INTERNAL AUDIT DIVISION

AUDIT REPORT 2013/075

Audit of the preparedness of information and communications technology applications supporting the implementation of the International Public Sector Accounting Standards

Overall results relating to the preparedness of information and communications technology applications for the implementation of the International Public Sector Accounting Standards were unsatisfactory. Implementation of eight important and two critical recommendations remains in progress. Management has satisfactorily implemented four audit recommendations.

FINAL OVERALL RATING: UNSATISFACTORY

24 September 2013
Assignment No. AT2012/510/01

CONTENTS

AUDIT REPORT

Audit of the preparedness of information and communications technology applications supporting the implementation of the International Public Sector Accounting Standards

I. BACKGROUND

1. The Office of Internal Oversight Services (OIOS) conducted an audit of the preparedness of information and communications technology (ICT) applications supporting the implementation of the International Public Sector Accounting Standards (IPSAS).

2. In accordance with its mandate, OIOS provides assurance and advice on the adequacy and effectiveness of the United Nations internal control system, the primary objectives of which are to ensure (a) efficient and effective operations; (b) accurate financial and operational reporting; (c) safeguarding of assets; and (d) compliance with mandates, regulations and rules.

3. The General Assembly approved the adoption of IPSAS in its resolution 60/283. IPSAS will replace the United Nations System Accounting Standards (UNSAS) and establish guidelines on how transactions and events should be reported in the financial statements. The adoption of IPSAS is expected to help the Organization enhance the credibility of its financial process and reports, provide greater transparency of resources, align processes and procedures with best practices in accounting, and improve comparability of financial reports with other organizations.

4. A pre-condition for the implementation of IPSAS is the readiness of the ICT applications for processing and storing relevant financial data. The United Nations Secretariat aims to deliver IPSAS-compliant financial statements for peacekeeping operations as of 30 June 2014, and for all other entities as of 31 December 2014. The first major milestone is the preparation of IPSAS-compliant opening balances for peacekeeping operations as of 1 July 2013.

5. The Umoja project is an administrative reform initiative of the United Nations Secretariat aimed at consolidating the management of all financial, human and physical resources under a single integrated enterprise resource planning (ERP) solution, called Umoja. The Organization had determined that Umoja will not be ready for IPSAS opening balances requirements, and will therefore make use of existing ICT applications to provide the data required for compilation of the opening balances.

6. The scope of the IPSAS project was outlined in the project initiation document included in the production of IPSAS-compliant financial statements for Volume 1, 2, and 3 financial statements, which included the United Nations Secretariat and the following entities:

(i) The United Nations Environment Programme (UNEP);

(ii) The United Nations Human Settlements Programme (UN-HABITAT);

(iii) The United Nations Office on Drugs and Crime (UNODC);

(iv) The International Trade Centre (ITC);

(v) The United Nations Institute for Training and Research (UNITAR); and

(vi) The United Nations Compensation Commission (UNCC).

7. The IPSAS project budget is outlined in Table 1.

Table 1: IPSAS budget
(Thousands of United States dollars)

	2006/07	2008/09	2010/11	2012/13
Regular budget	1,858.7	6,184.1	3,538.4	2,329.3
Peacekeeping support account	1,244.4	5,505.6	3,828.5	8,060.7
Total	**3,103.1**	**11,689.7**	**7,366.9**	**10,390.0**

8. The Department of Management (DM) is the lead department for the implementation of IPSAS. The project is managed by the Office of Programme Planning, Budget and Accounts (OPPBA).

9. The Office of Information and Communications Technology (OICT) of DM provides support for the enterprise-wide applications and infrastructure. The Information and Communications Technology Division (ICTD) in the Department of Field Support (DFS) is responsible for supporting the work of OICT in implementing and supporting Organization-wide applications and major shared field applications. Offices Away from Headquarters (OAHs) and Regional Commissions are responsible for maintaining their own local ICT and other office automation applications.

10. The functions of the Office of the Director-General of UNOV are combined with those of the Executive Director of UNODC. Both offices are integrated and supported with resources from the regular budget and also extra budgetary funding. The Division for Management of UNOV/UNODC supports policymaking organs, executive direction and management, and substantive sub programmes. This Division is responsible for the preparation of the accounts relevant for the adoption of IPSAS, and for the processes related to accounting, payroll, payment and disbursement of funds, and treasury for both UNOV and UNODC. The Information Technology Service (ITS) is part of the Division for Management and comprised 34 staff with a total budget of $12,262,000 for the biennium 2010-2011.

11. UNOV/UNODC had approximately 315 ICT applications supporting its administrative activities and processes. Some 277 of these 315 applications had been developed internally for supporting workflows.

12. Comments provided by DM and UNOV/UNODC are incorporated in italics.

II. OBJECTIVE AND SCOPE

13. The audit was conducted to assess the adequacy and effectiveness of the governance, risk management and control processes established by DM at United Nations Headquarters, and UNOV/UNODC in Vienna, in providing reasonable assurance regarding **the preparedness of ICT applications for the implementation of IPSAS,** including the generation of IPSAS compliant opening balances and financial statements.

14. The audit was included in the OIOS 2012 risk-based work plan because of the criticality of ICT applications in supporting the implementation of the IPSAS project, which aims to improve the quality, comparability and credibility of the financial statements of the United Nations Secretariat.

15. The key controls tested for the audit were: (a) regulatory framework; and (b) ICT support applications. For the purpose of this audit, OIOS defined these key controls as follows:

(a) **Regulatory framework** - controls that provide reasonable assurance that policies and procedures: (i) exist to guide the operations of ICT applications for supporting the implementation of IPSAS; (ii) are implemented consistently; and (iii) ensure the reliability and integrity of financial and operational information.

(b) **ICT support applications** - controls that provide reasonable assurance that the ICT applications adequately support the implementation of IPSAS.

16. The key controls were assessed for the control objectives shown in Table 2. Certain control objectives shown in Table 2 as "Not assessed" were not relevant to the scope defined for this audit.

17. OIOS conducted the audit from May 2012 to January 2013. The audit covered the period from May 2012 to December 2012.

18. OIOS conducted an activity-level risk assessment to identify and assess specific risk exposures, and to confirm the relevance of the selected key controls in mitigating associated risks. Through interviews, analytical reviews and tests of controls, OIOS assessed the existence and adequacy of internal controls and conducted necessary tests to determine their effectiveness.

19. OIOS conducted a review of the ICT applications in use at the United Nations Headquarters in New York, UNOV and UNODC. UNOV and UNODC were selected because these offices processed complex financial operations similar to other OAHs. The audit of the preparedness of ICT applications in peacekeeping missions was conducted separately (Assignment No. AT2012/615/01).

III. AUDIT RESULTS

20. In OIOS' opinion, DM and UNOV/UNODC governance, risk management and control processes examined were **unsatisfactory** in providing reasonable assurance regarding **the preparedness of ICT applications for the implementation of IPSAS**. While OPPBA had documented draft transitional arrangements for implementing IPSAS, which included the ICT applications that will be used for preparing the IPSAS opening balances, there was a large volume of data required for the implementation of IPSAS that was spread across several locations. OPPBA had not undertaken a detailed survey/review of all ICT applications that will be impacted by IPSAS implementation and did not provide adequate technical guidance and co-ordination across the Organization to enable the timely and reliable recording of data necessary for IPSAS implementation. As a result, there were risks associated with: (i) incomplete transitional arrangements; (ii) use of manual processes for data uploads; (iii) incomplete definition of key data flows; (iv) inadequate project and change management; (v) limitations of the real estate staging database; and (vi) malfunctions of batch procedures feeding human resources data into the Integrated Management Information System (IMIS).

