CLOUD STRATEGY

OCIO | Office of the Chief Information Officer

BRITISH COLUMBIA

INTRODUCTION

In October 2016 the Office of the Chief Information Officer (OCIO) launched a strategy setting the three year strategic direction for IT in government. With the mission of modernizing BC Government services and workplaces to benefit all British Columbians, the OCIO Strategy 2016 identified five strategic pillars: Connectivity, Security, Digital, Cloud and Mobility. Collectively, these pillars underpin our success in moving toward a modern, digital government.

Cloud services are everywhere; there is no doubt that this global shift in computing will continue to grow. Providing digital services to the citizens of B.C. requires modern infrastructure, platforms and software, many of which will be available only through cloud-based services. We must begin to transform our existing IT delivery model and build our capability to deliver services anytime, anywhere and on any device through cloud while complying with privacy and security requirements. Through the adoption of cloud services we will be able to keep up with the pace of technology change and meet the future needs of citizens.

The move to enterprise cloud services will take time, creativity, persistence and above all else collaboration across government. To support this move, the OCIO is working with ministries to provide guidance and a detailed enterprise cloud adoption plan. This will ensure that the move to cloud is progressive but managed to identify opportunities, create consistent approaches, mitigate risks and maximize value. Managed adoption of cloud will allow us to ensure the data we hold is protected and secure, and that we collectively maximize financial and business investments.

Our 5 Strategic Pillars

CONNECTIVITY
Secure, reliable networks and internet access

SECURITY
Protected and available services and data

DIGITAL
Digital technologies for public value

CLOUD
On-demand computing

MOBILITY
Mobile devices, apps and workspaces

Cloud computing provides convenient access to shared computing resources, where you can pay-as-you go, enroll in a subscription, purchase a fixed plan or enroll in a free plan. Building government services on cloud computing makes it quicker and easier to purchase computing resources on demand, scale up or down depending on business needs, and improve overall resiliency.

