



# **INTERNAL AUDIT DIVISION**

## **REPORT 2024/067**

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### **Audit of the Digital Certificate of Entitlement system in the Pension Administration of the United Nations Joint Staff Pension Fund**

**The Pension Administration needs to enhance the adoption and user experience of the system**

**17 December 2024**

**Assignment No. AT2024-800-01**

# **Audit of the Digital Certificate of Entitlement system in the Pension Administration of the United Nations Joint Staff Pension Fund**

## **EXECUTIVE SUMMARY**

The Office of Internal Oversight Services (OIOS) conducted an audit of the Digital Certificate of Entitlement (DCE) system in the Pension Administration of the United Nations Joint Staff Pension Fund (UNJSPF). The objective of the audit was to assess the adequacy and effectiveness of governance, risk management and control processes over effective implementation of the DCE system. The audit covered the period from January 2020 to September 2024 and included a review of risk areas in DCE which included: (a) governance and risk management; (b) system design and analysis; (c) data management; (d) information and communications technology (ICT) infrastructure, operations and security; (e) service continuity and availability; and (f) customer experience and support.

The audit showed that the Pension Administration needs to enhance the adoption and user experience of the DCE system.

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

- Document a roadmap for the DCE application considering the other initiatives in progress as well as future enhancements including integration of emerging technologies and features; and assess the potential benefits of integrating the DCE call centre, and the Client Services contact centre to enhance client experience;
- Implement automated mechanisms to manage the demand and resource allocation for the DCE application proactively; and analyze the reported IP locations and geolocation data to assure the integrity of the application;
- Establish a DCE-specific vulnerability management plan; and conduct periodic DCE-specific vulnerability tests and security assessments;
- Establish a DCE-specific disaster recovery testing plan including all critical components; and conduct periodic disaster recovery tests;
- Identify lessons learned from its outreach activities to further improve the use of DCEs; and establish a practice of obtaining and analyzing client satisfaction to make further improvements in the DCE application; and
- Enhance the user experience of the DCE application by addressing its current limitations.

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

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# **Audit of the Digital Certificate of Entitlement system in the Pension Administration of the United Nations Joint Staff Pension Fund**

## **I. BACKGROUND**

1. The Office of Internal Oversight Services (OIOS) conducted an audit of the Digital Certificate of Entitlement system (DCE) in the Pension Administration of the United Nations Joint Staff Pension Fund (UNJSPF).

2. 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 United Nations Joint Staff Pension Board. Currently, there were approximately 150,000 active participants and 86,000 retirees and beneficiaries.

3. The Pension Administration's Operations Support Section (OSS) is the business lead for DCE, with the Information Management Support Section (IMSS) providing technical support in coordination with a United Nations agency. The Pension Administration's CARE<sup>1</sup> strategy focuses on improving client experience (improving services and simplifying client interactions), modernizing pension services (innovating and leveraging technology to improve services) and strengthening relationships with all stakeholders. Since November 2020, the Fund's participants, retirees and beneficiaries have been able to upload and submit documents to the Pension Administration through a Member Self-Service (MSS) portal as part of Pillar 1 ("simplify client experience") of the CARE strategy.

4. The DCE application, which is a supplement to the paper-based Certificate of Entitlement (CE) form, was developed to simplify the beneficiaries' yearly obligation to send proof of existence and residence to the Pension Administration using biometric/facial recognition, blockchain and global positioning technologies. The DCE application can verify the identity of beneficiaries and their location using biometrics, storing key elements (non-personal data) of transactions on an immutable and independently auditable ledger using blockchain technology. The beneficiaries need to register and enroll in the DCE application to submit their DCE. The most critical functions of DCE are to: (a) support and ensure the identification/authentication of users (i.e., retirees and beneficiaries); (b) support the conduct and submission of their proof of existence; (c) support the creation of an immutable and independently auditable/traceable proof of transactions; and (d) support, where applicable and required (i.e. two-track regime), the geolocation of the transactions. As of 12 November 2024, over 37,350 DCEs (approximately 51 per cent of 73,480 eligible beneficiaries) had been issued.

