



INTERNAL AUDIT DIVISION

REPORT 2018/055

Audit of the centralization of
information technology services at the
United Nations Office at Geneva

There are lessons to be learned from the
centralization and improvements to be made
in post-centralization operational
arrangements

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Audit of the centralization of information technology services at the United Nations Office at Geneva

EXECUTIVE SUMMARY

The Office of Internal Oversight Services (OIOS) conducted an audit of the centralization of information technology services at the United Nations Office at Geneva (UNOG). The objective of the audit was to assess the adequacy and effectiveness of governance, risk management and control processes regarding the effective management of centralization of information and communication technology (ICT) services in UNOG. The audit covered the period from 1 January 2015 to 31 December 2017 and included a review of: (a) the overall strategy to centralization at UNOG; and (b) consolidation of the Division of Conference Management (DCM) ICT services with the Regional Technology Centre for Europe (RTC-E), from the planning of the exercise to the post-merger period.

UNOG had established an appropriate strategy for centralization/consolidation of ICT services and efforts were ongoing to implement the strategy. Planning of the DCM consolidation was comprehensive and it was implemented in a timely manner. However, there are lessons to be learned from the centralization exercise and improvements to be made in the post-centralization operational arrangements.

OIOS made eight recommendations. To address issues identified in the audit, UNOG needed to:

- Review and update the Service Level Agreement between RTC-E and DCM;
- Review the level and sources of support that need to be provided to the Languages Service to ensure efficiency and effectiveness of such support;
- Finalize the iNeed catalog and develop and implement a client-focused training plan on the effective use of iNeed;
- Strengthen the management of staff transferred from DCM to RTC-E;
- Carry out a physical verification and reconciliation of inventory and review and clarify inventory-related roles and responsibilities;
- Ensure that DCM appoints focal points in its services and sections to liaise with RTC-E and to facilitate tracking and timely updating of asset records;
- Assess and document the benefits and lessons learned from the consolidation in DCM to inform future consolidation exercises; and
- Strengthen the role of the Service Delivery Manager to include overseeing the monthly monitoring meetings between RTC-E and DCM.

UNOG accepted the recommendations and has initiated action to implement them.

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Audit of the centralization of information technology services at the United Nations Office at Geneva

I. BACKGROUND

1. The Office of Internal Oversight Services (OIOS) conducted an audit of the centralization of information technology services at the United Nations Office at Geneva (UNOG).

2. In resolution 66/246, the General Assembly approved a review of all the information and communications technology (ICT) units in the Secretariat in relation to functions, positions and structure. Following the review and subsequent consultation across the Secretariat, it was proposed to further restructure the delivery of ICT services across the Organization and to streamline ICT systems and harmonize the ICT units. By 2014, the United Nations Secretariat globally had over 2,000 applications, 70 ICT units, over 130 ICT help desks, 44 data centres and 177 server rooms. Information and data environments at the United Nations had grown and proliferated in such a way that there was significant overlap, disconnect and redundancy of purpose. It was proposed that fragmentation be further addressed and overall delivery strengthened by harmonizing existing data processing functions and reducing the carbon footprint to align ICT development and delivery objectives with organizational priorities. The roadmap for harmonization was set out in a revised Secretariat-wide ICT strategy in 2014 (Secretary-General's report A/69/517). This harmonization is also known as the de-fragmentation, consolidation or centralization of ICT services.

3. The Information and Communications Technology Service of the UNOG Division of Administration was re-designated as the Regional Technology Centre-Europe (RTC-E) in line with the Secretariat-wide 2014 ICT strategy. RTC-E provides ICT services to the Secretariat's offices and programmes in Geneva. Services provided include maintenance of the UNOG network and data centre with 400 servers and about 2,600 work stations, management of approximately 7,000 fixed telephone connections, support provision to some 1,000 mobile phones, and support to around 1,700 video teleconferences per year, among other things. RTC-E also coordinates ICT-related issues with other United Nations entities through the Geneva ICT Board and promotes the use of industry-standard processes, such as Security Standard ISO 27000 and Change Management Standard ISO 20000, to ensure security, stability and robustness of its services. RTC-E is headed by a Chief at P-5 level and has 78 staff and 12 contractors. Of these, 54 were funded from the regular budget and the rest were funded by revenues received from cost recovery of services. RTC-E operates under three high-level structures: service delivery section, programme support unit and the strategic planning, policy and governance unit. Its budget for the 2016-2017 biennium was \$21.3 million.