21. UNOV/UNODC had developed and acquired over time an extensive number of ICT applications. However, the changes required for ensuring that these ICT applications will support the implementation of IPSAS had not been identified and documented. The lack of these preparatory actions was of particular

concern given the control weaknesses identified during the audit with regard to: (i) inconsistent use of date conventions; (ii) missing data and inconsistencies in asset management; (iii) negative leave balances in the human resources (HR) management system; (iv) weak integration of applications; and (v) weak information security.

22. OIOS made 14 recommendations to address issues identified in this audit. DM and UNOV/UNODC accepted and are in process of implementing the audit recommendations.

23. The initial overall rating was based on the assessment of the key controls presented in Table 2 below. The final overall rating is **unsatisfactory** as implementation of 8 important and 2 critical recommendations remains in progress.

Table 2: Assessment of key controls

Business objective	Key controls	Control objectives			
		Efficient and effective operations	**Accurate financial and operational reporting**	**Safeguarding of assets**	**Compliance with mandates, regulations and rules**
Preparedness of ICT applications for the implementation of IPSAS	(a) Regulatory framework	Partially satisfactory	Partially satisfactory	Not assessed	Partially satisfactory
	(b) ICT support applications	Unsatisfactory	Unsatisfactory	Not assessed	Partially satisfactory
FINAL OVERALL RATING: UNSATISFACTORY					

A. Regulatory framework

Incomplete transitional arrangements

24. The Secretariat determined that Umoja will not be ready for the preparation of IPSAS opening balances, and will therefore use existing ICT applications and manual workarounds. Transitional measures had been documented for enriching and modifying existing ICT applications and creating an additional staging database required for collecting new data on real estate assets.

25. The enrichments and modifications to the existing ICT applications included the creation of an IPSAS ledger that will be deployed within IMIS, in parallel with the UNSAS ledger. This solution included a series of proposed changes that will enable the concurrent production of UNSAS and IPSAS compliant financial statements for applicable reporting offices.

26. In addition to the transitional arrangements, OPPBA documented an interface strategy which highlighted the interfaces between IMIS and the other applications containing IPSAS relevant data such as Umoja and Galileo (asset management application). However, the transitional arrangements and interface strategy did not provide comprehensive information and clarity on key data sources. The interface strategy did not provide sufficient details on how long the transitional arrangements will be used, and whether they will also support the preparation of subsequent financial statements. Given that these arrangements relied on some manual processing and continuous use of some ancillary ICT applications that had weaknesses in data integrity and availability, their long-term use increased the risks associated with the reliability of IPSAS data.

(1) OPPBA should document a contingency plan with the list of ICT applications and manual workarounds that will be used for the implementation of IPSAS, and specify for how long they will be in place.

OPPBA accepted recommendation 1 and stated that in reference to the IPSAS IMIS parallel ledger and the book of records interface strategy, the contingency plan has been developed. As part of the plan, the details of the data flows from source systems to the IMIS IPSAS parallel ledger are continuously being documented and worked on. Documented evidence of the controls implemented has been provided to OIOS. Based on the action taken by OPPBA, recommendation 1 has been closed.

The use of manual processes for data upload increased the risk of input errors

27. In the absence of Umoja, OPPBA determined that the deployment of electronic interfaces to transfer data from the ICT applications into the IPSAS parallel ledger required additional steps. Therefore, OPPBA decided to perform most of the data uploads by using journal vouchers to record data into the IMIS parallel ledger. In those cases where the upload could not be done via an automated interface, OPPBA intended to perform manual processes using activity codes that provide audit trails of the transactions. This approach increased the risks to the integrity and security of data manually processed.

(2) OPPBA should design and implement compensatory procedures for ensuring the integrity, security and auditability of accounting data manually processed for IPSAS implementation.

OPPBA accepted recommendation 2 and stated that manual workarounds have been minimized significantly, and the focus has been on modifying current systems, primarily with a view to improving auditability and increasing assurance about accuracy. Documented evidence of the controls implemented has been provided to OIOS. Based on the action taken by OPPBA, recommendation 2 has been closed.

B. ICT support applications

The incomplete definition of key data flows across United Nations offices could cause delays

28. Many offices of the United Nations Secretariat needed to make changes to their ICT applications to support the preparation of IPSAS-compliant financial reports. In order to design and implement the required changes, it was necessary to identify and understand data sources and data flows.

29. A large volume of data was required for the preparation of the IPSAS opening balances that was stored and processed across several office locations. The IPSAS project team worked with several ICT applications installed across the United Nations offices with different data formats and outputs. These ICT applications were not integrated and, therefore, presented issues for data gathering, validation, accuracy, and transferability. In addition, key data sources, flows, and applications had not been mapped, limiting the ability to capture and process IPSAS data across various offices.

30. OPPBA had prepared a transition plan with a list of ICT applications, and had conducted pre-implementation exercises in Nairobi, Geneva and Vienna. However, this list was incomplete because it did not include all the ICT applications that will be impacted by IPSAS implementation across the entire Secretariat. In addition, offices did not receive guidance on the necessary actions to be taken for making

sure that their ICT applications will generate the data required for the IPSAS opening balances. OPPBA indicated that guidance for preparing the required information to feed the IMIS parallel ledger from other ICT applications was planned for early 2013. Information obtained by OIOS indicated that: (i) some of the ICT applications identified by OPPBA as required for IPSAS implementation were not in a state of readiness; (ii) the criticality of some applications had not been identified; and (iii) mechanisms were not always in place to address shortcomings (i.e., lack of data input controls).

(3) OPPBA should: (i) complete the identification of ICT applications providing key data relevant for the preparation of the IPSAS opening balances; (ii) map key data sources, flows, and applications; (iii) assess the quality of existing data; and (iv) define the procedures for capturing the financial data associated with IPSAS implementation across the Organization.

OPPBA accepted recommendation 3 and stated that items (i) and (ii) of this recommendation have already been implemented. The IPSAS parallel ledger and Book of Record in IMIS represent the largest part of this effort. The key data sources have already been identified and the detailed work for populating data is in progress. The quality of data has to be continually monitored and refined to reach the desired level of accuracy. The position is as follows: (i) complete the identification of ICT applications providing key data relevant for the preparation of the IPSAS opening balances – This is done. (ii) map key sources, flows, and applications – This is done. (iii) assess the quality of existing data – This work is in progress, including simulations and mock conversions and it will receive added emphasis with the issuance of the IPSAS opening balance instructions in October 2013. (iv) define the procedures for capturing the financial data associated with IPSAS implementation across the Organization – This is being worked on continuously and will be captured in detail in the IPSAS opening balance instructions to be issued in October 2013. For items (i) and (ii) documented evidence has been provided to OIOS. Recommendation 3 remains open pending receipt of updated evidence related to the assessment of the quality of existing data and procedures for capturing the financial data associated with IPSAS implementation across the Organization.

Project and change management need to be strengthened

31. Timely communication of IPSAS-related change requirements for ICT applications across the Secretariat is critical for ensuring the success of IPSAS implementation.

