



General Assembly

Distr.: General
12 March 2019

Original: English

Seventy-fourth session

Items 137 and 138 of the preliminary list**

Proposed programme budget for 2020

Programme planning

Proposed programme budget for 2020

Part VIII

Common support services

Section 29

Management and support services

Subsection 29C

Office of Information and Communications Technology

Programme 25

Management and support services

Contents

	<i>Page</i>
Foreword	3
Overall orientation	4
A. Proposed programme plan for 2020***	8
Annex	
Programme performance for 2018	14
B. Proposed post and non-post resource requirements for 2020****	32

* Second reissue for technical reasons (12 July 2019).

** [A/74/50](#).

*** In keeping with paragraph 11 of resolution [72/266 A](#), the part consisting of the programme plan and performance information is submitted through the Committee for Programme and Coordination for the consideration of the General Assembly.

**** In keeping with paragraph 11 of resolution [72/266 A](#), the part consisting of the post and non-post resource requirements is submitted through the Advisory Committee on Administrative and Budgetary Questions for the consideration of the General Assembly.



Annexes

I. Organizational structure and post distribution for 2020	46
II. Summary of proposed changes in established and temporary posts, by component and subprogramme	47



Foreword

In 2018, the Office of Information and Communications Technology worked closely with the former Departments of Field Support and Peacekeeping Operations to deploy solutions that support our colleagues in the field. They included enterprise applications for the management of critical resources, such as fuel and rations for our troops, as well as a solution that supports the effective management of contingent-owned equipment. These solutions not only create efficiencies, they also improve transparency and accountability in areas that represent a significant portion of field mission operating budgets.

In collaboration with programme managers across the United Nations, we worked to deliver a series of management dashboards that are foundational to the management reform efforts, providing the Secretariat with visibility and the means to implement accountability. The Office has focused on efforts to transform the United Nations into a data-driven organization where information and data truly inform decision-making across all the mandates of the United Nations, with a strong emphasis on supporting the peace and security and development areas, as well as implementation by Member States of the Sustainable Development Goals.

Through partnerships with private- and public-sector organizations, academia and the public, we are harnessing frontier technologies like artificial intelligence, machine learning, robotics and distributed ledger technology, as well as geospatial capabilities and the use of drones. Our ability to foster innovative partnerships is a result of the progress we have made in transforming and modernizing the information and communications technology (ICT) landscape in the United Nations.

For example, using open-source technology, and in collaboration with the Office of Human Resources Management, we launched seven accessibility features on the United Nations online examinations and tests system. In improving access for tens of thousands of candidates or test takers with disabilities, while ensuring cost-effective, transparent and accountable operations, the Office won the Secretary-General's 2018 award for innovation for the initiative.

Other key achievements included the successful rollout of productivity tools, including Unite Mail, OneDrive and Skype for Business, to 63,000 users; the creation of one United Nations hybrid cloud data centre; the establishment of a single network for the United Nations; strengthened cybersecurity; application development and harmonization; and global, round-the-clock support for Umoja and other enterprise applications.

In 2018, not only did the staff of the Office help to power the management reform and collaborate on innovative solutions with a host of partners, but it did so while “keeping the lights on” 99.9 per cent of the time.

Since its endorsement in 2015, the ICT strategy has reconfigured a revitalized ICT capacity to become a critical enabler and is founded on a need for operational excellence and technology innovation, all within a framework of controls that support operational agility with the necessary mechanisms for ensuring accountability.

(Signed) **Atefeh Riazi**
Assistant Secretary-General
Chief Information and Technology Officer

Overall orientation

Mandates and background

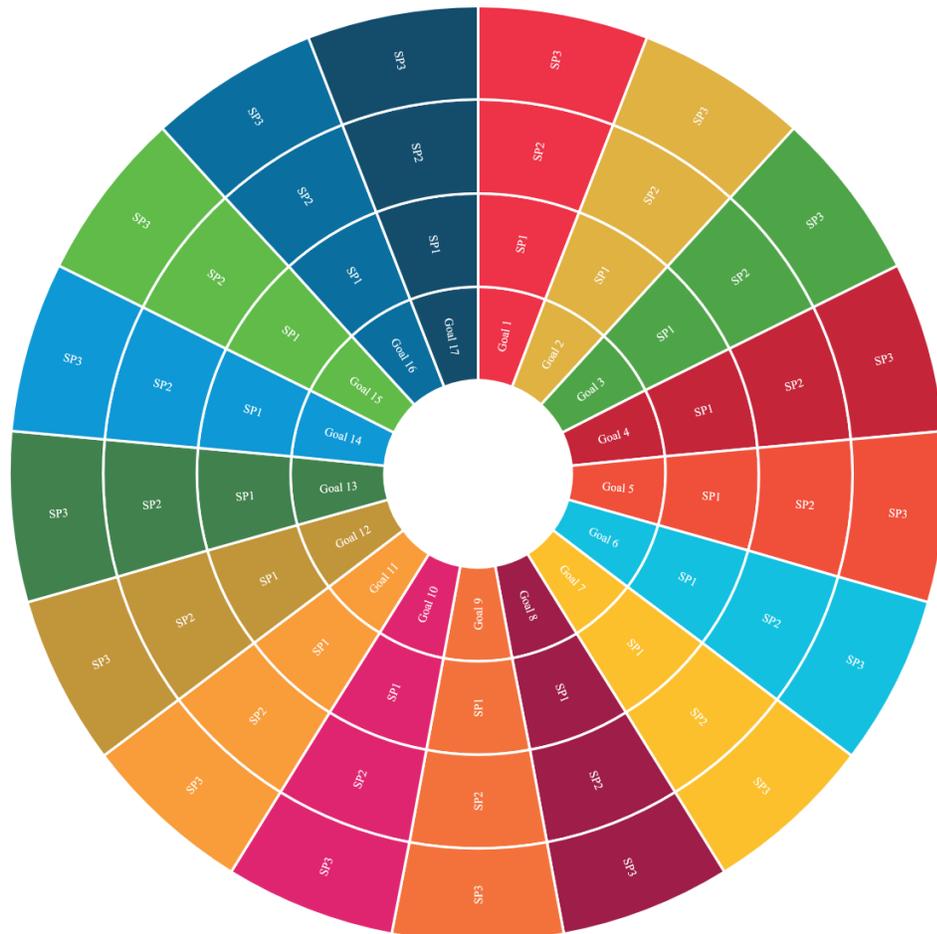
29C.1 The Office of Information and Communications Technology is responsible for the delivery of information and communications technology in the United Nations. The mandate derives from the priorities established in relevant General Assembly resolutions and/or decisions.

Alignment with the Charter of the United Nations and the Sustainable Development Goals

29C.2 The mandates of the Office guide the subprogrammes in producing their respective deliverables, which contribute to the attainment of each subprogramme’s objective. The objectives of the subprogrammes are aligned with the Organization’s purpose to be a centre for harmonizing the actions of nations in the attainment of these common ends, as stipulated in Article 1 of the Charter of the United Nations. In the context of the 2030 Agenda for Sustainable Development, the purposes stipulated in Article 1 of the Charter are embodied by the Sustainable Development Goals. Figure 29C.I below summarizes the specific Sustainable Development Goals with which the objectives, and therefore the deliverables, of the respective subprogrammes are aligned.

Figure 29C.I

Office of Information and Communications Technology: alignment of subprogrammes with Sustainable Development Goals



Recent developments

- 29C.3 The Office continues to ensure information security by reducing the level of risk to the image, resources, data, operations and safety of the personnel and assets of the United Nations. For example, in 2017, when the computers of one of the Security Council sanctions committees were attacked by hackers, the Office deployed a multi-factor authentication mechanism to further protect accounts from being compromised. Similarly, the Office has been engaged in strengthening information security across the Secretariat. In parallel, the Digital Blue Helmets programme supports Secretariat entities to ensure information security risks do not hamper efforts to implement United Nations mandates or adversely affect Member States where the United Nations implements its mandates.
- 29C.4 In 2018, the Office rolled out office productivity tools, such as Unite Mail, OneDrive for Business and Skype for Business, to 61,000 users worldwide. In addition, a comprehensive set of collaboration and business intelligence tools were piloted, including Microsoft Teams, Sharepoint Online and Power BI. Those tools are available on mobile platforms and are planned for deployment in 2019 and 2020.
- 29C.5 The Office developed a comprehensive set of management dashboards that provide offices and departments with actionable and near real-time insights based on information in Umoja and other enterprise systems. The current scope of the dashboards covers budget and finance, human resources, procurement and travel, leveraging data generated in the organization's key operational systems, such as Umoja and Inspira. Information is presented using advanced, interactive visualization that enables the presentation of complex datasets in a simplified manner. In addition, various analytics solutions have been delivered that support the areas of development, peace and security and human rights. Those solutions use advanced analytics techniques and emerging technologies, such as machine learning and natural language processing, to derive insight from large unstructured datasets.
- 29C.6 As part of the innovation phase of the ICT strategy, the Office has undertaken a programme of work that supports the core work of the United Nations and advances the implementation of the Sustainable Development Goals using innovation technology. In partnership with United Nations offices and departments, as well as Member States, the Office has implemented technology laboratories. These United Nations Technology Innovation Labs leverage the Office's technology capacity to deliver solutions that support the work of the United Nations.
- 29C.7 In 2018, the Enterprise Application Centres continued to provide transformative software solutions to support the programmatic mandates of the Organization by consolidating multiple online e-learning solutions onto the shared, standard iLearn platform. iLearn provides Internet-based, interactive virtual classrooms and online training that is accessible globally to learners from any location on various devices. The platform currently has 700,000 active learners and 1,130,000 course enrolments and delivers increased and equitable learning opportunities to United Nations personnel and citizens from all 193 Member States.
- 29C.8 Umoja mainstreaming continued, with activities transferred from the Umoja project team to the Office in a phased approach. Staff of the Office were reskilled to support human resources practitioners and executive officers in how to use Umoja. A team was assembled and trained to become experts in highly complex human resources business processes and Umoja functionality. The successful handover of support and production configuration activities ensured that the effective operation and ongoing support of human resource activities dependent on Umoja across the organization was achieved.
- 29C.9 As part of continuing efforts to strengthen coherence for technology as well as information and data, the Office has expanded its policy, strategy and governance frameworks within its delegated authority.

Strategy and external factors for 2020

- 29C.10 In 2020, the Office will develop a policy framework for information management in consultation with entities across the Secretariat as well as other United Nations system organizations, leading to standardized principles, policies, guidelines and procedures while reducing the risk of duplication and facilitating the access to and sharing of information. Information management and data privacy will be strengthened and integrated into the accountability framework, enabled through workshops, consultations, policies and a compliance framework. The use of innovation technology will continue to be expanded to derive value and insight from data and information in support of United Nations programmes in alignment with mandates entrusted to the Organization and Member States' thematic interests. These creative environments will accelerate innovation and create a platform for collaborative problem-solving.
- 29C.11 In accordance with the ICT strategy, information and communications technology will support the work of the United Nations and will support Member States in the implementation of the Sustainable Development Goals. In that regard, business intelligence data analytics will be employed to support Secretariat entities in their work. The use of emerging and frontier technologies, such as bots, artificial intelligence, machine learning, the Internet of Things and distributed ledger technology will be expanded and applied to mandate implementation. Challenges in the technology innovation stem from the need to balance a governance that provides control with a progressive approach to the use of information and technology.
- 29C.12 In view of the lack of tools that promote and foster collaboration within the Secretariat and between the Secretariat and other agencies of the United Nations, funds and programmes, as well as the fast growth of the amount of data being generated and the high cost of adding, replacing and upgrading equipment in the data centres, the Office will continue with the deployment of collaboration and self-service business intelligence tools and the expansion of the enterprise hybrid cloud, as defined in the Secretariat cloud computing strategy. It will also further strengthen the Network Control Centre and Unite Service Desk.
- 29C.13 Adapting enterprise applications and introducing new solutions to support the reform agenda and its key pillars of development, management and peace and security, together with their respective programmes of work, is a key challenge. Achieving the reform vision and objectives requires a flexible, nimble and mobile global workforce with real-time access to the data, information and tools they need to work in this new way. At the same time, the Organization is faced with the technical debt from a myriad of siloed legacy applications that inhibit the development of new replacement solutions. In 2020, the Office will accelerate the transition from legacy applications to shared enterprise solutions that are built on standard platforms, hosted in the cloud and compliant with enterprise security and architecture requirements, enabling the delivery of mobile-ready applications that meet the needs of Secretariat staff across diverse thematic areas.
- 29C.14 In addition, the Office is working with departments to develop applications to meet their specific substantive needs. For example, a critical area being addressed is the safety and security of staff, particularly for those working in field operations delivering on mandates to provide humanitarian assistance to people in need and maintain international peace and security. The Office will deploy the electronic trip advisory mobile app, which delivers critical "situational awareness" by providing location-specific information to an estimated 170,000 United Nations personnel, providing them with the assurance that they can do their job in the knowledge that they are getting real-time advisories and information on risks and threats.
- 29C.15 With regard to the external factors, the overall plan for 2020 is based on the following planning assumptions:
- (a) Demand for ICT will need to match the regular or extrabudgetary budget provided by Member States. This may be a difficult balancing act, given the ever-increasing demand for ICT to provide the critical foundations for the work across the United Nations;
 - (b) Major contractual costs with vendors will not increase at a rate greater than standard inflation.

