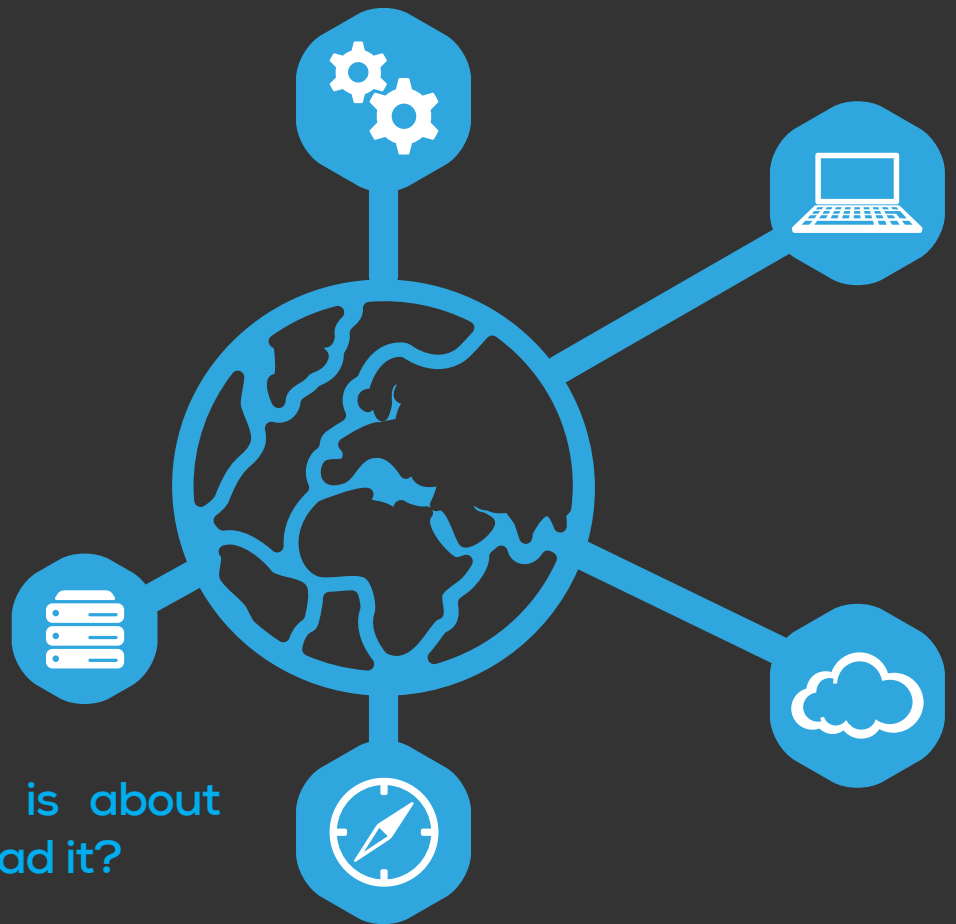




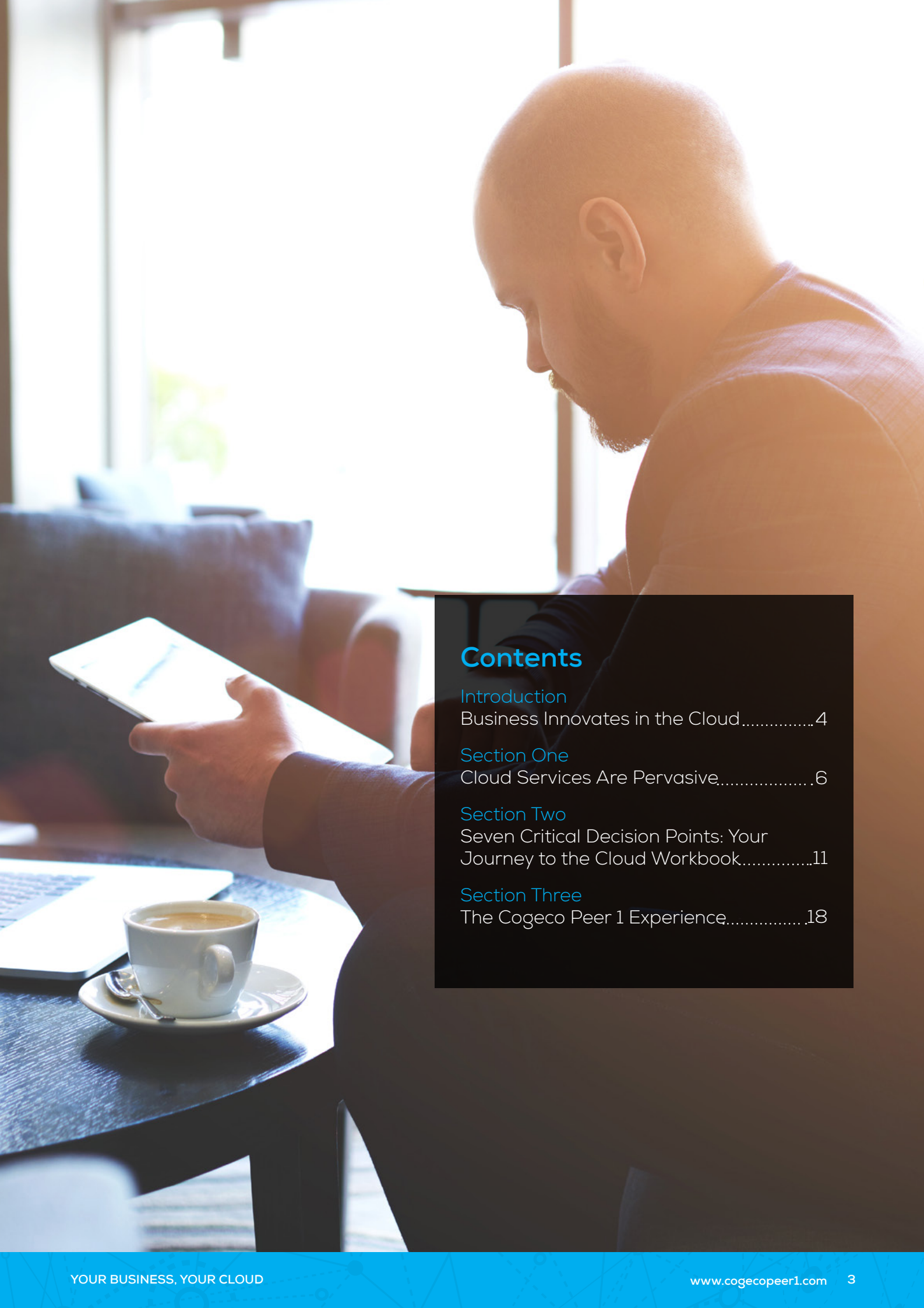
YOUR BUSINESS, YOUR CLOUD
**NAVIGATING YOUR
CLOUD JOURNEY**



What this eBook is about and who should read it?

In today's world of innovation, business strategy is becoming the dominant IT skill. Cloud is the enabler for IT to shift from a traditional role, managing legacy environments, to a more strategic player within the enterprise, tied to revenue generation and product invention.

This eBook is designed for both line of business and information technology leaders. In the following pages, we will explore current trends driving the adoption of cloud, what questions to ask as you design your own unique journey to the cloud, how to ensure you are workload-optimized and global-ready, and, why one cloud won't fit all but one service provider can.



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INTRODUCTION

Business Innovates in Cloud

To be cutting edge in business today, you need to be learning, inventing, creating and discovering. You need to innovate with better methods, services and products than your competitors. You need an agile environment that supports the pace of business. Your business, your way.

Business has long relied on technology to compete. To enable it to streamline, innovate and become more efficient. The invention of the telephone, the calculator, the personal computer, email, bar codes, networking, the Internet and now the Internet of Things (IoT) are simply a few examples of how technology has enabled business to transform. Each new invention represents a leap forward, affording business leaders the opportunity to think creatively as their organizations give birth to ideas that shape better products and services for customers.

