CARM Cloud Information

Introduction

In 2018, the Treasury Board Secretariat (TBS) released the Government of Canada (GC) Cloud Adoption Strategy suggesting that consideration be given to Cloud computing options when designing information technology solutions. As a result, the CARM project analysed its infrastructure hosting requirements and concluded that a move to the Cloud was the best available option. A Cloud-based solution allows CARM to adopt and leverage the latest technologies provided by the Cloud Service Provider (CSP) and provides a more flexible and sustainable model for hosting the IT infrastructure and software required for the CARM solution.

Cloud Security

Using a public Cloud platform introduces the concept of a shared security model, in which the CSP is responsible for security of the Cloud, and a GC department is responsible for security in the Cloud. This means the CSP provider ensures that their facilities and services are secure up to the point when the GC department starts using and configuring the services provided.

Under TBS Direction on the Secure Use of Commercial Cloud Services, a full suite of security safeguards and controls have been implemented and are continuously monitored for the CARM solution, including:

1. The chosen CSP, Amazon Web Services (AWS), has been assessed by the Canadian Centre for Cyber Security (CCCS). The resulting assessment showed that the security processes and controls of the AWS Cloud platform met GC public Cloud security requirements for information and services up to Protected B (PB), Medium Integrity, and Medium Availability (PB/M/M).
2. SSC integrated their Secure Cloud Enablement and Defence (SCED) service into the AWS Cloud platform to protect public-Internet-to-Cloud and GC-ground-to-Cloud network communications. The SCED service establishes a secure connection between GC networks, its enhanced enterprise network infrastructure (developed via SCED), and the AWS Cloud platform.
3. CARM implemented GC Cloud security services on top of the AWS Cloud platform that are necessary for operating PB workloads in a secure Cloud environment.
4. CBSA conducted a full Security Assessment and Authorization (SA&A) process on the entire CARM solution measured against the TBS PB/M/M Security Control Profile for Cloud-based GC Services.
5. Security monitoring and management of all components within the CARM solution operates 24x7x365.

Contact information

If you have any questions on this information, please contact CARM at CBSA.CARM_Engagement-Engagement_de_la_GCRA.ASFC@cbsa-asfc.gc.ca.

Additional Document Links

The document links below provide key Government of Canada guidance documents publicly available:

Overall Treasury Board of Canada Secretariat Policies direction/guidance including Cloud First

- Overall landing page for Government of Canada cloud services https://ssc-clouddocs.canada.ca/s/gc-resources?language=en_US
- Government of Canada Cloud Adoption Strategy (2018 update) https://www.canada.ca/en/government/system/digital-government/digital-government-innovations/cloud-services/government-canada-cloud-adoption-strategy.html

Treasury Board of Canada Secretariat Policies

- Direction on the Secure Use of Commercial Cloud Services: Security Policy Implementation Notice (SPIN) https://www.canada.ca/en/government/system/digital-government/modern-emerging-technologies/direction-secure-use-commercial-cloud-services-spin.html
- Direction for Electronic Data Residency https://www.canada.ca/en/government/system/digital-government/digital-government-innovations/cloud-services/direction-electronic-data-residency.html

Security Assessment and Authorization (SA&A) including CSE assessment of Cloud Service Providers

- Government of Canada Cloud Security Risk Management Approach and Procedures https://www.canada.ca/en/government/system/digital-government/digital-government-innovations/cloud-services/cloud-security-risk-management-approach-procedures.html
- Government of Canada Security Control Profile for Cloud-based GC Services https://www.canada.ca/en/government/system/digital-government/modern-emerging-technologies/cloud-services/government-canada-security-control-profile-cloud-based-it-services.html
- CSE Cloud Security Risk Management Process document to assess Cloud Service Providers https://cyber.gc.ca/en/guidance/cloud-security-risk-management-itsm50062
- CSE IT Security Risk Management: A Lifecycle Approach (ITSG-33) https://cyber.gc.ca/en/guidance/it-security-risk-management-lifecycle-approach-itsg-33