



General Assembly

Distr.: General
11 November 2015

Original: English

Seventieth session

Agenda item 134

Proposed programme budget for the biennium 2016-2017

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 (ICT) strategy for the United Nations ([A/70/364](#) and Corr.1), submitted pursuant to General Assembly resolution 69/262. During its consideration of the report of the Secretary-General, the Advisory Committee met with the Chief Information Technology Officer and other representatives of the Secretary-General who provided additional information and clarification, concluding with written responses received on 15 October 2015.

2. The present report should be read in conjunction with other reports of the Secretary-General and the related reports of the Advisory Committee currently before the General Assembly, which also contain information related to the implementation of the ICT strategy. These include: (a) the report of the Secretary-General on a framework for a global service delivery model of the United Nations Secretariat ([A/70/323](#) and [A/70/436](#)); (b) the seventh progress report of the Secretary-General on the implementation of the enterprise resource planning project ([A/70/369](#) and Corr.1 and 2), Umoja; and (c) the fourth annual progress report of the Board of Auditors on the implementation of the enterprise resource planning system ([A/70/158](#)). In addition, the Board of Auditors is to issue, before the end of the main part of the seventieth session of the General Assembly, a follow-up report to its report on the handling of ICT affairs in the Secretariat ([A/67/651](#) and [A/67/770](#)), and the Secretary-General has stated his intention to submit a report on revised estimates for the enterprise resource planning system for the biennium 2016-2017 for consideration by the Assembly at the first part of its resumed seventieth session (see [A/70/369](#) and Corr.1 and 2, para. 51).



3. In the paragraphs below, the Advisory Committee makes reference to peacekeeping-related ICT activities (“ICT in peacekeeping”), peacekeeping-related ICT resources (“peacekeeping ICT resources”) and entities (“peacekeeping entities”). These terms encompass resources, activities and entities related to: individual peacekeeping operations; the United Nations Logistics Base at Brindisi, Italy; the support account for peacekeeping operations; and field-based special political missions supported by the Department of Field Support.

Background and context

4. In its resolution 69/262, the General Assembly welcomed the new ICT strategy for the United Nations, as contained in the previous report of the Secretary-General on ICT in the United Nations ([A/69/517](#)). Recalling paragraphs 22 and 64 of the related report of the Advisory Committee ([A/69/610](#)), the Assembly endorsed all the elements of the ICT strategy, and requested him to ensure its implementation, taking into account the comments, observations and recommendations of the Board of Auditors (see also resolution 67/254 A, sect. I) and of the Advisory Committee, subject to future decisions of the Assembly. The Assembly also requested the Secretary-General to provide, for consideration at its seventieth session, detailed information on the implementation of all the elements of the proposed new strategy, including an implementation plan, with a clear timeline, a list of strategic ICT goals linked to the overall goals of the Organization and a list of ongoing and future strategic ICT initiatives supporting those goals and their costs, benchmarks and deliverables to measure their performance, expected benefits and risks, as well as an indicative five-year overall ICT budget projection for the Secretariat. In paragraphs 22 and 64 of its report, the Committee expressed, inter alia, its view that the proposed ICT strategy should continue to be further developed on the basis of a more detailed analysis for consideration and endorsement by the Assembly at its seventieth session.

5. In its resolution 69/262, the General Assembly also underlined the importance of ICT in meeting the growing demands of the Organization as it becomes increasingly reliant on its ICT infrastructure, as well as in increasing the availability of accurate and timely information to support decision-making and in strengthening oversight and accountability. In addition, as indicated by the Secretary-General, a comprehensive, secure, reliable and efficient ICT infrastructure is a critical enabler of a number of major Secretariat-wide business transformation and change management initiatives, including the enterprise resource planning system (Umoja) and the development of the global service delivery model (see [A/70/364](#) and Corr.1, para. 6), as well as the International Public Sector Accounting Standards (IPSAS), the global field support strategy and ongoing human resources management reform. Given the interdependencies between these initiatives and the ICT strategy, and given that these initiatives are being implemented on a Secretariat-wide basis, the Committee has emphasized the need for an enterprise approach to the implementation of the ICT strategy based on a common infrastructure that ensures harmonization and coherence, as well as the maximization of synergies and efficiencies in the use of resources (see [A/69/610](#), paras. 10 and 11).

Overview of the implementation status of the information and communications technology strategy

6. The Advisory Committee recalls that, in the context of the proposed programme budget for 2016-2017, the Secretary-General presented a series of proposals related to the implementation of the ICT strategy, including: (a) the harmonization and consolidation of the ICT functions of the Department of Management under the Office of Information and Communications Technology, with the transfer of 42 posts and non-post resources from other offices¹ of the Department; (b) strengthening of the staffing of the Office of Information and Communications Technology through the establishment of five posts (1 P-3, 4 P-2) and the upward reclassification of six posts (1 D-1 to D-2, 3 P-5 to D-1, and 2 P-4 to P-5); and (c) upward reclassifications at the United Nations Office at Geneva (1 P-5 to D-1, 1 P-3 to P-4) and the United Nations Office at Nairobi (1 P-5 to D-1). The Secretary-General proposed regular budget resources in the amount of \$100.7 million (before recosting) for the Office of Information and Communications Technology for the biennium 2016-2017, reflecting a net increase of \$26.3 million, or 35.3 per cent, compared with the revised appropriation for 2014-2015. The increase included the inward redeployment of \$20 million in post and non-post resources from the other offices of the Department of Management in connection with the above-mentioned harmonization and consolidation of functions, as well as a net increase of \$3 million for strengthening of the staffing of the Office of Information and Communications Technology and the implementation of the ICT strategy. In its related report, the Advisory Committee recommended approval of most of the Secretary-General's proposals (A/70/7, paras. VIII.110-VIII.118).

7. In his current report (A/70/364 and Corr.1), the Secretary-General outlines the ways in which ICT goals are aligned with the overall goals of the Organization and also provides: (a) detailed information on all elements of the ICT strategy for the United Nations, including an implementation plan with project assurance details such as a timeline, benchmarks and deliverables, and expected benefits and risks; (b) a status update on key ongoing and future ICT initiatives; and (c) an indicative five-year overall ICT budget projection for the Secretariat. Upon enquiry, the Advisory Committee was informed that the planning assumptions were based on a five-year time frame for the implementation of the ICT strategy, from 2015 to 2019, starting from the adoption of resolution 69/262 by the General Assembly.