Collaboration and access to information is key. The ability to brainstorm a new idea – a new business concept – test it and roll it out in weeks, days, or even hours, is the pace that business innovation is occurring at today.

Cloud is the enabler of that vision.

According to industry research firm IDC, digital transformation will reach macroeconomic scales.

By 2021,

at least 50% of the global GDP will be digitized, with growth in every industry driven by digitally enhanced offerings, operations and relationships.



50%

of the global GDP
will be digitized

Source: IDC 2018

Why the Enterprise is Embracing Cloud

Cloud has emerged as a platform that can unshackle IT from the manual efforts, processes and procedures of traditional legacy environments. It does this by creating highly secure, highly automated and highly agile hybrid environments designed for IT ease, management and accountability.

Don't get us wrong, the replacement of manual processes will still leave critical IT governance processes in place; but cloud is about eliminating meaningless repetitive tasks while embracing the efficiencies of automation so that IT can better support the business. The cloud promise is realized through infrastructure, security, collaboration, automation, self-service and highly secure applications. The promise of cloud enables:

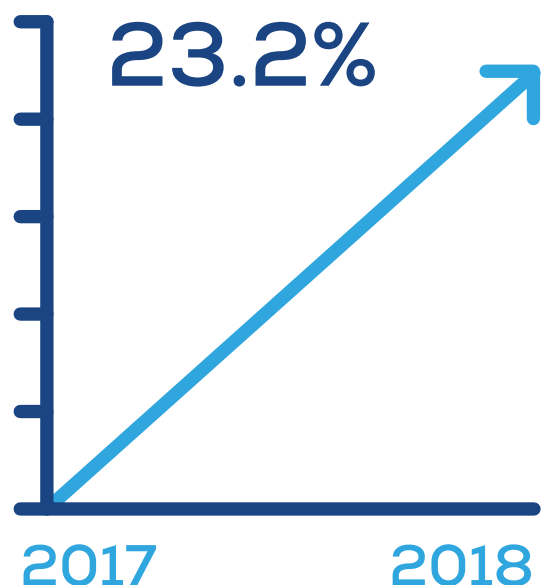
- Speed
- Agility
- Cost reduction
- Scalability
- Data protection
- Flexibility
- Mobility
- Business innovation

Multiple clouds can offer multiple advantages and the ability to connect those clouds so that each business can design the ultimate environment to operate within has enabled IT to shift roles in an organization where business strategy becomes the dominant IT skill.

According to the latest research from IDC, public cloud will total \$277 billion USD by 2021, a five-year CAGR of 21.9%. This includes SaaS, PaaS, IaaS, plus all the professional and managed services around cloud technology (both public and private), as well as the supporting software and hardware to make cloud implementations happen.

IDC predicts that public cloud will total \$277 billion USD by 2021.

Worldwide spending on public cloud services and infrastructure is forecast to reach \$160 billion USD in 2018, an increase of 23.2% over 2017, according to the latest update to the International Data Corporation (IDC) Worldwide Semiannual Public Cloud Services Spending Guide.



SECTION ONE

Cloud Services Are Pervasive

Cloud is pervasive. The tipping point has arrived. Customers now rely more on digital infrastructure than physical infrastructure (51%) and that is expected to be at 57% over the next twenty-four months.

Cloud is mainstream. Eighty-five percent of customers today are beyond the discovery phase which means they have implemented some form of cloud offering in their enterprise. But the shift is still occurring, and it is massive. Less than 15% of businesses have reached broad implementation which means that we will continue to see significant change in how businesses compete.

Cloud Enables Revolutionary Thinking

The opportunity for every enterprise to drive massive transformation across their industry is not only possible, it is highly probable. In particular, highly regulated industries such as financial services where change has been slow are particularly ripe for revolutionary thinking.

In addition to a revolutionary approach to cloud advantages – such as creating brand new applications to drive brand new business models, there is also the evolutionary benefits – where existing workloads and applications can live in hybrid clouds for greater efficiencies, better service levels and more data protection.

“If you don’t have a real stake in the new, then just surviving on the old – even if it is about efficiency – I don’t think is a long-term game.”

