A CLOUD GURU

THOMSON REUTERS

Case Study Thomson Reuters

T-shaped skills, cloud-shaped victories

THOMSON REUTERS

About Thomson Reuters

Thomson Reuters is a multinational software and media company headquartered in Toronto, Canada. Every day, more than 1 billion people read or see Reuters news, and Thomson Reuters' tax and legal products serve governments, educational institutions, and industries around the world.

THOMSON REUTERS

Toronto, Canada

Industry
Mass media

Founded
17 April 2008

Revenue
5.5 billion USD
(2018)

Employees
25,800
(Q1 2019)

Client Since
2018

From data centers to the cloud

Like many established companies, Thomson Reuters has been running their own data centers for years. But now they're ready for a new challenge.

> *"It's time for us to invest in the public cloud," says Thomson Reuters lead software engineer Dan Mohrland.*

Time-to-market is critically important for Thomson Reuters, and data centers can't always keep up. New products and services can't sit for months, waiting for new capacity to be provisioned.

"For example," Mohrland explains, "we have region-specific regulations, such as GDPR, around the location of personally-identifiable information (PII). And we need to store data locally in those regions."

Until recently, this would entail spinning up a data center, or at minimum purchasing additional storage capacity. Not any longer.

" The cloud lets us scale up to store that data much more quickly and cost-effectively than buying and cooling all that hardware ourselves.

But it's a catch-22 when you're stuck maintaining data centers and cloud environments at the same time. So we need to complete the push to cloud as quickly as we can."

Paving the way for cloud

That push to cloud is being spearheaded by Mike Berg, Director of Service Development at Thomson Reuters. His team provisions accounts, guards against DDoS attacks, and defines CI/CD and monitoring standards for around 2,000 engineers across the company. In guiding other business units toward the public cloud, Berg stresses the need to find a happy medium between overbearing control and a possibly chaotic free-for-all.

"We're not a police state with checkpoints all over the road," he explains. "That doesn't scale."

> *Instead, Berg continues, "we want to pave the road to cloud for our teams, show them the way, but also give them some guardrails so they don't veer into the ditch."*

Guiding teams to the cloud involves more than paving the road, however. Berg's team is also providing driver's ed for the cloud, making sure that teams gain the skills they need to follow the path that's been set out for them.

Service Development
at Thomson Reuters

Provisions
Accounts

Guards Against
DDoS attacks

Defines
CI/CD
and monitoring standards

Provides
Cloud training

For
2,000 Engineers

"

The only way for us to succeed in cloud is to skill up teams to do their *own* migrations.

Mike Berg, Director of Service Development at Thomson Reuters

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# Cloud fluency: a T-shaped skill

Berg uses a "T-shaped" process to train up his organization on cloud. What does this mean, exactly? Think of the horizontal top of the "T" as breadth, and the vertical stem as depth.

Breadth involves basic-but-widespread training to teach as many people to speak the language of cloud as possible. Berg builds this "cloud fluency" through internal training resources that promote basic cloud competence, as well as an understanding of Thomson Reuters' approach to cloud in particular.

This broad-based approach is great for establishing cloud fluency across the organization, but key teams and team members need to go deeper. And that's where the depth portion of the T-shaped process comes into play.

Berg uses A Cloud Guru to help teams and team members drill deep on their specific areas of expertise. Networking and machine learning are popular areas of focus, with Thomson Reuters' research scientists especially keen on ACG's AI/ML learning path, but security training is just as important.

"Security has always been job 1 for us; that hasn't changed in the cloud," Berg explains. "But the cloud gives us new, cutting-edge tools to make sure our customers' data is secure. Whether it's DDoS and WAF protection, encryption at rest and in transit, or VPC flow logs -- ACG helps us ensure our engineers are up to speed."

