



INTERNAL AUDIT DIVISION

REPORT 2025/033

Audit of information and communications technology operations in the Pension Administration's Geneva Office

**Some aspects of service arrangements,
operations and performance management
need to be strengthened**

17 July 2025

Assignment No. AT2025-800-01

Audit of information and communications technology operations in the Pension Administration's Geneva Office

EXECUTIVE SUMMARY

The Office of Internal Oversight Services (OIOS) conducted an audit of information and communications technology (ICT) operations in the Pension Administration's Geneva Office. The objective of the audit was to assess the adequacy and effectiveness of governance, risk management and control processes over the ICT operations in the Pension Administration's Geneva Office. The audit covered the period from January 2020 to May 2025 and included a review of: (a) governance and risk management; (b) ICT operations; and (c) technological support and performance management.

The audit showed that some aspects of ICT service arrangements, operations and performance management need to be strengthened.

OIOS made six recommendations. To address the issues identified in the audit, the Pension Administration needed to:

- Strengthen its current arrangements with the United Nations Office at Geneva (UNOG) for provision of ICT services by: ensuring that the envisaged performance reports are regularly received based on the established key performance indicators; improving the visibility of iNeed support tickets and their resolution status; and implementing a process for verification of actual services delivered and appropriateness of the unit prices charged before UNOG's invoices are authorized for payment;
- Develop and implement ICT asset management policies and procedures covering the entire asset lifecycle, including reconciliation of discrepancies identified during physical verification;
- Define the end-user computing strategy for its Geneva Office and consult with UNOG on restructuring the ICT services of its Geneva Office to ensure that the plan is implemented successfully;
- Create awareness among users to use 'OneDrive for Business' only for storing personal documents and establish appropriate secure storage with controlled access for retention and access of official records;
- Establish a mechanism for periodic monitoring of server performance and bandwidth utilization to proactively detect and diagnose performance issues, and resolve the recurrent system performance and reliability issues by systematically addressing the reported problems; and
- Strengthen vulnerability management by defining and documenting the roles and responsibilities of the concerned stakeholders.

The Pension Administration accepted the recommendations and has agreed to implement them. Actions required to close the recommendations are indicated in Annex I.

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Audit of information and communications technology operations in the Pension Administration's Geneva Office

I. BACKGROUND

1. The Office of Internal Oversight Services (OIOS) conducted an audit of information and communications technology (ICT) operations in the Pension Administration's Geneva Office.
2. The United Nations Joint Staff Pension Fund (UNJSPF) was established in 1949 by the General Assembly to provide retirement, death, disability and related benefits for the staff of the United Nations and other organizations admitted to its membership. UNJSPF is administered by the Pension Board. The Finance function of the Pension Administration was centralized in New York, whereas other functions (client services, pension entitlements and records management) were performed by the Fund's New York and Geneva Offices, each serving a separate set of member organizations.
3. The United Nations Office at Geneva (UNOG) provided administrative support services (including ICT services) to the Geneva Office of the Pension Administration based on the memorandum of understanding (MOU) with UNJSPF on a cost recovery basis. The ICT services rendered by UNOG to the Geneva Office of the Pension Administration included personal computing, asset management and hardware leasing, unified communications, video conferencing, remote access and infrastructure services, support for conferences, and other billable services such as information security, requisitioning and multifunction printing.
4. The Information Management Systems Service (IMSS) of the Pension Administration was responsible for providing and maintaining ICT systems and services and coordinating the implementation of technology-centric decisions made by the Pension Administration. ICT services outsourced by IMSS to a United Nations agency included data centre management, server hosting, data storage and backup, email and messaging, desktop management services (file and print services, Active Directory administration), network management and disaster recovery. IMSS provided personal computing, asset management and remote access services to access the enterprise applications such as the Integrated Pension Administration System (IPAS) and UNJSPF Connect. At the time of the audit, critical applications and systems, including data centres, had been migrated to a private cloud client.
5. The budget and expenditure related to ICT operations of the Pension Administration's Geneva Office are shown in Table 1 below.

