

# UNDSS Digital Transformation Strategy Proposal



**United  
Nations**

Department  
of Safety  
and Security

# Acronyms & abbreviations

API – Application Programming Interface

eTA – Electronic Travel Advisory

ETC – Emergency Telecommunication Cluster

GIS – Geographic Information System

GPS – Global Positioning System

OCHA – Office for the Coordination of Humanitarian Assistance

OICT – Office of Information and Communications Technology

PTT – Push To Talk

RoIP – Radio over Internet Protocol

SLT – Saving Lives Together

SRM – Security Risk Management

SSIRS – Security Incident Recording System

UN – United Nations

UNDSS – United Nations Department of Safety and Security

UNHQ – United Nations Headquarters

UNSMIN – United Nations Security Information Management Network

UNSMS – United Nations Security Management System

VHF – Very High Frequency

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# Background

In today's volatile world, the United Nations Department of Safety and Security (UNDSS) seeks to help the United Nations to manage security risks so that humanitarian workers can serve those in need, even in the most dangerous places. The proliferation of crises and rapid advancement of technology in recent years means that UN demand now outstrips what the Department can deliver within existing resources and technological capacity. UNDSS is seeking support to modernize security management and accountability tools in order to support timely data-based critical decision-making, situational awareness and information-sharing and, thus, better enable UN organizations and implementing partners to reach beneficiaries.

In 2021, the United Nations delivered life-saving humanitarian aid to 174 million people, responding to natural disasters and helping people fleeing war. Security is a pre-requisite to delivering those programmes and reaching those most in need. Security is not an isolated activity. It is an essential component to implementing programmes, achieving results and making a meaningful impact in people's lives. As agencies, funds and programmes continue to expand operations to better serve affected communities in oftentimes deeply complex situations, security threats against the UN and its partners are evolving while the humanitarian space is shrinking. The UN roles and mandates mean that the Organization must deliver in spite of and sometimes because of insecurity.

In most contexts, the UN can do little to influence threat levels, at least in the short term. It focuses instead on risk, which it can manage, accept, or avoid. The approach begins by identifying which objectives warrant acceptance of risk, with security practitioners focusing on how UN agencies and missions can stay in place or even expand operations during crises, within acceptable levels of risk.

Under this approach, an over-reliance on guns, guards, and gates often poses obstacles to UN objectives including the need to engage closely with at-risk communities. Security approaches have to be calibrated to the context but also to the constituents that UN security serves: their principles, their ways of working, and the results they need to achieve. This shift is one of skills and tools. If UNDSS fails to evolve, adapt, and innovate, the UN and its partners will struggle to intervene where it matters most – with dire impact on people and communities around the world.

**Digital technology is a fundamental force for change, reshaping economies, governments and civil society, impacting every aspect of daily life. New technologies are also changing the character and nature of conflict, shaping conflict environment and influencing the behaviours and actions of conflict actors, with a substantive impact on the safety and security of UN personnel and programmes. The profound consequences and exponential pace of digital transformation gives rise to new risks but also presents new opportunities. It demands both action and leadership from UNDSS to reimagine security in a digital age.**

At its core UNDSS is an information-based organization. The Department provides support and coordinates security risk management across the United Nations Security Management System (UNSMS) comprising of more than 50 UN and non-UN entities and covering security of more than 180,000 UN personnel deployed across the globe, to enable the planning and safe conduct of mandates, missions, activities and programmes of the United Nations.

To most effectively provide safety and security services and enable UNSMS operations globally, the Department needs to master information and analysis to improve situational awareness, identify any security risks to UNSMS personnel or premises, and inform tactical, operational and strategic decisions in a timely manner. Information management therefore supports UNDSS' organizational objectives, which impact all aspects of the Department's work. This approach is also in line with the Secretary-General's Strategies on New Technologies and on Data.

# Project rationale

**Recognizing the need for a deliberate and systematic approach to achieve digital transformation in UNDSS, the Under-Secretary-General for Safety and Security initiated the review of the Department’s information management system in 2021 to set the stage for the development of the Digital Transformation Strategy.**

The external review of the Department’s information management ecosystem concluded that the existing organization culture around information management is mainly ad hoc and not well-defined with data and information management not treated as part of core operations. Governance of information management is largely non-existent at the enterprise level and the Department has limited information management capacity that would serve to translate the information management needs of the business into system/solution level requirements. The decentralized approach to information management in the Department has led to adoption of local standards, operating procedures and habits that lack consistency and inhibit strategic information management at the enterprise level. The business value of UNDSS data and information has therefore not been fully realized.

