OIOS
Office of Internal Oversight Services

INTERNAL AUDIT DIVISION

REPORT 2014/001

Audit of information and communications technology help desk operations at United Nations Headquarters

Overall results relating to the adequacy and effectiveness of the management of help desk operations at United Nations Headquarters were initially assessed as partially satisfactory. Implementation of 13 important recommendations remains in progress.

FINAL OVERALL RATING: PARTIALLY SATISFACTORY

30 January 2014
Assignment No. AT2013/517/01

CONTENTS

AUDIT REPORT

Audit of information and communications technology help desk operations at United Nations Headquarters

I.   BACKGROUND

1.   The Office of Internal Oversight Services (OIOS) conducted an audit of information and communications technology (ICT) help desk operations at United Nations Headquarters (UNHQ).

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.   ICT help desk operations include the management and operational processes to:

   (i) Inform users about available ICT services and their terms and conditions (service catalogs);

   (ii) Manage the components of ICT services (i.e., configuration items);

   (iii) Manage service dependencies for escalating issues and ensure service availability;

   (iv) Answer user inquiries, calls and e-mails, record, resolve, escalate and close the reported issues (i.e., incident and problem management); and

   (v) Provide performance reports to management about the systems supported.

4.   However, the terms "help desk", "service desk" and "call centre" were used interchangeably across UNHQ (i.e., Office of Information and Communications Technology (OICT) Service Desk; Financial Information Operations Service (FIOS) Service Desk; Umoja Service Desk; Department of Field Support (DFS) Call Centre; and Department of General Assembly and Conference Management (DGACM) Help Desk). However, professional standards for the management of ICT service operations distinguish each of these terms with specific responsibilities, functions, and scope. OIOS conducted the audit with reference to the professional standard for ICT service management and considered these five entities as part of help desk operations in UNHQ. In addition to these main help desk operation centres, other offices of the UNHQ had internal technical support groups which provided limited help desk services to end-users of various departmental applications. This was the case, for example, of the technical support groups established in the Procurement Division, Medical Services Division, Office of Human Resources Management (OHRM- Integrated Management Information System (IMIS) Help Desk), and OICT (iNeed Help Desk).

5.   Various offices provided help desk operations and ICT support at UNHQ in their respective areas of responsibility, as follows:

   (i) OICT, which provided base ICT services to all departments and offices at UNHQ for accessing Internet, intranet, email, and enterprise applications (i.e., IMIS, ePortfolio, Official Document System (ODS), etc.). In addition to these services, OICT also provided services

related to telephony, printing, application hosting, database hosting, web hosting, storage provisioning, and enterprise backup service. The OICT service desk was staffed with external contractors, and provided a first active level of support to all departments at UNHQ from 9 AM to 6 PM during official working days. Calls received from 6 PM to 9 AM, and during weekends, were recorded by the Network Operation Centre (NOC) of OICT which provided active support only for critical issues. The NOC function was outsourced to the United Nations International Computing Centre (UNICC) for data centre operations. OICT escalation groups acted as tier-2 and tier-3 support for all OICT services;

(ii) The Information and Communications Technology Division (ICTD) of DFS, which provided application development, operational support and wide area networking (WAN) services to DFS, Department of Peacekeeping Operations (DPKO), and Department of Political Affairs (DPA) at UNHQ, as well as videoconferencing services for all DPKO field missions and Secretariat staff. DFS outsourced its call centre to UNICC. As a result, UNICC provided help desk services to DFS, DPKO missions and DPA. There were more than 80 applications (including mission web sites) supported by the DFS call centre and DFS/ICTD;

(iii) The Information and Communications Technology Section of DGACM (DGACM/ICTS), which provided ICT solutions to support the work programme of DGACM by managing and delivering computer equipment, multilingual software, conference systems and databases used by over 1,200 staff at UNHQ;

(iv) FIOS, which coordinated the ICT services of the Office of Programme Planning, Budget and Accounts (OPPBA), and providing tier-1, tier-2 and tier-3 support for more than 50 financial applications; and

(v) Umoja, which will replace approximately 700 legacy applications. Therefore, it is expected that the existing help desk support will be reorganized in line with the planned deployment of Umoja.

6. Help desk operations were supported by the iNeed system which was the United Nations' standard enterprise customer relationship management system which was implemented in several ICT and non-ICT offices in the Secretariat (OICT, DFS/ICTD, OPPBA/FIOS, OPPBA/Finance Division, Department of Management's (DM) Facilities Management Division, the United Nations Office for the Coordination of Humanitarian Affairs, and several missions) for the support of help desk operations.

7. Comments provided by DM, DFS and DGACM are incorporated in italics.

II. OBJECTIVE AND SCOPE

8. The audit was conducted to assess the adequacy and effectiveness of UNHQ governance, risk management and control processes in providing reasonable assurance regarding the **effective and efficient management of ICT help desk operations at UNHQ.**

9. This audit was selected because of the: (a) high risks associated with the coordination and management of complex and dispersed help desk operations at UNHQ; and (b) the critical role of help desk operations in supporting the successful implementation of new enterprise applications such as Umoja.