Table 1: Geneva Office's ICT expenditure and budget for the period 2020-2025 (in '000 USD)

	2020	2021	2022	2023	2024	2025
Approved budget	135.2	257.2	282.4	368.7	463.8	613.4
Actual expenditure	235.5	270.5	309.6	368.0	587.5	-

6. Comments provided by the Pension Administration are incorporated in italics.

II. AUDIT OBJECTIVE, SCOPE AND METHODOLOGY

7. The objective of the audit was to assess the adequacy and effectiveness of governance, risk management and control processes over the ICT operations in the Pension Administration's Geneva Office.

8. This audit was included in the 2025 risk-based work plan of OIOS due to the risk that potential weaknesses in ICT could have an adverse impact on the Pension Administration's operations in Geneva.

9. OIOS conducted this audit from February to May 2025. The audit covered the period from January 2020 to May 2025. Based on an activity-level risk assessment, the audit covered risk areas which included: (a) governance and risk management; (b) ICT operations; and (c) technological support and performance management.

10. The audit methodology included: (a) interviews with key personnel; (b) review of relevant documentation; (c) assessment of the client's data management systems including IPAS, Open-Source Ticketing System (OTRS) and UNJSPF Connect; (d) analytical review of data; (e) physical observation; and (e) process walk-throughs. Analytical review of data included assessing and testing the reliability of data pertaining to ICT asset management and ICT support for accuracy and completeness.

11. The audit was conducted in accordance with the Global Internal Audit Standards.

III. AUDIT RESULTS

A. Governance and risk management

Need to strengthen the existing arrangements for provision of ICT services

12. According to the established MOU with UNJSPF, UNOG provides a number of ICT services to the Fund's Geneva Office. OIOS reviewed the existing mechanisms for ICT service management and noted the following:

(a) Annex III of the MOU outlines the duties and responsibilities of UNJSPF and UNOG and provides key performance indicators (KPIs). UNOG was required to set up a mechanism to measure its performance against the KPIs and to report annually on discrepancies, if any, between the service performance as per the KPIs and the actual performance. However, such a mechanism had not been established. The Pension Administration did not receive periodic performance reports on ICT service management from UNOG, making it difficult to objectively assess service quality and establish UNOG's accountability for performance issues. UNOG also did not offer a portal for clients to monitor the amounts charged for the services provided. *The Pension Administration stated that since 2021, UNOG has moved to a service catalog in providing all business services to its client base, which is not negotiated with the Fund. The Fund will liaise with UNOG to obtain better manual reporting until a portal for charges to clients is in place.*

(b) Part II of the MOU provides that cost recovery is based on the actual services rendered, in accordance with the standard unit price for each service provided, for which UNJSPF shall be billed on a quarterly basis. The invoices pertaining to ICT services rendered by UNOG were sent directly to the Fund's New York Office for payment. There was no evidence of verification of the accuracy and reasonableness of the invoices with reference to the actual services rendered to the Fund's Geneva Office.

(c) Issues requiring UNOG's assistance were logged in the iNeed service management portal as well as the Pension Administration's OTRS for internal tracking, thereby duplicating the process. Since the Pension Administration did not receive periodic reports from UNOG, it relied on automated email updates or informal follow-ups. This hindered effective tracking and prompt resolution of service requests.

- (1) The Pension Administration should strengthen its current arrangements with UNOG for provision of ICT services by: (a) ensuring that the envisaged performance reports are regularly received based on the established KPIs; (b) improving the visibility of iNeed support tickets and their resolution status; and (c) implementing a process for verification of actual services delivered and appropriateness of the unit prices charged before UNOG's invoices are authorized for payment.**

The Pension Administration accepted recommendation 1 and stated that it has already engaged with UNOG to add a service level agreement and service management mechanisms to the existing MOU, including regular reports to monitor service performance against KPIs, incident notification, escalation and resolution. The Pension Administration will obtain information from UNOG to ensure invoice verification against actual services rendered to its Geneva Office.

