ICT and Delivering as One

Business Harmonization - Greening the Blue

One UN House Hanoi (<u>above</u>) and Vietnam ICT Working Group (UNICEF, WHO, UNDP, UNAIDS, UNESCO, FAO). See p.3

Delivering as One countries in the next year will focus on business operations strategy, standard operating procedures, shared data, network, and telecoms systems, as well as joint knowledge sharing, communications, and collaborations solutions.

The recent UN General Assembly Quadrennial Comprehensive Policy Review (see <u>QCPR report</u>), had significant findings for ICT, with 2013 recommendations to:

- Reduce duplicate functions and support services with ONE UN service centers
- Rationalize business operations
- Make plans for common support services, including ICT
- Make use of national public and private systems for common services
- Consider system-wide interoperability of enterprise resources planning systems (ERPs), supporting harmonized business processes

The ICT Reference Group, a sub-body of UNDG/DOCO and the ICT Network of the CEB's High Level Committee on Management

(HLCM), providing business guidance in ICT operational matters, met several times in the past year with UNFPA, UNDP, UNICEF, WFP, CEB, and WHO participation. They discussed the status of Delivering as One (DaO) projects with an emphasis on a business perspective to foster collaboration and communication between Agencies.

The ICT Reference Group is assisting and reviewing the UN Development Group's piloting in several countries of a harmonized UN Business Operations Strategy to enhance cost effectiveness and the quality of back-office processes such as procurement, ICT, HR, Logistics, and Finance. See page 3 for story on Vietnam.

2012 Results <u>(see presentation)</u>

- ICT Reference Group meetings (3)
- Technical missions to Bhutan, Vietnam, Zambia, and Swaziland
- ICT Guidance document adoption
- UNDG Business Operations Strategy support
- Review of network consolidation business cases
- Follow-up on Malawi mission and CIO missions to Mozambique and Zimbabwe
- DaO Scale-Up Plan; <u>Draft DaO ICT Guidelines</u>
- Group expansion to include UNESCO/UN Women

2013 Plans

- ICT assessment mission to Cape Verde
- ICT Reference Group Retreat March 2013
- Business Operations Strategy adoption
- Communications and collaboration harmonization efforts
- ICT Guidelines adoption
- Network consolidation projects scale-up
- Technical missions
- Scale-up support

ICT Reference Group in 2012 - 2013

The ICT Reference Group functions as an advisory body for the coordination of country-level ICT activities of UN Agencies where a harmonized approach can provide results and benefit the work programme of Country Offices while advancing the broad objectives of Delivering as One. It identifies common areas of interest, prioritizes objectives, identifies resources, and oversees the development of agreements, standards, guidelines and support arrangements toward harmonizing ICT activities, ensuring that these activities align with common ICT strategic goals for participating organizations. Its mission includes:

- Country Office ICT standards to provide improvements in ICT activities in business solutions, innovation, Green IT, support, procurement, infrastructure, and telecommunications
- Guidance on ICT investments/implementation of ICT components
- Support to UNDAF offices for a common service level baseline
- Response to ICT Network, and its sub-bodies, and the UNDG, to address any other country-level ICT issues

There will be an ICT Reference Group retreat in March 2013 to enhance the ICT Guidance document, include business operations strategy, and look at next steps for DaO delivery, with an emphasis on harmonized business practices including communications and collaboration.

2012-2013 membership : Michelle Maggal, UNDP and George Price, UNFPA, Chairs; Gerald Demeules and Dubravko Narandzic, UNDP; Hani Shannak, Arthur Smolitsky and Erica Gutierrez, UNICEF; Ken Herman, CEB; Stephen Fazio, WHO; and David Muyai Otieno, UN Women, and others.

The ICT Reference Group met three times over 2012, focused on technical missions to Bhutan, Vietnam, Cote d'Ivoire, review of the ICT

ICT Reference Group at UNFPA, March 2012

Guidance document, UNDG Business Operations Strategy, network consolidation business cases, DaO Scale-Up Plan; Draft DaO ICT Guidelines and follow-ups on the 2011 Malawi mission and CIO missions to Mozambique and Zimbabwe.

