

INTERNAL AUDIT DIVISION

REPORT 2015/062

Audit of the implementation of information technology projects to support integrated global management of conference services at the United Nations

Overall results relating to effective management of information technology projects to support integrated global management of conference services at the United Nations were partially satisfactory. Implementation of six important recommendations remains in progress.

FINAL OVERALL RATING: PARTIALLY SATISFACTORY

24 June 2015 Assignment No. AH2014/550/01

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AUDIT REPORT

Audit of the implementation of information technology projects to support integrated global management of conference services at the United Nations

I. BACKGROUND

1. The Office of Internal Oversight Services (OIOS) conducted an audit of the implementation of information technology projects to support the integrated global management of conference services at the United Nations.

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. In December 2001, the General Assembly in its resolution 56/253 requested the Secretary-General to ensure that conference services were managed in an integrated manner throughout all duty stations in the Organization. The Department for General Assembly and Conference Management (DGACM) launched an information technology global initiative in 2006 to bring about closer collaboration and interaction among the four duty stations that were principally engaged in managing conference services in New York, Geneva, Vienna and Nairobi. The initiative involved developing three information technology systems relating to: (a) integrated global reporting (statistical warehouse); (b) meetings planning and servicing; and (c) documentation planning and processing. These projects were rebranded as global projects in 2010 as gData, gMeets and gDoc respectively. DGACM launched another global project to develop a system for translation, gText, in 2013.

4. The gMeets project was completed in October 2011 and was being used by the four duty stations. The gDoc system was rolled out in New York and Geneva in May 2014, while the gText system was rolled out to the four duty stations between January and December 2014. The gData project was also completed in December 2014. According to DGACM, total expenditure of \$9.4 million was incurred on the all four projects between January 2010 and June 2014.

5. Comments provided by DGACM are incorporated in *italics*.

II. OBJECTIVE AND SCOPE

6. The audit was conducted to assess the adequacy and effectiveness of DGACM governance, risk management and control processes in providing reasonable assurance regarding **effective management of information technology projects to support integrated global management of conference services at the United Nations**.

7. The audit was included in the 2014 OIOS work plan in response to a request by DGACM and considering the risks related to the information technology projects that support the integrated global management of conference services.

8. The key control tested for the audit was project management capacity. For the purpose of this audit, OIOS defined project management capacity as controls that provide reasonable assurance that there

was sufficient capacity to implement the global information technology projects. This includes a proper project management governance structure and appropriate project management methodologies and tools.

9. The key control was assessed for the control objectives shown in Table 1.

10. OIOS conducted this audit from June to December 2014. The audit covered the period from January 2010 to June 2014.

11. 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.

III. AUDIT RESULTS

12. The DGACM governance, risk management and control processes examined were initially assessed as **partially satisfactory**¹ in providing reasonable assurance regarding **effective management of information technology projects to support integrated global management of conference services at the United Nations**. OIOS made six recommendations in the report to address issues identified in the audit. The high-level business cases for the projects were not reviewed by the Project Review Committee to ensure that the proposed systems were in alignment with relevant information and communication technology (ICT) standards. There were delays in completing the gDoc project, partly due to the absence of an effective global ICT governance mechanism. There was a need to improve monitoring of project expenditures to ensure proper cost control. There was also a need to ensure business cases for information technology projects included an indication of the benefits to be derived from proposed systems and to develop a plan to realize these benefits.

13. 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 six important recommendations remains in progress.

	ol objectives	jectives					
Business objective	Key control	Efficient and effective operations	Accurate financial and operational reporting	Safeguarding of assets	Compliance with mandates, regulations and rules		
Effective management of	Project	Partially	Partially	Partially	Partially		
information technology	management	satisfactory	satisfactory	satisfactory	satisfactory		
projects to support the	capacity						
integrated global							
management of conference services at the United							
Nations							
FINAL OVERALL RATING: PARTIALLY SATISFACTORY							

Table 1: Assessment of key control

¹ A rating of **"partially satisfactory"** means that important (but not critical or pervasive) deficiencies exist 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.

Project management capacity

Global information technology projects were not approved by the Project Review Committee

14. The administrative instruction on ICT initiatives required that high-level business cases for projects estimated to cost more than \$200,000, in combined monetary and staff resources over a four-year period, be reviewed by the Project Review Committee to ensure that the proposed systems were in alignment with the standards agreed by the ICT Board and to prevent duplication of systems. The Project Review Committee was chaired by the Office of Information and Communications Technology (OICT).