4. The consolidation of ICT delivery and the elimination of fragmented systems and practices were strategic priorities included in the UNOG 2016-2018 ICT strategy. At the onset, UNOG expected to consolidate a total of 23 different ICT groups within UNOG Divisions and Services and other organizations administered by UNOG. Between 2014 and 2017, the UNOG Division of Conference Management (DCM) agreed to have part of its ICT services consolidated with RTC-E in line with the 2014 Secretariat-wide ICT strategy. DCM is responsible for ensuring that conference events are properly planned, scheduled and serviced at the Palais des Nations, one of the largest conference centres in Europe. The different DCM activities are supported by relevant ICT systems. Until April 2016, DCM had a dedicated ICT team of 32 people that provided the required support. Following the consolidation, on 1 April 2016, 14 DCM ICT staff and ICT assets (such as desktops, laptops, and tablets) were transferred to RTC-E.

5. Comments provided by UNOG are incorporated in italics.

II. AUDIT OBJECTIVE, SCOPE AND METHODOLOGY

6. The objective of the audit was to assess the adequacy and effectiveness of governance, risk management and control processes regarding the effective management of centralization of ICT services in UNOG.

7. This audit was included in the 2017 risk-based work plan of OIOS due to the risks associated with the centralization of ICT services, including the potential impact on service delivery.

8. OIOS conducted this audit from December 2017 to February 2018. The audit covered the period from 1 January 2015 to 31 December 2017. Based on an activity-level risk assessment, the audit covered risk areas in the centralization of ICT services in UNOG, which included review of: (a) the overall strategy/approach to centralization at UNOG; and (b) consolidation of the DCM ICT services with RTC-E, from the planning of the exercise to the post-merger period.

9. The audit methodology included: (a) interviews with key personnel; (b) review of relevant documentation and systems; (c) analytical review of data; and (d) physical observation.

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

III. AUDIT RESULTS

A. Strategic planning

UNOG had developed a strategy for the consolidation of ICT services

11. To centralize/consolidate ICT services for the 23 different IT groups served by RTC-E, a UNOG-level strategy and implementation plan needed to be in place for a more effective and efficient implementation of the consolidation exercise. UNOG had a 2016-2018 ICT strategy which focused on consolidation and aimed at operationalizing the global ICT strategy at the local level. It sought to lower costs, reduce the local operational footprint, adopt standard tools to eliminate duplication, improve information security, and enhance service delivery and communication with clients. The strategy also provided for mechanisms to facilitate consolidation, such as: establishment of ICT governance structures; changing the RTC-E structure to make it agile and suitable for consolidation; and training of managers and staff.

12. Though yet to be fully achieved, the consolidation of all target offices was desirable to realize full economies of scale and expected benefits. RTC-E had made some progress towards this goal; it maintained a comprehensive spreadsheet documenting the centralization status of all the entities it served, including the work undertaken to date and activities that remained to be done. At the time of the audit, the Office for the Coordination of Humanitarian Affairs had been consolidated and the UNOG Central Support Service and the Security and Safety Service were entering the final phase of the consolidation process. Discussions were ongoing with the United Nations Conference on Trade and Development (UNCTAD), the Office of the High Commissioner for Human Rights (OHCHR), and the Economic Commission for Europe (ECE). Discussions with ECE were at an advanced stage, and specifics of the aspects that were to be consolidated were being considered. UNCTAD and OHCHR were yet to commit to the desktop infrastructure consolidation (also known as Unite desktop). Overall, discussions on the mapping of services, mapping of ICT roles and assessment of investment, among other parameters, had fully commenced with ten offices or entities, and had partially commenced with nine more, while the remaining offices or entities had undergone

high-level service mapping. The status of the consolidation exercise was periodically monitored by the ICT governance committee set up in accordance with the 2016-2018 UNOG strategic plan.

13. Based on the above, OIOS concluded that UNOG had established an appropriate strategy for consolidation of ICT services, and efforts were on to implement the strategy.

B. Planning and implementation of ICT consolidation in DCM

Planning of the DCM consolidation was comprehensive and was done in a timely manner

14. For an effective and timely centralization of selected components of the DCM ICT function, planning needed to be timely and effective. At global level, the consolidation was initiated by the Department of General Assembly and Conference Management (DGACM) which, in consultation with the Office of Information and Communications Technology came up with a plan titled "DGACM Consolidation Initiative of ICT Resources Operational Transition Plan". The plan recommended the consolidation of common functions such as helpdesk, infrastructure and desktop support and set 4 April 2016 as the date of consolidation. In UNOG, DCM drove the planning and implementation, which was jointly executed by DCM and RTC-E. A joint transition board was set up. DCM provided a transition manager to represent its interests in the process, with clear terms of reference, while RTC-E provided various focal points for set up and execution. UNOG also established a working group comprising selected managers and senior staff from DCM and RTC-E to monitor weekly progress and to make immediate operational decisions as necessary. DCM shared with RTC-E a catalogue of services it used to receive from its in-house ICT team before the consolidation, with the expectation that RTC-E would provide the same or better services.