Other technical missions included Zambia and Swaziland with the following recommendations:

Zambia	Swaziland
1. Improved internet & backup connectivity	6. Connectivity
2. Unified telephony system	7. Business continuity
3. Business continuity	8. Unified Communication (UC)
4. Knowledge sharing and virtual collaboration	9. Capacity Building and Staffing
	10. Content and Collaboration Architecture
5. Common IT services	11. Local Infrastructure
	12. High Definition Video Conferencing
	13. Inter-Agency Collaboration - ICT Governance

Cape Verde in 2013 - Improved Telecommunications

The Cape Verde UN Joint Office management made a decision to spruce up ICT systems, including governance, in an effort to meet UNDP corporate standards and improve operations in the office. Given the critical role played by ICT systems in office delivery, the right investment in the area should motivate and increase staff productivity. Equally important is the need to have a standard implementation that is aligned with the corporate strategy and industry best practice.

The Cape Verde Joint Office has about 65 users sharing ICT infrastructure and currently supported by one ICT Associate. A January 2013 ICT mission from UNDP produced recommendations including:

- Enhanced Intranet for proper document management and team collaboration
- BCP-DR improvements
- Addressing high costs for ISP services
- Upgrading network switches
- Installing enterprise-grade Wi-Fi access
- Use of Unified Communications, and improved HD videoconferencing tools

Cape Verde joint office management is commended for making concerted efforts to bring ICT systems to corporate levels. With the recommended technology refresh, the office is bound

Left: UNDP ICT mission to Cape Verde in January 2013. Right: Leveraging ICT in Cape Verde

to realize higher productivity gains over and above high-performing and reliable ICT systems.

Viet Nam ICT Mission 16-20 Jan 2012 (UNICEF, ILO, WHO, UNDP, UNAIDS, UNFPA, UNESCO, and FAO)

Vietnam - Under One Roof: Green One UN House

The ICT Reference Group mission to Vietnam took place 16-20 2012 to review the network setup. Renovation work is scheduled to take a year, followed by commissioning and relocation. The first UN Agencies are expected to move in during Q1 2014. The eco-friendly building will have a common ICT infrastructure to facilitate functional clustering and mobility for more than 400 staff from 14 Agencies including UNICEF, UNDP, UNFPA, WHO, FAO, UNIDO, UNODC, UNDSS, UN Women, UNHCR, UNAIDS, UNHABITAT, IOM and UNV.
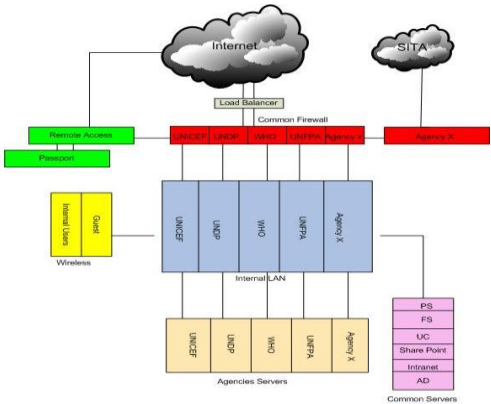
The basic concept of the GOUNH is one common physical network with virtual separation of users' and servers' networks per Agency and shared common components and services to enable users from different Agencies to work as one team, allowing staff to work from anywhere within the building without the need for multiple network ports in operation. Wireless connectivity will be enabled on all floors to offer staff maximum flexibility and mobility to the wired connections.

The design of the GOUNH's common ICT infrastructure will bring many benefits. Staff will enjoy a flexible working environment with advanced functions such as videoconferencing, VoIP, Follow-me printing, multi-functional devices to print/scan/copy, remote access, and mobility. A common data center will save costs including those related to servers, switches, and telephone systems. The common infrastructure with a Unified Communications system will reduce costs through shared cabling, shared Internet connectivity, common firewalls, and lower telecommunications costs via Internet connections. ICT support to users will also be improved with a common help desk in operation.

Vietnam GOUNH network conceptual design

See Vietnam video with Ta Van Khieu, UNDP and Nguyen Truong Giang, UNICEF

The common infrastructure with a Unified Communications system will reduce cost through shared cabling, shared Internet connectivity, common firewall, lower telecommunications costs with local and long distance via Internet connection. IT support to users will be improved with a common help desk.