– Satya Nadella, Microsoft CEO



FinTech Disruption

Industries like financial services with decades of process, systems and regulatory restrictions are ripe for disruption. In the past, we've seen the likes of PayPal, Square, Prosper and others shake up traditional models.

“The world is far more connected today than it was 15 or 20 years ago. The tools that are available– cheap storage, cheap computing, and wonderful analytics – have changed the regulatory environment, and people are way more comfortable managing their money and business online,” said Pat Grady, a partner at Sequoia Capital. His VC firm often makes bets in this world, with investments from PayPal to Square to Prosper (No. 86) and Grady sees vast opportunities ahead. “If you want to dream a little, the entire financial system could be remade with companies we’re seeing today,” he says.

Source: Inc. 5000

What to Purchase from Your Cloud Service Provider?

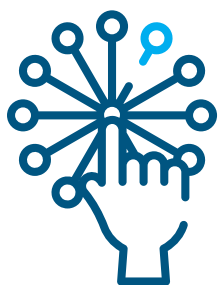
On average, customers purchase 17 individual products across major categories of infrastructure, applications, security, and managed services.

Why is this significant? Because it represents:

- The depth and maturity of cloud services already in market today;
- The need for multiple types of clouds and a variety of offerings across those clouds to meet the unique needs of every enterprise;
- The importance of establishing trusted partnerships with cloud service providers who can extend the value of IT from the ground up, supporting the business decisions made in boardrooms.

“Managed service providers will play an increasingly important role in the new enterprise. Helping to drive costs down while increasing the ability for the CIO to enact Digital Transformation means that service providers will need to understand both the technology requirements at a very deep level as well as what the business outcomes need to be. From how to integrate across multiple clouds and multiple lines of business to increase business agility and improve business continuity to understanding how to secure, connect, and protect core assets across a global enterprise.”

– Bertrand Labelle Vice President, Marketing and Innovation, Cogeco Peer 1



62%

of CEOs have a management initiative or transformation program to make the business more digital.

Source: Gartner Survey, April 2018

Growth

Managed services are growing at a fast-pace and expected to grow from \$36.8 billion USD in 2015 to \$70.1 billion USD in 2019. Some of the top managed services customers want most include:

40% of customers want to work with a services provider who can help with cloud assessment.

49% of customers want to work with a services provider who understands how to enable cloud transformation.

38% of customers want to work with a services provider who can offer cloud migration.

The interesting point about the study results noted above is that customers are mostly concerned about the strategic elements of moving to the cloud. This means finding a trusted cloud partner who can bring a combination of deep technical know-how, along with the business understanding that includes assessment, transformation and migration.

“It is great to see businesses like Cogeco Peer 1 help global companies move to intelligent cloud solutions, empowering them to ultimately achieve more and help drive business innovation”

– Janet Kennedy, US Vice President, Digital Transformation, Microsoft

Cogeco Peer 1 Helps App Commerce Company Meet Customer Support Needs and SLA Requirements

Poq is an app commerce company that launched as a software-as-a-service start-up in 2011. It powers the iOS and Android shopping apps of major retailers like House of Fraser, Radley, Made.com, Holland & Barrett and Misguided. In a few short years it has been enormously successful as retailers increasingly look to take advantage of the enormous growth in mobile computing and mobile-based online shopping.

Poq had launched its service from the Microsoft Azure cloud platform. As Poq expanded, their need for fast support to ensure they could meet customer SLA's was critical. They needed a fast and responsive support service that could keep pace with their growth. Poq made the strategic decision to work with a third-party Cloud Service Provider.

Poq turned to Cogeco Peer 1, a Microsoft Gold Partner and Cloud Service Provider for its Azure service. The rationale was simple; Cogeco Peer 1 has an unrivaled dedicated support functionality on the Azure platform, with in-house technical expertise which enhances Poq's capabilities and improve its ability to forecast cloud cost.

How do we do it?

DEDICATED RESPONSIVE SUPPORT - dedicated service provides Poq with the technical support it needs to underpin and drive its growth by providing a Technical Account Manager who is an extension of the Poq team.