## UNSMIN

**UNSMIN is a platform established in 2006 to provide a set of management tools for security personnel to support their work in the field and enable UN operations. These tools include:**



The most up-to-date policies, documents, procedures



Software applications including electronic Travel Advisory (eTA) used by security professionals to send security notifications to UNSMS personnel and to locate them in cases of emergency



SRM tool used by security professionals to manage the system of identifying future harmful events and determine a set of security risk mitigation measures to enable the continuation of UN operations even in volatile settings



Safety and Security Incident Recording System (SSIRS) used to record safety and security incidents that harmed or had the potential to harm personnel, premises and/or UN mandates

There are 21 different software applications running on the UNSMIN platform. Over time, with rapid technological advancements, the platform has become outdated, lacking capabilities to address current business requirements. From a security perspective, this creates an untenable situation where users of UNSMIN and other UNDSS systems become frustrated with the lack of functionality, putting little effort into using them.

As a result, this creates a downward spiral in which the lower-quality data submitted on the outdated platform provides less and less value to security managers who must make timely and critical decisions. At the same time, these systems are becoming redundant leading to frustration and lack of compatibility with the needs of complex UN operations. Over time, the users have started to abandon these systems and developed their own non-standard solutions or reverted to the manual process for managing their needs.

# Operational details

## YEAR 1

To address the complexity of the problem outlined above and to respond to the urgent need to change and modernize, in the first year of the project, UNDSS will:

- ▶ Develop a digital transformation strategy that will guide the Department through a process of change that is not just technological and process oriented, but cultural as well.
- ▶ In parallel, the Department will conduct a detail analysis of the UNSMIN platform and other UNDSS systems, identify gaps and propose technical solution(s) to establish a centralized, better functioning and user-friendly tool able to allow UNSMS security professionals and UN personnel to access data and communications at a moment's notice in critical security situations.

## YEAR 2

During the second year the Department will focus on the following areas:

- ▶ Managing the software development activities together with OICT and external vendors, to establish a solid foundation that will serve as a new cloud-based platform to host new and improved UNDSS applications.
- ▶ Based on the priorities set by the digital transformation strategy, this team will also work on developing and implementing applications such as eTA, SSIRS and SRM to get these tools to the end users as fast as possible.

The approach will build upon earlier and ongoing targeted initiatives and strategies, in areas such as situational awareness, security information analysis for planning and decision-making, information security and data management, and security systems and applications to geolocate UN personnel and provide support in emergencies. At the same time, the project aims to maximize the potential of current and emerging technologies as enablers that allow UNDSS to achieve an analysis-driven, forward-looking understanding of the complex environments in which the UN operates, advance ways to boost the digital expertise of its personnel, strengthen the safety and security of the UN personnel, and shape agile and responsive support to the UN system in complex environments.

This three-pronged approach will enhance the support the Department provides to the UN operations while preserving the investments made by Member States in United Nations humanitarian programming.

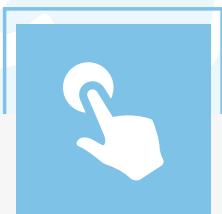
# Outcomes

Better approaches to information management will deliver better outcomes: stronger decision-making and policy advice, greater data access and sharing, improved governance and collaboration, enhanced efficiency across UN operations, greater transparency and accountability, and better services and support to the UN programmes and SLT partner organizations.

An implementation of a people-centered approach to security risk management means that UN’s security policies, approaches, assessments, training and decision-making must be designed with sensitivity to diversity and inclusivity. It means recognizing that staff of different functions, gender, religion, sexual orientation, etc. are exposed to different risk levels and require different support and responses. This, in turn, requires a forward-looking threat and risk analysis and data-based security management. The foundation of this are appropriate information management processes that allow for data to be properly collected, analyzed and actioned.

In more practical terms, this project will lead to a development of a new, cloud-based software platform that provides end users including field staff, partners, and UNSMS security personnel easy access to updated information and tools required for their work, including updated policies and guidance, data, recent news, connectivity to the Security Operations Center and other users, and the ability to leverage mobility tools. This system will allow users to bring their own device, use existing UN hardware (laptop, desktop, mobile) and tie into legacy systems (analogue VHF, paper-based dispatch). All the applications currently hosted on UNSMIN will need to be reengineered and redeveloped using the new technology.

