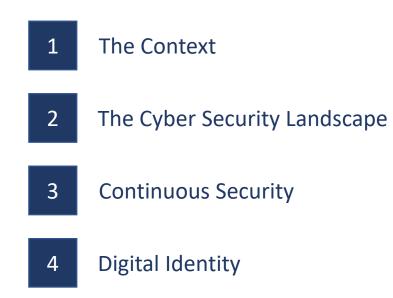
Enabling Secure #GCDigital

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A Continuous Security Approach

Presentation by Po Tea-Duncan A/Executive Director, Cyber Security Division Office of the Chief Information Officer Government of Canada

Canada





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The Context

Laying the digital foundation

of Canada's

Digital Vision

"The new Policy on Service and Digital sets the **foundation for the future of digital government** in Canada. We're doing the hard work behind the scenes to set in place the conditions for **truly clientcentered service design and delivery**, and to **deliver better services to Canadians**."

Service and

Digital

The Honorable Joyce Murray, Minister of Digital Government (<u>2 August 2019</u>)

Operations

Strategic Plan



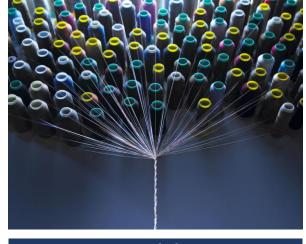
Building a vision for delivering services that are secure, accessible and easy to use



Transform

Transform **how government does business** by:

- Managing and protecting data and information
- Being open and transparent
- Leveraging new technology to improve operations and service delivery



Consolidate

Consolidate several existing policy instruments into a **single set of rules and guidelines** for the **integrated management** of:

- Service delivery
- Information and data
- Technology and cyber security



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Maintain pace with change

Enables the Government of Canada to **maintain pace with change in the digital era** through the responsible use of delegated authorities

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Treasury Board Policy Framework

Canada

The IT security control under the Policy on Government Security is operationalized under the Policy on Service and Digital.

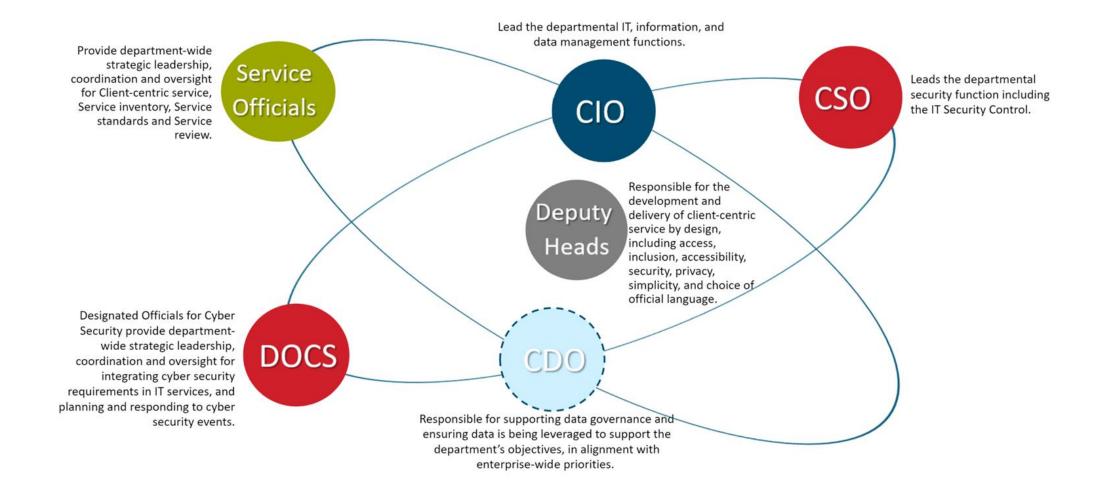
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Working together to improve cyber security

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Key Stakeholders



NATIONAL		
Public Safety	DND	
CSIS	CSE	
RCMP		

Federal government departments with responsibilities for national cyber security



Federal government departments with specialized responsibilities for cyber security



GOVERNMENT-WIDE

TBS CSE/CCCS SSC

14

Federal government departments with responsibilities for government-wide cyber security