NEW CUSTOMERS & COST SAVINGS - Cogeco Peer 1's close relationship with Microsoft enables it to identify retailers that are using Microsoft services and who may also benefit from Poq's services.

GETTING ON WITH BUSINESS - Cogeco Peer 1 allows Poq to get on with developing their platform and focus exclusively on bringing new features and services to their retail customers, strengthening their relationships and building the business out.

REMOVING COMPLEXITY - the service from Cogeco Peer 1 is delivered as a PaaS (platform-as-a-service), so Poq now develops, runs and manages applications without the complexity of developing and maintaining the infrastructure tasks that are typically associated with app launches.

The move helps Poq benefit from a close support relationship with Cogeco Peer 1 which in turn helps them strengthen their relationships with customers, focus exclusively on core business, cut costs and grow their business.



Poq is a mobile app commerce company that provides a platform for native apps to renowned retail brands. In this video, Jun Seki, Poq's CTO and Co-Founder, discusses the future of eCommerce: a device-less environment that will integrate a host of innovations such as AI to personalize the shopping experience to each and every consumer. As Poq helps its retail customers successfully navigate this rapid transformation, they needed a robust, forward-thinking technological partner.

The move helped Poq benefit from a close support relationship, which in turn helps them strengthen their relationships with customers, focus exclusively on core business, cut costs and grow their business

"Cogeco Peer 1 allows us to get on with developing our platform. We no longer need to worry about the back end; we can focus exclusively on bringing new features and services to our retail customers, strengthening our relationships and building the business out."

– Jun Seki, CTO and Co-Founder, Poq



SECTION TWO

Your Journey to the Cloud Workbook

Customers today have a lot of choice. There are public clouds, private clouds, hybrid clouds. There are cloud providers that range from the largest telcos down to the smallest hosts, all delivering a variety of managed services.

At the end of the day, the cloud infrastructures themselves aren't very differentiated. They are all built using the same (or similar) hardware and software, accessing the same (or similar) public cloud vendors.


So, what is the differentiator? How does an enterprise client choose the right partner to trust to work with?

The key differentiators are how the technology is integrated, how it is managed, and the service levels it supports. It is about understanding what the right processes are – what ones to retain, what to introduce, how to incorporate compliance and how to manage, analyze and report for better control and better insight.



“Every day we witness disruptive innovation – tangible examples of our customers exploiting the cloud to unlock the full potential of their business. Whether it’s shortening product development time, improving data analytics capabilities, or simply delivering superior customer experiences – it is enabling true, measurable, and sustainable competitive advantage. This innovation modality is, in turn, nurturing a rapid acceleration in enterprise cloud adoption – driven by the desire to dramatically improve business outcomes across the digital enterprise.”

– Bertrand Labelle Vice President,
Marketing and Innovation, Cogeco
Peer 1

A background image showing a group of business professionals in a meeting. A man with glasses and a beard, wearing a light blue shirt and a dark tie, is smiling and looking towards the right. Another man is partially visible on the left, also wearing glasses. In the foreground, a person's hands are seen writing in a notebook. The setting appears to be a modern office with large windows in the background.

Technology is simply the tool that delivers business innovation. What enterprises want, is to work with organizations who understand how to integrate human application, intervention and intelligence to ensure that the technology is being used and adopted in the most innovative means possible.

Beyond that, customers are beginning to understand that the “cloud” isn’t a single option. And because there are multiple clouds, there is the potential to introduce multiple cloud providers into your enterprise. Finding that unique service provider who can offer multiple options under a single umbrella becomes more attractive as cloud options and architectures become more complex.

The Journey to the Cloud

For many customers, when they first start talking about the cloud, they often think it is simply deploying servers and virtual machines into a cloud - whether it is Azure, AWS, or their own private cloud. But, the cloud is a lot more complex than just splitting up a virtual machine. The cloud journey simply begins there.

As we have worked with various enterprises globally in helping them make their journey to the cloud, we have identified several key decision points you should keep in mind. The following series of steps and questions are provided here as a guide for you to begin discussions internally or with your services provider.

Can you or your service provider answer all these questions?