**Key outcomes are:**



**PORTAL**

- ▶ Ability for all UNSMS organizations to log onto one platform
- ▶ Easy to navigate and see updated content
- ▶ Ability to find content on the platform



**DOCUMENTS**

- ▶ Acts as a central repository for all UNDSS records
- ▶ Integrates external docs from OCHA clusters
- ▶ Searchable on a cloud-based platform
- ▶ Offline storage of docs and maps
- ▶ Integrated with the portal



**DATA**

- ▶ Appropriate governance applied
- ▶ Data lake for automated security analysis
- ▶ Protocols and process for location data access
- ▶ Visualization of staff locations and security incidents
- ▶ Accessible for self-service for UNSMS security personnel
- ▶ Low connectivity integration with satellite devices and SMS data
- ▶ API call capability for cross platform use by agencies, funds and programmes



**APPLICATIONS**

- ▶ Integrated to the security portal, frontend (website) and backend (database)
- ▶ Mobile, desktop, and vehicle integration
- ▶ Increased tools and features including RoIP, PTT, Chat, Chatbot
- ▶ Secure features incl. wifi codes, digital badges, calling cards
- ▶ Field connectivity features incl. faster ETC wifi, e-SIMs, PTT, Chat
- ▶ Field external user access for security brief, reporting, RoIP, and monitoring
- ▶ Secure beacon features for SOS, medical evacuation, and incident reporting

# Objectives

Objectives of the digital transformation strategy are to:



Provide guidance to build and refine required skills to appropriately collect, assess and report data and information



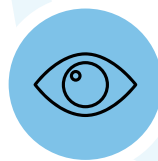
Promote systematic and effective use of information management tools



Increase data literacy and technological awareness among the workforce



Strengthen UNDSS capacities for data-driven analysis and reporting, including on the evolving role of digital technologies in conflict environments and their impact on UNSMS operations



Train personnel to develop high-value reports through data and information visualization and improved assessment capabilities



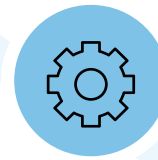
Foster Department-wide situational awareness of security and safety risks\*



Improve accessibility to information through standardization of data processes and systems



Maximize the potential of current and new technologies to drive innovation



Through the use of technological solutions, seek to address mandate implementation challenges, as well as bridge information gaps between UNHQ and the field

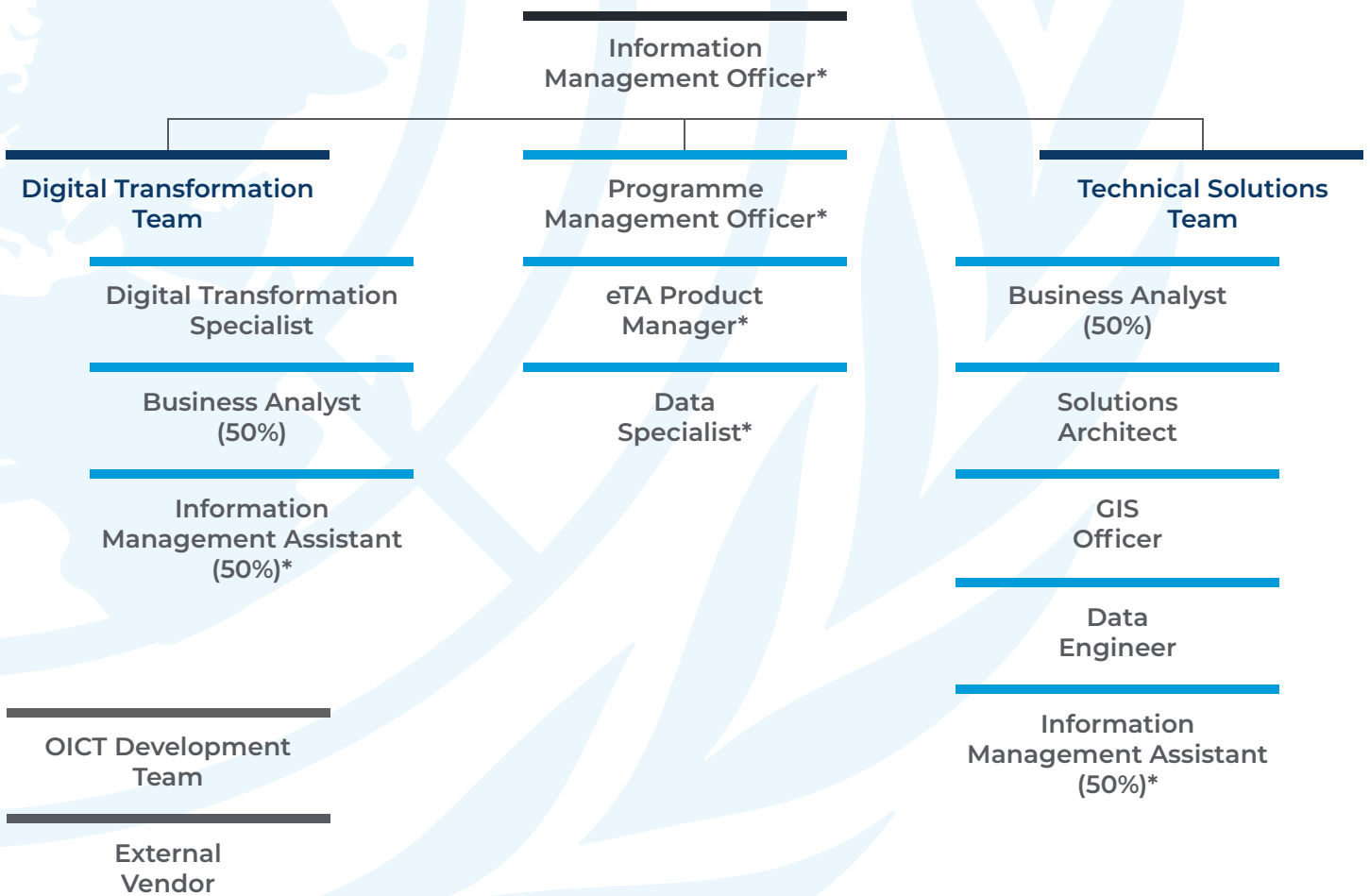
\*By: (1) Developing sources, procedures, systems and tools that allow personnel to access and share information to improve situational awareness at the tactical, operational and strategic levels; (2) Fostering an organizational culture that encourages collaboration, the sharing of information, knowledge and skills across divisions and UNSMS organizations.