32. As reported in the previous section, changes required to the ICT applications had not been adequately identified and some offices did not receive sufficient information about the changes to be made to their local ICT applications. For example, the applications supporting asset management (i.e., Galileo) and procurement (i.e., Mercury) had been included in the modification and enrichment plans prepared by DFS. However, there was no evidence that all instances of Galileo and Mercury used across the United Nations offices, including those installed at the International Criminal Tribunals, had been reviewed and included in the planned changes.

33. With the exception of IMIS, milestones and deliverables had not been documented for completing the enrichments and modifications of the ICT applications at United Nations Headquarters (UNHQ) and non-peacekeeping offices. In addition, relevant information was missing from the plan for completing the enrichment and modification of the ICT applications, such as: (i) assignment of resources; (ii) definition of technical deliverables; (iii) application ownership; (iv) quality assurance criteria; and (v) testing plans for all ICT applications across the Organization.

34. As of November 2012, DFS had started the roll-out of the enhancements to Galileo in support of IPSAS. However, the required changes to the other ICT applications and the deployment of the staging databases for Peacekeeping Offices (PKOs), OAHs and UNHQ were either unknown or subject to delays. OAHs had not implemented the enrichment/modification plans for their ICT applications, which increased the risk that they may not be ready by the established deadline.

35. The main causes of these weaknesses were attributed to:

(i) Delays in finalizing user requirements, which had not been completed because the IPSAS policy framework and corresponding changes had not been finalized in a timely manner;

(ii) Lack of clarity as to how to capture the data required for IPSAS (i.e., associated costs, real estate assets, and intangible assets);

(iii) Delays experienced in the decision-making process for determining the procedural changes and their impact on existing ICT applications (i.e., investment accounting and valuation methodology for real estate);

(iv) Delays arising from the procurement process for engaging a consultant to assist with the modification of Galileo and Mercury; and

(v) Reliance on manual collection of data (i.e., for real estate and intangible assets).

(4) OPPBA should: (i) ensure that the ICT preparedness activities across the Secretariat are in alignment with the IPSAS timeline; and (ii) put in place mitigating controls to avoid delays in the readiness of ICT applications.

OPPBA accepted recommendation 4 and stated that important changes in ICT for IPSAS implementation, such as Galileo and IMIS enhancements, are already tracked through the project management tool and reported to the Steering Committee. The enhanced Galileo has already been rolled out to peacekeeping missions and the initial version of the enhancements to IMIS has been deployed to all OAHs and Regional Commissions. The real estate staging database is being deployed and the platform to support opening balances for equipment has been developed. In addition, an interim process has been put in place to support investment accounting pre-full deployment of Umoja. Documented evidence of the controls implemented has been provided to OIOS. Recommendation 4 remains open pending receipt of the reports generated by OPPBA with its project management tool for the real estate staging data base and the system for equipment.

Recognition of expenses using the delivery principle

36. The delivery principle requires the recognition of expenses once the goods and/or services are received, as opposed to the time of receipt of an invoice or payment in cash.

37. In PKOs, Mercury had been identified as one of the applications that will support the implementation of the delivery principle. Adequate enhancements were made in Mercury for cross referencing information with the SUN system and consolidating data in IMIS.

38. At UNHQ and OAHs, the receipt function in IMIS was used to capture the data required to comply with the IPSAS delivery principle and some system changes were being considered in addition to procedural changes that will be introduced to the timing of the recording of goods and services received.

However, a decision had not been made on the extraction methodology to be used for uploading the captured data.

(5) OPPBA should determine the system changes and methodology for extracting the data required for complying with the IPSAS delivery principle.

OPPBA accepted recommendation 5 and stated that peacekeeping missions will be using Umoja, which has a delivery principle functionality in time for IPSAS. In view of the prolonged period over which IMIS has to be used in non-peacekeeping missions to support the IPSAS implementation, additional enhancements to IMIS to support the IPSAS delivery principle have been finalized and prioritized. The OICT IMIS team has already commenced work on the changes, which will be delivered well in time for the implementation in the Office Away from Headquarters. Documented evidence of the controls implemented has been provided to OIOS. Based on the action taken by OPPBA, recommendation 5 has been closed.

The property management transition plan should be documented

39. The implementation of IPSAS required changes to several ICT applications processing property and asset data.

40. There was no common asset management system among UNHQ, OAHs and other non-peacekeeping field offices, as IMIS did not have an asset management/accounting functionality. Offices were required to review their existing ICT applications to determine whether they could generate IPSAS compliant asset accounting information, which would then be posted through the use of journal vouchers into the parallel IPSAS ledger.

41. At UNHQ, Procure Plus was the application used for supporting asset management, and it was expected that its data will be used to establish asset opening balances. However, Procure Plus did not contain asset valuations and could not be used for calculating depreciation and impairments. The method for performing these calculations, to be done outside Procure Plus, was still pending a decision as to which application will be used for this purpose. Other limitations of Procure Plus included:

(i) Miscellaneous fields were being used in Procure Plus for capturing data manually, pending the release of a system upgrade;

(ii) Procure Plus did not have controls for validating data inputs (i.e., checks on the format of the information entered in each field, such as dates, numbers, text, etc.); and

(iii) There was no link between the invoice information recorded in IMIS and purchase order lines in Procure Plus to calculate opening balances. Therefore, this process required manual intervention.

42. The Procurement Division was implementing a software upgrade for the Procure Plus application. Although this upgrade included additional data fields to capture IPSAS data, it was not yet clear whether the upgraded application will address the data input validation issues already identified by OIOS in the previous audit of Procure Plus (AH2008/513/01 – Audit of procurement management in the Secretariat). Pending the upgrade and deployment of the new Procure Plus application, OIOS did not make any additional recommendation on this issue.

43. The Facilities Management Service (FMS) of DM had also not finalized the property management transition plan being prepared for obtaining IPSAS-compliant asset data, along with the

specifications for using dedicated ICT applications (i.e., Procure Plus), data gathering, data cleansing and workaround solutions.

(6) The Facilities Management Service of DM should expedite the documentation of the property management transition plan and, in collaboration with OPPBA, ensure that a process is implemented for data gathering, data cleansing and workaround solutions to prepare asset data for IPSAS at Headquarters.

FMS accepted recommendation 6 and stated that in consultation with OPPBA they have developed an action plan for departments at Headquarters in preparation for the opening balance, detailing courses of actions, owners and timeline. In mid June 2013, FMS presented the plan to the property management focal points on the activities, roles and responsibilities involved in managing, controlling and reporting property at Headquarters in order to meet IPSAS requirements. Recommendation 6 remains open pending receipt of evidence demonstrating the implementation of the property management transition plan and the data gathering, cleansing and workaround solutions for preparing the IPSAS asset data.

Limitations of the real estate staging database

44. The implementation of IPSAS requires major changes in the storage and processing of data related to capitalization and depreciation of real estate assets (property, plant and equipment).

45. The Secretariat had not deployed a staging database system for managing data pertaining to real estate assets. Relevant information related to real estate assets resided in different applications across the Organization, in various formats, ranging from paper records to stand-alone ICT applications.