Cogeco Peer 1 has identified **seven critical decision points**, which every organization needs to examine before starting their journey to the cloud. Use this workbook to begin documenting the answers to your cloud journey questions. Contact Cogeco Peer 1 if you would like a solutions architect to help you review the seven critical decision points.

Decision Point One – Application Deployment and Licensing

You've made the decision to migrate to cloud. You got a sense of the infrastructure stack that you need. Once you make that decision, the first thing is how are you going to deploy your application and your software licenses into the cloud?

Every application and workload are different and different clouds react in different ways. Understanding the outcome that you need to achieve will help you understand your deployment and licensing strategy.

Many organizations don't understand their licensing strategies and can end up paying for more licenses than they need. For larger enterprises, this can represent hundreds of thousands or even millions of dollars a year in overpayments. Licensing your applications correctly is critical, impacting budgets and bottom lines.

Decision Point Two – Connecting to the Cloud

Another step is understanding how you are going to connect to the cloud and connect to that application?

Do you have a fast, reliable and secure ability to access, manage, move and store large amounts of data worldwide?

Is your network fully optical, redundant and secure for "always on" availability?

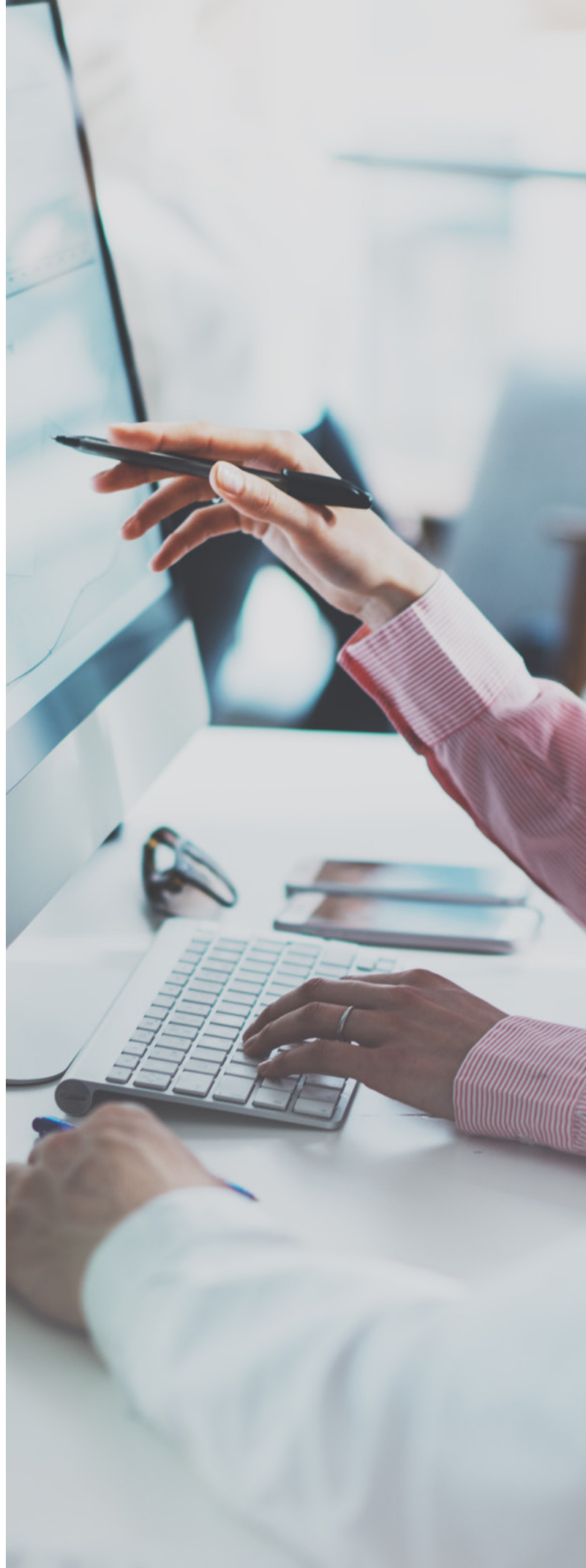
Do you have tier three-quality SLAs with hyper-scale capabilities and near limitless bandwidth for hosting and storing mission-critical data?