10.   The key controls tested for the audit were: (a) coordinated management mechanisms; (b) performance monitoring indicators and mechanisms; and (c) ICT support systems. For the purpose of this audit, OIOS defined these key controls as follows:

(a)   **Coordinated management mechanisms** - controls that provide reasonable assurance that potential overlaps in help desk operations are mitigated, and issues affecting or involving other actors are identified, discussed and resolved in a timely manner;

(b)   **Performance monitoring indicators and mechanisms -** controls that provide reasonable assurance that ICT help desk operations, processes and metrics are established and appropriate to enable measurement of the efficiency and effectiveness of the services provided; and

(c)   **ICT support systems -** controls that provide reasonable assurance that ICT systems in support of help desk operations exist and effectively address the needs of UNHQ.

11.   The key controls were assessed for the control objectives shown in Table 1. Certain control objectives shown in Table 1 as "Not assessed" were not relevant to the scope defined for this audit.

12.   OIOS conducted the audit from 16 April 2013 to 10 September 2013. The audit covered the period from 2012 to 2013.

13.   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 in help desk operations of DM, DGACM and DFS.

III.   AUDIT RESULTS

14.   UNHQ governance, risk management and control processes examined were **partially satisfactory** in providing reasonable assurance regarding **the effective and efficient management of ICT help desk operations at UNHQ**. OIOS made 13 recommendations to address the issues identified in the audit. Multiple ICT applications and operations at UNHQ were supported by several help desks distributed across departments. Different systems were used to record and process help desk requests, and help desk staff were trained on service management best practices. However, design and transition of new and changed services were performed in an ad-hoc manner without a comprehensive strategy for help desk management. Help desk staffing requirements, especially those for the transition from old systems to Umoja, were not defined in detail. There was no governance mechanism to manage service dependencies, and response and resolution times were not defined in operational level agreements. There was no single point of contact for the staff of the Secretariat in New York to report issues. The key elements of the service management process - capacity planning, change management, configuration management, service continuity and security - were not managed in an integrated and coordinated manner. The iNeed system was widely used in support of help desks operations, however a disaster recovery plan for this system was not documented or tested.

15.   The initial overall rating was based on the assessment of key controls presented in Table 1 below. The final overall rating is **partially satisfactory** as implementation of 13 important recommendations remains in progress.

Table 1: 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**
Effective and efficient management of ICT help desk operations at UNHQ	(a) Coordinated management mechanisms	Partially satisfactory	Partially satisfactory	Not assessed	Partially satisfactory
	(b) Performance monitoring indicators and mechanisms	Partially satisfactory	Partially satisfactory	Not assessed	Partially satisfactory
	(c) ICT support systems	Partially satisfactory	Partially satisfactory	Partially satisfactory	Not assessed
FINAL OVERALL RATING: PARTIALLY SATISFACTORY					

A.   Coordinated management mechanisms

Lack of a service management strategy for the United Nations Secretariat

16.   OICT established its help desk operations based on an ICT standard for service management (Information Technology Infrastructure Library (ITIL)). ITIL is a comprehensive suite of best practices to govern ICT services in a structured format. It provides a practical framework for identifying, planning, delivering, and supporting ICT services.

17.   OIOS assessed the current ICT service management processes at UNHQ for help desk operations using the ITIL framework. The audit showed that end-to-end service management processes were not implemented for help desk operations. In this regard, the following weaknesses were noted:

(i)   Service management authorities and responsibilities were not defined, and service management policies and procedures for establishing, operating, monitoring, and reviewing ICT services for help desk operations were not documented;

(ii)   The design and transition of new and changed ICT services were performed in an ad-hoc manner without an organizational strategy to support these services. For example, help desk services for enterprise applications such as Inspira, iNeed, and Umoja had been established in isolation for each initiative. Similarly, the lack of an organizational policy led to the establishment of smaller help desk units across the Secretariat in support of specific desktop computer requirements of some departments (i.e., DGACM);

(iii)   Applications were not managed as ICT services and did not have service descriptions, which resulted in a lack of defined ownership and management procedures for help desk operations;

(iv) While providing application support for help desk operations, multiple service providers were involved in managing different components of the support process, such as client software, application, database, network and hardware infrastructure. These components were managed independently from the other parts of the process, and there was no cross cutting procedure or governance mechanism to monitor the whole process and the interdependencies of its components;

(v) Due to budgetary constraints, some offices found it more economical to establish their own local help desks to support their personal computers rather than paying OICT for this service;

(vi) Capacity planning, change management, configuration and release management, service continuity and security were not integrated into a service management system for help desk operations;

(vii) There were multiple repositories of help desk procedures, guidelines, service level agreements (SLAs), solutions to known errors, and other service documentation; and

(viii) Service level agreements were not standard and not consistently developed for help desk related ICT services at the Secretariat.

18.   User departments and offices increased their dependence on the quality and reliability of ICT services, including help desk services. This increased dependence on ICT services should have been supported by a service management strategy aligning ICT needs with the corresponding ICT capabilities and resources, and shifting the focus from the management of single applications to the management of end-to-end services. The absence of an ICT service management strategy in the Secretariat exposed the Organization to the risk of responding to new and changing business requirements with additional – and fragmented – solutions that could increase inefficiencies and limit the economies of scale.

