



how to find the right
partner to help you
cloud-enable your
IT organization.

randstad
IT solutions.



the world is moving to the cloud.



Leading companies across all industries are rapidly cloud-enabling their IT organizations to take advantage of its powerful benefits, including cost-effectiveness, agility, scalability, decreased maintenance and heightened potential for innovation.

In 2018, Forrester reported that [almost 60 % of North American enterprises](#) relied on public cloud platforms, up five times the percentage five years prior. And David Mitchell Smith, a Vice President and Gartner Fellow in [Gartner Research](#), predicted that, “By 2020, anything other than a cloud-only strategy for new IT initiatives will require justification at more than 30 % of large organizations.

“CIOs and other IT leaders need to constantly adapt their strategies to leverage cloud capabilities,” he said.

More than \$1.3T in IT spending will be directly or indirectly affected by the shift to cloud by 2022, forecasts [Gartner](#). Roughly 28% of spending within key enterprise IT markets will shift to the cloud by 2022, up from 19% in 2018.

Clearly, cloud technology is the modern answer to managing a robust IT organization.

A huge consideration for the push to cloud-enablement is the talent factor. Although the IT sector continues to grow, it struggles to keep up with the increasing demand for IT services. Educational institutions don't have enough graduates to fill the many vacancies; the industry is relying on immigration to ensure qualified talent is available.

Amid these conditions, Canada is becoming an important hub for IT talent. In Toronto alone, 82,000 jobs in the sector were created between 2012 and 2017. Tech giants like Amazon are making massive investments into major cities in Canada, where operating costs are much lower than in the U.S.

In this white paper, we explore the benefits of cloud-enablement, illustrate the journey and consider the talent implications, a key factor for short- and long-term success. We also share a case study that demonstrates the cloud-enablement process with a leading Canadian company.

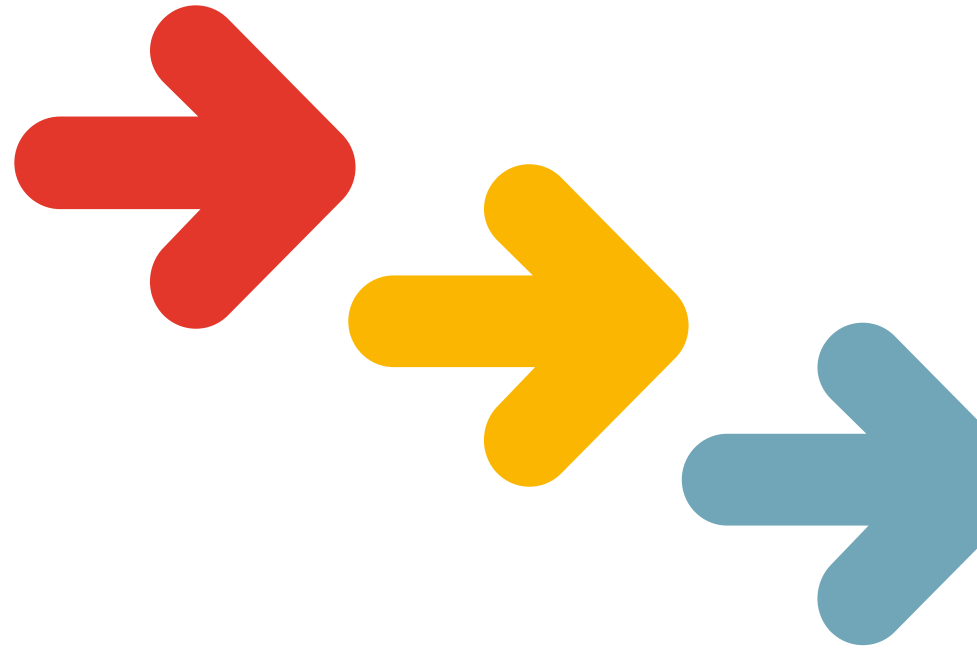
The world of cloud-enablement is complex, but exceedingly efficient when you create and execute a plan that addresses all of your organization's needs. Here's where you find out how.



steve mackinnon
president, randstad IT solutions

how cloud-enablement can be rocket fuel for your organization

Over the last two decades, cloud technology has evolved from an experimental concept to a powerful solution that has become the new IT standard of efficiency. Cloud technology removes both physical and intangible barriers that IT organizations are forced to manage with fixed hardware and cumbersome data centres. With more agility, IT leaders and their teams are free from constant maintenance and the threat of errors that affect their entire operations. Instead, they can direct their IT talent to focus on innovation that could lead to transformative business results.