8. The Advisory Committee was further informed that the report of the Secretary-General reflected progress achieved in implementing the elements of the ICT strategy and the related initiatives during the initial nine-month period. The Secretary-General considered the chief achievements of the period to include: (a) the issuance of an application management strategy developed by the enterprise applications centres and regional technology centres; (b) the establishment of an application portfolio, including applications used by the Department of Field Support; (c) the establishment of a software development coordinating group, including the participation of the Department; (d) the establishment of the regional technology centres, which are partially operational and are proving to be effective in ensuring implementation of strategic objectives; (e) the establishment of the enterprise service desk, which is fully operational and has played a critical role in

¹ Office of Programme Planning, Budget and Accounts, the Office of Human Resources Management and the Office of Central Support Services.

the roll-out of Umoja at cluster 3 entities;² (f) the formulation of a framework for delegation of authority, which is undergoing an internal consultation process; (g) the issuance of ICT policies in 29 of the 46 areas in which policy frameworks had been found to be insufficient or absent, with a further 12 policies under internal review and five in the process of being drafted; (h) the continuation of efforts towards the consolidation of enterprise applications in data centres; and (i) the achievement of significant progress in the implementation of the 10-point action plan for information security. In addition, efforts started in October 2014 towards the upgrading of network infrastructure and establishment of a coherent, managed global ICT network for the delivery of voice, data and video services have resulted in improved network connectivity for 87 large and medium-sized offices at Headquarters, offices away from Headquarters, the regional commissions and enterprise data centres, including Umoja cluster 3 entities.

II. General comments and recommendations

Overall progress

9. The Advisory Committee welcomes the progress reported by the Secretary-General on the implementation of the elements of the ICT strategy during its initial nine-month implementation period. It notes the efforts made to prioritize the development of capacities to support the roll-out of Umoja at cluster 3 entities, in particular the establishment of an enterprise service desk supported by the regional technology centres and the enterprise application centres, as well as the improvements in the connectivity and management of the global enterprise network. Notwithstanding the absence of information and analysis on peacekeeping ICT resources, the Committee recognizes that the initial process of the transformation of the highly fragmented ICT environment of the Secretariat has commenced. Given that ICT infrastructure enables development of other major business transformation initiatives such as Umoja and shared services (see para. 4 above), and also supports the work of the United Nations, the Committee considers it essential that the implementation of the elements of the ICT strategy proceed in a full and timely manner.

Indicative budget projection

10. With regard to the indicative budget projection requested by the General Assembly, the Secretary-General states that his estimates on the cost impact of the implementation of the ICT strategy (see [A/70/364](#) and Corr.1, figures II, III and IV) exclude peacekeeping ICT resources as well as the resources approved for Umoja, and reflect only the estimated impact under a part of the regular budget. He further indicates that the data underpinning figure V of his report, which provides an overview of ICT budgets by biennium for all sources of funding and the estimated increase in investment requirements (excluding Umoja), is based on the assumption that all non-regular budget resources will remain at the current level. The

² Economic and Social Commission for Asia and the Pacific, the Office for the Coordination of Humanitarian Affairs, the United Nations Assistance to the Khmer Rouge Trials, the United Nations Environment Programme, the United Nations Human Settlements Programme and the United Nations Office at Nairobi.

Committee discusses the budget assessment and indicative budget projection further in paragraphs 42 to 52 below.

11. **The Advisory Committee considers the absence of analysis and information on peacekeeping ICT resources (which represent some 75 per cent of the overall ICT resources at the United Nations) in the budget assessment and analysis to be a serious weakness in the report of the Secretary-General and in the implementation of the elements of the ICT strategy. The Committee regrets that the report of the Secretary-General does not comply with the wish of the General Assembly expressed in its resolution 69/262, in which the Assembly specifically requested the Secretary-General to provide an indicative five-year overall ICT budget projection for the entire Secretariat, and also requested him to continue his efforts to reduce the level of fragmentation of the current ICT environment across the Secretariat and at all duty stations and field missions. In the absence of a comprehensive analysis and holistic view of ICT resource requirements across the entire Secretariat, the Committee is not in a position to pronounce itself on the merits of the indicative five-year budget projections for the implementation of the ICT strategy.**

12. **The Advisory Committee further considers that the failure to include data on peacekeeping ICT resources in the budget projection exercise reflects weaknesses in the overall management of the Secretariat. While it recognizes that the implementation of a central ICT strategy presents significant challenges in the context of the current state of fragmentation of the ICT environment of the United Nations, under which offices and departments have their own ICT structures, the Committee considers that such challenges can be overcome through greater collaboration and cooperation, stronger leadership and timely implementation of effective delegation of authority and governance arrangements (see also paras. 15-19 below).**

Format and presentation

13. **The Advisory Committee found the presentation of the report of the Secretary-General to be lacking in clarity. The report itself is general in nature, with much of the requested detail provided in the supplementary information made available to the Committee. However, while the supplementary information contained a large volume of data, the information provided was not clearly linked to specific subjects/issues in the body of the report, making it difficult to correlate the content of the two materials. Furthermore, the Committee found the information on the budget and human resources assessment in section IV of the report to be particularly confusing and lacking in clarity, with little linkage between the narrative and the figures, and key information being provided in footnotes with only a minimum of explanation. Accordingly, the Committee recommends that the General Assembly request the Secretary-General to make further efforts to improve the presentation of his future progress reports on the implementation of the ICT strategy, with a view to providing clear and transparent information to support decision-making and assessment of progress.**

14. **The Advisory Committee also emphasizes that, at the outset of the implementation of any major business transformation initiative, it is essential to provide the General Assembly with a clear understanding of the existing situation; the goals, objectives and the end-state vision of the initiative; the governance and**

management arrangements with lines of reporting and accountability; and the implementation plan and timeline, milestones and deliverables, expected benefits, risks, assumptions, constraints and cost estimates. In addition, the Assembly should be provided with a business case justifying the proposed investments based on a detailed cost-benefit analysis as well as comprehensive baseline information on the existing situation that can be used to assess progress. **The Committee trusts that, with the full and timely inclusion of all Secretariat ICT resources, including peacekeeping ICT resources, the Secretary-General will be in a position to present the information called for in General Assembly resolution 69/262 and to implement all the elements of the ICT strategy.**

III. Comments and recommendations on specific aspects of the strategy

A. Information and communications technology governance, management framework and compliance

15. The Advisory Committee recalls that in his previous report on ICT in the United Nations ([A/69/517](#)), the Secretary-General indicated that a new ICT governance framework had been established that included the following key components: the Information and Communications Technology Executive Committee, chaired by the Under-Secretary-General for Management, which is responsible for ensuring that ICT meets the business requirements and objectives of the United Nations; the Information and Communications Technology Board, chaired by the Chief Information Technology Officer, which is responsible for ensuring the coherent and coordinated global usage of ICT across departments and duty stations; the Information and Communications Technology Policy Committee, which is responsible for establishing a system of policies, procedures and guidelines to regulate the provision and use of ICT resources and data; and the Architecture Review Board, which is responsible for reviewing and formulating the enterprise architecture of the United Nations and associated standards and policies and for providing recommendations to the Chief Information Technology Officer (see [A/69/517](#), paras. 46-49).

