



Information and Communication Technology Operating Guidelines

Document Control

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1 Overview and Objective

This Information and Communication Technology (ICT) Operating guidelines put forward a guiding principle on minimum operational ICT services required at UN-Habitat, ICT equipment and application standards, and budgeting for ICT Services at Headquarter, Offices away from Headquarters, and Project Offices.

These operating guidelines can serve as a template for regional and branch coordinators to plan, budget, and chart the course of the ICT operations within their offices.

2 Policies and Standards

ICT Policies and standard used across the UN-Habitat follow the overarching UN Secretariat ICT standards and guidelines policies, standards, and guidelines established by UN Secretariat ICT Standards and guidelines. The Division of Management and Operations may add supplementary policies and procedures in response to UN-Habitat specific procedures and functions.

Annex 1. Shows list of ICT policies and guidelines adopted at UN Secretariat and Habitat levels.

3 Standard ICT equipment

- **Computing Devices:** Every staff member or intern would require a workstation to perform his/her work assignment. In some cases, you may also decide that it is necessary to provide a consultant with a workstation. Budgeting, requisitioning, and provisioning of workstations at earlier stage is the responsibility of the respective branches, regional directors, and country projects managers.

ICT equipment are to be requested through UN-Habitat ICT unit at HQ and ICT focal points at regional and project offices three month in advance and where applicable to be included in the ICT yearly procurement plan.

- **Printers:** UN-Habitat and UN Secretariat has adopted the shared Multi-function printing, photocopying, and scanning facility concept to minimize on equipment and maintenance cost. Directors at HQ or regional offices can approve personal printers on exceptional basis.
- **IP Phones (Phone Extensions):** Staff members and consultants would also require an IP telephone extension. Extensions are provided using CISCO IP telephony through physical telephone devices or software phone clients.
- **Mobile Devices:** Designated staffs members who meet the mobile policy requirements are provisioned official mobile devices as per policy procedures. (<http://bit.ly/2kAFE3j>). Any staff

member who owns a smart phone, however, will be able to access mobile services such as outlook, OneDrive , and cisco jabber free of charge.

4 Standard software, applications, and productivity tools

Staff members at UN-Habitat, regardless of their location, requires a minimum set of installed software and access to certain ICT applications and services to deliver in their functions.

4.1 Software

- **Operating System:** The standard operating system used at UN-Habitat offices is Microsoft Windows. Any other operating system would need special approval from ICT focal point before purchase and deployment.
- **Office productivity applications and email:** The standard office productivity application is Microsoft Office 365. This has been provided to the organization through a system contract between UN Secretariat and Microsoft. The package includes among many other various tools licencing and access to Microsoft Word, Excel, PowerPoint , Outlook , OneDrive, Microsoft Teams, Skype for Business, and Yammer . Emails created will use the format of firstname.lastname@un.org and alias will be automatically created for staffs to be reachable at firstname.lastname@unhabitat.org as well.
- **Antivirus:** All desktops and laptops attached to UN-Habitat network should have antivirus software installed to protect them from malware and viruses. It is highly recommended to have server-based installation where the antivirus updates centrally patched.

4.2 ICT Applications and Services

- **UMOJA:** UMOJA is the UN secretariat Enterprise Resource Planning (ERP) systems. Basic system access licence is required for all UN-Habitat to use Managed Self-Services such as leave, education grant, and official travel. More advanced role-based licenses are required for functional users who would need to use the system for financial, project management, procurement, and reporting purposes. The system is web-based and accessible to all staffs that have EIDMS username and password at <https://login.umoja.org>. UMOJA roles are also requested local ICT focal point or by sending email to unhabitat-umojaslo@unhabitat.org .
- **PAAS (Project Accrual and Accountability System)** is the current project Management system used at UN-Habitat. PAAS can assist managers in managing and monitoring the organizations'

projects, their implementation, and their output delivery status. The system is web-based and accessible to all habitat staff. New staff can request their usernames and password by sending email to unhabitat-paas-support@unhabitat.org or through i-need helpdesk system.