Bhutan

An inter-Agency ICT technical mission under the ICT Reference Group (UNDP, UNICEF, and WFP) was carried out in October 2012 to support the UNCT Country Team in Bhutan with final technical design and plans for a fully-unified ICT environment in the new UN House to serve UNDP, UNICEF, FAO, UNFPA, and WFP). In addition, Bhutan has adopted and is implementing the Business Operations Strategy for common operations services.

The unified environment includes a common network and data center, including WAN connectivity, voice and data communications, Internet, IP Telephony, video conferencing, shared digital copiers, as well as shared resources. The network design was comprised of a 'One Common Physical Network,' with virtual separation of users' and servers' networks per Agency, ensuring full separation of agencies networks, users and servers, while sharing common components and services to enable users from different agencies to work as one team.

UN House Bhutan - Construction under full swing - March 2013

With this fully harmonized approach on infrastructure, significant cost savings are anticipated in the following area:

- 20-30% saving on Internet Connectivity
- Closed user group savings on Mobile Telephony
- 25% savings on Annual Maintenance for PABX
- 25% savings on utility costs for Server Room
- Saving on fixed telephony costs.

Zimbabwe - More than Business as Usual

An ICT technical mission to Zimbabwe took place in July 2011 to evaluate the Delivering as One requirements including implementation of a Metropolitan Area Network (MAN), shared telecommunications, and business application development.

Due to high costs and concern about sustainability, the ICT Network followed up with a CIO-level mission in July 2012 to review conditions and project status.

The CIO mission concluded that a new approach would best support the requirements of the Country Team, focused on capturing core business needs for more effective collaboration on joint programmes and operations. The mission assessed the reliability and cost effectiveness of locally-provided ICT services and examined proposals for connectivity from local providers. See the Zimbabwe report

Zimbabwe Inter-Agency ICT Working Group

Mozambique as Model

A CIO mission was also held earlier (28-29 Feb 2012) in Mozambique to review the status of the One UN ICT Common Network and Services pilot project. The goals of the assessment mission were to address challenges experienced by participating Agencies and provide directions to move forward with the ICT model in Mozambique. The mission presented an excellent opportunity to assess the effectiveness of the common ICT systems implemented in Maputo and to capture lessons learned.

As the first full ICT implementation for Delivering as One common systems and services since the project began in 2008, this assessment helped to determine the way forward not only for Mozambique but for the Delivering as One (DaO) ICT model as a whole, to ensure meeting collective UN needs, achieve greater cost effectiveness, and revisit and re-evaluate planned business and technical objectives.

See the Mozambique report.

See video with Karen Barsaman, ICT Officer, WFP Mozambique in 2010 - now working with the Haiti ICT Working Group

Zimbabwe - Key Recommendations

- Utilize local ICT commercial capacity instead of building high cost UN owned IT infrastructure
- Achieve cost savings through common contracts for economies of scale and collective discounts
- Focus on addressing core business needs by developing common collaboration tools and knowledge sharing systems aligned with organisation-wide Agency strategies

Mozambique - Key Recommendations

- Identify business needs for virtual collaboration
- Review, test and implement directory authentication
- Assess VoIP connectivity for Maputo
- Assess wireless Internet access from homes and UN areas
- Negotiate rates for mobile telephony
- Ensure proper Service Level
- Review capacity of shared Internet service and bandwidth allocation
- Review 'single-service' Agency support model
- Leverage resources and respond quickly to service requests and solve operational problems

Democratic People's Republic of Korea

Delivering as One is a valuable approach to meet the challenges of the Democratic People's Republic of Korea (DPRK), with limited technology solutions. In 2012 the UNCT, OMT and ICT Working Group initiated several discussions internally as well as with the UN ICT Reference Group to explore improvements. The UN ICT Working Group in DPR Korea has implemented:

- One backup link/system for all resident UN Agencies (WFP, UNDP, WHO, and UNICEF)
- Joint, secured, reliable connectivity via a fiber optic network
- Good sprit of collaboration and peer support in an environment where there is no external ICT support available in the country