16. Information on the actions taken to implement governance and compliance mechanisms is provided in paragraphs 7 to 11 of the report of the Secretary-General, in which he states that: (a) the Information and Communications Technology Executive Committee, the Information and Communications Technology Board and the business community have been reviewing governance mechanisms and implementing procedures, policies and processes to improve monitoring and compliance; (b) a software development coordination group has been established to manage application delivery throughout the Secretariat; (c) advisory boards have been established in each region to provide input for the development of the annual workplans of the regional technology centres; (d) the Office of Information and Communications Technology is working closely with the Office of Programme Planning, Budget and Accounts and the Office of Central Support Services to ensure the visibility of ICT investments and major acquisitions across the Secretariat; (e) departmental investment and project proposals are being subjected to central review and internal challenge by regional technology centres and enterprise applications centres before the submission of programme budget proposals; and

(f) an ICT policy compliance function is being established to provide support for supervisors in carrying out their management responsibilities and guidance on managing data, ICT resources and tools. **The Advisory Committee recommends that the Secretary-General be requested to provide, in his next report, details on changes with regard to governance and delegation of authority, and on the day-to-day operational arrangements between the Office for Information and Communications Technology and other Secretariat entities.**

17. In its previous report, the Advisory Committee noted that it had been informed that, should the General Assembly approve the proposed revised ICT strategy, the Secretariat would prepare and promulgate a Secretary-General's bulletin on the Office of Information and Communications Technology, which would establish the requisite mechanisms for delegation of authority and procedures for ensuring compliance with the strategy (A/69/610, para. 29). The General Assembly, in its resolution 69/262 (sect. II, paras. 16 and 18): acknowledged the responsibilities and the importance of the strong central leadership of the Chief Information Technology Officer for the overall direction and performance of information and communications technology activities within the Organization; emphasized the need for appropriate delegation of authority and procedures for ensuring compliance with the revised ICT strategy guidelines on, inter alia, operations, security, investment and oversight at United Nations offices, in particular those related to the field; and requested the Secretary-General to ensure that all entities of the Secretariat report to the Chief Information Technology Officer on all issues relating to information and communications technology activities, resource management, standards, security, architecture, policies and guidance. With regard to delegation of authority, the Secretary-General indicates in his report that a series of policy documents is currently under review, which will enable the Chief Information Technology Officer to formally delegate authority to manage ICT resources to the regional technology centres and the enterprise applications centres (A/70/364 and Corr.1, para. 11).

18. **The Advisory Committee points out that the issuance of a Secretary-General's bulletin for the Office of Information and Communications Technology is long overdue, given that the Office was initially established by the General Assembly in its resolution 63/262 and subsequently placed under the Department of Management (General Assembly resolution 66/246). The Committee therefore recommends that the Assembly request the Secretary-General to expedite the finalization and promulgation of a Secretary-General's bulletin on the Office of Information and Communications Technology. The bulletin should establish clear, unambiguous mechanisms for the operationalization of paragraphs 16 and 18 of section II of General Assembly resolution 69/262 and ensure that all departmental ICT proposals are subjected to central review in accordance with the ICT governance framework before their submission to the Office of Programme Planning, Budget and Accounts.**

19. **The Advisory Committee further recommends that the Secretary-General be requested to exercise proactive and strong leadership to ensure full compliance by all Secretariat entities with the provisions of General Assembly resolution 69/262, as well as their full cooperation in the implementation of all the elements of the ICT strategy, as approved by the Assembly. The Committee also stresses the need to ensure greater commitment of senior managers to implement the decisions taken by the Assembly on the ICT strategy and recommends that the Secretary-General be requested to consider the inclusion**

of a new indicator of performance in senior managers' compacts on this matter. The Committee expects that every effort will be made in the future to avoid repetition of the situation described in paragraphs 10 to 12 above.

Project assurance

20. The Board of Auditors has highlighted the importance of ensuring an effective system of project assurance for major business transformation initiatives that can provide an independent assessment (i.e. independent of the project team) of whether the elements required to deliver a project successfully are in place and operating effectively (see [A/67/164](#), para. 59). In its previous report, the Advisory Committee expressed its view that an independent internal challenge mechanism should be put in place to provide independent advice and oversight regarding, inter alia, the scope, cost and implementation timetable, with a view to ensuring that the project remains on track to achieve its objectives (see [A/69/610](#), para. 32). In his report, the Secretary-General indicates that the Management Committee has been reviewing progress in the implementation of the elements of the ICT strategy, serving as an independent internal challenge mechanism to provide project assurance ([A/70/364](#) and Corr.1, para. 7). In this regard, the Committee notes, as indicated in paragraph 11 above, that the current report of the Secretary-General does not respond to a key request of the General Assembly to include an indicative five-year overall ICT budget projection for the Secretariat. **The Committee trusts that the Secretary-General will pursue efforts to improve the project assurance process in a manner that ensures that issues are identified and addressed in a timely manner, and that key project deliverables are produced according to plan.**

B. Implementation status of key initiatives

21. Information on the implementation status of the key initiatives of the ICT strategy is provided in section III of the report of the Secretary-General. Annex I to the report of the Secretary-General provides a summary of all the ICT initiatives under way with their respective start and finish dates, key milestones, with target completion date of each milestone, and overall completion (by percentage) at the time of the issuance of the report. **The Advisory Committee is of the view that annex I provides a useful overview of the implementation status of projects/initiatives being implemented under the ICT strategy. The Committee recommends that the Secretary-General be requested to provide updated versions of the annex in future ICT progress reports, while maintaining information on the initially planned start and finish dates.**

22. In the paragraphs below, the Advisory Committee highlights some of the issues in the implementation of the key initiatives of the ICT strategy.

Mainstreaming of Umoja

23. In his report, the Secretary-General provides information on the functions to be transferred from the Umoja team to the Office of Information and Communications Technology and on the applications that can potentially be decommissioned ([A/70/364](#) and Corr.1, paras. 15 and 16). The summary in annex I to the report indicates that this activity is 25 per cent complete and is being carried out during the 2013-2018 period, with two key milestones to be achieved by the end

of March 2016 and three by the end of 2018. In this connection, the Advisory Committee recalls the Board of Auditors comments on Umoja mainstreaming activities in its fourth annual report on the implementation of the enterprise resource planning system, including on support arrangements, transition planning, transfer of knowledge and resourcing (A/70/158, paras. 57-75). The Committee will comment on this matter in the context of its report on the seventh progress report of the Secretary-General on the implementation of the system (A/70/369 and Corr.1 and 2). **The Advisory Committee trusts that the Secretary-General will provide an update on progress in Umoja mainstreaming activities in the context of the forthcoming report on revised estimates for the enterprise resource planning system mentioned in paragraph 2 above.**

Information security and disaster recovery

24. The report of the Secretary-General provides a detailed update on the implementation of the 10-point information security action plan, including disaster recovery, and indicates, inter alia, that an information security policy directive has been promulgated (A/70/364 and Corr.1, paras. 17-27). **The Advisory Committee trusts that a common security policy is being applied across the Secretariat, including in all peacekeeping entities, and recommends that the Secretary-General be requested to provide an update on this matter in his next report.**