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DEPARTMENTAL

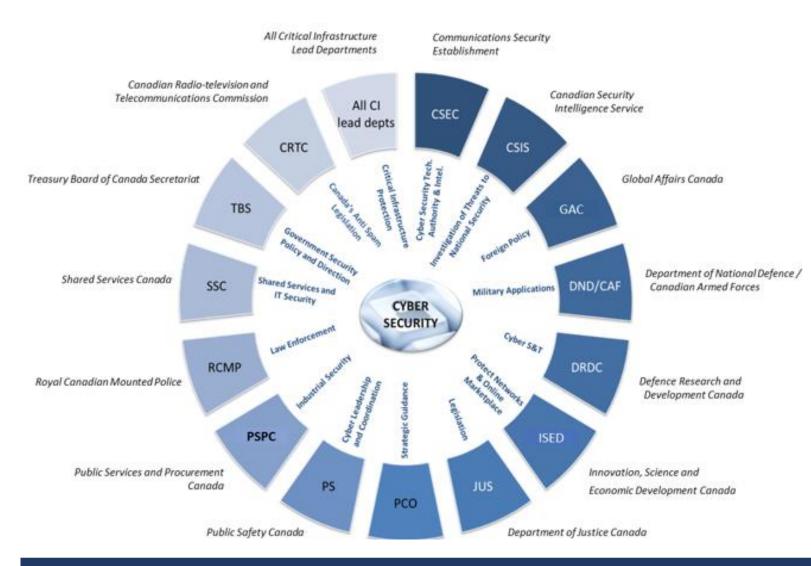
All departments and agencies

Federal government departments remain responsible for their departmental cyber security

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Secrétariat du Conseil du Trésor du Canada

Cyber Security is a Shared Responsibility



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TBS, the Canadian Centre for Cyber Security as an agency under CSE, and SSC combine to form the GC IT Security Tripartite, established to develop and maintain a coordinated and collaborative approach to enterprise IT Security

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UNCLASSIFIED **GC Cyber Security Management Process** Goal: Maintain visibility of enterprise cyberthreat and risk environment through continuous monitoring and ensuring the effective management of GC cyber security events **GC Situational Awareness** Reporting and Communications RESPOND DENTIFY PROTECT DETECT RECOVER Identify and • Implement Detect and Responding to Recover from manage measures to understand cyber security cyber security security risks incidents incidents reduce security cyber security risks events

Canada

The Cyber Security Landscape

National Cyber Threat Assessment 2020: An Evolving Threat Landscape

More Connections Means More Physical Safety is At Risk

More Connections Means More of Economic Value is at Risk



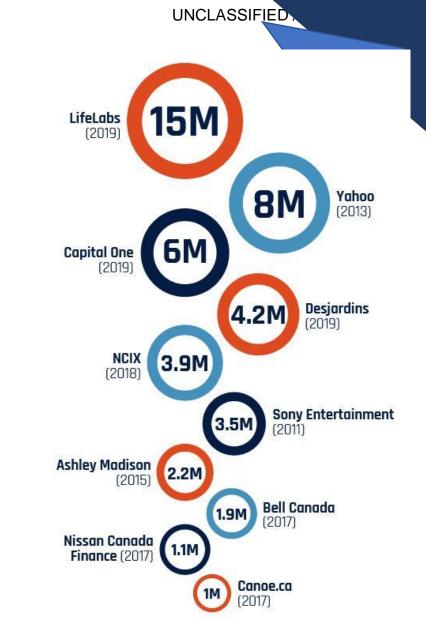
More Collected Data Increases Privacy Risk



Threat Actors Are Becoming Better Organized and Equipped



The Internet is at a Crossroads





Today...



The "Castle and Moat" Approach to Securing the Enterprise



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"Anywhere, Anytime Access"





User Needs



Security versus User Expectations



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Users will find a way...





