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Common support services

Section 29C

Office of Information and Communications Technology

Programme 25

Management and support services

Contents

	<i>Page</i>
Foreword	3
A. Proposed programme plan for 2021 and programme performance for 2019**	5
B. Proposed post and non-post resource requirements for 2021***	23
Annexes	
I. Organizational structure and post distribution for 2021	35
II. Summary of follow-up action taken to implement relevant recommendations of the oversight bodies	36

* [A/75/50](#).

** In keeping with paragraph 11 of resolution [72/266 A](#), the part consisting of the programme plan and programme 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.



Foreword

Since its endorsement in 2015, the information and communications technology (ICT) strategy for the United Nations has reconfigured a revitalized ICT capacity within the Secretariat to become a critical enabler for the delivery of mandates globally. It 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 adherence to standards and accountability.

In 2019, following decisions by the General Assembly on the Secretary-General's proposals on management reform, a single Office of Information and Communications Technology was established through the consolidation of the former Office of Information and Communications Technology in the Department of Management and the Information and Communications Technology Division in the Department of Field Support.

By combining the two ICT components, a significant consolidation of ICT capacities in the Secretariat was achieved. A unified approach to ICT operations across the Secretariat has resulted in one coordinated approach when implementing initiatives that have an impact across the enterprise. This approach presents opportunities to enable current and future services that will enable the Secretariat and Member States to perform their core work and communicate effectively by modernizing the ICT infrastructure to support new and more flexible methods of working in a secure and managed environment.

The timely roll-out of Unite Workspace during 2019 is changing the way the Organization performs its work and the way it communicates. Collaboration tools were deployed throughout the Secretariat, providing over 56,000 users with modern and intuitive tools to share information, conduct meetings, collaborate on projects and initiatives and broadcast live events, irrespective of their location. Unite Workspace was rolled out to 27 departments at United Nations Headquarters and to all peace operations. In addition, a comprehensive online learning centre was launched to support end user training in collaboration tools.

The Office partnered with entities across the Secretariat to deploy innovative software solutions. For example, new applications were launched to support the prevention of sexual exploitation and abuse, which provided a secure online platform to collect and analyse summary reporting on allegations of sexual exploitation and abuse from the participating United Nations entities. Also, accessibility features were rolled out on the United Nations Careers portal and Inspira, providing the opportunity for persons with disabilities to fully access employment opportunities within the United Nations, as well as on the website of the Procurement Division of the Department of Operational Support, providing information on business opportunities, awards and other statistics related to procurement.

In 2019, the United Nations faced an unprecedented number of cyberattacks. The Office successfully mitigated 1.8 billion malicious emails. Advanced malware analytics prevented more than 20,000 highly sophisticated attacks. Over 40 million malicious web connections were prevented. In 2019, the Office also detected and recovered more than 200 email accounts that had been compromised and actively abused. The Office continues to strengthen cybersecurity as a key priority. Despite the tremendous efforts and given the escalating level of threats and sophistication of cyberattacks, security remains an important issue to tackle to avoid more systems being compromised.

The Office continued efforts to transform the United Nations into a data-driven organization where information and data inform decision-making across all the mandates of the United Nations, with a strong emphasis on supporting the areas of peace and security and development, as well as implementation of the Sustainable Development Goals by Member States. During 2019, the Office delivered enterprise-type dashboards for a number of departments, such as for the Department of Peace Operations on commitments and progress relating to the Action for Peacekeeping initiative and for the Department of Management Strategy, Policy and Compliance to analyse programme budget documents and their alignment with the Goals and other variables. In support of efforts to assess carbon emissions from travel, the Office developed a travel carbon emissions dashboard in collaboration with offices in the Departments of Management Strategy, Policy and Compliance and of Operational Support. The Office expanded the implementation of the self-service analytics strategy and strengthened the adoption of business intelligence tools made available to all Secretariat end users. Secretariat entities were empowered to produce their own analytics products, and user numbers across the United Nations increased from 2,935 to 5,700, with locally produced reports and dashboards increasing from 5,870 to 10,046, by year-end. At the time of reporting, 1,249 staff

had been trained in 10 different locations around the globe. The Office organized and hosted the first data symposium at United Nations Headquarters, with over 370 registered participants and more than 1,300 views on United Nations Web TV. The Office piloted an organization-wide data provision and distribution model that fosters data-sharing across entities in a governed and secure manner.

We continue to harness frontier technologies such as artificial intelligence, machine learning, robotics and distributed ledger technology. The implementation and mainstreaming of existing technology solutions continues to address some of the priority challenges being faced in our field operations to improve situational awareness, by utilizing geospatial capabilities, microdrones and protection technologies in order to transform and modernize the ICT landscape in the United Nations and meet current and emerging challenges and requirements.

The global health crisis arising from the coronavirus disease 2019 (COVID-19) outbreak starkly highlighted the criticality of a resilient and secure global ICT network, systems and applications to enable the United Nations to deliver on its mandates globally. The ability of the United Nations and intergovernmental bodies to continue working during the periods of remote work was critically dependent upon this. The continued support of the General Assembly for sustainable funding for ICT capacities and ongoing support functions remains critical.

(Signed) Patrick **Carey**
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A. Proposed programme plan for 2021 and programme performance for 2019

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, including resolutions [63/262](#) and [72/266](#) B.

Strategy and external factors for 2021

- 29C.2 In 2021, the Office will strengthen the information and data management policy framework across the United Nations Secretariat. In addition to providing advisory and consultation services, the Office will expand the implementation of the framework by identifying and addressing policy and guideline gaps and increasing data literacy. The use of emerging innovative technology will support and accelerate the delivery of the United Nations mandates by deriving value and insights from data and information. In this context, the Office will support the implementation of the data strategy using modern technology to facilitate access to data across the Secretariat, leading the Organization towards better informed data-driven decisions.
- 29C.3 The Office supports and facilitates the implementation of mandates. In this regard, it has leveraged the use of emerging technology to implement strategic solutions and enabling environments in partnership with relevant United Nations entities. Frontier technologies, such as artificial intelligence, machine learning and distributed ledger technology, have been applied to create foundation elements in the development of future tools and non-enterprise field-specific solutions, in support of the core work of the Organization. The Office will continue to raise awareness of innovation techniques and foster the exchange of ideas to realize the full potential of new technologies to improve the way the Organization works. The realization of conversational artificial intelligence in 2021 with full enterprise capabilities would help to address some of the accessibility and multilingualism challenges while helping the Secretariat to embrace new technology as a key initiative for the future of work.
- 29C.4 To promote and foster collaboration within the Secretariat and with the wider United Nations system, as well as supporting the growth of data being generated and addressing 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 Unite Service Desk.
- 29C.5 In 2019, the Office continued to develop and deploy solutions to support the programmatic mandates of the Organization by harmonizing and automating processes across duty stations for staff separations and movement requests, by streamlining the separation process with global checklists and enabling comparable reporting on key performance indicators. The Office deployed the delegation of authority portal to support the Secretary-General's revised framework for the delegation of authority, emphasizing transparency, accountability and decision-making. More than 400 delegations have been recorded.
- 29C.6 In 2021, the Office will continue the transition from legacy applications to shared enterprise solutions that are compliant with enterprise security and architecture guidelines. For example, identity management will be migrated to the cloud in order to reduce the Secretariat's data centre footprint while leveraging cloud services.

- 29C.7 Collaboration with peacekeeping missions will continue in the areas of contingent-owned equipment and troop strength reporting. The Office will continue to support the development pillar of the Secretary-General's reform by providing substantive departments and offices with information technology solutions that facilitate mandate delivery.
- 29C.8 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 those working in field operations delivering on mandates to provide humanitarian assistance to people in need and to maintain international peace and security. The Office will support the deployment of the electronic travel advisory mobile application, which delivers location-specific information to an estimated 40,000 United Nations personnel, providing them with the assurance that they can perform their job while getting real-time advisories and information on risks and threats.
- 29C.9 With regard to the external factors, the overall plan for 2021 is based on the following assumptions:
- (a) Requirements for ICT to support mandate delivery by the global United Nations Secretariat are supported by adequate and sustainable funding. The criticality of ICT as an enabler in supporting the Organization's operations globally has been starkly highlighted during the changes required to working methods as a result of the coronavirus disease 2019 (COVID-19) outbreak;
 - (b) Major contractual costs with vendors will not increase at a rate greater than standard inflation.
- 29C.10 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 timely information on gender parity in their department/office to enable them to make more informed decisions on staff recruitment. The Office has worked with the United Nations Entity for Gender Equality and the Empowerment of Women (UN-Women) to improve its outreach activities in recruitment to help to address gender imbalance in the applications process.

Legislative mandates

- 29C.11 The list below provides all mandates entrusted to the programme.

General Assembly resolutions

63/262	Information and communications technology, enterprise resource planning, and security, disaster recovery and business continuity	71/272 B, sect. III	Special subjects relating to the programme budget for the biennium 2016–2017: status of implementation of the information and communications technology strategy for the United Nations
69/262 , sect. II	Questions relating to the programme budget for the biennium 2014–2015: information and communications technology in the United Nations	72/262 C, sect. I	Special subjects relating to the programme budget for the biennium 2018–2019: status of implementation of the information and communications technology strategy for the United Nations
70/248 A, sect. V	Special subjects relating to the proposed programme budget for the biennium 2016–2017: information and communications technology in the United Nations	72/266 B	Shifting the management paradigm in the United Nations

Deliverables

- 29C.12 Table 29C.1 lists all cross-cutting deliverables, by category and subcategory, for the period 2019–2021.

Table 29C.1

Cross-cutting deliverables for the period 2019–2021, by category and subcategory

<i>Category and subcategory</i>	<i>2019 planned</i>	<i>2019 actual</i>	<i>2020 planned</i>	<i>2021 planned</i>
A. Facilitation of the intergovernmental process and expert bodies				
Parliamentary documentation (number of documents)	1	1	1	1
1. Report of the Secretary-General on the status of implementation of the information and communications technology strategy	1	1	1	1
Substantive services for meetings (number of three-hour meetings)	3	3	3	3
2. Meetings of the Fifth Committee	1	1	1	1
3. Meetings of the Committee for Programme and Coordination	1	1	1	1
4. Meetings of the Advisory Committee on Administrative and Budgetary Questions	1	1	1	1

Evaluation activities

29C.13 The following self-evaluations completed in 2019 have guided the programme plan for 2021:

- (a) The review of enterprise collaboration tools currently in use and the future technology landscape;
- (b) The review and identification of applications that could be moved to the cloud, further reducing on-premises hosting.

29C.14 The findings of the evaluations referenced above have been taken into account for the programme plan for 2021, as follows:

- (a) Multiple collaboration tools exist in the Secretariat using different technologies. The Office will be working with departments and offices on the convergence to a set of online collaboration tools;
- (b) The Office identified that the enterprise applications using the customer relationship management platform and the Unite ID platform, which allows authentication for approximately 200 applications, are suitable for migration to cloud hosting. The preparation works for the migration of CRM and Unite ID begins in 2020, and the migration will be completed in 2021.