25. With regard to disaster recovery, the Secretary-General states in his report that a total of 171 critical systems were identified as part of the implementation of the operational resilience management system across the Secretariat. Furthermore, an internal review conducted in July 2015 revealed a systemic weakness in disaster recovery. The report indicates that significant investment and substantially increased annual operations and maintenance costs will be required to provide advanced disaster recovery capabilities (see A/70/364 and Corr.1, para. 27). The Secretary-General also states that efforts will be made to address this issue by migrating as many of the critical applications as possible to the enterprise data centres, which already provide advanced disaster recovery capabilities. **The Advisory Committee trusts that a detailed update on the status of migration of the 171 critical systems, as well as on the requirements for providing disaster recovery capabilities for the remaining systems, will be provided in the Secretary-General's next report.**

Enterprise application centres

26. Information on the enterprise application centres is provided in paragraphs 28 to 34 of the report of the Secretary-General. He indicates that enterprise application centres have been established at New York, Vienna and Bangkok in order to reduce the fragmentation of application development across the Secretariat. The centres have developed a multi-phase harmonization plan, the first phase of which consists of the establishment of a United Nations global application portfolio repository.

27. The report of the Secretary-General indicates that, on the basis of reports received from Headquarters, offices away from Headquarters, regional economic commissions and field missions, 2,300 applications have been validated, and that as at 1 June 2015, there were 2,160 active applications and 140 applications in "sunset" and/or retired mode. The report also provides an analysis of the existing 2,160 applications by functional area, type of application and opportunities for

harmonization ([A/70/364](#) and Corr.1, para. 29). The Secretary-General indicates that a total of 893 applications can potentially be consolidated into enterprise systems and an additional 438 applications harmonized by developing common automation solutions or adopting existing applications (best of “breed” approach). Based on ICT industry studies, the Secretary-General expects that application consolidation and harmonization at the United Nations will be completed by 2020 and will result in the reduction of approximately 1,000 applications (or 46 per cent of current inventory) (ibid., para. 32).

28. The Advisory Committee welcomes the initial analysis of the existing applications provided in the report of the Secretary-General. It has long highlighted the need for an effective application development strategy that ensures a coherent approach, eliminates redundant, duplicative and obsolete applications and reduces the high level of fragmentation in this area. The Committee encourages the Secretary-General to pursue efforts towards the implementation of the above-mentioned multi-phased harmonization plan developed by the enterprise application centres and to continue to refine and expand his analysis of United Nations applications. The Committee reiterates its previous recommendation that the General Assembly request the Secretary-General to provide, in his next report, updated information on the total number of applications and those that can be decommissioned, including details on the total number of systems to be replaced by Umoja.

Global wide-area network/global monitoring

29. The Secretary-General states that work is progressing satisfactorily on the migration of 106 Secretariat site locations and 15,025 users at Headquarters, offices away from Headquarters and regional commissions to the standardized global network from many legacy networks. Peacekeeping missions, owing to their environment, operate on a different satellite-based network which, when coupled with the standardized global network, will form the integrated network for the Secretariat (see [A/70/364](#) and Corr.1, para. 35). Upon enquiry as to the impact of the creation of a standardized global network on the development of a global service delivery model of the United Nations Secretariat, the Advisory Committee was informed that such a network would increase the quality of service available to Secretariat ICT, users irrespective of location, through proper management of bandwidth, prioritization of traffic, early identification of problems and more efficient use of network resources. A high-quality global network would facilitate access to enterprise services and applications, which would facilitate the development of a global service delivery model of the United Nations Secretariat.

Regional technology centres

30. The Secretary-General indicates that existing capacities at United Nations Headquarters and at key offices away from Headquarters have been leveraged to assign regional technology centre status to the existing regional centres at the United Nations Office at Nairobi (for Africa), 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). He states that the centres play a key role in facilitating implementation of the Organization’s strategic initiatives within their respective regions, and, on the basis of an annual regional technology centre workplan, the centres implement information security initiatives, harmonize service

delivery, standardize the global ICT network, provide support for Umoja delivery and establish procedures to better utilize global contracts (ibid., paras. 36 and 37).

31. The Secretary-General further states that the centres are partially operational and complement the regional cooperation arrangements for the delivery of ICT services established for ICT in peacekeeping (see [A/68/731](#), para. 203). Upon request for clarification on this complementarity, the Advisory Committee was informed that the regional technology centres were designed to address the observations of the Board of Auditors regarding the lack of a common vision and the high-level of fragmentation in the operations of ICT systems (see [A/67/651](#)). The primary role of the regional technology centres was to ensure alignment between the strategic direction at the organizational level and programme delivery in the regions by coordinating regional ICT services, exercising oversight, implementing mandatory governance measures, ensuring application of consistent architecture standards, harmonizing ICT functions and guiding the regional entities. The Committee was further informed that the regional technology centres consisted of frameworks, or logical structures, rather than new, physical centres. Those logical structures were designed to fulfil the above-mentioned role and responsibilities, without the need for the physical location, infrastructure, tools and methods normally associated with a physical centre. In contrast, the regional cooperation arrangements for the delivery of ICT services in peacekeeping (see [A/68/731](#), para. 203) were intended to support field-specific service delivery to civilian and uniformed personnel, as well as other co-located United Nations system partners, specifically in the Middle East and East African regions.

32. In this connection, the Advisory Committee recalls that in his fifth annual progress report on the global field support strategy, the Secretary-General indicated that regional ICT arrangements for field missions supported three groupings of missions: (a) Middle East missions; (b) Central and East Africa missions serviced from the Regional Service Centre at Entebbe, Uganda; and (c) the remaining missions, which are serviced from the Field Technology Operations Centre in the United Nations Global Service Centre located at the United Nations Logistics Base at Brindisi ([A/69/651](#), para. 23 (a)).

33. The Advisory Committee was informed that as the regional technology centres matured they would collaborate more closely with ICT services in peacekeeping, as mandated in the ICT strategy. **The Advisory Committee stresses the need to optimize and integrate the use of the Organization's ICT infrastructure and to avoid duplication wherever possible.**

Enterprise data centres

34. The Secretary-General states that the enterprise data centres at Brindisi and Valencia, Spain, are fully operational, with upgraded information security infrastructure and fully tested disaster recovery and business continuity capabilities ([A/70/364](#), para. 39). The centres host core enterprise systems, such as iNeed, the enterprise identity management system and Umoja, which are used across the Secretariat, and will host additional enterprise systems such as Inspira. In this connection, the Advisory Committee recalls that in its resolution 63/269, the General Assembly requested the Secretary-General to ensure that the United Nations used enterprise data centres rather than local data centres as far as possible. Upon enquiry, the Committee was informed that the enterprise data centres were operated

by the Department of Field Support, which acts as a service provider based on service-level agreements. **The Committee recommends that the Secretary-General be requested to provide in his next report full details on cost recovery for the services provided, including information on the costs of the operations of the enterprise data centres, the costs/charges for the services provided and the underlying methodology used to determine the costs, as well as the terms of the different service-level agreements.**

Enterprise service desk

35. The Secretary-General states that the enterprise service desk became operational in September 2014, and that it provides global, around-the-clock tier 1 level support for Umoja and other enterprise applications from five locations (Bangkok, Brindisi, Geneva, Nairobi and New York) (A/70/364 and Corr.1, para. 41). However, for peacekeeping entities, tier 1 level support for Umoja is provided locally. In addition, all application help desks are being consolidated into the enterprise service desk. Upon request, the Advisory Committee was provided with additional information on the enterprise service desk (see annex I).