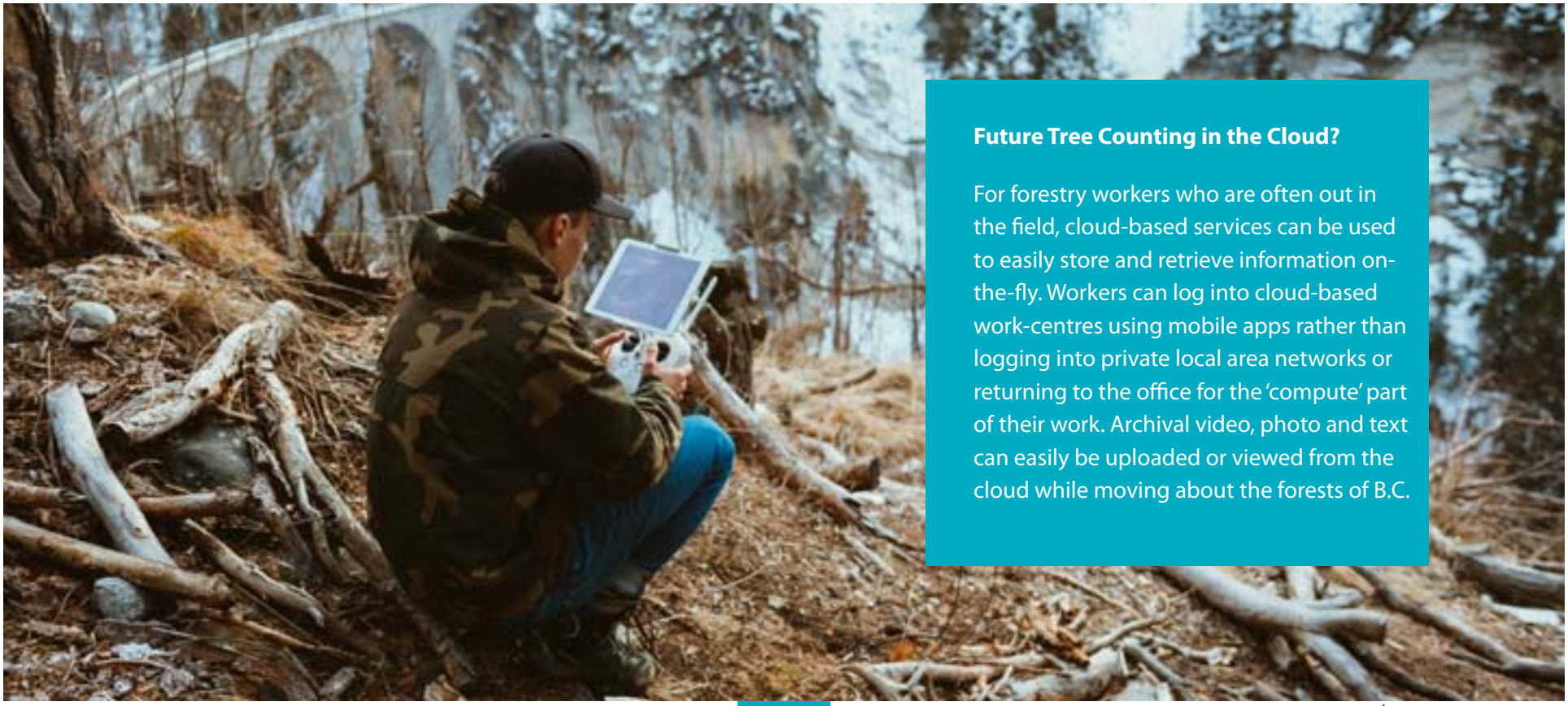
WHAT IS **CLOUD?**

Cloud is internet-based computing. Rather than running services and programs from a local desktop or network connected server, cloud services run over the internet. Cloud offers a wide range of services, such as data storage, the provision of servers and computer platforms to build and serve applications and software.

Cloud services are often driven by an 'on-demand' subscription utility business model with sign-up and "pay-as-you-go", only paying for what is being used. Services can be added or removed based on need, and cost is based on service subscription. How long you subscribe to a service will have a direct relationship to pricing – a longer subscription usually results in more predictable pricing.

Price is usually not the most important factor when making a service choice. The agility and responsiveness to changing business needs that comes with cloud-based computing often provides greater value. The subscription model is advantageous by limiting investments in hardware or software licensing, and it allows for quick and easy adjustments to service subscriptions.

The **terms and conditions** of these services are **set by the provider** and can be changed **without your input.** When moving to cloud based services, ministries will need to recognize the impact of potential changes and work toward managing this risk.



Future Tree Counting in the Cloud?

For forestry workers who are often out in the field, cloud-based services can be used to easily store and retrieve information on-the-fly. Workers can log into cloud-based work-centres using mobile apps rather than logging into private local area networks or returning to the office for the 'compute' part of their work. Archival video, photo and text can easily be uploaded or viewed from the cloud while moving about the forests of B.C.

WHAT KIND OF **CLOUD?**

There are two types of cloud: Public and Private, and within Private there are Community Clouds and Hybrid environments. As we consider transitioning to cloud-based services, the data and services being considered will need to be closely examined and the most appropriate service chosen based on privacy and security requirements and business needs.

Public Cloud

In this computing model, cloud service providers offer IT resources over the Internet. These services could be located in data centres anywhere in the world. An organization would access servers, applications, large storage capacity, and a range of capabilities via the Internet from anywhere, to meet business needs.

Cloud pricing models can be pay-as-you go, enroll in a subscription, purchase a fixed plan or enroll in a free plan. These models typically offer cost-savings and efficiency benefits.

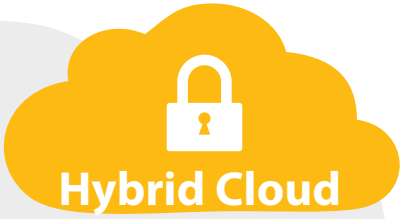
Cloud providers can host data from multiple sources on the same services that are located around the world or confined to a single region, such as Canada. With public cloud, the transfer and storage of data needs to be carefully examined prior to selection to ensure it meets privacy and security requirements.

Private Cloud

Private cloud consists of IT infrastructure and services typically hosted within an organization's own data center. As compared to other cloud models, private clouds tend to have higher capital and operating costs. While data is stored locally on managed servers, it can be difficult and expensive to achieve security in this era of sophisticated cyberattacks.

Community Cloud

A form of private cloud where IT infrastructure and services are custom built for a number of organizations in a community that have the same class of requirements, e.g. government agencies.



Hybrid Cloud

Hybrid Cloud is a combination of private/ community cloud and public cloud. In a hybrid configuration, on-premise services and applications need to integrate effectively with public cloud-based applications and platforms. The BC Government is moving towards hybrid cloud in response to ministries' need for a greater choice of platforms and services to support their shift to digital.