29C.15 The evaluation of implementation of the Secretariat cloud computing strategy is planned for 2021.

Programme of work**Subprogramme 1****Strategy and technology innovation****Objective**

29C.16 The objective, to which this subprogramme contributes, is to maintain and enhance an innovative, secure, unified digital space for the United Nations safeguarded by an enabling normative framework.

Strategy

- 29C.17 To contribute to the maintenance and enhancement of an innovative digital workspace for the United Nations, the subprogramme will support the core work of the United Nations and its Member States by using emerging innovative technology to provide strategic solutions and enabling environments, in partnership with relevant United Nations entities. This will be achieved by using frontier technologies, such as artificial intelligence, machine learning, natural language processing and distributed ledger technology, to complete real activities in the substantive areas of work. The use of technology to support the core work of the United Nations is established in General Assembly resolution 69/262, and technology innovation is a pillar of the information and communications technology strategy for the United Nations. This work is expected to result in better awareness of innovation techniques and new technologies, the fostering of the exchange of ideas, and the increased capacity and stronger ability of institutions to pursue their mandate. The exchange of ideas results in good practices being shared within the United Nations, a reduction in duplication, and the wider application of positive outcomes. Past results in these areas include the creation of foundational tools for emerging technologies, the implementation of an external engagement platform for innovation projects, an internal platform to support innovation in the Secretariat and capacities that leverage the subprogramme's technology capacity to deliver solutions that support the work of the Organization.
- 29C.18 To contribute to the maintenance and enhancement of a secure digital space for the United Nations, given the growing cybersecurity threats and the significant exposure to them, the subprogramme will support United Nations entities to reduce the level of risk to the image, resources, data, operations and safety of the personnel and assets of the United Nations. The subprogramme will promote information security campaigns, support and implement security measures, strengthen proactive threat management capabilities and promote the use of advanced security features. In parallel, the Digital Blue Helmets programme supports Secretariat entities to ensure that information security risks do not hamper efforts to implement United Nations mandates or adversely affect support to Member States. This work is expected to result in better end user awareness and a higher level of resilience of the Organization to existing and future threats and, ultimately, increased protection of United Nations resources and data. Past results in these areas include the strengthened information security across the Secretariat, supported by increased monitoring and reactive capacity, through a programme of cybersecurity assessments conducted in several field missions, among other initiatives.
- 29C.19 To contribute to the maintenance and enhancement of a unified digital space for the United Nations safeguarded by an enabling normative framework, the subprogramme will help to facilitate access to data across the Organization by leveraging modern technology, will strengthen data literacy by co-leading the implementation of the data strategy and will govern information and data management. This work is expected to result in better information, data access and understanding of the available data to support better decision-making. Past results in these areas include the implementation of an information management policy framework for the Unite Workspace project and tools. In addition, the first data symposium, on the theme "The future of data at the United Nations", was held in October 2019, with external and internal subject matter experts addressing core strategic topics related to data in the context of the United Nations. The symposium had 370 registered participants and more than 1,300 views on United Nations Web TV.

Programme performance in 2019 against planned result

- 29C.20 A planned result for 2019, which is strengthened information security controls and processes across the Secretariat and field missions, as referred to in the report of the Secretary-General entitled "Shifting the management paradigm in the United Nations: implementing a new management architecture for improved effectiveness and strengthened accountability" (A/72/492/Add.2), was achieved, as evidenced by a 38 per cent increase in the capability of the Cybersecurity Section, with the addition of three staff members to the team of eight, under a unified management structure to effectively monitor ICT assets and data and attempted intrusions and policy violations, compared

with a target of 35 per cent for the biennium 2018–2019. The consolidation of resources of the former Information and Communications Technology Division in the Department of Field Support and the former Office of Information and Communications Technology in the Department of Management has allowed for the creation of specialized teams within the Section that focus on (a) threat and incident management; (b) vulnerability management; and (c) the security architecture. Those teams operate across locations and follow standardized processes that have been developed by harmonizing and updating previously existing procedures. In addition, a set of common tools has been identified, documented and procured that allow the consistent implementation of those processes not only within the Section, but also in locations where there is no direct presence, such as in peacekeeping and special political missions where information security focal points operate under the overall guidance and with support from the Cybersecurity Section.

- 29C.21 This enhanced and harmonized vulnerability management capacity has resulted in an increased number of security assessments, vulnerability notifications and alerts, while the newly established threat and incident management function has significantly increased the capacity to detect and respond to cyberattacks and successful breaches in a timely manner. The proactive work on security architecture has been closely integrated into the larger framework of enterprise architecture, which also forms part of the work of the Section. In the course of 2019, an enterprise architecture task force was established to provide oversight and guidance for new software development activities, as well as for the migration of systems to cloud hosting environments.

Programme performance in 2019: innovative solutions for a better informed and more secure United Nations

- 29C.22 In its resolution [67/254](#), the General Assembly endorsed the action plan to strengthen information security across the Secretariat proposed by the Secretary-General, which aimed to address the most urgent shortcomings related to the management of information security. As part of its implementation, the subprogramme issued a series of policies, technical procedures and guidelines as part of the information security framework. In addition, technical upgrades were performed to detect or block potentially malicious traffic, a mandatory awareness course was developed and deployed, and a central incident response capability was developed. However, while significant progress has been achieved, a significantly increased threat environment has contributed to a continued significant cybersecurity risk situation. The threat situation consisted of a significant increase in the level of sophistication of highly targeted attacks, which include several detected instances of malicious software or cyberattack infrastructure that had been customized or created specifically to attack the Organization, as well as the level of persistence in attacks observed after initial breaches. Multiple incidents have been documented where adversaries leveraged a breach to subsequently compromise other systems, often across different locations. More than 1.8 billion malicious email threats and more than 47 million malicious web threats were blocked. In response, the Management Committee endorsed a new cybersecurity action plan in December 2019 that was proposed by the Office on the basis of the analysis of common root causes of successful cyberattacks and that focuses on specific high-risk elements. Implementation of the seven-point action plan is being prioritized during 2020.
- 29C.23 The subprogramme also formulated the information governance strategy and had it integrated into the Office's enterprise platform configuration before deployment, supporting the quick and systematic adoption of Unite Workspace globally in the Secretariat. The subprogramme provided information management advisory services at the request of Secretariat and United Nations system entities, including the International Court of Justice (namely, advisory support on strategic information governance), the Technology Bank for the Least Developed Countries and the United Nations Office at Nairobi, and advisory services on information management and information security to the United Nations Investigative Team to Promote Accountability for Crimes Committed by Da'esh/Islamic State in Iraq and the Levant.

- 29C.24 To address the need to move towards more data-driven decision-making, the subprogramme launched, in collaboration with the Department of Management Strategy, Policy and Compliance, a series of management dashboards for senior managers. The dashboards consolidate data from multiple data sources for greater coherence across different functions and user groups. Users have access to up-to-date, high-level data on finance, human resources, travel and procurement. The dashboards are available across 83 Secretariat entities and have 500 active users.
- 29C.25 The subprogramme established “Unite Spark”, a platform to support innovation in the Secretariat. The platform helps to manage innovations, whether through quick feedback or full innovation cycles from idea to prototype to application. The platform has been used, for instance, to allow staff to vote for nominations for the Secretary-General’s Awards for 2019. Technology innovation was also enabled through foundational tools using frontier technologies that make it easier for staff to get started and experiment in a safe environment.
- 29C.26 The subprogramme has been partnering with the United Nations Countering Terrorist Travel Programme to develop and maintain the passenger name record system as mandated by the Security Council in its resolutions [2178 \(2014\)](#) and [2396 \(2017\)](#). The Programme, led by the Office of Counter-Terrorism, is a joint initiative with Counter-Terrorism Committee Executive Directorate, the United Nations Office on Drugs and Crime and the International Civil Aviation Organization in support of Member States striving to comply with obligations to analyse passenger name records in connection with terrorist travel. The subprogramme provided technical expertise in adopting, maintaining and further developing the system that is being offered to Member States with the goal of providing capacity-building support in collecting data from air carriers, analysing such data to detect terrorists travelling through the standard commercial air transport system and establishing intelligence packages for law enforcement action. The solution has been installed in three initial countries and will be further deployed to other countries in line with the programme prioritization process of the Office of Counter-Terrorism.

Progress towards the attainment of the objective, and performance measure

- 29C.27 This work contributed to the maintenance and enhancement of an innovative, secure, unified digital space for the United Nations safeguarded by an enabling normative framework, as demonstrated by the progress made in managing risks, countering cybersecurity threats and increasing security awareness and capacity, including the following:
- (a) The awareness training and ongoing awareness training have sensitized staff members, who report “phishing” emails on a regular basis and are less susceptible to these attacks;
 - (b) The intrusion system that was deployed to the four main duty stations creates multiple alerts each week and allows for a more timely response;
 - (c) Upgraded firewalls and email and Internet filters block an increasing number of malicious connections and are able to block connections on the basis of their content;
 - (d) The introduction of compliance self-assessments helped the identification of previously undetected vulnerable applications and websites and the development of mitigation plans;
 - (e) Multifactor authentication continues to be deployed to United Nations personnel and is the single most effective measure to protect their accounts and the information of the Organization;
 - (f) The global incident detection and response capacity has been expanded, and the mean time taken to detect and respond to incidents has been significantly reduced.

Table 29C.2
Performance measure

2015	2016	2017	2018	2019
<ul style="list-style-type: none"> • Mandatory information security awareness training for all staff • Deployment of an intrusion detection system 	<ul style="list-style-type: none"> • Firewall and email and Internet filtering systems upgrade 	<ul style="list-style-type: none"> • Compliance self-assessments to strengthen cyber-risk management 	<ul style="list-style-type: none"> • Multifactor authentication deployment campaign 	<ul style="list-style-type: none"> • Global incident response capability • Information security assessment of five field missions

Planned results for 2021**Result 1: better information, enhanced data sharing and reduction in risk of security breaches (result carried over from 2020)**

- 29C.28 The subprogramme will continue the work related to technology innovation and information security, in line with its mandate, and will continue to provide new technologies for better information on operations, enhanced data-sharing and a reduction of the risk of security breaches, which is expected to be demonstrated by the performance measure for 2021 below. For 2020, a proxy performance measure is indicated to reflect that the General Assembly, in its resolution [74/251](#), approved a programme narrative at the subprogramme level that is composed solely of the objectives approved by the Assembly in its resolution [71/6](#) and the deliverables for 2020.

Table 29C.3
Performance measure

2017	2018	2019	2020	2021
N/A	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	Adoption by client departments of the use of conversational artificial intelligence

Abbreviation: N/A, not applicable.

