



**Chief Executives Board
for Coordination**

CEB/2019/HLCM/DTN/07

10 July, 2019

32nd Session of the Digital & Technology Network (DTN)

United Nations Information and Communications Technology Facility (UNICTF), Valencia

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32nd Session of the DTN, Valencia

The 32nd session of the DTN was hosted by UN Secretariat's ICT facility in Valencia (UNICTF) between 26 and 27 March 2019 and was Chaired by Ms. Atefeh Riazi (Assistant Secretary-General and CITO / Chief, Strategic ICT Management Service, UN Secretariat) and Co-Chaired by Mr. Jeff Modell (CIO, IAEA).

Participation included 40 members from 31 organizations and eight invited speakers, which included representatives from the World Economic Forum, Gartner Group, SecureWorks, Deloitte and Alliance4Impact. The Chair welcomed new DTN members from UNRWA, UNOPS, WMO, WHO & WIPO.

Executive Summary

The network received presentations from external partners outlining major trends and analysis in key strategic areas of concern, including digital transformation, partnership building, the role of leadership in establishing a culture of innovation and cybersecurity threats. The Network also received an update from Deloitte on progress made developing a UN Innovation Toolkit. Member presentations addressed a wide range of topics including organizations' ICT strategies, an Agency's experience with Workday, the development of a proof of concept for inter-agency collaboration using Microsoft Teams, cloud migration strategy, Geographic Information Systems and UN system ServiceNow implementations.

The DTN reviewed and approved its Terms of Reference¹. In line with the conclusions of its 31st session, initial steps were taken to strengthen coordination with other HLCM Networks. A representative of the FB Network presented the priorities and direction of the FB Network, particularly in the area of Robotic Process Automation (RPA). UNISSIG recommendations were adopted, with the exception of the proposed Security Operations Centre (SOC), for which clearer linkages with other UN Secretariat initiatives were requested. In pursuit of the Network's aim to mainstream technology driven innovations, the DTN adopted the Terms of Reference for the Technology Innovation sub-group, which aims to bring together organizations' leadership and capacity in the field of technology innovation. IAEA volunteered to lead the definition and creation of a new sub-group centred on collaboration platforms and ICAO agreed to undertake the review, execution and reporting of a revised ICT benchmarking survey.

The DTN requested the UN Procurement Network to publish and maintain a list of all IT-related contracts for which other UN Agencies can piggyback (e.g., UNDP Microsoft Enterprise Agreement) and to add to its contract templates with Cloud providers a clause to provide for waivers from sanctions and embargoes. It was also recommended that all UN system organizations join the UN System federated directory to facilitate communication across Agencies. In order to evaluate the implications, benefits and resource implications associated with setting up a shared Security Operations Centre (SOC) for UN system organizations, DTN tasks UNISSIG Chair to revert with clarified aims and scope of this exercise, particularly in reference to related initiatives.

Transformation, Partnership, Leadership

Digital Transformation of Industries

Last year over \$1.2 trillion was spent by the private sector worldwide on digital transformation efforts, yet only about 1% of transformation efforts actually achieved their initial objectives. Mr. Mehran Gul, Lead for Digital Enterprise at the World Economic Forum in Geneva, focused on why most digital

¹ CEB/2019/HLCM/DTN/03

transformation programs fail and what successful companies do differently. Drawing upon research performed at the World Economic Forum to highlight common patterns of failure, Mr. Gul focused on case studies of companies that have achieved some measures of success and what they can teach us about the key themes and principles of how to run digital transformation programs. Participants were encouraged to apply the same approaches within their own organizations and provided instruction on how to effectively start changing an organization's culture.

Partnerships & Positive Collaboration

Mr. Andrew Andrea, Founder & Executive Director of Alliance4Impact, discussed how to establish positive collaboration between members of the UN Digital Technology Network and the private sector.

This one-hour session included a short presentation on the current context for UN collaboration with the private sector. The presentation and discussion was informed by a preliminary survey of the Network members experience with public-private partnerships. Mr. Andrea shared his own experience of how to go about it and what the most important ingredients are to create partnership with vendors. The presentation was followed by a facilitated discussion, aimed at identifying how organizations could collaborate together with the private sector; methods and models for collaboration; and challenges, opportunities and potential next steps.