5. The DCE application creates a decentralized identifier (during the registration and enrolment process) for each beneficiary, calculates a hash (during the DCE issuance process) using the beneficiary's unique identity number and the issued CE expiration date and country of issuance, and records both of these transactions in an Open-Source Blockchain Platform (blockchain). Further, the DCE application interfaces with the Integrated Pension Administration System (IPAS) which sends a weekly export to the DCE system identifying beneficiaries authorized to enroll and those deceased. DCE sends IPAS nightly imports showing changes in data of authorized users and those who have issued DCEs. Integration with IPAS is critical because DCEs are part of the annual CE exercise. Data validation in the authorization and DCE-issued imports ensure data accuracy before importing into IPAS.

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<sup>1</sup> CARE: Client-focused, Action-oriented, Relation-builder, Efficiency Driven

6. Complete data on the expenditure incurred on the DCE system was not readily available. Based on information obtained from the Pension Administration, the expenditure incurred on the DCE system since 2008 was estimated at approximately \$3.2 million.

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

## **II. AUDIT OBJECTIVE, SCOPE AND METHODOLOGY**

8. The objective of the audit was to assess the adequacy and effectiveness of the governance, risk management and control processes over effective implementation of the DCE system in the Pension Administration of UNJSPF.

9. This audit was included in the 2024 risk-based work plan of OIOS due to the risks associated with the DCE system.

10. OIOS conducted this audit from August to October 2024. The audit covered the period from January 2020 to September 2024. Based on an activity-level risk assessment, the audit covered risk areas in DCE which included: (a) governance and risk management; (b) system design and analysis; (c) data management; (d) information and communications technology (ICT) infrastructure, operations and security; (e) service continuity and availability; and (f) customer experience and support.

11. The audit methodology included: (a) interviews with key UNJSPF staff and representatives of the Association of Former International Civil Servants (AFICS) and the Federation of Associations of Former International Civil Servants (FAFICS); (b) review of relevant documentation; (c) analytical review of data; and (d) process walk-throughs. Analytical review of data included assessing and testing the reliability of data pertaining to DCE for accuracy and completeness, as well as review of related documentation including blockchain transactions and DCE system data.

12. The audit was conducted in accordance with the International Standards for the Professional Practice of Internal Auditing.

## **III. AUDIT RESULTS**

### **A. Governance and risk management**

13. The DCE application provides beneficiaries the option of submitting their annual CE in a biometric format using their phone or tablet devices instead of sending a paper form to the Pension Administration or uploading it in the MSS portal. The annual CE for the eligible beneficiaries can be submitted through three channels (i.e., paper-based, MSS and DCE). The DCE application has generally simplified the user experience in submitting proof of existence, which is evident from the uptake figures of 7,736 in 2021 to 37,384 in 2024. However, there are areas where the DCE application and the related processes can be further improved as explained below.

#### Need to document a roadmap and continuous improvement plan for the DCE application

14. In line with the CARE strategy to innovate and leverage technology to modernize pension services, the DCE application needs a plan for continuous improvement for sustainability and to remain secure, reliable, efficient, and aligned with user needs and technological advancements. OIOS noted the following:

(a) The intended target uptake figures for DCE for the project to be considered a success (or in a maintenance mode) were unclear. OSS indicated that the Pension Administration had set a target to achieve a 70-75 per cent uptake by beneficiaries of DCE. This target would guide the Pension Administration's efforts to downscale the ongoing outreach and support initiatives. However, there was no formal document indicating the target of 70-75 per cent.