46. The Umoja Office decided to create a staging database to capture all real estate data required to meet both IPSAS and Umoja requirements. In this regard, the following weaknesses were identified by OIOS:

(i) The valuation methodology for estimating the value of real estate assets had not been decided, therefore the data elements required for valuation were not known;

(ii) The designed staging database did not include adequate controls for the validation of data (i.e., validation of data input, and audit trail, including checking the authenticity of origin and integrity of content);

(iii) The staging database application had been designed for recording only the assets but not their value. The application did not contain formulas for deriving IPSAS values (i.e., depreciation and impairments), which OPPBA intended to perform with a separate application;

(iv) A pilot testing of the staging database commenced at the United Nations Organization Stabilization Mission in the Democratic Republic of the Congo (MONUSCO) in July 2012. The pilot testing led to essential enhancements and fixes to the application. The Umoja team stated that application enhancements, fixes and testing were completed in November 2012, and the pilot re-test in the production environment would have resumed in MONUSCO, the United Nations Interim Force in Lebanon (UNIFIL), and UNHQ shortly after. However, the re-test had been delayed because the production environment was not ready; and

(v) The requirements of the real estate conversion tool included the capturing of data relating to assets under construction. However, the staging database did not have the capacity to capture

this data. DFS explained that an Excel template was being developed to capture this data and subsequently populate the staging database.

(7) OPPBA should provide technical guidance and assistance on how to gather, cleanse and prepare IPSAS-compliant data of real estate assets and ensure that their availability is in alignment with the IPSAS implementation timeline.

OPPBA accepted recommendation 7 and stated that OPPBA, the Office of Central Support Services, DFS, and Umoja have collaborated in the design of a web-based tool to facilitate the collection of real estate information which will eventually be migrated to Umoja. The tool will support summary information for notes disclosures, data for opening balances, and ongoing IPSAS reporting until the full deployment of the Umoja solution. OPPBA has already issued technical guidance to the missions and deployed workshops on the use of this tool to support opening balances. Documented evidence of the controls implemented has been provided to OIOS. Based on the action taken by OPPBA, recommendation 7 has been closed.

Limitations of IMIS

47. The implementation of IPSAS requires reliable data on the terms of delivery of goods and services, and commodity class codes. OPPBA planned to process this data using IMIS.

48. A review of the local IMIS databases installed at UNOV/UNODC identified the following limitations: (i) delivery terms were captured as a text field in IMIS, and could not serve as a reference data for determining the terms of delivery of goods and services acquired; and (ii) misclassification of the United Nations commodity class codes in IMIS (i.e. forensic equipment was classified as games & toys). OIOS was informed about an ongoing Organization wide review of the United Nations commodity class code, which included the analysis of issues concerning commodity class codes.

(8) OPPBA should determine how to address the issues concerning the reliability of key data fields within the IMIS instances installed in Offices Away from Headquarters, and put in place mechanisms for capturing reference data relating to delivery terms and commodity class codes.

OPPBA accepted recommendation 8 and stated that the importance of data cleansing to support the reliability of key data fields for conversion to IPSAS and Umoja has been communicated to all offices. The capture and enrichment of reference data as well as transactional data is already part of the Umoja conversion strategy being piloted in UNIFIL. Documented evidence of the controls implemented has been provided to OIOS. Recommendation 8 remains open pending OPPBA's issuance of instructions to OAHs and Regional Commissions for running quality checks and ensure that correct class codes have been entered in IMIS.

Limitations of the Field Office Management Ledger

49. UNOV/UNODC planned to use the Field Office Management Ledger (FOML) for processing and providing the financial transactions data required for IPSAS reporting.

50. FOML, which is a module of the ProFi suite of applications, was used by UNODC for recording transactions in field offices, even though this application had not been designed as a financial management system. FOML had a series of weaknesses that were mainly related to the inconsistent use of date conventions, and the need to manually update the ledger, which increased the risk of data corruption.

(9) UNOV/UNODC should design and implement compensatory controls for ensuring the consistent use of date conventions and prevent data corruption in the Field Office Management Ledger.

UNOV/UNODC accepted recommendation 9 and stated that the analysis of the date format display has implications vis-a-vis system integrity and it is expected to be completed by the end of September 2013. The results of the analysis will determine if any additional compensatory controls will have to be put in place by the end of 2013. Recommendation 9 remains open pending receipt of the UNOV/UNODC's analysis of the date format issue and implementation of compensatory controls, as necessary.

Weaknesses in the asset management application

51. Key asset data is required for IPSAS compliance. UNOV/UNODC maintained a database (Sybase) to keep track of non-expendable property at Vienna, and the Field Office Inventory (FOIN) module of ProFi in field locations. The Vienna office also used a locally developed Lotus Notes procurement application to capture assets of low value (i.e. < $4,000). The use of multiple applications to store the same information (i.e., ICT equipment) increased the risk of duplication and omission of assets. As listed in table 3 below, other weaknesses identified with the asset management application included inadequate asset management procedures, resulting in missing data and data inconsistencies. UNOV/UNODC stated it had started to address these deficiencies.

Table 3: Summary of weaknesses identified in asset management

Application	Control Weakness
All applications used for asset management (FOML, Lotus Notes databases, Sybase, and FOIN)	- Goods procured using credit cards were not consistently captured - Self constructed assets were not captured
FOML and Lotus Notes for low value items database	- FOML did not capture date of receipt of goods and services
FOML	- Terms of delivery and terms of payment fields were not populated
Lotus Notes for low value items database	- Location of assets was missing
Sybase, FOIN	- Evidence of physical verification not captured - Did not capture location of assets - Did not capture movement of assets and write off information - Associated cost only captured if part of the purchase order
FOIN	- No tracking of supplies and consumables

52. For internally developed ICT applications, ITS developed a software tracking application for capturing and managing relevant data. However, this software tracking application did not capture the value and time spent on the development of ICT applications (accounting of intangibles), and the estimated useful life of each application, which were required for complying with the IPSAS pertaining to intangible assets.

(10) UNOV/UNODC should, in coordination with OPPBA, determine how to address the weaknesses in its asset management and the lack of data (i.e., date received, asset location, value, serial nos.) relating to receipt and inspection, non-expendable and expendable property, and accounting of intangible assets.

UNOV/UNODC accepted recommendation 10 and stated that the asset verification exercise in Vienna took place between November 2012 and January 2013. The weaknesses highlighted by OIOS have been addressed; UNOV/UNODC considers the recommendations as fully implemented and requests OIOS to close it following their review of the documents submitted as evidence of the changes made and controls implemented. Recommendation 10 remains open pending receipt of evidence demonstrating the completion of reconciliation checks, and system changes.

Weaknesses in the processing of leave balances

53. The preparation of IPSAS compliant financial statements requires data related to staff salaries, allowances and benefits.

54. The following control weaknesses were identified in staff data in IMIS:

(i) Malfunctions of batch procedures that triggered the update of leave balances in IMIS. This problem had been reported to the IMIS team of the Office of Human Resources Management (OHRM) at UNHQ;

(ii) Annual leave accruals were not captured correctly by IMIS upon conversion from the erstwhile "appointment of limited duration" contracts to other types of contracts;

(iii) There were a few cases of missing deductions of annual leave days due to outstanding personnel actions; and

(iv) Delays in transferring scripts between duty stations, which increased the risk of incomplete data for personnel action, time and attendance, and annual leave.

(11) OPPBA should, in coordination with the Office of Human Resources Management and the Office of Information and Communications Technology, address the problems associated with the use of ICT applications for processing and recording leave balances in IMIS.

