



## Twelve questions you should ask before moving to the cloud

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Cloud is widely seen as the foundation for digital transformation. Using on-demand cloud computing services means organizations can move faster and be more competitive in a rapidly changing environment. No one wants to be disrupted.

IDC predicts that by 2020, 40 per cent of Canadian companies will deliver 50 per cent of applications in the cloud.<sup>1</sup>

Yet many are struggling to get it right. Indeed, 70 per cent of organizations that want to leverage cloud technology fail to deliver business results.

Why?

The biggest problems occur when a company's business and IT strategies are not aligned, says Khurram Raja, product manager with TeraGo. "Technology has to be linked to the business objectives," he says.

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**"There is no one solution for everyone. Cloud is a journey."**

– Arturo Perez, Sales Director, TeraGo

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Planning is the key to designing the right architecture to suit your business. It can be tough to sort through an increasingly complicated array of cloud services and combinations on the market.

The practical considerations outlined in this paper will help organizations to:

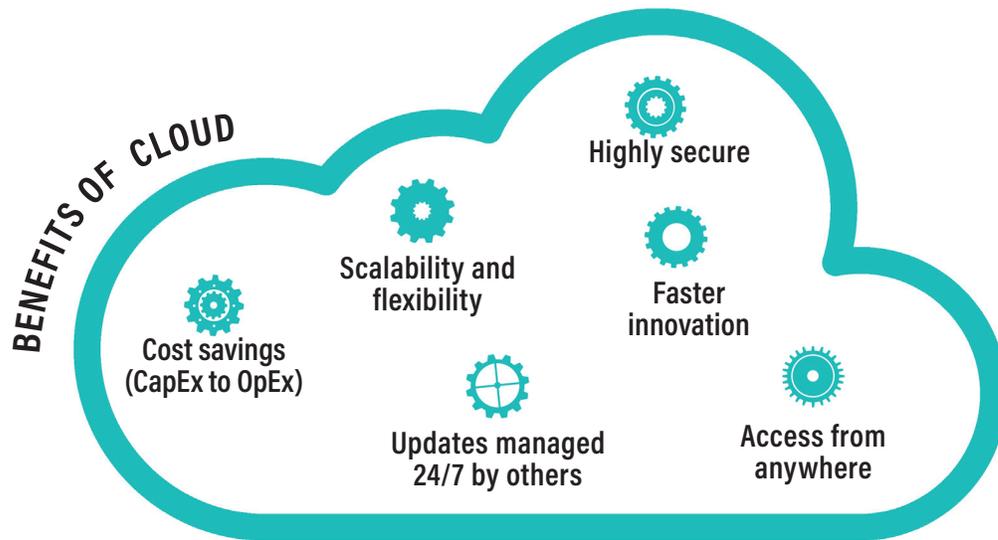
- develop a cloud business strategy,
- build a strong cloud foundation, and
- implement with success.

Here are 12 questions every organization should ask before adopting cloud:

## BUSINESS STRATEGY

### 1. WHY SHOULD WE MOVE TO THE CLOUD?

This is the first question everyone should ask, says Raja. "A good fit with the overall business strategy is the top consideration." Organizations should set out their business objectives and ensure that IT investments are lined up to support them.



## 2. WHAT BENEFITS WILL BE REALIZED BY MOVING TO THE CLOUD?

There has to be tangible benefits that you expect to achieve and these goals should be clearly defined, says Raja.

Increased agility is the top driver of cloud adoption according to IDC.<sup>2</sup> The on-demand capacity of cloud provides the ability to quickly scale the service, allowing organizations to spin up new workloads or business locations. With offsite storage and greater flexibility, organizations can focus on their business needs, rather than on managing their infrastructure.

## 3. DOES IT ENABLE ANYTHING NEW TO GIVE US A COMPETITIVE EDGE?

Companies should set priorities on how they will use cloud to become more competitive in the marketplace. This might include a faster go-to-market strategy or new ways to serve clients. Additionally, bringing new products and services

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**“You probably won’t meet anyone that will move 100% of their applications to the cloud.”**

– Khurram Raja, Product Manager TeraGo

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to the market leveraging latest and greatest cloud technologies might be the key driver to set apart an organization from the rest.

## 4. WHAT IS THE BENEFIT OF CHOOSING ONE CLOUD OPTION VERSUS THE OTHER?

Cloud computing comes in three forms, which should be compared in terms of the levels of security and management needed. The public cloud, which relies on the Internet, is the most cost-effective approach. However, it may not be the right fit in terms of security and service levels. Organizations with stringent security and compliance requirements may choose to have their workloads running in the private cloud or even keep them on-premises.