On-premise private cloud is a choice where there is a data privacy or security issues, a sensitivity to network performance or very specific operational, or contractual requirements that are not met by public or community cloud solutions.

Public cloud offers a spectrum of services which include high-control to high-productivity options, as well as marketplaces to access software applications and services that are built on, integrate with or complement the cloud provider's offerings.

THE 'AS A SERVICE' MODEL

The 'As a Service" (XaaS) model has three primary types: Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS). They can be private or public, on-premise or hosted.

Infrastructure as a Service

Infrastructure as a Service is a standardized, highly automated offering, where compute resources, complemented by storage and networking capabilities, are owned and hosted by a service provider and offered to customers on-demand.

IaaS services are able to handle increased service demand volumes that are often based on short term requirements (e.g. submitting permit applications before calendar end).

Examples include DigitalOcean, Linode, Rackspace, Amazon Web Services (AWS), Cisco Metapod, Microsoft Azure and Google Compute Engine (GCE).

Platform as a Service

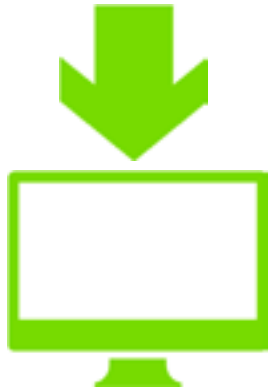
A Platform as a Service (PaaS) offering, is a broad collection of application infrastructure (middleware) services (including application platform, integration, business process management and database services).

PaaS services improve developer productivity by providing middleware services. This leaves time for developers to focus on publishing solutions.

Examples include RedHat OpenShift, AWS Elastic Beanstalk, Windows Azure, Heroku Force.com, Google App Engine and Apache Stratos.

Software as a Service

Software as a Service (SaaS) includes infrastructure, platforms and applications which are made available over the Internet. The applications usually do not require downloading or installation on the user's computer.



SaaS applications are subscription based and can replace traditional on-device applications. The initial cost is often lower than that of licensed applications. IT costs for hardware can also be lower.

Examples include Google Apps, Salesforce, Workday, Concur, Citrix GoToMeeting and Cisco WebEx.

THE BENEFITS OF **CLOUD**

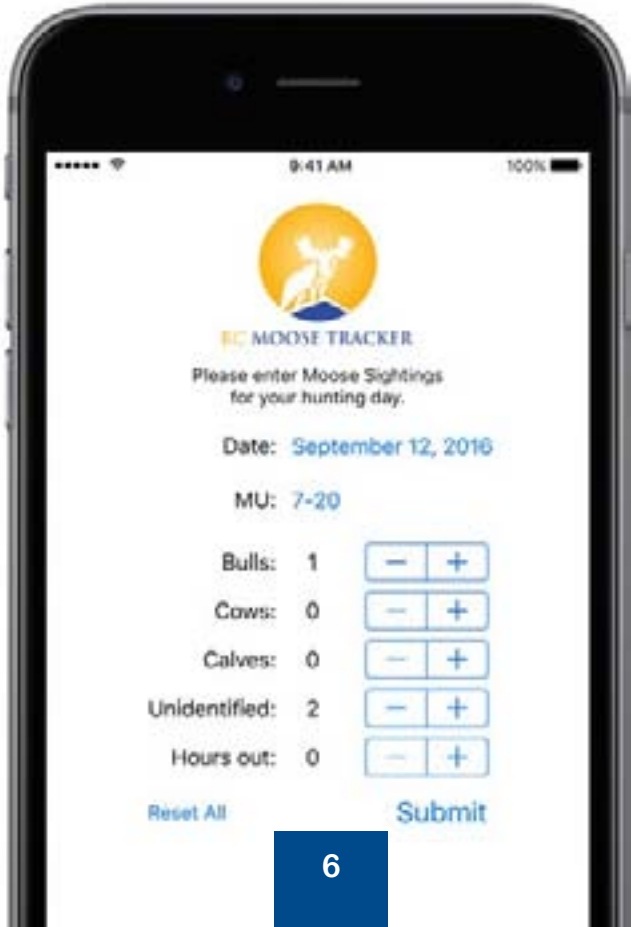
Business agility, not cost, is the primary driver of **cloud adoption**

From global IT companies to local specialty app companies, business models are shifting toward cloud-only delivery of services. This is driving significant change in how IT infrastructure and service delivery platforms are managed, creating opportunity for cheaper more flexible service delivery. The shift from managed hosting to managed **cloud opens the door to evolving new services** that we can take advantage of to improve the citizen experience.

