

REPORT ON:

# Financial Data Integrity

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## Executive Summary and Overall Conclusion

A key component of the Government of British Columbia's (Government or Province) financial management environment is its financial systems. Financial systems process a significant amount of data and are critical to manage government services and produce the Government's Public Accounts.

The Office of the Comptroller General (OCG) is responsible for governance over the Province's financial management environment. It provides strategic direction and guidance in relation to effective frameworks, capacity development, and processes and systems. OCG is responsible for managing the Corporate Financial System (CFS) E-Business Suite which is the single source of truth for government's financial information.

Ministries must ensure their systems, policies and processes align with the Core Policy and Procedures Manual (CPPM). They are responsible for developing their own financial management practice guidance to supplement the CPPM, where applicable, and ensure the overall principles of the CPPM are reflected in their policies and procedures.

Internal Audit & Advisory Services conducted this review to assess the existence and accessibility of ministries' policy and documented procedures, financial management training, controls that cover data integrity (accuracy, completeness, and validity), and consistency of data between systems.

For this review we selected the following ministries: the Ministry of Forest, Lands, Natural Resource Operations & Rural Development and the Ministry of Public Safety and Solicitor General. We found that the selected ministries had robust and comprehensive financial management environments that ensured data integrity. We did not identify any significant deficiencies with the programs and processes we reviewed. Ministries can continue to mature their processes by leveraging good practices identified during our review. OCG plans to engage with the finance community to share and implement these practices government-wide.

This review examined how data integrity are managed during each stage of the data entry and output process:

- **Governing Financial Management Environment** – We considered whether the selected ministries had documented policy and procedures to ensure accuracy, completeness, and validity in the data entry process, data was checked for consistency between systems, and ministry staff received financial management training.

We found that the selected ministries provide their staff with financial management training and had documented policy and procedures that are easily accessible to all staff. These documents are updated when required to address new issues or changes in policy. One selected ministry was working to document their maturing process in a timely manner.

- **Establishing Controls for Financial Data Integrity** – We considered whether the selected ministries had controls to ensure data integrity when transferring financial data into and out of CFS.

We found that both ministries had several controls to ensure data integrity when entering or transferring data into CFS, including reviewing data for accuracy, completeness, and validity, and by performing reconciliations. They were reviewed to confirm consistency of data between CFS and their systems. Areas for improvement focus on conducting more post-transaction data review.

- **Managing Financial Systems** – We considered whether the selected ministries had communication between their finance and Information Technology (IT) departments, and whether an inventory of financial systems exist.

We found one selected ministry had limited communication between their finance and IT departments. This can create a risk that the financial systems may not have appropriate system controls in place or risk the duplication of system and functions. The other selected ministry had regular communication between their two departments allowing for increased awareness of IT changes that could impact financial management activities and controls. Only one of the selected ministries attempted to create an inventory of their financial systems, this was still in progress at the time of the review.

We identified five recommendations and several good practices that the selected ministries should consider for the development and maintenance of their financial management environments. These recommendations provide ministries with areas to improve the maturity of their financial management processes.

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We would like to thank all ministry staff, who participated in and contributed to this review, for their cooperation and assistance.



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## Introduction

A key component of the Government of British Columbia's (Government or Province) financial management environment is its financial systems. Financial systems process a significant amount of data and are critical to manage government services and produce the Province's Public Accounts. The Corporate Financial System (CFS) E-Business Suite is the Government's core financial system.

The Office of the Comptroller General (OCG) is responsible for governance over the Government's financial management environment. It provides strategic direction and guidance in relation to effective frameworks, capacity development, and processes and systems. OCG is also responsible for managing CFS.

The Core Policy and Procedures Manual (CPPM) is a compilation of the Government's financial policies, general management policies and financial administration procedures. It outlines government objectives, standards and directives for sound management and promotes consistent, prudent financial administration, which encompasses the financial management environment. It is a framework of controls to support ministries' financial management activities.