(b) There was no clarity on the integrated support structure for the DCE application. For instance, there was a call centre managed by OSS to cater to issues relating to DCE only, which supported outreach, registration and enrolment of DCE users. According to OSS, this call centre was managed by contracted personnel. There was another contact centre managed by Client Services to deal with client queries in general; initially, the DCE support team was also part of this contact centre. This duplicated support structure was not optimal due to the confusion it created, having duplicated points of contact, besides potential inefficiencies and inconsistencies in advice and guidance provided. OSS explained that there was no plan to integrate these two call centres in the future, and that the DCE support team under OSS was more because all CE/DCE-related queries were integrated in one place, benefiting from specialized knowledge, increasing synergies and harmonizing the overall client experience.

(c) The DCE application provides innovative solutions based on biometric/facial recognition, blockchain and global positioning technologies. A continuous improvement plan is required for the solution to remain secure, reliable, efficient and aligned with user needs and technological advancements. However, the enhancements implemented to make the DCE application more client-friendly were ad hoc. There was no documented assessment of the future state of the DCE application considering the other new initiatives ongoing in the Pension Administration such as e-Pension, Customer Relationship Management and technological upgradation.

**(1) The Pension Administration should: (a) document a roadmap for the DCE application considering the other initiatives in progress as well as future enhancements including integration of emerging technologies and features; and (b) assess the potential benefits of integrating the DCE call centre and the Client Services contact centre to enhance client experience.**

*The Pension Administration accepted recommendation 1 and stated that it will document the vision and roadmap for the future state of the application and holistically consider all initiatives across all functions and services. The Pension Administration will assess the potential benefits of the option of integrating the DCE call centre and the Client Services contact centre, in terms of client experience.*

## **B. System design and analysis**

Action was being taken to strengthen the integration of DCE with IPAS and MSS

15. Best practices in application integration and data exchange emphasize real-time or near real-time data synchronization, efficient resource use and minimization of data transfer volumes. Modern integration methods such as application programming interface are preferred over batch processes for their ability to provide more timely, secure and efficient data exchange.

16. Integration with IPAS is essential because DCEs are part of the annual CE exercise. Currently, the file transfers were performed using the UNJSPF Secure File Transfer Protocol (sFTP) server following batch process for the entire population. However, the data exchange process can be strengthened by creating an application programming interface between DCE and IPAS, and the provision of incremental exchange of the DCE data population rather than the entire population. The Pension Administration stated

that the development process to support incremental imports of newly authorized users and newly issued DCEs is complete. Testing of the incremental import process will be scheduled soon, with a target implementation by the end of 2024.

17. DCE and MSS were not integrated. As a result, beneficiaries could not track the status of their DCE submission within MSS. FAFICS expressed concerns about this limitation which affected user convenience and consistency across submission methods. The Pension Administration stated that tracking of DCE issuance inside MSS proof documents for retirees and beneficiaries had been implemented recently (November 2024) to have the DCEs viewable in MSS.

#### Need to strengthen system performance and reliability

18. Best practices in application development and management emphasize the need for automated mechanisms to ensure system reliability, anticipate demand changes and optimal resource allocation.

19. The DCE solution lacked an automated mechanism to anticipate changes in demand. For example, due to the high volume of DCE submissions in early January 2024, the DCE application was down for some time, and the system could not anticipate and automatically scale up when the volume of submissions increased. This issue may lead to the inability to manage system resources proactively.

20. User requirements were not taken into account during the early stages of the project. For example, the interface of the DCE application with IPAS was not considered as part of the initial requirements. Also, no formal testing scenarios and expected outcomes were developed before user acceptance testing. Also, there was no sign-off for the user acceptance testing. Testing scenarios, expected outcomes, and sign-off after user acceptance testing are essential to assure that the testing objectives were met.

21. The DCE application used the geolocation services of a software provider. However, no analysis was being done of the reported Internet Protocol (IP) locations and geolocation data. Comparison between the two is required to assure the integrity of the DCE application which relies on accurate geolocation for validating users' locations and mitigating the risk of fraud.