Decision Point Three – Cloud and Your Data: Secure, Compliant and Sovereign

Consider your security requirements - how are you going to secure that application?

How do you secure a cloud that is potentially available to anyone and everything that's connected on the Internet?

Do you have regulatory or compliance considerations that you need to address?



In addition to data compliance, data privacy and sovereignty are issues that need to be addressed – first by policy and then by architecture. Sheila FitzPatrick – President of Fitzpatrick & Associates and one of the world’s leading authorities on this topic has provided us permission to reprint her comments on this topic.

Data Privacy

Privacy is about who is entitled to have access to certain kinds of information. According to the Merriam-Webster dictionary, privacy can be defined as “freedom from unauthorized intrusion”. In the data protection business, this means thinking about what information you’re collecting, what you’re doing with it, and whether you have the legal right to have that information.

You just need to scan the newspaper headlines to appreciate how catastrophic it can be when data is breached. This is especially true for personal data, such as detailed information about your employees, or your customers’ credit card numbers. Yet data privacy is an area that many organizations still don’t pay enough attention to. Protecting data from unauthorized intrusion starts with understanding what information you ought to collect – and keep – in the first place.

Data Security

Security is about keeping things safe. Among other things, Merriam-Webster defines security as “measures taken to guard against espionage or sabotage, crime, attack, or escape.” Security is usually the easiest aspect for people to understand. It includes things like encryption and other methods to prevent unauthorized access to data, but it’s only part of the picture.

Data security certainly supports data privacy, but these two terms shouldn’t be used interchangeably. A company can have world-class security in place without addressing its privacy obligations. Imagine having your car parked while you run a quick errand –you locked the car using its state-of-the-art security system, but you return to find that your car was broken into and your beautiful leather satchel has been stolen. It’s true that the security system let you down (or that the enterprising thieves found a loophole), but if your satchel hadn’t been there in the first place, you could have minimized your loss. It’s the same with data protection– start with a solid foundation and build on it.

Data Sovereignty

Sovereignty is about governance. Merriam-Webster defines sovereignty as “a country’s independent authority and the right to govern itself.” When it comes to data, this is all about where the data is being stored and what laws apply to protecting it.

This question is more complicated than many people realize. For example, you need to think about where your data is stored, but you also need to think about where it’s backed up. With the rise of cloud computing, these are important questions for every organization to ask – not just large multinational corporations.

All these components are critical to managing your business, legal, and ethical obligations related to data. Sometimes they’re complementary, and other times it feels like they compete with each other, but they’re all important. In the end, it’s all about finding the right balance, which happens by asking the right questions up front. A trusted advisor can help you do that. And if you’re lucky, they can do it with a minimum amount of “jargon.”

Source: Sheila FitzPatrick, President, Fitzpatrick & Associates, a worldwide expert in Data Privacy and Sovereignty Laws, GDPR Expert.

Decision Point Four – Ongoing Monitoring and Management

Once you've secured your cloud, how do you do the ongoing monitoring and management?

There is a vast infrastructure that requires (often daily) patch management and upgrade roadmaps. Ongoing monitoring for security incidents and frameworks for addressing any potential security incidents. Whether it is simply day-to-day operations and optimization of the cloud, or the ability to respond to incidents while meeting strict SLA commitments, these need an end-to-end plan to protect customers from data loss and business disruption.

Decision Point Five – Protecting Your Data

An important consideration is how to protect your data that's in the cloud?

Your data must be backed up. What's the right backup strategy?

How frequently do you backup? How long do you retain it for? Where do you retain backup to?

Can data be restored quickly and if so, is it being restored on-premises or onto virtual machines in the cloud?

Decision Point Six – Migrating to the Cloud

Customers today have zero tolerance for downtime. But a cloud migration can represent a potential threat for disruption. New workloads, new environments, new procedures. Migrating data – the actual act of getting your data and your virtual machines into the cloud requires careful planning and know-how from people who have done it before, done it well and know how to do it with little or no disruption to your business.