By 2020, anything other than a cloud-only strategy for new IT initiatives will require justification at more than 30% of large enterprise organizations. - Gartner

BC Government adoption of cloud-based services will enhance our ability to deliver digital services. Citizens will benefit from new innovations in **service delivery that can be accessed anytime, anywhere and on any device**. Even from the remote shores of Bella Bella, community educators will have the ability to connect to the cloud using mobile devices. Students will have the ability to log into virtual classrooms running on cloud services, where they can share multi-media presentations of their cultural experiences and video conference with others across the province.

Through cloud-enabled mobility, **we can continuously learn from government data**. The BC Moose Tracker app enables moose conservation and management through crowd sourced data sharing. Moose encounters are recorded from the forest in a province-wide database and analyzed to identify emerging issues. As we work with mobile technologies and cloud services we will uncover new and exciting ways to innovate, to share and to use data to improve services across the province.



By 2020, the number of enterprises using public cloud infrastructure as a service (IaaS) as their data center backup destination will double, increasing from 10% at the beginning of 2017. – Gartner

The market shift to cloud will lead to a **greater variety of services to choose from** and to build services on. As more is offered in the cloud, we can expect reduced cost. Cloud services, through the ability to rapidly scale infrastructure or subscriptions up or down, enables **agile and collaborative development**. An election office, for example, with the click of a mouse, is able to set up servers, install and run their apps and manage elections from anywhere. Once done, they will just as quickly have the ability to decommission their use.

All of this allows us to provide faster, innovative and more effective apps and business services to the public to meet demand

Adopting cloud means **ministries are empowered to transform, develop, and enhance their operations and services to meet their business needs**. For example, Software as a Service (SaaS) offers ministries capabilities and an ease of use that aren'tavailable with on-premise custom built solutions. The quick set-up of SaaS based solu-

THE BENEFITS OF **CLOUD**

Cloud services offer a pay-as-you-go subscription model where the user pays only for what is used

tions, such as a client relationship management, incident reporting, and project portfolio management, helps ministries streamline their operations and provide enhanced services, faster.

Today our operational environments are complex. As we transform using enterprise cloud, we will **reduce that complexity to become more efficient with the ability to respond and change rapidly**. Software as a Service (SaaS) cloud subscriptions will reduce or remove our need to create custom applications. However, reducing our complexity will take time and we know that not all hosted services will move to cloud-based services. We will maintain a number of mission critical services on-premise so we must be prepared to work in a hybrid cloud environment.

By 2018, 50% of the applications hosted in the public cloud will be considered mission-critical by the organizations that use them. – Gartner

Employees will benefit from cloud-based services as the cloud offers **new ways of working and tools with greater capability** that are only available through cloud computing. As cloud-based services expand, our workforce will adapt and change. Cloud-based tools, new capabilities in the market and learning how to broker and create in a cloud environment are some of the ways the role of the IT worker will change.

New cloud-based office productivity toolsets for all employees will help to create a digital workplace that is flexible, mobile and collaborative

WHERE WE'RE GOING

Over the past several years the OCIO has been exploring the impact of cloud and how to adopt cloud-based services in government. We have introduced private community cloud-based services in our government data centres and have several active negotiations underway for enterprise public cloud services. We have held workshops and education sessions with ministries and the Broader Public Sector and worked with several cloud-based service providers to determine how cloud fits for government, where the challenges are and what the road forward looks like.

We have combined these experiences and information to drive the BC Government's managed adoption of cloud through:

1. **guidance and brokerage**: how to assess and determine if cloud services are right for your business needs and the provision of enterprise cloud offerings
2. **cloud-based tools**: move to modernized office productivity tools, brokering SaaS for government
3. **collaborative planning**: develop an enterprise hosting transformation strategy and adoption plan with the ministries to move government legacy infrastructure into enterprise cloud services

1. WE'RE PROVIDING GUIDANCE & BROKERAGE SERVICES

The OCIO, in partnership with Hosting Services and CloudBC, has been actively pursuing cloud service adoption. We have negotiated on-premise Infrastructure as a Service (Iaas) services, worked with legal, risk management, privacy, security and other jurisdictions to share and identify barriers to moving to cloud and participated heavily in building CloudBC. Through our work we have learned a great deal and are developing a number of tools as guidance to be used to facilitate the transition to cloud.