15. A commonalities and specificities study was undertaken to explore ways of integration and aggregation of resources to achieve better services, compliance with ICT policies, and economies of scale. The study identified similarities and differences, and served as a blue print for deciding on areas to consolidate. During implementation of the plan, the transition manager produced a total of 46 weekly reports which highlighted the progress, achievements and challenges encountered until early 2017. These reports were presented to the DCM/RTC-E working group and the transition board for action. The consolidation was completed on 4 April 2016 as planned. However, execution, of some elements of the merger were delayed due to unforeseen complexities and limited resources on both sides, and some remained in progress at the time of the audit. Overall, OIOS concluded that the planning of the exercise facilitated timely and effective consolidation despite the unforeseen complexities. The deficiencies noted in implementation of the consolidation, which are discussed later in the present report, are lessons learned that can be used to inform similar exercises in future.

The service level agreement needed to be reviewed following the consolidation

16. Services provided by RTC-E to DCM were governed by a service level agreement (SLA) which, among other things, stipulated the services provided, their costs and performance indicators, and roles and responsibilities for both parties. However, the SLA established in 2010 was outdated and did not take into account the post-consolidation situation. Consequently, the arrangements for the provision of ICT services post-consolidation were not adequately addressed and clarified.

17. To begin with, the consolidation of ICT services between DCM and RTC-E was premised on the expectation that DCM service levels that existed before the consolidation would be either maintained or improved at the same or lower cost. To facilitate this, the transition team elaborately documented in a service catalogue the services DCM received prior to the consolidation. While these were included in the project plan, ultimately some of the services DCM used to receive prior to the consolidation were not

available post-consolidation. Notable among the affected services was the need to maintain a library of software to be used, distributed, loaned and returned and the need to provide software updates, license renewals and to track software assignments. Failure to track software licences could result in unnecessary expenditure to acquire new licences before fully utilizing existing ones. There was a need to update the SLA to clearly reflect the services RTC-E provides after the consolidation.

18. Secondly, considering the transformed nature of the two offices after consolidation, the roles and responsibilities needed to be redefined and clarified in the SLA. For example, since DCM-funded staff members who had moved to RTC-E were still paid from DCM's budget, it was not clear who was responsible for their replacement in the event of a vacancy. Greater clarity of the roles and responsibilities in the recruitment process was needed. Also, since RTC-E managed ICT assets on behalf of DCM after the consolidation, the roles and responsibilities with regard to asset management needed to be clearly spelled out in the SLA.

19. Similarly, performance indicators and how they would be monitored needed to be reviewed and clarified in the SLA. Among other things, there was a need for RTC-E's response and issue resolution times to be clearly specified in the SLA and agreed upon by both parties. After the consolidation exercise, both DCM and RTC-E undertook surveys. However, the surveys could not be relied upon because they were incomparable and did not measure identical parameters. The possibility of undertaking joint surveys needed to be explored, and the arrangements for conducting, reporting and monitoring the survey results or other feedback mechanisms needed to be agreed upon.

20. Further, there was a need for enhanced clarity with regard to services billed. DCM needed to know in greater detail what they were paying for than what was reflected in the 2017 provisional bill of \$2.5 million reviewed by OIOS. Among other things, DCM specifically sought clarity on the following services billed:

- Network attached storage (2 GB NAS) and Directory Management Services;
- Email and collaboration, Value Service Package;
- Additional Mail Storage (beyond 1 GB per individual user);
- Email archive;
- Mailbox Back-up (beyond 1 GB per individual user);
- Software License Management - Lotus Notes Client;
- Remote access, Value Service Package;
- Physical Server Hosting; and
- Unified Communications (non-staff cost only) plus communications.

21. In a report by the transition team dated 11 January 2017, review of the SLA was one of the key tentative activities for 2017. While the review was briefly discussed in a monthly monitoring meeting on 6 September 2017, the matter was not pursued in subsequent meetings, and the SLA in use remains the outdated version of 2010.

(1) UNOG should review and update the service level agreement between the Regional Technology Centre-Europe and the Division for Conference Management to clearly and fully reflect: (a) the services to be provided and billed post-consolidation; (b) roles and responsibilities; and (c) key performance indicators necessary to measure the efficiency and effectiveness of the services.

UNOG accepted recommendation 1 and stated that the recommendation entails the following: (i) review of RTC-E service catalogue and gap analysis with DCM catalogue of expected services after

consolidation; (ii) design of new services provided to DCM including service descriptions with roles and responsibilities and key performance indicators; (iii) update full time equivalent distribution and rate cards; (iv) review and update the memorandum of understanding (including formal sign-off) with new services and rate cards; and (v) issue yearly bill with new services and rate cards. Recommendation 1 remains open pending receipt of evidence that the SLA has been reviewed and updated.