The majority of organizations are taking a hybrid cloud approach which enables them to distribute their workloads across clouds - private cloud for certain workloads and public clouds for others. An IDC survey shows that 87 per cent of cloud users have adopted some capabilities for a hybrid cloud strategy, often using more than one provider.<sup>3</sup>

Many companies are also continuing to maintain traditional on-premises hosting environments. The key to success will be to manage all of the integrations and management tasks.

## 5. WHAT WILL BE THE TOTAL COST OF OWNERSHIP?

The adoption of cloud improves cost efficiencies by ensuring that organizations pay only for what they use. By doing so, it shifts the budget from capital expenditures to operations. It also reduces the cost of hardware. Nonetheless, organizations should conduct a detailed analysis on the total cost of ownership for cloud and closely track expenditures to budget. Here are a few key questions to consider when assessing the total cost of ownership:

- Are there any ongoing fees that you must pay to a service provider for managing your environment in the cloud? And how does this compare to your current IT costs?
- Will there be ongoing training needed after moving to the cloud?
- How do the infrastructure costs in the cloud compare with the current IT investment?
- How long will the project take to transition workloads to the cloud? The longer it takes the more it costs from resourcing perspective.
- Will there be a need to refactor, redesign or re-architect the application in the cloud or will it be a lift-and-shift move? Refactoring, redesigning, or re-architecting will prolong the project and cost much more.

## BUILD A STRONG FOUNDATION

### 6. WHAT DO I NEED TO ADOPT CLOUD?

As Gartner states, the impacts of cloud computing on an organization are “not trivial and they do not take care of themselves”. Organizations should consider how the implementation of cloud will affect areas such as applications development, IT operations, procurement, and compliance and put a plan in place to address issues before they arise.

### 7. HOW DO I UNCOVER APPLICATION DEPENDENCIES?

Do you know how your critical applications interact with other applications? Before moving to the cloud, organizations should be sure to map their application relationships and configuration. Without this information, the IT implementation team will be operating in the dark and will likely cause project delays during migration execution.

### 8. ARE THERE ANY WORKLOADS THAT SHOULD OR SHOULDN'T MOVE TO THE CLOUD?

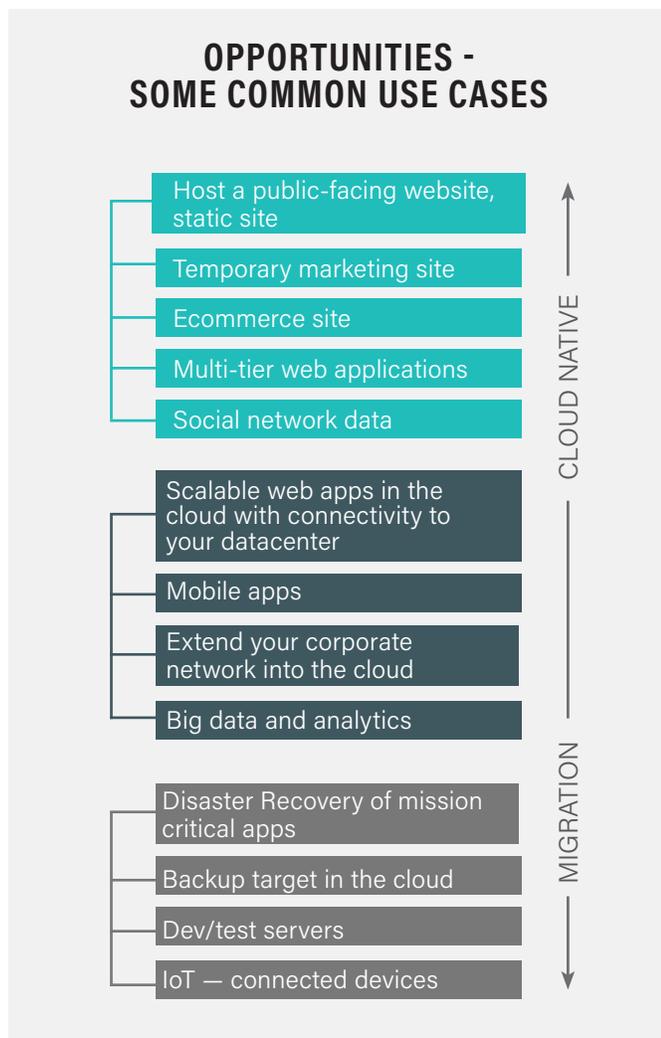
“Not everything is ideal to move to the cloud,” says Raja. “You probably won’t meet anyone that will move 100 per cent of their applications to the cloud.”