B. ICT operations

Need to develop ICT asset management policies and procedures

13. The Pension Administration had not developed an ICT asset management policy detailing asset lifecycles, replacement criteria and disposal procedures. The Pension Administration stated that it relies on the United Nations' policies and procedures. OIOS noted the following:

(a) Information on the ICT assets of the Fund's Geneva Office was fragmented across the United Nations-managed Umoja system, UNOG's asset database for items provided by UNOG, and the Pension Administration's OTRS configuration management database. Data in Umoja appeared to be unreliable due to outdated information (e.g., showing assets assigned to staff members who left the Organization long ago) and missing active user assignments. UNOG's billing information was based on the asset information extracted from Umoja, which could be inaccurate due to inaccuracies in the underlying data. *The Pension Administration stated that data in Umoja is managed by UNOG and there is no mechanism available to reconcile with the Fund's configuration management database. The United Nations has issued an ICT asset management policy which is managed by the responsible local party, in this case UNOG. The Fund does have a configuration management policy, process and procedure in place, which is kept up to date with staff changes and equipment rotation cycles.*

(b) UNOG performed an annual physical verification to assure the accuracy of the assets' physical existence and location. However, there was no evidence of reconciliation of the discrepancies identified during this process with the Pension Administration's records or the records in Umoja.

- (2) The Pension Administration should develop and implement ICT asset management policies and procedures covering the entire asset lifecycle, including reconciliation of discrepancies identified during physical verification.**

The Pension Administration accepted recommendation 2 and stated that it has already engaged with UNOG to add a service level agreement to the existing MOU, covering the procedures for verification of physical assets. This will include obtaining information on the assets provided by UNOG to verify against the assets used by UNJSPF Geneva staff.

Need to strengthen the end-user computing device strategy

14. The Geneva Office staff operated in a dual end-user device environment. A number of staff utilized end-user computing devices provided and managed by UNOG under the MOU, in addition to another set

of end-user devices procured and managed by IMSS using the standard system image used at the New York Office and connected to the UNJSPF Azure Active Directory. OIOS was informed that this arrangement became necessary due to performance issues with the aging UNOG end-user computing devices and limitations imposed by the UNOG-managed environment (e.g., lack of local administrative rights for troubleshooting or inability to install the required software). The IMSS-issued end-user computing devices could not connect directly to the UNOG network and use local ICT services such as shared UNOG network printers when used within the office, requiring reliance on less secure public Wi-Fi and Citrix applications for access. This dual arrangement could lead to inefficiency, increased costs (paying UNOG under the MOU while also procuring and supporting separate IMSS end-computing devices), security risks (handling sensitive data across two differently managed environments) and user inconvenience.

15. The Pension Administration was in the process of restructuring the ICT services for its Geneva Office, including establishing a site-to-site virtual private network with its data centres. However, there was no evidence of consultation with UNOG, who seemed unaware of these plans. Consultation with UNOG is essential to ensure that the proposed restructuring is implemented successfully as intended.

(3) The Pension Administration should: (a) define the end-user computing strategy for its Geneva Office; and (b) consult with UNOG on restructuring the ICT services of its Geneva Office to ensure that the plan is implemented successfully.

The Pension Administration accepted recommendation 3 and stated that it has engaged with UNOG to implement the end-user computing strategy, which is underway. This strategy involves access mechanisms provided by UNOG (virtual private network) and laptops procured and managed by the Fund, similar to the practice in the New York office.

Need to limit the use of 'OneDrive for Business' for storage of personal records only

16. The United Nations' file storage and sharing guidelines provide that 'OneDrive for Business' should only be used as a personal storage space, and that it must not be used for storing official records of the Organization. The documents stored on 'One Drive for Business' are deleted upon the user's separation from the Organization.

17. OIOS observed that users consistently used 'OneDrive for Business' to store sensitive and confidential documents (e.g., medical records) even though it has not been designed for such documents. Users also stored official documents which may no longer be retrievable after their separation. Also, there was no clarity regarding the tool for secure storage of official documents. The Pension Administration stated that it will create or expand SharePoint sites for its sections/units to limit 'OneDrive for Business' to personal use, and continue to monitor the use of ICT resources and data in accordance with the provisions of the Secretary-General's bulletin ST/SGB/2004/15 on use of ICT resources and data.