Result 2: mainstream the use of artificial intelligence (new result)

- 29C.29 The advances in artificial intelligence create opportunities to explore the introduction of emerging technologies to facilitate the work of the United Nations. One such technology is the processing of natural languages both through voice-based and text-based user interactions. In order to harness the benefits, the subprogramme has been researching, developing and implementing solutions in the conversational analytics space.
- 29C.30 In 2020, the subprogramme will launch an artificial intelligence-based support service for Secretariat staff, which will have a number of skills ranging from knowledge of basic facts about the United Nations and its senior leadership and the Sustainable Development Goals to managing emails and

calendars. This service has specific contextual knowledge that makes it more effective in understanding United Nations-related conversations. It has both voice-based and text-based interfaces.

Internal challenge and response

- 29C.31 The challenge for the subprogramme was that an increasingly automated workplace, in which huge amounts of data and information are produced and used, has made the ability to interact with computers and systems more complex. The challenge at its core is that there is no intuitive and user-friendly technology. In response, the subprogramme will introduce natural language processing to help the Organization to shift such burdens from the user to the computer. Aside from the absence of a learning curve and the effectiveness of a conversational interface, the time spent performing a transaction is often also reduced, contributing to savings in staff time. Finally, accessibility, specifically for vision-impaired users, is also helped by providing the option of a voice-based interface.
- 29C.32 In 2021, the subprogramme will make the framework available to offices and departments as a standard interface for all information technology applications, repositories and websites in the Secretariat, both internal and public-facing. Specific objectives include:
- (a) Full support for all six official United Nations languages will be completed;
 - (b) The core layer of language understanding in the United Nations context will be expanded to make it easier for offices and departments to quickly and easily use natural language processing;
 - (c) Additional interfaces will be created for situations in field missions or elsewhere with limited access to technology or connectivity.
- 29C.33 The compelling advantages of conversational artificial intelligence make it likely to be an increasingly pervasive method of interaction in the world and a common, even expected, feature in the near future.

Expected progress towards the attainment of the objective, and performance measure

- 29C.34 This work is expected to contribute to the maintenance and enhancement of an innovative digital workspace for the United Nations, which would be demonstrated by the Secretariat embracing, fully realizing and leveraging the artificial intelligence-based chatbot and its underlying technology and the service becoming a key initiative for conversational artificial intelligence at the Secretariat. Through this work, the conversational artificial intelligence functionality will enhance the use of existing software applications.

Table 29C.4
Performance measure

2017	2018	2019	2020	2021
<ul style="list-style-type: none"> Familiarization with emerging technologies in natural language processing Capacity-building 	<ul style="list-style-type: none"> Research and development of core building blocks for natural language processing 	<ul style="list-style-type: none"> Building of United Nations context-aware language understanding capabilities Development of artificial intelligence-based chatbot prototype, Alba 	<ul style="list-style-type: none"> Launch of conversational artificial intelligence Development of specific skills for offices and departments 	<ul style="list-style-type: none"> Full realization of the benefits of conversational artificial intelligence Applications can include conversational artificial intelligence capabilities

Deliverables

29C.35 Table 29C.5 lists all deliverables, by category and subcategory, for the period 2019–2021 that contributed and are expected to contribute to the attainment of the objective stated above.

Table 29C.5
Subprogramme 1: deliverables for the period 2019–2021, by category and subcategory

Category and subcategory

E. Enabling deliverables

Information and communications technology: formulation, updating and institutionalization of ICT and information management policies and standards; enterprise architecture framework and compliance oversight mechanism; analytics and innovation guidelines for oversight and accountability; analytics and frontier technology solutions accessible to Secretariat entities and Member States: repeatable technology solutions provided through United Nations Technology Innovation Labs and similar mechanisms, and realization of the benefits of conversational artificial intelligence; expert advice to ICT service providers on information management; policies and procedures for data privacy and mechanisms for oversight of adherence to data privacy principles; disaster recovery plan for critical systems; and information security framework across Secretariat entities, comprising a framework document on information security and security assessment of systems and entities.

Subprogramme 2 Operations support

Objective

29C.36 The objective, to which this subprogramme contributes, is to achieve an optimized infrastructure for all United Nations entities, within which the Organization's global technology solutions, systems and applications are delivered securely and in an intuitive manner.

Strategy

29C.37 To contribute to the achievement of an optimized infrastructure for all United Nations entities, effective crisis response and longer-term decision-making and increased situational awareness in field operations, the subprogramme will continue to provide a secure, centralized platform to capture priority data required for critical decision-making and present this information in an intuitive manner to support operations rooms and key decision makers. The platform is designed to be flexible and

provide additional functionality as it matures and responds to future field operational requirements, which is expected to result in the routine availability of more current and accurate information for decision makers, leading to enhanced security of both uniformed and non-uniformed United Nations staff as well as local civilian populations. Past results in this area have included, in the United Nations Multidimensional Integrated Stabilization Mission in the Central African Republic (MINUSCA) following the roll-out of the platform, an average monthly capture of 600 incidents and over 800 patrols visualized by 364 platform users and effective operational information provided to crisis managers and decision makers.

- 29C.38 To support a data-driven Organization, the subprogramme will continue to expand the self-service analytics programme putting power in the hands of United Nations entities to locally produce their own analytics products to enhance transparency and to enable decision-making throughout the Secretariat. Dashboards are provided to visualize the ICT landscape to inform decision-making. In support of the environmental strategy of the Department of Operational Support and to enhance the production, consumption and monitoring of scarce resources in field operations, data will be collected from various sources and presented to management, engineers and consumers. Past results in these areas include the piloting of the Unite field remote infrastructure monitoring system in the United Nations Interim Security Force for Abyei, which presents 11 active dashboards capturing key metrics resulting in changes in behaviour and improved decision-making.
- 29C.39 Putting the client journey at the centre of operations, the subprogramme will continue to advance the delivery of ICT support and services through a standardized information technology service management framework; create a cross-cutting client service desk approach to carry out the Secretariat's customer relationship management activities; provide around-the-clock support for enterprise applications such as Umoja, Inspira and Unite Mail; provide faster resolution of incidents and service requests; and increase customer satisfaction and application uptime. Past results in these areas include improved metrics in terms of the time taken to resolve incidents at United Nations Headquarters and across field operations.
- 29C.40 To transform and modernize the way the United Nations works and collaborates, the subprogramme will continue to implement and upgrade systems and infrastructure to enable the Secretariat and Member States to effectively deliver on the Organization's core work and deliverables. The roll-out of SharePoint Online, Teams and OneDrive gives users a single platform to meet, share files and collaborate, which is already resulting in changes to the way the Organization works and communicates both internally and externally. Further work is required to build flexibility into the underlying infrastructure to scale up or down and redistribute capacity to where it is needed across time zones and to support critical business continuity. This work will enable the holding of complex intergovernmental meetings, making remote access, verbatim report writing and translation, interpretation, broadcast and webcast capabilities available as enterprise solutions while being managed locally. Past results in these areas include enabling flexible and remote work arrangements for 56,000 United Nations users, including in field operations under normal and crisis situations, and placing ICT at the centre of the Organization's business continuity planning.
- 29C.41 To modernize the Organization's infrastructure to allow entities to configure and develop solutions in a secure, managed and interoperable manner, the subprogramme will transform the "one United Nations" data centre into a hybrid hosting facility for the Organization, combining on-premises capacities with cloud hosting services provided by two commercial providers. This work is expected to result in greater scalability and flexibility, economies of scale and the ability to quickly deliver new services, upgrades and security enhancements. Past results in these areas include the migration of key applications such as the financial disclosure system, 20 Department of Safety and Security applications, the gMeets suite of products for the Department for General Assembly and Conference Management, the grant management system for the Office for the Coordination of Humanitarian Affairs and many more, which has reduced infrastructure capital and maintenance costs.

Programme performance in 2019 against planned result

- 29C.42 A planned result for 2019, 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 report of the Secretary-General entitled “Shifting the management paradigm in the United Nations: implementing a new management architecture for improved effectiveness and strengthened accountability” (A/72/492/Add.2), was achieved, as evidenced by the fact that Unite Service Desk received an average of 93 per cent positive feedback, compared to a target of 76 per cent for the biennium 2018–2019, resolved 185,000 service requests annually and reduced the service request resolution time. Performance is constantly monitored using ongoing and periodic data-driven reports based on availability of service and client satisfaction.

Programme performance in 2019: launch of the Unite Aware situational awareness technology platform

- 29C.43 The proposal to establish a programme of work for situational awareness was approved by the Under-Secretary-Generals for Field Support and for Peacekeeping Operations in February 2017. The proposal highlighted the need to take a holistic approach to better structure and manage the information cycle in field operations and to fully extend the use of technology in order to facilitate both short-term crisis response and longer-term decision-making. In his first week in office, the Secretary-General emphasized that improving integrated information flow, the coordination of situational awareness and crisis response is critical to a more effective and efficient United Nations. Unite Aware is a technology platform designed to provide a coherent and comprehensive approach to situational awareness and information analysis for United Nations peace operations. The Unite Aware platform standardizes the technologies used to collect and manage a broad range of data and information sources in a secure manner and then presents that information to non-uniformed and uniformed decision makers by means of visualization, reporting and analysis instruments. The holistic approach taken has delivered a coherent and intuitive technology platform and associated processes as part of the pilot project completed in MINUSCA in 2019. The platform enables the effective management of the operational information cycle in field operations and provides to mission components timely and relevant information to support crisis response and longer-term decision-making. With the launch of Unite Aware, the critical foundation elements will be in place to enable data-driven decision-making and information-led operations in United Nations peacekeeping. Further roll-out to three additional peace operations commenced in the first quarter of 2020. The subprogramme’s expertise in providing relevant technology solutions based on defined requirements for enterprise infrastructure and platforms allows for the delivery of integrated solutions that have a positive impact on mandate delivery.