> **(1) OICT should: (i) develop an organization-wide ICT service management strategy and ICT support policy within the new ICT strategy being developed; and (ii) implement ICT service management processes for help desk operations (i.e., design and transition of new and changed services, service level management, capacity management, information security management, service continuity and availability management, change, release and configuration management, service reporting, etc.).**
>
> *OICT accepted recommendation 1 and stated that: (i) it will include the ICT service management strategy in the new ICT strategy that will be presented to the General Assembly in 2014; and (ii) it will request the necessary resources to implement the service management strategy in the next budget cycle. Relevant issues related to the enterprise resources planning (ERP) will be incorporated into the Secretary-General's sixth Progress Report on the ERP (Umoja) project.* Recommendation 1 remains open pending receipt of the ICT service management strategy, support policy and documented evidence of implementation of the service management processes.

Lack of transition plan for Umoja support

19.   Depending on the number of Umoja users and potential issues, the current capacity of the help desk might not be adequate to support the implementation of Umoja at UNHQ. To mitigate this risk, OICT and the Umoja Office started conducting daily reviews of the help desk statistics since the rollout of the Umoja Pilot that took place in July 2013 at the United Nations Interim Force in Lebanon. Given

that Umoja will replace many legacy systems, there will be a need to review the existing help desk support capacity across offices and departments, and develop a plan for the transition of support from the old systems to Umoja.

> **(2) DM, in coordination with DFS, should evaluate and document the help desk staffing requirements in line with the transition plan from the old systems to Umoja.**
>
> *DM and DFS accepted recommendation 2 and stated that OICT will coordinate with DFS and Umoja to evaluate and document the help desk staffing requirements in line with the transition plan from the old systems to Umoja.* Recommendation 2 remains open pending receipt of the help desk transition plan from the old systems to Umoja.

Lack of a single point of contact in help desk for incident reporting

20. Users of ICT services at UNHQ expected to report issues to their ICT focal points or directly to the help desk service provider of their offices. However, there was no single point of contact and standard escalation procedure for reporting problems. Depending on where the user reported the issue, the resolution time and escalation path varied. For example, issues related to the use of iNeed could be reported either to the local help desks, or OICT help desk, or iNeed help desk.

> **(3) OICT, in coordination with other ICT Offices at UNHQ, should define a single point of contact and standard escalation procedures for reporting problems.**
>
> *OICT accepted recommendation 3 and stated that it will define a single point of contact and procedures, and communicate the contact information and procedures to other ICT offices at UNHQ.* Recommendation 3 remains open pending receipt of the documented evidence demonstrating the implementation of a single point of contact and standard escalation procedures.

Lack of help desk incident management process for some departmental applications

21. Issues related to certain departmental applications were not recorded and tracked in any help desk system, as evidenced by the EarthMed system, the Requisition Tracking tool, and the Procure+ application.

22. As a result of the current condition, and the absence of a consistent monitoring of the issues associated with the use of specific departmental applications, the Secretariat was unable to: (i) measure service quality; (ii) record and monitor common issues and their resolutions; (iii) track services requested and resolved; (iv) identify the root causes of individually reported issues; and (v) provide senior management with adequate information for making decisions about capacity planning, upgrades, and other associated strategic issues.

> **(4) DM, in collaboration with relevant ICT offices at UNHQ supporting departmental applications, should assess whether the applications currently not supported by help desk systems can and should be tracked by the iNeed system.**
>
> *DM accepted recommendation 4 and stated that OICT will complete the application assessment project and use the application assessment results to identify applications of departments which are candidates to utilize iNeed. OICT will communicate to the departments the availability of iNeed for them to use, along with implementation steps and costs.* Recommendation 4 remains open pending the documented results of the OICT assessment.

Lack of standard prioritization and categorization of issues reported to help desk

23.   The priority assigned to the issues reported to the various help desks of UNHQ was assigned on the basis of the number of users impacted rather than the criticality of the services impacted, and/or the need to ensure continuity of mission critical functions. Although, OICT, FIOS, and DFS used the same help desk ticketing system (iNeed), there was no standard methodology to assign a priority to an incident or request. Additionally, expected response and resolution times for different services were not associated with the priority levels in the ticketing systems of each office.

24.   The Umoja Office and iNeed team worked in coordination to establish a standard categorization of requests and incidents related to Umoja. However, there was no consistent categorization of the incidents and requests related to other enterprise systems ((i.e., IMIS and Lotus Notes) across the four service providers reviewed (OICT, FIOS, DFS, and DGACM). A consistent categorization of requests and problems related to these common enterprise systems would have helped service managers to monitor and improve the services more effectively and efficiently.

> **(5) OICT should establish standard criteria for incident and request categorization and prioritization to record and monitor issues for all enterprise services.**
>
> *OICT accepted recommendation 5 and stated that it will establish standard criteria for incident and request categorization and prioritization, to record and monitor issues for all enterprise services. Umoja will be consulted with regard to the ERP Application Service Catalogue.* Recommendation 5 remains open pending receipt of the documented standard criteria for categorization and prioritization of incidents.

Varying level of maturity in help desk processes

25.   A review of help desk procedures and documentation in DM, DFS, and DGACM highlighted weaknesses related with unmanaged changes, undocumented and uncontrolled help desk procedures, lack of problem management processes, and lack of reporting mechanisms with statistics and metrics.

