General Assembly
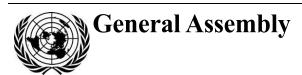
Distr.: General
21 February 2019

Original: English

Seventy-third session
Agenda item 136
Programme budget for the biennium 2018–2019

Status of implementation of the information and communications technology strategy for the United Nations

Report of the Advisory Committee on Administrative and Budgetary Questions

I. Introduction

1.   The Advisory Committee on Administrative and Budgetary Questions has considered the report of the Secretary-General on the status of implementation of the information and communications technology strategy for the United Nations (A/73/384). The Committee also had before it the second annual progress report of the Board of Auditors on the implementation of the information and communications technology strategy (A/73/160). During its consideration of the above-mentioned reports, the Committee met representatives of the Secretary-General, who provided additional information and clarification, concluding with written responses received on 15 February 2019. The Committee also had an exchange with the Audit Operations Committee.

II. Background and context

2.   The Advisory Committee recalls that the information and communications technology (ICT) strategy, as endorsed by the General Assembly in section II of its resolution 69/262, is being implemented through 20 strategic projects, as presented in annex I to the first progress report of the Secretary-General on the status of implementation of the ICT strategy for the United Nations (A/70/364). The current report of the Secretary-General represents the fourth annual progress report on the implementation of the five-year ICT strategy (A/73/384). The Committee also recalls that, pursuant to Assembly resolution 70/238 B, in which the Assembly endorsed the recommendations of the Committee, the Board of Auditors annually conducts an audit of and submits a progress report on the implementation of the strategy. The current report of the Board reflects its second annual audit (A/73/160). A summary of the timeline for the implementation of the ICT strategy is provided in the Board's second annual progress report.

III. Second annual progress report of the Board of Auditors on the implementation of the information and communications technology strategy

3.   The Board of Auditors indicates that its second annual progress report (A/73/160) reflects the implementation of the ICT strategy in 2017, based on an audit conducted from 5 to 29 March 2018. The Board's findings reflect weaknesses and delays in the implementation of the strategy in several areas, including reporting, governance and accountability, implementation of strategic projects, policy development and compliance, performance management, human resources, Umoja mainstreaming, information security, application management, website rationalization and consolidation, global sourcing, defragmentation and videoconferencing services. The Board also notes that the scope and timelines of many ICT strategy projects have been changed, with extensions ranging from 9 to 42 months, compared with the original road map. The Advisory Committee discusses the Board's findings and recommendations in the relevant paragraphs of section IV below. **The Committee commends the Board for the clarity and quality of its report, which provides valuable analysis and insights into the areas where progress is being made and those where further changes and improvements are needed.**

4.   The Board of Auditors provides an update on the implementation status of its recommendations (A/73/160, para. 5 and annex I) up to 31 December 2016, noting that, of 35 pending recommendations, 8 (23 per cent) have been fully implemented, 25 (71 per cent) are under implementation, 1 (3 per cent) has not been implemented and the implementation of 1 (3 per cent) has been overtaken by events. The Board stresses that, while the percentage of implementation has improved over the past year, 74 per cent of the recommendations still have not been implemented or are under implementation and exhorted the Administration to take timely action on its recommendations so that the deficiencies noted are addressed quickly. In its report, the Board has issued six new main recommendations relating to governance, performance management, policy gaps, Umoja, global sourcing and technology innovation labs. **The Advisory Committee notes with concern the slow rate of implementation of the recommendations of the Board and urges the Secretariat to address all outstanding recommendations of the Board in a timely manner.**

IV. Report of the Secretary-General on the status of implementation of the information and communications technology strategy for the United Nations

5.   The fourth annual progress report of the Secretary-General provides a brief overview of the implementation of the ICT strategy in its first four years (A/73/384, paras. 8–14). The Secretary-General states that improvements have been made in the areas of ICT infrastructure and architecture; ICT operations and service delivery; support for the deployment of the enterprise resource management system, Umoja; the security of other enterprise systems; reductions in the number of legacy applications; the global wide area network; and the deployment of solutions to support the substantive work of the United Nations and critical systems to support peacekeeping operations. **The Advisory Committee welcomes the overall progress made in the implementation of the ICT strategy.**

A. General comments and recommendations

6.   The Advisory Committee notes that the next progress report of the Secretary-General will mark the end of the five-year implementation period of the ICT strategy. Annex II to the report of the Secretary-General provides further information on the implementation status of ICT strategy projects, including an overview of project status, changes to project timelines and, for ongoing projects, summary information on the start and projected end dates, the completion rate and key milestones. The Committee notes that, of the eight ongoing projects in 2018 listed in annex II.C to the report, one has been fully completed, four have a completion rate of 70 per cent or higher, one is indicated as being 58 per cent complete (see para. 32 below), one as being 46 per cent complete (see para. 34 below) and the second phase of another is indicated as being 25 per cent complete, while its first phase has been fully completed. Upon enquiry, the Committee was provided with information on the implementation costs of the eight ICT strategy projects (see annex to the present report).