Progress towards the attainment of the objective, and performance measure

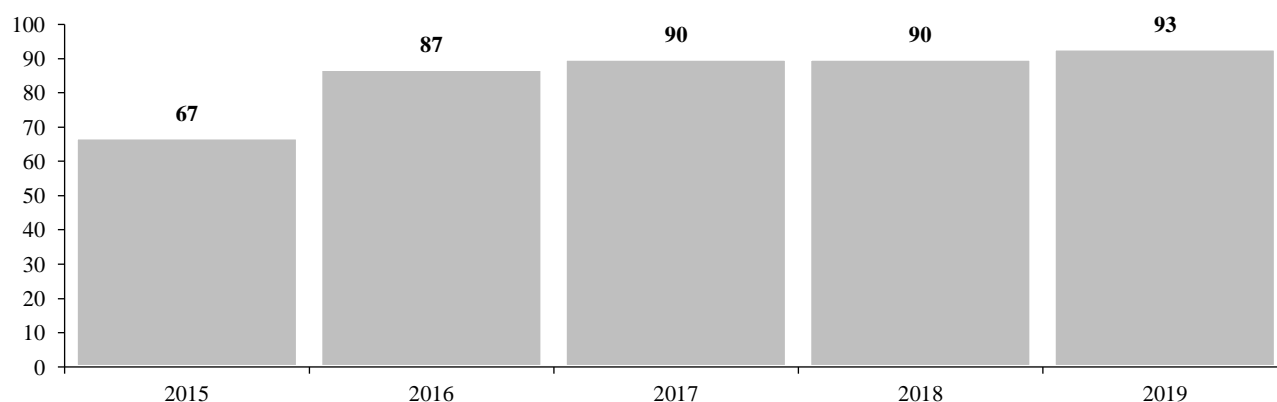
- 29C.44 This work contributed to developing, managing, monitoring and optimizing the infrastructure within which the Organization’s global technology solutions, systems and applications are delivered. The subprogramme configured and delivered, in a secure and intuitive manner, products and tools to enable client mobility and flexibility and to optimize the client’s digital experience, put in place mechanisms and procedures to optimize client satisfaction, developed and supported the implementation of business intelligence strategies to facilitate self-service analytics and provided field-specific technology solutions, as demonstrated by the progress achieved through Unite Aware, which, by collecting and validating various sources of information in a secure manner, will deliver products that enhance situational awareness and enable decision-making. Robust information security, a support model and a learning system have been implemented to promote sustainability and consistent usage. The holistic approach taken has delivered a managed information cycle in MINUSCA by assigning ownership and strict access control to sensitive data, thereby instilling confidence and trust in the system of information-sharing. Mission components can now readily

consume broad swathes of relevant and timely information outside their own areas of work. The results of customer satisfaction surveys have shown a consistent increase across services delivered and incidents resolved.

Figure 29C.I

Performance measure: rate of customer satisfaction with services delivered

(Percentage)

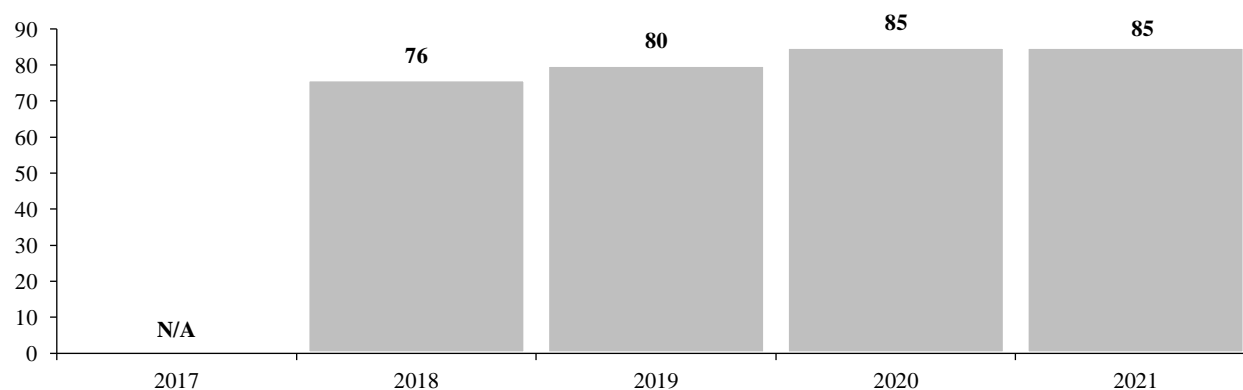
**Planned results for 2021****Result 1: technology towards a connected United Nations (result carried over from 2020)**

- 29C.45 The subprogramme will continue the work related to collaborative tools, in line with its mandate, and will continue to support operations and expand services for the improved ability of staff to communicate and collaborate across departments, offices and missions, which is expected to be demonstrated by the performance measure for 2021 below. For 2020, a proxy performance measure is indicated to reflect that the General Assembly, in its resolution [74/251](#), approved a programme narrative at the subprogramme level that is composed solely of the objectives approved by the Assembly in its resolution [71/6](#) and the deliverables for 2020.

Figure 29C.II

Performance measure: customer satisfaction

(Percentage)



Abbreviation: N/A, not applicable.

Result 2: improved collaboration (new result)

- 29C.46 The subprogramme is working towards the 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 be demonstrated by the maintenance of the high customer satisfaction rate through 2021. As a reference, the customer satisfaction ratings increased from 76 per cent in 2018 to 93 per cent in 2019. The result, if achieved, will demonstrate continuous high standards of service throughout 2021 towards sustaining the collective attainment of the objective.

Internal challenge and response

- 29C.47 The challenge for the subprogramme was that after the introduction of Unite Workspace, there was a lack of tools that promoted and fostered collaboration within the Secretariat and between the Secretariat and the wider United Nations system. In response, the subprogramme will continue to work with non-Secretariat United Nations entities to put in place the necessary infrastructure and policies to facilitate broader cooperation.

Expected progress towards the attainment of objective, and performance measure

- 29C.48 This work is expected to contribute to sustainment of the customer satisfaction percentage above the desired level of 90 per cent, which would demonstrate continued high quality of service in 2021. The percentage reached the desired level and increased from 76 per cent in 2018 to 93 per cent in 2019.

Table 29C.6
Performance measure

2017	2018	2019	2020	2021
The priorities of Unite Service Desk shifted to improve the efficiency of support operations and make continuous improvements, including automation which, enabled by the “Contact Us” pages for Inspira and the Department of Safety and Security portals, resulted in a 50 per cent reduction in service requests	The continuous focus on efficiency and automation decreased the resolution time by 66 per cent for all supported applications; for Umoja, Inspira and Unite Mail, which account for 69 per cent of the service requests, the average resolution time was just three hours	Unite Service Desk consolidated further tier 1 service desks; resolution time decreased by more than 50 per cent; and Unite Service Desk achieved an all-time high average customer satisfaction rate of 93 per cent	The Unite Service Desk strategy will focus on further standardizing processes and improving client experience; the implementation of a new software solution with client portals and artificial intelligence to present solutions in real time will allow users to resolve their own issues quickly	The continual deployment of new software and development of more functionalities within the client portal will improve the client experience and reduce resolution time

Deliverables

- 29C.49 Table 29C.7 lists all deliverables, by category and subcategory, for the period 2019–2021 that contributed and are expected to contribute to the attainment of the objective stated above.

Table 29C.7

Subprogramme 2: deliverables for the period 2019–2021, by category and subcategory

<i>Category and subcategory</i>	<i>2019 planned</i>	<i>2019 actual</i>	<i>2020 planned</i>	<i>2021 planned</i>
A. Facilitation of the intergovernmental process and expert bodies				
Conference and secretariat services for meetings (number of three-hour meetings)	26 910	31 515	32 460	33 434
Meetings of intergovernmental and expert bodies at Headquarters	26 910	31 515	32 460	33 434
E. Enabling deliverables				
Information and communications technology: hardware and infrastructure; and software and applications.				

Subprogramme 3

Enterprise solutions

Objective

- 29C.50 The objective, to which this subprogramme contributes, is to ensure effective and efficient implementation of the mandates of the Secretariat entities, including through the delivery of enterprise applications, websites and knowledge-sharing solutions.

Strategy

- 29C.51 To contribute to the effective and efficient implementation of the mandates of the Secretariat entities through the delivery of enterprise applications, the subprogramme will enhance identity management by leveraging cloud technology, support application integration by service bus, upgrade iNeed, maintain Inspira and manage the United Nations safety and security information systems. This work is expected to result in improved management of identity data and user accounts, the ability to operate applications and equipment with one single identity, further automation of administrative support processes, faster recruitment and the availability of information for safety and security officers to perform their duties of protecting United Nations system personnel.
- 29C.52 The subprogramme will also work with Umoja and peacekeeping missions to develop troop strength reports, which is expected to result in the accurate calculation of reimbursements to troop- and police-contributing countries.
- 29C.53 The subprogramme will contribute to the development pillar of the Secretary General's reform initiative by working with substantive departments and offices, which is expected to result in information technology solutions supporting the programmatic mandates related to the Sustainable Development Goals. Past results in these areas include the deployment of the United Nations Global Counter-Terrorism Coordination Compact and the voluntary commitments solution for implementation of the objectives of the Sendai Framework for Disaster Risk Reduction 2015–2030 by the private sector, academia and civil society organizations.
- 29C.54 To ensure the delivery of websites and knowledge-sharing solutions that enable Secretariat personnel to achieve the mandates of the Organization, the subprogramme will develop and support public websites and knowledge management solutions as well as deploying collaboration and communication tools and services. This work is expected to result in improved information-sharing with the Organization's stakeholders, as well as enhanced coordination and cooperation within and across the Secretariat and the broader United Nations system. Past results in these areas include the establishment of the Unite Web platform, which supports the creation and management of content on public information websites that is compliant with technology standards and information security policies, United Nations branding, multilingualism and accessibility standards.

Programme performance in 2019 against planned result

- 29C.55 A planned result for 2019, which is enterprise applications that meet business requirements, thereby reducing the need for local solutions, resulting in a decreased information security risk, as referred to in the report of the Secretary-General entitled “Shifting the management paradigm in the United Nations: implementing a new management architecture for improved effectiveness and strengthened accountability” (A/72/492/Add.2), was achieved, as evidenced by 24 services related to staff movements that were automated and made available by the enterprise application centres using the iNeed platform across the Secretariat, compared to a target of 12 for the biennium 2018–2019. The solution also keeps staff members updated of the status of their cases, resulting in timely processing, the avoidance of unnecessary enquiry calls to human resources officers and increased client satisfaction.

Programme performance in 2019: integrated solutions to prevent sexual exploitation and abuse

- 29C.56 In support of the Secretary-General’s strategy to improve the Organization’s system-wide approach to preventing and responding to sexual exploitation and abuse (see [ST/SGB/2003/13](#)), and in collaboration with the Office of the Special Coordinator on Improving the United Nations Response to Sexual Exploitation and Abuse, the Department of Operational Support and the Department of Management Strategy, Policy and Compliance, the subprogramme has developed and deployed a number of applications to improve the accuracy of reporting, provide support to victims and enhance screening for United Nations staff dismissed as a result of a substantiated allegation of sexual exploitation and abuse or who resigned during an investigation of sexual exploitation and abuse.
- 29C.57 Following the launch of the system-wide screening tool, ClearCheck, in June 2018, the subprogramme further integrated the tool with the Secretariat recruitment and talent management system, Inspira, in July 2019. This integration has been built into the reference verification process, reducing communications by email and phone and streamlining and expediting the screening of applicants in a secure manner.
- 29C.58 The subprogramme deployed the victim assistance tracking system for sexual exploitation and abuse to all field missions as a central database and critical tool to implement the United Nations Comprehensive Strategy on Assistance and Support to Victims of Sexual Exploitation and Abuse by United Nations Staff and Related Personnel (see General Assembly resolution [62/214](#)). The database shares access and confidentiality controls to achieve coordination across the United Nations system and will be utilized by numerous United Nations entities, reducing duplication of efforts. The system will also enable the Secretary-General to report to the General Assembly with greater accuracy and timeliness on the efforts of the United Nations on victim assistance, providing policymakers with a greater understanding of the efficacy of services and the ability to evaluate performance with regard to the victim assistance mandate.
- 29C.59 Finally, the subprogramme launched the “iReport” solution, a searchable, secure online platform used to collect and analyse summary reporting on allegations of sexual exploitation and abuse from the participating United Nations entities mandated to report all allegations received. iReport tracks the life cycle of allegations of sexual exploitation and abuse and the related investigations on a near real-time basis and facilitates the mandated internal and external quarterly reports on sexual exploitation and abuse for the Secretary-General.

