WHITEPAPER

Why It's Urgent to Gain Cloud Visibility

For years now, we've been hearing predictions about the cloud-delivered future of businesses and IT systems. Now, this future has actually taken shape. Uses of cloud take many forms, often within the same business. Applications, even mission-critical ones, are delivered via cloud providers and ruled through the almighty web interface. IT teams can scale cloud use up and down to meet demand, add third-party services as needed or test out new apps in the cloud.

At this point in the evolution of cloud services, we're beyond static or experimental uses, like storage and test/dev. Lots of IT teams support and manage applications hosted in Amazon Web Services or Microsoft Azure, whether those apps are sold as services or used internally to run the business. Movement to the cloud just keeps increasing, and there's a big variety of workloads moving through the public cloud. Cisco research data shows that by 2019, 89% of workloads will be processed by cloud data centers, and only 14% will be processed by traditional data centers.

According to IDC, this year there will be an 11% shift of IT budget away from traditional IT delivery into new versions of cloud computing. By 2017, 35% of new apps will use cloud-enabled delivery, based on a DevOps approach.*

***Source:** 2015-2017 Forecast: Cloud Computing to Skyrocket, Rule IT Delivery

Today's workloads look different than they used to, in addition to being delivered differently. They aren't the same old applications that IT teams were administering from in-house servers, reflecting the big shifts that have happened with mobility and cloud. Businesses are contending with entirely new IT use cases with the slew of services that are available: IDC found that 50% of cloud applications and services are for use cases not served in the client server era.

The prospect of actually monitoring these off-premises workloads can be rather daunting, though, considering the variety of providers and services involved. Lots of businesses are now using a mix of on- and off-premises services, including third-party SaaS apps, web apps developed in-house, remote or third-party backup and disaster recovery services and more. Each of those has its own configurations, dependencies, interface and support needs.

Better, Faster, In the Cloud

As distributed, services-based approaches have become entrenched in modern IT, users and IT teams have gotten used to the super-fast deployment times that come with those approaches. There's a quicker time to value, plus savings down the line on IT infrastructure, like servers, power and cooling. It's cheaper overall to deploy a web app for users and customers when it comes to total cost of ownership (TCO). And IT saves time that they would have spent provisioning resources. IT teams are also becoming adept at managing many applications and services as a mix of cloud and on-premises systems form hybrid infrastructures.

The overall cloud and SaaS market is booming, too. IDC predicts that nearly a third of the worldwide enterprise apps market will be SaaS-based by 2018, generating more than $50 billion in revenue–more than twice the $22 billion the market generated in 2013.

Out of Sight Isn't Out of Mind

It's handy to have those as-a-service applications running nicely, without the need for tinkering or server space. When cloud services are working, it may seem perfectly fine not to see what's happening. However, out of sight can't be out of mind with off-premises or cloud applications. The providers of those services don't necessarily have any better networks or insights than you do into their own systems. And end users of those apps will still be knocking on IT's door when problems arise. What IT doesn't know actually could hurt them. Users these days expect quick responses from their apps and from IT when there's any downtime or even a slowdown.

Users may be the ones to alert IT to ongoing problems or potential issues with SaaS apps, and from there, IT often has to hunt to get to the root of the issue. The detective work involved to pinpoint the exact reason can be time-consuming, and doesn't necessarily get to the bottom of the issue. The issues causing problems for SaaS applications may be just as off-site and out of IT's hands as the apps themselves are.

And there are plenty of possible causes for performance degradation. The issue could be a bug on the source code, a third-party SLA violation, a back-end database problem, a connectivity failure, a spike in bandwidth usage over the network, a configuration problem, and more. Additionally, applications hosted on AWS or Azure, or other public cloud providers, are still part of IT's domain, and those services don't offer insight into their own network paths and configurations.

Stick Your Head in the Cloud

It's completely possible for IT to trust and use cloud services in our modern world–whether they're built in-house or licensed from others. The missing piece, still, is visibility. Not being able to monitor apps hosted or built in the cloud isn't a long-term strategy. The tools IT has depended on are still designed for internal networks and a device-centric mindset where data comes from routers, switches and servers, all of which are on-site. Those tools just don't work when cloud services are involved, because IT doesn't own the devices or networks that connect them. Cloud visibility has become especially important when end users and the business are demanding positive experiences, no downtime and stringent service-level agreement (SLA) benchmarks. Before the cloud services era, those same demands were easier to meet with a monitoring tool that only needed to see the physical data center's systems.

What's needed in today's hybrid environments is a performance monitoring tool that's designed for these modern, cloud-based environments. It's possible now to find a tool that can actually see into those off-premise cloud environments as well as on-premises systems and apps. That type of monitoring is particularly important when web downtime is at stake. The average online shopper expects web pages to load in two seconds or fewer; after three seconds, 40% of visitors will abandon your site and go somewhere else. And just three seconds of waiting can decrease customer satisfaction by 16%. Walmart reduced their page load time by 1 second, and got a 2% increase in traffic and other incremental gains for just milliseconds less of page load time.

Optimizing web performance is a key component of IT teams' success, since fast application delivery demands just keep growing. Today's application performance monitoring can analyze the transactions and data of real end users for the most accurate view of performance from the user's perspective. Look for a performance management solution that can help build a true performance optimization plan, taking into account network capacity and performance, network usage and application traffic analysis, and real-time application tracing. That's the only way to get to the root cause of a slow application. Performance monitoring tools designed for complex environments can also allow you to see detailed data of every network hop across networks and into services and web apps, and even include WiFi in monitoring. Plus, the right monitoring tool can pinpoint whether the network or the application is the source of trouble.

Relying on web applications and cloud services doesn't mean giving up visibility into how they're working—or not working. Find a solution that gives you a comprehensive view of your environment, and brings systems together for a better, faster application infrastructure.

SaaS Revenue in 2015

$78.43 BILLION

SaaS Revenue in 2020 (predicted)

$132.57 BILLION

That's a compound growth rate of

9.14%**

**Source: Institut Sage