29C.16 The Office integrates a gender perspective in its operational activities, deliverables and results, as appropriate. For example, under subprogramme 1, the management dashboards that will be developed by the Office will provide senior managers in the Secretariat with better and more timely information on gender parity in their department/office to enable them to make a more informed decision on staff recruitment.

Evaluation activities

29C.17 The following evaluations completed in 2018 have guided the programme plan for 2020:

- (a) The second annual progress report of the Board of Auditors on the implementation of the information and communications technology strategy ([A/73/160](#));
- (b) The seventh annual progress report of the Board of Auditors on the implementation of the United Nations enterprise resource planning system ([A/73/169](#));
- (c) Audit of acquisition and management of information and communications technology assets in the Office of Information and Communications Technology.

29C.18 The findings of the evaluations referenced in paragraph 29C.10 above have been taken into account for the programme plan for 2020 for all subprogrammes.

A. Proposed programme plan for 2020



Subprogramme 1 Strategy and technology innovation

1. Objective

29C.19 The objective, to which the subprogramme contributes, is to ensure an innovative, secure, unified digital space for the United Nations safeguarded by a strong normative framework.

2. Alignment with the Sustainable Development Goals

29C.20 Given its enabling nature, the objective is aligned with all of the Sustainable Development Goals.

3. Highlighted planned result for 2020

Better information, enhanced data sharing and reduction in risk of security breaches

In 2018, the Office made progress in aligning technology with the business requirements of the Organization, the ICT strategy and the constantly changing landscape of technology innovation. It offered assistance in the design and development of management dashboards to gain access to critical data in a more streamlined manner.

Challenge and response

The challenge was that the decentralized and fragmented ICT landscape, such as between Headquarters and field operations, limited the effectiveness of the delivered solution and did not leverage its full potential. One example was the lack of common data privacy principles, which reduced the effectiveness of data usage across the United Nations.

In response, for 2020, the subprogramme will deliver its services in a more unified approach. An information management framework will be established in consultation with entities across the Secretariat and other United Nations organizations, leading to standardized principles, policies, guidelines and procedures while reducing the risk of duplication and facilitating the access to and sharing of information. This is particularly relevant in the context of the delegations of authority and the resulting changes in decision-making. Information management and data privacy will be strengthened and integrated into the accountability framework, enabled through workshops, consultations, policies and a compliance framework.

New technologies create opportunities to support reform and innovation across the Organization. The framework will ensure that ICT services will be rendered through a more agile approach, leveraging technology and innovation. In support of this, the subprogramme will conduct consultations within the Secretariat, across entities of the United Nations system, as well as technology engagements with Member States.

Result and evidence

The planned deliverables are expected to contribute to the result, which is better information on operations, enhanced data sharing and reduction in risk of security breaches.

Evidence of the result, if achieved, will include new policies and procedures, as well as new technology solutions adopted by client departments and Member States, as shown in the table.

The result, if achieved, will demonstrate progress made in 2020 towards the collective attainment of the objective.

Performance measures

2018	2019	2020
Discussions between client departments on the information security governance framework.	Identification by client departments of standards for analytics and business intelligence systems and data.	Adoption by client departments of new policies and procedures. Adoption by client departments and Member States of new technology solutions.

29C.21 The subprogramme will continue to be guided by all mandates entrusted to it, which provide the legislative framework for its deliverables.

4. Deliverables for 2020

29C.22 Table 29C.1 lists all deliverables, by category and subcategory, planned for 2020 that are expected to contribute to the attainment of the objective stated above.

Table 29C.1

Subprogramme 1: deliverables for 2020, by category and subcategory

Non-quantified deliverables

E. Enabling deliverables

Information and communications technology

Information security

Network services

Hardware and infrastructure

Software and applications

Service desk



Subprogramme 2 Operations support

1. Objective

29C.23 The objective, to which this subprogramme contributes, is to ensure secure access to the digital operating environment for all Secretariat entities, including peacekeeping missions.

2. Alignment with the Sustainable Development Goals

29C.24 Given its enabling nature, the objective is aligned with all of the Sustainable Development Goals.

3. Highlighted planned result for 2020

Technology towards a connected United Nations

Management reform has revitalized ICT in the Secretariat by merging the capabilities, knowledge and experience of the Office with those of the former subprogramme 6 of programme 4 of the biennial programme plan for 2018–2019. As a unified entity and the Secretariat flagship ICT programme, the Office is now more effective and agile in its delivery of solutions and ability to achieve operational excellence.

In 2018, the Office focused on consolidating and modernizing the 33 fragmented and cumbersome email systems into a cloud-based platform and ensuring that the rollout of the new technology was adopted fully. Further consolidation and optimization of the hosting data centres and network continued. The highly virtualized data centres in Valencia, Spain, and Brindisi, Italy, are now hosting the most important information systems, including Umoja, and became, in 2018, the digital nerve centre of the Secretariat. The data centres were therefore monitored 24 hours a day, seven days a week by the Network Control Centre and Unite Service Desk. The Office also supported all intergovernmental conferences, non-calendar ad hoc events and videoconferences.

Challenge and response

The challenge was that, after the introduction of Unite Mail, there was a lack of tools that promoted and fostered collaboration within the Secretariat and between the Secretariat and other United Nations agencies, funds and programmes. For example, it was not possible to disseminate important communications from the Secretary-General to all Secretariat staff instantaneously.

In response, for 2020, the subprogramme will continue with the deployment of cloud-based collaboration tools and self-service business intelligence tools and the expansion of the enterprise hybrid cloud, as defined in the Secretariat cloud computing strategy. It will also further strengthen services of the Network Control Centre and Unite Service Desk. Clients will continue to use the Unite Service Desk as a single point of contact for support.

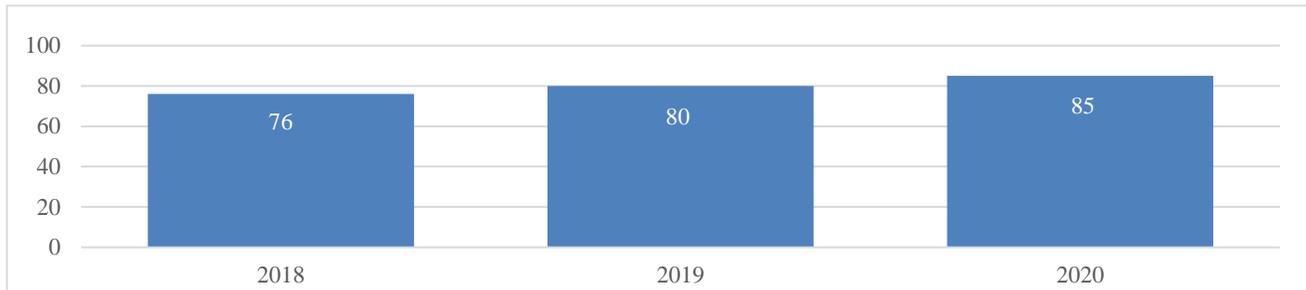
Result and evidence

The planned deliverables are expected to contribute to the result, which is an improved ability of staff to communicate and collaborate across departments, offices and missions. Similarly, staff and local units will be able to produce their own business intelligence products, thereby facilitating decentralized and local decision-making.

Evidence of the result, if achieved, will include an increased customer satisfaction percentage, from 76 per cent in 2018 to 85 per cent in 2020, as shown in the figure.

The result, if achieved, will demonstrate progress made in 2020 towards the collective attainment of the objective.

Performance measures: customer satisfaction (percentage)



29C.25 The office will continue to be guided by all mandates entrusted to it, which provide the legislative framework for its deliverables.

4. Deliverables for the period 2018–2020

29C.26 Table 29C.2 lists all deliverables, by category and subcategory, for the period 2018–2020 that contributed and are expected to contribute to the attainment of the objective stated above.

Table 29C.2

Subprogramme 2: deliverables for the period 2018–2020, by category and subcategory

	2018 <i>planned</i>	2018 <i>actual</i>	2019 <i>planned</i>	2020 <i>planned</i>
Quantified deliverables				
A. Facilitation of the intergovernmental process and expert bodies				
Conference and secretariat services for meetings (number of three-hour meetings)			26 910	26 910
Non-quantified deliverables				
E. Enabling deliverables				
Information and communications technology				
Hardware and infrastructure				
Software and applications				

5. Most significant relative variances in deliverables

Variances between the actual and planned figures in 2018

29C.27 The variance in conference and secretariat services for meetings was driven mainly by an increase in the number of meetings, owing to a significant increase in client demand.



Subprogramme 3 Enterprise solutions

1. Objective

29C.28 The objective, to which this subprogramme contributes, is to ensure effective and efficient implementation of the mandates of the Secretariat entities.

2. Alignment with the Sustainable Development Goals

29C.29 Given its enabling nature, the objective is aligned with all of the Sustainable Development Goals.

3. Highlighted planned results for 2020

Global access to applications, anywhere, anytime

In 2018 and earlier, enterprise applications were focused predominantly on administrative process automation and related transactional work that were addressed by the Organization's core systems.

Challenge and response

The challenge was to adapt those systems and introduce new solutions to support the reform agenda and its key pillars of development, management and peace and security, together with their respective programmes of work. Achieving the reform vision and objectives requires a flexible, nimble and mobile global workforce with real-time access to the data, information and tools they need to work in this new way. At the same time, the Organization is faced with a technical debt from a myriad of siloed legacy applications that inhibit the development of new replacement solutions.

In response, for 2020, the subprogramme will accelerate the transition from legacy applications to shared enterprise solutions that are built on standard platforms, hosted in the cloud and compliant with enterprise security and architecture requirements. That approach will enable the Office to deliver mobile-ready applications that meet the complex needs of staff across diverse thematic areas. All staff need to be able to find and contact each other securely, by voice or video, and locate and share information either individually or in groups over any device they have. These are core communication and collaboration capabilities, which the Office will deliver with major enhancements on standard platforms. These capabilities will, for example, allow a humanitarian response team responding to a disaster to establish quickly a secure collaboration space to share real-time data, reports and documents with authorized United Nations staff at Headquarters and the field, as well as response partners, without requesting ICT support. This self-service model will allow staff to engage in conference calls and videoconferences and to co-author documents in real-time from their desktop or mobile devices – either in the office or while travelling. This communication and collaboration toolkit will support staff and allow them to be responsive both in everyday and extraordinary situations.

Result and evidence

The planned deliverables are expected to contribute to the result, which is an improved access to information, collaboration and communications between personnel from any location using multiple devices, enabling a flexible and responsive global workforce and improving staff productivity and effectiveness in meeting the mandates of the United Nations.

Evidence of the result, if achieved, will include the percentage of staff actively using collaboration and communication tools and an increase in solutions accessible from any location on multiple devices, as shown in the table.

