platform (GCP). This is a collection of dozens of different product offerings, including infrastructure service, compute network storage, data analytics, and machine learning.

Google has a large developer community that is mostly self-service: they come on and consume as they need, and stop consuming when they need to stop. That is how Snapchat, as an example, got started on GCP, and it's an important part of our business today.

Cloud, which originally started as a convenient way to get access to relatively elastic computing infrastructure, has really become a core engine of business growth and business transformation in many ways. It is not just a CIO and CTO conversation, but a CEO, board, and a line-of-business conversation.

When you're dealing in any enterprise and certainly any business context, security is critically important. Our network is a fundamental advantage—that low latency and performance we get operating inside of GCP—because we own so much of the fiber ourselves.

Selecting a cloud service provider

We always advise customers to use a strategic vendor. Besides the cloud vendor you choose, more important is how you choose to construct the architecture. You can go down the path of architecting in a way that's proprietary to one of the clouds that you would choose. Or you could go down the path of architecting so that you can run in multiple clouds, or in any cloud, or on-premises for that matter. So, we think the containerization movement, as an example, is a critically important decision that companies should be making. It determines the level of lock-in, the level of flexibility, and the level of tech debt that they're going to accumulate over the years.

Whether you are modernizing on-prem or you're moving to Google or you're moving to one of our competitors, we would recommend that you make a future-proof

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decision on architecture as opposed to what may seem like the most convenient near-term decision.

Minimizing lock-in is something we hear time and time again from customers. I would encourage people to look at how much the different clouds embrace open-source technology. That’s important not just from a lock-in standpoint, but from a security standpoint.

Security is obviously critically important. It needs to be front and center. We find CTOs and CIOs are used to thinking about security in an on-prem environment. They think about how to build walls around their systems. Almost by definition, when you move into the cloud, the walls disappear, and you need a different security model. You want a company that will support and innovate and is really investing in those security models.

Almost every CEO and CIO that I talk to right now is thinking about how his or her business is going to change in the next 10 years. Years ago we talked about “digital transformation.” Today we’re hearing more and more about “data-driven transformation,” the idea that one of the most valuable assets you have as a company is your data. Traditionally, those data assets have been locked in silos and you couldn’t get access to them. You couldn’t join the data. You didn’t have a full view of your supply chain or your customers. It’s important to figure out where can you get the most value out of the data that you have. ”

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About Zscaler Zscaler was founded in 2008 on a simple but powerful concept: as applications move to the cloud, security needs to move there as well. Today, we are helping thousands of global organizations transform into cloud-enabled operations.

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