- **HABNET** is the organization's intranet and accessible through <http://habnet.unhabitat.org> with no username and password to staff at headquarters and Offices Away from Headquarters. Users working remotely from home would need to enter user name and password which can be provided by Information Management Unit at unhabitat-imu@unhabitat.org
- **Domain Name Request-** In general, branches and units within UN-Habitat are encouraged to use unhabitat.org namespace. When any domain name is registered, the registration must have a contact from UN-Habitat ICT Head listed as one of the technical contacts. The ICT unit will register the domain and provide all services associated with it including payment of the yearly renewal fees.
- **Cloud Hosting Services (IaaS, SaaS):** Hosting services whenever required for websites hosting or other application services are to be requested through and approved by UN-Habitat ICT unit. For security, privacy, and availability purposes, cloud hosting for UN-Habitat applications and services are managed centrally by ICT unit with different providers such as UNON, Microsoft, and Amazon.

5 Additional infrastructure and resource requirement for Self-Supported Offices Away from Headquarters

ICT services for UN-Habitat HQ users and users hosted by UN offices are mostly provided through common services or through special Service Level Agreements. Offices Away from Headquarters and project offices of at least **20** staff members and not hosted by another agency would need to provision and implement the following minimal ICT infrastructure and resources to support their operations.

5.1 ICT Support

Offices Away from Headquarters and project offices are required to provide ICT support services for their staff. Offices can do that either through recruitment of local ICT resource (staff or consultant) or through outsourcing services with an external company. In both cases, internal staff or the external companies must support the above applications and services as part of their terms of reference. In due course, ICT Support procedure will need to be integrated with Unite Service Desk.

5.2 Office Connectivity and IP Telephony

- **Internet Connection:** Offices Away from Headquarters and project offices will need to have a dedicated internet connection with a minimum bandwidth of 10 Mbits depending on number of

staff and location. Current estimated internet capacity required is 1Mbps per staff. Another broadband backup link will also be required as a failover backup link. Internet connection should have at least one fixed public IP address.

- **Border Firewall and VPN Tunnel:** Offices Away from Headquarters and project offices will also need to provision resources and install a border firewall to protect the office ICT resources from external hacking penetration attacks. This firewall will also provide a secure tunnel between the office and UN-Habitat headquarters and Enterprise Application Data centre where UMOJA and other enterprise applications hosted. The recommended models are available on the list standard equipment in the attached annex and on Habnet.
- **Cisco IP Call Manager Express and IP Telephone Handsets:** Offices Away from Headquarters and project offices need to provision resources and install an IP Telephony infrastructure required to communicate with regional offices, UN-Habitat HQ, and UN secretariat.
- **Video Conferencing station:** It is also required that a video conferencing station with multiscreen is provisioned to communicate with UN-Habitat Offices, UN secretariat, and external partners. The recommended models are available on the list standard equipment in the attached annex and on Habnet.

5.3 Server Requirements

- **Authentication and File Share Server:** Each office should have at least one file server acting as Windows Active Directory Domain Controller to provide authentication and file sharing services to staffs.