**(2) The Pension Administration should implement automated mechanisms to: (a) manage the demand and resource allocation for the DCE application proactively; and (b) analyze the reported IP locations and geolocation data to assure the integrity of the application.**

*The Pension Administration accepted recommendation 2 and stated that it will conduct predictive analysis and resource allocation to plan DCE, while noting that users can complete the process any day within the calendar year. The Fund will analyze IP locations and geolocation data to validate users' locations and assure the integrity of the application.*

### **C. Data management**

#### Creation of immutable and independently traceable proof of transactions was effective

22. One of the key features of the DCE application was its support for creating an immutable and independently auditable/traceable proof of existence. To provide assurance on a transaction's immutability and traceability, OIOS reviewed the transaction flow in a sample of cases from registration to data transfer in IPAS. The review and related evidence showed that proof of transactions were immutable and independently traceable in the blockchain and IPAS.

## D. ICT infrastructure, operations and security

### Need to strengthen vulnerability management and conduct security assessments/penetration tests

23. Best practices require implementation of a system and application-specific vulnerability management plan along with periodic security assessments and penetration tests of the system.

24. Since there was no DCE-specific vulnerability management plan, the application had not been tested to assess its potential vulnerabilities. A DCE-specific vulnerability management plan needs to be established and implemented due to the criticality of the solution.

25. Security assessments and penetration testing were not regularly conducted. The last ‘Solution Security Review and Analysis’ assessment was conducted in 2020. Subsequent assessments primarily focused on ISO 27001 certification and maturity evaluation of the DCE application. Access to the DCE services database was logged and monitored by the security operations centre. Also, the database was encrypted both at rest and in transit.

26. Periodic vulnerability/security assessments and penetration testing are essential to detect vulnerabilities, prevent unauthorized access to sensitive data, and proactively address security weaknesses before they could be exploited. The Pension Administration stated that the vulnerability management plan was established through the United Nations agency’s vulnerability management process, and that DCE vulnerability and security assessments are periodically conducted. However, a DCE-specific vulnerability management plan is essential due to the criticality associated with the DCE application, rather than depending on the generic vulnerability management plan established by the United Nations agency.

**(3) The Pension Administration should: (a) establish a DCE-specific vulnerability management plan; and (b) conduct periodic DCE-specific vulnerability tests and security assessments.**

*The Pension Administration accepted recommendation 3 and stated that in addition, it is now directly conducting scans using Acunetix, the application scanning solution.*

## E. Service availability and continuity

### Need to conduct disaster recovery tests

27. An ICT disaster recovery plan should be developed in conjunction with a business continuity plan and provide recovery strategies to meet the plan's objectives. Disaster recovery failover and failback exercises (testing) should be conducted periodically to ensure the system's availability, fault tolerance, redundancy and critical transaction processing in case of unforeseen events impacting the system.

28. The audit showed that while a disaster recovery process had been established for the DCE system, it had not been fully tested. Three components need to be incorporated into the scope of disaster recovery testing: (i) Blockchain – the nodes were distributed across three IT service providers and five geographical locations; (ii) DCE backend service – the service was moved in Quarter 2 of 2024 to a cloud service provider and runs in multiple data centres simultaneously; and (iii) mobile application. The recent flooding incident (October 2024) in Valencia impacted the service availability of applications hosted in the centre, including the server for scheduling tasks to generate daily exports and imports from/to IPAS. The non-execution of these tasks implied a delay in data synchronization between DCE and IPAS. Due to the lack of integration between DCE and IPAS, any impact on the availability of DCE services related to IPAS also significantly



impacts DCE. Comprehensive disaster recovery testing is required to detect potential vulnerabilities in the recovery process, reduce the risk of failure in recovering blockchain nodes, and prevent potential service disruptions which may affect the beneficiaries' ability to submit DCEs. *The Pension Administration stated that the latest disaster recovery exercise simulated the total loss of one data centre and the system worked as expected. Blockchain nodes and backend service nodes hosted in the affected data centre were automatically switched to others, with a minimal service interruption (less than a minute).*

**(4) The Pension Administration should: (a) establish a DCE-specific disaster recovery testing plan including all critical components; and (b) conduct periodic disaster recovery tests.**

*The Pension Administration accepted recommendation 4 and stated that it will further document and periodically test a DCE-specific disaster recovery plan, including all critical components.*

## F. Customer experience and support

### Need to strengthen the current outreach and feedback mechanisms

29. Best practices in outreach are to increase user adoption of digital services, especially those targeting an aged population, by following a diversified approach using in-person and digital strategies to enhance accessibility and improve the adoption rate of digital services.