The result, if achieved, will demonstrate progress made in 2020 towards the collective attainment of the objective.

Performance measures

<i>2018</i>	<i>2019</i>	<i>2020</i>
Few staff have access to collaboration and communications tools.	More staff actively use collaboration and communication tools.	Higher percentage of staff actively use collaboration and communication tools; greater number of solutions accessible from any location and on multiple devices.

29C.30 The subprogramme will continue to be guided by all mandates entrusted to it, which provide the legislative framework for its deliverables.

4. Deliverables for 2020

29C.31 Table 29C.3 lists all deliverables, by category and subcategory, planned for 2020 that are expected to contribute to the attainment of the objective stated above.

Table 29C.3

Subprogramme 3: deliverables for 2020, by category and subcategory

Non-quantified deliverables

E. Enabling deliverables

Information and communications technology

Software and applications

Annex Programme performance for 2018¹

Section 29 Management and support services

Subsection 29E Office of Information and Communications Technology

Subprogramme 5 Information and communications technology strategic management and coordination

Component 1 Technology management structure

1. Objective

- A.1 The objective, to which this component contributes, is to ensure the efficient and effective coherence and coordination of information and communications technology (ICT) functions across the Secretariat.

2. Highlighted result in 2018

Simplified use of information and communications technology through agile technology management

In 2018, the Office started a comprehensive review of the ICT technical procedures following a related recommendation of the Board of Auditors. The technical procedures were developed to ensure the coherence of ICT systems throughout the Secretariat and the harmonized use of ICT resources, in line with the ICT strategy. This is important, for example, when entities that are not managed by the Secretariat have offices located on Secretariat campuses. Since most of the technical procedures were developed a few years ago, and to reflect the reality of technological changes, a revision schedule was established to review and update the 22 existing ICT technical procedures. For example, vulnerabilities in website security, as reported in 2018, indicated the need for a review of the minimum security requirements for United Nations websites.



Defining IT Policy. Source: Internet

Result and evidence

The deliverables contributed to the result, which is a technologically harmonized working environment for United Nations personnel. Evidence of the result includes the simplification of user access by removing the need for frequent password changes while adding complexity in order to strengthen security.

The result demonstrates progress made in 2018 towards the collective attainment of the objective.

¹ The present document reflects a change in the programmatic structure for 2020. For that reason, the present annex is included, with programme performance information for 2018 that follows the programmatic structure in that year.

- A.2 A planned result for 2018, which is optimized use of ICT resources and efficient access to information within and among United Nations organizations through the formulation and adoption of ICT policies, procedures and guidelines, and establishment of the ICT governance processes and frameworks, as referred to in the proposed programme budget for the biennium 2018–2019, was achieved, as evidenced by the revision of the policy framework for ICT professionals.

3. Deliverables for the period 2018–2020

- A.3 The below table lists all deliverables, by category and subcategory, for the period 2018–2020 that contributed and are expected to contribute to the attainment of the objective stated above.

Table A.1

Subprogramme 5, component 1: deliverables for the period 2018–2020, by category and subcategory

Non-quantified deliverables

E. Enabling deliverables

Information and communications technology

Component 2

Aligning technology with the core work of the United Nations

1. Objective

- A.4 The objective, to which this component contributes, is to ensure that the technology programmes of the United Nations and the implementation of all elements of the ICT strategy enable the work of the United Nations.

2. Highlighted result in 2018

Seamless technological transition for development reform

In 2018, the Organization underwent many transformations, including the reforms of the management, peace and security, and development pillars. The Office ensured that technology, data and information were supportive of the new reform structure and facilitated joint mandate implementation.

For example, the reform of the development pillar resulted in the resident coordinator system to be delinked from the United Nations Development Programme and integrated into the Secretariat. This required, inter alia, the alignment and integration of information technology in order to ensure the seamless support of users affected by the reform. Plans were provided that describe future models and support options for ICT services, including actions that were needed for a smooth change of the ICT functions. This included the timing and sequencing of actions and specified arrangements for the transition of staff and operational support.



Uniting United Nations entities around ICT services. Source: United Nations

Result and evidence

The deliverables contributed to the result, which is an effective transition with regards to technology used by resident coordinator systems colleagues.

Evidence of the result includes the integration in the Secretariat of the ICT functions of the Development Operations Coordination Office, providing plans for the transition of premises, assets and services.

The result demonstrates progress made in 2018 towards the collective attainment of the objective.

- A.5 A planned result for 2018, which is effective ICT programmes, services and infrastructure that facilitate the work of the United Nations, as referred to in the proposed programme budget for the biennium 2018–2019, was achieved, as evidenced by the set-up of the ICT environment to support the development reform and seamless transition of the Development Operations Coordination Office to the Secretariat.

3. Deliverables for the period 2018–2020

- A.6 The below table lists all deliverables, by category and subcategory, for the period 2018–2020 that contributed and are expected to contribute to the attainment of the objective stated above.

Table A.2

Subprogramme 5, component 2: deliverables for the period 2018–2020, by category and subcategory

Non-quantified deliverables

E. Enabling deliverables

Information and communications technology

Component 3 Analytics and business intelligence

1. Objective

- A.7 The objective, to which this component contributes, is to ensure improved data-driven decision-making and more effective resource and programme management with strengthened accountability by leveraging information relating to administrative and substantive areas.

2. Highlighted result in 2018

Steps towards data-driven decision-making

Innovative analytics and business intelligence solutions play a critical role in the United Nations' efforts to increase accountability.

In 2018, the Office developed a suite of management dashboards in collaboration with offices of the Department of Management and Umoja. The dashboards provide insights into fundamental information that managers need in their daily work. Their current scope covers budget and finance, human resources, procurement and travel, leveraging data generated in the organization's key operational systems, such as Umoja and Inspira. Information is presented using advanced visualization that enables the presentation of complex datasets in a simplified manner. Over 80 entities across the Secretariat have now access, for example, to personnel data detailing staff by organizational units and duty stations, gender, regions and grade level distribution.



Sample of management dashboard. Source: United Nations

Result and evidence

The deliverables contributed to the result, which is more timely and reliable access to critical information. Evidence of the result includes the ability to see at a glance real-time staff structure, vacancies and contributions by Member States and positive feedback from users in that regard. Initial feedback received by one department highlighted the easily accessible data for better insights, especially in the new delegation of authority environment. Furthermore, the improvement of information access due to combining sourcing data from multiple enterprise systems into one central application was praised. Its nature as a single source of reference for the entire Secretariat significantly reduces inconsistencies and redundancies in reporting. The technology platform permits potential future access to comparable data for Member States. The result demonstrates progress made in 2018 towards the collective attainment of the objective.

- A.8 A planned result for 2018, which is enhanced access to and integrity of information that supports informed decision-making for the United Nations by delivering the technical components of analytics and business intelligence through the ICT service delivery framework, specifically through the enterprise applications centres, as referred to in the proposed programme budget for the biennium 2018–2019, was achieved, as evidenced by the availability of management dashboards providing a standard access to analytics, business intelligence systems and data.

3. Deliverables for the period 2018–2019

- A.9 The below table lists all deliverables, by category and subcategory, for the period 2018–2020 that contributed and are expected to contribute to the attainment of the objective stated above.

Table A.3

Subprogramme 5, component 3: deliverables for the period 2018–2020, by category and subcategory

Non-quantified deliverables

E. Enabling deliverables

Information and communications technology

Component 4 Application and website development and support

1. Objective

- A.10 The objective, to which this component contributes, is to develop and implement application and website management strategies to provide enterprise-wide solutions, supported virtually, in compliance with applicable guidelines for security, branding, multilingualism and accessibility.

2. Highlighted result in 2018

Changing the way we learn through innovative technologies

In 2018, the component continued the delivery of multiple online e-learning solutions onto the iLearn shared, standard platform. This common online learning management solution is built on best-of-breed, cloud-hosted technology and is shared by several United Nations entities including the Economic and Social Commission for Asia and the Pacific, the Economic and Social Commission for Western Asia, the Department of Economic and Social Affairs, the Department of Safety and Security, the Department of Management Strategy, Policy and Compliance and the Department of Operational Support, to host a variety of thematic and technical learning courses. The iLearn platform allows these and other entities and departments to share a common underlying technology while retaining the ability to customize the branding of their respective learning sites and portals to reflect their particular identity and mandate. The same technology is also used by the Inspira learning management module to host mandatory learning courses for the Secretariat. In previous years, classroom-based training was the prevailing learning model, which required learners to travel to the selected locations to participate in training. This incurred multiple costs to the Organization, including travel costs, the related negative carbon footprint on the environment and lost productivity resulting from time away from the job. The Office provided Internet-based, interactive virtual classrooms and online training accessible globally to learners from any location on various devices, as well as asynchronous learning options that enable flexibility for learners to participate in training when their schedule allows and from wherever is most convenient, as well as a more personalized learning experience. Multilingual courses are available that cover a variety of thematic content areas, such as development, environment, agriculture, gender, population migration, human rights, peacekeeping and ICT, and the solution can be used by Member State organizations, non-governmental organizations and educational institutions.



Source: United Nations

Result and evidence

The deliverables contributed to the result, which is increased and equitable learning opportunities to United Nations personnel and interested individuals.

Evidence of the result includes 700,000 active learners and 1,130,000 course enrolments on iLearn.

The result demonstrates progress made in 2018 towards the collective attainment of the objective.

- A.11 A planned result for 2018, which is a harmonized technology landscape and reduced fragmentation by lessening the number of applications and websites throughout the United Nations, resulting in decreased ICT maintenance costs and a uniform web presence for the United Nations Secretariat meeting all Department of Public Information guidelines, as referred to in the proposed programme

budget for the biennium 2018–2019, was achieved, as evidenced by the substantial progress on the application rationalization programme, with 300 applications retired.

3. Deliverables for the period 2018–2020

- A.12 The below table lists all deliverables, by category and subcategory, for the period 2018–2020 that contributed and are expected to contribute to the attainment of the objective stated above.

Table A.4

Subprogramme 5, component 4: deliverables for the period 2018–2020, by category and subcategory

Non-quantified deliverables

E. Enabling deliverables

Information and communications technology

Component 5 Strengthening information security

1. Objective

- A.13 The objective, to which this component contributes, is to ensure information security by reducing the level of risk to the image, resources, data, operations and safety of the personnel and assets of the United Nations.

2. Highlighted result in 2018

Modernizing user authentication to reduce the risk of cyberattacks

In 2017, computers of one of the Security Council sanctions committees were attacked by hackers. After the compromise was discovered, the Office of Information and Communications Technology deployed, in 2018, a new authentication mechanism in order to further protect email accounts. Affected users were requested to change their passwords and enable multi-factor authentication, which adds an extra security layer to their email accounts.



Exploiting cybercode. Source: REUTERS

Result and evidence

The deliverable contributed to the result, which is a reduced risk of social engineering attacks in which passwords are compromised, as it reinforces the authentication mechanisms to access key information. Evidence of the result includes the use of multi-factor authentication for high-risk users, in addition to targeted and compromised accounts, for a total of more than 3,500 United Nations users. While the solution is deployed to offices and departments of the Secretariat, the multi-factor authentication service is being extended to other entities and delegates.

The result demonstrates progress made in 2018 towards the collective attainment of the objective.

- A.14 A planned result for 2018, which is strengthened information security controls and processes across the Secretariat and field missions, as referred to in the proposed programme budget for the biennium 2018–2019, was achieved, as evidenced by the deployment of a stronger authentication mechanism available to all United Nations users.

3. Deliverables for the period 2018–2020

- A.15 The below table lists all deliverables, by category and subcategory, for the period 2018–2020 that contributed and are expected to contribute to the attainment of the objective stated above.

Table A.5

Subprogramme 5, component 5: deliverables for the period 2018–2020, by category and subcategory

Non-quantified deliverables

E. Enabling deliverables

Information and communications technology

Subprogramme 6 Information and communications technology operations

Component 1 Enterprise hosting

1. Objective

- A.16 The objective, to which this component contributes, is to enable the implementation of the mandate of the United Nations globally by ensuring a secure, coherent and resilient information technology application hosting and infrastructure landscape.