OPPBA accepted recommendation 11 stating that OPPBA and OHRM will jointly issue guidance to all offices, including OAHs and peacekeeping missions for gathering and cleansing data on leave recording with a view to improve their quality for inclusion in the Organization's financial statements. Recommendation 11 remains open pending issuance of guidance on how to capture the leave balances required for the implementation of IPSAS.

55. UNOV/UNODC used an internally developed an application (Flex-time) for managing human resources data and processes. Data from this application was interfaced with IMIS. However, the interface was not stable and resulted in inconsistent data. To address this issue, UNOV/UNODC generated exception reports to correct the inconsistencies. The Field Office Staffing System (FOSI) was used by UNOV/UNODC at field offices to manage data related to human resources management. The following weaknesses were identified in this system:

(i) There was an inconsistent use of both the American and European date conventions within date fields;

(ii) There were negative leave balances; and

(iii) Staff annual leave balances were not consistently accrued from month to month.

(12) UNOV/UNODC should design and implement compensatory controls to ensure that the FOSI system contains a consistent date format and correct leave balances.

UNOV/UNODC accepted recommendation 12 and stated that UNOV/UNODC is now in the test phase of leave data migration from FOSI into IMIS. Target date for final roll-out is the end of September 2013. The analysis of the date format display has implications vis-a-vis system integrity and it is expected to be completed by the end of September 2013. The results of the analysis will determine if any additional compensatory controls will have to be put in place by the end of December 2013. Automatic procedures have been identified to keep leave balances up to date without requiring manual leave manager intervention. These procedures will be implemented by the end of June 2013. Recommendation 12 remains open pending receipt of documentation showing UNOV/UNODC's analysis of leave data and implementation of compensatory controls, as necessary, for ensuring consistent use of date formats and correct leave balances.

Inadequate controls for ICT project management, application development and security limited the ability to enrich and modify applications for supporting the implementation of IPSAS

56. The reliability and security of the ICT applications providing data input for the preparation of financial statements is a basic requirement for ensuring the reliability and credibility of the data reported. Therefore, this requirement is important for the implementation of IPSAS when several ICT applications are being used for generating the opening balances. These applications should be based on verifiable controls demonstrating that they were developed in accordance with clear project management terms of reference and defined, tested and accepted business requirements and security controls.

57. UNOV/UNODC developed an extensive number of ICT applications (277) to support its processes, many of which were developed prior to the Organization's decision to adopt IPSAS. These applications processed and stored data that will be required for the implementation of IPSAS. Therefore, it is necessary to demonstrate that the ICT applications that will be used by UNOV/UNODC for generating IPSAS-related data have been developed and managed with adequate control mechanisms and procedures for ensuring data reliability, integrity, and availability.

58. UNOV/UNODC stated that: (i) its ICT standard project management methodology was based on the adoption of a light version of PRINCE II (Projects in Controlled Environments); and (ii) the application development methodology Agile. Accordingly, OIOS used these project management and application development methodologies to review and test the electronic repositories of UNOV/UNODC, containing the documentation related to its ICT applications. In addition, OIOS checked whether these controls were in compliance with the overarching standard ICT project management framework of the United Nations Secretariat. In summary terms, the results of the audit tests highlighted the following control weaknesses:

(i) The light version of PRINCE II had not been implemented in any of the ICT applications developed or acquired by UNOV/UNODC.

(ii) UNOV/UNODC had not implemented the Agile methodology – or any other standard application development methodology - for the entire lifecycle (applications development, management, and change management) of the UNOV/UNODC ICT applications.

(iii) OIOS further focused its tests on a sample of ICT applications providing IPSAS-related data. This sample included the ProFI modules (i.e., Office Inventory, Leave Requests, Imprest Fund, and Office Staffing), Lotus Notes database for low value procurement items, Flex-time, and the Property Survey Board (PSB) write-offs. The results of the audit tests showed that: (a) A standard application development methodology had not been used for any of the ICT applications; and (ii) Only a limited documentation of workflows existed in 25 per cent of the applications reviewed.

(iv) UNOV/UNODC provided documented evidence for five additional applications (i.e., Gift Hub, Knowledge Management Portal, Palestine Forensic Experts Portal, Annual Report Questionnaire Portal, and goAML for Money Laundering reporting), to demonstrate that it had used adequate controls for project management, issue tracking, change management, verifications and prioritization of work items, and quality assurance. However, these additional five applications did not process and store any IPSAS-related data.

(v) UNOV/UNODC had not developed its ICT applications on the basis of the requirements of the United Nations Secretariat for the definition, assessment and documentation of controls pertaining to information security, data classification, quality assurance, and testing.

59. In the context of IPSAS implementation, the absence of adequate evidence of controls supporting the ICT applications in use at UNOV/UNODC was a significant limiting factor because the data dictionaries, data structure, data classification, file layouts, and security requirements of these applications were not available. The lack of these details may delay the determination of the changes required for preparing UNOV/UNODC ICT applications to support IPSAS implementation, and also potentially prevent the external auditors from relying on the data processed and stored in these ICT applications.

60. *UNOV/UNODC stated that applications that are earmarked to support IPSAS before the introduction of Umoja were developed long before the OICT project management policies were established and, therefore, it does not see the cost effectiveness or efficiency gain in going back and preparing post-facto PRINCE II compliant process documentation. UNOV/UNODC relies on data owners and ITS possess knowledge and expertise to enrich and extract data from such applications for purposes of presenting IPSAS-compliant information. For any new projects and applications that are matching the OICT set parameters for documentation formats, UNOV/UNODC ITS follows and will continue to follow OICT established guidelines.* In view of the explanations provided by UNOV/UNODC, no recommendation was made.

<u>Weaknesses in information security may limit the reliance that can be placed on data</u>

61. The ICT infrastructure supporting the applications used for the implementation of IPSAS should provide means for ensuring the integrity and availability of data.

62. UNOV/UNODC had procured the services of a third party vendor to undertake a vulnerability assessment of the Vienna network infrastructure, and had implemented some of the recommendations contained within the report. However, the results of the OIOS tests highlighted some control weaknesses in the information security of UNOV/UNODC, including inadequate log monitoring and segregation of duties. UNOV/UNODC stated that they were currently working on the information security and classification controls with the aim of developing and implementing relevant policies and procedures.

63. OIOS performed vulnerability scans of critical servers and applications at UNOV/UNODC. The results of these scans were communicated to ITS staff during the course of the audit field work. Of concern were the critical (three), high risk (ten), and medium risk (61) areas identified, which accounted for 74 of the 88 vulnerabilities found.

64. UNOV/UNODC had documented a high level strategic document on business continuity, disaster recovery, and backup. The Human Resources Management Service of UNOV/UNODC had been tasked with coordinating business continuity planning. However, the businesses continuity plan was still in progress, not aligned with the disaster recovery plan, not formalized into an operational document, and its business processes were not mapped with the corresponding supporting ICT applications and infrastructure.

65. In addition, given that the Board of Auditors have already raised concerns on the level of information security at UNOV/UNODC in their previous reports, this control area requires immediate attention for the design and implementation of adequate mitigating measures.

(13) UNOV/UNODC should design and implement: (i) information security controls and classification procedures in accordance with the ST/SGB/2007/6 (Information sensitivity, classification and handling); (ii) comprehensive log management procedures and periodic vulnerability scans of application servers; and (iii) access control procedures ensuring segregation of duties.