The ICT Reference Group conducted an ICT survey in the Democratic Republic of Korea in May 2012 to streamline common systems and services, where the total

See video with Btsuamlak Teweldebrhan, ICT Manager, UNDP

ICT staff across four Agencies is 7, with two Agencies using EMC for VSAT and two using Vizada. Two Agencies utilize MS Exchange for email, while another two use Domino Lotus Notes. Three separate ERPs are used across the inter-Agency landscape, so there are many opportunities for harmonization, including much-needed Business Operations Strategy, Standard Operating Procedures, and joint knowledge and content management environment. 2013 will bring ongoing efforts to further DaO objectives of common systems and services.

Malawi - Better Connecting Agencies

UN Agencies in Malawi are scattered around the capital city of Lilongwe. This is a challenge to Agency harmonization in ICT services. The ICT section at UNDP Malawi is currently taking part in the process of implementing Delivering as One. Even though they have not reached an advanced stage in the implementation of DaO, the ICT Working Group, in following up on a ICT Reference Group technical mission in July 2011, is currently participating in the following areas:

- Use of UNDG Business Operations strategy
- Joint database for consultants and suppliers
- Agency telephony inter-connectivity
- One UN website -knowledge sharing platforms
- One ICT staff (UNDP, UNAIDS, UNHABITAT, UNEP, UNSACCO, and UNDSS
- Videoconferencing , MS Lync and Skype use
- Bandwidth purchase pooling
- Harmonized learning and training calendar
- Joint monitoring and evaluations system
- Joint Business Continuity Plan

Benefits will be in the form of reduction of costs, higher Internet access speed, planning and monitoring efficiencies, general performance and efficiency improvements. This project will also
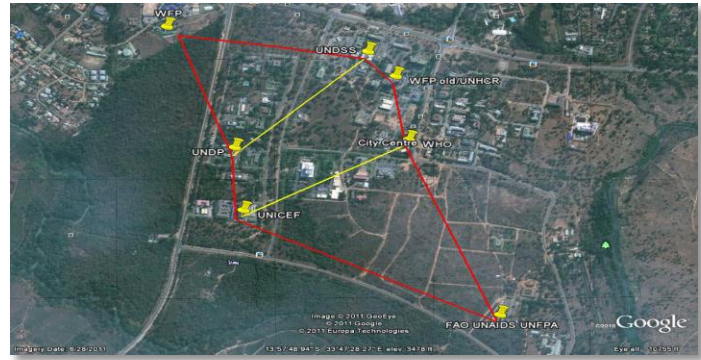
UNICEF, WFP, UNDSS, WHO, UNDP, UNHCR locations in Lilongwe, Malawi

lead to improved collaboration in ICT at the country level to facilitate UN agencies to share existing or future ICT capacity, expertise, infrastructures and tools.

See the video by Alexander Thyangathyanga, UNDP Malawi

Ekari Chauluka, Focal Point for ICT services and Alexander Thyangathyanga, UNDP Malawi


Inter-Agency ICT Team – Liberia

Other DaO Stories - Liberia - Fiber Optic Network Consolidation – MS Lync comes to Life!

While not a direct result of ICT Reference Group 2012 activities, developments in Liberia are impressive. A network consolidation project that linked all UN Agencies in Liberia was completed in the Fall of 2012, leveraging on a 2009 project from the United Nations Mission in Liberia (UNMIL - DFS/Peacekeeping) to construct a 1200 km robust microwave network across Liberia to utilize the Cote d'Ivoire submarine fiber optic cable. The impact is huge, with costs five times less than Satellite links and big productivity gains for those who depend on the Internet for their daily work.