2. Highlighted result in 2018

Your office, on the GO!

 Unite Mail A modern platform--email, contacts and calendar--intended to bring the UN into alignment with best practices. Get support	 OneDrive for Business An Office 365 service for hosting files in the "cloud" that allows you to access your work files from anywhere, on any connected device. Get support	 Skype for Business An Office 365 communications and collaboration platform for individual and group chat or instant messaging. Get support
---	---	---

Your Office, on the GO! Source: iSeek Office 365 page – <https://iseek.un.org/appcatalog>

In 2018, the Office continued the consolidation of data centres worldwide into enterprise data centres in Valencia, Spain, and Brindisi, Italy. Migration of all enterprise applications to the enterprise data centres followed. The component also introduced a cloud computing strategy that foresees a hybrid cloud data centre by interconnecting Valencia, Brindisi and New York data centres to the public cloud.

Furthermore, this component rolled out office productivity tools, such as Unite Mail, OneDrive for Business and Skype for Business, to 63,000 users worldwide. The component also piloted a comprehensive set of collaboration and business intelligence tools, including Microsoft Teams, SharePoint Online and Power BI. The tools are available on mobile platforms and are planned for deployment in 2019 and 2020.

The component also established the Network Control Centre that works in conjunction with the Unite Service Desk to detect any changes in ICT assets and determine the course of action required to return impacted ICT services to normal.

Result and evidence

The deliverables contributed to the result, which is improved access to United Nations applications and better availability of the global network. Evidence of the result includes all Secretariat staff having one email, one contacts set and one calendar platform, compared with the 33 platforms that existed prior to 2018, resulting in modern, rapid and efficient voice, data and video communications readily available to any person working for the Secretariat, no matter where they are located, and in the 99.8 per cent availability of the United Nations core network.

The result demonstrates progress made in 2018 towards the collective attainment of the objective.

- A.17 A planned result for 2018, which is consolidation of enterprise applications, as referred to in the proposed programme budget for the biennium 2018–2019, was achieved, as evidenced by the transfer of all enterprise applications to the enterprise data centres.

3. Deliverables for the period 2018–2020

- A.18 The below table lists all deliverables, by category and subcategory, for the period 2018–2020 that contributed and are expected to contribute to the attainment of the objective stated above.

Table A.6

Subprogramme 6, component 1: deliverables for the period 2018–2020, by category and subcategory

Non-quantified deliverables

E. Enabling deliverables

Information and communications technology

Component 2 Network consolidation (multiprotocol label switching)

1. Objective

- A.19 The objective, to which this component contributes, is to enable the United Nations to provide its core functions effectively by implementing the consolidated multiprotocol label switching global network to facilitate secure, reliable, centrally managed office connectivity for the Organization's major voice, video and data services.

2. Highlighted result in 2018

Connect the United Nations



Connect the United Nations. Source: United Nations Field Technology Section website: <https://ft.dfs.un.org/situational-awareness-programmeupdate>

In 2018, the Office, in collaboration with the Department of Field Support, finalized the implementation of the single global United Nations network. The reliability and security of the Organization's network infrastructure is critical to the voice, video, applications and data-related services provided to 594 locations and more than 60,000 Secretariat staff in peacekeeping and non-peacekeeping entities.

Result and evidence

The deliverables contributed to the result, which is better data processing and better network reliability for all entities over the world.

Evidence of the result includes more than 99 per cent availability of applications such as Umoja, Inspira, Fuel and Rations.

The result demonstrates progress made in 2018 towards the collective attainment of the objective.

- A.20 A planned result for 2018, which is, reduced network downtime resulting from structured network and security monitoring across the enterprise network, as referred to in the proposed programme budget for the biennium 2018–2019, was achieved, as evidenced by more than 99 per cent availability of applications such as Umoja, Inspira, Fuel and Rations.

3. Deliverables for the period 2018–2020

- A.21 The below table lists all deliverables, by category and subcategory, for the period 2018–2020 that contributed and are expected to contribute to the attainment of the objective stated above.

Table A.7

Subprogramme 6, component 2: deliverables for the period 2018–2020, by category and subcategory

Non-quantified deliverables

E. Enabling deliverables

Information and communications technology

Component 3 Enterprise service desk

1. Objective

- A.22 The objective, to which this component contributes, is to improve the capability of the Secretariat to perform its substantive and functional activities by ensuring availability, effective maintenance and support of the enterprise ICT systems and by providing a modern, secure and supportable landscape throughout the Secretariat.

2. Highlighted result in 2018

One number for all your ICT headaches

In 2018, the Unite Service Desk provided around-the-clock support for service requests for enterprise applications, such as Umoja, Inspira and the Fuel and Rations solutions.

Result and evidence

The deliverable contributed to the result, which is improved timeliness in resolving ICT issues of clients.

Evidence of the result includes an increased client satisfaction, as evidenced by the fact that the Unite

Service Desk received 76 per cent positive feedback, resolved 150,000 service requests annually and reduced service request resolution time. Performance is constantly monitored using ongoing and periodic data-driven reports, based on actual service uptime and client satisfaction.

The result demonstrates progress made in 2018 towards the collective attainment of the objective.



What do you want to do today? Source: United Nations Field Technology Section website: <https://ft.dfs.un.org/unite-need-and-unite-self-service-dfs>

- A.23 A planned result for 2018, which is improved capability of the Secretariat to provide around-the-clock global support for enterprise applications resulting in faster resolution of incidents and increased customer satisfaction, as referred to in the proposed programme budget for the biennium 2018–2019, was achieved, as evidenced by the Unite Service Desk receiving a 76 per cent overall user satisfaction rating and resolving 150,000 service requests annually.

3. Deliverables for the period 2018–2020

- A.24 The below table lists all deliverables, by category and subcategory, for the period 2018–2020 that contributed and are expected to contribute to the attainment of the objective stated above.

Table A.8

Subprogramme 6, component 3: deliverables for the period 2018–2020, by category and subcategory

Non-quantified deliverables

E. Enabling deliverables

Information and communications technology

Component 4 Mainstreaming Umoja

1. Objective

- A.25 The objective, to which this component contributes, is to promote sustainable organizational change by ensuring the ongoing viability of the Organization's major change management initiative, and to ensure that the transformative Umoja initiative is sustained by mainstreaming it into the Organization's established technology capacity.

2. Highlighted result in 2018

More effective human resources administrative activities

In previous years, expert support to staff relied primarily on the Umoja project team. In 2018, further progress was achieved in mainstreaming Umoja, by transferring activities from the Umoja project team to the Office in a phased approach. Office staff were reskilled to support human resources practitioners and executive offices using Umoja.

A team was assembled and trained to become experts in highly complex human resources business processes and Umoja functionality. The Office held 20 training sessions for the human resources community to increase knowledge of Umoja; executed 80 test scripts to ensure the quality of new functionalities; set up Umoja human resources configuration data for 300 items; and performed a data cleansing of staff from the Department of Public Information information centre offices for migration to Umoja.



Administering human resources in the United Nations. Source: United Nations

Result and evidence

The deliverables contributed to the result, which is the effective operation of human resource activities dependent on Umoja across the organization.

Evidence of the result includes the timely handling and resolution of 917 service requests.

The result demonstrates progress made in 2018 towards the collective attainment of the objective.

- A.26 A planned result for 2018, which is effective operation and ongoing support of the Umoja application through a phased approach to mainstream into the Office of Information and Communications Technology, as referred to in the proposed programme budget for the biennium 2018–2019, was achieved, as evidenced by the successful transfer to mainstream Umoja of the phase 1 and 2 plans, including infrastructure, as well as the Unite Service Desk, application interfaces, business intelligence reporting, SAP HANA administration and human resources support.

3. Deliverables for the period 2018–2020

- A.27 The below table lists all deliverables, by category and subcategory, for the period 2018–2020 that contributed and are expected to contribute to the attainment of the objective stated above.

Table A.9

Subprogramme 6, component 4: deliverables for the period 2018–2020, by category and subcategory

Non-quantified deliverables

E. Enabling deliverables

Information and communications technology

Component 5 Broadcast and conference support

1. Objective

- A.28 The objective, to which this component contributes, is to ensure the efficient and effective functioning of the Secretariat with regard to its conference facilities, broadcasting operations and videoconferencing services.

2. Highlighted result in 2018

Effective functioning of intergovernmental processes

In 2018, the component continued to provide around-the-clock support for all calendar events, as decided by the Committee on Conferences. Performance is constantly monitored using ongoing and periodic data-driven reports that are based on actual events. Furthermore, the component continues to support clients worldwide by providing managed, high quality videoconferences.



A view from the control room of the United Nations Operations and Crisis Centre in Headquarters during a multi-point video conference on Burundi
Source: United Nations Field Technology Section website:
<https://ft.dfs.un.org/vc-service-marks-decade-peacekeeping>

Result and evidence

The deliverables contributed to the result, which is the effective functioning of intergovernmental processes.

Evidence of the result includes a faster resolution of incidents and an 80 per cent positive customer feedback over more than 20,000 events.

The result demonstrates progress made in 2018 towards the collective attainment of the objective.

- A.29 A planned result for 2018, which is effective support for meetings, including virtual meetings and events, at the United Nations, including automation and self-operation modes as appropriate, as referred to in the proposed programme budget for the biennium 2018–2019, was achieved, as evidenced by 80 per cent positive feedback over more than 20,000 events.

3. Deliverables for the period 2018–2020

- A.30 The below table lists all deliverables, by category and subcategory, for the period 2018–2020 that contributed and are expected to contribute to the attainment of the objective stated above.

Table A.10
Subprogramme 6, component 5: deliverables for the period 2018–2020, by category and subcategory

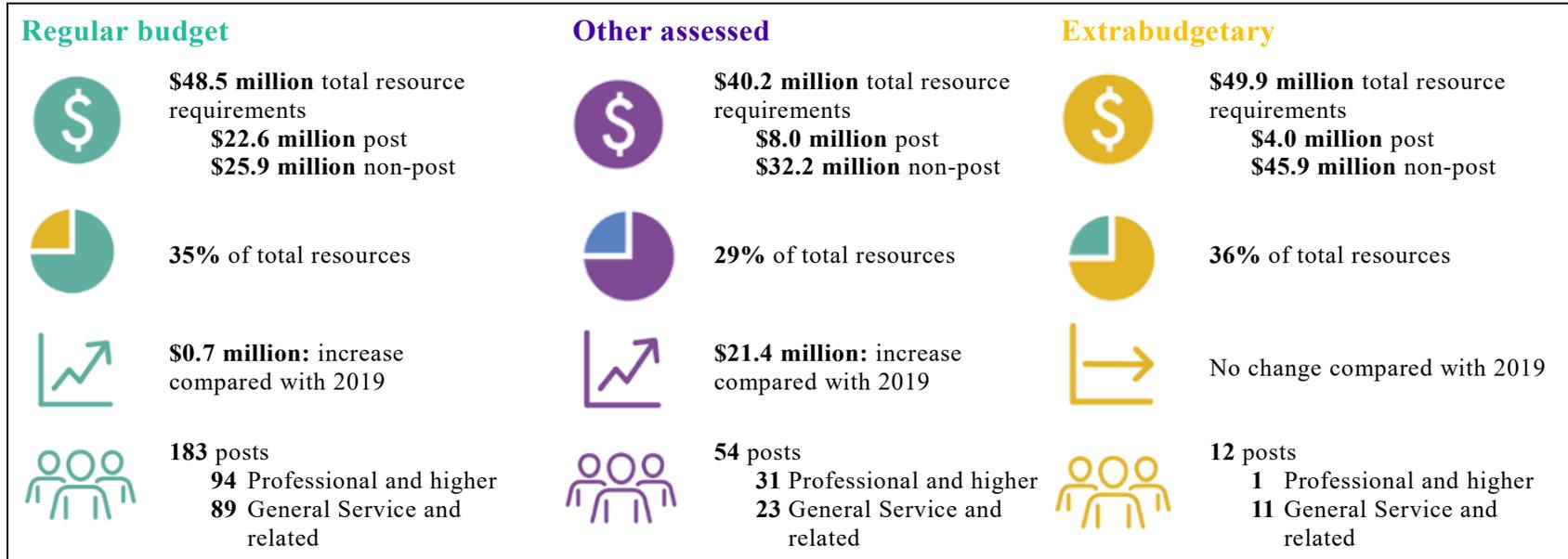
	<i>2018 planned</i>	<i>2018 actual</i>	<i>2019 planned</i>	<i>2020 planned</i>
Quantified deliverables				
A. Facilitation of the intergovernmental process and expert bodies				
Conference and secretariat services for meetings (number of 3-hour meetings)	13 440	20 704		
Non-quantified deliverables				
E. Enabling deliverables				
Information and communications technology				

B. Proposed post and non-post resource requirements for 2020

Overview

29C.32 The total resource requirements for 2020, comprising the regular budget and projected other assessed and extrabudgetary resources, are reflected in figure 29C.II and table 29C.4.