The OCIO will be publishing a 'playbook' to guide ministries in their decision-making and steps required to consume cloud services.

Working with the OCIO as the government cloud services broker, ministries will be able to identify the best cloud technology for their business needs that meets the required privacy and security requirements. Through our playbook and inventory, ministries will be better positioned to make decisions about moving to cloud.

Transitioning services to the cloud will occur over time and privacy laws must be observed. A hybrid or private-public approach can help us to get there.

Benefits to Ministries

- ☑ Guidance on how and when to move is available
- ☑ Core and other associated policy have been updated as required
- ☑ There are negotiated terms and conditions frameworks and procurement models
- ☑ Pricing is competitive
- ☑ Knowledge-sharing is common place
- ☑ There is reference architecture
- ☑ Employees have updated skills and competencies
- ☑ There is an updated data classification framework
- ☑ There are updated data security requirements

WHERE WE'RE GOING

The OCIO will provide guidance and work with ministries to identify ways of consuming cloud services. The OCIO will broker ministries' access to IaaS, SaaS and PaaS through one of three vehicles:

1. **OCIO Shared Services Catalogue:** The catalogue will include cloud services such as IaaS, corporate software licensing, SaaS subscriptions, and other corporate supply arrangements. Increasingly, the OCIO will procure cloud services from the CloudBC Marketplace when required and appropriate for ministries' consumption.

2. **BCDevExchange:** For ministries that develop their own applications using cloud-based tools the BCDevExchange can be used to solicit solutions. The exchange offers both procurement opportunities and state-of-the-art development tools.

3. **CloudBC Marketplace:** The marketplace will offer a pre-qualified list of compliant cloud service providers. Should a service not be available through the OCIO Shared Services Catalogue

2. WE'RE MODERNIZING OUR TOOLS

The OCIO has been working with vendors to modernize our tools. In the future the next generation of office productivity tools will allow our workforce to collaborate across boundaries in a way not currently possible, such as the ability to use the software on multiple devices. As new features become available they will be enabled quickly and efficiently. Our future office productivity tools will empower communication, document exchange and collaboration for an evolving workforce and also meet the changing expectations of citizens and government as a whole.

3. WE'RE DEVELOPING A PLAN FOR ENTERPRISE HOSTING

The BC Government's hosted, on-premise infrastructure is managed by the OCIO from two physical data centres. Over the coming months, a comprehensive and collaborative transformation strategy for hosted services will be created in partnership with ministries. This strategy and the resulting adoption plan will be the roadmap to enterprise scale cloud computing where we will see infrastructure, platform and software move from on-premise to the cloud.

Not all hosted applications will move to the cloud. In many cases it may not be possible to move a complex app or sensitive data. Managed adoption means identifying services that are appropriate for the cloud and those that must stay behind.

GUIDING PRINCIPLES

Managed Adoption

Understanding the risks and benefits of moving to the cloud is fundamental to the decisions we will make. The OCIO will assist in managing adoption by helping ministries uncover and understand this information.

Business Needs First

The BC Government has not adopted a Cloud First policy, but rather a 'Cloud Appropriate' direction. Ministries are not required to look to the cloud first but rather choose the best available technology platform for their business needs.

Data Sovereignty

Access to data sovereign services is critical. The BC Government will focus efforts on gaining access to public cloud platforms while ensuring they meet B.C.'s privacy legislation and security policies.

Strategic Collaboration

The BC Government is leading collaborations and leveraging relationships in the B.C. Public Sector and across Canada to share knowledge, reduce effort, and enhance negotiations with global cloud providers.

Leverage Capacity

The BC Government will develop and utilize our employees' skills and the capacity of our infrastructure resources to introduce new cloud platforms in the B.C. Public Sector.

OUR CLOUD **ACHIEVEMENTS**

We've **introduced IaaS**

introduced a Canadian data sovereign **public sector community cloud service**

activated our **IaaS Service**

transitioned **42 ministry services to IaaS**

We're **using SaaS**

we're using **GitHub & Trello** in the BCDevExchange

we're actively using **SalesForce CRM**

we've implemented **CA Clarity Enterprise** Project Portfolio Management

We're **working with PaaS**

The BCDevExchange **OpenShift container** platform has been built in the BC Government data centre

We've **launched**

CloudBC

We're protecting **privacy & security**

we've developed a **Security Schedule** for Cloud Services

We're training **for the future**

SaaS Demonstrations

Cloud Workshops

Cloud Security Day

OUR CURRENT **OCIO STRATEGIC GOALS**

Looking ahead, the **OCIO Strategy 2016** sets our path forward through **four strategic goals.** The **cloud initiatives** on the following pages are aligned to these **key strategic goals** which show us the critical nature of cloud in achieving a **digital government.**

GOAL 1

ENABLE DIGITAL

Enabling the public service to deliver digital services that are convenient and easy to use is going to take an all-of-government approach. The OCIO will play a key enabling role in setting the B.C. government's foundation for digital service delivery.