> **(6) OICT should: (i) standardize and disseminate ICT help desk procedures in accordance with the service desk best practices adopted by OICT (ITIL); and (ii) support the implementation of a problem management process and common known errors database for all help desks and escalation groups.**
>
> *OICT accepted recommendation 6 and stated that it will standardize and disseminate ICT help desk procedures in accordance with the service desk best practices adopted by the OICT (ITIL); and support the implementation of a problem management process and common known errors database for all help desks and escalation groups.* Recommendation 6 remains open pending receipt of evidence demonstrating the implementation of the standard help desk procedures, known error database, and problem management process across the ICT help desks.

Lack of standard ICT service catalogs for help desk operations

26.   Help desks should provide support for ICT services on the basis of service catalogs that inform users about the available ICT services and their terms and conditions. The criteria for defining an ICT service were not established in the Secretariat. Therefore, several ICT services associated with departmental applications were not captured in any service catalog.

27.   The absence of adequate ICT service catalogs containing a list of all the services offered to the clients (and not just the systems) may prevent the Secretariat from managing and monitoring the provision and support of ICT services in an effective manner. Furthermore, management may not be able to demonstrate the contribution and value of ICT to the business.

> **(7) OICT, in coordination with other ICT offices of UNHQ, should: (i) specify the criteria for the definition of ICT services; and (ii) develop standard templates for ICT service catalog and ICT service level agreement.**
>
> *OICT accepted recommendation 7 and stated that it has already developed criteria for the definition of services, as well as templates for its own ICT service catalogue. OICT will share its experiences and templates, and collaborate with other ICT service providers at UNHQ and in the Offices Away for Headquarters. OICT will also initiate a request for standardization to the Architecture Review Board for service definition criteria and service catalogue templates.* Recommendation 7 remains open pending receipt of the standard criteria for ICT services, and standard templates for service catalogs and service level agreements.

Help desk operations did not have a database of configuration items

28.   ICT help desk operations track and manage specific components of the services provided to clients. These components should be recorded in a configuration management database as configuration items. In UNHQ, ICT services, incidents and problems were not associated with the underlying configuration items. Therefore, the impact of incidents and problems that occurred in the ICT infrastructure of the Secretariat could not be adequately assessed. ICT asset data was managed in separate systems and in different offices. However, none of these systems were utilized to associate ICT services with the underlying configuration items and capturing their dependencies. iNeed had the feature (CMDB – Configuration Management Database) required for this purpose, but this feature was not implemented in OICT, DFS, and FIOS.

> **(8) OICT, in coordination with other ICT offices at UNHQ, should: (i) establish an ICT standard for implementing a configuration management database to be used in all ICT offices; and (ii) coordinate its implementation across UNHQ.**
>
> *OICT accepted recommendation 8 and stated that it will establish an ICT standard for implementing a configuration management database and communicate to all ICT offices regarding the ICT standard.* Recommendation 8 remains open pending receipt of evidence demonstrating the establishment of ICT standards for the implementation of a configuration management database across the Secretariat.

Help desk operations did not have adequate information about service providers and their dependencies

29.   ICT help desk operations may involve different service providers. Therefore, adequate details should be known about the different providers and their relationships. Usually, these information are documented in operating level agreements detailing responsibilities, processes, and expected timeframe for the delivery of services. The ICT service providers in UNHQ used various parties in delivering services to their clients. For example, OICT provided hosting services to the applications managed by other departments, as well as supporting the UNHQ local area network, which provided access to these applications. However, there was no operating level agreement between the OICT's technical escalation groups, or between OICT and the other service providers (DFS, FIOS, etc.) to ensure adequate coordination of the support activities.

30.   DFS documented the operating level agreements established between its call centre, application support at UNHQ, and network control centre in the United Nations Logistics Base (UNLB). However, some of these agreements were either not reviewed as required, or expired (i.e., the agreement for the support of the Share Point application). DFS also drafted some agreements involving OICT (i.e., for DFS/UNICC hardware and incident infrastructure support) to define support roles, responsibilities, and expected performance between OICT and UNICC. However, OICT did not participate in this definition considering that the service level agreements established between DFS and OICT were enough to address DFS' requirements.

31.   The Umoja Office drafted a post implementation support model and policy, process and standard operating procedures for providing incident management and request for service to the Umoja community using iNeed. These procedures described the details of: (i) Umoja support workflow; (ii) support tiers; (iii) incident and service request categorization (including sub-categories); (iv) incident and service request prioritization guidelines; and (v) escalation groups. However, expected response and resolution times between the escalations groups were not documented.

> **(9) OICT, in coordination with other ICT offices at UNHQ and the Umoja Office, should: (i) review the ICT service dependencies and establish operational level agreements to ensure that a documented commitment is in place for providing consistent and coordinated ICT service support; and (ii) define service response and resolution time objectives of the respective parties, performance reporting templates and their frequency.**
>
> *OICT accepted recommendation 9 and stated it will coordinate with other ICT offices at UNHQ to implement the recommended actions. The Umoja Office will coordinate the development of Umoja related operational level agreements.* Recommendation 9 remains open pending receipt of evidence demonstrating that service dependencies have been reviewed and operating level agreements for ICT support established.

B.   Performance monitoring indicators and mechanisms

Service performance was not reported

32.   Help desks should report their performance in providing services to their clients. The reporting criteria should be defined in a service level agreement (SLA) in terms of definition of services, performance measurements, levels of availability, costs, etc.. The SLAs developed in OICT contained availability metrics, support response times, and resolution times for the ICT services provided. For capacity planning and trend analysis purposes, OICT produced internal monthly help desk reports. However, OICT did not provide its clients with periodic reports showing the actual performance against the defined metrics in the SLAs. The absence of service performance reporting may prevent senior management from monitoring and ensuring that infrastructure, services, and the supporting organization are operating in a cost effective manner and the expected levels of services are met.