Figure 29C.II
2020 in numbers



Note: Estimates before recosting.

Table 29C.4

Overview of financial and post resources by component, subprogramme and funding source

(Thousands of United States dollars/number of posts)

	<i>Regular budget</i>			<i>Other assessed</i>			<i>Extrabudgetary</i>			<i>Total</i>		
	<i>2019 appropriation</i>	<i>2020 estimate (before recosting)</i>	<i>Variance</i>	<i>2019 estimate</i>	<i>2020 estimate</i>	<i>Variance</i>	<i>2019 estimate</i>	<i>2020 estimate</i>	<i>Variance</i>	<i>2019 estimate</i>	<i>2020 estimate</i>	<i>Variance</i>
Financial resources												
Executive direction and management	2 819.2	2 894.9	75.7	–	–	–	115.4	115.4	–	2 934.6	3 010.3	75.7
Programme of work												
1. Strategy and technology innovation	10 971.7	10 336.5	(635.2)	1 521.8	1 521.8	–	8 248.8	8 248.8	–	20 742.3	20 107.1	(635.2)
2. Operations support	19 338.8	20 545.4	1 206.6	7 098.0	7 098.0	–	32 369.2	32 369.2	–	58 806.0	60 012.6	1 206.6
3. Enterprise solutions	14 704.6	14 708.3	3.7	10 165.1	31 611.8	21 446.7	9 259.3	9 259.3	–	34 129.0	55 579.4	21 450.4
Subtotal, programme of work	45 015.1	45 590.2	575.1	18 784.9	40 231.6	21 446.7	49 877.3	49 877.3	–	113 677.3	135 699.1	22 021.8
Total	47 834.3	48 485.1	650.8	18 784.9	40 231.6	21 446.7	49 992.7	49 992.7	–	116 611.9	138 709.4	22 097.5
Post resources												
Executive direction and management	16	17	1	–	–	–	–	–	–	16	17	1
Programme of work										–	–	–
1. Strategy and technology innovation	38	35	(3)	4	4	–	–	–	–	42	39	(3)
2. Operations support	65	77	12	28	28	–	12	12	–	105	117	12
3. Enterprise solutions	53	54	1	22	22	–	–	–	–	75	76	1
Subtotal, programme of work	156	166	10	54	54	–	12	12	–	222	232	10
Total	172	183	11	54	54	–	12	12	–	238	249	11

Overview of resources for the regular budget

29C.33 The proposed regular budget resources for 2020, including the breakdown of resource changes, as applicable, are reflected in tables 29C.5 to 29C.7. The proposals reflect reductions that were made possible, in part, by the prioritization of work; the review and rationalization of contracts and services; the rationalization of existing assets; and the extension of the useful life of assets. Further details are provided under the respective components. The proposed resource level provides for the full, efficient and effective implementation of mandates.

Table 29C.5

Evolution of financial resources by component and main category of expenditure

(Thousands of United States dollars)

Component	2018 expenditure	2019 appropriation	Changes				2020 estimate (before recosting)		2020 estimate (after recosting)	
			Technical adjustments	New/ expanded mandates	Other	Total	Percentage	Recosting	Recosting	
Executive direction and management		2 819.2	–	–	75.7	75.7	2.7	2 894.9	80.2	2 975.1
Programme of work		45 015.1	31.4	–	543.7	575.1	1.3	45 590.2	1 322.0	46 912.2
Total		47 834.3	31.4	–	619.4	650.8	1.4	48 485.1	1 402.2	49 887.3
Main category of expenditure										
Post		21 552.2	31.4	–	1 001.8	1 033.2	4.8	22 585.4	991.9	23 577.3
Non-post		26 282.1	–	–	(382.4)	(382.4)	(1.5)	25 899.7	410.3	26 310.0
Total		47 834.3	31.4	–	619.4	650.8	1.4	48 485.1	1 402.2	49 887.3

Table 29C.6

Evolution of established post resources by category

	2019 approved	Changes			2020 estimate	Variance
		Technical adjustments	New/expanded mandates	Other		
Professional and higher						
ASG	1	–	–	–	1	–
D-2	1	–	–	–	1	–
D-1	5	–	–	1	6	1
P-5	15	–	–	1	16	1
P-4 ^a	24	–	–	(1)	23	(1)
P-3	36	–	–	–	36	–
P-2/1	12	–	–	(1)	11	(1)
Subtotal	94	–	–	–	94	–
General Service						
Principal level	15	–	–	1	16	1
Other level	62	–	–	9	71	9
Subtotal	77	–	–	10	87	10

Section 29 Management and support services
Subsection 29C Office of Information and Communications Technology

	Changes				2020 estimate	Variance
	2019 approved	Technical adjustments	New/expanded mandates	Other		
Other						
Local level	1	–	–	1	2	1
Subtotal	1	–	–	1	2	1
Total	172	–	–	11	183	11

^a Includes one temporary post (P-4).

Note: The breakdown of post changes by component, subprogramme and post level is provided in annex II.

Abbreviation: ASG, Assistant Secretary-General.

Executive direction and management

29C.34 Under General Assembly resolutions [69/262](#), [70/248](#), and [71/272 B](#), the central authority of the Chief Information Technology Officer was reaffirmed and strengthened with regard to information security and with regard to the overall direction and performance of ICT activities within the Organization. The Chief Information Technology Officer will continue to provide overall strategic direction and central leadership for the establishment and implementation of Organization-wide ICT and for planning and coordinating ICT activities Secretariat-wide, including infrastructure and enterprise systems, with a view to achieving coherence and coordination in the area of ICT within the work of the United Nations and between the Secretariat and funds, programmes and specialized agencies of the Organization. The Office of the Chief Information Technology Officer assists in providing overall strategic planning and management, coordinates the work of the internal organizational units and maintains liaison with the chiefs of information and communications technology in other United Nations departments and offices and duty stations.

29C.35 In accordance with the 2030 Agenda for Sustainable Development, in particular target 12.6 of the Sustainable Development Goals, in which organizations are encouraged to integrate sustainability into their reporting cycles, and in compliance with the cross-cutting mandate set out in paragraph 19 of General Assembly resolution [72/219](#), the Office of Information and Communications Technology is integrating environmental management practices into its operations. In 2018, a highlight was the significant increase in the provision of videoconferencing, contributing to a reduction in travel and associated environmental impacts. In 2020, the Office will continue to increase communication options for clients to further reduce the need for travel. In 2020, the Office will continue with the reduction of its infrastructure footprint in data centres, with an increased move to the cloud, thus reducing its environmental impact.

29C.36 Information on compliance with regard to the timely submission of documentation and advance booking for air travel is reflected in table 29C.7.

Table 29C.7

Compliance rate

(Percentage)

	Planned 2018	Actual 2018	Planned 2019	Planned 2020
Timely submission of documentation	100	100	100	100
Air tickets purchased at least 2 weeks before the commencement of travel	100	49.5	100	100

29C.37 The proposed regular budget resources for 2020 amount to \$2,894,900 and reflect an increase of \$75,700 compared with the appropriation for 2019. Additional details are reflected in figures 29C.III to 29C.V and table 29C.8.

Figure 29C.III
Resources for executive direction and management as a percentage of the regular budget

(Millions of United States dollars)

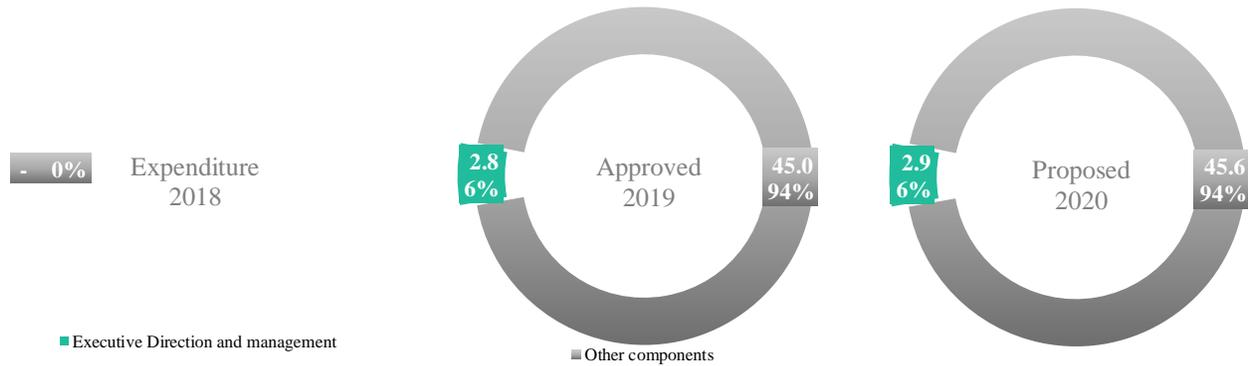


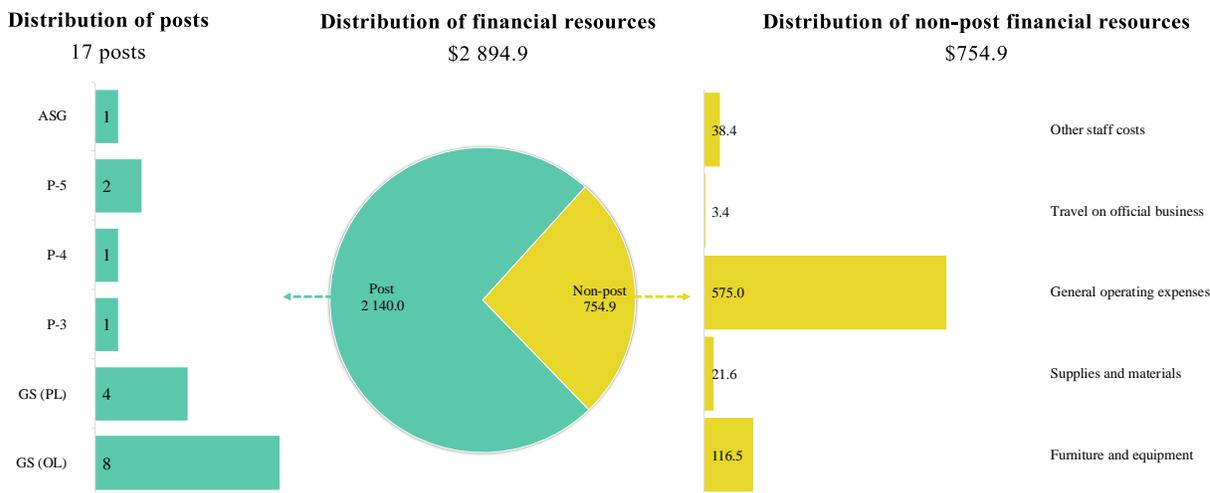
Table 29C.8
Executive direction and management: evolution of financial and post resources

(Thousands of United States dollars/number of posts)

	2018 expenditure	2019 appropriation	Changes				Total	Percentage	2020 estimate (before recosting)
			Technical adjustments	New and expanded mandates	Other	Total			
Financial resources by main category of expenditure									
Post		1 903.2	–	–	236.8	236.8	12.4	2 140.0	
Non-post		916.0	–	–	(161.1)	(161.1)	(17.6)	754.9	
Total		2 819.2	–	–	75.7	75.7	2.7	2 894.9	
Post resources by category of expenditure									
Professional and higher		4	–	–	1	1	25.0	5	
General Service and related		12	–	–	–	–	–	12	
Total		16	–	–	1	1	6.3	17	