30. The Pension Administration's current outreach approach was primarily email driven; this was attributed to resource constraints which limited the expansion of in-person outreach even though limited in-person outreach campaigns were held in Nairobi which were successful in increasing enrolments for the DCE application. The Communications Section was not involved in these outreach activities except for the periodic messages they posted on the Fund's website, and emails issued to participants and beneficiaries.

31. While there appeared to be a general satisfaction among users with the DCE application and the Fund's related outreach efforts, there was no formal mechanism to get feedback from beneficiaries. The Pension Administration stated that the Customer Relationship Management system which went live on 4 November 2024 now serves as a means of collecting all client feedback, including DCE.

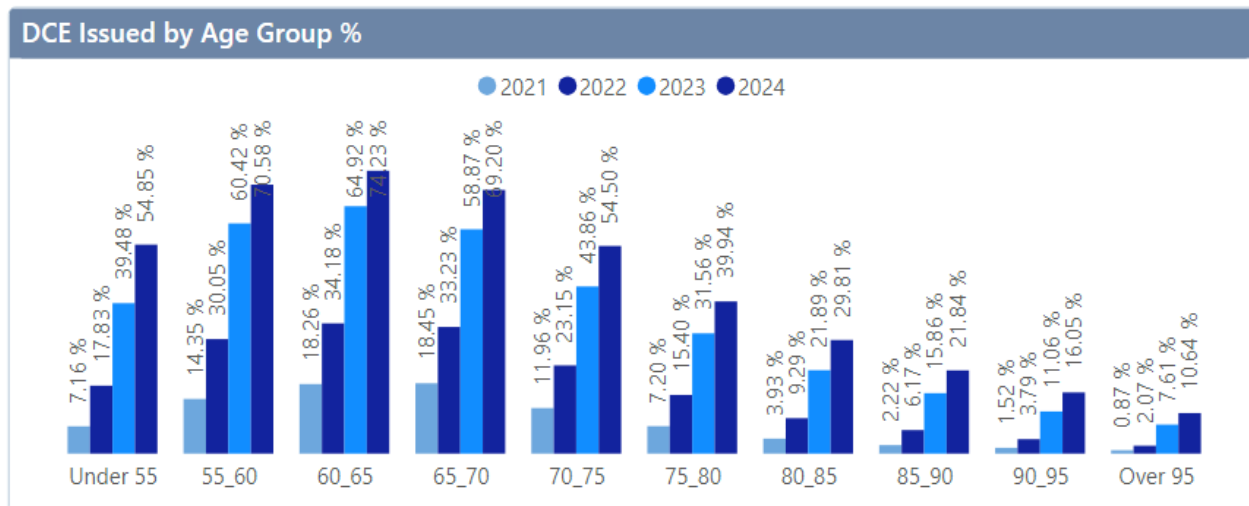
32. OIOS' review of data pertaining to countries with significant DCE-enabled beneficiary populations showed that there was low uptake for DCE [e.g., France: 36 per cent (2,640 out of 7,330); Switzerland: 35 per cent (1,678 out of 4,831); Austria: 41 per cent (1,492 out of 3,651)]. Table 1 below shows the top 10 and bottom 10 countries in terms of DCEs issued.