Reference was made to the UN guidelines on business cooperation, which define a partnership as a *voluntary and collaborative agreement or arrangement in which all agree to work together to achieve a common purpose or undertake a specific task and to share risks, responsibilities, resources, and benefits.*

Aims furthered by a partnership are many, but may notably include the provision of new and innovative capabilities; the building of a business partnership with a client; the pursuit of continuous improvements in programme delivery; or, the drive for efficient and cost effective IT processes and technology transfer to developing countries.

Challenges for partnerships were presented as they related to organization visibility, culture and trust and the business integration gap. The need for due diligence in the selection of a business partner was underlined, with reference to exclusion criteria, including evidence of forced and child labour; human right abuses; the sale or manufacture of prohibited armaments; violations of UN Sanctions; or otherwise presenting the UN with a high reputational risk. It was noted that UN entities may establish additional eligibility and exclusionary criteria for screening companies appropriate to their specific mission and advocacy role. Criteria for successful partnerships were summarized and presented by example. In addition to the need to establish a platform of trust, it was considered necessary for organizations venturing down this path to also understand the potential for leveraging complimentary objectives and expectations, while also identifying any opportunities for bridging corporate cultures during all phases of the project.

Leadership Culture

Mr. Daniel Sanchez Reina, a Research Director for Gartner's Leadership, Culture and People Dynamics team in the CIO Research group, presented on the topic of successful leadership and organization culture. This item covered the complex challenges of achieving high-performing teams, organizational and cultural change, leadership skills and competencies, and digital transformation initiatives. By demonstration during some practical exercises, he highlighted why change is necessary and not impossible.

In this session entitled Culture Hacking, Mr. Reina tackled how to inspire and be inspiring about the need for change, what governments and public organizations have done, and how it affected their

image. This interactive session dismantled the false idea that change is impossible or too hard to be carried out and provided members the tools and techniques necessary to affect cultural transformation within their own organizations.

UN Innovation Toolkit

The Secretary-General called on UN entities to embed innovation in all that they do. The UN Innovation Toolkit is one part of the broader effort to help UN organizations accelerate their innovation progress. The CEB has been focusing on fostering and mainstreaming innovation across the UN system in line with the Secretary-General's vision to make the UN system better adapted to the digital age. In May 2018, the CEB asked that a toolkit be developed to help UN entities capture the potential of innovation to help meet the SDGs and execute their mandates more effectively. The CEB Secretariat, together with the UN Innovation Network (UNIN), has been advancing this process and an early version of the diagnostic assessment and toolkit overview was presented to HLCM last October. A high-level overview of the framework was also provided to CEB in November. Work is in progress to develop and release the full toolkit on a web-based platform by the end of May 2019.

The network was joined remotely by Mr. Robert de Jongh and Ms. Sarah Milsom from Deloitte Consulting who presented the diagnostic assessment and toolkit. The Toolkit features a collection of curated methods and tools designed to accompany UN teams on their innovation journeys. More than 20 tools across five thematic modules were specifically selected and customized for UN organizations. A diagnostic assessment helps users navigate to a subset of tools aligned to their unique innovation needs. The Digital Toolkit will be made available to all and is designed to be accessible, adaptable, approachable, actionable and appealing.

HLCM Network Collaboration

At its last session, the DTN recommended that representatives of other HLCM Networks be invited to attend DTN sessions. The aim is to engage and coordinate with other networks working in related (and particularly frontier) areas; identify common priorities and opportunities for joint collaboration; and help direct discussions that address core business needs and that imply a role for the DTN and its sub-groups. As an initial step in this direction, Mr. Hans Baritt, UNHCR Controller and co-Chair of the Finance and Budget Network, presented the latest developments and initiatives being pursued at UNHCR as well as by the Finance and Budget Network at large in the area of frontier technology, particularly robotic process automation.