Figure 29C.IV
Executive direction and management: distribution of proposed resources for 2020 (before recosting)

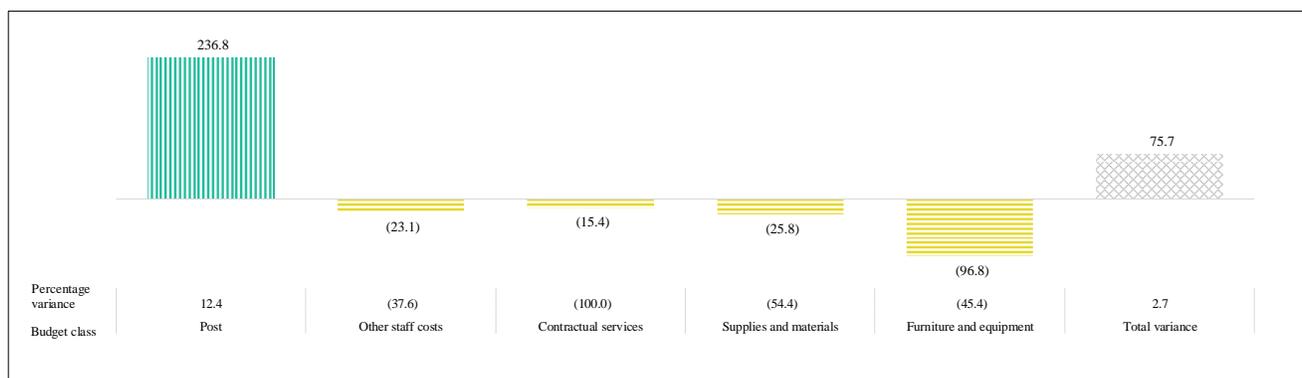
(Number of posts/thousands of United States dollars)



Abbreviations: ASG, Assistant Secretary-General; GS (OL), General Service (Other level); GS (PL), General Service (Principal level).

Figure 29C.V
Executive direction and management: variance between proposed resources for 2020 and appropriation for 2019, by budget class

(Thousands of United States dollars)



29C.38 The net increase of \$75,700 reflects:

Other changes. This includes: (a) the proposed reclassification of one post of Staff Assistant (General Service (Other level)) as a Senior Staff Assistant (General Service (Principal level)) as a result of that post being given additional functions, such as serving as the focal point in the Office of the Chief Information Technology Officer on several substantive and operational matters, including the preparation of detailed briefing notes, papers and presentations on finance, human resources, contract management and project management for the Assistant Secretary General; and (b) the proposed inward redeployment of one post of Senior Administrative Officer (P-5) from subprogramme 1 to the Office of the Chief Information Technology Officer to support the Office in managing, supervising and carrying out its work programme. This is offset in part by reductions under non-post resources related to decreased requirements for other staff costs (\$23,100),

contractual services (\$15,400), supplies and materials (\$25,800) and furniture and equipment (\$96,800).

29C.39 The component is supported by extrabudgetary resources, estimated at \$115,400, that would provide for non-post resources, as reflected in table 29C.4. The resources will support the planning and coordination of ICT activities Secretariat-wide.

Programme of work

29C.40 The proposed regular budget resources for 2020 amount to \$45,590,300 and reflect an increase of \$575,100 compared with the appropriation for 2019. Additional details are reflected in figures 29C.VI and 29C.VII and table 29C.9.

Figure 29C.VI

Resources for programme of work as a percentage of the regular budget

(Millions of United States dollars)

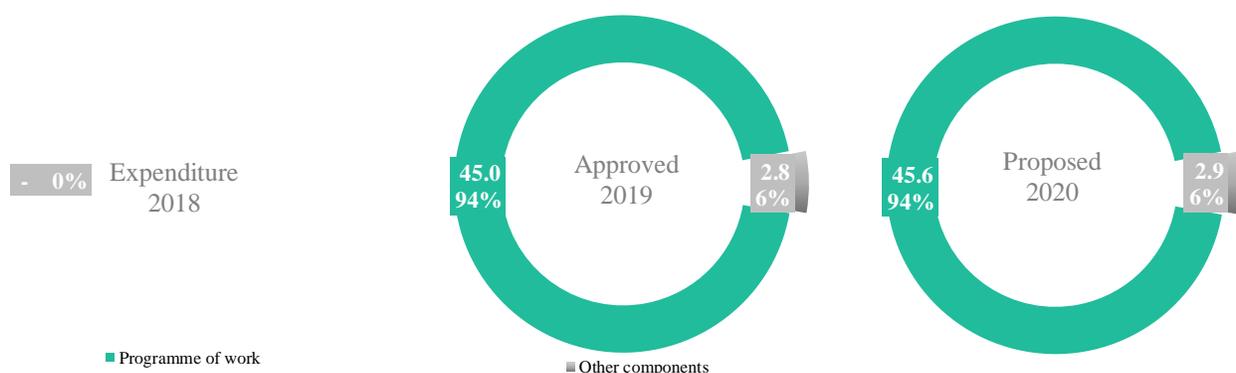


Table 29C.9

Programme of work: evolution of financial and post resources

(Thousands of United States dollars/number of posts)

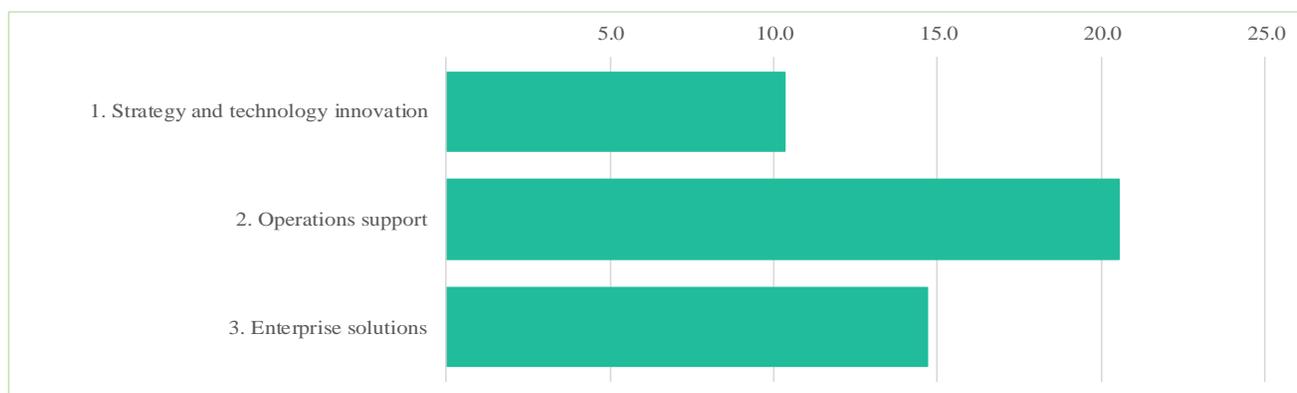
	2018 expenditure	2019 appropriation	Changes				2020 estimate (before recosting)	
			Technical adjustments	New/ expanded mandates	Other	Total		
Financial resources by subprogramme								
1. Strategy and technology innovation		10 971.7	–	–	(635.2)	(635.2)	(5.8)	10 336.5
2. Operations support		19 338.8	–	–	1 206.6	1 206.6	6.2	20 545.4
3. Enterprise solutions		14 704.6	31.4	–	(27.7)	3.7	0.0	14 708.3
Total		45 015.1	31.4	–	543.7	575.1	1.3	45 590.2
Financial resources by main category of expenditure								
Post		19 649.0	31.4	–	765.0	796.4	4.1	20 445.4
Non-post		25 366.1	–	–	(221.3)	(221.3)	(0.9)	25 144.8
Total		45 015.1	31.4	–	543.7	575.1	1.3	45 590.2

Section 29 Management and support services
Subsection 29C Office of Information and Communications Technology

	2018 expenditure	2019 appropriation	Changes				Total	Percentage	2020 estimate (before recosting)
			Technical adjustments	New/ expanded mandates	Other				
Post resources by subprogramme									
1. Strategy and technology innovation		38	–	–	(3)	(3)	(7.9)	35	
2. Operations support		65	–	–	12	12	18.5	77	
3. Enterprise solutions		53	–	–	1	1	1.9	54	
Total		156	–	–	10	10	6.4	166	

Figure 29C.VII
Distribution of proposed resources for 2020 by subprogramme

(Millions of United States dollars)



Subprogramme 1
Strategy and technology innovation

29C.41 The proposed regular budget resources for 2020 amount to \$10,336,500 and reflect a net decrease of \$635,200 compared with the appropriation for 2019. Additional details are reflected in table 29C.10 and figures 29C.VIII and 29C.IX.

Table 29C.10
Subprogramme 1: evolution of financial and post resources

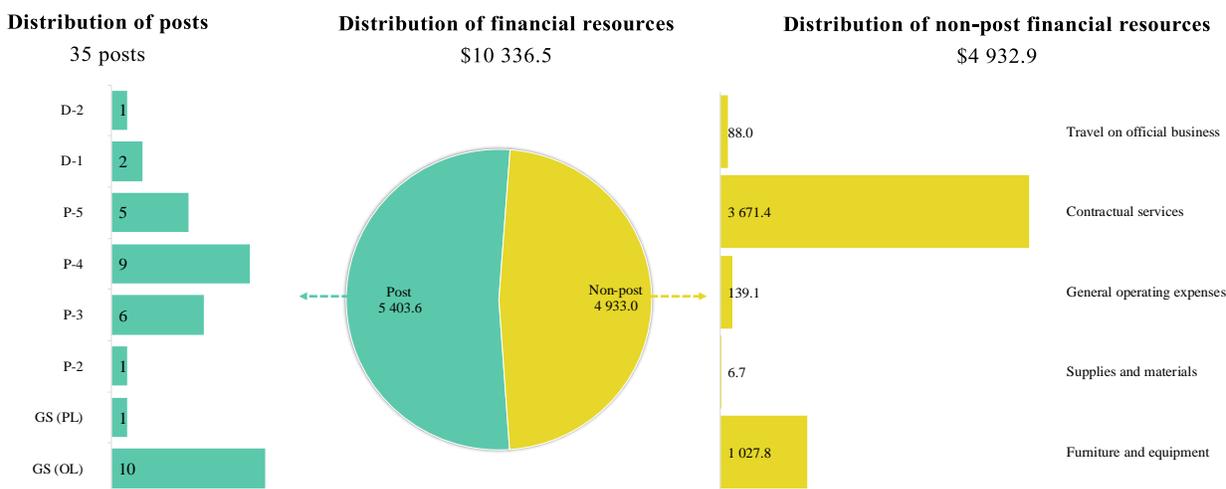
(Thousands of United States dollars/number of posts)

	2018 expenditure	2019 appropriation	Change				Total	Percentage	2020 estimate (before recosting)
			Technical adjustments	New/expanded mandates	Other				
Financial resources by main category of expenditure									
Post		5 764.4	–	–	(360.8)	(360.8)	(6.3)	5 403.6	
Non-post		5 207.3	–	–	(274.4)	(274.4)	(5.3)	4 932.9	
Total		10 971.7	–	–	(635.2)	(635.2)	(5.8)	10 336.5	

	2018 expenditure	2019 appropriation	Change				2020 estimate (before recosting)	
			Technical adjustments	New/expanded mandates	Other	Total		Percentage
Post resources by category								
Professional and higher		26	–	–	(2)	(2)	(7.7)	24
General Service and related		12	–	–	(1)	(1)	(8.3)	11
Total		38	–	–	(3)	(3)	(7.9)	35

Figure 29C.VIII
Subprogramme 1: distribution of proposed resources for 2020 (before recosting)

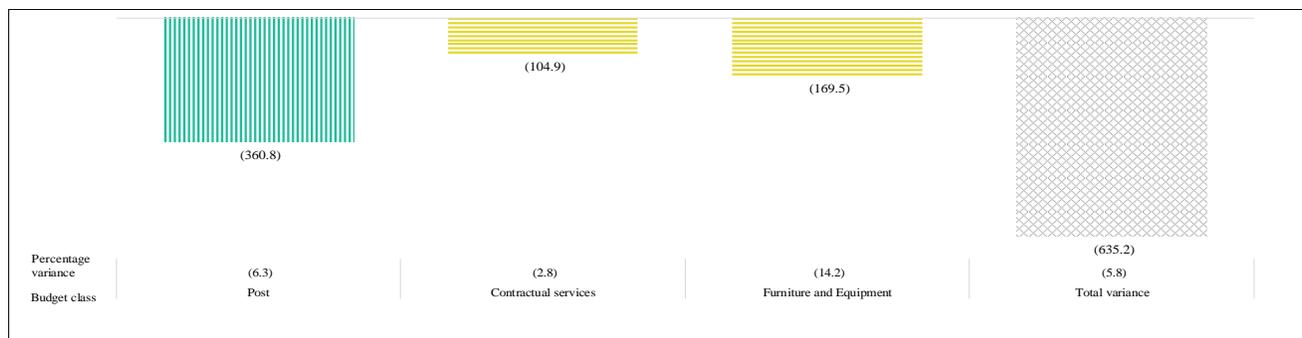
(Number of posts/thousands of United States dollars)



Abbreviations: GS (OL), General Service (Other level); GS (PL), General Service (Principal level).