7.   **The Advisory Committee recommends that the General Assembly request the Secretary-General to provide in his next progress report a detailed update on the implementation status of each of the 20 ICT strategy projects, including information on the planned milestones, the completed activities, the costs incurred and benefits realized and details on any outstanding issues. The Committee also recommends that the Assembly request the Secretary-General to also include in his next report an update on progress achieved in ensuring Secretariat-wide compliance with the provisions of his bulletin on the organization of the Office of Information and Communications Technology (ST/SGB/2016/11) and on the lessons learned during the implementation of the ICT strategy (see paras. 13 and 19 below). Given the increasing reliance of the Organization on its ICT infrastructure in all aspects of its work, the Committee emphasizes the importance of the full implementation of the ICT strategy.**

8.   During the four years of the implementation of the ICT strategy, the Advisory Committee has frequently commented on the lack of progress made in reducing the level of fragmentation of the ICT environment, which was one of the key objectives of the strategy (A/72/7/Add.51, para. 26). Upon enquiry, the Committee was informed that one of the most significant issues affecting the ICT landscape of the United Nations and its ability to successfully implement its mandates, ensure effective support and respond to the growing cybersecurity threat continues to be fragmentation and a highly distributed approach to ICT, which limit interoperability, simplicity and resilience throughout the Organization and, ultimately, reduce efficiencies and increase costs. **The Committee trusts that, in his next report, the Secretary-General will include details on the issues related to fragmentation in all areas of the ICT environment, including information security, data centres and application management, to name a few, as well as on the challenges faced and lessons learned in reducing the level of fragmentation.**

9.   The Advisory Committee has also frequently stressed the need to establish a clear record of the situation at the beginning and end of the implementation of major business transformation and reform initiatives in order to determine the impact of the action taken.[1] While recalling that few data were available on individual ICT units at the beginning of the implementation of the ICT strategy, the Committee nevertheless considers that such a record should be established at the end of implementation, which will also serve as a baseline for future initiatives. **Accordingly, the Committee recommends that the General Assembly request the Secretary-General to conduct a comprehensive inventory to establish a baseline of ICT capacities and**

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[1] For example, A/69/610, paras. 22–23; A/70/7/Add.18, para. 14; and A/72/7/Add.51, para. 37.

expenditure of each Secretariat entity at the end of the five-year implementation period of the ICT strategy, as at 31 December 2019, which should include: (a) all ICT expenditure by category of expenditure; (b) personnel-related resources, including posts, positions, temporary assistance, contractors and consultants; (c) non-personnel-related resources; and (d) the inventory of ICT asset holdings (tangible and non-tangible). The baseline should also include information on the ICT services provided, the applications developed and/or maintained and ongoing and planned ICT projects and initiatives (A/72/7/Add.49, para. 37). The Committee also recalls that the Assembly, in its resolution 72/262 C, also endorsed the Committee's recommendation that, given the magnitude of resources expended on ICT annually, the Secretary-General should be requested to include, in the budget and budget performance documents of each Secretariat entity, information on its ICT expenditure and capacities (see above and A/72/7/Add.51, paras. 37–38).

Management reform

10.   The Advisory Committee recalls that the Secretary-General, in the context of his management reform (A/72/492/Add.2, paras. 248–274) proposed to: (a) reorganize the Office of Information and Communications Technology through the consolidation of the Information and Communications Technology Division of the Department of Field Support (now the Department of Operational Support) within the Office of the Department of Management (now the Department of Management Strategy, Policy and Compliance), and to establish the Office as a separate entity reporting to the Under-Secretaries-General of the Department of Management Strategy, Policy and Compliance and the Department of Operational Support; and (b) redeploy the ICT functions in support of operations in New York from the Office to the proposed Division of Administration of the Department of Operational Support. The Committee, in its related report (A/72/7/Add.49, paras 35–37), welcomed the proposed consolidation of the Office and the Information and Communications Technology Division of the Department of Field Support, noting that it was fully aligned with the ICT strategy. The Committee recommended that ICT support operations at Headquarters be maintained within the reorganized Office and that the dual reporting arrangements of the Office be kept under review. In its resolution 72/266 B, the General Assembly endorsed the recommendations and conclusions of the Committee concerning the Office. **The Committee trusts that the Secretary-General will provide to the Assembly, at the time of its consideration of this item, an updated detailed organization chart showing the newly reorganized Office, including the placement of ICT support operations at Headquarters.**