Progress towards the attainment of the objective, and performance measure

- 29C.60 This work contributed to ensuring the delivery of enterprise applications, websites and knowledge-sharing solutions that enable Secretariat personnel to achieve the mandates of the Organization and improve the Organization’s system-wide approach to preventing and responding to sexual exploitation and abuse, as demonstrated by the ability to produce reports on a near real-time basis as opposed to on a quarterly basis on data relating to sexual exploitation and abuse, reference-

checking in Inspira through integration with ClearCheck, enhanced case tracking and improved response and support for victims of sexual exploitation and abuse, as evidenced by the result for 2019 in table 29C.8 below.

Table 29C.8

Performance measure

2015	2016	2017	2018	2019
Misconduct Tracking System enhanced to improve data collection and tracking in field missions	Misconduct Tracking System in use	“Preventing sexual exploitation and abuse” public website launched on Unite Web	ClearCheck application launched to prevent rehiring of candidates who are the subject of allegations of sexual exploitation and abuse; victim assistance tracking system launched to support United Nations victims assistance	ClearCheck integrated with Inspira reference verification module; “iReport” sexual exploitation and abuse tracker launched to provide near real-time tracking of allegations of the sexual exploitation and abuse and up-to-date quarterly reports for the Secretary-General

Planned results for 2021**Result 1: global access to applications, anywhere, anytime (result carried over from 2020)**

- 29C.61 The subprogramme will continue the work related to collaborative tools, in line with its mandate, and will continue to provide shared enterprise solutions that are built on standard platforms, hosted in the cloud and compliant with enterprise security and architecture requirements for improved access to information, collaboration and communications between personnel in any location using multiple devices, which is expected to be demonstrated by the performance measure for 2021 below. For 2020, a proxy performance measure is indicated to reflect that the General Assembly, in its resolution [74/251](#), approved a programme narrative at the subprogramme level that is composed solely of the objectives approved by the Assembly in its resolution [71/6](#) and the deliverables for 2020.

Table 29C.9

Performance measure

2017	2018	2019	2020	2021
N/A	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	Online collaboration and communication tools are used by personnel while working remotely and travelling on official business, and for online meetings

Abbreviation: N/A, not applicable.

Result 2: United Nations partners to collaborate with the Organization on any device from any location (new result)

29C.62 The Secretariat works with external entities, such as United Nations system entities, governments, industry, academics and civil society. A robust authentication solution is required to enable such collaboration, for example, by sharing access to electronic United Nations resources. The subprogramme has laid the foundation for this work by making available a reliable authentication mechanism for people and machines.

Internal challenge and response

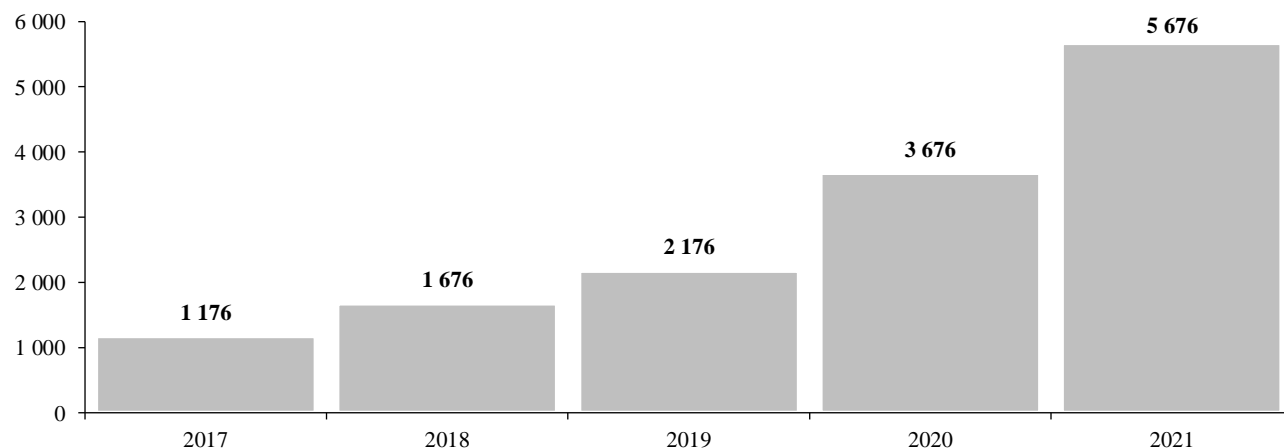
29C.63 The challenge for the subprogramme was to use technology to manage changes and enable frictionless but secure information-sharing, collaboration and access to systems by and between the Secretariat and United Nations partners without geographic and device constraints. In response, the subprogramme will utilize the authentication foundation and design and implement a solution to facilitate online collaboration with United Nations partners on any device from any location. The solution will have to be secured, providing access only to authorized parties without having to create costly user accounts for the Organization. Cloud technology with advanced features such as multifactor authentication, self-service password reset, single sign-on and cyberthreat intelligent detection, will be leveraged. Automation will be emphasized to increase productivity and to reduce human errors.

Expected progress towards the attainment of objective, and performance measure

29C.64 This work is expected to contribute to ensuring the delivery of enterprise applications, websites and knowledge-sharing that enable the Secretariat's personnel to achieve the mandates of the Organization and facilitate online collaboration between the Secretariat and external parties, without geographic boundaries or equipment constraint, which would be demonstrated by changes that will allow for a faster increase in the number of external collaboration accounts of authorized United Nations partners to access United Nations electronic resources from any device and any location, as projected in figure 29C.III.

Figure 29C.III

Performance measure: number of external collaboration accounts of authorized United Nations partners



Deliverables

29C.65 Table 29C.10 lists all deliverables, by category and subcategory, for the period 2019–2021 that contributed and are expected to contribute to the attainment of the objective stated above.

Table 29C.10

Subprogramme 3: deliverables for the period 2019–2021, by category and subcategory

Category and subcategory

E. Enabling deliverables

Information and communications technology: implementation and support for collaboration solutions; web content management platform; talent and performance management solutions; Umoja operations, including enhancements and support; enhancements and support for customer relationship management and service management solutions; safety and security solutions; specific programmatic solutions for peace and security, the Sustainable Development Goals and ICT for development; and common applications and data services used across multiple systems.

B. Proposed post and non-post resource requirements for 2021

Overview

29C.66 The proposed regular budget resources for 2021, including the breakdown of resource changes, as applicable, are reflected in tables 29C.11 to 29C.13.

Table 29C.11

Financial resources

(Thousands of United States dollars)

	2019 expenditure	2020 appropriation	Changes					2021 estimate (before recosting)	Recosting	2021 estimate (after recosting)
			Technical adjustments	New/ expanded mandates	Other	Total	Percentage			
Posts	24 197.2	24 501.6	—	—	—	—	—	24 501.6	626.6	25 128.2
Other staff costs	1 428.9	1 744.4	—	—	—	—	—	1 744.4	33.1	1 777.5
Consultants	369.6	127.2	—	—	—	—	—	127.2	2.4	129.6
Travel of staff	120.5	154.9	—	—	—	—	—	154.9	3.0	157.9
Contractual services	15 844.7	10 614.4	—	—	15.3	15.3	0.1	10 629.7	201.9	10 831.6
General operating expenses	9 196.7	9 758.0	—	—	2 037.4	2 037.4	20.9	11 795.4	224.0	12 019.4
Supplies and materials	53.4	100.4	—	—	(9.7)	(9.7)	(9.7)	90.7	1.7	92.4
Furniture and equipment	2 785.6	2 183.0	—	—	(43.0)	(43.0)	(2.0)	2 140.0	40.7	2 180.7
Improvements to premises	9.3	775.9	—	—	—	—	—	775.9	14.7	790.6
Fellowships, grants and contributions	1.9	—	—	—	—	—	—	—	—	—
Total	54 007.8	49 959.8	—	—	2 000.0	2 000.0	4.0	51 959.8	1 148.1	53 107.9

Table 29C.12

Post changes^a

	Number	Level
Approved for 2020	183	1 ASG, 1 D-2, 6 D-1, 16 P-5, 23 P-4, 36 P-3, 11 P-2/1, 16 GS (PL), 71 GS (OL), 2 LL
Proposed for 2021	183	1 ASG, 1 D-2, 6 D-1, 16 P-5, 23 P-4, 36 P-3, 11 P-2/1, 16 GS (PL), 71 GS (OL), 2 LL

^a No post changes are proposed for 2021.

Table 29C.13

Post resources

Category	Changes					2021 proposed
	2020 approved ^a	Technical adjustments	New/expanded mandates	Other	Total	
Professional and higher						
ASG	1	—	—	—	—	1
D-2	1	—	—	—	—	1

Note: The following abbreviations are used in tables and figures: ASG, Assistant Secretary-General; GS (PL), General Service (Principal level); GS (OL), General Service (Other level); LL, Local level.

Part VIII Common support services

Category	2020 approved ^a	Changes				2021 proposed
		Technical adjustments	New/expanded mandates	Other	Total	
D-1	6	–	–	–	–	6
P-5	16	–	–	–	–	16
P-4	23	–	–	–	–	23
P-3	36	–	–	–	–	36
P-2/1	11	–	–	–	–	11
Subtotal	94	–	–	–	–	94
General Service						
Principal level	16	–	–	–	–	16
Other level	71	–	–	–	–	71
Subtotal	87	–	–	–	–	87
Other						
Local level	2	–	–	–	–	2
Subtotal	2	–	–	–	–	2
Total	183	–	–	–	–	183

^a Includes two temporary posts (1 P-4 and 1 P-2).

29C.67 Additional details on the distribution of proposed resources for 2021 are reflected in tables 29C.14 to 29C.16 and figure 29C.IV.

29C.68 As reflected in table 29C.14 (1), the overall resources proposed for 2021 amount to \$51,959,800 before recosting, reflecting a net increase of \$2,000,000 compared with the appropriation for 2020. Resource changes result from other changes. The proposed level of resources provides for the full, efficient and effective implementation of mandates.