GOAL 2

ENGAGED WORKFORCE

An engaged and supported workforce is needed to deliver quality services. Flexible work arrangements suit collaboration, experiential learning and innovation. Staff with the right tools and training are more effective at delivering value. As more of our workforce approaches retirement, succession planning will become increasingly important.

GOAL 3

OPERATIONAL EXCELLENCE

Striving for operational excellence is about sound management, governance and operations of IT so government services are reliable, secure and accessible. Integrating and making it easy to access the many technology choices and platforms available today, both in-house and in the cloud, ensures that government services remain sustainable and interoperable.

GOAL 4

MAXIMIZE VALUE

Maximizing value from IT investments is about ensuring the OCIO remains focused on delivering our commitments and maintaining cost-effectiveness. In today's context of ongoing change, our investments, assets and approaches should continuously adapt to maximize business value.

OUR **CLOUD GOALS**

GOAL 1 ENABLE DIGITAL

We **will**

1. Provide the leadership, tools and collaborative work environments that support digital service delivery across the public service

4. Contribute to the development of a competitive marketplace that can be used to find technology and people for digital projects

5. Create a flexible infrastructure, on-premise and in the cloud, that is adaptable to changing business needs

We will **achieve this by**

1.5 Modernizing and simplifying key IT policies and standards

4.1 Co-developing CloudBC, an online marketplace for cloud services

5.1 Launching a hosting strategy, and delivering on the OCIO's implementation (IaaS & PaaS) plan for cloud adoption

GOAL 3 OPERATIONAL EXCELLENCE

We **will**

4. Optimize the OCIO's IT investment portfolio

We will **achieve this by**

4.2 Implementing a governance practice **(NEW)**

GOAL 2 ENGAGED WORKFORCE

We **will**

4. Provide the tools and promote collaboration for a modern workforce

We will **achieve this by**

4.2 Exploring cloud-based productivity software for all government staff

4.7 Delivering workshops related to the cloud strategy and facilitate workshops related to cloud adoption for the B.C. Government, the OCIO, ministries and the B.C. Public Sector **(NEW)**

GOAL 4 MAXIMIZE VALUE

We **will**

2. Modernize IT investment planning and IT sustainability for assets managed by the OCIO

We will **achieve this by**

2.2 Reviewing corporate software agreements to reduce costs, improve services and optimize value

2.3 Encouraging and guiding the responsible use of cloud services

Note: *numbering and goals align to the OCIO Strategy 2016*

APPENDIX - MEASURES

Strategic Actions		Targets 17/18	Key Performance Indicators	Lead, Support
1.1.5	Modernizing and simplifying key IT policies and standards	» Cloud Adoption Security Framework	» user satisfaction	ISB
1.4.1	Co-developing CloudBC, an online marketplace for cloud services	» Transition CloudBC to Government operations	» 100% complete	CSB
1.4.1	Co-developing CloudBC, an online marketplace for cloud services	» Establish contracts for introduction of cloud platforms and service	» # of qualified cloud platforms and services with PIA, STRA, and contracts for use	CSB
1.4.1	Co-developing CloudBC, an online marketplace for cloud services	» Offer industry leading IaaS and PaaS services through the marketplace offerings	» # of offerings available	CSB
1.4.1	Co-developing CloudBC, an online marketplace for cloud services	» Add IaaS, PaaS and SaaS to the CloudBC marketplace	» # of vendors onboarded » # of etntities consuming the services	CSB
1.5.1	Launching a hosting strategy, and delivering on the OCIO's implementation (IaaS & PaaS) plan for cloud adoption	» Hosting Strategy developed and communicated and strategy engagement by at least 3 OCIO branches and ministries	» endorsement of strategy by key stakeholders	HOSTING
2.4.2	Exploring cloud-based, productivity software for all government staff	» Develop a plan for the next generation of office productivity tools	» 100% complete	ASPB
2.4.2	Exploring cloud-based, productivity software for all government staff	» Create next generation office privacy compliance	» 100% compliance met	ASPB
2.4.7	Delivering workshops related to the Cloud Strategy and facilitate workshops related to cloud adoption for the BC Government, the OCIO, ministries and the B.C. Public Sector	» Deliver cloud services training to OCIO and Ministry staff	» # sessions completed	CSB