11.   The Advisory Committee also recalls that, as part of the reorganization of the Office of Information and Communications Technology, the Secretary-General stated that he was proposing a single ICT pillar with a service delivery model comprising three interlinked but distinct layers: (a) a first layer encompassing the strategy, direction and global implementation of activities managed at Headquarters; (b) a second layer for supporting local operations through the implementation of globalized technology solutions supported by the Global Service Centre in Brindisi, Italy, and Valencia, Spain, and Regional Technology Centres to represent and serve the interests and needs of local offices and field operations by geographical location; and (c) a third layer comprising the ICT teams within the local structures (A/72/492/Add.2, paras. 253–254).

12.   The Advisory Committee further recalls that the General Assembly, in its resolution 72/266 B, requested the Secretary-General to submit for consideration, at its seventy-fifth session, a report on the implementation of the management reform, including on the functioning of the new Office of Information and Communications Technology. Notwithstanding the above, the Committee is of the view that the

upcoming milestone marking the end of the five-year implementation period of the ICT strategy and the completion of one year of operations of the new, reorganized Office presents an opportunity for: (a) taking stock of the ICT landscape of the United Nations and the extent to which the needs of the United Nations are being met; (b) conducting a preliminary analysis of the functioning and impact of the new structures, of the three-layer model for ICT service delivery model and of the dual reporting arrangements for the Office; and (c) charting the direction of ICT activities for the subsequent five-year period. **The Committee recommends that the Assembly request the Secretary-General to present information on the above issues in his next progress report.**

13. In this regard, the Advisory Committee was informed, upon enquiry, that a global ICT strategy retreat with ICT chiefs from throughout the Secretariat had been held from 1 to 5 October 2018, which resulted in the development of a five-year ICT strategy road map, including the vision, scope and key programmes and projects of the strategy. The Committee was also informed that the next progress report of the Secretary-General would include, in addition to the status of the implementation of the current ICT strategy (see A/69/517), a proposal for the subsequent five-year period, including information on the consolidation of the Information and Communications Technology Division of the Department of Field Support, in accordance with the management reform and an assessment of the capital investment necessary for upgrading ageing systems throughout the Secretariat, including conference management systems. **The Committee looks forward to receiving the upcoming report.**

14. **The Advisory Committee trusts that the Secretary-General will update his bulletin on the organization of the Office of Information and Communications Technology to reflect the changes made under the management reform.**

Reporting

15. In its second annual progress report, the Board of Auditors recalls that the General Assembly, in its resolution 71/272 B, made a number of specific requests for information, including: (a) for each project, specified objectives, benchmarks, indicators to assess progress and qualitative and quantitative benefits; (b) a detailed update on strengthening coordination of ICT activities among all Secretariat entities; and (c) possible harmonization and sharing of services, as well as the related costs of ICT, as appropriate, in particular at field locations. The Board notes that the information requested by the Assembly was not provided in the third progress report of the Secretary-General (A/72/755/Rev.1). **The Advisory Committee notes that most of the information requested by the Assembly was also not provided in the fourth annual progress report of the Secretary-General and expects the information requested to be provided in the fifth progress report.**

B. Comments and recommendations on specific aspects of the information and communications strategy of the United Nations

1. Governance and leadership

16. The Secretary-General states that solid progress has been made in the first four years in the implementation of the ICT strategy, including in establishing strong governance (A/73/384, para. 71).

17. In its second annual progress report, the Board of Auditors has made several observations and recommendations on governance and leadership matters, including the following: (a) key bodies of the ICT governance framework, such as the

Information and Communications Technology Executive Committee and the Information and Communications Technology Board, did not meet or function as intended during 2017; (b) monthly progress reports on the ICT strategic projects submitted to the project management board did not include information on benefits assessment, costing, benefits realized and lessons learned, thereby limiting the measurement of projected challenges; (c) no policies were promulgated on emerging areas such as the outsourcing of ICT services, end user device usage, information-sharing, open data and the reuse and safe disposal of decommissioned ICT equipment; (d) only 3 of 37 Secretariat entities reported that they were in full compliance with 3 of the 42 ICT policies in place; (e) the performance management framework was not implemented, although 29 ICT performance management metrics had been drawn up, covering strategic, management and operational areas; and (f) data on the certifications obtained by ICT staff throughout the Secretariat were not maintained (A/73/160, paras. 12–50).