UNOV/UNODC accepted recommendation 13 and stated that ITS is in the process of developing and implementing policies on information security and classification, in accordance with ST/SGB/2006/7. ITS has developed a criticality model that will help in the classification of applications, services, and data/information. Additionally and subject to availability of funds, ITS intends to deploy a centralized monitoring system that will provide log management procedures. In order for ITS to ensure segregation of duties, additional resources would be required; duties are currently combined out of necessity and as a result of limited resources. In order to mitigate this situation, ITS is currently evaluating access control mechanisms of administrative users to ensure that separate roles exist for the accounts that require administrative access. The Information Security Controls and Classification Procedures is expected to be published by the end of June 2014; the Centralized Security Information and Event Management (SIEM) System to be deployed, subject to funds, by the end of December 2013; and Access Control Procedures (Administrative Access) to be published by the end of December 2013. Recommendation 13 remains open pending receipt of the evidence demonstrating the completion of actions taken for classification and handling, log management, and access control.

(14) UNOV/UNODC should: (i) formalize its business continuity plans into an operational document that identifies key processes and their criticality; (ii) align the business continuity plan with a disaster recovery plan using the criticality of the key processes identified; (iii) map the business continuity plan with the supporting ICT applications and infrastructure; and (iv) perform periodic tests of the plan.

UNOV/UNODC accepted recommendation 14 and stated that ITS has conducted a wide ranging review of the existing UNOV business continuity plan (BCP) and has formed a committee to address the issues highlighted in the audit report: (a) map the identified key business processes and their criticality to underlying ICT systems (by end of September 2013); (b) conduct a gap analysis based on this mapping of key business and underlying ICT systems and existing ITS disaster recovery (DR) plans (by end of December 2013); (c) consolidate the revised DR plans for ITS services into one

document (by end of March 2014); and (d) continue to conduct annual tests of the ITS DR plans (by end of June 2014). Upon completion by ITS of the DR plans, the BCP will also be completed. Recommendation 14 remains open pending receipt of documentation from UNOV/UNODC pertaining to business continuity and disaster recovery plans and test results.

IV. ACKNOWLEDGEMENT

66. OIOS wishes to express its appreciation to the Management and staff of DM and UNOV/UNODC for the assistance and cooperation extended to the auditors during this assignment.

(*Signed*) David Kanja
Assistant Secretary-General for Internal Oversight Services

ANNEX I

STATUS OF AUDIT RECOMMENDATIONS

Audit of the preparedness of information and communications technology applications supporting the implementation of the International Public Sector Accounting Standards

Recom. no.	Recommendation	Critical[1]/ Important[2]	C/ O[3]	Actions needed to close recommendation	Implementation date[4]
1	OPPBA should document a contingency plan with the list of ICT applications and manual workarounds that will be used for the implementation of IPSAS, and specify for how long they will be in place.	Important	C	Action taken.	Implemented
2	OPPBA should design and implement compensatory procedures for ensuring the integrity, security and auditability of accounting data manually processed for IPSAS implementation.	Important	C	Action taken.	Implemented
3	OPPBA should: (i) complete the identification of ICT applications providing key data relevant for the preparation of the IPSAS opening balances; (ii) map key data sources, flows, and applications; (iii) assess the quality of existing data; and (iv) define the procedures for capturing the financial data associated with IPSAS implementation across the Organization.	Critical	O	Updated evidence related to the assessment of the quality of existing data and procedures for capturing the financial data associated with IPSAS implementation across the Organization.	31 October 2013
4	OPPBA should: (i) ensure that the ICT preparedness activities across the Secretariat are in alignment with the IPSAS timeline; and (ii) put in place mitigating controls to avoid delays in the readiness of ICT applications.	Critical	O	Reports generated by OPPBA with its project management tool for the Real Estate staging data base and the system for equipment.	31 October 2013
5	OPPBA should determine the system changes and methodology for extracting the data required for complying with the IPSAS delivery principle.	Critical	C	Action taken.	Implemented

[1] Critical recommendations address significant and/or pervasive deficiencies or weaknesses in governance, risk management or internal control processes, such that reasonable assurance cannot be provided regarding the achievement of control and/or business objectives under review.
[2] Important recommendations address important deficiencies or weaknesses in governance, risk management or internal control processes, such that reasonable assurance may be at risk regarding the achievement of control and/or business objectives under review.
[3] C = closed, O = open
[4] Date provided by DM and UNOV/UNODC in response to recommendations.

ANNEX I

STATUS OF AUDIT RECOMMENDATIONS

Audit of the preparedness of information and communications technology applications supporting the implementation of the International Public Sector Accounting Standards

Recom. no.	Recommendation	Critical[1]/ Important[2]	C/ O[3]	Actions needed to close recommendation	Implementation date[4]
6	The Facilities Management Service of DM should expedite the documentation of the property management transition plan and, in collaboration with OPPBA, ensure that a process is implemented for data gathering, data cleansing and workaround solutions to prepare asset data for IPSAS at Headquarters.	Important	O	Evidence demonstrating the implementation of the property management transition plan and the data gathering, cleansing and workaround solutions for preparing the IPSAS asset data.	31 December 2013
7	OPPBA should provide technical guidance and assistance on how to gather, cleanse and prepare IPSAS-compliant data of real estate assets and ensure that their availability is in alignment with the IPSAS implementation timeline.	Critical	C	Action taken.	Implemented
8	OPPBA should determine how to address the issues concerning the reliability of key data fields within the IMIS instances installed in the Offices Away from Headquarters, and put in place mechanisms for capturing reference data relating to delivery terms and commodity class codes.	Important	O	Issuance of instructions to OAHs and Regional Commissions for running quality checks and ensuring that correct class codes have been entered in IMIS.	1 October 2013
9	UNOV/UNODC should design and implement compensatory controls for ensuring the consistent use of date conventions and prevent data corruption in the Field Office Management Ledger.	Important	O	Documentation showing UNOV/UNODC's analysis of the date format issue and implementation of compensatory controls, as necessary.	31 December 2013
10	UNOV/UNODC should, in coordination with OPPBA, determine how to address the weaknesses in its asset management and the lack of data (i.e., date received, asset location, value, serial nos.) relating to receipt and inspection, non-expendable and expendable property, and accounting of intangible assets.	Important	O	Evidence demonstrating the completion of reconciliation checks, and system changes.	31 December 2013
11	OPPBA should, in coordination with the Office of Human Resources Management and the Office of Information and Communications Technology, address the problems associated with the use of	Important	O	Issuance of the guidance on how to capture the leave balances required for the implementation of IPSAS.	31 December 2013

ANNEX I

STATUS OF AUDIT RECOMMENDATIONS

Audit of the preparedness of information and communications technology applications supporting the implementation of the International Public Sector Accounting Standards

Recom. no.	Recommendation	Critical[1]/ Important[2]	C/ O[3]	Actions needed to close recommendation	Implementation date[4]
	ICT applications for processing and recording leave balances in IMIS.				
12	UNOV/UNODC should design and implement compensatory controls to ensure that the FOSI system contains a consistent date format and correct leave balances.	Important	O	Documentation showing UNOV/UNODC's analysis of leave data and implementation of compensatory controls, as necessary.	31 December 2013
13	UNOV/UNODC should design and implement: (a) information security controls and classification procedures in accordance with the ST/SGB/2007/6 (Information sensitivity, classification and handling); (b) comprehensive log management procedures and periodic vulnerability scans of application servers; and (c) access control procedures ensuring segregation of duties.	Important	O	Evidence demonstrating the completion of actions taken for classification and handling, log management, and access control.	30 June 2014
14	UNOV/UNODC should: (a) formalize its business continuity plans into an operational document that identifies key processes and their criticality; (b) align the business continuity plan with a disaster recovery plan using the criticality of the key processes identified; (c) map the business continuity plan with the supporting ICT applications and infrastructure; and (d) perform periodic tests of the plan.	Important	O	Documentation pertaining to business continuity and disaster recovery plans and test results.	30 June 2014

