

UNITED NATIONS DEVELOPMENT PROGRAMME
Office of Audit and Investigations



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AUDIT

OF

ONEICTBOX PROJECT

IN

UNDP

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Report on the Audit of UNDP OneICTbox Project Executive Summary

The UNDP Office of Audit and Investigations (OAI), from 14 to 31 August 2017, conducted an audit of the OneICTbox Project (the Project), implemented and managed by the Office of Information Management and Technology (the Office). The audit aimed to assess the adequacy and effectiveness of the governance, risk management and control processes relating to the following areas:

- (a) project governance;
- (b) project management;
- (c) physical / logical security of the OneICTbox; and
- (d) benefits of the Project.

The audit covered the activities of the Project from 1 January 2016 to 31 July 2017. This was the first audit of the Project.

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

Overall audit rating

OAI assessed the Project as **satisfactory**, which means “The assessed governance arrangements, risk management practices and controls were adequately established and functioning well. Issues identified by the audit, if any, are unlikely to affect the achievement of the objectives of the audited entity/area.”

Key recommendations: Total = 3, high priority = 0

The audit did not result in any high (critical) priority recommendations. There are three medium (important) priority recommendations, which means “Action is required to ensure that UNDP is not exposed to risks. Failure to take action could result in negative consequences for UNDP.” These recommendations include actions to address the weaknesses identified in the areas of project governance and project management.

The three recommendations aim to ensure the effectiveness and efficiency of operations (Recommendations 1, 2 and 3).

Management comments and action plan

The Officer-in-Charge of the Office accepted all of the recommendations and is in the process of implementing them. Comments and/or additional information provided have been incorporated in the report, where appropriate.

Low risk issues (not included in this report) have been discussed directly with management at the Office and actions have been initiated to address them.

A handwritten signature in blue ink is located above the printed name. The signature is stylized and appears to read 'H. Ostveiten'.

Helge S. Ostveiten
Director
Office of Audit and Investigations

I. About the Project

The Project consists of Information and Communication Technology (ICT) solutions developed and rolled out by the Office with the main goal to streamline Country Office ICT set-ups and services. The OnelCTbox hardware is a modular infrastructure consolidated in a portable rack, combining several devices such as router, firewall, proxy server and link load balancer.¹ Depending on the configuration, the hardware can also include Internet Protocol telephony and space for virtual servers such as active directory, and print server. The hardware replaces an entire traditional data centre and is scalable to serve up to 1,000 users.

The Country Office ICT Advisor Services Unit based in Copenhagen is managing the Project, consisting *inter alia* of promoting and developing the concept. This includes informing Country Offices about the existence, purpose and benefits of the OnelCTbox; and assembling, shipping and, if requested, installing the OnelCTbox. The Country Office ICT Advisor Services Unit also provides training and helpdesk services to Country Offices once the hardware is up and running.

II. Audit results

Satisfactory performance was noted in the following areas:

- (a) Physical / logical security of the OnelCTbox. The physical and logical security was found to be adequate and in line with UNDP's requirements.
- (b) Benefits of the Project. Benefits foreseen at the introduction of the Project such as reduced power consumption, reduced maintenance cost, and optimization of bandwidth, are being realized.

OAI made three recommendations ranked medium (important) priority.

Low priority issues/recommendations were discussed directly and agreed with the Office and are not included in this report.

Medium priority recommendations, arranged according to significance:

- (a) Continue promoting the concept of the OnelCTbox as the corporate ICT standard (Recommendation 1).
- (b) Develop a comprehensive training programme for OnelCTbox users (Recommendation 2).
- (c) Develop a service tracking system to monitor all support requests from receipt of request to resolution (Recommendation 3).

The detailed assessment is presented below, per audit area:

A. Project governance

Issue 1 OnelCTbox not promoted as a corporate ICT standard

Defining, implementing and enforcing corporate ICT standards can lead to cost savings by improving efficiency, streamlining (user) support, facilitating best practice sharing and economies of scale, accelerating user adoption, and simplifying oversight. Furthermore, use of and adherence to corporate ICT standards can lead to improved cybersecurity.

¹ A link load balancer distributes in-bound and out-bound traffic to and from multiple Internet Service Provider links.

Based on the proposal prepared by the Office, the ICT Governance Board in its meeting of 23 February 2016 endorsed the OnelCTbox as the UNDP standard. In line with the proposal, the ICT Governance Board neither enforced nor actively promoted implementation of the OnelCTbox, but simply left the decision to individual offices, stating that: "This solution [implementation of the OnelCTbox] will primarily be deployed opportunistically to offices being moved or refurbished, or to One UN Office being created. It can also be considered for any CO [Country Office] that is contemplating an infrastructure refresh".

By the middle of August 2017, 36 out of 166 Country Offices had installed the OnelCTbox. The Office expected to install 24 additional OnelCTboxes and 90 Managed Security Service (3rd generation) solutions (MSS-3), which would provide security functions similar to OnelCTbox by year-end.

While OAI understands the need for a gradual implementation of the OnelCTbox, given the differences in ICT set-up and maturity of individual offices as well as potential resource constraints, formulating the decision, as is, increases the risk that implementation of the OnelCTbox will be slower and done by fewer offices than possible. Given the potential benefits of implementing the OnelCTbox for individual offices as well as for UNDP as a whole with regard to ICT standardization, ICT security, ICT management, and energy consumption, a protracted and partial implementation would lead to additional costs and increased ICT risks. Benefits similar to those of the OnelCTbox might also be achieved by having offices fully comply with all the technical specifications and requirements of the OnelCTbox as defined by the Office without procuring and installing the actual OnelCTbox.