**Table 1: Top and bottom 10 countries in terms of DCEs issued**

TOP 10 - Countries by DCE Issued Ratio				Bottom 10 - Countries by DCE Issued Ratio			
IPAS Address Country	DCE Enabled	DCE Issued	DCE Issued %	IPAS Address Country	DCE Enabled	DCE Issued	DCE Issued %
NIGERIA	505	371	73.47 %	SWITZERLAND	4831	1678	34.73 %
PERU	436	315	72.25 %	FRANCE	7330	2640	36.02 %
KENYA	1400	970	69.29 %	SUDAN	617	233	37.76 %
INDIA	1615	1114	68.98 %	JAPAN	511	199	38.94 %
BRAZIL	572	381	66.61 %	ETHIOPIA	837	331	39.55 %
EGYPT	742	494	66.58 %	AUSTRIA	3651	1492	40.87 %
NEPAL	406	265	65.27 %	AFGHANISTAN	411	171	41.61 %
UGANDA	406	263	64.78 %	SRI LANKA	417	188	45.08 %
SENEGAL	711	455	63.99 %	BELGIUM	492	223	45.33 %
PHILIPPINES	845	532	62.96 %	THAILAND	1376	633	46.00 %
<b>Total</b>	<b>7638</b>	<b>5160</b>	<b>67.56 %</b>	<b>Total</b>	<b>20473</b>	<b>7788</b>	<b>38.04 %</b>

33. The adoption of DCE was higher among the recently retired beneficiary population (59 per cent in the age group 65-70 in 2023) as compared to those who retired earlier (22 per cent in the age group 80-85 in 2023) (see Chart 1 below). The lower uptake may be attributed to lower digital literacy among the older beneficiary population who may prefer traditional paper-based CE with which they are more familiar.

**Chart 1: DCEs issued by age group**



**(5) The Pension Administration should: (a) identify lessons learned from its outreach activities to further improve the use of DCEs; (b) establish a practice of obtaining and analyzing client satisfaction to make further improvements in the DCE application.**

*The Pension Administration accepted recommendation 5 and stated that it will identify lessons learned from outreach activities and consider these to improve the DCE use. The DCE application already allows users to interact and provide feedback directly with the DCE Support Team. Furthermore, the new customer relationship management system is used to collect client feedback to further improve services, including for DCE.*

Need to enhance the user experience of the DCE application

34. OSS managed the DCE application in coordination with IMSS. DCE provided useful functionalities such as biometric face recognition and digital submission of proof of existence. However, there were opportunities to further enhance the user experience of the DCE application by utilizing features such as: (i) customer satisfaction ratings; (ii) alert feature for two-track beneficiaries for filing DCE in their country of residence; (iii) feature that sends alerts in the DCE application and confirmation through email that no action is required from users once DCE has been issued; (iv) accessibility features for those users who cannot conform to the biometric verification requirements to submit DCE due to medical reasons; and (v) feature that automatically sends alerts to users whenever a login event is recorded on their account or when there is significant account activity.

35. Also, biometric verification and authentication or identity proofing could be improved by incorporating artificial intelligence elements to reduce the use of manual element only in exceptional cases (i.e., instead of 100 per cent verification). Additionally, the official benefits letter issued to new retirees should mention DCE as one of the channels through which proof of life can be submitted for continued benefits.

**(6) The Pension Administration should enhance the user experience of the DCE application by addressing its current limitations.**

*The Pension Administration accepted recommendation 6 and stated that it will continue to implement enhancements to the DCE application to enhance the user experience, as applicable.*

#### **IV. ACKNOWLEDGEMENT**

36. 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 the Digital Certificate of Entitlement system in the Pension Administration of the United Nations Joint Staff Pension Fund