5.4 Server Room and Data Centres

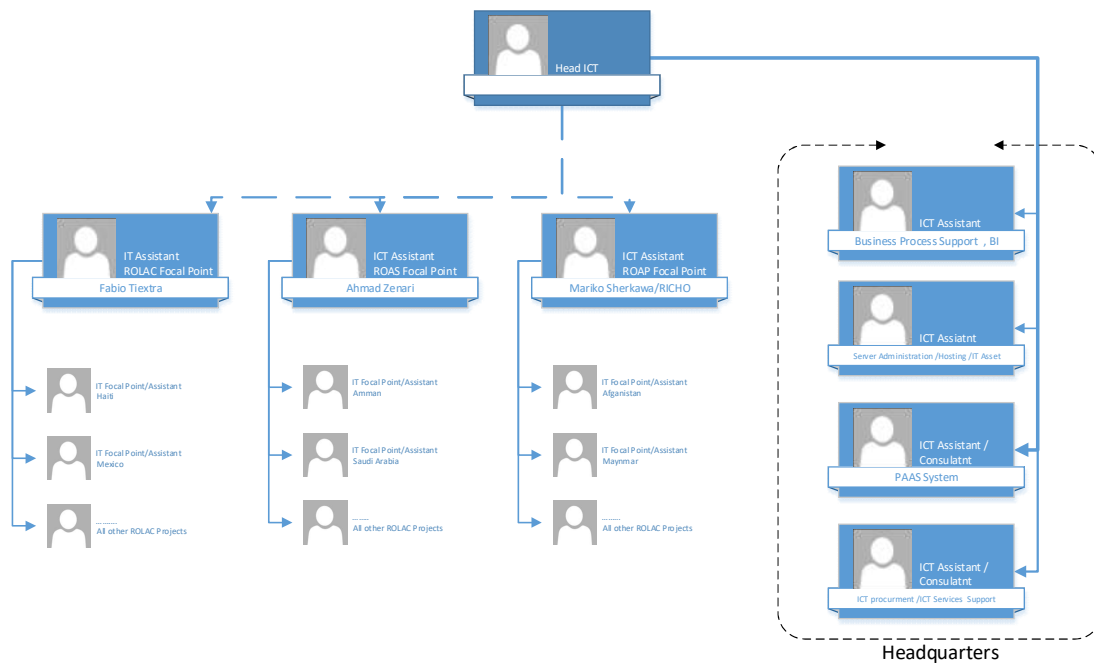
- All production servers need to be physically secured in a locked room/area.
- The room/area need to have 24/7 air-conditioning keeping the room at around 18C temperature.
- Servers need to be raised from floor to avoid water flood and dust.
- Servers need to have two redundant Uninterruptable Power Supply's to provide 24/7 power availability

5.5 LAN Security and Information Access

- A Local Area Network is required in each office. Cabling should be UTP Cat6 cables, all ports connects to a central patch panel, and to a central switch deployed according to a designed hardware standard.
- It is highly recommended that offices install a secure wireless access point connected directly to internet to allow visitors to access internet without connecting to the local area network to avoid virus spread and unauthorized access to data.
- IT assistance need to check all workstations for viruses before connecting them to the office network.

6 ICT Governance

Regional ICT assistants or focal points at regional offices will be required to coordinate the provisioning of ICT services in their region. Project offices in that regional, thus, should escalate their ICT needs through their regional ICT assistance. Regional ICT assistants can then coordinate the provisioning of these services as per approved standards or escalate these requirements to the Head of ICT at Headquarters.



7 Application Development and software Purchases

- All software applications development initiatives within UN-Habitat need to be coordinated by UN-Habitat ICT Unit. The ICT unit, under the UN-Habitat ICT Advisory committee (ICTAC), will be managing application development and approving software development projects within UN-Habitat.
- For IPSAS reporting, all purchased applications need to be recorded when their purchase value is more than \$5000.00. Locally developed applications need to be recorded if their development cost is more than \$100000.

8 Disaster Recovery and Business Continuity (DRBC)

- With the launch of cloud based Office 365 solution, each staff has been granted access to OneDrive storage space 1 TB. All staff are required to store their official working file on their private OneDrive location and not on local disks. This is essential to ensure that their work is regularly backup, available to access anywhere, and is not lost in case of computer machine or hardware failure.
- Country and project offices with less than 20 staff are required to use Microsoft Teams to store and share official office files for the office. Microsoft Teams allows offices to store files on the cloud and make local synchronized copies. This will ensure that offices files are regularly backup, available to access anywhere, and protected with the right access control.
- Offices Away from Headquarters and project offices with more 20 staff who have local file servers and should adopt a backup data routine for official files and records. This backup routine would require infrastructure such as tapes, hard disk libraries, or tape libraries. It is recommended that full backup is done every week and incremental or differential backup is done on daily basis. The back disk or tape must be stored in remote official location offside.
- Given that Offices Away from Headquarters and project offices depends on UN-Habitat HQ and UN Secretariat for their enterprise applications and ICT systems, Internet availability at these locations remain a big risk for business continuity. It is highly recommended that these offices subscribe to backup internet connection with alternate internet provider.
- The possibility of forced relocation need to be accounted for especially in the project office environment. It is recommended that main local applications used by the offices as well as official documents are continuously replicated to off-theatre i.e. safer location outside the duty station, which can be accessed in case of staff forced movement or during disasters.

