



Treasury Board of Canada  
Secrétariat

Secrétariat du Conseil du Trésor  
du Canada

Canada

# Cloud Sub-Committee Working Group Progress Update

Public Sector Chief Information Officer Council (PSCI OC)  
Toronto  
February 25<sup>th</sup>, 2016

GCDOCS#: 20274160

# Agenda

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- PSCIOC Cloud Working Group status update
- Public Sector Community Cloud discussion
- Public Sector Cloud Sub-Committee mandate review

# PSCIOC Cloud Working Group Status Update

# PSCIOC Cloud Sub Committee Background

## Background

- In 2014, the Public Sector Chief Information Officer Council (PSCIOC) Cloud Working Group Sub-committee formed with an initial mandate of driving a pan-Canadian Cloud adoption consultation and identify opportunities

## Phase 1 Consultation – Completed September 2015

- Vendor, Gartner and Partner consultation analysis in 2014/2015 supported development of a Public Sector Community Cloud to support the Cloud Adoption Strategy

## Phase 2 Exploration and Design - Initiated in October 2015

- PSCIOC endorsed a vision of the Public Sector Community Cloud in October 2015
- Six month exploration work plan was launched including a set of pathfinders

# PSCIOC Cloud Working Group Status Update

- The PSCIOC Cloud Working Group is collaborating on common PSCIOC and GC deliverables through multiple work streams to deliver upon the six month work plan, and the work streams include:
  - *Cloud Strategy, Procurement, Security, Business, Skills and Pathfinders*
- Each work stream is in the progress of socializing and completing deliverables for a March 31<sup>st</sup> target completion date.
- Some of the key activities include:
  - *A Cloud Reference Architecture is being developed within the Cloud Strategy work stream*
  - *Shared Services Canada is leading the development of a brokering model initially focused public cloud for unclassified accessible through a catalogue*
  - *Public Works and Government Services Canada is leading the development of common Terms and Conditions within the Procurement work stream*
  - *Treasury Board Secretariat has developed a set of common security profiles and an assessment and authorization methodology for cloud services within the Security work stream*
  - *The development of common requirements and learnings are being shared from the Integrated Development Environment and Office Productivity cloud pathfinders*
  - *The Skills work stream has identified key transformational areas and impacts to the work force*
- The work plan is currently on schedule

























# Six Month Work Plan Components

<b>Cloud Project</b>		<div>WBS</div> <div>RACI</div> <div>Risks</div> <div>Issues</div> <div>Project Governance</div> <div>Roadmap</div> <div>Project Charter</div>
<b>Cloud Strategy</b>		<div>GC Adoption Strategy</div> <div>GC Concept of Operations</div> <div>Cloud Governance</div> <div>Cloud Taxonomy</div> <div>Cloud Reference Architecture</div>
<b>Concept of Operations</b>	<b>Procurement</b>	<div>Procurement Strategy Framework</div> <div>T&amp;Cs</div> <div>Critical Success Factors for Procuring Cloud</div>
	<b>Security</b>	<div>Security and Privacy Categorization Tools</div> <div>Security Requirements and Control Profiles</div> <div>Cloud Deployment Decision Matrix</div> <div>Security Assessment and Authorization</div>
	<b>Business</b>	<div>Public Sector Cloud Sub-Committee</div> <div>Market Place</div> <div>Talent Management</div>
<b>Cloud Pathfinder Projects</b>	<b>Office Productivity</b>	<div>Pathfinder Identification Process</div> <div>Service Purchase</div> <div>Project Governance</div>
	<b>Integrated Development</b>	<div>Pathfinder Engagement</div> <div>SOW / SOR</div> <div>Lessons Learned</div>

GC  
Element

PSCIOC & GC  
Element

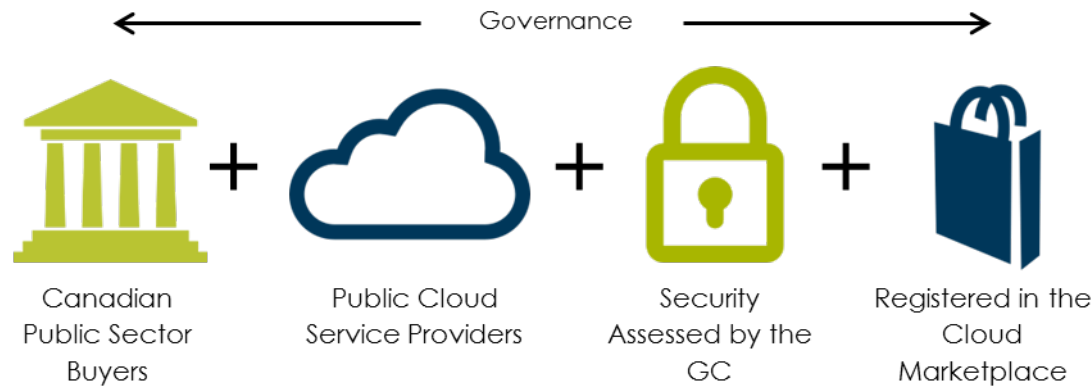
# Advancing the cloud agenda through collaboration