Rec. no.	Recommendation	Critical <sup>2</sup> / Important <sup>3</sup>	C/ O <sup>4</sup>	Actions needed to close recommendation	Implementation date <sup>5</sup>
1	The Pension Administration should: (a) document a roadmap for the DCE application considering the other initiatives in progress as well as future enhancements including integration of emerging technologies and features; and (b) assess the potential benefits of integrating the DCE call centre and the Client Services contact centre to enhance client experience.	Important	O	Receipt of evidence that: (a) a roadmap for the DCE application has been documented considering the other initiatives in progress as well as future enhancements; and (b) the potential benefits of integrating the DCE call centre and the Client Services contact centre have been assessed.	31 December 2025
2	The Pension Administration should implement automated mechanisms to: (a) manage the demand and resource allocation for the DCE application proactively; and (b) analyze the reported IP locations and geolocation data to assure the integrity of the application.	Important	O	Receipt of evidence that automated mechanisms have been implemented to manage the demand and resource allocation for the DCE application proactively, and the reported IP locations and geolocation data have been analyzed to assure the integrity of the application.	31 December 2025
3	The Pension Administration should: (a) establish a DCE-specific vulnerability management plan; and (b) conduct periodic DCE-specific vulnerability tests and security assessments.	Important	O	Receipt of evidence that a DCE-specific vulnerability management plan has been established, and periodic DCE-specific vulnerability tests and security assessments are being conducted.	31 December 2025
4	The Pension Administration should: (a) establish a DCE-specific disaster recovery testing plan including all critical components; and (b) conduct periodic disaster recovery tests.	Important	O	Receipt of evidence that: (a) a DCE-specific disaster recovery testing plan including all critical components has been established; and (b) periodic disaster recovery tests are being conducted.	31 December 2025
5	The Pension Administration should: (a) identify lessons learned from its outreach activities to further	Important	O	Receipt of evidence that: (a) lessons learned from outreach activities have been used to further	31 December 2025

<sup>2</sup> 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.

<sup>3</sup> 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.

<sup>4</sup> Please note the value C denotes closed recommendations whereas O refers to open recommendations.

<sup>5</sup> Date provided by the Pension Administration in response to recommendations.

## STATUS OF AUDIT RECOMMENDATIONS

**Audit of the Digital Certificate of Entitlement system in the Pension Administration of the United Nations Joint Staff Pension Fund**

	improve the use of DCEs; (b) establish a practice of obtaining and analyzing client satisfaction to make further improvements in the DCE application.			improve the use of DCEs; and (b) a practice of obtaining and analyzing client satisfaction has been established to make further improvements in the DCE application.	
6	The Pension Administration should enhance the user experience of the DCE application by addressing its current limitations.	Important	O	Receipt of evidence that the user experience of the DCE application has been enhanced by addressing its current limitations.	31 March 2026

# **APPENDIX I**

## **Management Response**

**MEMORANDUM**


Ref:

New York, 16 December 2024

To / A:

Mr. Byung-Kun Min, Director  
Internal Audit Division, OIOS

From / De :

  
Rosemarie McClean, Chief Executive  
of Pension Administration, United  
Nations Joint Staff Pension FundSubject / Objet: **UNJSPF response to draft report of audit of digital certificate of entitlement in the Pension Administration of the United Nations Joint Staff Pension Fund**

1. Reference is made to your memorandum dated 9 December 2024, 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 to the audit recommendations are included in Annex I. Other comments and clarifications are included in Annex II.
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  
Ms. M. O'Donnell, Chief of Operations  
Mr. A. Blythe, Chief Client Services  
Mr. J. Nunez, Chief Risk and Compliance  
Ms. K. Manosalvas, Audit Focal Point