benefits of cloud-enablement

cost optimization

With cloud-enablement, efficiencies with regards to powering, storing, hosting, cooling, maintaining, repairing and upgrading expensive hardware are dramatically improved. With expenses for physical equipment efficiently managed by cloud vendors, the IT budget is substantially reduced.

less maintenance

Cloud-enabled IT organizations don't need to manage security patches and operating system/software updates when a new version is released. These features are built into the cloud services.

scalability on demand

Organizations with e-commerce functionality require the ability to scale up or down based on customer demand. In a few clicks and within a couple of minutes, IT teams can add RAM/CPU to accommodate a sudden uptick in traffic.

faster (and better) innovation

Cloud technology allows for agility and creativity in a way that traditional systems can't. With more flexibility, IT teams are able to create customizations, including artificial intelligence and tailored applications to bring new business potential to the organization. Apps leveraging cloud technology can typically be built and brought online within days, providing a strong edge in competitive markets.

more stable IT infrastructure

Monolithic IT systems are constantly breaking down and require patches and ad hoc solutions that create weakness in the overall architecture. Cloud technology enables continuous integration (CI) and continuous deployment (CD) for a more stable experience. CI embeds testing that identifies any weaknesses and enables the capability to quickly fix errors in a sustainable way. CD allows developers to automate deployment for a faster and safer path to production.

more focused IT teams

With a more stable IT architecture, developers, coders and programmers can focus on business development instead of addressing bugs or gaps in application operations.

empowers microservice architecture

Cloud technology allows a more nimble microservice system that splits each application into a set of smaller, interconnected services that each have their own separate system. If one goes down, the rest remain unaffected. Microservices are available outside the cloud, but IT teams are not able to scale as quickly or be as flexible.

how people, not technology, are the true drivers behind cloud enablement.

Cloud enablement is a complex process that requires the right architecture and strategy—and, more importantly, the right people to execute it. The people behind the plan are critical to a smooth and efficient process that can ultimately transform an IT organization into a thriving unit with all the capabilities of advanced technology.

The process requires talent that has experienced the myriad challenges and pitfalls of a large IT project, including leadership and project management, plus varied programming, coding and developing skills.

Most IT organizations are not equipped with the skills and expertise required to create a strategy that includes identifying and creating the right architecture for their company's specific circumstances, nor do they have the in-house talent with the specialized skills required along the journey. Many large organizations seek to outsource the process in a variety of ways.



talent options for the cloud-enablement process

outsource

There are a number of firms that can complete a cloud-enablement project independently, with little consultation with the client, usually offshore. This option is most popular with companies that don't have an in-house IT team and don't expect to invest in one. It's also common for very large organizations with sizable infrastructure and companies that don't see a competitive advantage within their IT team.

professional services

A consulting firm can be brought in to create a customized cloud-enablement plan. They will source the talent to complete the work, usually in their offices. There's some consultation but little collaboration with the client. Companies that want to be involved in the strategic direction of the project but hands-off on the tactical deployment usually choose this option.

co-ownership with professional services

A trusted consulting firm can partner with an in-house IT organization to collaborate on the creation and execution of a cloud-enablement project. The firm's IT specialists may work on-site with in-house IT teams to transfer knowledge and prepare employees to manage the new system when the project is complete. Companies may even potentially hire the firm's contractors. This is most popular with businesses that have an in-house team but aren't equipped with the expertise required to execute and innovate with new technology.

in-house talent

Large companies with robust IT organizations can invest in the training required to manage cloud-enablement completely in-house. They often make full-time or contract hires to augment the team with the skills required to complete the project.



choosing the right model for cloud enablement

Selecting the model that will work best for your organization depends on a number of internal dynamics, including your existing talent pool. It's useful to carefully assess your resources to help identify the viable options that are available to you, including:

- What roles currently exist in your IT organization?
- Are their skills and experience compatible with collaborating in every step of the cloud-enablement process?
- Do they have a blend of experience and skills to bring the right proficiency for the right tasks, i.e. seasoned vs. freshly graduated coders, programmers, etc.
- How effectively do they work together as a team?
- Are they able to pivot from their existing roles and transition into new ones that are more compatible with cloud technology?
- Do you have leaders who can help access, scale, manage, deploy and exit any talent you bring in?
- Is your IT organization structured flexibly so you can bring in contractors for specific tasks, as required?
- Are team members open to learning new processes?
- Do you want to grow your IT talent pool?

Talent is always the most expensive line item in a budget, but an investment in this area can result in long-term success since a well-executed project will ultimately translate to more efficient operations. Most professional services firms can leverage the wide-ranging reach of employment firms who have access to high-quality talent suitable for a variety of roles.