Mr Baritt's presentation focused on the future of systems and processes and the challenges faced by UNHCR, including: managing risk, focusing on change, integrating silos, factoring in decentralized ICT and fulfilling donor's expectations for transparency, cost efficiencies and internal controls. Mr Baritt's presentation covered several areas of direct relevance to the financial function of UNHCR, including business process re-engineering and the development of UNHCR's innovation for finance strategy, the evolution of ERP and enterprise applications and how activity in these areas combine to affect the future of finance. Discussions that followed attested to the value of dialogue between the networks, the identification of common areas of interest and maintaining network coordination as a standing item on the agenda.

UN Information Security Special Interest Group (UNISSIG)

The 8th UNISSIG symposium was hosted by UNWTO in Madrid between 12-13 February 2019. UNISSIG Chair (Mr. Thomas Braun, Chief Information Security Officer, UN Secretariat) remotely presented the conclusions of the eighth symposium to the DTN. In addition to its updated work-plan, UNISSIG put forward recommendations including the procurement of a UN system-wide consolidated commercial cyber-threat intelligence service; closer cooperation with Inter-Agency Security Management

Network (IASMN) in order to coordinate on issues of mutual interest; a request for DSS to integrate cyber threat intelligence warnings with travel advisories; the evaluation of a shared Security Operations Centre (SOC) for UN system organizations; and closer linkage with the HLCM Risk Management Task Force during the development of its risk management maturity model. Much discussion and interest was drawn to the proposition of a UN system SOC and the relationship between such a service and related initiatives of some organizations.

- With the exception of the SOC proposal, all UNISSIG work-plan changes and recommendations were approved by the DTN;
- DTN requested the UNISSIG Chair to provide a short description of the SOC, clearly outlining the scope and linkages with ongoing initiatives, for its subsequent consideration by the DTN.

Technology Innovation Sub-group

Mr. Salem Avan (Director, Strategy, Policy & Governance Division, UN Secretariat) presented the Terms of Reference for the Technology Innovation Group. This sub-group aims to comprise the most innovative and pioneering organizations, though membership is open to all CEB member organizations. The Terms of Reference for this sub-group were approved following their circulation within the DTN, in December 2018.

In the discussion that followed, the sub-group Chair (UN Secretariat) encouraged DTN members to consider delegating their participation to other sub-group members as a means to ensuring agility. Some organizations expressed the preference to participate and not delegate and so the option was granted. It was underlined that while this group aims to leverage responsibilities associated with the position of CIO, DTN members may choose to delegate their participation to a member of their staff with related responsibilities.

Business Transformation Sub-group

Mr. Luca Baldini (Director, Information Technology Solutions, UNFPA) provided an update on the establishment of a Business Transformation sub-group. Following the DTN's decision to subsume the ERPSIG and its constituent SAPSIG and CABIO communities, discussion centred on the group's Terms of Reference and the need to maintain support for the ERP community. It was decided that the organization of the next ERPSIG session would reconvene the ERP community with an agenda that places emphasis on the delivery of common solutions and innovations that support core business processes. The Business Transformation sub-group Chair was tasked with re-drafting the Terms of Reference to help provide clarity on how existing communities will continue to be supported.

Knowledge Sharing

Geographic Information Systems (GIS)

UN geographic information systems provide geospatial information and services to the full range of UN operations, both at headquarters and in the field. UN Secretariat explained that GIS in the UN allows for the integration of map information, spatial analysis and intelligent imagery, and the integration of real-time data in the pursuit of a better understanding, faster decision-making, improved communication and overall, increased efficiency. GIS initiatives are coordinated by UN Committee on Global Geospatial Information Management (UN-GGIM). This Committee was set up to discuss, enhance and coordinate global geospatial activities by Member States to make joint decisions and set directions on geospatial aspects in global and national policy frameworks. The GIS Section provides and supports corporate field technology solutions for geospatial technologies to UN field missions and the Secretariat (UNHQ).