APPENDIX I

Management Response

Department of Management's Response

United Nations Nations Unies

INTEROFFICE MEMORANDUM MEMORANDUM INTERIEUR

TO: Mr. Gurpur Kumar, DATE: 19 September 2013
A: Deputy Director, Internal Audit Division
Office of Internal Oversight Services

THROUGH: Christian Saunders, Director
S/C DE: Office of the Under-Secretary-General for Management

FROM: Mario Baez, Chief, Policy and Oversight Coordination Service
DE: Office of the Under-Secretary-General for Management

SUBJECT: **Revised draft report on the audit of the preparedness of information and**
OBJET: **communications technology applications supporting the implementation of the International Public Sector Accounting Standards (IPSAS), (Assignment No. AT2012/510/01)**

1. In response to your memorandum dated 12 September 2013 on the above subject, we are pleased to provide the revised comments of the Department of Management to the recommendations in the revised draft report in Appendix I. This memorandum supersedes the previous one sent to your office on 18 July 2013.

2. Thank you for giving us the opportunity to provide comments.

13-02338
19 Sept 2013

APPENDIX I

AUDIT RECOMMENDATIONS

AT2012/510/01 - Audit of the preparedness of information and communications technology (ICT) applications supporting the implementation of IPSAS

Rec. no.	Recommendation	Critical[1]/ Important[2]	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
1	OPPBA should document a contingency plan with the list of ICT applications and manual workarounds that will be used for the implementation of IPSAS, and specify for how long they will be in place.	Important	Yes	Director of Accounts Division	Implemented	Already implemented. In reference to the IPSAS IMIS parallel ledger and the Book of Records Interface Strategy, the contingency plan already exists and has already been documented. As part of the plan, the details of the data flows from source systems to the IMIS IPSAS parallel ledger are continuously being documented and worked on. Documented evidence of the controls implemented has been provided to OIOS.
2	OPPBA should design and implement compensatory procedures for ensuring the integrity, security and auditability of accounting data manually processed for IPSAS implementation.	Important	Yes	Director of Accounts Division	Implemented	Manual workarounds have been minimized significantly. The focus has been on modifying current systems primarily with a view to improving auditability and increasing assurance about accuracy. Documented evidence of the controls implemented has been

[1] Critical recommendations address significant and/or pervasive deficiencies or weaknesses in governance, risk management or internal control processes, such that reasonable assurance cannot be provided regarding the achievement of control and/or business objectives under review.

[2] Important recommendations address important deficiencies or weaknesses in governance, risk management or internal control processes, such that reasonable assurance may be at risk regarding the achievement of control and/or business objectives under review.

Rec. no.	Recommendation	Critical[1]/ Important[2]	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
						provided to OIOS.
3	OPPBA should: (i) complete the identification of ICT applications providing key data relevant for the preparation of the IPSAS opening balances; (ii) map key data sources, flows, and applications; (iii) assess the quality of existing data; and (iv) define the procedures for capturing the financial data associated with IPSAS implementation across the Organization.	Critical	Yes	Director of Accounts Division	Items (i) and (ii) Implemented Items (iii) and (iv) to be implemented by 31 October 2013	Items (i) and (ii) of this recommendation have already been implemented. The IPSAS parallel ledger and Book of Record in IMIS represent the largest part of this effort. The key data sources have already been identified and the detailed work for populating data is in progress. The quality of data is continually being monitored and refined to reach the desired level of accuracy. The position is as follows: (i) complete the identification of ICT applications providing key data relevant for the preparation of the IPSAS opening balances – This is done. (ii) map key data sources, flows, and applications – This is done. (iii) assess the quality of existing data – This work is in progress including simulations and mock conversions and it will receive added emphasis with the issuance of the IPSAS opening balance instructions in October 2013. (iv) define the procedures for capturing the financial data associated with IPSAS implementation across the Organization – This is being worked on continuously and will

Rec. no.	Recommendation	Critical[1]/ Important[2]	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
						be captured in detail in the IPSAS opening balance instructions to be issued in October 2013. For items (i) and (ii) documented evidence of the controls implemented has been provided to OIOS.
4	OPPBA should: (i) ensure that the ICT preparedness activities across the Secretariat are in alignment with the IPSAS timeline; and (ii) put in place mitigating controls to avoid delays in the readiness of ICT applications.	Critical	Yes	Director of Accounts Division	Implemented	Important changes in ICT for IPSAS implementation, such as Galileo and IMIS enhancements, are already tracked through the project management tool and reported to the Steering Committee. The enhanced Galileo has already been rolled out to Peacekeeping missions and the initial version of the enhancements to IMIS has been deployed to all OAHs and Regional Commissions. The real estate staging database is being deployed and the platform to support opening balances for equipment has been developed. In addition an interim process has been put in place to support investment accounting pre-full deployment of Umoja. Documented evidence of the controls implemented has been provided to OIOS.
5	OPPBA should determine the system changes and methodology for extracting the data required for complying with the IPSAS delivery principle.	Critical	Yes	Director of Accounts Division	Implemented	Peacekeeping operations will be using Umoja which has delivery principle functionality in time for IPSAS. In view of the prolonged period over which IMIS has to be used in non-peacekeeping operations to support the

Rec. no.	Recommendation	Critical[1]/ Important[2]	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
						IPSAS implementation, additional enhancements to IMIS to support the IPSAS delivery principle have been finalized and prioritized. The OICT IMIS team has already commenced work on the changes, which will be delivered well in time for the implementation in OAHs. Documented evidence of the controls implemented has been provided to OIOS.
6	The Facilities Management Service of DM should expedite the documentation of the property management transition plan and, in collaboration with OPPBA, ensure that a process is implemented for data gathering, data cleansing and workaround solutions to prepare asset data for IPSAS at Headquarters.	Important	Yes	Chief, Facilities Management Service	31 December 2013	In consultation with OPPBA, FMS has developed an action plan for departments at Headquarters in preparation for the opening balance, detailing courses of actions, owners and timeline. In mid June 2013, FMS presented the plan to the property management focal points on the activities, roles and responsibilities involved in managing, controlling and reporting property at Headquarters in order to meet IPSAS requirements.
7	OPPBA should provide technical guidance and assistance on how to gather, cleanse and prepare IPSAS-compliant data of real estate assets and ensure that their availability is in alignment with the IPSAS implementation timeline.	Critical	Yes	Director of Accounts Division	Implemented	OPPBA, OCSS, DFS, and Umoja have collaborated in the design of a web-based tool to facilitate the collection of real estate information which will eventually be migrated to Umoja. The tool will support summary information for notes disclosures, data for opening balances, and ongoing IPSAS reporting until the full deployment of the Umoja solution. OPPBA has already issued technical guidance to the missions and deployed workshops on the use of this