Ministries must ensure their systems, policy and processes align with the CPPM. They are responsible for developing their own financial management policy and procedures to supplement the CPPM where applicable and ensure the overall principles of the CPPM are reflected in their policies and procedures. Financial data contained in CFS is the single source of truth, and outputs from the CFS are utilized for financial and other decision-making purposes. We expect to see robust controls to ensure data going into and coming out of CFS maintains integrity covering accuracy, completeness, validity, and consistency of data between systems or sources of data.

## Purpose, Scope and Approach

The purpose of this review was to gain exposure to the ministries' financial governance environment and utilize that understanding to plan future audit projects. Additionally, this review was to assess the:

- existence and accessibility of ministry's policy and documented procedures to cover data integrity and assess how consistently they are followed;
- existence of financial management training; and
- existence of controls to ensure coverage over data integrity of accuracy, completeness, and validity, and ensure data is consistent between systems and sources of data.

We did not assess the performance of CFS system controls nor operating effectiveness of controls at the ministry transactional level.

The following two ministries were selected for having relatively robust and comprehensive financial management policy and processes, and to help identify leverageable good practices applicable across government:

- Ministry of Forest, Lands, Natural Resource Operations & Rural Development; and
- Ministry of Public Safety and Solicitor General.

Our approach involved inquiry, inspection, observation and reperformance of controls where applicable.

Internal Audit & Advisory Services (IAAS), Ministry of Finance, conducted this review and completed fieldwork in October 2021. We met with each selected ministry to discuss the specific findings of our work. This report consolidates those findings. We require the selected ministries to develop and submit an action plan in response to the recommendations provided in this report, including their timeframe for implementation. We will conduct an annual follow-up to assess each ministry's progress in implementing their action plans.

While this review generally focused on the selected ministries, the recommendations and good practices within have relevance across Government. We therefore encourage other government organizations to review their processes and consider the recommendations identified in this report.

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## 1.0 Governing Financial Management Environment

Ministries are expected to establish their own financial management policy and procedures tailored to their environment to ensure compliance with the CPPM and promote efficient financial management practices.

The following CPPM chapters provide principles to ministries on financial management:

- The CPPM Chapter 2 and 3 provide direction for financial policy across government, and guidance on ministries' planning, budgeting, and reporting tasks. These chapters outline tasks to ensure ministry output reports are consistent with government-wide processes.
- The CPPM Chapter 13 provides guidance to ministries on financial systems and internal controls for these systems.

### 1.1 Ministries' Financial Management Policies and Procedures

The CPPM Chapter 2 states that: "Ministries must establish, maintain and operate systems of financial administration that are consistent with statutes, regulations, policy and directives."

We interviewed key staff within the selected ministries to ensure they had documented financial management policy and procedures and were communicated to staff. These should be stored in central locations, which are accessible to all staff. The documents should be reviewed and updated when changes occur to ensure they address new circumstances or changes in government-wide or ministry policy.

The selected ministries generally have documented procedures for the data entry and review process to ensure ministry staff check for **accuracy, completeness, and validity**. These documents provide step-by-step guidance on how to perform data entry and review procedures. Although one of ministries did not fully document procedures related to a process that we reviewed, this was due to a new financial system with under-developed processes. The ministry is aware and taking corrective action which will ensure procedures are documented in a timely manner to avoid loss of knowledge when key ministry staff leave their positions.

**Accuracy** is that the dollar value of the transaction is correct.

**Completeness** is that all valid transactions are recorded.

**Validity** is that all transactions recorded are genuine.

Overall, we found that the selected ministries established financial management policy and procedures to supplement the CPPM and guide staff on specific tasks and was consistently followed across the respective ministries. This information is well documented and accessible to staff on ministry intranets. One selected ministry made their **revenue and expense authority matrices** available and accessible to staff on the ministry intranet to help ensure financial transactions are sent to the appropriate person for review and approval. We also found that selected ministries review and update their policies and procedures when changes are made to program, ministry, or government-wide policy.

