Policy Name: Cloud Computing Security
Originating/Responsible Department: Information Technology Services (ITS)
Approval Authority: Senior Management Committee
Date of Original Policy: May 2015
Last Updated: June 2018
Mandatory Revision Date: June 2019
Contact: AVP (ITS) & Chief Information Officer

Policy:
The confidentiality, integrity and availability of the University’s information must be preserved when stored, processed or transmitted by a third party cloud computing provider.

Purpose:
This Policy defines the security requirements on the use of cloud computing in order to protect internal, confidential and sensitive information being processed, stored or transmitted by cloud computing services.

Scope:
This Policy applies to the use of public cloud computing (i.e. offsite) by University staff and faculty to store or process internal, confidential or sensitive information.

Procedures:
Cloud computing is the provision of services and applications through shared services or resources. These can be:

- Internal with the infrastructure owned and operated by the University (private)
- External to the University (public, remotely hosted a.k.a. third party)
- A combination of both public and private clouds

Public cloud computing and applications introduce risks that must be considered in the selection of cloud computing providers. Risks include but are not limited to the:

- Loss of information confidentiality and potential brand damage to Carleton; e.g., data breaches
- Non-compliance with federal and provincial privacy legislation
- Cloud computing providers unilateral change of their terms of service
- Loss of information; e.g., disappearance of cloud provider, with no backup at the University
- Loss of information ownership
- Availability of information; e.g., Denial of Service
- Loss of control over information; e.g., information stored in non-University cloud accounts
- Inability to investigate the loss of information confidentiality or availability
- Inability to satisfy timely information requests for legal, investigatory or compliance purposes
- Hijacking of cloud computing account or service
- Inability of the University to control information access controls

Examples of public cloud computing that introduces these risks include, but are not limited to:
Free versions of dropbox services such as OneDrive, Google Drive, Dropbox, Box, Amazon Cloud Drive, Amazon S3, CloudMe, etc.
Free email services such as Hotmail, Gmail, Outlook, GMX, Yahoo, etc.
Software as a Service providers that don’t ensure the confidentiality, integrity or availability of information.

To address these and other risks, formal agreements are required with third party service providers.

**Third Party Agreements**

Formal agreements with third parties where internal, confidential or sensitive information are involved are required to ensure these services are provided in compliance with University policies and privacy legislation. This applies also to the personal information being exchanged with third parties for the purposes of service provisioning. These agreements must include the following requirements on the use of cloud computing for the storage, processing or transmission of confidential or personal information:

- Clear confidentiality, integrity and availability requirements including the treatment of internal, confidential and sensitive information
- Employee security awareness and training
- Limitations on information collection, use and disclosure
- Information ownership must remain solely with the University
- Vulnerability management requirements including periodic vulnerability assessments and penetration testing
- Suitability requirements on the third party, including the provision of independent audits and audit attestations on information security controls
- Provisions governing the return and destruction of information in the third party’s possession
- Provisions on the protection of information in accordance with the Ontario Freedom of Information and Protection of Privacy Act (FIPPA) as well as Access to Information requirements
- Provisions on the protection of information in accordance with the Personal Information Protection and Electronic Documents Act (PIPEDA)
- Information Security incident response, management and notification requirements
- Limits and requirements on subcontracting
- When credit card data is involved, the requirement to demonstrate ongoing compliance as a service provider to the Payment Card Industry Data Security Standard

Where internal, confidential or sensitive information is involved, Information Security and Privacy Impact Assessments must be performed prior to the exchange of information and awarding of a contract.

**Roles and Responsibilities**

All engaged by the University are responsible to:

- Ensure that the confidentiality of sensitive and personal information is protected by only using approved features and functionality from approved cloud computing service providers
- Obtain permission from information owners prior to using cloud computing to process, store or transmit University information
- Ensure that new cloud services or applications procured are used in compliance with University policy as well as privacy legislation (FIPPA, PIPEDA)
• Ensure the University receives a current copy of a third parties Attestation of Compliance or Report on Compliance if processing of credit cards are a component of the third party service offering
• Supporting the completion of required Security and Privacy Impact Assessments

ITS is responsible for:
• Providing security guidance on security requirements for third party contracts
• Conducting Information Security Assessments

The Carleton University Privacy Office is responsible for:
• Providing guidance on third party agreements including applicable laws governing the protection of personal information; e.g.; FIPPA, PIPEDA
• Conducting Privacy Impact Assessments

Department Chairs, Directors and Management are responsible for:
• Ensuring that University policies are adhered to during the procurement and use of third party cloud computing

Compliance
Non-compliance to this Policy may result in disciplinary action.

Contacts:
Assistant Vice-President (ITS) & Chief Information Officer

Links to Related Policies:
http://carleton.ca/secretariat/policies/
• Information Security Policy
• Information Technology (IT) Security Policy
• Data and Information Classification and Protection
• Information Security Incident Response
http://www.carleton.ca/privacy/policies/
• Carleton’s Privacy Policies
http://carleton.ca/ITS/about-ITS/policies/
• Guidelines for the Use of Cloud Computing