18. Upon enquiry as to the actual meetings of the bodies of the ICT governance framework that were held in 2018, the Advisory Committee was informed that: (a) strategic ICT matters with a Secretariat-wide scope had been brought to the attention of the Management Committee, which is composed of the same senior managers as the Information and Communications Technology Executive Committee, rendering it unnecessary for the same matters to be discussed in the context of the Executive Committee; and (b) while the Information and Communications Technology Board had met on 29 May and on 13 December 2018, the nature of the Board had changed over time and the original participants had delegated the Board-related matters to the ICT managers. **The Advisory Committee is concerned by the gaps that remain in the design and implementation of the ICT governance framework.**

19. The Advisory Committee was also informed that an ICT governance review initiated in the third quarter of 2018 was to be completed in the first quarter of 2019 and that ICT governance arrangements would be aligned with the management reform, the delegation of authority framework and the organizational changes resulting from the consolidation of the Office of Information and Communications Technology and the Information and Communications Technology Division of the Department of Field Support. **The Committee trusts that, in aligning the arrangements of the ICT governance framework, the Secretary-General will take into account the emphasis placed by the General Assembly, in its resolution 69/262, on the importance of effective ICT governance, leadership, coordination and collaboration within the Organization to avoid fragmentation and duplication. The Committee recalls that the Assembly, in its resolution 72/262 C, endorsed the Committee's recommendation (A/72/7/Add.51, para. 13) that all Secretariat departments and entities fully comply with the ICT strategy of the United Nations and all provisions of the Secretary-General's bulletin on the organization of the Office of Information and Communications Technology (ST/SGB/2016/11). The Committee emphasizes the importance of ensuring that budgets and projects from all funding sources for all ICT initiatives and operations of the Secretariat are reviewed by the Office of Information and Communications Technology within existing governance structures before their submission to the Office of Programme Planning, Finance and Budget (ibid., para. 2.2 (g)).**

20. **In this regard, the Advisory Committee recalls that the General Assembly, in its resolution 71/272 B, also endorsed the Committee's recommendation that the Secretary-General provide, in his next progress report, a detailed update on progress achieved in ensuring the effective cooperation of all Secretariat entities in implementing the ICT strategy, as well as on compliance with the provisions of the Secretary-General's bulletin on the Office of Information and Communications Technology (ST/SGB/2016/11). The Committee reiterates its**

earlier recommendation (A/71/785, para. 9) and trusts that the information requested will be provided in the next progress report of the Secretary-General.

2. Modernization and transformation

Enterprise support: Umoja

21. In response to the request made by the General Assembly in its resolution 72/262 C, the Secretary-General provides information on measures taken to ensure the protection and confidentiality of the data contained in the Umoja system, in collaboration with the Umoja project team (A/73/384, paras. 17–19).

22. With regard to Umoja mainstreaming, the Board of Auditors indicates in its second annual progress report that it has been informed that the mainstreaming of Umoja personnel is expected to occur as a "lift and shift" once the project has been successfully completed and cannot be expedited without compromising the development and deployment of Umoja Extension 2. In addition, a part of the current Umoja team will be mainstreamed into the business areas (A/73/160, paras. 51–56). Annex II to the fourth annual progress report of the Secretary-General shows that the Umoja mainstreaming ICT strategic project is 74 per cent complete, with a projected finish date of 31 December 2019. **The Advisory Committee stresses the need to ensure that the Umoja mainstreaming activities are completed on time so as to avoid any gap between the completion of the Umoja project by December 2019 (General Assembly resolution 73/279, sect. XVII, para. 20) and the mainstreaming of the project team. The Committee trusts that a plan for the full mainstreaming of the Umoja project team into the Office of Information and Communications Technology and other Secretariat entities will be included in the next progress report of the Secretary-General on Umoja. The Committee also trusts that the Secretary-General will provide further information to the Assembly at the time of its consideration of this item.**

23. The Advisory Committee recalls that the General Assembly, in section XVII of its resolution 73/279, requested the Secretary-General to continue to implement the Umoja project within the approved timeline and budget and to provide detailed information on the full implementation of the Umoja solution no later than at its seventy-fourth session. The Assembly also requested the Secretary-General to achieve full implementation of the project by December 2019. The Assembly further requested the Secretary-General to provide a detailed plan for the mainstreaming of the Umoja team into the Secretariat, including measures to ensure a sustainable business model of the Umoja project, in the context of his next report (ibid., paras. 9, 16 and 20).