36. **The Advisory Committee is of the view that a unified system for Umoja support should be established. It recommends that the Secretary-General be requested to provide in his next report a detailed update on the enterprise service desk.**

Defragmentation

37. The Secretary-General indicates that in addition to the harmonization and consolidation of the ICT functions of the Department of Management under the Office of Information and Communications Technology (see para. 6 above), harmonization efforts are also under way in the Department for General Assembly and Conference Management, the Department of Safety and Security, the Department of Public Information and the Office for the Coordination of Humanitarian Affairs. In addition, ICT consolidation efforts are taking place between the United Nations Office at Geneva and the Department for General Assembly and Conference Management (A/70/364 and Corr.1, para. 42). **The Advisory Committee welcomes the efforts being made to harmonize the ICT functions in certain areas of the Secretariat and reduce the level of fragmentation of the ICT environment of the United Nations. The Committee notes the necessity of optimizing the use of resources, as well as of consolidating capacities.**

38. **In this connection, the Advisory Committee emphasizes that the General Assembly should be provided with a comprehensive picture of the harmonization and consolidation efforts, including an update on progress achieved and a plan for the harmonization and consolidation of the remaining ICT functions across the Secretariat. This will require the establishment of a detailed baseline of the ICT capacities of each entity at the start of the harmonization process and systematic documentation of all the changes as they occur. ICT capacities and resources as at the start of 2014 should serve as the baseline. The information recorded should include, inter alia, details on the approved budget and budget performance by category of expenditure, all the posts dedicated to ICT activities by organizational unit, with post titles and**

grade levels, all non-post resources, including temporary positions, consultants and contractual personnel, the specific services provided and the applications/systems maintained, as well as an inventory of ICT assets. The Committee trusts that the data gathered will be included in future progress reports on the implementation of the ICT strategy.

39. The Advisory Committee encourages the Secretary-General, in further pursuing the above harmonization and consolidation efforts, to draw upon lessons learned during the implementation of the global field support strategy.

Enterprise business intelligence and analytics

40. The Secretary-General states that there are 22 business data warehouses in the United Nations, but that the information they contain is of limited value because it serves only local requirements and cannot be aggregated across the Organization (A/70/364 and Corr.1, para. 43). The Secretary-General indicates that an enterprise business intelligence and analytics capacity has been established to address this issue. The Committee was informed that the enterprise business intelligence and analytics capacity had been established, using existing resources, as a virtual team brought under common standards, architecture and policies, with strengthened coordination covering the totality of the Secretariat. The analytics capacity served the common and cross-cutting needs of the United Nations and was not a physical or co-located group. Upon request, the Committee was provided with a list of the 22 business data warehouses (see annex II). The Committee was informed that the list did not include peacekeeping business data warehouses.

41. The Advisory Committee recommends that the Secretary-General be requested to provide in his next report comprehensive information on the business intelligence and analytics capacity and business data warehouses, including those related to peacekeeping entities. The Secretary-General should also provide information on the outcome of the work of the capacity across all Secretariat entities, including information on improvements in the type and quality of data that can be made available to Member States to support decision-making. In addition, the Secretary-General should be requested to provide baseline information on the resources currently dedicated to supporting the existing 22 business data warehouses, as well as details on how the 22 warehouses are planned to be consolidated.

C. Budget, human resources and global sourcing

Budget projection exercise

42. With regard to the request by the General Assembly in its resolution 69/262 for an indicative five-year overall ICT budget projection for the Secretariat, the Secretary-General provides: (a) in annex III to his report, a trend analysis of ICT staff and non-staff resources of Office of Information and Communications Technology for three bienniums (2014-2015, 2016-2017 and 2018-2019); (b) in figure I, a breakdown of resources allocated by ICT functional area;³ (c) in

³ Application development and support; data centres; data and voice networks; information technology service desks; end-user computing; and information technology management, finance and administration.

figures II, III and IV specific indicators on the estimated cost impact of the implementation of the ICT strategy under the regular budget (Headquarters, offices away from Headquarters and regional commissions), which excludes ICT resources related to Umoja and peacekeeping ICT; and (d) in figure V, an overview of ICT budgets by biennium for all sources of funding and the estimated increase in investment requirements (excluding Umoja), which is based on the assumption that all non-regular budget resources will remain at the current level.

43. In this connection, the Advisory Committee recalls that in its report on the handling of ICT affairs in the Secretariat, the Board of Auditors identified as one of the three key limitations of the current ICT strategy the insufficient recognition given to peacekeeping activities, which account for some 75 per cent of overall ICT expenditure ([A/67/651](#), para. 18). As indicated in the related report of the Advisory Committee, any ICT strategy for the United Nations that did not encompass peacekeeping operations would lack credibility (see [A/67/770](#), para. 46). In subsequent reports that have been endorsed by the General Assembly (see [A/69/610](#), para. 43; [A/69/874](#), para. 16; and [A/69/839/Add.9](#), para. 40), the Committee has continued to stress the critical need for a comprehensive, Secretariat-wide approach to the development of ICT and related initiatives, such as the development of a global service delivery model for the United Nations Secretariat, in particular following the implementation of enterprise systems (such as Umoja, Inspira and iNeed), and enterprise ICT infrastructure, including the enterprise data centres at Brindisi and Valencia, which are used in common by all Secretariat entities.

44. The Advisory Committee requested clarification on the information requested by the Office of Information and Communications Technology for its budget projection exercise. The Committee was informed that the Office had requested information in the following areas: (a) infrastructure/assets; (b) information security and disaster recovery; (c) contracts; (d) help desk/end users; (e) a five-year projection of project costs; (f) human resources; (g) budget; and (h) applications and databases. The Committee was further informed that challenges were faced in providing the requested data and a multi-year projection because of the level of detail requested and the unpredictable nature of ICT expenditure in peacekeeping owing to the volatile and complex nature of field operations, revisions to mandates, evolving requirements and changing security conditions.