Cloud Project		 Government of Canada         Gouvernement du Canada
Cloud Strategy		 Ontario  Manitoba  NOVA SCOTIA  THE CITY OF CALGARY  Government of Canada         Gouvernement du Canada  BRITISH COLUMBIA
Concept of Operations	Procurement	 Ontario  NOVA SCOTIA  Government of Canada         Gouvernement du Canada  Prince Edward Island CANADA
	Security	 THE CITY OF CALGARY  Ontario  Prince Edward Island CANADA  NOVA SCOTIA  Government of Canada         Gouvernement du Canada  Manitoba  BRITISH COLUMBIA
	Business	 Government of Canada         Gouvernement du Canada  BRITISH COLUMBIA
Cloud Pathfinder Projects	Office Productivity	 Government of Canada         Gouvernement du Canada  THE CITY OF CALGARY
	Integrated Development	 MARKHAM  Ontario

# Public Sector Community Cloud



# Public Sector Community Cloud Vision



***A Public Sector Community Cloud provides a pan-Canadian demand aggregation of cloud computing resources for Canadian public sector organizations.***

**The PSCC will consist of public cloud services, security accredited by the Government of Canada, and made available to all Canadian public sector organizations through a marketplace.**

# Public Sector Community Cloud Benefits

**Easy access to brokered cloud services**

**Cloud services that have been pre-qualified for security to meet Protected B and Unclassified levels**

**Cloud services procured using consistent Terms and Conditions**

**Cloud services that have ongoing security monitoring**

**Enables adoption of cloud services with confidence**

# Proposed Public Sector Community Cloud Security Approach



- NIST Based GC security control profiles will be leveraged as baseline
- The first two profiles available will be Protected B, Medium, Medium and Unclassified, Low, Low
- The GC security control profiles will be mapped to other Cloud security certifications such as ISO27001 and US FedRAMP
- Cloud Service Providers will be able to reuse evidence from other certifications as evidence to meeting the GC security control profiles
- The Authority to Operate resides with the customer

**Promotes the principle of re-use for an effective and efficient approach to security.**

# Proposed Security Planning for the Public Sector Community Cloud

UNCLASSIFIED / NON CLASSIFIÉ

## ***Workloads***

Assess the ***sensitivity*** of data within a workload to guide the selection of the appropriate ***cloud security control profile***

## ***Sensitivity***

Sensitivity is measured along the dimensions of **Confidentiality, Availability and Integrity**, and is assessing the potential **injury** (Psychological, Physical, Financial and Reputational)

## ***Additional Security Controls***

Additional risk mitigation measures can be integrated for solutions that have data sensitivity requirements which are outside of a particular ***cloud security control profile***

## ***Data Residency***

The Public Sector Community Cloud will provide cloud services located in Canada to support protected information workloads. Cloud services could be located outside Canada to support unclassified information workloads

# Skills Transformation for Cloud Adoption

**Required skills and competencies acquired through career progression in the course of diverse and challenging experiences and training**