33.   DFS outsourced some of its ICT services (call centre services and application support services) to UNICC. This outsourcing relationship was documented in a master service delivery agreement defining the terms, conditions, and expected performance of the ICT services.

34.   The DGACM help desk produced monthly availability reports for the web sites managed by the department. However, these reports did not include a comparison between expected service performance levels and achieved service levels.

35.   FIOS developed a reporting tool for monitoring help desk services and generating statistical reports. Service performance levels were not reported to senior management.

> **(10) OICT should: (i) establish help desk policies for ICT service reporting that includes performance of services against service level targets; and (ii) provide help desk performance reports to its clients for the services listed in its service catalog.**
>
> *OICT accepted recommendation 10 and stated that it will implement the recommended actions.* Recommendation 10 remains open pending receipt of evidence demonstrating that an ICT service reporting policy has been established and performance reports were provided to clients.

C.   ICT support systems

Lack of disaster recovery planning of iNeed

36.   iNeed was the system implemented in support of help desk operations. This system was implemented in several ICT and non-ICT offices in the Secretariat (OICT, DFS/ICTD, OPPBA/FIOS, OPPBA/Finance Division, DM's Facilities Management Division, OCHA and several missions), and it was mainly used for recording service requests and incident tickets, and for escalation purposes.

37.   iNeed was hosted in UNLB. Currently, key components of iNeed (database, object managers, reports, mail servers) were supported by mechanisms that ensured their local redundancy if necessary, except for the gateway server which represented a single point of failure. OICT stated that budgetary and resource issues prevented the implementation of a fully redundant disaster recovery infrastructure for iNeed. It was expected that the United Nations Support Base in Valencia (UNSBV) would be the primary site, while UNLB will be the secondary site for iNeed, in line with the solution adopted for Umoja and other enterprise applications. iNeed data were not replicated between UNLB and UNSBV and there was no documented and tested disaster recovery plan for iNeed. The unavailability of iNeed may cause slower resolution times of incidents and requests for assistance which could have negative consequences on the support of enterprise-wide applications such as Umoja.

> **(11) OICT should complete the disaster recovery plan for iNeed and test it at least annually.**
>
> *OICT accepted recommendation 11 and stated that it will complete the disaster recovery plan for iNeed and test it at least annually.* Recommendation 11 remains open pending receipt of the iNeed disaster recovery plan and test report.

Integration with other tools

38.   iNeed asset management modules were implemented in DFS, OICT and FIOS, and they were integrated with the Procure+ asset management system to synchronize asset data. It was expected that when Umoja is fully implemented at the Secretariat, it will replace Procure+, and operate as the system of record for asset management. The configuration of iNeed for the creation and management of service requests and incident management and reporting required a two way interface between iNeed and Umoja to exchange data related to asset and service requests. Therefore, OICT would need to work together with the Umoja Office in documenting an integration architecture for this interface. The absence of integration of these two systems could result in inconsistent data in iNeed. If the asset data are not synchronized, iNeed cannot be used as a central database for managing service components.

> **(12) OICT, in coordination with the Umoja Office, should document the functional specifications for the interface between iNeed and Umoja and build, test and implement the interface prior to the retirement of Procure+.**
>
> *OICT accepted recommendation 12 and stated that it will develop integration specifications with Umoja and conduct integration development work by Umoja and iNeed. OICT will test the integration and implement the interface prior to the retirement of Procure+.* Recommendation 12 remains open pending receipt of the documented specifications for the interface between iNeed and Umoja before retiring Procure+.

Lack of performance and security reviews

39.   The SLA developed for iNeed required OICT to conduct regular performance and security reviews in accordance with ST/SGB/2004/15, to ensure technical integrity and overall performance of the application. However, OICT did not conduct any security or performance reviews for the iNeed system.

> **(13) OICT should conduct regular security and performance reviews of iNeed and take appropriate actions to mitigate the identified risks.**
>
> *OICT accepted recommendation 13 and stated that it will initiate a security review, evaluate the results and implement any security review recommendations.* Recommendation 13 remains open pending receipt of evidence demonstrating the completion of security and performance reviews and action plans.

IV.   ACKNOWLEDGEMENT

40.   OIOS wishes to express its appreciation to the Management and staff of DM, DFS and DGACM for the assistance and cooperation extended to the auditors during this assignment.

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

STATUS OF AUDIT RECOMMENDATIONS

Audit of information and communications technology help desk operations at United Nations Headquarters

Recom. no.	Recommendation	Critical[1]/ Important[2]	C/ O[3]	Actions needed to close recommendation	Implementation date[4]
1	OICT should: (i) develop an organization-wide ICT service management strategy and ICT support policy within the new ICT strategy being developed; and (ii) implement ICT service management processes for help desk operations (i.e. design and transition of new and changed services, service level management, capacity management, information security management, service continuity and availability management, change, release and configuration management, service reporting, etc.).	Important	O	Receipt of the ICT service management strategy, support policy and documented evidence of implementation of the service management processes.	31 July 2015
2	DM, in coordination with DFS, should evaluate and document the help desk staffing requirements in line with the transition plan from the old systems to Umoja.	Important	O	Receipt of the help desk transition plan from the old systems to Umoja.	31 January 2017
3	OICT, in coordination with other ICT Offices at UNHQ, should define a single point of contact and standard escalation procedures for reporting problems.	Important	O	Receipt of the documented evidence demonstrating the implementation of a single point of contact and standard escalation procedures.	30 June 2015
4	DM, in collaboration with relevant ICT offices at UNHQ supporting departmental applications,	Important	O	Documented results of the assessment.	31 October 2014

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[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 the client in response to recommendations.