These firms usually have in-house project leaders who can create a customized architecture and then source and manage contractors with suitable skills for each step of the project. You'll typically pay day rates that vary by skill level, which can be more cost-effective than assigning junior-level tasks to existing senior-level staff (and vice versa).

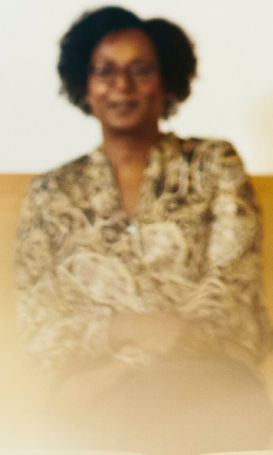
In the co-owned professional services model, hybrid teams promote cross-pollination of knowledge so that when the project is complete, the customer retains the knowledge gathered. Inversely, input from internal resources allows for customer knowledge to be infused within the execution more easily, increasing quality control.

With the right people in the right roles at the right level, you can accomplish a smooth cloud-enablement process and potentially end up with a high-performing team with a blend of skills who can maintain and continue to innovate using cloud technology.

A woman with curly hair, wearing a patterned top, is sitting on a light-colored couch in the background. She is looking towards the camera with a slight smile.

case study:

how sonepar
improved
customer
experience by
moving to the
cloud



As the world's leading distributor of electrical products, Sonepar Group is probably the largest and most successful company you've never heard of. The family-owned business boasts global market leadership in the B2B distribution of electrical products, solutions and related services. It's a key supplier in the energy, industry and building sectors.

The Sonepar name may not ring a bell, but there's a very good chance you use their products every single day.

"If you've ever turned on a light switch, opened a refrigerator or plugged anything into an electrical socket, chances are you've used a part that was purchased through Sonepar," said Gaurav Sharma, Sonepar Canada's Vice President of eCommerce and Digitalization.

the eCommerce challenge

The Canadian Sonepar eCommerce system processes millions of dollars in B2B transactions via big contracts from even bigger companies, including oil and gas conglomerates in western Canada, Hydro Quebec, three levels of government and some of the country's largest enterprises.

However, Sonepar's eCommerce experience was not on par with its traditional distribution network of 108 strategically located stores across Canada and industry leading sales and customer service.

"The eCommerce platform being used by most OpCos was based on a dated code and was struggling to meet the demands of fast digital growth in the company. It was a monolithic design with all the problems you'd expect from a really old solution: slow performance and stability issues," said Mr. Sharma.

Sonepar Group operates through a multi-channel distribution network in 44 countries. It's the parent company of seven distribution companies in Canada alone, including Lumen, SESCO, MGM, Dixon, Texcan, Gescan and Vallen. Together, they give Sonepar a coast to coast presence in Canada.

Like many legacy platforms, Sonepar's was home grown and had evolved over time with plenty of ad-hoc modifications that served as trip wire when developers worked on maintaining the system. Automated testing was virtually impossible and sometimes customers were the ones to discover broken code or other bugs.

By 2016, it was clear that a new solution was as critical as it was inevitable.

Sonepar Canada is home to a robust in-house digital team, including developers, testers and UI specialists. But Mr. Sharma knew that their vision for a business transformation would require more people and different expertise than they had on staff. Partnering with Randstad Canada's IT Solutions was about more than just getting the job done—it served to enhance their team for the long-term too.

Sonepar Canada's digital team was determined to invest in a modern solution that would optimize eCommerce, improve service for customers and reduce the enormous instability the development team had been labouring under for years. They understood that moving to the cloud was the logical option.

"We knew we needed a new environment to drive the customer experience we wanted. We envisioned a platform with a homogenous architecture that could serve the autonomous needs of all our OpCos and would be built to deliver Speed, Stability and Scalability. After briefly exploring outsourcing the project to an enterprise-level platform, we ultimately chose to partner with a professional services firm so they could co-own the endeavor. Having a hand in developing a clean, modern architecture was important to us," said Mr. Sharma.

After one meeting with Nicolas Rose, director of Software Engineering Solutions in Randstad Canada's IT Solutions division, they knew they had found a partner they could trust.

"We needed to improve the basics, things like enhanced automated testing and the procedures around checking and deploying code and unit testing. Nico helped make this a reality for us and we immediately saw the benefits of what this would give us throughout our digital transformation," said Rob LeRoux, Director of eCommerce delivery for Sonepar Canada.

application performance issues

- Global website with 7 million+ hits/month
- Downtime issues
- 5-12 seconds to load the site
- Front end connected to monolithic back end application

CI/CD implementation

- No unit testing in place
- One deployment every 2 weeks
- Need to restart application every time to release deployments

the journey to cloud-enablement

Dismantling a legacy architecture and replacing it with a fresh, modern system requires patience and planning.