Continuous Security

Pillars for Securing #GCDigital



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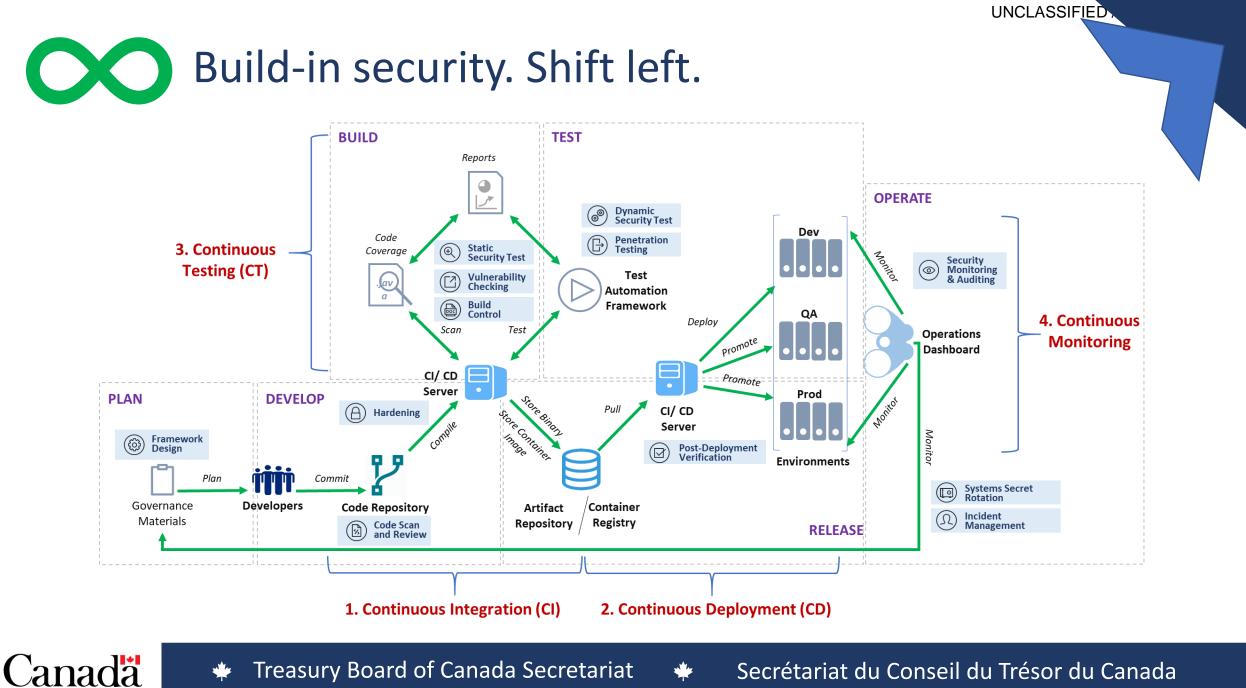
Evolving the security paradigm

Zero Trust

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Users	Devices	Networks	Applications	Monitoring
Identification and authentication, least privilege access, two-factor authentication	User device identification and verification, user device management	Segmentation and control of network devices and infrastructure	Protection of assets including applications and services	Ongoing automated security event management and user behaviour analysis; real-time correlation, threat assessment and response
\bigcirc		$(\widehat{\widehat{\cdot}})$		6
		Data		





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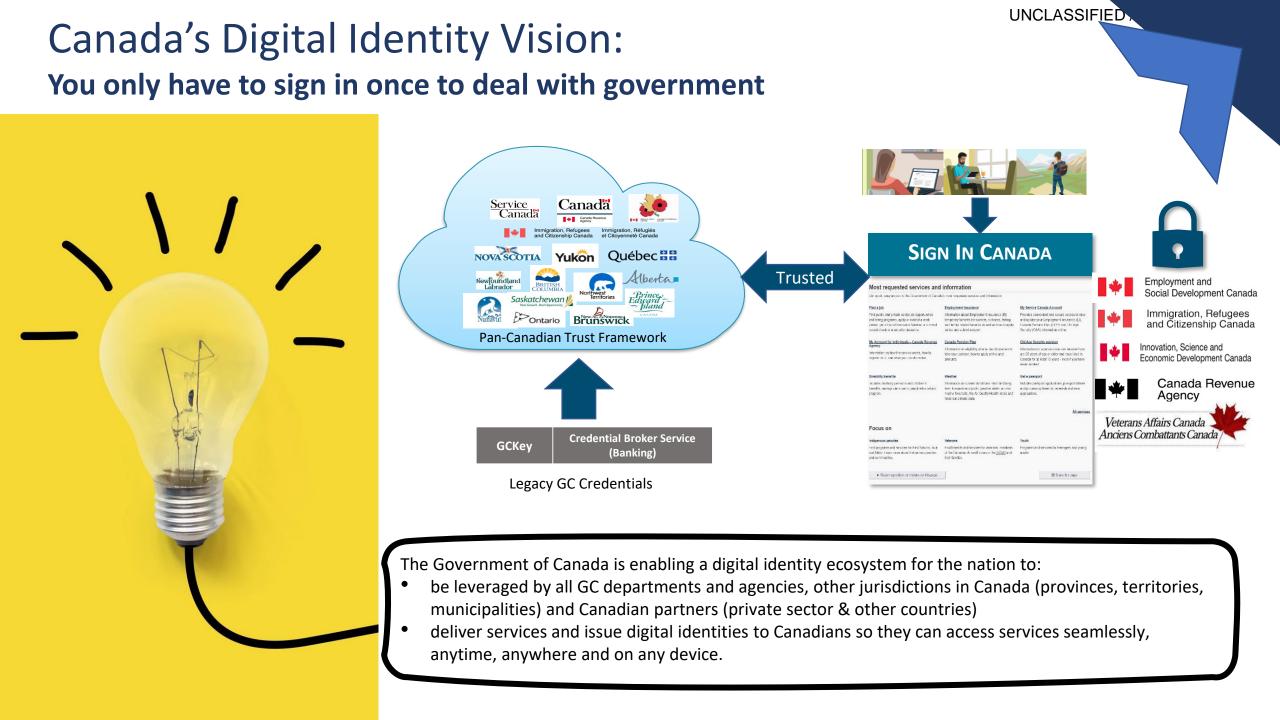
Case Study: Tracker 2.0