APPENDIX - MEASURES

Strategic Actions		Targets 17/18	Key Performance Indicators	Lead, Support
3.4.2	Implementing a governance practice	» develop terms of reference	» # of governance meetings (baseline)	CSB
4.2.2a	Establishing a corporate software business plan to reduce costs, improve services and optimize value	» Develop 18 month business plan for corporate software	» 100% complete	ISB
4.2.2b	Reviewing corporate software processes to reduce costs, improve services and optimize value.	» iStore upgraded by Q1 FY 2017/18 to handle software subscriptions	» user satisfaction	CSB
4.2.3	Encouraging and guiding a responsible use of cloud services	» Publish a cloud "playbook" for use by ministries » Launch the CloudBC Knowledge Centre	» user satisfaction	CSB
4.2.3	Encouraging and guiding a responsible use of cloud services	» Publish a Cloud Security Toolkit	» user satisfaction	CSB
4.2.3	Encouraging and guiding a responsible use of cloud services	» Work with ministries as they develop their cloud services procurement strategies	» user satisfaction	CSB

CONCLUSION

As we move towards our vision for digital government we will provide a wider choice of online cloud-based services and tools to support anytime anywhere access to government services. By shifting our business models from services accessed through physical government offices to online digital services supported by cloud-based, always available services, government is able to better meet the needs of our citizens. We are able to learn how our services are used, gather round-the-clock feedback and continuously improve service delivery. The cloud allows this, enabling us to make changes rapidly, efficiently and reliably.

Cloud is critical to our delivery of digital. Most services and infrastructure we use today are moving to cloud-based services with new services coming online available only 'in the cloud'. With this shift, we will see a greater breadth of services available in the marketplace. Knowing how and when to use cloud-based services is key to support a managed cloud adoption in the BC Government.

Our move from traditional, on-premise computing to cloud-based services will not happen overnight, it will take time and we know not everything will move to the cloud. We have begun the journey, and as we move ahead with 1) brokering enterprise scale cloud services for ministries, 2) providing guidance to ensure compliance and manage risk and 3) developing a collaborative and planned approach to transition legacy infrastructure to enterprise cloud, we have set a path forward for managed cloud adoption.

Exploring cloud services along with citizen and partner engagement has helped to shape our understanding of cloud-based services, and how a managed cloud adoption can assist us to achieve better outcomes. Government will be able to provide new experiences through the adoption of modern cloud-based capabilities that will directly benefit citizens and our workforce.

Our success requires us to focus on how all of these components work together and on the interactions between all of the OCIO`s strategic pillars, GCPE's user-centric service design and ministry service delivery.

This strategy was co-created through a series of workshops connecting OCIO employees and stakeholder groups across government to inform our future direction for cloud.

APPENDIX: PRIVACY & SECURITY IN THE CLOUD

PRIVACY

Technologies, such as cloud computing and the Internet of Things, have a direct impact on how we collect, store, access, use, and protect information in government. Public sector organizations in B.C. are subject to the Freedom of Information and Protection of Privacy Act (FOIPPA). Cloud computing solutions require additional privacy considerations in order to ensure that they are implemented in accordance with existing legislation.

Encryption
As per the OIPC cloud guidelines, '… personal information should be encrypted during transmission between the public body and the cloud provider as well as in storage at the cloud provider's facilities to ensure that the information is not intercepted in transit and a breach of the cloud provider's systems does not result in the unauthorized disclosure of personal information.'

It is important that we ensure data is resident in Canada and, ultimately, that we retain control over that data. Data residency refers to the physical location of an organization's data, and control over that data may include technical or contractual measures. B.C.'s legislation requires that personal information only be stored in and accessed from Canada, unless a legislated exception applies. Where a cloud implementation includes personal information, the ministry is responsible to adhere to the privacy provisions of FOIPPA.

The OCIO has been working closely with its stakeholders, including privacy experts, the Office of the Information and Privacy Commissioner (OIPC), CloudBC, and procurement and vendor communities to ensure enterprise cloud services for government are compliant with FOIPPA.