Table 29C.14
Evolution of financial resources by component and subprogramme

(Thousands of United States dollars)

(1) *Regular budget*

	2019 expenditure	2020 appropriation	Changes				2021 estimate (before recosting)	Recosting	2021 estimate (after recosting)
			Technical adjustments	New/ expanded mandates	Other	Total Percentage			
A. Executive direction and management	2 811.9	2 945.9	–	–	–	–	2 945.9	70.4	3 016.3
B. Programme of work									
1. Strategy and technology innovation	12 535.1	10 147.2	–	–	–	–	10 147.2	252.1	10 399.3
2. Operations support	22 989.8	21 776.9	–	–	2 000.0	2 000.0	23 776.9	506.4	24 283.3
3. Enterprise solutions	15 671.0	15 089.8	–	–	–	–	15 089.8	319.2	15 409.0
Subtotal, B	51 195.9	47 013.9	–	–	2 000.0	2 000.0	49 013.9	1 077.7	50 091.6
Subtotal, 1	54 007.8	49 959.8	–	–	2 000.0	2 000.0	51 959.8	1 148.1	53 107.9

(2) Other assessed

	2019 expenditure	2020 estimate	2021 estimate
A. Executive direction and management	5.2	18 115.6	17 823.5
B. Programme of work			
1. Strategy and technology innovation	3 173.1	3 506.2	3 507.1
2. Operations support	38 595.5	42 896.3	43 263.4
3. Enterprise solutions	14 411.0	15 331.5	16 800.2
Subtotal, 2	56 184.8	79 849.6	81 394.2

(3) Extrabudgetary

	2019 expenditure	2020 estimate	2021 estimate
A. Executive direction and management	465.8	175.5	175.5
B. Programme of work			
1. Strategy and technology innovation	3 538.8	2 753.5	1 824.7
2. Operations support	24 442.8	38 014.7	38 014.7
3. Enterprise solutions	6 393.8	6 189.5	6 189.5
Subtotal, 3	34 841.2	47 133.2	46 204.4
Total	145 033.8	176 942.6	180 706.5

Table 29C.15
Evolution of post resources by component and subprogramme

(1) Regular budget

	2020 approved	Changes				2021 proposed
		Technical adjustments	New/expanded mandates	Other	Total	
A. Executive direction and management	17	–	–	–	–	17
B. Programme of work						
1. Strategy and technology innovation	35	–	–	–	–	35
2. Operations support	77	–	–	–	–	77
3. Enterprise solutions	54	–	–	–	–	54
Subtotal, B	166	–	–	–	–	166
Subtotal, 1	183	–	–	–	–	183

(2) Other assessed

	2020 estimate	2021 estimate
A. Executive direction and management	–	–
B. Programme of work		
1. Strategy and technology innovation	4	4
2. Operations support	28	27
3. Enterprise solutions	24	24
Subtotal, 2	56	55

(3) Extrabudgetary

	2020 estimate	2021 estimate
A. Executive direction and management	–	–
B. Programme of work		
1. Strategy and technology innovation	–	–
2. Operations support	12	12
3. Enterprise solutions	–	–
Subtotal, 3	12	12
Total	251	250

Table 29C.16

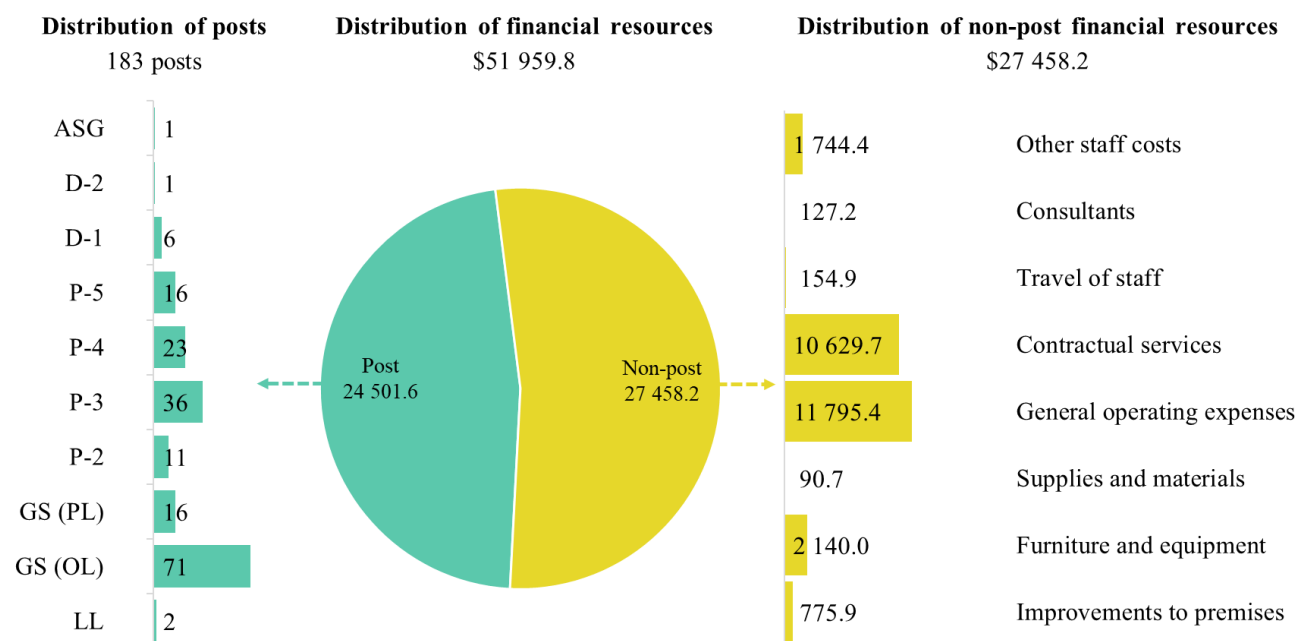
Evolution of financial and post resources by category

(Thousands of United States dollars/number of posts)

	Changes							2021 estimate (before recosting)
	2019 expenditure	2020 appropriation	Technical adjustments	New/ expanded mandates	Other	Total	Percentage	
Financial resources by main category of expenditure								
Post	24 197.2	24 501.6	—	—	—	—	—	24 501.6
Non-post	29 810.6	25 458.2	—	—	2 000.0	2 000.0	7.9	27 458.2
Total	54 007.8	49 959.8	-	-	2 000.0	2 000.0	4.0	51 959.8
Post resources by category								
Professional and higher		94	—	—	—	—	—	94
General Service and related		89	—	—	—	—	—	89
Total		183	—	—	—	—	—	183

Figure 29C.IV
Distribution of proposed resources for 2021 (before recosting)

(Number of posts/thousands of United States dollars)



Variance analysis by component and subprogramme

Overall resource changes

Other changes

- 29C.69 As reflected in table 29C.14 (1) and 29C.16, resource changes under subprogramme 2, Operations support, reflect a net increase of \$2,000,000 in non-post resources under general operating expenses, to strengthen business continuity and operational resilience of ICT infrastructure and services and to increase functionality. The proposed increase consists of the following provisions: (a) increased resilience of the secure infrastructure of the United Nations Headquarters campus network to support staff in working effectively both remotely and while on the premises (\$1,000,200); (b) increased functionality and support needed for the technical enhancements to deliver a more stable and effective platform for broadcasting and conferencing services, and greater functionality in collaboration tools, to support departments, offices and intergovernmental bodies at Headquarters (\$933,800); and (c) strengthening of the geospatial information systems infrastructure needed to deliver advanced products (\$66,000).

Other assessed and extrabudgetary resources

- 29C.70 As reflected in tables 29C.14 (2) and (3) and 29C.15 (2) and (3), the Office receives other assessed and extrabudgetary contributions, which complement regular budget resources and continue to be vital for the delivery of its mandates.
- 29C.71 As reflected in tables 29C.14 (2) and 29C.15 (2), the Office receives other assessed resources under the support account for peacekeeping operations, including posts and positions. For 2021, the projected other assessed resources amount to \$81,394,200, including 55 posts. The increase for 2021 compared to 2020 relates mainly to the transfer of provisions for two ICT applications from the

budget of the United Nations Logistics Base to the support account. Other assessed resources represent 45.0 per cent of the total resources for the Office.

- 29C.72 As reflected in tables 29C.14 (3) and 29C.15 (3), in 2021, projected extrabudgetary resources (cash contributions) of \$46,204,400, including 12 posts, are expected to be received in support of extrabudgetary activities. The decrease for 2021 compared to 2020 is due mainly to the fact that no extrabudgetary resources are expected to be received for United Nations Technology Innovation Labs in 2021. Extrabudgetary resources would provide for the development of solutions, operation and maintenance costs for the ICT infrastructure, the enterprise data centres in Valencia, Spain, and Brindisi, Italy, and help desk support, as well as support for the United Nations Countering Terrorist Travel Programme. Extrabudgetary resources represent 25.6 per cent of the total resources for the Office.

Executive direction and management

- 29C.73 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 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, offices and duty stations.
- 29C.74 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 2019, a highlight was the significant increase in the provision of videoconferencing, contributing to a reduction in travel and associated environmental impacts. The Office also developed for the United Nations Office for Disaster Risk Reduction a solution to take stock of, mobilize and monitor the commitments from stakeholders to implement the Sendai Framework. In 2021, the Office will continue to provide departments and offices with solutions to support the achievement of the Sustainable Development Goals, as well as reducing its infrastructure footprint in data centres by moving to the cloud, thus reducing its environmental impact.
- 29C.75 Information on compliance with regard to the timely submission of documentation and advance booking for air travel is reflected in table 29C.17. In order to improve compliance with the advance air ticket purchase policy, central monitoring measures have been put in place, with the publication of monthly reports that provide visibility to travel performance. The Office will further strengthen this process and address the root causes of non-compliance to increase the compliance rate for advance ticket purchase during the year.

Table 29C.17
Compliance rate

(Percentage)

	<i>Planned 2019</i>	<i>Actual 2019</i>	<i>Planned 2020</i>	<i>Planned 2021</i>
Timely submission of documentation	100	100	100	100
Air tickets purchased at least 2 weeks before the commencement of travel	100	44.4	100	100