(4) The Pension Administration should: (a) create awareness among users to use 'OneDrive for Business' only for storing personal documents; and (b) establish appropriate secure storage with controlled access for retention and access of official records.

The Pension Administration accepted recommendation 4 and stated that an awareness session on Microsoft Office was provided for all UNJSPF staff in November 2024. IMSS will remind staff about available tools for managing information and related information handling and information sensitivity guidelines. To limit the use of OneDrive for staff personal documents, the Pension Administration will create or expand the SharePoint sites for sections/units for storage of common official records.

C. Technical support and performance management

Need to address the system performance and access reliability issues

18. ICT systems, including enterprise applications such as IPAS and access infrastructure (networks, Citrix/virtual private network, authentication), should provide reliable and consistent performance during established working hours to support user productivity. OIOS' review of support tickets maintained in OTRS showed the following:

(a) IPAS performance reportedly slowed down significantly in the Geneva Office during the peak overlapping hours with the Fund's New York Office, which users attribute to increased server workload. An extract from the CloudWatch Alarm "Central Processing Unit (CPU) Utilization" indicated that the Pension Administration was consistently getting an alarm (when the CPU utilization is more than 95 per cent) for excessive CPU utilization. Even though the IPAS infrastructure had migrated to the cloud, there was no noticeable difference in the system's performance, and staff continued to complain about its slowness. This could result in reduced productivity due to insufficient server capacity, network latency between Geneva and data centres (Ohio/Frankfurt), or inadequate load balancing for enterprise applications including IPAS during global peak hours.

(b) Staff in the Geneva Office experience inconsistent success when using remote access methods (Citrix workspace vs. Citrix secure server), sometimes being unable to access the required resources (such as Business Intelligence dashboards) from home. This may be due to configuration issues or instability within Citrix remote environment that could result in access issues, increased support requirements to handle recurring issues, and poor user experience.

(c) Intermittent delays or failures were reported in receiving multi-factor authentication prompts, which adversely affected access to enterprise applications.

(d) The Geneva Office staff sometimes experienced system unavailability (potentially linked to server updates or running backup) when they started their work early in the morning.

(5) The Pension Administration should: (a) establish a mechanism for periodic monitoring of server performance and bandwidth utilization to proactively detect and diagnose performance issues; and (b) resolve the recurrent system performance and reliability issues by systematically addressing the reported problems.

The Pension Administration accepted recommendation 5 and stated that the Fund's security team monitors all servers, regardless of location, using a third-party service. This covers security and vulnerability scanning. The local area network service provider to the Fund is managed by UNOG and covers all staff in the duty station. No significant performance issues have been reported by staff in Geneva. The Fund will engage with UNOG to implement additional solutions to improve performance where needed.

Need to strengthen vulnerability management

19. Effective vulnerability management requires comprehensive scanning and remediation across all relevant ICT assets and infrastructure. Periodic reporting on the status of vulnerabilities should provide management with adequate assurance regarding the overall security posture.

20. Annex II of the MOU provides the description of services provided by UNOG to the Fund's Geneva Office, which includes network and internet services. The Pension Administration did not have visibility of UNOG's vulnerability scanning results for the shared network infrastructure. No specific vulnerability reports concerning the shared network infrastructure were provided to UNJSPF. The Pension Administration needs to address this issue by defining the respective roles and responsibilities for vulnerability management among the respective stakeholders.

(6) The Pension Administration should strengthen vulnerability management by defining and documenting the roles and responsibilities of the concerned stakeholders.

The Pension Administration accepted recommendation 6 and stated that it will revise the vulnerability management policy to clarify the roles and responsibilities of the relevant stakeholders. The Pension Administration's vulnerability assessments cover all Geneva assets; therefore, the Fund does not require information on UNOG or OICT vulnerability management.

IV. ACKNOWLEDGEMENT

21. OIOS wishes to express its appreciation to the Management and staff of the Pension Administration for the assistance and cooperation extended to the auditors during this assignment.