Base Knowledge

Depth
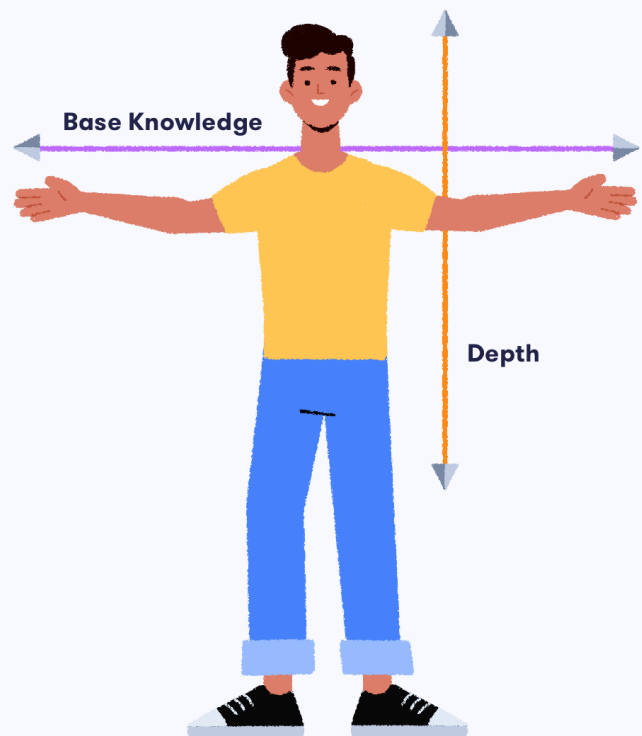
Just as importantly, engineers can train on AWS or Azure as needed, with a broad array of certification courses, advanced deep dives, labs, and projects. Weekly "what's new" series also keep Thomson Reuters engineers up to speed with all the latest cloud releases and updates.

"

ACG's multicloud course library is huge for us, because we have so many different products and technology stacks across our organization.

Mike Berg, Director of Service Development at Thomson Reuters

"

Building cloud gurus, one course at a time

Thomson Reuters found that even experienced engineers benefit from the concentrated cloud education. "We've been deploying applications to data centers for decades, and we have developers who've been dealing with on-prem for a long time who are now going deep into AWS through A Cloud Guru's courses and certification paths," says Mohrland.

While cloud entails a fundamental shift in mindset and approach, a lot of data center skills transfer to building in the cloud. For Thomson Reuters' experienced engineers, it's something like a pilot qualifying on a new aircraft. Or rather, a pilot going from flying a jet to flying a rocketship.

"These engineers know their programming languages and have deep knowledge about their apps, but now they're moving that app to the cloud and they have to think about autoscaling groups and load balancers in a whole new way. ACG has been invaluable in bringing them up to speed."

Mohrland adds that once A Cloud Guru training was introduced, the effect on teams who adopted it was noticeable in a surprising area: support tickets. "Before instituting comprehensive training, we would get a large volume of basic questions, like 'how do I create an S3 bucket,'" he explains. "We can tell when teams have adopted the A Cloud Guru training because the questions get more complex. All of a sudden they'll be asking us about key rotation, or something totally beyond the basics."

Berg says the shift in support tickets is a leading indicator of a broader transformation within the organization. Cloud fluency is growing. Employees are becoming better equipped to drive down the road Berg's team is paving to the cloud. There's less of a strain on the core cloud team to answer simple questions, giving them the opportunity to explore, innovate, and pave the next stretch of road to the cloud.

> "
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> Like a pilot going from flying a jet to flying a rocketship, **even experienced engineers benefit from concentrated cloud education.**

To the cloud and beyond

More than 250 engineers at Thomson Reuters have now achieved cloud certification, and the results speak for themselves. Since partnering with A Cloud Guru in 2018, they have migrated hundreds of applications and petabytes of data to the cloud. This year, they expect to move more than 2 billion documents to cloud storage, and they're just getting started.

Going forward, Berg has set a goal to get at least 50% of his own team certified, as well as key decision-makers throughout the organization. Mohrland requires ACG training as part of onboarding for all his new hires.

IDC research indicates that comprehensively trained organizations are 80% faster to adopt cloud and 14x more likely to overcome operational control concerns relating to cloud migration, and Thomson Reuters' progress to date bears out the value of comprehensive cloud training.

> *"Studies show that when just 10% of people are committed to a new idea, it creates an unstoppable ripple effect across the organization,"* says A Cloud Guru SVP of Cloud Transformation Drew Firment. *"And Thomson Reuters shows no signs of slowing down in their rush to cloud success."*

How big is a Petabyte?