Organizations should conduct a detailed review of which applications they want to move to the cloud. Raja suggests that applications with the following characteristics may not be well-suited for the cloud:

- Heavily customized;
- Specific security or regulatory requirements that dictate that your data and workloads must remain on premises;
- Small footprint, with no plans for growth;
- Hardware dependent software licensing;
- Legacy applications.

There may be cases when it’s feasible to redesign, refactor or re-architect legacy applications for the cloud, says Raja. “There are many factors that should be taken into consideration, such as operational costs, resources, benefits, opportunities for growth/expansion, etc. It will be different in every case.”

At the same time, there are many opportunities to move applications to the cloud that will produce significant business benefits. Here are some good places to start:



### 9. DO I HAVE THE RIGHT STAFF TO HELP WITH THE MIGRATION TO THE CLOUD?

Cloud computing is not a simple IT initiative, and it must have a dedicated cloud architect to lead the transition, says Gartner research.

Organizations should also review whether they have the skills on staff to manage cloud. If not, they may wish to consider a managed cloud service provider to take care of the operational tasks.

#### IMPLEMENT WITH SUCCESS

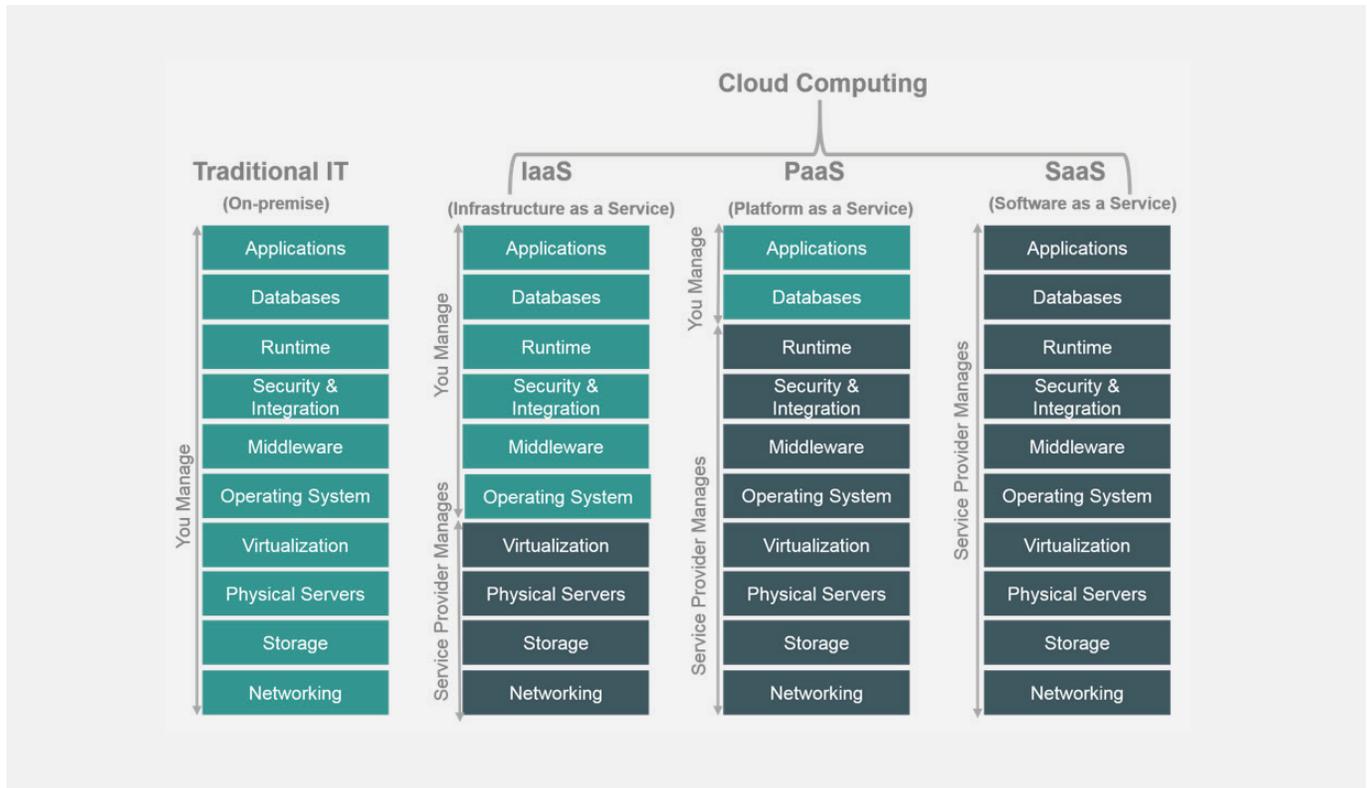
### 10. HOW WILL MAINTENANCE BE DONE AND BY WHOM?