The network learnt about the UN Open GIS Initiative, which aims to identify and develop open source geospatial solutions that meet the requirements of UN operations, taking full advantage of the expertise of mission partners. This initiative covers the development of geospatial software for the entire lifecycle of geospatial information at enterprise level from data collections, management, and sharing of geospatial data to geospatial analysis and web and mobile geospatial applications for UN operations. Similarly, the OneMap initiative is a collective effort to make a difference and solve common problems by pooling geospatial information collected by organizations, through a minimum agreeable common framework. UN Secretariat provided examples of other geospatial products, which notably included services developed for UNHQ Operations; the Security Council & Sanction Committees; Thematic Mapping for UNOCC; Geospatial Solutions; UN Field Missions support; Spatial & Image Analysis; UN-GGIM & Member States and the UN system. The Chair thanked UN Secretariat for the brief and encouraged all interested organizations to leverage these services.

Implementations of ServiceNow in the UN World

ServiceNow, a cloud computing company based California is marketed as a company that transforms old, manual ways of working into modern digital workflows. UNICEF provided an overview of their implementation for a unified service management system that combines three separate legacy systems. UNICEF presented the many benefits of the Unified Service Management System, including out of box functionality that is feature rich and easy to learn, configure and deploy.

Lessons shared with the group included the need to allot sufficient time for the procurement process; analyse and decide on licensing needs upfront; give attention to product features fit / gap analysis during discovery phase; focus on business/functional requirements and scope clarity prior to design; factor in comprehensive unit testing and SME testing; flag integration dependencies upfront in terms of system and resources; agree with the SaaS vendor to delay patches/updates during development; and discuss upfront with vendor on access to US embargoed countries. The network also learnt that elements of UNICEF's ServiceNow Contract were specifically added to circumvent service or supply issues originating from sanctions from which the UN system organizations are exempt. The network agreed to raise this approach with the Procurement Network with the aim of identifying an approach that protects UN organizations from the impact of sanctions.

Experience with Workday

Mr. Valentin Prat (Director, Information Technology Services, PAHO) provided the network a summary of PAHO's implementation of Workday, which started in 2015 with the introduction of HR and Payroll modules. The choice of platform was based on Workday's perceived benefits, including the provision of a single system for all domains (Finance, HR, Analytics), short implementation time, cost to procure and maintain, sustainability, configuration instead of customization and automatic updates which ensure PAHO is always on the last version. PAHO implementation challenges were reviewed as they related to the organization (change management, complexity of business processes, workload balance, etc.) or the system (which have since been solved), including: PAHO status as Workday's first UN client, bank reconciliation, exchange rates and reports. So far, PAHO has 180 business processes that have been redesigned and streamlined on Workday. It was noted that the implementation required few policy changes but introduced many procedure changes, including the elimination of many paper forms. The platform was well received by staff and perceived to be modern, secure, reliable, adaptive and a positive user experience.

Business Operations Strategy

The Quadrennial Comprehensive Policy Review (QCPR) 2013-2016 requests the UN System to accelerate harmonization efforts of business operations, in particular reducing the duplication of

functions, and administrative and transaction costs. WFP provided members with a detailed update on the developments of the Business Operations Strategy (BOS) in relation to ICT and the broader strategic priorities of WFP.

Cybersecurity Briefing

With reference to recent investigative cases, Mr. Don Smith (Director, Cyber Intelligence, SecureWorks), a recognised subject-matter expert in many areas of cybersecurity, presented on the topic of current cybersecurity threats, state and non-state actors, and techniques. Mr. Smith's presentation was considered private due to the sensitive nature of its contents.

UNESCO's Strategic Transformation

Ms. Ingrid Regien (CIO, Bureau of Knowledge and Information Systems Management, UNESCO) presented UNESCO's ICT strategy, which notably included UNESCO's Strategic Transformation and Knowledge Management & ICT Strategy 2018 – 2021. The network learnt of two key projects being pursued by UNESCO, namely: the Digitization of UNESCO Archives and UNESCO Digital Library. Given these aims, Ms. Regien's presented the challenges encountered and the lessons learnt in the execution of UNESCO's Strategic Transformation and Knowledge Management & ICT Strategy 2018 – 2021. Key observations of UNESCO from this transformation process included the need to ensure business ownership, the imperative to sunset replaced systems and the difficult of implementing knowledge management and Change Management.

