



Effective Date: June 12, 2018

INFORMATION SYSTEMS AND TECHNOLOGY

Definitions

1. The following definitions apply to this Policy:
 - **Access Restricted Information Systems** - are information systems that contain confidential, personal and/or sensitive information including records regarding individuals or third parties (personal information), and records about the operations and financial matters of Cowichan Tribes, or another entity, which if disclosed could adversely affect their respective finances or operations (sensitive information);
 - **Information Systems** - a computer system or set of components for collecting, creating, storing, processing and distributing information, *including* hardware and software, system users and the information or data itself;
 - **Information Technology (IT)** - the development, implementation and maintenance of computer hardware and software systems to capture, organize, analyze and communicate information electronically;
 - **Record** - anything on which information is recorded or stored by any means whether graphic, electronic, mechanical, etc. Includes all records created, kept, received, or used by, or on behalf of, Cowichan Tribes;
2. Please refer to Cowichan Tribes' "Definitions Guide for Policies and Procedures" for the definitions of other terms used in this Policy and the associated procedures.

Policy Directive:

Cowichan Tribes shall provide for, and utilize, effective and secure information systems and technology that support Cowichan Tribes' operational requirements and adequately protect its information and assets.

Related Cowichan Teaching

"All things are connected"

Applicable Legislation and Standards

3. Cowichan Tribes' information systems and technology related practices must comply with applicable legislation, standards, and Cowichan Tribes' laws, policies and procedures, including:
 - i) The *First Nations Fiscal Management Act*;
 - ii) Cowichan Tribes First Nation Financial Administration Law (the FAL); and
 - iii) First Nations Financial Management Board (FNFMB) Standards.

Information Systems and Technology Policy



Effective Date: June 12, 2018

Reason for Policy

4. The objectives of this Policy include:
 - i) Providing Cowichan Tribes with a framework and guidelines with respect to the establishment of effective and secure information systems and technology;
 - ii) Ensuring Cowichan Tribes' information systems and technology adequately support its operational and strategic requirements;
 - iii) Protecting Cowichan Tribes' information and related interests;
 - iv) Ensuring the integrity of Cowichan Tribes' information systems and technology, specifically relating its financial administration system, is maintained; and
 - v) Ensuring that Cowichan Tribes' practices respecting information systems and technology comply with all applicable requirements.

Consequences of Non-Compliance with Policy

5. Potential consequences of non-compliance with this Policy include:
 - i) Lack of directions and clarity regarding the establishment of effective and secure information systems and technology for Cowichan Tribes;
 - ii) Inappropriate protection of confidential, private, personal and sensitive information;
 - iii) Damage to the integrity of Cowichan Tribes' information systems and technology;
 - iv) Difficulty in achieving operational and strategic priorities; and
 - v) Breach of legislation, standards, or Cowichan Tribes' laws, policies and procedures.

Policy Application

6. This Policy applies to or affects Cowichan Tribes':
 - i) Chief and Council;
 - ii) Finance and Audit Committee;
 - iii) General Manager;
 - iv) Information Systems (IS) Department, including contractors;
 - v) Employees; and
 - vi) Any other person(s) involved in the planning, selection, approval, implementation, operations or maintenance of Cowichan Tribes' IT and information systems.

Policy Requirements

General

7. Cowichan Tribes shall:
 - i) Develop information systems and technology that support its strategic plan and operations; and
 - ii) Establish documented policies and procedures to ensure effective internal information systems and technology controls.

Information Systems and Technology Policy



Effective Date: June 12, 2018

8. Cowichan Tribes shall establish and maintain effective and appropriate records and information systems, and govern and manage its information systems and technology, so as to ensure, and if required demonstrate:
 - i) Compliance by Cowichan Tribes with its legal requirements and obligations, including any applicable agreements, and with all other pertinent requirements;
 - ii) The effective operation and control of its financial management system; and
 - iii) The integrity of its records.

Specific Requirements and Authorizations

9. All computers, hardware, software and communication systems used for a production environment at Cowichan Tribes must employ a documented change control process, except for personal computers (PCs) such as desktops, laptops, etc.
10. The IS Department shall ensure that security tools and techniques are:
 - i) Implemented to enable restrictions on access to programs and data; and
 - ii) Administered to restrict access to programs and data.
11. All sensitive, valuable, or critical information/data residing on Cowichan Tribes' information systems must be periodically backed-up and securely stored at an offsite location.
12. All individuals authorized to access Cowichan Tribes' information systems shall have unique user identification.
13. Shared user IDs or passwords shall not be permitted.
14. Only approved and authorized programs shall be implemented onto Cowichan Tribes' information systems and technology.
15. Periodic reviews of the workstations and Cowichan Tribes' information systems and technology shall take place to monitor compliance with the requirements of this Policy.
16. Wherever Cowichan Tribes does not possess the requisite technical skills internally to provide the necessary information systems and technology related services and support it requires, the General Manager or the Manager of the IS Department may procure those services from a qualified external source subject to Cowichan Tribes' Procurement Policy and Procedures and Contracts for Personal/Professional Services Policy and Procedures.
17. Employees, councillors and contractors who have had Cowichan Tribes' IT assets entrusted to them must take care of, and manage those, assets in accordance with applicable Cowichan Tribes' policies and procedures.
18. Cowichan Tribes shall make and retain the proper records respecting its information systems and technology, as per pertinent records management requirements.