The level and sources of support to the Languages Service needs to be reviewed

22. At the time of the audit, the Languages Service supported 476 staff members in terms of basic day-to-day first-line ICT technical support. The Service faced a number of challenges as explained below.

i) Desktop image support

23. Due to the System Centre Configuration Manager introduced at the time of the consolidation, it was no longer possible to automate the process of setting up different language environments on desktops. In the post-consolidation period, the Languages Service received the basic desktop image (in English only) and had to complete the installation of language environments manually to customize the desktop to each language, which was time-consuming and laborious. In part, these challenges arose because of the change of technology Secretariat-wide, following the end of support for Windows XP and migration to Windows 7. However, RTC-E and DCM needed to jointly explore a mechanism for addressing this situation.

ii) Helpdesk support

24. Prior to consolidation, the Languages Service had direct contact with DCM technicians to resolve issues promptly. After the consolidation, users were required to raise a ticket either through self-service in iNeed or through the Help Desk via phone call or e-mail. The tickets were queued with other RTC-E clients, and RTC-E technicians worked with the queue based on priority.

25. The Languages Service also indicated that RTC-E technicians sometimes closed tickets without resolving the issue or contacting the user. Prior to the consolidation, dedicated DCM technicians had knowledge of the personal computer environment of users in the Languages Service. This facilitated speedy resolution of issues which, after the consolidation, no longer seemed to be the case. Tickets were said to have been closed because RTC-E technicians did not understand the user environment. For example, in one instance, a user requested read/write access to a shared folder but since users did not know the full path, this ticket was closed without resolution or consultation.

iii) Management of applications on server and server-based systems

26. A few applications running on the server (Trados, DTSearch, Scheduled Process of AlignFactory) and systems like Jira and Confluence were managed by DCM staff prior to consolidation. After these staff merged with RTC-E, they no longer provided dedicated support because they became part of the RTC-E technician pool which distributed its services to all RTC-E clients. On a few occasions when the server had been down after the consolidation, the Languages Service was unable to obtain help in a timely manner. RTC-E explained that this was compounded by the fact that there was no formal handover of servers when implementing the consolidation.

iv) Support that matches hours of operations in the Languages Service

27. The Languages Service's working hours were outside the regular RTC-E support hours which are from 8:00 a.m. to 6:00 p.m. Most text-processing staff worked in two shifts from 7:00 a.m. to 7:00 p.m.

Before the consolidation, the Languages Service had arrangements to fully support the working hours of its staff. After the consolidation, they are not able to receive any support unless the problem occurs within the working hours of RTC-E. RTC-E explained that initially, it used to provide such support from 8:30 a.m. to 6:00 p.m. but changed the hours to 8:00 a.m. to 6:00 p.m. to accommodate DCM's needs.

28. The gaps and deficiencies noted arose because at the time of the consolidation, the Languages Service's unique needs were not fully assessed. To effectively support the special ICT needs of the Languages Service, the support needed to be tailored to its unique circumstances.

(2) UNOG should review the level and sources of support that need to be provided to the Languages Service to ensure efficiency and effectiveness of such support.

UNOG accepted recommendation 2 and stated that identification of the Languages Service's specific tasks and future support model were in progress. Recommendation 2 remains open pending receipt of the final results of the on-going review of the level of support that needs to be provided to the Languages Service.

Need to review service catalogues and develop client-focused iNeed user training

29. Prior to the consolidation, DCM had its own ticketing system (Open-source Ticket Request System) with which it could generate useful reports to determine the functions that raised more tickets and needed extra attention. DCM was also able to monitor tickets that were taking too long to resolve and escalate/prioritize them. After the consolidation, DCM switched to iNeed which is a Secretariat-wide system for managing user requests and ICT support tickets. The following concerns were noted:

- (a) The iNeed self-service catalogue did not have some of the services DCM users needed; and
- (b) Clients could not generate reports on their own. As a result, DCM could not monitor areas that raised more tickets, which meant they could not explore long-lasting solutions to address them. In addition, DCM could not indicate the sum total of tickets that remained unresolved. RTC-E generated reports on behalf of clients on a monthly basis, but there were indications that DCM was not satisfied with the reports provided.

30. RTC-E indicated that it was fully aware of the challenges faced by users and action was underway to address them. Through discussions and a walk-through exercise, OIOS noted that RTC-E, in consultation with users: (a) planned to revamp the service catalogues in iNeed to include the services required by DCM and make the service catalogues as generic as possible; (b) initiated action to address the reporting aspect of iNeed so that clients could generate reports relevant to their needs; and (c) provided group training to the Languages Service's technicians.

31. Despite this, there were gaps with regard to the roll-out of iNeed to the user community. There was no evidence that all iNeed users had undertaken the online training available on the intranet (iSeek) to ensure they fully understood how to use it. Also, the iNeed focal point in RTC-E was newly recruited and needed time to organize face-to-face training with users. There was a need to develop and implement a training and communication plan to help ensure timely and effective user understanding and acceptance of the system.