Bytes

Megabyte	1,000,000
Gigabyte	1,000,000,000
Terabyte	1,000,000,000,000
Petabyte	1,000,000,000,000,000

Comprehensive training makes organizations

80% faster
to adopt cloud and

14× more likely
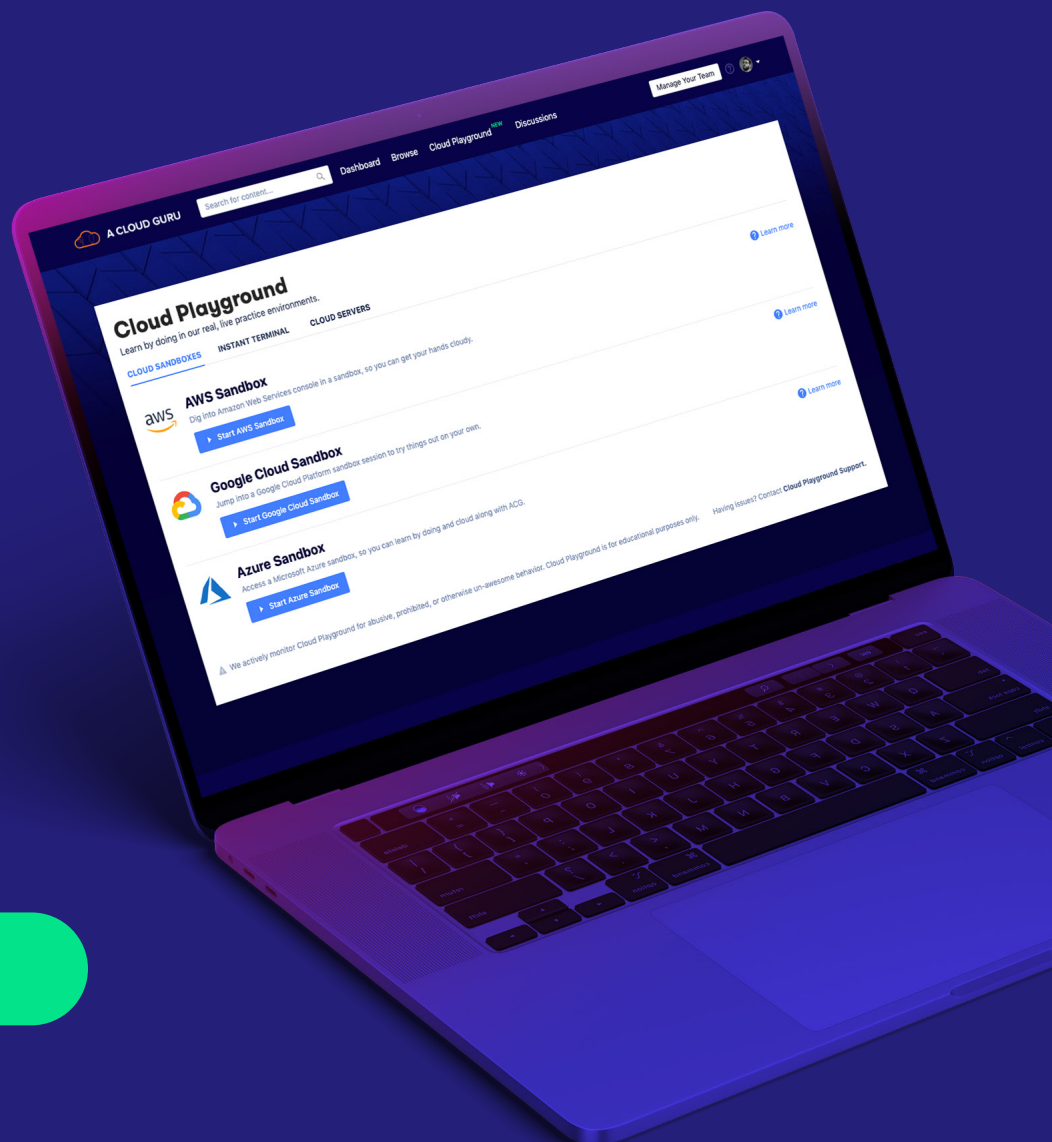to overcome operational control concerns relating to cloud migration

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The leading platform for cloud learning

Learn modern tech skills with the latest courses and labs in AWS, Azure, Google Cloud Platform, Linux, and beyond.

ACG For Business