Figure 29C.IX
Subprogramme 1: variance between proposed resources for 2020 and appropriation for 2019, by budget class

(Thousands of United States dollars)



29C.42 The net decrease of \$635,200 reflects:

Other changes:

- (a) The net decrease in post resources of \$360,800 relates to:
- (i) The proposed reclassification of three posts in the Cybersecurity Section: one post of Senior Information Systems Officer (P-5) as Chief of Service, Information Systems (D-1) and two posts of Information Systems Officer (P-4) as Senior Information Systems Officer (P-5) to strengthen information security. With the intensifying cyberthreats, it is critical that the United Nations ensure a consistent and harmonized approach to information security across the entire Secretariat. This is proving increasingly challenging in the current context, with information security becoming an important dimension of the work of the United Nations. The span and scale of responsibility in this area have grown significantly, primarily as a result of the escalating information cybersecurity threat landscape. Therefore, a commensurate change in the handling by the United Nations of cybersecurity is required, and the above-mentioned reclassifications are proposed in view of the increased complexity and responsibility of these functions;
 - (ii) The proposed reclassification of two posts in the Policy, Strategy and Governance Division: one post of Associate Information Systems Officer (P-2) as Information Systems Officer (P-3) and one post of Information Systems Officer (P-3) as a P-4 post. These upward reclassifications relate to the need to coordinate a wide range of internal and external audit activities and to provide direct support to programme managers with a view to increasing the alignment of ICT programmes with the substantive work of the United Nations, in accordance with the new information and communications technology strategy. The functions of the posts also entail increased financial responsibility and oversight of contractual resources within the Division. In addition, the importance of monitoring governance and undertaking policy formulation has increased; those functions represent a higher level of responsibility;
 - (iii) The redeployment of seven posts: one post of Chief of Section, Information Management (P-5) from New York to Vienna within the subprogramme; one post of Senior Administrative Officer (P-5) to the Office of the Chief Information Technology Officer; three posts of Information Systems Officer (1 P-4 and 2 P-3) to subprogramme 3; one post of Information Systems Officer (P-4) from subprogramme 2 to strengthen ICT performance management, compliance monitoring and project management governance; and one post of Associate Information Systems Officer (P-2) from subprogramme 3 to strengthen the business intelligence and analytics team;
 - (iv) The abolishment of one post of Information Systems Assistant (General Service (Other level));
- (b) The decrease in non-post resources of \$274,400 relates to reduced requirements for contractual services and furniture and equipment.

29C.43 The subprogramme is supported by other assessed resources, estimated at \$1,521,800, that would provide for four posts, and extrabudgetary resources, estimated at \$8,248,800, as reflected in table 29C.4. The resources would support the subprogramme in (a) compliance checks, information security assessments and strengthening of the security posture; (b) the coordination of disaster recovery planning activities; and (c) the provision of United Nations Technology Innovation Labs to further support the implementation of the Sustainable Development Goals in partnership with Member States.

Subprogramme 2 Operations support

29C.44 The proposed regular budget resources for 2020 amount to \$20,545,400 and reflect an increase of \$1,206,600 compared with the appropriation for 2019. Additional details are reflected in table 29C.11 and figures 29C.X and 29C.XI.

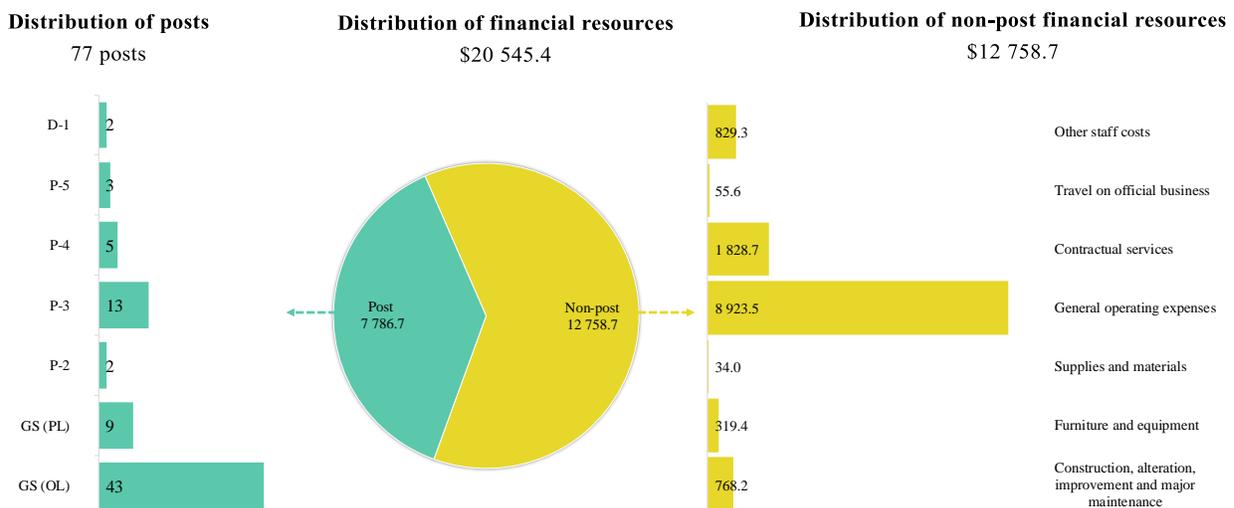
Table 29C.11
Subprogramme 2: evolution of financial and post resources

(Thousands of United States dollars/number of posts)

	2018 expenditure	2019 appropriation	Changes				2020 estimate (before recosting)	
			Technical adjustments	New/expanded mandates	Other	Total		Percentage
Financial resources by main category of expenditure								
Post		6 864.9	–	–	921.8	921.8	13.4	7 786.7
Non-post		12 473.9	–	–	284.8	284.8	2.3	12 758.7
Total		19 338.8	–	–	1 206.6	1 206.6	6.2	20 545.4
Post resources by category								
Professional and higher		26	–	–	(1)	(1)	(3.8)	25
General Service and related		39	–	–	13	13	33.3	52
Total		65	–	–	12	12	18.5	77

Figure 29C.X
Subprogramme 2: distribution of proposed resources for 2020 (before recosting)

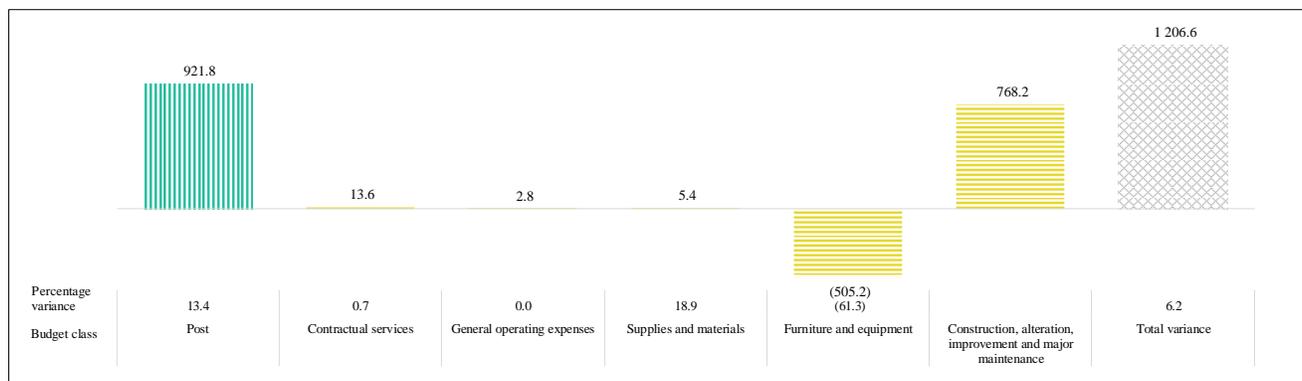
(Number of posts/thousands of United States dollars)



Abbreviations: GS (OL), General Service (Other level); GS (PL), General Service (Principal level).

Figure 29C.XI
Subprogramme 2: variance between proposed resources for 2020 and appropriation for 2019, by budget class

(Thousands of United States dollars)



29C.45 The increase of \$1,206,600 reflects:

Other changes:

- (a) The proposed inward redeployment of 12 posts (1 General Service (Principal level) and 11 General Service (Other level)) from section 2, Department for General Assembly and Conference Management, to integrate ICT functions in accordance with the information and communications technology strategy;
- (b) The proposed outward redeployment of one post of Information Systems Officer (P-4) to subprogramme 1 and inward deployment of one post of Information Systems Assistant (General Service (Other level)) from subprogramme 3 to provide administrative support to the Regional Service Management Service;
- (c) Additional requirements under non-post resources reflecting the inward redeployment from section 33, Construction, alteration, improvement and major maintenance, of funding previously approved under that section but that was related to the operational maintenance activities and thus does not meet the criteria of capitalizable expenditures under the International Public Sector Accounting Standards with respect to property management.

29C.46 The subprogramme is supported by: (a) extrabudgetary resources, estimated at \$32,369,200, that would provide for 12 posts and non-post resources, as reflected in table 29C.4. The resources would provide for operating, maintenance and support costs for the ICT infrastructure to the enterprise data centres in Valencia, Spain, and Brindisi, Italy, and help desk support; and (b) other assessed resources, estimated at \$7,098,000, that would provide for 28 posts and non-post resources under the support account for peacekeeping operations.

**Subprogramme 3
 Enterprise solutions**

29C.47 The proposed regular budget resources for 2020 amount to \$14,708,300 and reflect a net increase of \$3,700 compared with the appropriation for 2019. Additional details are reflected in table 29C.12 and figures 29C.XII and 29C.XIII.