(3) UNOG should: (a) finalize the iNeed catalog and ensure that the Division of Conference Management's support processes are clearly and fully reflected in the catalogue; and (b) develop and implement a client-focused training plan on the effective use of iNeed.

UNOG accepted recommendation 3 and stated that part (a) of the recommendation is part of the activities described in recommendations 1 and 2. Part (b) of the recommendation is to be discussed and planned. Recommendation 3 remains open pending receipt of evidence that the iNeed catalog has been finalized and a client-focused training plan developed on the effective use of iNeed.

Gaps in human resources management need to be addressed

32. A key feature of the DCM consolidation was the transfer of 14 posts from DCM to RTC-E, even though the budget for these posts remained with DCM. The UNOG Human Resources Management Service (HRMS) stated that job descriptions with more than 30 per cent changes needed to be re-classified. At the time of the audit, two DCM-funded staff members had significant changes to their duties and responsibilities. The remaining staff had additional duties and changes in the way they carried out their responsibilities. Prior to the consolidation, the transition team prepared new terms of reference for the affected staff members. However, neither DCM nor RTC-E formally approved these terms of reference, and neither of them contacted HRMS for assessment and possible reclassification of the posts. As a result, some of the DCM-funded staff members were carrying out duties and responsibilities that were not aligned with their official job descriptions.

33. In addition, attention was required with regard to time and attendance management. With the introduction of Umoja in November 2015, staff members have to request for leave through Umoja. Officially designated time-keepers and supervisors in the office oversee time and attendance issues. DCM granted RTC-E managers approval authority over RTC-E staff, but no rights were granted to the RTC-E's official time-keeper. This meant that the designated official time-keeper in RTC-E did not have visibility of the DCM-funded staff members in Umoja. As a result, in order to reconcile leave, the RTC-E's official time-keeper had to engage the help of DCM's Human Resources Assistant to produce the leave requests in Umoja of the affected staff members. Not all leave requests in Umoja were approved, leading to errors in the annual leave balances of up to 15 days. Further, DCM-funded staff members were not appropriately mapped in Umoja to their supervisors in RTC-E; some of the leave supervisors in Umoja were not the actual supervisors of the staff, which created issues in leave management. Though the incorrect mapping was a general problem in the earliest days of Umoja implementation, the situation was yet to be rectified at the time of the audit. These deficiencies could be attributed to the omission by both DCM and RTC-E to involve HRMS in the multifunctional working group that oversaw the consolidation.

34. OIOS also reviewed the process of the transfer of staff and established that both DCM and RTC-E invested a substantial amount of time to prepare the affected staff members for their move from DCM to RTC-E. The transition team organized team-building activities and information sessions to prepare staff members for the change. However, despite these efforts, there were signs that DCM-funded staff members still faced challenges to fit into the RTC-E team. The staff complained about inordinate amounts of time spent on processing work orders and requests for service and also the time it took to install a new user by providing a personal computer imaged with Windows and Lotus Notes accounts and configuration settings. RTC-E explained that its business model was aligned to the global model of ICT service delivery in the Secretariat, and could thus not be significantly altered to accommodate the expectations of DCM-funded staff. DCM-funded staff raised the concern that they felt they had little say in the affairs of their new office, and their skills were not valued. OIOS is of the view that there is need to ensure better cohesion between the DCM-funded staff and their RTC-E colleagues to optimize their productivity.

(4) UNOG should strengthen the management of staff transferred from the Division of Conference Management to the Regional Technology Centre-Europe (RTC-E) by: (a) reviewing and updating the mapping of staff in Umoja to appropriate supervisors and the official time keeper in RTE-C; (b) updating the job descriptions of staff where applicable; and (c) enhancing cohesion among the staff to optimize their productivity.

UNOG accepted recommendation 4 and stated that part (a) of the recommendation is in progress. RTC-E time managers will have to be granted access to DCM cost centres. Part (b) is also in progress. RTC-E is collecting job descriptions and doing a gap analysis. With regard to part (c) of the recommendation, Unit retreats are planned for the second quarter of 2018. Additional team building exercises will be planned for June and October 2018. Recommendation 4 remains open pending receipt of evidence that: (a) Umoja records of staff transferred from DCM to RTC-E have been updated to reflect correct supervisors and time keepers; (b) job descriptions of the staff have been updated where applicable; and (c) action has been taken to enhance cohesion among the staff to optimize productivity.