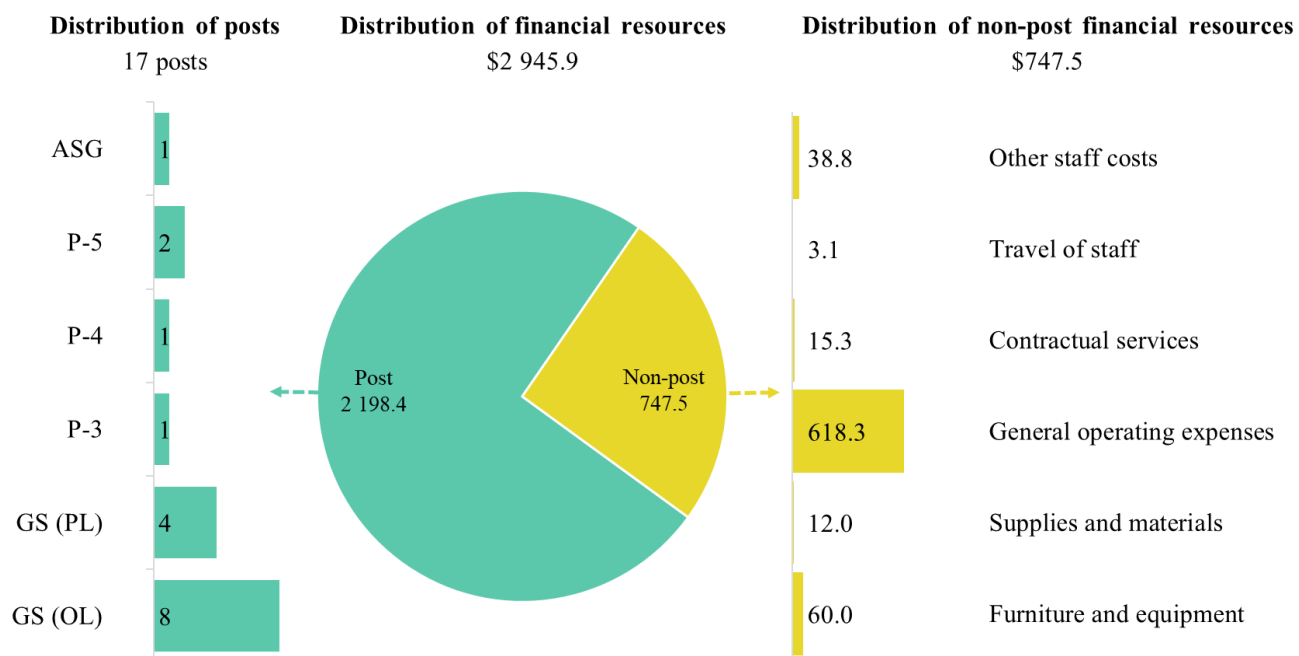
29C.76 The proposed regular budget resources for 2021 amount to \$2,945,900 and reflect no change in the resource level compared with the appropriation for 2020. Additional details on the distribution of proposed resources for 2021 are reflected in table 29C.18 and figure 29C.V.

Table 29C.18
Executive direction and management: evolution of financial and post resources

(Thousands of United States dollars/number of posts)

	2019 expenditure	2020 appropriation	Changes					2021 estimate (before recosting)
			Technical adjustments	New/ expanded mandates	Other	Total	Percentage	
Financial resources by main category of expenditure								
Post	1 977.0	2 198.4	—	—	—	—	—	2 198.4
Non-post	834.9	747.5	—	—	—	—	—	747.5
Total	2 811.9	2 945.9	—	—	—	—	—	2 945.9
Post resources by category								
Professional and higher		5	—	—	—	—	—	5
General Service and related		12	—	—	—	—	—	12
Total		17	—	—	-	—	—	17

Figure 29C.V
Executive direction and management: distribution of proposed resources for 2021 (before recosting)
 (Number of posts/thousands of United States dollars)

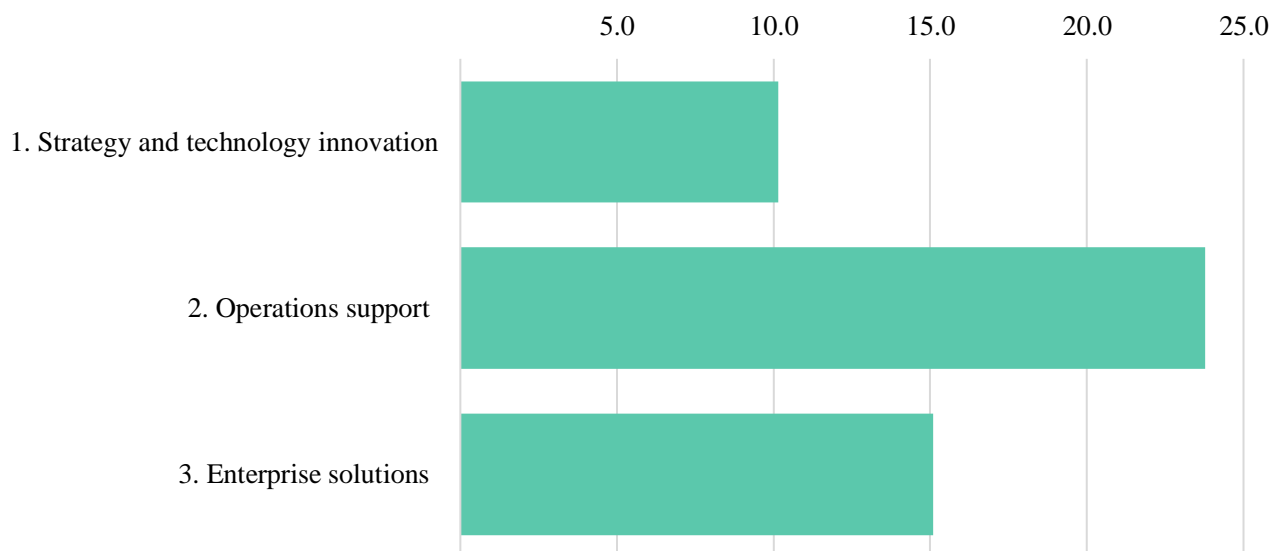


Programme of work

29C.77 The proposed regular budget resources for 2021 amount to \$49,013,900 and reflect an increase of \$2,000,000 compared with the appropriation for 2020. The proposed increase of \$2,000,000 is explained in paragraph 29C.69 above. The distribution of resources by subprogramme is reflected in figure 29C.VI.

Figure 29C.VI
Distribution of proposed resources for 2021 by subprogramme

(Millions of United States dollars)



Subprogramme 1 Strategy and technology innovation

29C.78 The proposed regular budget resources for 2021 amount to \$10,147,200 and reflect no change in the resource level compared with the appropriation for 2020. Additional details on the distribution of proposed resources for 2021 are reflected in table 29C.19 and figure 29C.VII.

Table 29C.19
Subprogramme 1: evolution of financial and post resources

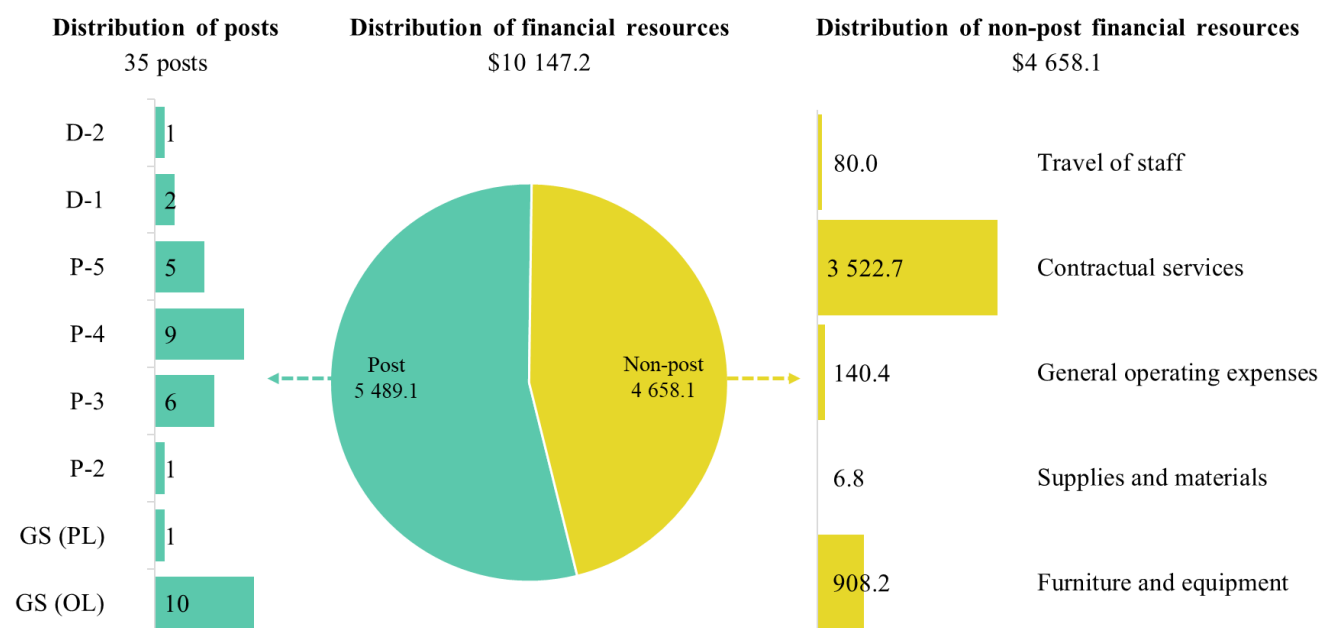
(Thousands of United States dollars/number of posts)

	2019 expenditure	2020 appropriation	Changes					2021 estimate (before recosting)	
			Technical adjustments	New/ expanded mandates	Other	Total	Percentage		
Financial resources by main category of expenditure									
Post	5 598.0	5 489.1	—	—	—	—	—	5 489.1	
Non-post	6 937.1	4 658.1	—	—	—	—	—	4 658.1	
Total	12 535.1	10 147.2	—	—	—	—	—	10 147.2	
Post resources by category									
Professional and higher		24	—	—	—	—	—	24	
General Service and related		11	—	—	—	—	—	11	
Total		35	—	—	-	—	—	35	

Figure 29C.VII

Subprogramme 1: distribution of proposed resources for 2021 (before recosting)

(Number of posts/thousands of United States dollars)


**Subprogramme 2
Operations support**

29C.79 The proposed regular budget resources for 2021 amount to \$23,776,900 and reflect a net increase of \$2,000,000 compared with the appropriation for 2020. The proposed increase of \$2,000,000 is explained in paragraph 29C.69. Additional details on the distribution of proposed resources for 2021 are reflected in table 29C.20 and figure 29C.VIII.