In a traditional on-premises model, the organization’s IT team is responsible for everything. However, the various service models available offer varying degrees of shared responsibilities between the organization and the service provider. To avoid gaps in maintenance and security, it is vital to understand this delineation of responsibilities and ensure you have the right people available to support your underlying infrastructure and applications.

### 11. HOW WILL MY DATA AND APPLICATIONS BE SECURED?

Security and disaster recovery have been the top two concerns for CIOs for the past three years according to IDC surveys.<sup>4</sup> Many organizations report that they aren’t fully prepared. Fifty-four per cent say they don’t have complete documentation to fully recover from an event. Eighty-one per cent say they are not testing to industry standards.<sup>5</sup>

“That’s a concern,” says Raja. “Disasters don’t happen every day, but when it does, the impact is phenomenal. It is critical to safeguard your data.”



Security and disaster recovery plans must be a fundamental part of the overall cloud roadmap. Human error and hardware issues account for nearly 80 per cent of data loss, says Raja. In preparing for cloud, organizations must improve their data protection strategy and their infrastructure security strategy to cover all layers in the cloud.

## 12. HOW WILL WE MEASURE SUCCESS?

The cloud journey requires continuous improvement. Organizations should have clearly defined goals and metrics to measure progress. They should always be looking at additional ways to drive further efficiencies and to serve customers better. As part of this ongoing process, organizations should also be evaluating how emerging technologies, such as the Internet of Things and artificial intelligence can accelerate their business plans.

## THE FOUR STAGES OF CLOUD ADOPTION

### 1. PROJECT STAGE

At this stage, organizations should move at least one workload or application to the cloud for testing and as a proof of concept.

#### TASKS

- Identify key drivers for cloud adoption;
- Identify mission critical applications;
- Identify workload dependencies;
- Review regulatory compliance requirements;
- Allocate budget and human resources.

### 2. FOUNDATION STAGE

Organizations should aim to have two to four workloads running in the cloud. This stage is critical. It is where a lot of organizations fail because of poor planning from a strategy perspective. Organizations should seek advice from trusted providers and strengthen their plan.

#### TASKS

- Develop the business and IT objectives. Make sure that the strategies converge into one overall vision for the organization;
- Ensure appropriate skillsets are available to support the migration effort and ongoing maintenance;
- Staff training;
- Ensure that cloud and security strategies are in place with an operations runbook to provide procedures for dealing with issues.

### 3. MIGRATION STAGE

The goal during this phase is to move all eligible workloads to the cloud so the organization can start taking advantage of the cloud's scalability and cost savings.

#### TASKS

- Determine the migration plan;
- Decide which workloads to move first;
- Evaluate the business impact of migration;
- Testing and comparison of pre and post migration results

### 4. OPTIMIZATION STAGE

Organizations should plan for continuous optimization to find opportunities to save further on costs and to improve process, user productivity and customer satisfaction.

#### TASKS

- Monitoring and reporting on performance, productivity and satisfaction;
- Ongoing health checks;

## MAKE THE RIGHT DECISIONS FOR YOUR CLOUD

TeraGo offers a Cloud Assessment that is:

- Platform agnostic
- Workload specific

The outcome is a roadmap for digital transformation. Speak to a cloud specialist about your opportunity.

Call TeraGo at 1.866.837.2465

## ABOUT TERAGO

TeraGo provides businesses across Canada with cloud, colocation and connectivity services. TeraGo manages over 3,000 cloud workloads, operates five data centres in the Greater Toronto Area, the Greater Vancouver Area, and Kelowna, and owns and manages its own IP network. The Company serves business customers in major markets across Canada including Toronto, Montreal, Calgary, Edmonton, Vancouver and Winnipeg. TeraGo Networks is a Competitive Local Exchange Carrier (CLEC) and was recognized by IDC as a Major Player in MarketScape Cloud Vendor Assessment. TeraGo Networks was also selected as one of Canada's Top Small and Medium Employers for 2017.

### *Sources:*

- 1. IDC CloudView Survey 2017*
- 2. Source: Top Executive Survey, IDC Canada 2017*
- 3: IDC CloudView Survey 2017*
- 4. Source: Top Executive Survey, IDC Canada 2017*
- 5. Source: What's the Weakest Link in DR Plans?, A joint survey in partnership with IDC Canada, 2016*