Action is required to ensure clean and reliable asset data

35. According to UNOG ST/Geneva/OI/176 on property management and inventory control, each head of office is responsible and accountable for creating, maintaining and updating their property and inventory control records, monitoring the movement of their property, recommending the disposal of obsolete and unserviceable property and conducting periodic physical inventories. At the time of the consolidation, DCM transferred substantive aspects of the management of its assets, such as the receiving, recording, maintenance of inventory, issuing, conducting physical verification, tracking and initiating action for the write-off of obsolete assets, to RTC-E because staff who were responsible for management of assets had moved to RTC-E, and DCM no longer had the capacity to fully manage the assets on its own. According to an asset verification that took place prior to the audit, the assets involved were: 990 desktops, 487 laptops, 1,883 monitors, 622 printers, 69 tablets and other assets, totaling 4,340 items.

36. OIOS noted that asset records were not reliable and tracking of their movements was inadequate. The situation arose because during the consolidation, no physical verification and reconciliation of assets was done. The software library was also not properly handed over to RTC-E. Also, roles and responsibilities for asset management were not clearly defined. For instance, the Property Management Support Unit (PMSU) in the Central Support Service of UNOG was not informed of the asset transfer at the time it occurred. In subsequent memos, there was confusion as to who was responsible for keeping PMSU informed, but this had been resolved during the audit. In addition, as required by the information circulars on property management, there was a need to appoint several focal points within services and sections of DCM to keep RTC-E updated on asset movements. This would facilitate tracking of ICT assets and prompt updating of asset records.

37. As part of the efforts to address the gaps, RTC-E was implementing a project to develop an asset management tool, building on what was initially used by DCM. OIOS noted that the project's governance framework assigned to DCM as a key stakeholder the role of providing "inputs on the testing, transition and sign off into production of the solution." While one consultative meeting had taken place, the involvement of DCM was minimal. Inadequate consultation could result in developing a solution that may not be satisfactory to DCM. Since the first phase of work on development of the tool had already been completed at the time of the audit and a second phase was about to commence, there was need for greater consultation between RTC-E and DCM to ensure that key aspects of asset management, such as inventory reporting and tracking of software licenses, were fully considered and included. Further, there was need to conduct a joint physical verification and reconciliation to ensure that the data was reliable.

(5) UNOG should: (a) carry out a physical verification and reconciliation of inventory before the records are transferred to the new asset management tool; (b) review and clarify inventory-related roles and responsibilities; and (c) ensure that the Division of Conference Management is involved in the development of the new asset management tool.

UNOG accepted recommendation 5 and stated that implementation of part (a) of the recommendation was on-going. The first batch of 2,000 items had been done. Implementation of part (b) was also on-going. Terms of reference were being drafted and a training schedule was planned for the second quarter of 2018. Part (c) of the recommendation was fully implemented. The Project Board meeting requested a 'sign-off' of the 'Service' and its tools in March 2018. Recommendation 5 remains open pending receipt of evidence that a physical verification and reconciliation of inventory has been conducted and inventory related roles and responsibilities have been clarified.

(6) The UNOG Division of Conference Management should appoint focal points in its services and sections to liaise with the Regional Technology Centre-Europe and facilitate tracking and timely updating of asset records.

UNOG accepted recommendation 6 and stated that implementation was in progress. Recommendation 6 remains open pending receipt of evidence that focal points for asset management have been appointed and communicated to RTC-E.

Lessons learned and benefits realized from consolidation need to be documented

38. At the time of the audit, the benefits realized from consolidation were yet to be documented. As a result, there was lack of clarity as to its achievements and benefits. Anecdotes of the financial benefits included an annual saving by DCM of about \$48,000 through license cuts for the virtual machines management system, software deployment and the printer management system, among others. RTC-E informed OIOS that benefits were also delivered in the form of three posts returned to DCM (a 21 per cent reduction in staff), as well as a 10 per cent reduction in the cost of the desktop service that applied to all the 2,600 users across UNOG. Operational benefits included RTC-E's enhanced capacity for versatility during staff leave and workload peaks due to a larger pool of staff members. A formal lessons-learned exercise had not been conducted. Since the consolidation of other entities in UNOG was ongoing and some of them were in the early stages, consolidation efforts could benefit from identifying and documenting lessons learned from DCM.

(7) UNOG should assess and document the benefits and lessons learned from the consolidation in the Division of Conference Management to inform future consolidation exercises.

UNOG accepted recommendation 7 and stated that a preliminary report will be reviewed by a DCM/RTC-E team. Recommendation 7 remains open pending receipt of the report on benefits and lessons learned from the DCM consolidation exercise.

Need for effective monitoring of post-consolidation activities

39. At the end of the consolidation project (end of 2016), the following actions were slated for implementation in 2017:

- Oracle database consolidation;
- iNeed self-service and new support channels;
- Asset tracking system;
- Unified personal computing;
- Processes alignment;
- Merge of common platforms (Confluence, JIRA);
- Phase-out legacy applications + Simplify the underlying set of servers;

- SLA review/update;
- Hardware refreshes;
- Office 365;
- Unite Docs; and
- Monitoring and continuous communication.