45. **The Advisory Committee found the explanations given on the inability to provide the data required for the budget projection exercise to be unsatisfactory and unconvincing.** The Committee would have expected that the recent implementation of major reform initiatives such as the International Public Accounting Standards, Umoja and the different modules of the global field support strategy (including the analysis of costs carried out in the context of the development of the standard funding model), would have resulted in improvements in the recording and management of assets, standardization of costs, and rationalization and consolidation of ICT systems, and that such improvements would have led to more advanced planning capabilities and the ability to provide information on five-year planning assumptions for the 2015-2019 period. Moreover, there is increasing use of enterprise/central systems which are hosted at the enterprise data centres at Brindisi and Valencia, and many ICT services are location independent and can be provided remotely (see [A/69/733/Rev.1](#)), which reduces staffing and infrastructure requirements in individual peacekeeping operations and should also facilitate planning for the ICT requirements in peacekeeping. **While the**

Committee recognizes the inherent uncertainty as regards future peacekeeping mandates, it is of the view that the information requested — for instance, the projections for the requirements for ICT infrastructure, replacement of assets, development and maintenance of ICT systems, network upgrades and the ICT workforce — could reasonably have been estimated on the basis of well-defined planning assumptions.

46. The Advisory Committee notes that the information contained in the report of the Secretary-General on the analysis of the cost impact of the implementation of the ICT strategy, which is limited to the regular budget source of funding, does not respond to the request of the General Assembly (see also para. 10 above). The Committee therefore recommends that the Assembly reiterate its request that the Secretary-General conduct a Secretariat-wide, comprehensive analysis. Accordingly, the Secretary-General should resubmit in his next report an indicative five-year overall information and communications technology budget projection for the Secretariat.

47. In this regard, the Advisory Committee stresses the necessity of avoiding a “two-track” approach for the development of the ICT strategy of the United Nations — one for ICT in peacekeeping and one for ICT in the remaining Secretariat entities — which will undermine the other major reforms being implemented towards the establishment of an integrated global Secretariat, including the harmonization of contractual arrangements and the mobility framework, as well as Umoja and the development of a global service delivery model for the United Nations Secretariat.

48. Information on the share of ICT spending under different funding sources is provided in paragraph 45 of the report of the Secretary-General. It is indicated that, exclusive of the resources allocated to Umoja, the Organization will spend 2.9 per cent of its regular budget, 5.5 per cent of its peacekeeping budgets, 4.3 per cent of resources allocated to special political missions, 0.1 per cent of extrabudgetary resources and 9.1 per cent of support account resources on ICT during the biennium 2016-2017. Further details are provided in annex II to the report of the Secretary-General. **The Advisory Committee considers that there is a need for a deeper analysis of these expenditure patterns over recent years, with a view to explaining the structural reasons for the wide variations in the rates of ICT spending under the different sources of funding. Such an analysis should be comprehensive and should review and compare the level of investments already made in ICT infrastructure in different parts of the Organization. The Committee recommends that the Secretary-General be requested to conduct such an in-depth analysis and to present the outcome of his findings in his next report.**

49. The Advisory Committee considers that such an analysis could benefit from specialist knowledge of ICT audit methods and methodologies, and encourages the Secretary-General to use any relevant capacity and skills available in house in conducting the above-mentioned analysis of ICT expenditures and cost structures. In this connection, the Committee recalls that, in August 2014, it requested the Board of Auditors to conduct a comprehensive audit of ICT expenditures in peacekeeping. Subsequently, in January 2015, the Committee requested the Board to expand the coverage of its audit of ICT expenditure in peacekeeping operations to all Secretariat entities, main duty stations and field-based offices.

50. In paragraph 49 and figure III of his report, the Secretary-General indicates that in 2018-2019 he expects that a major increase in regular budget resources will be required to continue to fund infrastructure and service demands for centrally funded activities, including asset replacement, industry benchmark ICT spending increases and additional resource requirements indicated by departments/offices. He further indicates that the increase could be contained between 13 and 27 per cent over the 2016-2017 budget proposal levels with the implementation of the different initiatives of the ICT strategy. Based on the assumption that all non-regular budget resources will remain at the current level, the increase is estimated between 2 and 5 per cent across all sources of funding ([A/70/364](#), and Corr.1, para. 70 and figure V). **The Advisory Committee stresses that such projections must be based on a comprehensive Secretariat-wide analysis of ICT requirements and spending projections under all sources of funding. In this regard, the Committee points out that the Organization has been investing more heavily in ICT in peacekeeping over the past years in areas such as disaster recovery, e-mail systems and upgrading of networks and communications systems. The Committee would therefore expect ICT investments in peacekeeping to decrease over time, offsetting the additional requirements in the other areas of the Organization which have yet to implement such ICT upgrades/features, and that the overall ICT budget projections would reflect such trends.**

51. The Advisory Committee recalls that, in addition to the implementation of enterprise systems such as Umoja and Inspira, efforts to consolidate, rationalize and centralize ICT in peacekeeping have been ongoing for some time, including in the context of the global field support strategy. These include, for example, the progressive implementation of a regional approach to the provision of ICT services, which was initially proposed in 2010 ([A/64/643](#)), over the five-year implementation period of the global field support strategy, and remote ICT hosting and technical support, as well as centralization and consolidation of the infrastructure and staffing of geographic information systems related to peacekeeping operations (see [A/68/731](#), paras. 199-209). **The Committee considers that the above centralization efforts should also start to yield efficiencies in the provision of ICT services, which should be reflected as reduced requirements in the overall ICT budget projections.**

52. As indicated in paragraph 13 above, the Advisory Committee found the presentation of the outcome of the budget projection exercise to be confusing and lacking in clarity. Upon enquiry, the Committee was provided with additional information on the conduct of the budget projection exercise and clarifications on the data and assumptions underpinning the information in figures I to V of the report of the Secretary-General, which facilitated, to some degree, its consideration of the budget projections. Some of the clarifications provided to the Committee are attached as annex III to the present report. Given that the ICT assessment to be presented in the next report (see para. 46 above) will serve as a baseline for the existing situation and a reference point for assessing progress in the implementation of the ICT strategy, the Committee stresses that a clear record should be established of the elements that are to be measured and tracked and that the narratives supporting the data should provide information and explanations on the data and underlying methodologies used. Attention should also be paid to presenting related information in a consolidated manner, and, if it is necessary to provide complementary data in the supplementary information, to clearly indicate the

linkages and relationships between data in the different documents. **In view of the foregoing, the Advisory Committee recommends that the General Assembly request the Secretary-General to make further efforts to improve the structure and clarity of the presentation of the indicative budget projections in his next report.**

Human resources management framework

53. The Secretary-General states that the Office of Information and Communications Technology and the Office of Human Resources Management are jointly examining existing and future ICT human resource requirements. An overview of the ICT workforce will be made available to Member States, and detailed proposals will be developed in collaboration with the Office of Human Resources Management for the approval of the General Assembly at its seventy-first session (A/70/364 and Corr.1, para. 51). Upon enquiry, the Advisory Committee was informed that in developing the human resources assessment and a skills assessment methodology, the Office of Information and Communications Technology had consulted broadly, including with the human resources assessment working group consisting of ICT focal points nominated by departments/offices. The assessment was based on Integrated Management Information System (IMIS) and Umoja data and examined human resource profiles, skills requirements and capacity gap analyses. A proposal had also been presented by the Office of Information and Communications Technology for a skills assessment survey that would capture both current ICT capacity, including peacekeeping ICT capacity, and estimated future capacity needs as the ICT strategy was implemented. The methodology had been approved by the human resources assessment working group. **The Committee looks forward to receiving the Secretary-General's detailed analyses and proposals for the human resources management framework. The Committee recommends that the General Assembly request the Secretary-General to ensure that the human resources and skills assessment is comprehensive and includes the peacekeeping ICT workforce.**