SharePoint Migration

Mr. Jeff Modell (Director and Chief Information Officer, IAEA & DTN Co-Chair) presented on the topic of IAEA's successful migration of its internal SharePoint applications to SPO. IAEA has subsequently decided to cancel the migration of the Extranet to Azure Active Directory and SPO because of the organizational risk associated with country-level sanctions. IAEA briefed members on the intent, what was learned from Microsoft and what are the implications. Within the context of this discussion, it was suggested that CEB Secretariat liaise with the Procurement Network in order to help ensure organizations remain immune from sanctions.

Journey to the Cloud

Mr. Erzen Ilijazi (Chief Technology Operations, UN Secretariat) presented the UN Secretariat's Azure Cloud approach. This presentation covered the technical aspects of the solution, including the hub-spoke topology of the cloud solution, identity and access management, default security groups and application gateways. Members learnt that next steps for the Secretariat notably include the development of a Hybrid Cloud Hosting Service.

ICT Benchmarking Survey

In 2014, UNDP designed, executed and reported back on the DTN's ICT benchmarking survey. This exercise provided the DTN with an overall picture of the UN ICT landscape, by finding out where each organization stood in terms of their ICT investments. Survey questions were designed to uncover organizations of potential interest to others, by highlighting tools each uses, specific ICT investments by organization, contracts available for piggybacking etc.

Further to the success of the 2014 ICT benchmarking exercise (undertaken by UNODC & UNDP) and the five-year period which has since elapsed, the network agreed to update the results with comparable data to help highlight any trends and facilitate analysis. ICAO kindly volunteered to lead

the follow-up survey design, which will serve comparison and an expanded scope, which notably now includes cloud computing and frontier technologies. It was agreed that the membership would be consulted on changes to the survey's scope and coverage prior to execution.

- CEB Secretariat facilitate the process of updating the survey, through the provision of previous surveys, related documentation and data.
- ICAO to update the survey in consultation with DTN prior to execution of survey. Upon completion of this exercise, ICAO to share analysis and findings within the DTN.

Inter-Agency Collaboration Platform

UN Secretariat presented a proof-of-concept (POC) that incorporates the core features of Microsoft Team(s) to support common usage scenarios for inter-agency support and operational activities. B2B (Business to Business) connection allows for seamless access to applications across organizational boundaries (organizations will keep control on what they want to share); improving the way staff locate, identify and collaborate with one another and across organizations. UN Secretariat updated the group on efforts directed towards the improved information sharing, communication, and collaboration needs of UN system organizations. Due to their maturity in this field, UNDP, UNICEF and UN Women are working together with OICT to build a proof of concept for the implementation of B2B ICT services across the UN system. UNHCR and WHO will participate as observers and will provide feedback on the POC.

Microsoft Teams provides a hub for teamwork that allows real-time or asynchronous chat, voice or video calling, host meetings, collaborate on documents and get work done with teams in a natural, conversational and mobile friendly way. The POC will showcase these features and will explore common collaboration scenarios encountered at the UN including working groups, steering committees, project teams and HQ-Field operational teams. This POC intends to illustrate the potential gains from federated services and to build support and consensus to federate O365 services across the UN system. A wider deployment plan with associated resource requirements, communications materials, and detailed timelines will be provided based on the guidance provided by senior stakeholders following review of the POC. In order to participate in this POC in a cost effective manner, it was noted that technical architectures need supporting integration to be consistent, which notably include Azure Active Directory and Office 365.

- The DTN recommended that all UN Agencies aim to join the UN System directory to facilitate better communication across agencies.
- IAEA volunteered to establish and lead a sub-working group on collaboration platforms.

DTN Governance

The membership was reminded that the election of one Co-Chair is due for consideration at its 33rd session and so expressions of interest should be directed to DTN Secretary. In view of recent requests to attend DTN sessions, CEB Secretariat was tasked with reviewing the criteria and role of Observers within its wider membership, so that clarity on this point may be shared with the wider membership at its next session.