15. The gDoc project was re-launched in May 2011 with an estimated total cost of \$6.4 million, while the gText project for translation was launched in January 2013 with an estimated cost of \$2.7 million. In addition, from 2010, the global reporting project was rebranded as gData, and total expenditure of over \$1 million was incurred on the project between 2010 and 2013. The gDoc Project Board approved the project business case in May 2011. The business case for the gText project was reviewed by the DGACM ICT Committee and gText project board; and approved by the Department Management Group in October 2011. However, the business cases for these projects were not reviewed by the Project Review Committee since DGACM had not established a process to submit ICT initiatives to this Committee for review.

16. In the absence of OICT review, DGACM did not obtain assurance that the proposed ICT systems were aligned with Secretariat-wide ICT standards. These standards provide the current list of hardware and software approved for use in the Secretariat. However, the software that was used to develop the g-Doc system is not on this list and is therefore not supported by OICT.

(1) DGACM should develop a process to submit future information and communications technology projects to the Project Review Committee for review.

DGACM accepted recommendation 1 and stated that its implementation would depend on the United Nations system wide implementation of the revised ICT strategy endorsed by the General Assembly through resolution 69/262. Recommendation 1 remains open pending submission of evidence of the process developed to submit future ICT projects for PRC review.

(2) DGACM should, in consultation with OICT, determine a solution to address noncompliance of the software for the gDoc system with current information and communication technology standards.

DGACM accepted recommendation 2 and stated that this was currently under review within DGACM in the context of the revised ICT strategy. Recommendation 2 remains open pending notification of the solution determined to address the non-compliance of the software for the gDoc system with current ICT standards.

Delays in completing the gDoc project were partly due to inadequate information technology governance

17. Complex ICT projects required effective governance mechanisms for speedy decision making.

18. The gDoc project was scheduled to be completed in December 2013. The project faced various challenges including unavailability of internal developers as well as delays in obtaining data for testing, receiving information on users' reporting requirements and setting up of production servers, which made it difficult to meet the agreed timelines. Furthermore, gDoc needed to be integrated with other systems in order to function optimally. However, the gDoc team, which was based in Geneva, experienced

difficulties in collaborating with other teams in New York and Vienna in obtaining access to test environments and completing data integration tasks due to these teams' different priorities. These delays were reported periodically to the gDoc Project Board; however, they were not addressed in a timely manner, which led to the project not being completed until December 2014.

19. There was need for an effective global ICT governance mechanism to address conflicting priorities. DGACM established the Information Technology Governance Board (ITGB) in 2006 to guide the global information technology strategy. However, ITGB was established without clearly defined terms of reference and was not functional during the three-year period between November 2010 and November 2013. The Board could therefore not ensure the necessary coordination between the various projects that were being implemented. ITGB was re-established in December 2013.

(3) DGACM should finalize the terms of reference of the Information Technology Governance Board to ensure its roles and responsibilities are clearly defined and that the Board addresses global information technology related issues concerning the four duty stations in a timely manner.

DGACM accepted recommendation 3 and stated that this was currently under review within DGACM in the context of the revised ICT strategy. Recommendation 3 remains open pending submission of the finalized terms of reference of the ITGB.

The gText project was launched without assessing return on investment and annual maintenance costs

20. The ICT Project Management Framework stated that the business cases for information technology projects should include complete and realistic cost estimates and quantifiable benefits. If additional ICT services were required in support of a new project, such costs must also be estimated and included in the initial and ongoing annual maintenance costs.

21. The business case for the gText project indicated a total estimated cost of \$2.7 million for development and roll out of the system to four duty stations over a two-year period. However, the business case did not include an assessment of quantifiable benefits expected from implementing the system.

22. ICT systems required regular maintenance after development; therefore, it was important to assess recurring annual maintenance costs, which could also impact the decision to select a system. However, the approved gText project business case did not include an assessment of recurring maintenance costs.

23. The project team focused only on the funding required for the project development and roll out period. It was expected to assess quantifiable benefits later on during the course of execution of the project; however, no such assessment was made.

24. There was no indication of the return on investment and payback period of the project, which were important elements to be considered prior to its approval. The benefits realized from the system could also not be measured against the planned benefits.

(4) DGACM should establish a process to ensure that business cases prepared for all future information and communication technology projects include sufficient information to enable a proper assessment of the projects.

DGACM accepted recommendation 4 and stated that DGACM would establish a process to ensure

that business cases prepared for future ICT projects included this aspect. Recommendation 4 remains open pending submission of evidence of the process established to ensure that future business cases include sufficient information to enable a proper assessment of ICT projects.

Need to improve monitoring of project expenditures

25. The ICT Project Management Handbook required all expenditures on a project, both labour and non-labour to be tracked on an ongoing basis. The project manager was responsible for keeping account of project expenditure and was required to provide accurate cost reports to the project board, senior management and ICT Governance bodies on a monthly basis.