STATUS OF AUDIT RECOMMENDATIONS

Audit of information and communications technology help desk operations at United Nations Headquarters

Recom. no.	Recommendation	Critical[1]/ Important[2]	C/ O[3]	Actions needed to close recommendation	Implementation date[4]
	should assess whether the applications currently not supported by help desk systems can and should be tracked by the iNeed system.				
5	OICT should establish standard criteria for incident and request categorization and prioritization to record and monitor issues for all enterprise services.	Important	O	Receipt of the documented standard criteria for categorization and prioritization of incidents.	31 October 2014
6	OICT should: (i) standardize and disseminate ICT help desk procedures in accordance with the service desk best practices adopted by OICT (ITIL); and (ii) support the implementation of a problem management process and common known errors database for all help desks and escalation groups.	Important	O	Receipt of evidence demonstrating the implementation of the standard help desk procedures, known error database, and problem management process across the ICT help desks.	31 March 2015
7	OICT, in coordination with other ICT offices of UNHQ, should: (i) specify the criteria for the definition of ICT services; and (ii) develop standard templates for ICT service catalog and ICT service level agreement.	Important	O	Receipt of the standard criteria defined for ICT services, and standard templates for service catalogs and service level agreements.	31 October 2014
8	OICT, in coordination with other ICT offices at UNHQ, should: (i) establish an ICT standard for implementing a configuration management database to be used in all ICT offices; and (ii) coordinate its implementation across UNHQ.	Important	O	Receipt of evidence demonstrating the establishment of ICT standards for the implementation of a configuration management database across the Secretariat.	31 March 2015
9	OICT, in coordination with other ICT offices at UNHQ and the Umoja Office, should: (i) review the ICT service dependencies and establish operational level agreements to ensure that a documented commitment is in place for providing consistent and coordinated ICT service support;	Important	O	Receipt of evidence demonstrating that service dependencies have been reviewed and operating level agreements for ICT support established.	31 July 2015

STATUS OF AUDIT RECOMMENDATIONS

Audit of information and communications technology help desk operations at United Nations Headquarters

Recom. no.	Recommendation	Critical[1]/ Important[2]	C/ O[3]	Actions needed to close recommendation	Implementation date[4]
	and (ii) define service response and resolution time objectives of the respective parties, performance reporting templates and their frequency.				
10	OICT should: (i) establish help desk policies for ICT service reporting that includes performance of services against service level targets; and (ii) provide help desk performance reports to its clients for the services listed in its service catalog.	Important	O	Receipt of evidence demonstrating that an ICT service reporting policy has been established and performance reports were provided to clients.	31 October 2014
11	OICT should complete the disaster recovery plan for iNeed and test it at least annually.	Important	O	Receipt of the iNeed disaster recovery plan and test report.	31 December 2014
12	OICT, in coordination with the Umoja Office, should document the functional specifications for the interface between iNeed and Umoja and build, test and implement the interface prior to the retirement of Procure+.	Important	O	Receipt of the documented specifications for the interface between iNeed and Umoja before retiring Procure+.	31 December 2016
13	OICT should conduct regular security and performance reviews of iNeed and take appropriate actions to mitigate the identified risks.	Important	O	Receipt of evidence demonstrating the completion of security and performance reviews and action plans.	30 June 2015

APPENDIX I

Management Response

Department of Field Support's Response

CONFIDENTIAL

Routine

TO: Mr. Gurpur Kumar, Deputy Director
A: Internal Audit Division, OIOS

DATE: **JAN 1 3 2014**

REFERENCE: 2014-UNHQ-000571.02

THROUGH:
S/C DE:

FROM: Anthony Banbury, Assistant Secretary-General
DE: Department of Field Support

SUBJECT: **AT2013/517/01 - Draft report on audit of information and**
OBJET: **communications technology help desk operations at United Nations Headquarters**

1.   I refer to your memorandum dated 27 November 2013 regarding the above-mentioned audit. We note that OIOS has taken into account our comments provided on 21 October 2013. Please note that DFS does not have any further comments on the findings and recommendations contained in the report.

2.   Thank you for the opportunity to comment on the draft report. We stand ready to provide any further information that may be required.

cc: Mr. Dino Cataldo Dell'accio
    Ms. Anna Halasan

Department for General Assembly and Conference Management's Response

United Nations ⊕ Nations Unies

INTEROFFICE MEMORANDUM   MEMORANDUM INTERIEUR

TO: Mr Gurpur Kumar, Deputy Director, Internal   DATE: 22 January 2014
A: Audit Division, OIOS

                                                           REFERENCE:

THROUGH:
S/C DE:

FROM: M A Chiulli, Executive Officer, Department for
DE: General Assembly and Conference Management

SUBJECT: **AT2013/517/01 - Horizontal audit of information and**
OBJET: **communications technology help desk operations at the**
          United Nations Secretariat in New York

1. We are in receipt of the subject cross-cutting report of the help desk operations at the UNHQ, and note that the review of DGACM's operations in this regard raised no concerns for the auditors.