Mr. Rose and his team began by assessing the state of Sonepar Canada's system and identifying the most efficient way to move to the cloud, upgrade all digital channels, develop new ones, discard elements that weren't working and build a brand new mobile app. Together, they created a three-year, five-phase plan.

"The multi-phase approach has been very successful. It's important to take the time to gain real world customer feedback before moving to the next stage. It's a much easier way to handle change management and mitigate risk in these huge projects," said Mr. Leroux.

a multi-phase approach

phase 1:

data cleanup

Sonepar Canada needed to do a little housecleaning before Randstad Canada's IT Solutions came in with a brand new architecture. With more than 500,000 SKUs, the master data management (MDM) team took care of data clean up and focused on delivering web ready enriched product data.

phase 2:

install microservices

A microservice-based design was planned to move to the cloud. "It was very important not to disrupt the current website because a lot of eCommerce flowed through it. We began work behind the scenes, which didn't change the customer experience but gave us the opportunity to begin changing things like moving the server hosting off-premises," said Mr. Rose. With the back-end architecture updated, they were able to begin shipping to the cloud.



phase 3:

developing the client-facing website

Now that there was more stability in the back-end, the Sonepar digital team was able to consider upgrades to the customer experience. They began by uploading an open catalogue of products for each of their B2B clients that would provide line of sight to available inventory. In this phase, the mobile app was also launched, and customers were able to make purchases in a whole new way.

phase 4:

migrating old code to a new B2B digital experience

Here's where the cloud-enablement rocket fuel comes into play. With the digital channel completely migrated to the cloud, the customer experience could be transformed. A cleaner, more intuitive design was launched for Sonepar Canada's companies. Page loads went from 2-5 seconds to 0.3 seconds. The best part? No bugs. Every page is as stable as a rock—and as dynamic as a spring.

phase 5:

enriching digital at Sonepar Canada

With its hulking, monolithic architecture transformed into a nimble system made up of myriad microservices on the cloud, the Sonepar digital team is free to dream big about even bigger digital enhancements.

"Digital for us is not just a channel – it's an experience. Our vision is to leverage technology to enrich and enhance our overall omni-channel experience and build a market leading customer intimacy model that acts not only as a barrier to exit but also drives net new acquisitions. We consider data as our strategic asset and our digital delivery platforms have to be able to provide segmented and personalized shopping experience to our customers so they can get to their products and promotions quicker," Gaurav said.

"There are going to be more tools such as configurators, calculators and industry-type tools we can make available online. This goes a long way to making us the go-to place for everything electrical."

why a co-owned professional services model worked for Sonepar Canada

“Nico and his team worked side by side with us every step of the way. They brought in top-notch developers to elevate our team and the work we do. This project helped our internal talent learn new skills and processes, which is a big plus for us,” said Mr. LeRoux.

“We’ve had at least one fantastic hire from Randstad through this project. It was like an eight-month job interview, which was great.”

The number of Randstad Canada’s IT Solutions staff scaled up and down as the project worked through its five phases, keeping the budget for talent as cost-effective as possible.

“We won’t be engaged with Randstad forever. Once the big projects are done, we’ll be doing our enhancement phase and future big projects on our own. Our people have learned a lot and will do a great job of taking on challenges as they come.”

positive outcomes

- 99.9% up-time on website
- Load time decreased to between 0.5 and 2 seconds
- Microservice response times between 100 and 200 milliseconds

CI/CD implementation

- Code coverage between 80%-90%
- Build time <3 minutes
- Deploy <20 seconds
- No manual interventions
- Over 1,000 deployments in 6 months
- No downtime



about randstad IT solutions

With a solutions-focused approach, IT Solutions combine Randstad's powerful staffing engine with exceptional IT expertise for customers across North America. Whether you need to lead an agile transformation, cloud-enable your organization, develop an e-commerce platform or implement DevOps practices, IT Solutions provides talent recruitment experience and IT project management capabilities to help our clients do it right.

We have the flexibility to scale up and down depending on the staffing needs in any given project phase, and we provide a cost-effective alternative to investing in expensive temporary or permanent hires. With the expertise of our in-house agile development team and more than 150 technology recruitment professionals, we can quickly source and deploy the talent and skills you need to implement your next big IT project.

To learn more about randstad IT solutions, go to randstad.ca/itsolutions