# Human resources

UNDSS has established an Information Management Unit in the Division of Partnerships and Specialized Support. However, it lacks capacities, capabilities and expertise required to take on extensive work related to the development of a digital transformation strategy and a design, development and implementation of the UNDSS Technical Solutions Platform.

Over the coming two years, the Department will require additional 5 posts funded through extra-budgetary contributions to supplement the in-house capacity.



\*Already existing posts for which extra-budgetary funding is not required.

# Budget

Breakdown and details of total project costs, including programme support costs:

Budget lines	Description of unit	Quantity	Unit cost (USD)	Total (USD)
<b>A. Staff and Other Personnel Costs</b>				
<b>1 P-4 Digital Strategy Specialist</b>	Person-months	12	21,962	263,541
<b>1 P-3 Business Analyst</b>	Person-months	12	19,108	458,602
<b>1 P-4 Solutions Architect</b>	Person-months	12	21,962	527,082
<b>1 P-3 Data Engineer</b>	Person-months	12	19,108	458,602
<b>1 GIS Officer</b>	Person-months	24	19,108	458,602
<b>Sub-Total A:</b>				2,166,429
<b>B. Contractual services</b>				
<b>Standard communication services</b>	Person-months	108	25	2,700
<b>OICT service level agreements</b>	Person-months	108	130,42	14,085
<b>Sub-Total B:</b>				16,785
<b>C. Operating and other direct costs</b>				
<b>Rental &amp; maintenance of premises</b>	Person-months	108	1,417	153,000
<b>Office supplies</b>	Number of staff	5	200	1,000
<b>Sub-Total C:</b>				154,000
<b>D. Equipment, vehicles &amp; furniture</b>				
<b>Acquisition of desktop phones</b>	Number of staff	5	500	2,500
<b>Acquisition of mobile phones</b>	Number of staff	5	1000	5,000
<b>Acquisition of computers</b>	Number of staff	5	1200	6,000
<b>Sub-Total D:</b>				13,500
<b>E. Travel</b>				
<b>Mission to Geneva, Nairobi &amp; BKK</b>				30,000
<b>Sub-Total E:</b>				30,000
<b>Total Project Direct Costs</b>				2,380,714
<b>Indirect Project Support Costs</b>	PSC rate 13%			309,493
<b>Total Project Budget</b>				<b>2,690,207</b>

# Monitoring & evaluation

Strategic intervention	Indicators	2023 target	2024 target
<b>Review of information management systems and strategy development</b>	Digital Transformation Strategy in place	100%	
	Review of UNSMIN and other UNDSS systems undertaken	100%	
<b>Platform design and implementation of Digital Transformation strategy</b>	New cloud-based Technical Solutions Platform replaces existing UNSMIN		100%
	Digital Transformation training and communications plans developed		100%
	6 in person workshops and 3 online webinars conducted		100%





For more information on UNDSS visit our website at [www.un.org/en/safety-and-security](http://www.un.org/en/safety-and-security) or write to us at [undss.info@un.org](mailto:undss.info@un.org)