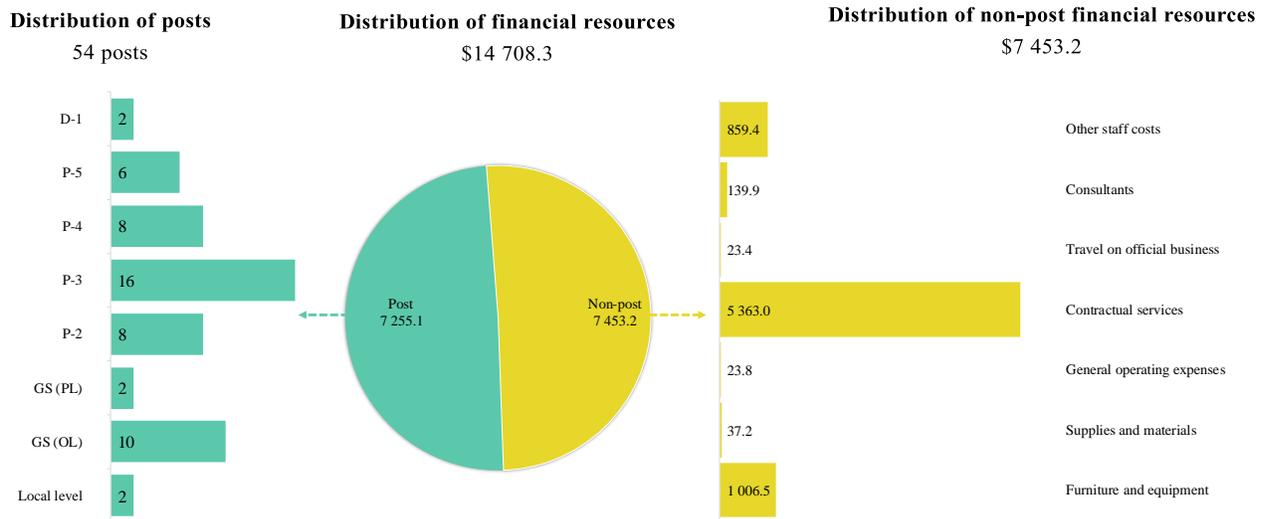
Table 29C.12
Subprogramme 3: evolution of financial and post resources

(Thousands of United States dollars/number of posts)

	2018 expenditure	2019 appropriation	Changes				2020 estimate (before recosting)	
			Technical adjustments	New/expanded mandates	Other	Total		
Financial resources by main category of expenditure								
Post		7 019.7	31.4	–	204.0	235.4	3.4	7 255.1
Non-post		7 684.9	–	–	(231.7)	(231.7)	(3.0)	7,453.2
Total		14 704.6	31.4	–	(27.7)	3.7	0.0	14 708.3
Post resources by category								
Professional and higher		38	–	–	2	2	5.3	40
General Service and related		14	–	–	(2)	(2)	(14.3)	12
Local level		1	–	–	1	1	100.0	2
Total		53	–	–	1	1	1.9	54

Figure 29C.XII
Subprogramme 3: distribution of proposed resources for 2020 (before recosting)

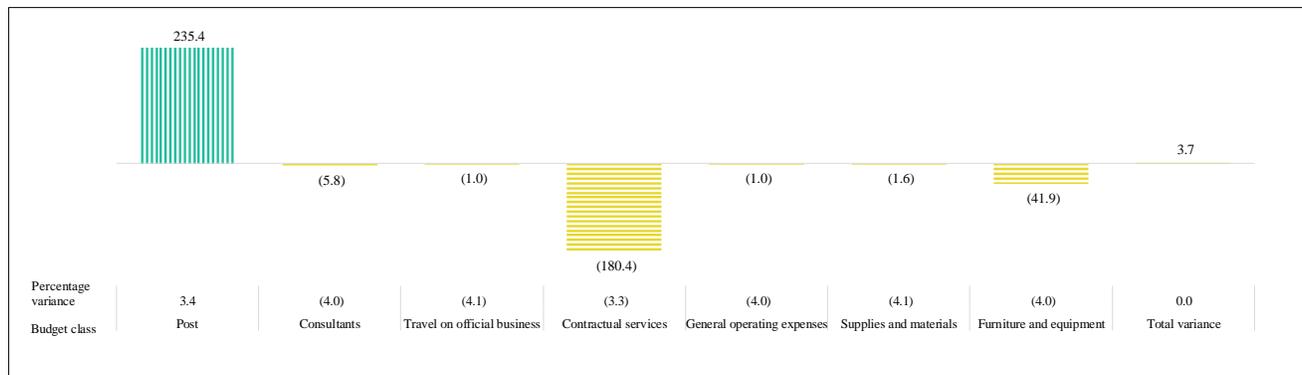
(Number of posts/thousands of United States dollars)



Abbreviations: GS (OL), General Service (Other level); GS (PL), General Service (Principal level).

Figure 29C.XIII
Subprogramme 3: variance between proposed resources for 2020 and appropriation for 2019, by budget class

(Thousands of United States dollars)



29C.48 The net increase of \$3,700 reflects mainly:

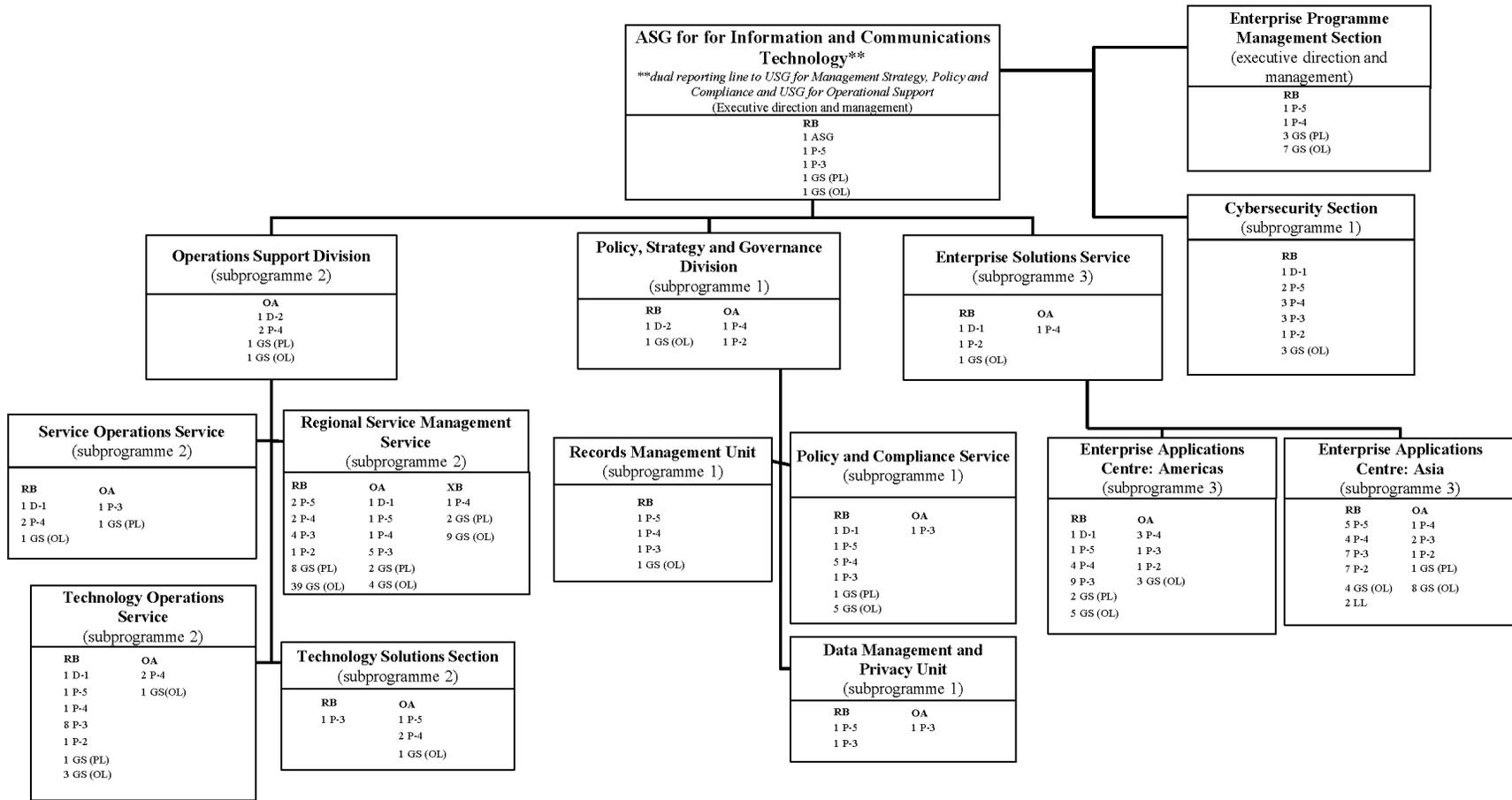
- (a) **Technical adjustments.** The increase of \$31,400 under post resources reflects the delayed impact of posts approved for the biennium 2018–2019 by the General Assembly in its resolution [72/263 A](#);
- (b) **Other changes.** The net decrease of \$27,700 relates to:
 - (i) The proposed outward redeployment of one post of Associate Information Systems Officer (P-2) to subprogramme 1;
 - (ii) The proposed inward redeployment of three posts of Information Systems Officer (1 P-4 and 2 P-3) from subprogramme 1 to strengthen applications support and project management;
 - (iii) The proposed redeployment within the subprogramme of one post of Chief of Section, Information Management (P-5) from New York to Bangkok, one post of Information Systems Officer (P-3) from New York to Valencia and one post of Information Systems Assistant (General Service (Principal level)) from New York to Valencia (Local level) to strengthen the Office’s presence in those duty stations;
 - (iv) The decrease in non-post resources, owing to the relocation of work and contractual resources to Bangkok and Valencia.

29C.49 The subprogramme is supported by: (a) extrabudgetary resources, estimated at \$9,259,300, that would provide for non-post resources, as reflected in table 29C.4; and (b) other assessed resources, estimated at \$31,611,800, that would provide for 22 posts and non-post resources under the support account for peacekeeping operations. The increase of \$21,446,700 is due to the inclusion of Umoja maintenance and support costs in other assessed resources for the Office in 2020. The resources would provide for applications maintenance and support, mainly for the electronic contingent-owned equipment system, the electronic fuel management system, the electronic rations management system and the peacekeeping portion of enterprise applications, such as Umoja, iNeed, Unite ID and Inspira.

Annex I

Organizational structure and post distribution for 2020

Information and Communications Technology



Abbreviations: ASG, Assistant Secretary-General; GS (OL), General Service (Other level); GS (PL), General Service (Principal level); LL, Local level; OA, other assessed; RB, regular budget; USG, Under-Secretary-General; XB, extrabudgetary.

Annex II

Summary of proposed changes in established and temporary posts, by component and subprogramme

	<i>Posts</i>	<i>Level</i>	<i>Description</i>	<i>Reason for change</i>
Executive direction and management	1	P-5	Redeployment of 1 post of Senior Administrative Officer from subprogramme 1 to the Office of the Chief Information Technology Officer	To support the Office of the Chief Information Technology Officer in managing, supervising and carrying out its work programme
	(1) 1	GS (OL) GS (PL)	Reclassification of 1 post of Staff Assistant (General Service (Other level)) as Senior Staff Assistant (General Service (Principal level))	Functions will increase by serving as the focal point of the Office of the Chief Information Technology Officer on several substantive and operational duties
Subprogramme 1 Strategy and technology innovation	(1)	P-5	Redeployment of 1 post of Senior Administrative Officer (P-5) to the Office of the Chief Information Technology Officer	To support the Office of the Chief Information Technology Officer in managing, supervising and carrying out its work programme
	1	P-4	Redeployment of 1 post of Information Systems Officer from subprogramme 2	To strengthen ICT performance management, compliance monitoring and project management governance
	(1)	P-4	Redeployment of 1 post of Information Systems Officer to subprogramme 3	To provide applications and administrative support for human resources and budget matters
	(2)	P-3	Redeployment of 2 posts of Information Systems Officer to subprogramme 3	To provide applications support and project management assistance
	1	P-2	Redeployment of 1 post of Associate Information Systems Officer (P-2) from subprogramme 3	To support the business intelligence and analytics team
	(1) 1	(P-2) P-3	Reclassification of 1 post of Associate Information Systems Officer (P-2) as Information Systems Officer (P-3)	Increase in strategic engagement and responsibilities
	(1) 1	P-3 P-4	Reclassification of 1 post of Information Systems Officer (P-3) as a P-4 post	Increase in strategic engagement and responsibilities
	(1)	GS (OL)	Abolishment of 1 post of Information Systems Assistant	Redistribution of work
	–	P-5	Redeployment of 1 post of Chief of Section, Information Management from New York to Vienna	To strengthen the Office's presence in Vienna
	(1) 1	P-5 D-1	Reclassification of 1 post of Senior Information Systems Officer (P-5) as Chief of Service, Information Systems (D-1)	To address intensifying cyberthreats, as detailed in 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)