**Revenue and expense authority matrices** show which ministry staff are authorized to approve transactions, what type of transactions they can approve, and the dollar amount they can approve.

## 1.2 Ministries' Financial Management Training

Financial management training provides staff with the required knowledge and resources to perform job functions effectively which reduces mistakes and improves data integrity. Although there is no mandated training requirement in the CPPM, there is an expectation for ministries to provide adequate training for financial management roles.

We found that selected ministry staff performing financial management tasks had received training to cover data integrity. This is typically done through a combination of BC Public Service Agency and internally developed training courses. Examples of internally developed training courses include:

- data entry training into CFS and data extraction out of CFS;
- accounts payable training manual with the correct procedures to follow when processing accounts payable transactions; and
- revenue authority training covering the responsibilities of financial management staff members and how to send transactions to them for review.



Training is developed by the selected ministries to address identified gaps in staff knowledge. Ministry staff are encouraged to participate in additional training courses on a continuous basis to further their knowledge and skills. One selected ministry has made additional resources available to their staff to assist them with queries or issues, such as a finance help desk, in the event where documented procedures may not be available. One selected ministry cross-trained staff on financial management tasks to avoid situations where only one person can perform a specific task.

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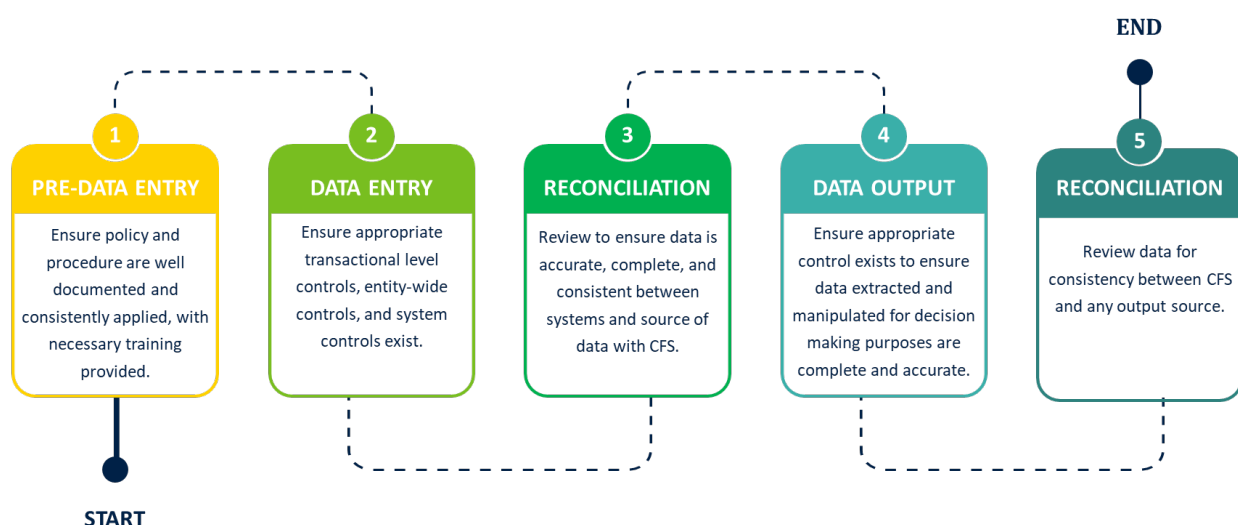
**Recommendations:**

- (1) Ministries should develop a process to ensure that key financial management policy and procedures are documented and updated when changes occur.
  - (2) Ministries should develop a process to cross-train ministry staff on key financial management tasks to avoid knowledge loss during staff turnover.
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## 2.0 Establishing Controls for Financial Data Integrity

The data entry and output process require appropriate controls to strengthen data integrity and support CFS as the source of truth for which decisions around financial data are based. This review has utilized the Data Integrity Controls Figure 1 to guide our assessment of ministries' controls around maintaining data integrity.