What mission-critical applications are you planning to migrate and where does the data sit today?

What is the volume of data that needs to be migrated from existing infrastructure to the cloud?

Is a change management process in place that supports migration of data and workloads?

Does the workload require live migration to minimize downtime and/or data loss?

Decision Point Seven – Establishing Success – Enabling Business Outcomes

Surprisingly, there are still customers who work with us who never bring this up. They spend their time focusing on the technology they think they will need to include in their overall design.

When we have cloud conversations with our customers, they are always business driven. We know that our customers need to achieve a specific business outcome and so we believe in creating a unique cloud journey that is aligned to achieving that business outcome.

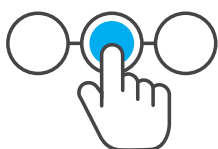
Identify the success outcomes that would make your cloud journey wildly successful. (Consider success metrics that are SMART – Specific, Measurable, Attainable, Realistic and Timely).

We help our customers understand what that cloud journey looks like. We ultimately set them up for success. That's what our story is about. Whether the client is looking at private, public, community or a hybrid cloud, we are able to deliver a holistic integrated approach to help our customer understand how to use the cloud as a point of innovation and differentiation in their business.

SECTION THREE

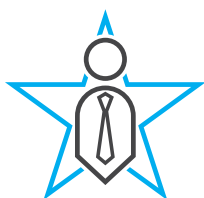
The Cogeco Peer 1 Experience – Powering Your Potential

We empower you to unlock the potential of your business by designing, building and managing hybrid IT solutions optimized for your business. This enables you to focus on what matters most: powering transformation, driving growth and delivering exceptional experiences to your customers.



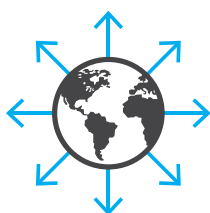
Genuine Choice and Flexibility

We offer core infrastructure capabilities that span cloud, hosting and colocation underpinned by enterprise-grade security protection. All wrapped in trusted managed services and connected to your on-premise IT with cutting edge network solutions.



Deep Technical Expertise

Our industry certifications qualify and endorse our teams' expertise providing assurance that your data is secure and peace of mind that you are in capable hands.



Global Reach and Connectivity

Global footprint of 16 data centers and 50+ points of presence with local teams deployed to support you and provide the crucial local touch.



True Hybrid Solutions

We combine genuine choice and flexibility (the breadth of our portfolio) with deep technical expertise and global reach which allows us to be a true hybrid managed services provider.

What Others Are Saying About Us



"We've been using Cogeco Peer 1 for almost two years and we know that with their help we can sleep at night."

–Dan Barnell, Founder, Work



"We have particularly appreciated your tailored and personal approach, and are confident that this partnership will enhance our performance."

–Michael Racine, Vice President, Real Estate Management, Banque Laurentienne

BANG & OLUFSEN

"We invited several service providers to the process, but it was Cogeco Peer 1's technological superiority, coupled with their proactive attitude to customer service that made us select them."

–Michael Sjøby, IT Governance and Sourcing, Bang & Olufsen



"We operate on the expectation of minimal unplanned downtime and so do our customers. Anything less than this and our business is less effective, which is why we consider our partnership with Cogeco Peer 1 fundamental to our operations."

–Michael Wright, CEO, Striata



Unlock the potential of the cloud for your business.

Contact Cogeco Peer 1 for more information.

info@cogecopeer1.com

www.cogecopeer1.com

About Cogeco Peer 1

Cogeco Peer 1 is a wholly-owned subsidiary of Cogeco Communications Inc. (TSX:CCA) and is a global provider of essential business-to-business products and services, such as colocation, network connectivity, hosting, cloud and managed services that allow customers across Canada, Mexico, the United States and Western Europe to focus on their core business. With 16 data centers, extensive FastFiber Network[®] and more than 50 points of presence in North America and Europe combined, Cogeco Peer 1 is a trusted partner to businesses small, medium and large, providing the ability to access, move, manage and store mission-critical data worldwide, backed by superior customer support.

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