54. Upon enquiry, the Advisory Committee was provided with additional information showing that the ICT workforce of the United Nations included: (a) a total of 1,208 regular budget established and temporary posts, and positions funded under general temporary assistance for non-peacekeeping Secretariat entities; and (b) a total of 3,194 personnel in the peacekeeping ICT workforce, comprising 2,183 United Nations posts and positions and 1,011 third-party personnel. **The Committee recommends that the General Assembly request the Secretary-General to include in his analysis comprehensive information on established and temporary posts, positions, consultants, contractual personnel and any other third-party personnel under all funding sources, and to provide details on the ICT workforce in his next report.**

Global sourcing

55. The Secretary-General indicates that a total of 65 per cent of the largest 20 vendors to the United Nations (excluding Umoja-related contracts) provide services in multiple locations managed by various offices independently and that the United Nations will negotiate discounts in infrastructure, licences and services (A/70/364 and Corr.1, para. 52). Upon enquiry, the Advisory Committee was informed that the category "global sourcing" in figure IV of the report of the

Secretary-General was based on the assumption of a potential for achieving 6 per cent discounts. **The Committee encourages the Secretary-General to pursue efforts to ensure that all ICT resources are optimally managed and to provide an update in his next report.**

IV. Conclusion and recommendations

56. The action requested of the General Assembly is set out in paragraph 54 of the report of the Secretary-General. **The Advisory Committee recommends that, subject to its comments and recommendations in the paragraphs above, the General Assembly take note of the information provided in the report of the Secretary-General on the implementation of all the elements of the ICT strategy. For the reasons given in paragraphs 42 to 45 above, the Committee is not in a position to pronounce itself on the merits of the indicative five-year overall ICT budget projection for the Secretariat as presented in the report of the Secretary-General, and recommends against its endorsement by the General Assembly. The Committee recommends that the General Assembly request the Secretary-General to conduct a comprehensive assessment of ICT, assets as requested in resolution 69/262, taking into account the comments and recommendations in the present report, and to present an indicative five-year overall ICT budget projection for the Secretariat in his next report.**

Annex I

Details regarding the enterprise service desk

1. The enterprise service desk (known as the Unite Service Desk) has hubs located in the headquarters of the Economic and Social Commission, in Bangkok; in the Gigiri complex of the United Nations Office at Nairobi; on the campus of the United Nations Office at Geneva; and in the Office of Information and Communications Technology office in the United Nations Federal Credit Union building in Long Island City, New York. The desk is accessed through a common global telephone number (212-963-3333); through e-mail (esc@un.org); or through a self-service request made on the Unite website (<https://unite.un.org/ictsupport>). The hubs follow the same processes and procedures and use the same custom relationship management technology platform (iNeed) and remote access tool, and calls are automatically routed by means of an automatic call distribution tool. The United Nations International Computing Centre, which is located at the United Nations Logistics Base in Brindisi, Italy, provides tier 2-level support.
2. The operating model of the Unite Service Desk includes objectives aimed at achieving scale and facilitating the development of expertise specific to the enterprise resource planning system (Umoja). The effort to establish Umoja support was carried out in coordination with the Umoja team and offices away from Headquarters. To date, focus has been placed on the harmonization of processes (based on the Information Technology Infrastructure Library framework) and technology (iNeed) across United Nations Headquarters, since the processes and related uses of technology differ in each department, reflecting the highly fragmented nature of information and communications technology in the Organization.
3. The Unite Service Desk currently uses existing staff resources from the Office of Information and Communications Technology, complemented by contractual services and staff from the Information and Communication Technology Service of the United Nations Office at Nairobi and Information and Communication Technology Services of the United Nations Office at Geneva, as well as staff on temporary assignment for a three- to six-month period from a number of departments in Geneva, as part of the activities related to the ramp-up of Umoja. While this staffing model addresses temporary enterprise service desk requirements, a longer-term solution will be proposed as part of the Secretary-General's detailed proposal for administrative support services in relation to his report on the framework for a global service delivery model of the United Nations Secretariat ([A/70/323](#)), subject to future decisions of the General Assembly, for consideration at its seventy-first session.
4. Currently, the Unite Service Desk provides user support for the following enterprise applications: Citrix, EarthMed, eCOE (contingent-owned equipment), EFMS2 (electronic fuel management system), EIDMS (enterprise identity management system), ERMS (enterprise risk management system), iNeed, Inspira, Umoja, United Nations Careers, Unite Connections and Unite Docs. It should be noted that the scope of the support provided by the Unite Service Desk will be expanded over time as the Organization moves towards global enterprise applications. For example, the travel request information processing system (TRIP) and Microsoft Outlook will be supported by the Desk in the near future.

5. The Unite Service Desk provides tier 1 global support to Secretariat staff on a round-the-clock “follow-the-sun” basis for all enterprise applications with the exception of Umoja. Moving forward, the Office of Information and Communications Technology will work with the Department of Field Support to achieve further harmonization with respect to Umoja tier 1 support.

Annex II

List of United Nations business data warehouses

<i>Office/department</i>	<i>Application name</i>	<i>Description</i>
1 Department of Field Support	SAP HANA	SAP HANA is an in-memory, column-oriented, relational database management system developed and marketed by SAP SE. Umoja data will be loaded to SAP HANA for data query on historical enterprise resource planning data (including Integrated Management Information System (IMIS) data) and business intelligence reporting.
2 Department for General Assembly and Conference Management	gData	gData, the Department's global reporting data warehouse, was conceived to address the need to automate and streamline global statistical reporting across all four duty stations. It is a business tool based on business intelligence technologies that provides historical, current and predictive views of business operations. It enables senior managers to monitor the productivity, performance, efficiency and cost-effectiveness of conference services across all four duty stations in a timely manner and to make the necessary decisions quickly.
3 Department of Management	SAP HANA	SAP HANA is an in-memory, column-oriented, relational database management system developed and marketed by SAP SE. Umoja data will be loaded to SAP HANA for data query on historical enterprise resource planning data (including IMIS data) and business intelligence reporting.
4 Economic Commission for Africa (ECA)	WIRe-ECA	WIRe (web integrated reporting) is a web-based enterprise reporting system that provides the United Nations with up-to-date information. The easy-to-use tool enables users to produce reports using data stored in IMIS.
5 Economic Commission for Latin America and the Caribbean (ECLAC)	WIRe-ECLAC	WIRe (web integrated reporting) is a web-based enterprise reporting system that provides the United Nations with up-to-date information.
6 Economic and Social Commission for Asia and the Pacific (ESCAP)	Financial resources reporting system	To support the organizational effectiveness and efficiency initiative of the Executive Secretary of ESCAP, a financial resources reporting system is being developed to facilitate the review and analysis of the financial resources of ESCAP.
7 Economic and Social Commission for Western Asia (ESCWA)	WIRe-ESCWA	WIRe (web integrated reporting) is a web-based enterprise reporting system that provides the United Nations with up-to-date information. It is not currently used at ESCWA.
8 International Tribunal for the Former Yugoslavia	CMoogle	CMoogle provides a data warehouse facility for the CaseMap applications being used by various teams in the Office of the Prosecutor to prepare cases. CMoogle provides a comprehensive view of all the cases prepared in CaseMap.