Figure 1: Data Integrity Controls



The selected ministries used both **manual** and **automated** data entry points.

### 2.1 Data Entry

We found that selected ministries use several good practices to ensure data was consistently checked for accuracy, completeness, and validity before data is recorded in CFS, such as:

1. Ministry staff review supporting documentation to match the data to be transferred into CFS. For example, an invoice from a supplier is checked against the amount to be recorded. Discrepancies are resolved before they are recorded in CFS.
2. Ministry staff confirm that all financial transactions have been approved by appropriate staff, such as an **Expense Authority**.
3. Ministry staff review the total balance of individual line items for reasonableness to help staff detect anomalies and take follow-up actions.

**Manual data entry** point requires staff to manually input the financial data into an application that will be transferred into CFS.

**Automated data entry** point involves transferring financial data through system integration between CFS and ministry financial systems.

**Expense Authority** is a ministry staff member who has the responsibility to review and approve expenses before they are recorded in CFS for onward payment.

In addition to the controls implemented by the ministries, CFS has several system controls in place to validate transactions entered and transferred into the system. Key examples detailed below:

1. Prevent duplicate transactions from being recorded.
2. Block transactions whose details do not match the details recorded in CFS, such as supplier information.
3. Prevent users from uploading journal vouchers containing formatting errors.

These system controls ensure financial data transferred to CFS are properly formatted (through manual upload or automatic transfer), but does not check for data accuracy, completeness, or validity. These are the responsibility of ministry compensating controls through their financial systems, or manual processes to help mitigate risk.

Although there is a greater reliance placed on the system controls for automated data entry points, ministry staff still performed a manual review to check the accuracy, completeness, and validity of financial data before recording in their financial systems.

## 2.2 Post-Transaction Data Review

Ministries should conduct post-transaction reviews after the financial data has been entered into CFS to identify anomalies and ensure the financial data is accurate, complete, and valid. We found that one selected ministry performs several post-transaction review activities as follows:

- Compare forecasted financial results to actual financial results recorded in CFS to determine if there are significant variances. In the event there are significant variances, these are investigated to understand the cause.
- Review each line item on financial reports to check if the amounts seem reasonable and have been correctly allocated to the relevant ministry.
- Perform Balance Sheet and Trial Balance Sheet reviews, in which all balances are validated by the appropriate ministry staff.

## Reconciliation

Ministries should perform reconciliations to ensure the accuracy and completeness of data within CFS and mitigate the risk that financial data is inconsistent between ministry financial systems and CFS. Reconciliation differs from post-transaction review as it compares two sets of reports to ensure the total balances. For example, reconciliations identify instances where data is recorded in a ministry financial system but not CFS, as the total balance would not match. This may occur due to manual error, or adjustments made that were not captured during transfer. Reconciliation is particularly important if ministries are utilizing data from CFS to create outputs (e.g., reports) that are used for financial decision-making purposes.

When ministry staff extract data from a financial system or data source and transfer into CFS, they regularly reconciled data between the system to CFS to check that data is consistent between the sources. This reconciliation was not possible when transactions were manually recorded into excel that is manually uploaded to CFS, or direct entry into CFS modules as there would be no report to compare against. As a compensating control, ministries sample transactions to match them to supporting documentation to ensure validity and accuracy after they have been recorded.

## Data Warehouse and Output

After financial data have been recorded in CFS, it is stored in a data warehouse. All ministries have access to their respective data in this data warehouse and can extract it for financial management activities such as reporting, analytics, and forecasting and budgeting. It is important for appropriate controls to exist to maintain data integrity on report outputs.

We found that the sampled ministries had good practices detailed below when extracting financial data from the data warehouse:

1. Ministry staff perform variance analysis between the data extracted from the data warehouse to identify errors or anomalies and confirm the accuracy before using the data for reporting, budgeting, or decision-making purposes.
2. Ministry staff reconciled the ministry generated report outputs to reports generated from data warehouse to check consistency of financial data.