26. The managers of the global information technology projects submitted requests to the then DGACM Under-Secretary-General periodically for funding to cover project activities. Upon his approval, the Executive Office allocated resources from existing general budgets available for information technology and provided funding to the implementing duty stations.

27. The project managers did not consolidate expenditures on the project and compare them with the financial estimates in the approved project business cases; therefore, potential variations between the project cost plan and the actual expenditure on various cost components were not monitored and explained. Only the gText monthly progress report included a projected expenditure amount for the year. There was a need to improve the periodic reporting of total project costs compared with the relevant budgeted costs for control purposes.

28. Project managers did not consider it necessary to consolidate and compare actual expenditures against initial approved project costs.

29. Although the project costs did not exceed the approved budget, there was no process to ensure project costs were adequately monitored.

(5) DGACM should establish a process to monitor the costs of information technology projects against estimated costs in approved business cases to ensure proper control of project expenditure.

DGACM partially accepted recommendation 5 and stated that DGACM had processes in place to track expenditure progress of information technology projects. However, full tracking of project expenditures was not easily done due to the current structure of the United Nations financial systems, which were not designed to monitor project spending. In order to overcome the lack of activity/project-based accounting in the Organization, DGACM has created spreadsheets to monitor such information. It is hoped that the implementation of Umoja would bring about better project monitoring and reporting tools. Recommendation 5 remains open pending of submission of evidence of the process established to monitor the actual cost of ICT projects against the estimated costs in approved business cases.

Benefits to be realized by the completed global information technology projects were not assessed

30. The ICT Project Management Framework stated that the objective of the benefits realization framework was to ensure that investments were able to deliver to the Organization the forecasted benefits recorded in the business cases.

31. The gMeets project was completed in 2011 and was being used by all four duty stations. The high-level business case for the project estimated annual quantifiable benefits of \$701,464, to be derived

from elimination of some manual processes, reduction in license fees and centralization of the help desk function. An assessment had not yet been conducted to evaluate whether the anticipated efficiencies had materialized, and the steps to be taken to realize the benefits had not been determined.

32. The business case for the g-Doc project estimated quantifiable benefits of \$2.7 million annually after completion of the development phase of two years. Major components of benefits were \$1,305,000 from "Reduced training time and cost for staff" and \$480,000 from "Reduction of IT staff from eight to four to support integrated system". Plans were yet to be developed on how these benefits would be realized.

33. DGACM did not establish a benefits realization process to ensure that it derived the anticipated benefits from its investments in the global information technology projects.

34. In the absence of a benefit realization plan the return on investment from completed projects remained unclear.

(6) DGACM should develop plans to realize the anticipated benefits from completed global information technology projects.

DGACM accepted recommendation 6 and stated that any benefits would be included in the strategies developed going forward within DGACM. Recommendation 6 remains open pending submission of the plans that were developed to realize the anticipated benefits from completed global ICT projects.

IV. ACKNOWLEDGEMENT

35. OIOS wishes to express its appreciation to the Management and staff of 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 the implementation of information technology projects to support integrated global management of conference services at the United Nations

Recom. no.	Recommendation	Critical ² / Important ³	C/ O ⁴	Actions needed to close recommendation	Implementation date ⁵
1	DGACM should develop a process to submit future information and communications technology projects to the Project Review Committee for review.	Important	0	Submission of evidence of the process developed to submit future ICT projects for PRC review.	30 June 2015
2	DGACM should, in consultation with OICT, determine a solution to address non-compliance of the software for the gDoc system with current information and communication technology standards.	Important	0	Notification of the solution determined to address the non-compliance of the software for the gDoc system with current ICT standards.	31 December 2015
3	DGACM should finalize the terms of reference of the Information Technology Governance Board to ensure its roles and responsibilities are clearly defined and that the Board addresses global information technology related issues concerning the four duty stations in a timely manner.	Important	0	Submission of the finalized terms of reference of the ITGB.	30 June 2015
4	DGACM should establish a process to ensure that business cases prepared for all future information and communication technology projects include sufficient information to enable a proper assessment of the projects.	Important	Ο	Submission of evidence of the process established to ensure that future business cases include sufficient information to enable a proper assessment of ICT projects.	31 December 2015

 $^{^{2}}$ 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.

³ 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.

 $^{^{4}}$ C = closed, O = open

⁵ Date provided by DGACM in response to recommendations.