Rec. no.	Recommendation	Critical[1]/ Important[2]	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
						tool to support opening balances. Documented evidence of the controls implemented has been provided to OIOS.
8	OPPBA should determine how to address the issues concerning the reliability of key data fields within the IMIS instances installed in the Offices Away from Headquarters, and put in place mechanisms for capturing reference data relating to delivery terms and commodity class codes.	Important	Yes	Director of Accounts Division	Implemented	The importance of data cleansing to support the reliability of key data fields for conversion to IPSAS and Umoja has been communicated to all offices. The capture and enrichment of reference data as well as transactional data is already part of the Umoja conversion strategy which is being piloted in the UNIFIL mission. Documented evidence of the controls implemented has been provided to OIOS.
9	UNOV/UNODC should design and implement compensatory controls for ensuring the consistent use of date conventions and prevent data corruption in the Field Office Management Ledger.	Important				Refer to UNOV/UNODC
10	UNOV/UNODC should, in coordination with OPPBA, determine how to address the weaknesses in its asset management and the lack of data (i.e., date received, asset location, value, serial nos.) relating to receipt and inspection, non-expendable and expendable property, and accounting of intangible assets.	Important				Refer to UNOV/UNODC

Rec. no.	Recommendation	Critical[1]/ Important[2]	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
11	OPPBA should, in coordination with the Office of Human Resources Management and the Office of Information and Communications Technology, address the problems associated with the use of ICT applications for processing and recording leave balances in IMIS.	Important	Yes	Assistant Secretary-General /OHRM and Assistant Secretary-General/OPPBA (Controller)	Implemented	OHRM issued guidance to all offices, including offices away from Headquarters and peacekeeping missions on gathering and cleansing data on time and attendance and leave records. Documented evidence of the guidance that was issued to all offices has been provided to OIOS.
12	UNOV/UNODC should design and implement compensatory controls to ensure that the FOSI system contains a consistent date format and correct leave balances.	Important				Refer to UNOV/UNODC
13	UNOV/UNODC should design and implement: (a) information security controls and classification procedures in accordance with the ST/SGB/2007/6 (Information sensitivity, classification and handling); (b) comprehensive log management procedures and periodic vulnerability scans of application servers; and (c) access control procedures ensuring segregation of duties.	Important				Refer to UNOV/UNODC
14	UNOV/UNODC should: (a) formalize its business continuity plans into an operational document that identifies key processes and their criticality; (b) align the business continuity plan with a disaster recovery plan using the criticality of the key processes identified; (c) map the business continuity plan with the	Important				Refer to UNOV/UNODC

Rec. no.	Recommendation	Critical[1]/ Important[2]	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
	supporting ICT applications and infrastructure; and (d) perform periodic tests of the plan.					

United Nations Office at Vienna /

United Nations Office on Drugs and Crime's Response

APPENDIX I

AUDIT RECOMMENDATIONS

AT2012/510/01 - Audit of the preparedness of information and communications technology (ICT) applications supporting the implementation of IPSAS

Rec. no.	Recommendation	Critical[1]/ Important[2]	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
9	UNOV/UNODC should design and implement compensatory controls for ensuring the consistent use of date conventions and prevent data corruption in the Field Office Management Ledger.	Important	Yes	Chief, Information Technology Service	December 2013	The analysis of the date format display has implications vis-à-vis system integrity and it is expected to be completed by the end of September 2013. The results of the analysis will determine if any additional compensatory controls will have to be put in place by the end of 2013.
10	UNOV/UNODC should, in coordination with OPPBA, determine how to address the weaknesses in its asset management and the lack of data (i.e., date received, asset location, value, serial nos.) relating to receipt and inspection, non-expendable and expendable property, and accounting of intangible assets.	Important	Yes	Chief, General Support Section in cooperation with the Chief, Financial Resources Management Service	Implemented as of September 2013	The asset verification exercise in Vienna took place between November 2012 and January 2013. The weaknesses highlighted by OIOS have been addressed; UNOV/UNODC considers the recommendations as fully implemented and requests OIOS to close it following their review of the documents submitted as evidence of the changes made and controls implemented.
12	UNOV/UNODC should design and implement compensatory controls to ensure that the FOSI system contains a consistent date format and correct leave balances.	Important	Yes	Chief, Information Technology Service in cooperation with the Chief, Human	December 2013	UNOV/UNODC is now in the test phase of leave data migration from FOSI into IMIS. Target date for final roll-out is the end of September 2013. The analysis of the date format display has implications vis-a-vis system integrity and it is expected to be completed by the

[1] Critical recommendations address significant and/or pervasive deficiencies or weaknesses in governance, risk management or internal control processes, such that reasonable assurance cannot be provided regarding the achievement of control and/or business objectives under review.

[2] Important recommendations address important deficiencies or weaknesses in governance, risk management or internal control processes, such that reasonable assurance may be at risk regarding the achievement of control and/or business objectives under review.

Rec. no.	Recommendation	Critical[1]/ Important[2]	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
				Resources Management Service		end of September 2013. The results of the analysis will determine if any additional compensatory controls will have to be put in place by the end of December 2013. Automatic procedures have been identified to keep leave balances up to date without requiring manual leave manager intervention. These procedures have been implemented as of the end of June 2013.
13	UNOV/UNODC should design and implement: (a) information security controls and classification procedures in accordance with the ST/SGB/2007/6 (Information sensitivity, classification and handling); (b) comprehensive log management procedures and periodic vulnerability scans of application servers; and (c) access control procedures ensuring segregation of duties.	Important	Yes	Chief, Information Technology Service	June 2014	ITS is in the process of developing and implementing policies on information security and classification, in accordance with ST/SGB/2006/7. ITS has developed a criticality model that will help in the classification of applications, services, and data/information. Additionally and subject to availability of funds, ITS intends to deploy a centralized monitoring system that will provide log management procedures. In order for ITS to ensure segregation of duties, additional resources would be required; duties are currently combined out of necessity and as a result of limited resources. In order to mitigate this situation, ITS is currently evaluating access control mechanisms of administrative users to ensure that separate roles exist for the accounts that require administrative access. The Information Security Controls and Classification Procedures is expected to be published by the end of June 2014; the Centralized Security Information and Event Management (SIEM) System to be

Rec. no.	Recommendation	Critical[1]/ Important[2]	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
						deployed, subject to funds, by the end of December 2013; and Access Control Procedures (Administrative Access) to be published by the end of December 2013.
14	UNOV/UNODC should: (a) formalize its business continuity plans into an operational document that identifies key processes and their criticality; (b) align the business continuity plan with a disaster recovery plan using the criticality of the key processes identified; (c) map the business continuity plan with the supporting ICT applications and infrastructure; and (d) perform periodic tests of the plan.	Important	Yes	Chief, General Support Service in cooperation with the Chief of the Information Technology Service	June 2014	ITS has conducted a wide ranging review of the existing UNOV business continuity plan (BCP) and has formed a committee to address the issues highlighted in the audit report: (a) map the identified key business processes and their criticality to underlying ICT systems (by end of September 2013); (b) conduct a gap analysis based on this mapping of key business and underlying ICT systems and existing ITS disaster recovery (DR) plans (by end of December 2013); (c) consolidate the revised DR plans for ITS services into one document (by end of March 2014); and (d) continue to conduct annual tests of the ITS DR plans (by end of June 2014). Upon completion by ITS of the DR plans, the BCP will also be completed. A summary of the UNOV/UNODC critical processes and mitigating strategies was submitted to OIOS.