Internal Audit Division
Office of Internal Oversight Services

STATUS OF AUDIT RECOMMENDATIONS

Audit of information and communications technology operations in the Pension Administration's Geneva Office

Rec. no.	Recommendation	Critical ¹ / Important ²	C/ O ³	Actions needed to close recommendation	Implementation date ⁴
1	The Pension Administration should strengthen its current arrangements with UNOG for provision of ICT services by: (a) ensuring that the envisaged performance reports are regularly received based on the established KPIs; (b) improving the visibility of iNeed support tickets and their resolution status; and (c) implementing a process for verification of actual services delivered and appropriateness of the unit prices charged before UNOG's invoices are authorized for payment.	Important	O	Receipt of evidence that: (a) the envisaged performance reports are being regularly received based on the established KPIs; (b) the visibility of iNeed support tickets and their resolution status has been improved; and (c) the actual services delivered and the appropriateness of the unit prices charged are being verified before UNOG's invoices are authorized for payment.	30 April 2026
2	The Pension Administration should develop and implement ICT asset management policies and procedures covering the entire asset lifecycle, including reconciliation of discrepancies identified during physical verification.	Important	O	Receipt of evidence that ICT asset management policies and procedures have been developed and implemented to cover the entire asset lifecycle, including reconciliation of discrepancies identified during physical verification.	30 April 2026
3	The Pension Administration should: (a) define the end-user computing strategy for its Geneva Office; and (b) consult with UNOG on restructuring the ICT services of its Geneva Office to ensure that the plan is implemented successfully.	Important	O	Receipt of evidence of: (a) the end-user computing strategy for its Geneva Office; and (b) consultation with UNOG on restructuring the ICT services of its Geneva Office.	30 April 2026
4	The Pension Administration should: (a) create awareness among users to use 'OneDrive for Business' only for storing personal documents; and (b) establish appropriate secure storage with controlled access for retention and access of official records.	Important	O	Receipt of evidence of: (a) creating awareness among users to use 'OneDrive for Business' only for storing personal documents; and (b) establishing appropriate secure storage with controlled access for retention and access of official records.	31 December 2025

¹ Critical recommendations address those risk issues that require immediate management attention. Failure to take action could have a critical or significant adverse impact on the Organization.

² Important recommendations address those risk issues that require timely management attention. Failure to take action could have a high or moderate adverse impact on the Organization.

³ Please note the value C denotes closed recommendations whereas O refers to open recommendations.

⁴ Date provided by the Pension Administration in response to recommendations.

STATUS OF AUDIT RECOMMENDATIONS

Audit of information and communications technology operations in the Pension Administration's Geneva Office

5	The Pension Administration should: (a) establish a mechanism for periodic monitoring of server performance and bandwidth utilization to proactively detect and diagnose performance issues; and (b) resolve the recurrent system performance and reliability issues by systematically addressing the reported problems.	Important	O	Receipt of evidence that: (a) a mechanism for periodic monitoring of server performance and bandwidth utilization has been established; and (b) the recurrent system performance and reliability issues have been resolved.	31 July 2026
6	The Pension Administration should strengthen vulnerability management by defining and documenting the roles and responsibilities of the concerned stakeholders.	Important	O	Receipt of evidence that the roles and responsibilities of the relevant stakeholders have been documented for vulnerability management.	31 July 2026

APPENDIX I

Management Response

United Nations Joint Staff Pension Fund

Caisse commune des pensions du personnel des Nations Unies

MEMORANDUM

New York, 14 July 2025

To / A: Mr. Gurpur Kumar, Deputy Director Internal Audit Division, OIOS From / De : Rosemarie McClean, Chief Executive of Pension Administration, United Nations Joint Staff Pension Fund



Subject / Objet: **UNJSPF response to draft report audit of information and communications technology operations in the Pension Administration's Geneva Office**

1. Reference is made to your memorandum dated 30 June 2025, in which you submitted for the Fund's review and comments, the draft report of the above-mentioned audit.
2. As requested, the Pension Administration's comments on the audit recommendations are included in Annex I.
3. The Pension Administration would like to thank OIOS auditors for the constructive exchanges with management.