2. The Department is in agreement with the overall findings of the report, and in this regard, have no further comments to make.

3. Please don't hesitate to call if you should need anything further in this matter.

cc: Dino Cataldo Dell'Accio, Andrey Shumikhin

MANAGEMENT RESPONSE

Audit of information and communications technology help desk operations at United Nations Headquarters

Rec. no.	Recommendation	Critical[1]/ Important[2]	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
1	OICT should: (i) develop an organization-wide ICT service management strategy and ICT support policy within the new ICT strategy being developed; and (ii) implement ICT service management processes for help desk operations (i.e. design and transition of new and changed services, service level management, capacity management, information security management, service continuity and availability management, change, release and configuration management, service reporting, etc.).	Important	Yes			DGACM agrees with this recommendation
2	DM, in coordination with DFS, should evaluate and document the help desk staffing requirements in line with the transition plan from the old systems to Umoja.	Important	Yes			DGACM agrees with this recommendation
3	OICT, in coordination with other ICT Offices at UNHQ, should define a single points of contact and standard	Important	Yes			DGACM agrees with this recommendation

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[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.

MANAGEMENT RESPONSE

Audit of information and communications technology help desk operations at United Nations Headquarters

Rec. no.	Recommendation	Critical[1]/ Important[2]	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
	escalation procedures for reporting problems.					
4	DM, in collaboration with relevant ICT offices at UNHQ supporting departmental applications, should assess whether the applications currently not supported by help desk systems can and should be tracked by the iNeed system.	Important	Yes			DGACM agrees with this recommendation
5	OICT should establish standard criteria for incident and request categorization and prioritization to record and monitor issues for all enterprise services.	Important	Yes			DGACM agrees with this recommendation
6	OICT should: (i) standardize and disseminate ICT help desk procedures in accordance with the service desk best practices adopted by the OICT (ITIL); and (ii) support the implementation of a problem management process and common known errors database for all help desks and escalation groups.	Important	Yes			DGACM agrees with this recommendation
7	OICT, in coordination with other ICT offices of UNHQ, should: (i) specify the criteria for the definition of ICT services; and (ii) develop standard	Important	Yes			DGACM agrees with this recommendation

MANAGEMENT RESPONSE

Audit of information and communications technology help desk operations at United Nations Headquarters

Rec. no.	Recommendation	Critical[1]/ Important[2]	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
	templates for ICT service catalog and ICT service level agreement.					
8	OICT, in coordination with other ICT offices at the UNHQ, should: (i) establish an ICT standard for implementing a configuration management database to be used in all ICT offices; and (ii) coordinate its implementation across the UNHQ.	Important	Yes			DGACM agrees with this recommendation
9	OICT, in coordination with the other ICT offices at the UNHQ and the Umoja Office, should: (i) review the ICT service dependencies and establish operational level agreements to ensure that a documented commitment is in place for providing consistent and coordinated ICT service support; and (ii) define service response and resolution time objectives of the respective parties, and performance reporting templates and their frequency.	Important	Yes			DGACM agrees with this recommendation
10	OICT should: (i) establish help desk policies for ICT service reporting that includes performance of services against service level targets; and (ii) provide help desk performance reports	Important	Yes			DGACM agrees with this recommendation

MANAGEMENT RESPONSE

Audit of information and communications technology help desk operations at United Nations Headquarters

Rec. no.	Recommendation	Critical[1]/ Important[2]	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
	to its clients for the services listed in its service catalog.					
11	OICT should complete the disaster recovery plan for iNeed and test it at least annually.	Important	Yes			DGACM agrees with this recommendation
12	OICT, in coordination with the Umoja Office, should document the functional specifications for the interface between iNeed and Umoja and build, test and implement the interface prior to the retirement of Procure+.	Important	Yes			DGACM agrees with this recommendation
13	OICT should conduct regular security and performance reviews of iNeed and take appropriate actions to mitigate the identified risks.	Important	Yes			DGACM agrees with this recommendation

Department of Management's Response

United Nations · Nations Unies

INTEROFFICE MEMORANDUM   MEMORANDUM INTERIEUR

TO: Mr. Gurpur Kumar, Deputy Director   DATE: 19 December 2013
A: 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
DE: Policy and Oversight Coordination Service
Office of the Under-Secretary-General for Management

SUBJECT: **Draft report on an audit of information and communications technology help desk operations at the United Nations Headquarters (Assignment No. AT2013/517/01)**
OBJET:

1.   We are pleased to provide the consolidated DM comments to the draft report in Appendix I in response to your memorandum dated 27 November 2013 on the above subject.