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### Recommendation:

- (3) Ministries should perform reconciliations of all financial data transfers between data sources. If reconciliations are not feasible, staff should sample transactions to verify against supporting documentation.
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## 3.0 Managing Financial Systems

Financial systems generate a significant amount of financial data and are critical to manage the delivery of Government services and produce the Government's Public Accounts. According to the CPPM Chapter 12 "Data and corresponding information systems must be identified, classified, inventoried, documented and maintained throughout their lifecycle."

There is an expectation that as part of the CPPM, ministries would have an inventory of their financial systems and have captured key information about the system. This would involve sufficient communication between ministry finance and Information Technology (IT) groups to ensure the completeness of this inventory.

### 1.1 Communication Between Finance and IT Departments

We found that IT and finance departments in the sampled ministries do not always communicate regularly. One ministry indicated that limited communication created instances where the IT department did not inform the finance department about system modifications or the implementation of new financial systems. This can create a risk that the financial systems may not have appropriate system controls in place or risk having systems with duplicated functions.

We found that the other selected ministry has adopted a good practice of increasing communication and collaboration between their finance and IT departments through regular meetings and having client services that bridged the relationship between the two groups. This allowed for increased awareness of upcoming IT changes that could impact financial management activities and controls. Additionally, OCG is working on separate strategic initiatives and audit projects related to the financial governance environment to facilitate increased communication between ministries' finance and IT departments.

## 1.2 Inventory of Financial Systems

In addition to providing the ministry's finance staff with appropriate awareness and oversight of financial systems used across their ministry, an inventory could provide them with an asset registry list that could be used by other ministries to identify leverageable financial systems to share costs rather than procure a new system.

Ministries should develop an inventory that includes a description of a system, their functions to support service delivery, criticality, status (i.e., active, in development, retired), ownership and their expected useful life. To provide better oversight of financial systems, the financial

system inventory should include annual expected transaction volume, dollar amount correlated to the volume, identification of **Financial Risk and Controls Review** performed or in progress, and integration with other financial systems including CFS. Ministries should have processes, procedures, and guidance available for the information to remain comprehensive, accurate and current. In doing so, ministries and OCG can better track and assess the health of their financial system portfolios.

### Financial Risk and Controls Review

assesses and documents the adequacy of the designed controls for a new financial system (or a significant modification to an existing financial system or a system having a key financial component) with generally accepted financial control standards to prevent and reduce the risk of loss, error, misuse or fraud and to ensure conformity with accounting assertion criteria.

One selected ministry has made progress in developing an inventory of all financial systems, while the other selected ministry was faced with communication challenges to obtain financial system information. One selected ministry created a client service group that bridged the knowledge gap between their finance and IT departments, making information easier to obtain. At the time of this review, the ministry had not yet completed their inventory of financial systems. OCG is working on a strategy to assist ministries to develop an inventory of financial systems.

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### Recommendations:

- (4) Ministries should develop a process to have regular communication and collaboration between their finance and Information Technology departments to address the potential impacts of financial system changes.
  - (5) Ministries should create an inventory of all financial systems and update the inventory when changes occur.
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## Appendix A - Summary of Recommendations

1	Ministries should develop a process to ensure that key financial management policy and procedures are documented and updated when changes occur.
2	Ministries should develop a process to cross-train ministry staff on key financial management tasks to avoid knowledge loss during staff turnover.
3	Ministries should perform reconciliations of all financial data transfers between data sources. If reconciliations are not feasible, staff should sample transactions to verify against supporting documentation.
4	Ministries should develop a process to have regular communication and collaboration between their finance and Information Technology departments to address the potential impacts of financial system changes.
5	Ministries should create an inventory of all financial systems and update the inventory when changes occur.

## Appendix B - Abbreviations

CFS	Corporate Financial System
CPPM	Core Policy and Procedures Manual
IAAS	Internal Audit & Advisory Services
IT	Information Technology
OCG	Office of the Comptroller General
Province or Government	Government of British Columbia