Benefits include higher-speed internet for end users, significant reduction in recurring costs, faster access to ERPs and Agency web-based applications, improved ICT response to business needs and improved collaboration in ICT at the country level to facilitate UN agencies to share existing or future ICT capacity, expertise, infrastructures and tools. This may also improve business continuity planning, and possibly be expanded to

Agency field offices countrywide. Agencies involved included WFO, World bank, UNICEF, UNMIL, FAO, WHO, UNHCR, UN Women, UNIDO, UNDP, UNFPA, and UNESCO. Next steps include development of a national fiber optic cable to bring further cost and performance benefits.
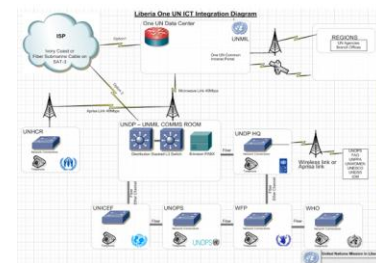
Above left: See the video with Mahfooz Walizada, UNICEF and Johnson Chelleh, ICT Manager, UNDP, made with MS Lync
Above right : UNMIL network diagram

Below left: UNMIL's Liberia ICT Insider magazine

Other *Delivering as One* Stories

UN House - Bosnia and Herzegovina

Bosnia and Herzegovina - New UN House

Agencies will share a common network, but each Agency will have its own virtual LAN. The network will be routed through shared Layer 3 switches and connected to the Internet through a single managed firewall. Cost-efficient primary and backup Internet connections will provide four times more bandwidth than used before, for a lower price. Avaya IP Office 500 will be set up as an IP telephony solution serving 270 staff in the UN House. In months to come, an effort will be made to provide free of charge calls between the UN House and Agency regional and global HQs. Conference facilities booking will be developed, and procurement of easy-to-use equipment, TVs, projectors, and cameras will follow. Once Agencies settle down in a common UN house this year, collaboration will improve, leading to other joint projects like joint faxing, Intranet, and printing/scanning services. The UN House will also provide other directions for DaO action, such as a common ICT strategy and a common server virtualization system. Challenges include bringing business and ICT together, high costs of ICT solutions and reduction in resources.

UN City in Copenhagen

High tech, green in Copenhagen

The Danish Ministry of Foreign Affairs proposed a 'UN City' to attract UN Agencies to a common premises with eight wings, in Copenhagen, while now there are three distinct locations (WHO, UNICEF, and a clustered UN House).

A partnership was developed between the Danish government and the CMH harbor group, with the goal to enhance effectiveness of UN Agencies with harmonized procedures and common services, such as reception, meeting and dining facilities, together with common systems for security, IT and telecommunications. UN City (architects 3XN), scheduled to be opened in March 2013, will house 7 Agencies (UNDP, WHO, UN Women, UNICEF, UNOPS, UNFPA, IOM, and WFP) with up to 2000 staff members. All Agencies have been involved in the planning, with key ICT considerations including:

- Central network and common data center
- HD videoconferencing in 94 meeting rooms
- State-of-the-art crisis center
- Common power supply and ICT storage
- Common printing solutions
- Green ICT

Benefits

- Economy of scale | Innovation Lab | Automated storage and handling
- Global Learning Centre (supply chain management)
- Common services - coordinated work in human resources, procurement, joint tender committees
- Shared support staff, joint information programs, and merged parallel functions

Cote d'Ivoire - Common Telecommunications

In January 2012, the United Nations in Cote d'Ivoire was one of 20 countries to pilot a common network, as recommended by the ICT Network Data Communications Study. It aims to reduce operational costs considerably for more effective and efficient support of programme delivery. It will provide a physical backbone to connect different locations of the 14 agencies (WFP, UNDP, WHO, UNHCR, UNICEF, ILO, UNFPA, UN Women, IOM, FAO, UNIDO, UNOPS/ OCHA, UNAIDS, and IOM), over a a Metropolitan Area Network (MAN).