cc.: Mr. D. Penklis, Deputy Chief Executive
Mr. D. Dell'Accio, Chief Information Officer
Mr. J. Nunez, Chief Risk and Compliance Officer
Ms. K. Manosalvas, Audit Focal Point

ANNEX I.A

Recommendations Audit of information and communications technology operations in the Pension Administration's Geneva Office

Rec. no.	Recommendation	Critical ¹ / Important ²	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
1	The Pension Administration should strengthen its current arrangements with UNOG for provision of ICT services by: (a) ensuring that the envisaged performance reports are regularly received based on the established KPIs; (b) improving the visibility of iNeed support tickets and their resolution status; and (c) implementing a process for verification of actual services delivered and appropriateness of the unit prices charged before UNOG's invoices are authorized for payment.	Important	Yes	IMSS, Chief Enterprise Operations Section	April 2026	a) and b) The Pension Administration already engaged with UNOG ICTS to add a service level agreement and service management mechanisms to the existing MoU, including regular reports to monitor service performance against key performance indicators; incident notification, escalation, and resolution. c) The Pension Administration will obtain information from UNOG to ensure invoice verification against actual services rendered to the Geneva Office.
2	The Pension Administration should develop and implement ICT asset management policies and procedures covering the entire asset lifecycle, including reconciliation of discrepancies identified during physical verification.	Important	Yes	IMSS, Chief Enterprise Operations Section	April 2026	The Pension Administration has already engaged with UNOG to add a service level agreement to the existing MoU, covering the procedures for the verification of physical assets. This will include obtaining information on the assets provided by UNOG to verify against the assets used by UNJPSF Geneva staff.
3	The Pension Administration should: (a) define the end-user computing strategy for its Geneva Office; and (b) consult with UNOG on restructuring the ICT services of its	Important	Yes	IMSS, Chief Enterprise Operations Section	April 2026	The Pension Administration has engaged with UNOG to implement the end-user computing strategy, which is underway.

¹ Critical recommendations address those risk issues that require immediate management attention. Failure to take action could have a critical or significant adverse impact on the Organization.

² Important recommendations address those risk issues that require timely management attention. Failure to take action could have a high or moderate adverse impact on the Organization.

Rec. no.	Recommendation	Critical ¹ / Important ²	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
	Geneva Office to ensure that the plan is implemented successfully.					The strategy involves access mechanisms provided by UNOG (VPN) and laptops procured, and managed by the Fund, similar to the practice in the New York office.
4	The Pension Administration should: (a) create awareness among users to use 'OneDrive for Business' only for storing personal documents; and (b) establish appropriate secure storage with controlled access for retention and access of official records.	Important	Yes	IMSS, Chief Enterprise Operations Section	December 2025	a) An awareness session on Microsoft Office for all UNJSPF staff was provided in November 2024. IMSS will remind staff about available tools for managing information and related information handling and information sensitivity guidelines. b) To limit the use of OneDrive for staff personal documents, the Pension Administration will create or expand the SharePoint sites for Section/Units to storage common official records.
5	The Pension Administration should: (a) establish a mechanism for periodic monitoring of server performance and bandwidth utilization to proactively detect and diagnose performance issues; and (b) resolve the recurrent system performance and reliability issues by systematically addressing the reported problems.	Important	Yes	IMSS, Chief Enterprise Operations Section	July 2026	a) The Fund's Security Team monitors all servers, regardless of location, using a third-party service. This covers security and vulnerability scanning. The Local Area Network Service Provider to the Fund is managed by UNOG and covers all staff in the duty station. b) No significant performance issues have been reported by staff in Geneva. The Fund will engage with UNOG to implement additional solutions to improve performance where needed.

Rec. no.	Recommendation	Critical¹/ Important²	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
6	The Pension Administration should strengthen vulnerability management by defining and documenting the roles and responsibilities of the concerned stakeholders.	Important	Yes	IMSS, Chief Enterprise Security Unit	July 2026	ESU will revise the vulnerability management policy to clarify the roles and responsibilities of the relevant stakeholders. UNJSPF PA vulnerability assessments covers all Geneva assets, therefore, the Fund does not require information on UNOG or OICT vulnerability management.