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**Programme, Financial and Administrative Section**  
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### FOURTH ITEM ON THE AGENDA

## Information and communications technology questions: Progress report on IT strategy

#### Purpose of the document

This paper, submitted for debate and guidance, provides an update on the progress of initiatives highlighted in the Information Technology Strategy 2010–15.

**Relevant strategic objective:** Governance, support and management (Outcome 1: Effective and efficient utilization of all ILO resources).

**Policy implications:** None.

**Legal implications:** None.

**Financial implications:** None.

**Decision required:** None.

**Follow-up action required:** None.

**Author unit:** Information Technology and Communications Bureau (ITCOM).

**Related documents:** GB.306/PFA/ICTS/1; GB.306/9/1(Rev.); GB.306/PFA/11; GB.309/PFA/ICTS/1; GB.309/PFA/ICTS/2; GB.309/PFA/7; GB.310/PFA/3; GB.313/PFA/1.



## Executive summary

The ILO has reached the midpoint in the implementation of the Information Technology (IT) Strategy 2010–15. This report highlights progress made on strategic initiatives with an emphasis on milestones targeted for completion in 2012–13.

## Introduction

1. The IT Strategy 2010–15<sup>1</sup> highlights the need to elevate and position IT as an enabler and driver of change. Areas identified for improvement include partnering with key stakeholders; ensuring alignment with other Office-wide strategies; implementing technologies that foster knowledge sharing and improved communication; automating and streamlining administrative processes; protecting IT investments; improving IT governance; developing a culture of service excellence; and developing technical capacity and human capital to professionalize IT within the Office.
2. Within the ILO's results-based framework, IT outcomes are linked to overarching strategies for the Office. The Information Technology and Communications Bureau (ITCOM) workplan for the 2012–13 biennium includes 106 major outputs explicitly linked to the Management and Administration Sector (MAS) outcomes and other Office-wide strategies.

## IT infrastructure transformation

3. A key milestone in the IT Strategy 2010–15 was to study, assess and make recommendations to consolidate and modernize the ILO's IT infrastructure. An independent firm was subsequently commissioned to conduct the study. The findings, recommendations and proposed next steps were submitted to the Information and Communications Technology Subcommittee at the November 2010 Governing Body session and funding for infrastructure transformation was approved in March 2011. Funding for infrastructure transformation projects was allocated to ITCOM through the regular budget and from the Special Programme Account.<sup>2</sup>
4. The consolidation and modernization of the ILO's on-site Data Centre was completed in 2012. The implementation of on-site virtual server farms has enhanced availability of services and improved IT security. The ILO's computing capacity has increased by 36 per cent. The transition from physical to on-site virtual server farms reduced power consumption by 44 per cent and lowered the overall carbon footprint of the ILO's Data Centre.
5. To proactively manage rapid growth in data and digital media, the capacity of the ILO's storage area network was increased by 600 per cent. ILO data is copied in real time to a second off-site storage array to ensure that data is preserved in the event of a disaster at the ILO premises.
6. The ILO's Data Centre facility was also upgraded to support IT infrastructure consolidation. Flooring, electrical cabling, network cabling and redundant power supplies

<sup>1</sup> GB.306/PFA/ICTS/1.

<sup>2</sup> GB.310/PFA/3.

have been replaced. Careful planning and collaboration between units in the Office resulted in service interruption being minimized throughout this extensive undertaking. These enhancements to the Data Centre mitigate risks of data loss and improve availability and continuity of operations in the event of unplanned occurrences or disasters.

## **IRIS roll-out to the field**

7. Progress has continued with the roll-out of the ILO's Integrated Resource Information System (IRIS) to regional offices. Some delays have occurred with the roll-out of Phase 2 to the Regional Office for Asia and the Pacific (RO-Asia and the Pacific) as a consequence of natural disasters which displaced many local staff.
8. The Office has adjusted its plans to complete the roll-out to RO-Asia and the Pacific and the Regional Office for Africa by the end of 2013. The current status of IRIS roll-out is as follows:

<b>Office</b>	<b>Completion status</b>
DWT/CO-Budapest	July 2010
RO-Arab States	October 2011
RO-Latin America and the Caribbean	September 2012
RO-Asia and the Pacific	Phase 1: May 2011 Phase 2 planned for the second quarter of 2013
RO-Africa	Planned for 2013

9. Business process reviews were carried out in locations receiving IRIS, providing an analysis of existing practices and an assessment of the future impact of IRIS on distribution of work among staff. Training and support arrangements were tailored to meet the needs of each office, and lessons learned from previous roll-outs were applied.
10. Where existing internet capacity could not support full IRIS functionality, upgrades were implemented to ensure IRIS would perform in an acceptable manner. Funding for connectivity upgrades in the field had been included as part of IT infrastructure transformation proposals.
11. The IT infrastructure that has supported IRIS since 2005 is also being replaced in the last quarter of 2012. It is anticipated that this will noticeably improve IRIS system performance.
12. In July 2012, a team composed of senior officials from the Financial Services Department, Human Resources Development Department (HRD) and ITCOM was established to further explore operational models for expediting the roll-out of IRIS functionality to other field offices. Factors under consideration include resource availability, network connectivity, small office staff capacity, volume of work and centralized processing. Costs, benefits and risks of various roll-out options will be presented to the IT Governance Board (ITGB) for its consideration by the end of 2012.

## **Collaboration and knowledge sharing**

13. The IT Strategy indicates the need to implement collaborative technologies and applications which could facilitate dialogue, enhance knowledge sharing and better support the substantive work of the Office.