\rightarrow C $$	× + ↑ https://tracker.alpha.canada.ca	 ta 🔯 ta ta
	Pre-Alpha This service is being developed in the open	
	Government Gouvernement of Canada du Canada	Sign In Create Account FR
	Home	
	Track Digital Security Canadians rely on the Government of Canada to provide secure digital services. The Policy on Service and Digital guides government online services to adopt good security practices for email and web services. Track how government sites are becoming more secure.	TRACHER-SUIUI

- ✓ Collaborative effort between TBS and CCCS
- ✓ Agile delivery
- Continuous integration/continuous deployment (CI/CD)
- ✓ Security by design
- ✓ Work in the open -<u>https://github.com/canada-</u> <u>ca/tracker</u>.
- $\checkmark\,$ Hosted in cloud
- Leverages open source software and tools



Digital Identity



Guiding Principles



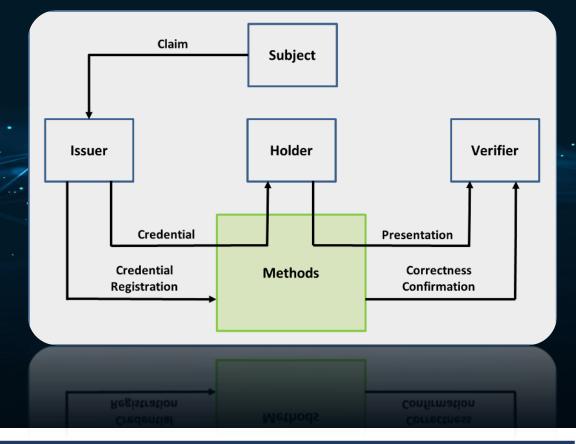
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Establishing Trust

The Pan-Canadian Trust Framework (PCTF) is

- A model that consists of **a set of agreed-on** concepts, definitions, processes, conformance criteria, and an assessment approach to enable trust.
- A framework that relates and applies existing standards, policies, guidelines, and practices, and where such standards and policies do not exist, specifies additional criteria.
- Facilitates **a common approach** between the public sector and the private sector.



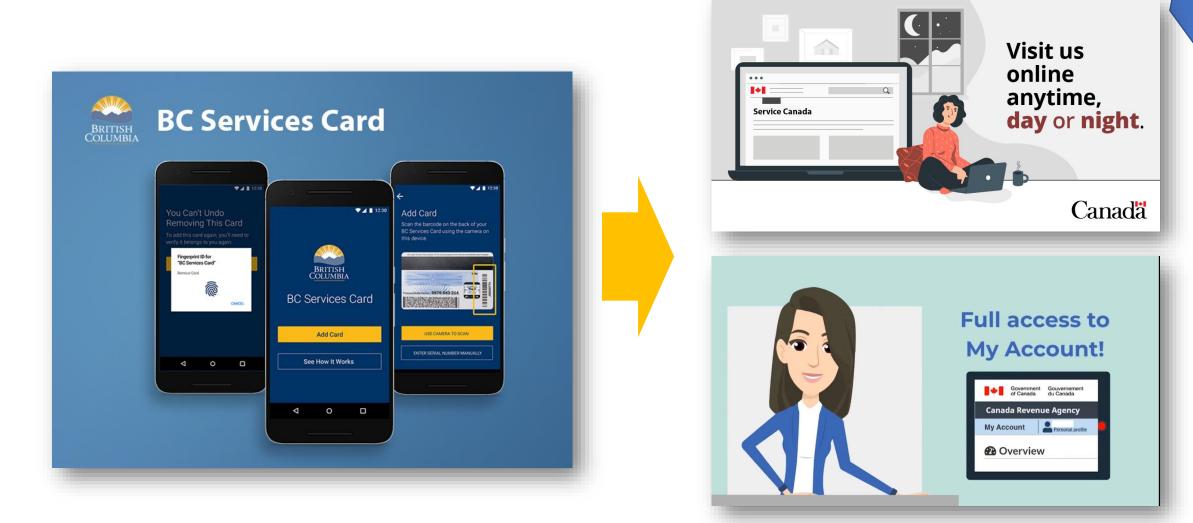
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Case Study: Trusted Digital Identity Pilots





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Key Takeaways



Security as a business enabler

Address security and privacy risks from the outset

Design services that are resilient

Apply a defence-in-depth, layered security approach

Collaborate & communicate