Date & Location of Next DTN Session

In follow up to the meeting, dates for the 33rd session of the DTN (and UNICC) are as follows:

- DTN: Tuesday 1st October – Wednesday 2nd October, 2019; Host: ICC; The Hague
- UNICC(MC): Host: ICJ; Thursday 3rd October: Peace Palace, The Hague.

Annex - List of Participants

An asterisk denotes remote presence.

Co-Chairs

UN	Ms. Atefeh Riaz	Assistant Secretary-General and Chief Information Technology Officer
IAEA	Mr. Jeffrey Modell	Director and Chief Information Officer

Members

CEB	Mr. Richard Maciver	Coordinator, DTN
CTBTO	Mr. Lucas Ferreira	Unknown
FAO	Mr. Samuel Varas	CIO & IT Director
ICAO	Mr. Sanya Dehinde	Chief, Enterprise Technology and Services section
ICC-CPI	Ms. Kelly Mannix	Chief, Information Management Services Section
ICJ	Mr. Alvaro Flores Diaz	Head of IT Division
IFAD	Mr. Thomas Bousios	Director, ICT Division
ILO	Mr. Mark Mongillo	Director
ILO	Ms. Petra Marshall	Chief Technology Officer and Chief of Technology Management Services
IMF	Mr. Patrick Hinderdael	Deputy CIO/Acting CIO
ITC-ILO	Mr. Gaël Lams	Web, Communication and Security Team Leader
PAHO	Mr. Valentin Prat	Director, Information Technology Services
UN	Mr. Erzen Ilijazi	Chief Technology Operations
UN*	Mr. Salem Avan	Director, Policy Strategy & Governance Division
UN Women	Mr. Soren Thomassen	Chief, Information Systems and Telecommunications
UNAIDS	Mr. Christophe Lanuit	Chief, Innovation and Development
UNCTAD	Ms. Elena Tomuta	IT Chief
UNDP	Mr. Paul Raines	Interim CIO
UNEP	Mr. Saiful Ridwan	Senior ICT Advisor, ICT Unit
UNESCO	Ms. Ingrid Regien	CIO, Bureau of Knowledge and Information Systems Management

UNFPA	Mr. Luca Baldini	Director, Information Technology Solutions
UNHCR	Mr. Doug Greene	CIO and Director, Division of Information Systems and Telecommunications
UNHCR	Mr. Hans Baritt	Controller and Director, Division of Financial and Administrative Management
UNICC	Mr. Sameer Chauhan	Director
UNICEF	Mr. Daniel Couture	Chief Information Officer
UNICEF	Ms. Kathleen Grady	Secretary
UNIDO	Ms. Ana Paula Nishio de Sousa	Chief, Information Technology Services Division
UNJSPF	Mr. Dino Cataldo Dell'accio	CIO, Information Management Systems Section
UNOPS	Mr. Dennis Cleary	Manager, ICT Development
UNRWA	Mr. Suhail Katkhuda	Chief, Technology Services Division
UNRWA	Mr. Kaan Cetinturk	IT Director
UNWTO	Ms. Susana García Rubio	ICT
WFP	Mr. Dominik Heinrich	Deputy CIO, Deputy Director, Technology Division, WFP
WHO	Mr. Bernardo Mariano	CIO
WTO	Mr. Fabrice Boudou	Director, IT Solutions Division

Invited Guests

Alliance4Impact	Mr. Andy Andrea	Founder & Executive Director, Alliance4Impact)
Deloitte*	Mr. Robert de Jongh	Managing Director for Strategy, Deloitte Consulting
Deloitte*	Ms. Sarah Milsom	Senior Manager for Strategy, Deloitte Consulting
Gartner	Mr. Daniel Sanchez Reina	Leadership Culture and People Dynamics, Gartner
Gartner	Ms. Adama Seck	Senior Account Executive
SecureWorks	Mr. Don Smith	Director, Cyber Intelligence, SecureWorks
WEF	Mr. Mehran Gul	Project Lead, Digital Transformation of Industries, WEF