The system was built by the local ICT team, tested, and piloted, and analysis showed the necessity to deploy a fiber optic infrastructure to connect all 14 UN Agencies in Côte d'Ivoire. The local procurement task force has created an RFQ to implement a redundant fiber optic infrastructure. The project budget will determine percentages to be paid by local agencies and UNDG. At this stage, the project can be considered as on target. The project fits system gaps with minimum standards of operational security (MOSS) of the UNO. At a cost of approximately $800,000, the project included:

Satellite image of UN Offices in Abidjan

- Installation of 5 communications centers, in Abidjan, Bouaké, Man, Toulépleu and Guiglo
- Standardization of VHF/HF Radio system between agencies, NGOs and UNOCI
- Recruitment of 9 radio operators by UNDP in association with UNDSS
- Training of staff in the use of Motorola radios
- Reprogramming of VHF/HF stations –handsets
- Radio programming training scheduled for Feb 2013.
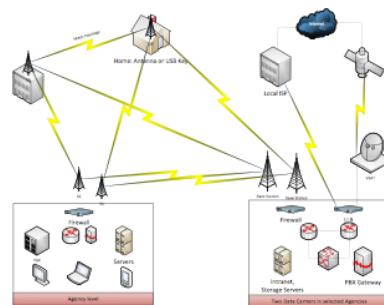
Other *Delivering as One* Stories

Senegal - 'Best of Breed Services'

The Senegal Network Consolidation Project will provide a single 'best of breed' set of ICT infrastructure and services to all UN offices in Dakar, ensuring that all 49 UN offices (35 Agencies and 14 regional offices) have the highest level of connectivity and network services.

The project sponsor is the UN Country Team (UNCT), with Samer Abdel Jaber (WFP), Aramais Alojants (WFP) and Yerim Fall (UNDP) as project managers. Project timeline spans early 2012 through the end of 2013 in three phases:

Senegal Common Network Connectivity Design

1. Consolidated network - Metropolitan Area Network (MAN) network connectivity, redundant Internet connections with data centers at Internet connection sites, and linked PABXs through trunks to provide free calls between Agencies
2. Data backup - Expanded data centers at two main sites with with storage space for data backup
3. Lean, green data centers - Fully redundant, virtualized data centers

UNDG provides capital costs of $120,000 with further funds provided by participating UN Agencies.

See video with Enrique Morales, ICT Manager, UNDP as well as the DR UNICEF web page

Dominican Republic - Next Steps for One ICT

The Dominican Republic Country Team is a working group formed in May 2011. Enrique Morales, ICT Manager, UNDP, emphasized that the key for Delivering as One is the management commitment at the local level. 2012 initiatives included the development of initial stages on implementing a common IP telephony solutions, led by UNICEF and UNDP. Also there were consolidated purchases for satellite services, accessories, and replacements, and a local bid for telecommunications services.

2013 projects include full implementation of the IP-PBX at the UN House, training in IT disasters recovery and in preparation for ICT emergencies, based on the IT Emergency Management Training course from WFP. Other initiatives include Business Continuity Planning training and simulation, strengthening of technical support at the UN House, and strengthening of the ICT Working Group.

Pakistan Update on Success

Success keeps coming in Pakistan, with achievements in 2012 including the One UN common directory, UN Vehicle Management System, UN Hiring Portal, Business case for ONE UN common network, follow-up on One UN common frequency license with Government Authority, and use of common LTAs for procurement of IT equipment. Plans for 2013 include:

Pakistan ONE UN Country Team, 2013

See ICT Working Group Pakistan ONE UN video

- Use of existing LTAs for procurement of equipment – services
- New LTAs for procurement of common IT services (Internet services, Maintenance of equipment services, HP accessories)
- Disaster Recovery sites for UN Agencies in Pakistan (both on common or reciprocal basis, whichever is more suitable)
- Common trainings wherever slots are available to accommodate other UN staff, especially from smaller UN Agencies

Haiti - Common Network for Resiliency

A common networking infrastructure will create opportunities to provide Inter-Agency services available and accessible to all participating UN Agencies, Funds, and Programmes (MINUSTAH, DPKO, WFP, UNDP, IOM, FAO, UN Women, UNAIDS, WHO, UNOPS, OCHA, and UNICEF). This includes common connectivity, telecommuting/mobility, off-site backup and recovery, common Voice over IP (VoIP) solutions, and information sharing. The highest priority is a common data backup and recovery solution. Benefits include savings and resilience, with the meshing links technology embedded in the design of proposed common networking infrastructure to provide an adequate level of resiliency and reliability, availability, simplification, and process enabling.

About the ICT Reference Group

See ICT Reference Group Teamworks site at: https://undp.unteamworks.org/node/209392

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