<i>Office/department</i>	<i>Application name</i>	<i>Description</i>
9 Office for the Coordination of Humanitarian Affairs	IMIS import database	The central IMIS data warehouse of the Office imports and aggregates all required IMIS extracts for existing applications of the Office (including OCM, OCT and FAS), pulling data from and integrating on a daily basis instances from IMIS New York and IMIS Geneva.
10 Office of Human Resources Management	HR Insight	HR Insight is a business intelligence application that provides strategic human resources reports for Member States as well as for Secretariat human resources process owners and practitioners. It is a web-based tool that enables users to extract information from the human resources data warehouse of the Office. The data warehouse is updated with information from a range of human resources systems, including IMIS, Inspira, Nucleus and Galaxy. The data are integrated, inconsistencies are resolved and data quality is checked prior to reporting by business intelligence and data warehouse teams in New York (Office of Human Resources Management) and Bangkok (Office of Information and Communications Technology). In order to be able to continue to provide consolidated reports, the Office of Human Resources Management will need to integrate Umoja data into the warehouse.
11 Office of Human Resources Management	EZ-HR	EZ-HR provides human resources data from eight IMIS systems for data quality, decision-making and monitoring functions. Access to these applications is restricted to authorized personnel in IMIS. The other elements of the system include salary calculator, rental subsidy calculator and other reference information.
12 Office of Information and Communications Technology	WIRE-UNHQ	WIRE (web integrated reporting) is a web-based, enterprise reporting system that provides the United Nations with up-to-date information. This easy-to-use tool allows users to produce reports using data stored in IMIS.
13 Office of Programme Planning, Budget and Accounts	NOVA	The NOVA finance data warehouse was implemented for various finance and budget needs of the Office.
14 Office of Programme Planning, Budget and Accounts	NOVA query applications	NOVA enables detailed financial accounting. NOVA query applications are used for data dumps of IMIS data into the data warehouse.
15 Office of Programme Planning, Budget and Accounts	NOVA travel claim portal	Travel claims are submitted and approved through the NOVA travel claim portal.

<i>Office/department</i>	<i>Application name</i>	<i>Description</i>
16 United Nations Office on Drugs and Crime	Business intelligence technical cooperation quality control dashboard	Dashboard and reporting from multiple data sources built upon the Office's business intelligence open source infrastructure.
17 United Nations Office on Drugs and Crime	Business intelligence Member States dashboard	Dashboard and reporting from multiple data sources built upon the Office's business intelligence open source infrastructure.
18 United Nations Office at Nairobi	UNON finance reports	UNON finance reports is a system for generating more than 15 financial reports for allotments, obligations, payables, receivables, trial balance and diagnostics. It provides query capabilities enabling staff in the Accounts Section to review and extract data from ledger tables.
19 United Nations Office at Vienna	Business intelligence and information technology dashboard	Dashboard and reporting from multiple data sources built upon the Office's business intelligence open source infrastructure.
20 United Nations Office at Vienna	Business intelligence finance reporting and dashboard	Dashboard and reporting from multiple data sources built upon the Office's business intelligence open source infrastructure.
21 United Nations Office at Vienna	Business intelligence procurement dashboard	Dashboard and reporting from multiple data sources built upon the Office's business intelligence open source infrastructure.
22 United Nations Office at Vienna	Business intelligence human resources dashboard	Dashboard and reporting from multiple data sources built upon the Office's business intelligence open source infrastructure.

Annex III

Clarification provided by the Secretariat on the budget projection exercise

1. The indicative five-year planning assumptions were developed by the Office of Information and Communications Technology in coordination with the Secretariat departments, offices away from Headquarters and regional commissions. The offices designated focal points for this exercise. Inputs from all information and communications technology (ICT) offices, including in the Department of Field Support, were sought for various ICT cost components to cover the enterprise-wide scope of the assessment, including the following:

(a) Outright United Nations staff requirements based on established 2014-2015 staffing tables and organizational structures, standard salary costs applied for staff in various locations and/or pro forma costs developed for peacekeeping missions. This data was complemented with projected staffing requirements over a period of four years (the bienniums 2016-2017 and 2018-2019);

(b) ICT investments required for pipeline ICT projects with a start-up date of 1 January 2016 or later, based on estimates made and a solicitation process being initiated or in progress;

(c) ICT investments with regard to ongoing projects and mandated activities requiring continuous investment. The estimates were determined on the basis of contract values, durations of service established in ongoing contracts, and asset replacement schedules. These projects are monitored by the Enterprise Project Programme Management Office of the Office of Information and Communications Technology;

(d) Service contracts and maintenance costs normally included in office budgets and acquisition plans;

(e) Post-capital master plan and post-Umoja requirements being identified by offices.

2. The assessment of future requirements also took into account risks identified by ICT offices on the basis of the most recent risk assessment. Offices were requested to share their budget proposals submitted to the Office of Programme Planning, Budget and Accounts, as well as information on their pipeline projects and planning assumptions for the biennium 2018-2019.

3. The budgets for the biennium 2014-2015 and the budget proposals for the biennium 2016-2017 served as a baseline for estimating the requirements for the biennium 2018-2019, and those data are presented in figures III and IV of the report of the Secretary-General on the status of implementation of the ICT strategy for the United Nations ([A/70/364](#) and Corr.1). Offices were requested to present their vision regarding the alignment of their pipeline projects with the ICT strategy and to estimate the related costs during the biennium 2018-2019, in line with the budget outline process.

4. Further consultations were held with all of the offices involved to validate the indicative planning assumptions for the biennium 2018-2019. Information was also

requested on the budgets for the support account for peacekeeping operations, peacekeeping missions and special political missions for 2014/15 and 2015/16.

5. In the process of conducting the assessment, the Office of Information and Communications Technology requested from the Department of Field Support the data on assets used in preparing the peacekeeping financial statements and budgets. In addition, the Office requested data on, among other things, hardware assets, software licences and service contracts. The Office also indicated that the Department's planning assumptions would be required for the bienniums 2016-2017 and 2018-2019.

6. For the purposes of this exercise, current peacekeeping funding levels were used.