40. Arrangements were in place to have monthly monitoring meetings after the consolidation. These meetings started in September 2017 (about nine months after the end of the consolidation) and have occurred regularly since. OIOS is of the view that the meetings should have started immediately to ensure that issues arising during implementation were addressed in a timely manner. Further, no mechanism was put in place to report the progress made during post-implementation. It was not clear how many of the activities had been completed in 2017 as planned and how many remained outstanding. This also meant that there was no way to know the action planned for activities that remained incomplete by the end of 2017. Further, discussions with RTC-E and DCM showed that there were inadequate procedures for resolving emerging operational issues.

41. To ensure effective service delivery, RTC-E included in its structure the post of Service Delivery Manager (SDM) whose role included, among others, defining and managing service levels and contractual agreements, and implementing the RTC-E ICT strategy. There was need to strengthen the role of the SDM to address the deficiencies noted in monitoring the progress of activities and resolving emerging operational issues. The SDM, as the focal point, needs to be kept apprised of interactions between DCM and RTC-E. Further, DCM needed to promptly communicate to the SDM the status of service delivery, including pending issues and expectation gaps.

(8) UNOG should strengthen the role of the Service Delivery Manager to include overseeing the monthly monitoring meetings with the Division of Conference Management, tracking the progress made in implementing the agreed actions, and procedures for resolving issues.

UNOG accepted recommendation 8 and stated that the SDM in this context is the Client Relations team leader. New/clear terms of reference for this role need to be drafted in the context of the new structure. Recommendation 8 remains open pending receipt of evidence that the role of the SDM has been strengthened as recommended.

IV. ACKNOWLEDGEMENT

42. OIOS wishes to express its appreciation to the management and staff of UNOG for the assistance and cooperation extended to the auditors during this assignment.

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STATUS OF AUDIT RECOMMENDATIONS

Audit of the centralization of information technology services at the United Nations Office at Geneva

Rec. no.	Recommendation	Critical ¹ / Important ²	C/ O ³	Actions needed to close recommendation	Implementation date ⁴
1	UNOG should review and update the service level agreement between the Regional Technology Centre-Europe and the Division for Conference Management to clearly and fully reflect: (a) the services to be provided and billed post-consolidation; (b) roles and responsibilities; and (c) key performance indicators necessary to measure the efficiency and effectiveness of the services.	Important	O	Receipt of evidence that the service level agreement has been reviewed and updated.	30 November 2018
2	UNOG should review the level and sources of support that need to be provided to the Languages Service to ensure efficiency and effectiveness of such support.	Important	O	Receipt of the final results of the on-going review of the level of support that need to be provided to the Languages Service.	30 November 2018
3	UNOG should: (a) finalize the iNeed catalog and ensure that the Division of Conference Management's support processes are clearly and fully reflected in the catalogue; and (b) develop and implement a client-focused training plan on the effective use of iNeed.	Important	O	Receipt of evidence that the iNeed catalog has been finalized and a client-focused training plan developed on the effective use of iNeed.	30 November 2018
4	UNOG should strengthen the management of staff transferred from the Division of Conference Management to the Regional Technology Centre-Europe (RTC-E) by: (a) reviewing and updating the mapping of staff in Umoja to appropriate supervisors and the official time keeper in RTE-C; (b) updating the job descriptions of staff where applicable; and	Important	O	Receipt of evidence that: (a) Umoja records of staff transferred from DCM to RTC-E have been updated to reflect correct supervisors and time keepers; (b) job descriptions of the staff have been updated where applicable; and (c) action has been taken to enhance cohesion among the staff to optimize productivity.	31 December 2018

¹ Critical recommendations address critical and/or pervasive deficiencies in governance, risk management or control processes, such that reasonable assurance cannot be provided with regard to the achievement of control and/or business objectives under review.

² Important recommendations address important (but not critical or pervasive) deficiencies in governance, risk management or 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 UNOG in response to recommendations.

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	(c) enhancing cohesion among the staff to optimize their productivity.				
5	UNOG should: (a) carry out a physical verification and reconciliation of inventory before the records are transferred to the new asset management tool; (b) review and clarify inventory-related roles and responsibilities; and (c) ensure that the Division of Conference Management is involved in the development of the new asset management tool.	Important	O	Receipt of evidence that a physical verification and reconciliation of inventory has been conducted and inventory related roles and responsibilities clarified.	31 December 2018
6	The UNOG Division of Conference Management should appoint focal points in its services and sections to liaise with the Regional Technology Centre-Europe and facilitate tracking and timely updating of asset records.	Important	O	Receipt of evidence that focal points for asset management have been appointed and communicated to RTC-E.	31 December 2018
7	UNOG should assess and document the benefits and lessons learned from the consolidation in the Division of Conference Management to inform future consolidation exercises.	Important	O	Receipt of the report on benefits and lessons learned from the DCM consolidation exercise.	31 December 2018
8	UNOG should strengthen the role of the Service Delivery Manager to include overseeing the monthly monitoring meetings with the Division of Conference Management, tracking the progress made in implementing the agreed actions, and procedures for resolving issues.	Important	O	Receipt of evidence that the role of the Service Delivery Manager has been strengthened as recommended.	31 July 2018