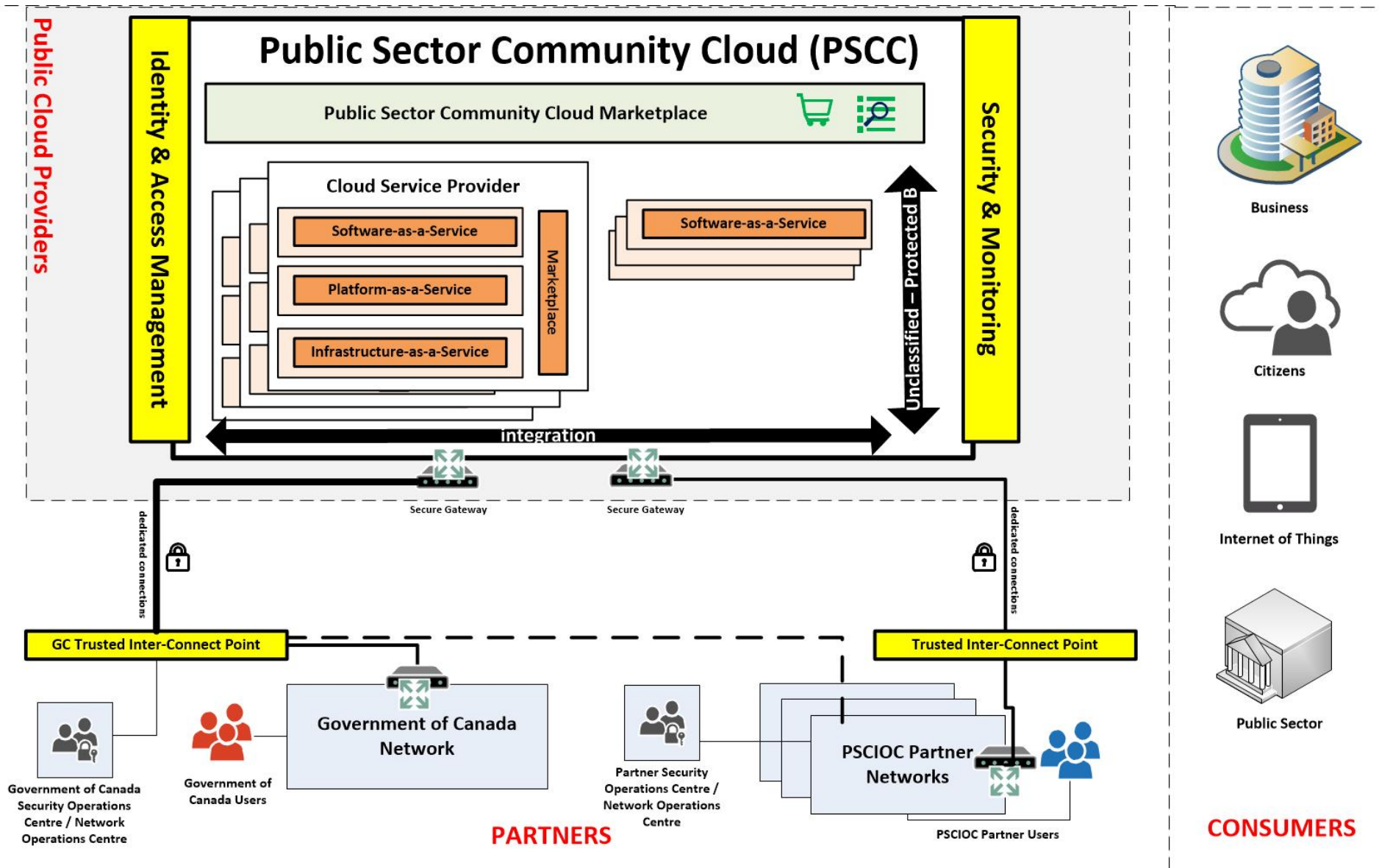
**Business acumen**, to better understand the services and expectations of their business partners

**Vendor management**, to be able to evaluate, negotiate, monitor and enforce contracts, service level agreements, etc.

**New technology** adapted to emerging areas such as **architecting** and deploying solutions to the cloud

**Analytical capacity**, to be able to evaluate the various options available to deliver IT services

# Public Sector Community Cloud Architecture



# PSCIOC Cloud Working Group Mandate/Objective

# Planning For Demand Aggregation Discussion

## *What is demand aggregation of cloud resources?*

- It provides visibility into purchasing requests throughout an enterprise, generally through the process of coordinating and consolidating requirements.
- It can benefit PSCIOC members with an increase in purchasing power and potentially larger savings on costs of cloud services.

## *How can PSCIOC support demand aggregation of cloud resources?*

- PSCIOC members could identify annually their interests and/or planned requirements to aid in the identification of candidate cloud services, their forecasted volumes and timelines.
- This process would require a business commitment and readiness to contribute from each PSCIOC member.
- **Request to complete the cloud services demand survey to enable opportunities discussion (attached)**

Supports the establishment of common priorities



# Proposed Phased Procurement for Public Sector Community Cloud

## Stream 1 – Procurement of unclassified IaaS and PaaS capabilities

- **Objective:** Proceed with an initial procurement of cloud services with the objective to integrate knowledge from exploration activities (Phase 2).
- **Business context:** Open data, dev/test, scientific
- **Timeline:** 6 months

## Stream 2 – Procurement of IaaS and PaaS capabilities at Protected B/M/M level

- **Objective:** Proceed with an initial procurement of cloud services with the objective to integrate knowledge from exploration activities (Phase 2).
- **Business context:** Environments where protected information need to be processed
- **Timeline:** 12 months

## Stream 3 – Prepare for Case Management tool procurement

- **Objective:** Apply lessons learned from procurement #1&2 and prepare for a procurement of cloud services to support a higher level of data sensitivity (*i.e. GC context - Protected B, Medium, Medium*)
- **Timeline:** 12 months

Proposed roadmap will be validated against survey results

# Request for Endorsement

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1. Transition the PSCIOC Cloud Working Group from a Planning phase to an Execution phase
2. Complete demand survey
3. Initiate phased procurement for the Public Sector Community Cloud
  - Procurement of Unclassified and Protected B/M/M IaaS & PaaS capabilities through a catalogue
  - Prepare for procurement of a Case Management solution