Procedures: Information Systems and Technology

Roles and Responsibilities

19. The responsibilities of Council include establishing policies and giving directions respecting IT used in Cowichan Tribes' operations to ensure the integrity of Cowichan Tribes' financial administration system and its database.
20. The responsibilities of the Finance and Audit Committee include:
 - i) Reviewing and reporting to Council on Cowichan Tribes' risk management policies and control and information systems and, where appropriate, recommending improvements to Council;
 - ii) Reviewing the adequacy of security of information, information systems and recovery plans at Cowichan Tribes and, where appropriate, recommending improvements to Council; and
 - iii) Reviewing the practices of Cowichan Tribes with respect to information systems and technology and recommending to Council changes that will improve related effective and/or compliance.
21. The responsibilities of the General Manager include:
 - i) Monitoring and ensuring Cowichan Tribes has effective and secure information systems and technology in place that satisfy all valid requirements and standards;
 - ii) Monitoring the performance of internal and/or external IT professionals; and
 - iii) Ensuring that effective controls are in place over Cowichan Tribes' information systems and technology.
22. The responsibilities of the Comptroller include:
 - i) Ensuring that Cowichan Tribes' information systems and technology facilitate effective financial management and provide for compliance with all related requirements; and
 - ii) Ensuring that Cowichan Tribes' financial administration systems, policies, procedures and internal controls related to Cowichan Tribes' information systems and technology are appropriately designed and operating effectively.
23. The responsibilities of the Manager, IS Department include:
 - i) Maintaining the integrity of information systems and related technology within Cowichan Tribes;
 - ii) Selecting contractors that provide IT services as required;
 - iii) Defining services in IT related contracts, establishing service level agreements, and administering the contracts; and
 - iv) Reviewing information systems and technology related practices of Cowichan Tribes and recommending to the Finance and Audit Committee changes that will improve related effectiveness and/or compliance.



Information Systems and Technology Policy

Effective Date: June 12, 2018

Planning and Resource Strategy

24. The IS Department shall establish and implement documented information systems and technology related procedures for use by Cowichan Tribes in its operations to ensure that the various goals and objectives outlined in this Policy and Procedures are met.
25. Council, along with the General Manager and IS Department, shall ensure information systems and technology that support Cowichan Tribes' strategic plan and operations are established.

Information Technology Controls

26. Council shall ensure that it has documented policies respecting internal controls for IT used by Cowichan Tribes in its operations in order to ensure the integrity of the financial management system and its data base.
27. Council shall ensure Cowichan Tribes complies with the requirements of the FAL and its policies and procedures respecting internal controls for IT discussed in the section above.
28. Council shall ensure that the policies and procedures discussed in sections 26 and 27 above are readily accessible to all councillors, the IS Department, and any other employees or persons involved with IT on behalf of Cowichan Tribes.

Information Systems Operations

29. The IS Department shall ensure that:
 - i) Cowichan Tribes' information systems are actively monitored for effectiveness;
 - ii) Transactions are processed in a timely manner;
 - iii) Only approved programs are used and these programs are accessible only by trained and authorized personnel;
 - iv) Data is retained in accordance with applicable legislation, the FAL, FNFMB Standards, Cowichan Tribes' policies and procedures, or agreements; and
 - v) Data is retrievable when needed.

Information Security

30. Each computer resource shall have an approved antivirus program installed that is configured to scan all programs and files upon execution and has real time protection.
 31. The approved antivirus program discussed in the above section must not be altered, disabled, or removed.
 32. Antivirus files must be updated on the network on a daily basis and whenever a new threat is identified.
 33. Network firewalls must be configured to support a 'least-privilege' approach to security, allowing only specific systems, services and protocols to communicate through the network perimeter.
-



34. Logical and physical access to the systems discussed in the above section must be limited strictly to those personnel with specific training and authorization.
35. Additionally, Cowichan Tribes shall ensure that:
 - i) Firewall and proxy servers are securely installed;
 - ii) Detailed firewall logs are maintained; and
 - iii) Alerts are raised if important services or processes crash.

Data Backup

36. Information or data backups shall occur incrementally on a daily basis, with full backups on a weekly and monthly basis.
37. Backup drives must be stored in a secure location with access limited to the General Manager and other authorized employees. Backup drives shall be securely stored at an offsite location that is easily accessible for those with authorized access.
38. Backup drives shall be retained for ten (10) years before being overwritten or deleted.