To comply with security policies and legislative requirements (such as privacy laws and the *Information Management Act*), a detailed security schedule is required for contracts with cloud service providers. The OCIO has developed the "Security Schedule for Cloud Services" which is currently under review.

SECURITY

With the maturity of the cloud industry and the shift to cloud-only services, global IT companies have been investing heavily in security features to enhance the reliability of their cloud services. While the OCIO is committed to security and privacy compliance, industry criteria for security may not be as stringent as the BC Government requires.

High-level Security Requirements

1. Provider is compliant with an established cloud security standard that is acceptable to government (there are only 3 cloud standards: ISO 27017, NIST 800-53, CSA CCM)

2. Provider can demonstrate annual compliance with cloud security framework via third party attestation and government maintains right to audit components

3. Provider enables security investigations, online access to evidence, and legal discovery

APPENDIX: WHAT IS THE CloudBC Marketplace

CloudBC established standardized, pre-negotiated privacy and security frameworks in compliance with FOIPPA and the OIPC guidelines.

Launched in 2015 by the B.C. Council of CIOs (CCIO), CloudBC is a program that supports cloud adoption in the B.C. Public Sector. The CCIO is comprised of 14 public entities including the seven largest Crown Corporations, six health authorities, and the BC Government. As the CCIO chair, the OCIO is the administrator of CloudBC and has been providing security, privacy, procurement, and legal guidance for the program delivery. This major public sector collaboration is addressing common adoption barriers.

CloudBC is setting up a Marketplace for compliant cloud services for B.C.'s Public Sector. Pre-qualified services will be available through the marketplace with pre-negotiated terms and conditions, reducing procurement and contracting efforts. CloudBC's Marketplace also offers highly competitive prices based on government-wide procurements.

Central to the Marketplace will be the CloudBC Knowledge Centre, an online resource tool used to connect people to information and to other people as they transition to cloud services.

Users will have access to leading practices and frameworks on cloud adoption strategies and implementation plans. They will be able to share common issues and solutions with colleagues from across the province and share information on their experience with cloud services.

GLOSSARY

Adoption Plan: a plan to adopt a system that works to fill a specific need.

Adoption Barriers: barriers to adoption are all the things that prevent the usage of a new product or service. They may include technical or business related considerations.

Brokering: the act of being an agent on behalf of consumers (ministries), specifically in negotiating contracts.

Cloud Broker: an entity that negotiates relationships between cloud providers and cloud consumers.

Business Capabilities: the capacity and expertise of an organization's needed to perform core functions. Business and Technical stewards of government services use business capabilities to align the over-arching needs of the business in order to better strategize IT solutions that meet those business needs.

Enterprise Scale: a robust enterprise wide IT-based solutions that can scale up or down based on the needs of the business using the supporting infrastructure. Scale refers to the ability to expand or shrink resource consumption based on demand.

iStore: the OCIO's online storefront used to order services from the Service Catalogue.

Marketplace: an online storefront operated by a service provider. A cloud-based marketplace provides access to applications and services that are built on or integrate with cloud provider offerings (examples: Google Play, Amazon Web Services (AWS) Marketplace).

On-Premises: applications run on computers located on the premises (in a building) of an organization using the software rather than located somewhere on the internet.

Middleware: software that lies between an operating system and the applications running on that system.

Personally identifiable information (PII): information that can be used on its own or with other information to identify, contact or locate a person.

Personal Information: is a broad term that may go beyond the definition of PII to include information from which a person's identity is deemed to be "reasonably ascertainable."

Privacy Impact Assessment (PIA): a process used to evaluate and manage privacy impacts and to ensure compliance with privacy protection rules and responsibilities.

Pre-qualified services: a formal process to evaluate products/services/vendors that typically requires a lengthy period of time to evaluate. Pre-qualified agreements eliminates the need to evaluate products after a solicitation/request for proposals has closed.

Platform: the environment in which digital services are executed. It may consist of components including hardware, an operating system, a web browser or other underlying software. A computing platform is the stage on which computer programs can run.

Security Schedule: a legal document that lists the security requirements that must be met for parties implementing services. The schedule includes a set of security related definitions, compliance, identity, privacy and other security related policy based expectations that must be adhered to.

Security Threat and Risk Assessment (STRA): Security Threat and Risk Assessment (STRA) - a component of a risk analysis specifically aimed at identifying security exposures.