Enterprise Application Centres

24. The Secretary-General, in his fourth progress report, indicates that the Enterprise Application Centres continue to coordinate and lead the global development of and support for legacy applications, which resulted in the reduction in the number of applications from 2,340 in July 2014 to 1,140 in July 2018 through the consolidation of functionalities with existing enterprise applications and standardized platform-based solutions such as iNeed, Umoja, Inspira, Unite Docs, Unite Connections and standard field systems, as well as through the decommissioning and retirement of obsolete systems (A/73/384, paras. 20–21). The Advisory Committee recalls that the Secretary-General, in his second annual progress report (A/71/400, para. 23), indicated that the goal was to further reduce the number of legacy applications to 1,000 by the end of 2020 and that the Committee, in its previous report, indicated that it had been informed that the Secretariat aimed to reduce that number to 300 (A/72/7/Add.51, para. 27). The Board of Auditors indicates that it has observed duplication in terms of applications that serve a single functional area, leaving scope for further rationalization below the

targeted 1,000 applications by 2020 (A/73/160, para. 100). **The Committee trusts that the Secretary-General will continue to refine his analysis of legacy applications and provide an update in his next report on the target number of legacy applications to be maintained, as well as a timeline for the achievement of the goal, taking into account the relevant observations and recommendations of the Board. The Committee reiterates its view that an application management strategy should be developed on the basis of clear Secretariat-wide application development policies and guidelines that clarify, inter alia, the functions and areas that are to be covered centrally by the Enterprise Application Centres and those which can be addressed at the local level (A/72/7/Add.51, para. 28).**

Information security

25.   The Secretary-General, in his fourth annual progress report, states that the cybersecurity threat level is intensifying and that the scale and complexity of these threats and attacks continue to grow. He also states that it is critical that the United Nations ensure a consistent and harmonized approach to information security throughout the entire Secretariat and that an urgent and commensurate change in the handling of cybersecurity by the United Nations is required. He also indicates that additional resource requirements for cybersecurity may be presented to the General Assembly, as appropriate (A/73/384, paras. 24–32).

26.   The opinion of the Board of Auditors regarding information security is that, while there has been improvement in the visibility of ICT assets, progress on other critical elements, such as the implementation of centralized incidence tracking, network segmentation, the promulgation of and ensuring compliance with security policies and the classification of information assets, was slow in 2017, and the information security resources and landscape has remained fragmented three years after the adoption of the ICT strategy. With regard to the 10-point action plan that was indicated in the third progress report of the Secretary-General as being fully completed, the Board observes that some of the initiatives, such as intrusion detection, the promulgation of draft policies and the classification of information assets, remained ongoing as of March 2018. The Board also notes that, as of March 2018, 223 servers were operating with obsolete or unsupported technology throughout the Secretariat and that there were delays in the completion of the disaster recovery project aimed at ensuring that critical ICT systems could be effectively "failed over"[2] in the event of an emergency (A/73/160, paras. 58–92). **The Advisory Committee recommends that the General Assembly request the Secretary-General to address information security issues as a matter of priority.**

27.   **The Advisory Committee continues to be concerned by the slow progress in reducing the level of fragmentation of the ICT landscape of the United Nations, which impedes progress in addressing the underlying issues affecting the ability of the Office of Information and Communications Technology to address information security issues in a comprehensive manner (see para. 7 above) and exacerbates the vulnerability of the United Nations to cyberthreats. The Committee reiterates its observations and recommendations regarding the need for Secretariat-wide central control over information security under the authority of the Chief Information Technology Officer; full compliance with the provisions of General Assembly resolution 69/262, as well as of the Secretary-General's bulletin on the Office of Information and Communications Technology (ST/SGB/2016/11); and the establishment and enforcement of clear delegation of authority and accountability mechanisms for all aspects of information security**

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[2] Switching an application or information and communications technology service system from its primary data centre to a secondary data centre.

**management, including specific performance measures in the senior managers'
compacts that would allow assessment of their performance in managing these
critical activities (A/72/7/Add.51, para. 21).**