9 Budgeting for ICT

- Offices Away from Headquarters and project offices need to budget for provisioning and maintenance of minimum ICT requirements as long as the office is in operation.
- Unless otherwise advised by Division of Operation, the depreciation life cycle for IT equipment is 4 years and 7 years for Sub class “Communications Equipment” and “Audio Visual Equipment.”
- Estimates used for budgeting purposes can be extracted from the UN-Secretariat ICT Rate card (<http://bit.ly/2jIUoOa>) for enterprise ICT services and UN Catalogue or market prices for hardware and locally required ICT services.

9.1 Onetime Cost

Tables below suggest a budgeting checklist of ICT requirements for self-supported Offices Away from Headquarters and project offices;

Equipment / Service	Estimated Cost	Qty. Required	Cycle	Remarks
Laptop /PC for Staff/Consultant/Intern	\$1500.00		4 years	Required for each staff and intern (possibly consultants)
Cisco Desktop phone for Staff/Consultant	\$350.00		7 years	Required for each staff. Alternatively, Softphone can be used.
Multi-function Printer /Photocopy	\$3000.00		4 years	Required for self-supported office if renting is not an option
LAN Cisco Switch	\$3500		7 years	Required for self-supported office with more than 12 staff
Network Cabling /Installation/ and configuration				Required for self-supported office – price depend on location
Integrated Service Router/Call Manager + Installation	\$25000.00		7 years	Required for self-supported office with more than 12 staff
HP Server +Licenses	\$7500.00		4 years	Required for self-supported office
HP Backup Device +Software	\$5000.00		4 years	Required for self-supported office –solution dependent
Video Conferencing Equipment	\$ 12000.00		7 years	Required for self-supported office with more than 12 staff

9.2 Service Running Cost

Equipment / Service	Estimated Cost	Qty. Required	Cycle	Remarks
IP Telephony Services – Extension /Softphone	\$206.00		Yearly	Required for each staff /consultant
Email account and office 365 license	\$200.00		Yearly	Required for each staff /consultant
ICT Staff / Support contract – (English required)			Yearly	Required for self-supported office – price depend on location
Rental of Multi-Function Photocopy			Yearly	Required for self-supported office– price depend on location (if not purchased)
Mobile / Communication			Yearly	Required for self-supported office– price depend on location (if not purchased)
Dedicated Internet Connection 10Mbits			Yearly	Required for self-supported office – price depend on location
Office to HQ VPN Link Maintenance	\$1500		Yearly	Required for self-supported office with more than 12 staff
Website Hosting with maintenance	\$5000.00		Yearly	Optional
Domain Name Registration	\$100.00		Yearly	Optional

I. Annex 1: UN Secretariat ICT polices and guidelines

Acceptable Use

Use of Information and Communication Technology Resources and Data, [ST/SGB/2004/15](#)
Mobile Communication Devices for Official Work, [ST/IC/2005/11](#)
United Nations Guidelines on the Use of Internal Social Media, [AU.03.GUI](#)
Limitation of automatic forwarding of e-mail messages, [ST/IC/2014/18](#)
Internet Filter Upgrade, [ST/IC/2014/27](#)

Asset Management

Disposal of Computer Equipment at United Nations Headquarters, [ST/AI/2001/4](#)
Termination of Support for Obsolete Computing Equipment, [ST/IC/2006/50](#)

Information Management

United Nations Internet publishing, [ST/AI/2001/5](#)
Record-keeping and the management of United Nations archives, [ST/SGB/2007/5](#)
Information Sensitivity, Classification and Handling, [ST/SGB/2007/6](#)
Retention Schedule for ICT Records, [INM.01.PROC](#)

Security

Information Sensitivity, Classification and Handling, [ST/SGB/2007/6](#)
Access Control for the United Nations Secretariat, [SEC.02.PROC](#)
Minimum Security Requirements for Public Web Sites of the UN, [SEC.03.PROC](#)
Protection of UN Assets from Malicious Software, [SEC.04.PROC](#)
Intrusion Detection, [SEC.05.PROC](#)
Remote Access, [SEC.06.PROC](#)
System Monitoring and Log Management, [SEC.07.PROC](#)
Disaster Recovery Planning, [SEC.08.PROC](#)
How to Choose a Strong Password and Keep It Secure, [Password Guideline](#)
Use of Cloud Computing in the UN System, [Cloud Computing Guideline](#)