Table 29C.20

Subprogramme 2: evolution of financial and post resources

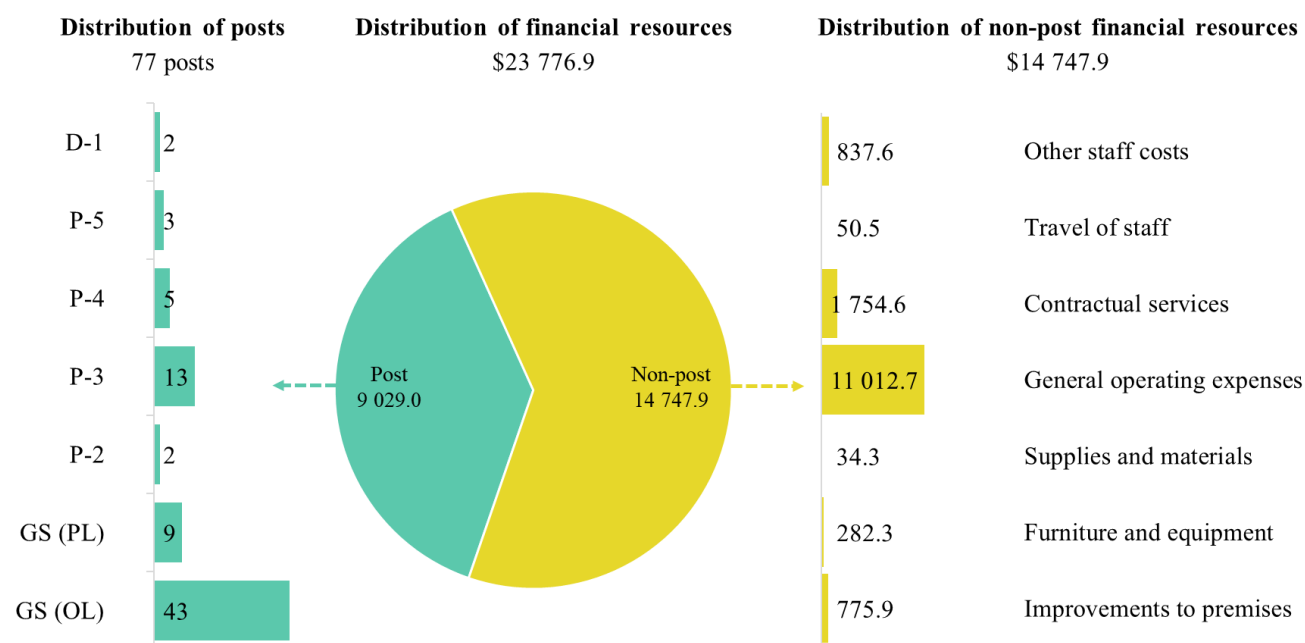
(Thousands of United States dollars/number of posts)

	Changes							2021 estimate (before recosting)
	2019 expenditure	2020 appropriation	Technical adjustments	New/ expanded mandates	Other	Total	Percentage	
Financial resources by main category of expenditure								
Post	8 679.2	9 029.0	—	—	—	—	—	9 029.0
Non-post	14 310.6	12 747.9	—	—	2 000.0	2 000.0	15.7	14 747.9
Total	22 989.8	21 776.9	—	—	2 000.0	2 000.0	9.2	23 776.9
Post resources by category								
Professional and higher		25	—	—	—	—	—	25
General Service and related		52	—	—	—	—	—	52
Total		77	—	—	—	—	—	77

Figure 29C.VIII

Subprogramme 2: distribution of proposed resources for 2021 (before recosting)

(Number of posts/thousands of United States dollars)



Subprogramme 3

Enterprise solutions

29C.80 The proposed regular budget resources for 2021 amount to \$15,089,800 and reflect no change in the resource level as compared with the appropriation for 2020. Additional details on the distribution of proposed resources for 2021 are reflected in table 29C.21 and figure 29C.IX.

Table 29C.21

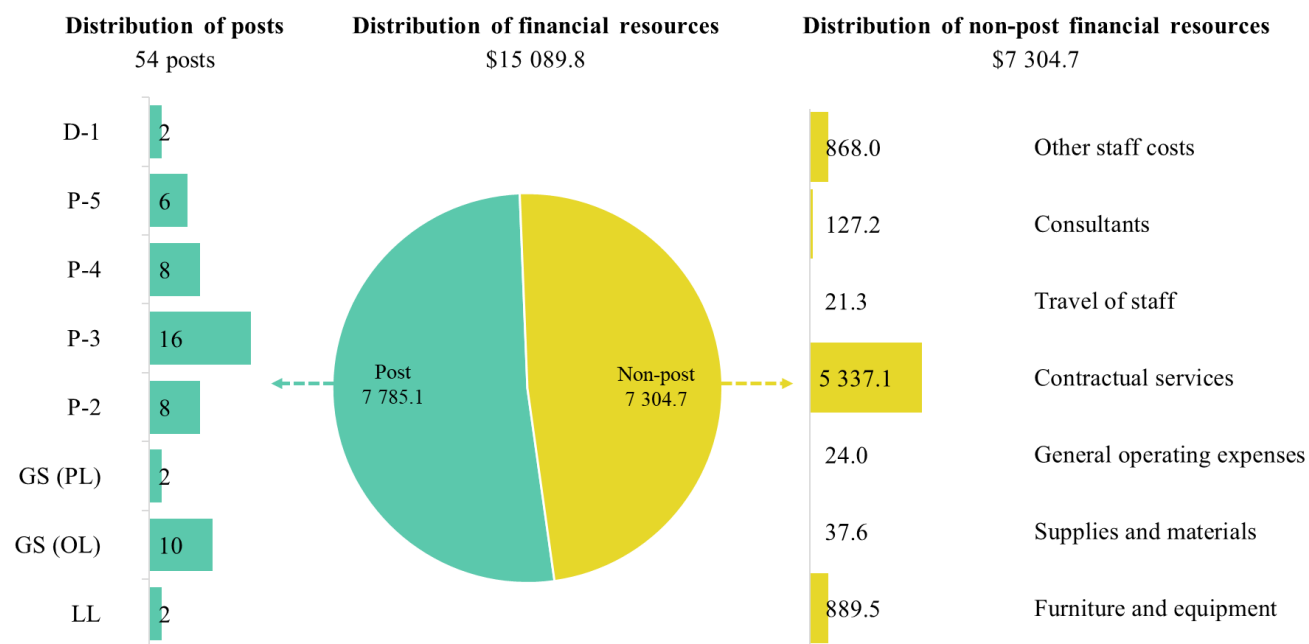
Subprogramme 3: evolution of financial and post resources

(Thousands of United States dollars/number of posts)

	2019 expenditure	2020 appropriation	Changes					2021 estimate (before recosting)
			Technical adjustments	New/ expanded mandates	Other	Total	Percentage	
Financial resources by main category of expenditure								
Post	7 942.2	7 785.1	—	—	—	—	—	7 785.1
Non-post	7 728.0	7 304.7	—	—	—	—	—	7 304.7
Total	15 671.0	15 089.8	—	—	—	—	—	15 089.8
Post resources by category								
Professional and higher		40	—	—	—	—	—	40
General Service and related		14	—	—	—	—	—	14
Total		54	—	—	—	—	—	54

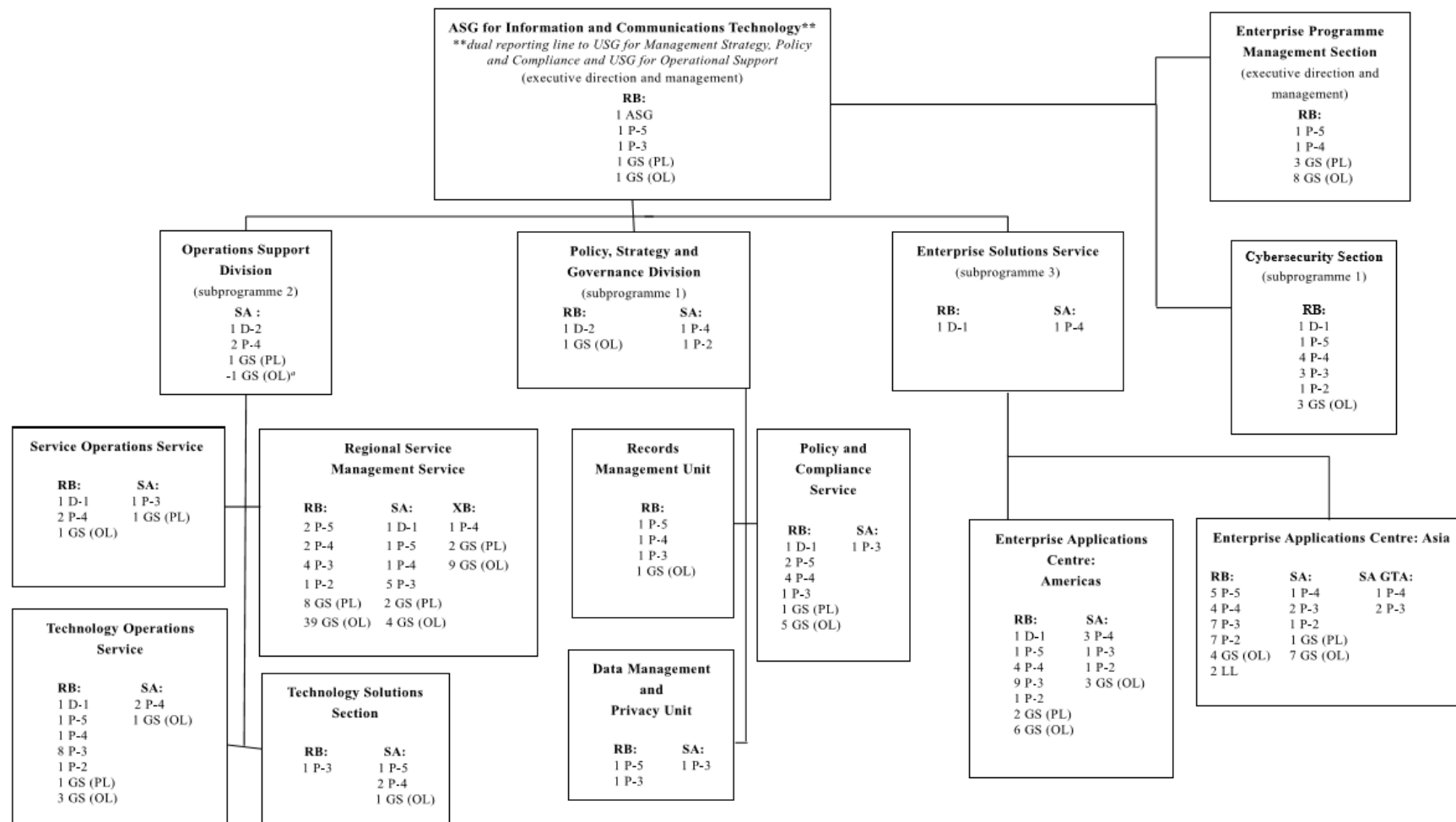
Figure 29C.IX
Subprogramme 3: distribution of proposed resources for 2021 (before recosting)

(Number of posts/thousands of United States dollars)



Annex I

Organizational structure and post distribution for 2021



Abbreviations: ASG, Assistant Secretary-General; GS (OL), General Service (Other level); GS (PL), General Service (Principal level); GTA, general temporary assistance; LL, Local level; RB, regular budget; SA, support account for peacekeeping operations; USG, Under-Secretary-General; XB, extrabudgetary.

^a Abolishment (proposed in the report of the Secretary-General on the budget for the support account for peacekeeping operations for the period from 1 July 2020 to 30 June 2021 ([A/74/743](#))).

Annex II

Summary of follow-up action taken to implement relevant recommendations of the oversight bodies

Brief description of the recommendation

Action taken to implement the recommendation

Advisory Committee on Administrative and Budgetary Questions

[A/74/7](#)

Travel on official business

The Advisory Committee recalls that the General Assembly, on a number of occasions, has expressed concern at the low rate of compliance with the advance purchase policy directive. The Committee reiterates that more efforts are required, in particular in areas where travel can be better planned (para. VIII.55).

In order to improve compliance with the advance air ticket purchase policy, central monitoring measures have been put in place, with the publication of monthly reports that provide visibility to travel performance. The Office will further strengthen this process and address the root causes of non-compliance to increase the compliance rate for advance ticket purchase during the year.