Enterprise Data Centres

28.   The Secretary-General, in his fourth annual progress report, states that the
Office of Information and Communications Technology and the Department of Field
Support developed a cloud computing strategy in early 2018, based on a hybrid model
of on-premise (private cloud) and third-party (public cloud) services. He also states
that: (a) two third-party vendors have been selected; (b) implementation of the cloud
will be phased over time with appropriate oversight and risk management; and (c) a
pilot project is to be implemented by the end of 2019, including the migration of more
than 40 applications and the secondary data-centre capability into the cloud
(A/73/384, paras. 33–37). Upon enquiry, the Advisory Committee was informed that
the Office and the Department had conducted a proof of concept of the cloud
computing technology in the context of the Secretariat that had validated a range of
proposed approaches and frameworks for the United Nations cloud, including cloud
governance; cloud reference architecture and principles; cloud security and risk
assessment framework; cloud identity and access management; cloud connectivity;
cloud application and data management on standard platforms; application migration
frameworks; and cost optimization. **The Committee trusts that the Secretary-
General will provide further information in his next report on the project plan
for the implementation of the United Nations cloud, including specific goals and
targets, implementation timeline and the expected costs and benefits, both
quantitative and qualitative. The Committee reiterates the need for assurances
regarding the protection and confidentiality of the Organization's data and its
expectation that the Secretary-General will provide further information in that
regard in the next progress report (A/72/7/Add.51, para. 32).**

Regional Technology Centres

29.   The Secretary-General, in his fourth annual progress report, states that the four
Regional Technology Centres, established in 2015[3] (A/69/517, para. 30), ensure that
governance, standards, policies and procedures, as well as information security and
architecture requirements, are met within each region and that user experience
remains consistent across the regions. He also indicates that the Department of Field
Support issued a field technology framework setting out the vision for the
development of ICT in support of United Nations peace operations in the coming five
years (2018–2023), which is fully aligned with the ICT strategy and that complements
the Regional Technology Centres (A/73/384, paras. 41–47).

30.   Upon enquiry, the Advisory Committee was informed that the main challenge
facing Regional Technology Centres related to the fragmentation of ICT at the local
level, given that Secretariat and other United Nations system entities maintain their
own telephone and local area networks and their own local server rooms (see para. 7
above). The Committee was also informed that the Regional Technology Centres
could better fulfil their role if they were to provide local ICT services to all entities
co-located in the larger United Nations campuses, in line with globally promulgated
policies and technical procedures. **The Committee recommends that the General
Assembly request the Secretary-General to report on the challenges faced by the
Regional Technology Centres and impediments to their effectiveness, as well as**

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[3] Located at the United Nations Office at Nairobi, for Africa; Headquarters in New York, for the
Americas; at the Economic and Social Commission for Asia and the Pacific, for Asia; and at the
United Nations Office at Geneva, for Europe.

on opportunities for strengthening their role and optimizing the utilization of ICT infrastructure. The Committee also recommends that the Assembly request the Secretary-General to provide detailed information on the project plan for the implementation of the field technology framework for the period 2018–2023, including details on how it will consolidate ICT capacities and is aligned with a United Nations ICT strategy (see para. 28 above).

Global engineering and conferencing

31.   Information on better solutions for global engineering and conferencing is provided in the fourth annual progress report of the Secretary-General (A/73/384, paras. 48–50). In it, he indicates that the ageing videoconferencing critical systems are prone to ongoing failure and that a study of the videoconferencing infrastructure of all Secretariat sites completed in 2017 showed that investment was needed to refresh ageing equipment. He also states that resource requirements may be proposed in the context of the appropriate budget. In its second annual progress report, the Board of Auditors indicates that, on the basis of an examination of the inventory of global videoconferencing equipment available at multiple locations, including missions, more than 30 per cent of videoconferencing equipment is at the end of its useful life in 10 of the 11 locations examined. The Board recommends that the Secretariat establish a plan for the time-bound replacement of videoconferencing equipment to ensure the resilience of videoconferencing services (A/73/160, paras. 134–140). Upon enquiry, the Advisory Committee was informed that the Office of Information and Communications Technology was developing a five-year plan that would be presented in the next annual progress report of the Secretary-General.

Website rationalization and consolidation

32.   An update on the implementation status of the website rationalization and consolidation project is provided in annex II to the fourth annual progress report of the Secretary-General. As indicated, the project is aimed at increasing the efficiency of websites operations, web design and security and achieving economies of scale through changes in the current operating model. The project, which is indicated as being 58 per cent complete, began in January 2014 and is now scheduled to be completed by 31 December 2020. In its second annual progress report, the Board of Auditors notes that not much progress has been made towards the rationalization of websites in 2017 and that the project is currently on hold. The Board expresses its opinion that, although the completion date of the entire project has been pushed back to December 2020, the pace of the progress achieved to date does not provide assurance that the new timeline will be adhered to. The Board also indicates that, while compliance with web harmonization principles, standards and timelines established by the Chief Information and Technology Officer has been compulsory since November 2017, the migration of websites depends on the cooperation of Secretariat entities (A/73/160, paras. 102–109). **The Advisory Committee recommends that the General Assembly request the Secretary-General to provide in his next annual progress report an update on progress made in website rationalization and consolidation, as well as details on how compliance with the web harmonization principles, standards and timelines established by the Chief Information Technology Officer is to be enforced in order to ensure completion of the project by December 2020, as indicated in annex II to the fourth annual progress report of the Secretary-General.**