STATUS OF AUDIT RECOMMENDATIONS

Audit of the implementation of information technology projects to support integrated global management of conference services at the United Nations

Recom. no.	Recommendation	Critical ² / Important ³	C/ O ⁴	Actions needed to close recommendation	Implementation date ⁵
5	DGACM should establish a process to monitor the actual cost of information technology projects against the estimated costs in approved business cases to ensure proper control of project expenditure.	Important	0	Submission of evidence of the process established to monitor the actual cost of ICT projects against the estimated costs in approved business cases.	31 December 2015
6	DGACM should develop plans to realize the anticipated benefits from completed global information technology projects.	Important	0	Submission of the plans that were developed to realize the anticipated benefits from completed global ICT projects.	31 December 2015

APPENDIX I

Management Response



MEMORANDUM INTERIEUR

POSTAL ADDRESS: UNITED NATIONS, ROOM S-3065 NEW YORK NY 10017 USA TEL: (212) 963 8362 FAX: (212) 963 8196

THE UNDER-SECRETARY-GENERAL FOR GENERAL ASSEMBLY AND CONFERENCE MANAGEMENT

- ^{TO:} Ms. Muriette Lawrence-Hume, Chief
 - New York Audit Service, Internal Audit Division, OIOS

DATE: 1 June 2015

THROUGH. S/C DE: gegnework Getti FROM:

DE:

SUBJECT: Draft report on an audit of the implementation of information technology projects to OBJET: support integrated global management of conference services at the United Nations

- 1. Thank you for your memo of 15 May 2015 transmitting the above-mentioned draft report.
- 2. In DGACM's view, all recommendations outlined in the results of the audit are important for the delivery of DGACM's mandate. However, it is noted that the audit as outlined in the report was completed under the assumption that DGACM would continue to maintain ownership, maintenance and management of all IT projects. During the main part of the 69th session of the General Assembly through its resolution 69/262, the new information and communication technology strategy for the United Nations as contained in the report of the Secretary-General (A/69/517) was welcomed.
- In the context of the adoption of this resolution and the Secretary-General's report, 3. DGACM is currently assessing the governance and overall implementation of departmental IT projects in the context of the new OICT strategy.
- 4. The DGACM management response is reflected in the attached appendix.
- We take this opportunity to thank you for working with us on this and other audit matters, 5. and we look forward to further collaboration with your office on future exercises.

Management Response

Audit of the implementation of information technology projects to support integrated global management of conference services at the United Nations

Rec. no.	Recommendation	Critical ¹ / Important ²	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
1	DGACM should develop a process to submit future information and communications technology projects to the Project Review Committee for review.	Important	YES	Chair of the Information Technology Governance Board	30 June 2015	The implementation of recommendation 1 for any future information and communications technology projects within DGACM will be dependent on the UN System wide implementation of the revised ICT strategy endorsed by the GA through resolution A/RES/69/262.
2	DGACM should, in consultation with OICT, determine a solution to address non-compliance of the software for the gDoc system with current information and communication technology standards.	Important	YES	Chief of the Information and Communications Technology Section of DGACM	31 December 2015	This is currently under review within DGACM in the context of the revised ICT strategy.
3	DGACM should finalize the terms of reference of the Information Technology Governance Board to ensure its roles and responsibilities are clearly defined and that the Board addresses global information technology related issues concerning the four duty stations in a timely manner.	Important	YES	Chair of the Information Technology Governance Board	30 June 2015	This is currently under review within DGACM in the context of the revised ICT strategy.

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 the implementation of information technology projects to support integrated global management of conference services at the United Nations

Rec. no.	Recommendation	Critical ¹ / Important ²	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
4	DGACM should establish a process to ensure that business cases prepared for all future information and communication technology projects include sufficient information to enable a proper assessment of the projects.	Important	YES	Chair of the Information Technology Governance Board	31 December 2015	DGACM will establish a process to ensure that business cases prepared for future ICT projects include this aspect.
5	DGACM should establish a process to monitor the actual cost of information technology projects against the estimated costs in approved business cases to ensure proper control of project expenditure.	Important	Partially accepted	Executive Office	31 December 2015	DGACM has processes in place to track expenditure progression of information technology projects. However, it is noted that full tracking of project expenditures is not easily done due to the current structure of the UN financial systems, which are not designed to monitor project spending. In order to overcome the lack of activity/project-based accounting in the Organization, DGACM has created spreadsheets to monitor such information. It is hoped that the implementation of Umoja will bring about better project monitoring and reporting tools.
6	DGACM should develop plans to realize the anticipated benefits from completed global information technology projects.	Important	YES	Chair of the Information Technology Governance Board	31 December 2015	Any benefits would be included in the strategies developed going forward within DGACM.