Access Management

39. Requests for access to Cowichan Tribes' network, accounting system, or other access restricted information system must include a description of an employee's role and rationale for the level of access required.
40. Signed approval must be obtained from the General Manager (or designate) for all access requests to Cowichan Tribes' access restricted information systems.
41. User ID and password are required for access to the network and other critical programs/areas such as the accounting system.
42. Automatic authentication via scripts/macros inserting user IDs/passwords are prohibited.
43. Systems and applications shall not be configured with unrestricted access to all data.
44. Individuals shall be given access privileges to the extent necessary to fulfill their individual job function and no more.
45. When an individual or contractor is terminated or ends employment with Cowichan Tribes, their user IDs must be disabled immediately.
46. Support personnel must notify the user when attempting to take control of a workstation.
47. All instances where specific software is loaded to remotely control a workstation must be removed when the support function is completed.
48. The use of the remote control software must be in accordance to applicable agreements.



Change Management

49. The Manager, IS Department shall ensure that Cowichan Tribes' change management process provides for the following:
- i) The data structure is consistent with the needs of Cowichan Tribes;
 - ii) All new data structure and related modifications are tested before implementation;
 - iii) New network, communication, and systems software, and new hardware, are consistent with the needs of Cowichan Tribes as per this Policy and Procedures;
 - iv) A description and rationale for the new network, hardware, communication and systems software change, and how it meets the needs of Cowichan Tribes;
 - v) An assessment of any risks involved with the change;
 - vi) Roll-back and implementation, considerations;
 - vii) A description of the testing required;
 - viii) Approval from the General Manager;
 - ix) Communication of the changes to Cowichan Tribes' employees; and
 - x) The provisions of any required training, as appropriate.

Monitoring

50. Cowichan Tribes shall maintain a log of employees, their user IDs, and their access levels within Cowichan Tribes' information systems.
51. On a quarterly basis, the General Manager shall review the log discussed in the above section to ensure users and the associated access rights are appropriate. Access rights that shall be monitored include the following:
- i) User access management (i.e. the accounting system);
 - ii) Third party access (i.e. outsourced IT professionals);
 - iii) Network access and file sharing; and
 - iv) Remote and Virtual Private Network access.
52. Network system performance shall be monitored on a regular basis.
53. Firewalls must be monitored daily and their functionality audited semi-annually.

Outsourcing

54. The Manager, IS Department shall ensure that any outsourcing with respect to IT related goods and services is consistent with the goals, objectives and needs of Cowichan Tribes as set out in the FAL and Cowichan Tribes' policies and procedures, including the:
- i) Selection of contractors providing IT services;
 - ii) Definition of services in the respective contracts;
 - iii) Establishing related service level agreements; and
 - iv) Administration of the respective contracts.

Information Systems and Technology Policy



Effective Date: June 12, 2018

55. The procurement of IT services and final contract with the chosen provider shall include:
- i) A requirement that the outsourced parties or service provider submits regular reports of all work performed on Cowichan Tribes' information systems;
 - ii) A requirement that all parties are responsible for complying with applicable laws and regulations, including protecting confidential and private information; and
 - iii) A provision that access by outsourced parties to Cowichan Tribes' information is provided only if it is directly related to their work on behalf of Cowichan Tribes.

Information Technology Related Assets

56. Councillors and employees who require or are authorized to use a laptop, PC and other IT related assets to satisfy the requirements of their formal roles and responsibilities as assigned by Cowichan Tribes shall only acquire, manage, modify, update, transfer and dispose of these assets as per Cowichan Tribes' policies and procedures.
57. Councillors and employees who require, or are authorized to use a cell phone, to satisfy the requirements of their roles and responsibilities assigned by Cowichan Tribes shall only acquire, manage, update and dispose of cell phones as per Cowichan Tribes' Cell Phone Management Policy and Procedures and Asset Disposal Policy and Procedures.
58. The section above also applies to other communications technology such as pagers, etc.

Records Management

59. Cowichan Tribes shall ensure that it keeps proper records and documents respecting its information systems and technology, and that all related records are maintained in a secure manner and confidential manner, as per FNFMB Standards, the FAL, and Cowichan Tribes' Records and Information Management Policy and Procedures and Financial Records Management Policy and Procedures, including records regarding information systems and technology related:
- i) Procurement;
 - ii) Security;
 - iii) Access;
 - iv) Maintenance;
 - v) Modifications and updates; and
 - vi) Loss or disposal (including sale or transfer).

Related Cowichan Tribes' Policies

- Asset Disposal Policy and Procedures;
- Cell Phone Management Policy and Procedures;
- Contracts for Personal/Professional Services Policy and Procedures;
- Financial Records Management Policy and Procedures;
- Procurement Policy and Procedures;
- Records and Information Management Policy and Procedures;