3.   Innovation

33.   The fourth annual progress report of the Secretary-General provides information on the use of technology to support the substantive work of the Organization as part of phase II of the implementation of the ICT strategy, including: (a) the use of

emerging technologies to build innovative tools and solutions; (b) technological innovations to address global challenges, including the establishment of United Nations Technology Innovation Labs with interested Member States; and (c) efforts to support and establish technology partnerships (A/73/384, paras 55–66). **The Advisory Committee looks forward to receiving information on further developments in this area in the Secretary-General's next report.**

4. **Global sourcing and asset management**

34. In its second annual progress report, the Board of Auditors observes that, during 2017, the Office of Information and Communications Technology did not finalize any global contracts, although two contracts were expected to be awarded, in 2018 and 2019. The Board also observes that the Secretary-General reported 65 per cent progress in respect of the completion of the global sourcing strategy in his second progress report, while 46 per cent progress was cited in his third progress report, although the scope of the project remained the same. The Board expresses its view that the delay in finalizing the contracts and failure to identify new global sourcing opportunities in 2017 has prevented the Organization from taking advantage of better prices and global discounts. The Board recommends that the Secretariat identify and document global sourcing opportunities, along with an estimation of savings (A/73/160, paras. 120–129). From annex II to the fourth annual progress report of the Secretary-General, the Advisory Committee notes that the global sourcing strategy project, which began on 1 February 2016 and is scheduled to be completed on 14 February 2019, was indicated as being 46 per cent complete. **The Committee trusts that the Secretary-General will provide an update on the status of the project to the General Assembly at the time of its consideration of this item.**

35. In his fourth annual progress report, the Secretary-General indicates that: (a) an ICT global systems contract for provision of fully managed services, such as email, storage and service desk, is being finalized and expected to be awarded at the end of 2018; and (b) that an application service global systems contract is being established through three delivery models, consisting of integrated workforce services, a retainer agreement and task orders (A/73/384, paras. 67–69). Upon enquiry, the Advisory Committee was informed that a Contracts Management Unit had been established within the Operations Coordination Section of the Office of Information and Communications Technology to support the administration of Office contracts. The Committee was also informed that global contracts had been established by the Office for use by ICT offices throughout the Secretariat for: (a) voice and data services; (b) geospatial information services; (c) telecommunications services for global connectivity to service applications such as Umoja; and (d) the optimization of network availability, reliability and performance. **The Committee further reiterates its recommendation that the General Assembly request the Secretary-General to provide in his next report further analysis and comparisons of the cost savings and economies of scale achieved for the equipment and services procured through global systems contracts.**

V. Conclusions and recommendations

36. The action to be taken by the General Assembly is set out in paragraph 74 of the fourth annual progress report of the Secretary-General. **Subject to its observations and recommendations in the present report, the Advisory Committee recommends that the Assembly take note of the report of the Secretary-General.**

Annex

Implementation costs of eight of the information and communications technology strategy projects

(Monetary figures in United States dollars)

Project name	Description	Start date	Finish fate	Completion rate (percent-age)	Project cost and budget	Total expense (United States dollars)	Staff costs (United States dollars)	General temporary assistance (United States dollars)	Contractual (United States dollars)	Hardware (United States dollars)	Software (United States dollars)	Travel (United States dollars)	Expense incurred (United States dollars)	Expenses to be incurred (United States dollars)
Enterprise Unite Service Desk/ consolidation	Establish a round-the-clock Global Support Centre for enterprise applications, including Umoja, Inspira, Unite Docs, Unite Connections, iNeed and Earthmed; consolidate help desks throughout the Organization	1/1/2015	31/12/2018	100	Work was undertaken using reprioritized resources existing within the Office of Information and Communications Technology and the funds that the Office received for Umoja operating/ maintenance expenses; cost includes time of 3 staff, 3 contractors, automated call distribution system equipment purchased and travels of programme manager (staff) to support the harmonization of service desks **Project cost: 1 012 000**	1 012 000	644 000	43 000	83 000	226 000		16 000	1 012 000	0
Enterprise Network Security and Operations Centre	Establish an enterprise-level operations centre that will be globally responsible for detecting changes of state for information	11/5/2015	31/12/2018	100	Work was undertaken using reprioritized resources existing within the Office, including the time of staff as project manager, Regional Technology Centre	2 822 000		66 000	2 756 000				2 801 000	21 000