APPENDIX I

Management Response

Management Response

Audit of the centralization of information technology services at the United Nations Office at Geneva

Rec. no.	Recommendation	Critical ¹ / Important ²	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
1	UNOG should review and update the service level agreement between the Regional Technology Centre-Europe and the Division for Conference Management to clearly and fully reflect: (a) the services to be provided and billed post-consolidation; (b) roles and responsibilities; and (c) key performance indicators necessary to measure the efficiency and effectiveness of the services.	Important	Yes	Chief RTC-E and Chief, Production and Support Service, DCM.	November 2018	The implementation of this recommendation entails the following: 1. Review of RTC-E service catalogue - gap analysis with DCM catalogue of expected services after consolidation (RTC-E and DCM) 2. Design of new services provided to DCM including service descriptions with roles and responsibilities and KPIs (RTC-E and DCM). 3. Update FTE distribution and rate cards (RTC-E). 4. Review and update MoU (including formal sign-off) with new services and rate cards (RTC-E). 5. Issue yearly bill with new services and rate cards (RTC-E).
2	UNOG should review the level and sources of support that need to be provided to the Languages Service to ensure efficiency and effectiveness of such support.	Important	Yes	Chief RTC-E and Chief Production and Support Service, DCM.	November 2018	Included in point 2 above. Identification of LSU specific tasks and future support model – in progress.
3	UNOG should: (a) finalize the iNeed catalog and ensure that the Division of Conference Management's support processes are clearly and fully reflected in the catalogue; and (b) develop and implement a client-focused training plan on the effective use of iNeed.	Important	Yes	Chief RTC-E	November 2018	a) This recommendation is part of the activities described in Rec. 1 point 1 and 2. (b) To be discussed and planned.

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4	UNOG should strengthen the management of staff transferred from the Division of Conference Management to the Regional Technology Centre-Europe (RTC-E) by: (a) reviewing and updating the mapping of staff in Umoja to appropriate supervisors and the official time keeper in RTE-C; (b) updating the job descriptions of staff where applicable; and (c) enhancing cohesion among the staff to optimize their productivity	Important	Yes	Chief RTC-E	December 2018	<p>a) In progress by RTC-E. DCM to accept that RTC-E time managers will have to be granted access to DCM cost centers.</p> <p>(b) In progress. RTC-E collecting JDs and doing a gap analysis. DCM to request job classifications if needed. DCM ITS staff job descriptions will also be reviewed.</p> <p>(c) Units retreats are planned for Q2 2018. Additional team building exercises will be planned for June and October. (RTC-E).</p>
5	UNOG should: (a) carry out a physical verification and reconciliation of inventory before the records are transferred to the new asset management tool; (b) review and clarify inventory-related roles and responsibilities; and (c) ensure that the Division of Conference Management is involved in the development of the new asset management tool.	Important	Yes	Chief RTC-E	December 2018	<p>In progress:</p> <p>(a) On-going, part of the Asset Management project scope. First batch of 2,000 items done.</p> <p>(b) On-going, part of the project scope. Individuals identified. ToRs being drafted and training schedule for Q2 2018</p> <p>(c) Done. Project Board meeting requested 'sign-off' of the 'Service' and its tools on March 2018</p>
6	The UNOG Division of Conference Management should appoint focal points in its services and sections to liaise with the Regional Technology Centre-Europe and facilitate tracking and timely updating of asset records.	Important	Yes	Chief, Production and Support Service, DCM.	December 2018	In progress.

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7	UNOG should assess and document the benefits and lessons learned from the consolidation in the Division of Conference Management to inform future consolidation exercises.	Important	Yes	Chief RTC-E and Chief, Production and Support Service, DCM.	December 2018	A preliminary report will be reviewed by a DCM/RTC-E team
8	UNOG should strengthen the role of the Service Delivery Manager to include overseeing the monthly monitoring meetings with the Division of Conference Management, tracking the progress made in implementing the agreed actions, and procedures for resolving issues.	Important	Yes	Chief, RTC-E	July 2018	The 'RTC-E's Service Delivery Manager' in this context is the Client Relations team leader. New/clear ToRs for this role need to be drafted in the context of the new structure. (RTC-E and DCM).

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² Important recommendations address important (but not critical or pervasive) deficiencies in governance, risk management or control processes, such that reasonable assurance may be at risk regarding the achievement of control and/or business objectives under review.