**ANNEX I**  
**Audit of Digital Certificate of Entitlement in the Pension Administration**

<b>Rec. no.</b>	<b>Recommendation</b>	<b>Critical<sup>1</sup>/ Important<sup>2</sup></b>	<b>Accepted? (Yes/No)</b>	<b>Title of responsible individual</b>	<b>Implementation date</b>	<b>Client comments</b>
1	The Pension Administration should: (a) document a roadmap for the DCE application considering the other initiatives in progress as well as future enhancements including integration of emerging technologies and features; and (b) assess the potential benefits of integrating the DCE call centre and the Client Services contact centre to enhance client experience.	Important	Yes	a) Chief Information Officer b) Chief of Operations and Chief Client Services	December 2025	a) The Pension Administration will document the vision and roadmap for the future state of the Digital Pension Fund application and holistically consider all initiatives across all functions and services. b) The Pension Administration will assess the potential benefits of the option of integrating the Digital Certificate of Entitlement call centre and the Client Services Contact Center, in terms of client experience.
2	The Pension Administration should implement automated mechanisms to: (a) manage the demand and resource allocation for the DCE application proactively; and (b) analyze the reported IP locations and geolocation data to assure the integrity of the application.	Important	Yes	Chief of Operations, Chief Operations Support Section	December 2025	a) The Pension Administration will conduct predictive analysis and resource allocation to plan UNJSPF DCE, while noting that users can complete the process any day within the calendar year. b) The Fund will analyze IP locations and geolocation data to assure the integrity of the application.
3	The Pension Administration should: (a) establish a DCE-specific vulnerability management plan; and (b) conduct periodic DCE-specific vulnerability tests and security assessments.	Important	Yes, with changes	IMSS, Enterprise Security Unit	December 2025	a) The DCE is a service delivered by UNICC, and therefore, the vulnerability management plan, tests and security assessments have been established through the vulnerability management process.

<sup>1</sup> 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.

<sup>2</sup> 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.



<b>Rec. no.</b>	<b>Recommendation</b>	<b>Critical<sup>1</sup>/ Important<sup>2</sup></b>	<b>Accepted? (Yes/No)</b>	<b>Title of responsible individual</b>	<b>Implementation date</b>	<b>Client comments</b>
						b) DCE vulnerability and security assessments have been conducted periodically. In addition, the Fund is now directly conducting scans using Acunetix, the application security scanning solution. c) The DCE database is encrypted both at rest and in transit.
4	The Pension Administration should: (a) establish a DCE-specific disaster recovery testing plan including all critical components; and (b) conduct periodic disaster recovery tests.	Important	Yes	Enterprise Operations Section	December 2025	The Pension Administration will further document and periodically test a DCE-specific disaster recovery plan, including all critical components.
5	The Pension Administration should: (a) identify lessons learned from its outreach activities to further improve the use of DCEs; (b) establish a practice of obtaining and analyzing client satisfaction to make further improvements in the DCE application.	Important	Yes	Chief of Operations, Chief Operations Support Section	December 2025	a) The Fund will identify lessons learned from outreach activities and consider these to improve the DCE use; b) The DCE App already allows users to interact and provide feedback directly with the DCE Support Team. Furthermore, UNJSPF-Connect, the new CRM system, is used to collect client feedback, to further improve services, including for the DCE.
6	The Pension Administration should enhance the user experience of the DCE application by addressing its current limitations.	Important	Yes	IMSS, Operations Support Section	March 2026	The Pension Administration will continue to implement enhancements to the DCE application to enhance the user experience, as applicable.

## **Annex II**

### **Factual Corrections and Clarifications to OIOS Draft Report**

**Recommendation 1:** The Pension Administration notes that the previous experience of an integrated call centre including DCE support, was not optimal from an operational and client experience perspective. The decision to split was based on the recognition that DCE support requires a different skill set than the more general client service agents. The specialized support established for the DCE has contributed to an increase in the uptake and determined an operational cost reduction. Having the DCE Support Team under OSS created a more efficient structure, as all CE/DCE-related queries are now integrated into one section, benefiting from specialized knowledge, increasing synergies, and harmonizing the overall client experience.

**Paragraph 34:** The Fund respectfully requests OIOS to remove the comment that user experience can be enhanced by utilizing a multilingual interface. The mobile application currently supports multi-language (English, French and Spanish). By default, the app uses the device language by default, and from the device settings a language different from the device language can be set if necessary. Please see Annex for screen shots showing the App in French and Spanish. In addition, satisfaction ratings for the DCE app are available. Once the user completes the issuance of the certificate, the application suggests the app rating in the app store, even allowing the user to write a satisfaction comment. This information is regularly reviewed to obtain feedback from users, to improve the user experience.