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	technology assets (event management) and determining the course of action required to return affected information technology services to an acceptable level for the information technology users as quickly as possible (incident management)				for the Americas International Computing Centre service delivery agreement for monitoring services, and United Nations Office for Project Services project manager since August 2016; project manager worked with Department of Field Support team, with costs included in the service-level agreement Final phase of the initiative, to add the other Regional Technology Centres, will be part of the information and communications technology strategy road map for the coming five years **Project cost: 2 822 000**									
Umoja mainstreaming	Transfer responsibilities from the Umoja project to the Office of Information and Communications Technology	1/12/2013	30/9/2019	74	Work was undertaken using funds that the Office received for Umoja operating/ maintenance expenses. The initiative also leverages existing resources within the Office, including the time of staff as programme manager,	5 843 000	5 104 000		739 000				3 858 000	1 985 000

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					existing database administration team doing SAP HANA, existing information architecture team and the existing Human Capital Management team, all part of mainstreaming **Project cost: 5 843 000**									
Global sourcing strategy	Take inventory of all information and communications technology contracts and assets and identify global sourcing opportunities	1/2/2016	14/2/2019	85	Work on developing the requests for proposals (under phase 1) were coordinated in 2016–2017 using reprioritized resources existing within the Office of Information and Communications Technology, including 25 per cent time of Office staff (general temporary assistance) as project manager. Input of staff on requirements for request for proposal are not included in the cost. Bid solicitation and contract award (under phase 2) are not included in the cost as part of the United Nations procurement process **Project cost: 59 000**	59 000		59 000					59 000	0

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Disaster recovery	Phase 1: develop a Secretariat-wide disaster recovery plan to ensure that critical information and communications technology systems can be effectively failed over in case of an emergency	1/5/2013	31/12/2016	100	Work was undertaken using reprioritized resources existing within the Office of Information and Communications Technology and the Department of Field Support, including the time of staff as project manager for phase 1 **Project cost: 329 000**	329 000	329 000						329 000	0
Disaster recovery	Phase 2: coordinate and prepare the annual disaster recovery exercises; coordinate the implementation of lessons learned; coordinate disaster recovery planning update process; conduct disaster recovery planning audit	17/10/2017	28/6/2019	25	Work was undertaken using reprioritized resources existing within the Office of Information and Communications Technology and the Department of Field Support, including the time of contractor as project manager, and the Department providing service as part of the service-level agreement (no cost) **Project cost: 191 000**	191 000			191 000				116 000	75 000
Application consolidation/ rationalization	Reduce the cost, complexity and redundancy of the applications portfolio and achieve greater alignment with	1/6/2014	31/12/2020	70	Work is performed through the application of governance procedures, regular project performance and task monitoring,	615 000	615 000						417 000	198 000

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	organizational objectives and technology architecture; this project is the essential part of the application management strategy, which has been executed by the established Enterprise Application Centres; the number of United Nations applications is to be reduced from 2,340 in June 2014 to 1,000 by 2020 through the provision of Organization-wide systems, instead of local application development				and reprioritization of existing resources within Office of Information and Communications Technology, including the time of staff as project manager and a G-7 staff, both coordinating with application focal points from United Nations offices/ departments **Project cost: 615 000**									
Website consolidation/ rationalization	Increase the efficiency of website operations, web design and security, and intend to bring economies of scale through strategic changes in the current operating model	2/1/2014	31/12/2020	58	Work is performed using funds that the Office of Information and Communications Technology received for operating/ maintenance expenses, and reprioritizing existing resources within the Office, including the time of staff as project manager coordinating with website focal points	2 131 000	440 000		1 691 000				1 209 000	922 000

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					from United Nations offices/departments; others include time of hired contractor on strategy, planning and solution, and the time of six contractors **Project cost: 2 131 000**									
Enterprise business intelligence and analytics	Establish business intelligence and analytics processes, reports, dashboards, standardization and governance for enterprise applications; consolidate and defragment business warehouse environments	1/1/2016	28/2/2018	100	Work was undertaken using funds that the Office of Information and Communications Technology received for operating/ maintenance expenses; Umoja support budget received by the Office was used to pay for SAP HANA licences, annual maintenance and SAP HANA platform upgrade to enterprise edition; resources existing within the Office were reprioritized, including the time of 6 staff and 6 contractors **Project cost: 1 196 000**	1 196 000	804 000		392 000				1 196 000	0