14. A shift from focusing on IT support of administrative applications in MAS, to expanding support of substantive applications in other sectors, has helped forge new relationships, improve collaboration, increase understanding, and better align IT with the needs of the Office.
15. Progress has been made on the development of the ILO Knowledge Gateway in support of Decent Work Country Programmes and the ILO's results-based knowledge strategy for 2010–15. The first phase of the ILO Knowledge Gateway is scheduled for implementation in the 2012–13 biennium.

## IT governance, compliance and management

16. The ITGB will include broad-based participation from throughout the Office and institutionalize the processes, responsibilities, and accountability framework required to ensure focus on key ILO priorities and optimal use of IT.
17. A Project Management Office (PMO), an advisory body to the ITGB, planned to be established by November 2012, was created in ITCOM in January 2012 to establish a centralized project coordination function and to manage the ILO's portfolio of IT projects. The PMO evaluates project proposals and considers costs, benefits, risks and total cost of ownership in the long term. The PMO defines methodology, standards, costing metrics, tools and templates for monitoring and managing all IT-related projects. The PMO also manages the IRIS field roll-out.
18. Significant improvements were made to protect IT assets. The IT security team has implemented vulnerability scanning software and upgrades to protect workstations and servers from computer viruses and similar threats. Increased capacity for centralized monitoring, reporting and alerting on computer virus infections was implemented in all ILO regional offices with a plan to expand this capacity to all field offices by 2013.
19. A formalized approach for monitoring and managing service delivery is necessary for delivering higher value services to the Office. ITCOM has published a service catalogue and is defining service-level arrangements with key departments. Discussions are also under way with external hosting providers to assess the risks, benefits and costs of extended support hours for critical IT services.
20. ITCOM has been reorganized to better align structures, processes and roles for optimal delivery of the IT Strategy. Components of ITIL and COBIT process frameworks appropriate to the ILO were implemented to improve support, delivery and management of IT services.<sup>3</sup> ITCOM's hierarchical structure was flattened to provide better end-to-end IT service capability. ITCOM is working with HRD to revise IT job descriptions; define consistent and measurable performance objectives across the department; and train supervisory staff in project, quality and relationship management.
21. A revised accounting structure was established to improve reporting on IT expenditure at ILO headquarters. This improved transparency regarding the level of expenditure required for IT service delivery.

<sup>3</sup> The Information Technology Infrastructure Library (ITIL) is a set of practices for IT service management that focuses on aligning IT services with the needs of business. Control Objectives for Information and Related Technologies (COBIT) is a framework created by the Information Systems Audit and Control Association for information technology management and governance.

22. The Office has centralized the purchase of desktop PCs and associated software licenses for staff on regular budget positions which will simplify administrative processes, improve management of the PC inventory, enhance IT security, ensure compliance with standards, and ultimately reduce maintenance and support costs.

## Joint UN initiatives

23. The IT Strategy stressed the importance of fostering partnerships with other international organizations to leverage technologies, processes and applications deemed mutually beneficial. The ILO engaged with two UN agencies to source the replacement of the ILO's Health Insurance Information System (HIIS) and the introduction of a new field security tracking system.
24. HIIS was reaching the end of its useful life. The ILO worked with the United Nations Office in Geneva (UNOG) to acquire a modern, web-based application that would meet the majority of ILO requirements. The cost to the ILO is estimated to be 50 per cent of the total development cost to UNOG. The Office is working with an external provider to implement the new HIIS application at the ILO in 2013. The International Telecommunication Union, a joint participant in the ILO's health insurance scheme, is contributing to the cost of implementation.
25. The ILO is partnering with the United Nations Development Programme (UNDP) and the United Nations International Computing Centre to implement the UNDP's Security Needs Assessment Protocol system at the ILO. This application will make it possible to track, monitor and manage security requests and incidents more effectively in ILO field offices. The UNDP has provided this application at no cost to the ILO. This project is scheduled for completion in 2012.
26. In addition, the Office is working with the Food and Agriculture Organization (FAO) to implement a human resources (HR) reporting data warehouse at the ILO. The FAO and the ILO use the same software underpinning the HR module in IRIS. This project began in late 2011 and is scheduled for completion in 2012. The FAO has provided their HR reporting data warehouse to the ILO in exchange for the ILO's IRIS Travel Module.
27. In keeping with objectives set in the IT Strategy, ITCOM actively participated in Joint Inspection Unit and Information and Communication Technologies Network initiatives. The Office provided significant support and guidance to project staff in Africa who were evaluating the feasibility of participating in a One UN shared Wide Area Network infrastructure initiative. The Office also completed a pilot implementation of a One UN initiative to share a common staff directory across all UN agencies.

## Next steps

28. Significant progress has been made in achieving targeted outcomes in the IT Strategy, but some challenges still remain in order to fully deliver on outcomes, indicators and targets over the next three years. Of particular note are the consolidation and centralization of IT resources to ensure IT is delivering best value for money, and that IT standards, priorities and support levels are governed and implemented systematically across the Office.
29. Progressive recentralization of IT resources is continuing. IT support of many key Office-wide applications such as IRIS, FISEXT, NORMLEX and iTrack now resides in ITCOM.

- 30.** Progress has been made to assess decentralized Local Area Network (LAN) administration services in the first half of 2012 in the context of the Expenditure Review Committee initiatives. Appointed LAN administrators and representatives from ITCOM, HRD and the Staff Union reviewed potential benefits and risks of centralizing LAN administration services. All LAN administrators were asked to provide input through an anonymous questionnaire. Information gathered helped to clarify the advantages and disadvantages of maintaining a decentralized approach to LAN administration. The Expenditure Review Committee is currently evaluating findings in an effort to identify an optimal use of LAN administration functions.
- 31.** The Office will continue to analyse and make recommendations for potential consolidation of IT resources at headquarters and in the field.