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

13-03243
20 Dec 2013

Rec. no.	Recommendation	Critical[1]/ Important[2]	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
1	OICT should: (i) develop an organization-wide ICT service management strategy and ICT support policy within the new ICT strategy being developed; and (ii) implement ICT service management processes for help desk operations (i.e. design and transition of new and changed services, service level management, capacity management, information security management, service continuity and availability management, change, release and configuration management, service reporting, etc.).	Important	Yes	Chief, Infrastructure Management Service, OICT	31 July 2015	OICT will include the ICT Service Management Strategy in the new ICT Strategy that will be presented by DM to the General Assembly in 2014 and OICT will request the necessary resources to implement the Service Management Strategy in the next budget cycle. Relevant ERP issues will be incorporated into the Secretary-General's sixth Progress Report on the ERP (Umoja) project.
2	DM, in coordination with DFS, should evaluate and document the help desk staffing requirements in line with the transition plan from the old systems to Umoja.	Important	Yes	Project Management Officer, OICT	31 January 2017	OICT will coordinate with DFS and Umoja to evaluate and document the help desk staffing requirements in line with the transition plan from the old system to Umoja.
3	OICT, in coordination with other ICT Offices at UNHQ, should define a single point of contact and standard escalation procedures for reporting problems.	Important	Yes	Chief, Infrastructure Management Service, OICT	30 June 2015	OICT will define a single point of contact and procedures; and communicate the contact information and procedures to other ICT offices at UNHQ.

[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
	ICT service level agreement.					templates, and collaborate with other ICT service providers at UNHQ and in OAHs. OICT will also initiate a request for standardization to the Architecture Review Board for service definition criteria and Service Catalogue templates.
8	OICT, in coordination with other ICT offices at the UNHQ, should: (i) establish an ICT standard for implementing a configuration management database to be used in all ICT offices; and (ii) coordinate its implementation across the UNHQ.	Important	Yes	Chief, Infrastructure Management Service, OICT	31 March 2015	OICT will establish an ICT standard for implementing a configuration management database and communicate to all ICT offices regarding the ICT standard.
9	OICT, in coordination with the other ICT offices at the UNHQ and the Umoja Office, should: (i) review the ICT service dependencies and establish operational level agreements to ensure that a documented commitment is in place for providing consistent and coordinated ICT service support; and (ii) define service response and resolution time objectives of the respective parties, and performance reporting templates and their frequency.	Important	Yes	Chief, Infrastructure Management Service, OICT	31 July 2015	OICT will coordinate with other ICT offices at UNHQ to implement the recommended actions and the Umoja Office will coordinate the development of Umoja- related operational level agreements.
10	OICT should: (i) establish help desk policies for ICT service reporting that includes performance of services against service level targets; and (ii)	Important	Yes	Chief, Service Desk Operations Section, OICT	31 October 2014	OICT will implement the recommended actions.

Rec. no.	Recommendation	Critical[1]/ Important[2]	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
4	DM, in collaboration with relevant ICT offices at UNHQ supporting departmental applications, should assess whether the applications currently not supported by help desk systems can and should be tracked by the iNeed system.	Important	Yes	Chief, Service Management Systems Section, OICT	31 October 2014	OICT will complete the application assessment project and use the application assessment results to identify applications of departments which are candidates to utilize iNeed. OICT will communicate to the departments the availability of iNeed for them to use, along with implementation steps and costs.
5	OICT should establish standard criteria for incident and request categorization and prioritization to record and monitor issues for all enterprise services.	Important	Yes	Chief, Service Desk Operations Section, OICT	31 October 2014	OICT will establish standard criteria for incident and request categorization and prioritization to record and monitor issues for all enterprise services. Umoja will be consulted in regards to the ERP Application Service Catalogue.
6	OICT should: (i) standardize and disseminate ICT help desk procedures in accordance with the service desk best practices adopted by the OICT (ITIL); and (ii) support the implementation of a problem management process and common known errors database for all help desks and escalation groups.	Important	Yes	Chief, Service Desk Operations Section, OICT	31 March 2015	OICT will standardize and disseminate ICT help desk procedures in accordance with the service desk best practices adopted by the OICT (ITIL); and support the implementation of a problem management process and common known errors database for all help desks and escalation groups.
7	OICT, in coordination with other ICT offices of UNHQ, should: (i) specify the criteria for the definition of ICT services; and (ii) develop standard templates for ICT service catalog and	Important	Yes	Chief, Strategic Management Service, OICT	31 October 2014	OICT has already developed criteria for the definition of services, as well as templates for its own ICT Service Catalogue. OICT will share its experiences and

Rec. no.	Recommendation	Critical[1]/ Important[2]	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
	provide help desk performance reports to its clients for the services listed in its service catalog.					
11	OICT should complete the disaster recovery plan for iNeed and test it at least annually.	Important	Yes	Chief, Security and Architecture Section, OICT	31 December 2014	OICT will complete the disaster recovery plan for iNeed and test it at least annually.
12	OICT, in coordination with the Umoja Office, should document the functional specifications for the interface between iNeed and Umoja and build, test and implement the interface prior to the retirement of Procure+.	Important	Yes	Chief, Service Management Systems Section, OICT	31 December 2016	OICT will develop integration specifications with Umoja and conduct integration development work by Umoja and iNeed. OICT will test the integration and implement the interface prior to the retirement of Procure+.
13	OICT should conduct regular security and performance reviews of iNeed and take appropriate actions to mitigate the identified risks.	Important	Yes	Chief, Service Management Systems Section, OICT	30 June 2015	OICT will complete the implementation of iNeed infrastructure in Valencia and implement iNeed Disaster Recovery (DR) infrastructure in Brindisi. OICT will initiate Security review, evaluate Security review results and implement any security review recommendations.