Priority	Medium (Important)
Recommendation 1:	
The Office should continue promoting the concept of the OnelCTbox as the corporate Information and communication technology standard for Country Offices and monitor the progress of implementation of the concept.	
Management action plan:	
The Office agrees that OnelCTbox should remain as the corporate standard. It also agrees that its consistent implementation benefits UNDP overall. OnelCTbox is designed as a solution for medium to large Country Offices. The Office of Information Management and Technology will focus its effort on implementation of OnelCTbox and Managed Security Services, 3 rd generation (MSS-3) so that these two standard corporate solutions can protect the majority of Country Offices by early 2018. In case this effort does not yield the expected results, the Office of Information Management and Technology will present an update of the business case to the Information and Communication Technology Governance Board.	
Estimated completion date: March 2018	

B. Project management

Issue 2 Insufficient hands-on training

To ensure correct and successful implementation and use of new tools, processes and procedures, relevant and adequate support and training need to be provided to staff involved in the implementation and use of those tools, processes and procedures.

As part of the roll-out and implementation of the OnelCTbox, the Office organized several webinars during 2016 and hosted a workshop for ICT managers in early 2017. Furthermore, where the Office was involved in the actual installation of the OnelCTbox, training was provided as part of the set-up.

However, OAI noted that users of the OnelCTbox regarded the type and amount of training provided as insufficient. Based on the survey conducted by OAI, 14 out of 38 offices (37 percent) using the OnelCTbox indicated the lack of hands-on training regarding advanced management of the OnelCTbox and mentioned that more continuous training would be needed to be able to perform some of the more advanced tasks. The difference in the amount and type of training provided by the Office and the training needs specified by ICT staff of offices using the OnelCTbox was due to the lack of an assessment of potential training needs.

A lack of relevant knowledge due to insufficient training can jeopardize the successful implementation and use of new tools, processes and procedures.

Priority	Medium (Important)
Recommendation 2:	
The Office should develop a comprehensive training programme for OnelCTbox users by:	
<ul style="list-style-type: none"> a) reaching out to offices using the OnelCTbox on potential training needs and where possible address those needs; and b) organizing a continuous knowledge sharing programme and share the latest training materials regarding OnelCTbox components with the offices. 	
Management action plan:	
The Office will reach out to all Country Offices to identify training needs. During the first quarter of 2018, a training will be conducted to cover expressed Country Office needs associated with OnelCTbox.	
Estimated completion date: March 2018	

Issue 3 Lack of service tracking system

The use of a service tracking system to monitor user reported ICT issues and actions taken to resolve reported issues helps to ensure effective and efficient user support, minimize downtime, increase user satisfaction and reduce costs.

User requests for support on the OnelCTbox were communicated to the Office through either the generic email account or the email account of one of the Office's staff members. Depending on the issue, the incoming requests were either addressed by the Office or were forwarded to the United Nations International Computer Centre, contracted by the Office for the provision of OnelCTbox monitoring and support services, for action. The Office did not recognize that with the increased roll-out of the OnelCTbox the current system of tracking user requests might no longer be adequate and implementation of a service tracking system would be appropriate.

Lack of a service tracking system can lead to inadequate / untimely handling of requests for support, which could result in prolonged downtime, decreased user satisfaction, and additional costs to the organization.

Priority	Medium (Important)
Recommendation 3:	
The Office should develop a service tracking system to monitor all support requests starting from receipt of request up to its resolution.	
Management action plan:	
The Office will implement a service tracking system to monitor all support requests in 2018.	
Estimated completion date: December 2018	

Definitions of audit terms - ratings and priorities

A. AUDIT RATINGS

- **Satisfactory** The assessed governance arrangements, risk management practices and controls were adequately established and functioning well. Issues identified by the audit, if any, are unlikely to affect the achievement of the objectives of the audited entity/area.
- **Partially Satisfactory / Some Improvement Needed** The assessed governance arrangements, risk management practices and controls were generally established and functioning, but need some improvement. Issues identified by the audit do not significantly affect the achievement of the objectives of the audited entity/area.
- **Partially Satisfactory / Major Improvement Needed** The assessed governance arrangements, risk management practices and controls were established and functioning, but need major improvement. Issues identified by the audit could significantly affect the achievement of the objectives of the audited entity/area.
- **Unsatisfactory** The assessed governance arrangements, risk management practices and controls were either not adequately established or not functioning well. Issues identified by the audit could seriously compromise the achievement of the objectives of the audited entity/area.

B. PRIORITIES OF AUDIT RECOMMENDATIONS

- **High (Critical)** Prompt action is required to ensure that UNDP is not exposed to high risks. Failure to take action could result in major negative consequences for UNDP.
- **Medium (Important)** Action is required to ensure that UNDP is not exposed to risks. Failure to take action could result in negative consequences for UNDP.
- **Low** Action is desirable and should result in enhanced control or better value for money. Low priority recommendations, if any, are dealt with by the audit team directly with the Office management, either during the exit meeting or through a separate memo subsequent to the fieldwork. Therefore, low priority recommendations are not included in this report.