Optiva™

CLIENT
Optiva Inc.

INDUSTRY
Technology

TECHNOLOGIES
Google Cloud Platform, Google Compute Engine, CloudEndure

BUSINESS NEED
Canadian software developer Optiva needed to migrate 3,500 machines distributed across 10 global data centers—many of which were using outdated hardware and operating systems—to the cloud on a tight timeline and with minimal downtime.

SOLUTION
After assessing Optiva's IT environment and organizational structure, Pythian determined an optimal cloud migration pattern for the company and used live migration technology to eliminate downtime.

RESULTS
Pythian's approach helped Optiva migrate to Google Cloud Platform with minimal downtime. Through migration, consolidation and optimization, the company is on track to reduce its annual data center costs by 90%—from $15 million to $1.5 million.

MIGRATING THOUSANDS OF GLOBALLY DISTRIBUTED MACHINES TO GOOGLE CLOUD PLATFORM—WITHOUT THE DOWNTIME

Optiva, a Canada-based company that develops software for communications service providers, already had plans to migrate to Google Cloud Platform (GCP) to become more agile and reduce costs. But as it grew and acquired other companies, Optiva found itself in possession of many outdated assets located in data centers all over the world—complicating its goal of quickly and easily moving all of its assets to the cloud.

Facing a complex and daunting task, Optiva asked Google for help. Google referred Optiva to several different partners—and after weighing its options, Optiva chose Pythian. Because Pythian had a deep relationship with Google as well as an automation-based approach with multiple accountability checkpoints, Optiva was confident the job would be done effectively and on time.

BUSINESS NEED
Following multiple acquisitions, Optiva had 10 data centers around the world housing more than 3,500 machines running more than 50 operating systems—many of them extremely out of date. Some of the machines also had licensing issues that made it difficult to migrate them to GCP.

Optiva needed to move all of its workloads to the cloud within six months. And extended downtime was not an option: its internal teams required constant server access to do their jobs.

SOLUTION
Before a contract was even signed, Pythian consulted with Optiva to understand its IT environment, workloads, organizational structure and ambitions for the cloud—and to identify potential challenges that might arise during the cloud journey. This in-depth analysis allowed

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Pythian to vet its assumptions about how the migration would work so it could hit the ground running once the contract was finalized.

Thanks to a globally distributed team, Pythian has the capabilities to work around the clock to ensure the migration progresses as smoothly as possible. As a first step, Pythian analyzed all of the machines and categorized them based on how difficult they would be to migrate. Based on that analysis, Pythian could use automated workflows to quickly and easily migrate the straightforward machines, leaving its team free to dedicate as much time as possible to those with complicated technical or licensing issues.

After determining the optimal migration pattern for Optiva, Pythian leveraged live migration technology continuously and incrementally replicated and synchronized data from source machines to target machines. This process allowed Pythian to migrate the company's workflows with minimal to no downtime—and zero impact on live production activity. Far from a simple "lift and shift," Pythian dove deep into the technical details, applying cloud-native best practices to tune and enhance the company's servers and operating systems to ensure optimal performance in the GCP environment.

RESULT

Pythian's in-depth architecture and discovery phase allowed the migration to happen swiftly, which let Optiva take immediate advantage of GCP capabilities and make improvements in areas like automation, security and monitoring.

After six months, Optiva's annual data center costs were down to just $4 million, with further savings expected to bring costs all the way down to $1.5 million—a reduction of 90% from its original data center budget of $15 million. The additional cost-saving benefits of GCP—such as paying only for resources used rather than continuously for always-on servers, or deploying workloads to larger GCP data centers that are billed at lower rates—will help Optiva save even more money in the long term.

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Moving most of its assets into GCP also allowed Optiva to consolidate its remaining physical servers from 10 data centers into just one. This has greatly simplified the IT team's job: there is now a single support ticket management system instead of four, seven operating systems instead of 50 and four remote desktop protocol (RDP) systems instead of 120. And now that Optiva is less reliant on third-party hardware, it can also reduce its total cost of ownership (TCO) and accelerate its refresh cycles.

Results of migration, consolidation and optimization

	Start	End	Reduction
Data centers	10	1	90%
Data center area (sq. ft.)	56,000	11,000	80%
Data center electricity costs per year	$4.3 million	$600,000	86%
Data center engineers	100	12	88%
Non-production support fees	$2 million	$0	100%
Operating system versions	50+	7	86%
Support ticket management systems	4	1	75%
Source control systems	8	1	88%
RDP systems	120+	4	97%
Total data center costs per year	$15 million	$1.5 million	90%

ABOUT PYTHIAN

Founded in 1997, Pythian is a global IT services company that helps organizations transform how they compete and win by helping them turn data into valuable insights, predictions and products. From cloud automation to machine learning, Pythian designs, implements and supports customized solutions to the toughest data challenges.

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