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Report of the Secretary-General

Part II. Administrative and statutory matters

(d) Information and communication technologies at the Secretariat

I. Introduction

1. The ICT Programme is a key support area within the UNWTO in the application of technology to facilitate the performance of its core work functions and one of the primary communication channels with internal and external stakeholders. This document provides a status report on the implementation of ICT programme of work and an outlook of the plans ahead.
2. ICT delivers services to more than 200 internal customers as well as Member States. ICT core functions include an infrastructure of 25 servers, more than 250 networked computers, the management of the internal collaborative and information platform (INTRANET/EXTRANET), development and maintenance of the information systems and the integration of standard technological applications as well as personnel support and systems training. ICT also manages the organizational access and maintenance of personal computers, portable equipment including computers and peripherals as well as tablets and other portable devices.
3. Progress and continual technological changes, increasing data security and system risk, and higher demands for reliability in the delivery of its services makes the management of this area extremely challenging, in particular with a very limited staff base.
4. In accordance with CE/DEC/13(XCIV) the Executive Council welcomed the Secretary-General's initiative of keeping that body regularly informed on the ICT PoW strategy and developments. This report is set to fulfil these aims by providing a report for 2013 and an outline of current/future ICT activities.
5. As was previously mentioned in the report of the 96th Executive Council, the Secretary-General approved the ICT proposal to conduct a second comprehensive audit in 2014. This is a continuation of the audit made in 2009. The outcome of this audit, which was conducted by Microsoft and whose executive summary with findings is attached, is expected to provide clear direction in the development of ICT's strategic ICT plan through 2017.



6. It should be noted that this report does not address web-related concerns, since these fall within a different programme, reported to the Executive Council separately.

II. Programme of work completed to date

7. Since the report provided at the 96th Executive Council (July 2013), the following specific projects have been completed as of the date of this report, with the following results

AREA	ACTIVITY/PROJECT	RESULTS	DATE COMPLETED
Application Platform/ Custom Development – Database Platform	Implementation of IPSAS ICT requirements in collaboration with IPSAS team	<ul style="list-style-type: none"> A new finance system information based on IPSAS methodology – Phase I Adapted of Data Bases & Information systems affected by IPSAS regulations 	<ul style="list-style-type: none"> Completed 2013 Completed 2014 / Ongoing
Business Productivity Infrastructure/ Unified Communications	Telephone switchboard project	<ul style="list-style-type: none"> Installed a new telephone switchboard system with more than 200 telephone devices Full implementation of new IP technologies to unified communications and reduced costs Conducted a competitive bidding 	<ul style="list-style-type: none"> Completed 2014 Completed 2014 Completed 2013
Business Productivity Infrastructure/ Unified Communications	Telephony Services & Mobility	<ul style="list-style-type: none"> Acquired new mobile devices, updated the old ones and standardized devices Implemented of security procedures Increased the interoperability between several tools to improve the user environment Improved videoconferencing service Increased the number of communications lines to ensure the continuity of services Performed a market analysis and changed telephone service provider 	<ul style="list-style-type: none"> Completed 2013 Ongoing Completed 2013 Completed 2014 / Ongoing Completed 2013 Completed 2013
Core Infrastructure / Device Deployment & Management	Telephony Services & mobility	<ul style="list-style-type: none"> Network improvements in security, devices management and quality of services Use of best technology practices 	<ul style="list-style-type: none"> Completed 2014 Ongoing
Core Infrastructure / IT Process & Compliance	Help Desk Platform	<ul style="list-style-type: none"> Implemented a centralized request service to maximize the use of ICT resources to the Organization. – Phase I. Improved security, productivity and reduced IT overhead 	<ul style="list-style-type: none"> Completed 2014 / Ongoing
Core Infrastructure / Data centre Management & Virtualization	ICT Consolidation & services	<ul style="list-style-type: none"> Improved maintenance procedures, expansion and standardization Improved core server availability average (99.998%) Conducted performance optimization, operation and management of the virtualization platform 	<ul style="list-style-type: none"> Completed 2013 / Ongoing Completed 2013 / Ongoing Completed 2013 / Ongoing
Core Infrastructure / Datacenter	Business continuity planning	<ul style="list-style-type: none"> Conducted a disaster recovery drill (2 exercises) Updated contingency plan based on 	<ul style="list-style-type: none"> Completed 2013-2014

Management		<ul style="list-style-type: none"> system recovery drill recommendations Expanded the infrastructure that supports the backup services. Full replication of main servers on different location than DPC 	<ul style="list-style-type: none"> Completed 2013-2014 Completed 2014
Business Productivity / Content Creation & Management	Collaborative Platform INTRANET/EXTRANET platform	<ul style="list-style-type: none"> Improved and extended structures Provided a system of internal controls to allow for information sharing and author control (work flows) over content 	<ul style="list-style-type: none"> Completed 2014 / Ongoing Completed 2014 / Ongoing
Core Infrastructure / IT Process & Compliance	Implementation of IT Service Management best practices	<ul style="list-style-type: none"> Adopted of some ITIL published guidelines. ITIL provides a cohesive set of best practices, drawn from international public and private sectors and are in compliance with UN agencies standards 	<ul style="list-style-type: none"> Ongoing
Core Infrastructure / IT Process & Compliance	Organizational approval of document standards, document procedures to establish policies and guidelines	<ul style="list-style-type: none"> Approved existing drafts for document standards, document procedures, and proposed policies and guidelines Creation of new procedures of ICT internal controls 	<ul style="list-style-type: none"> Ongoing. Target completion 2014 Target completion 2014
ICT Priorities	ICT Training annual plan 2013	<ul style="list-style-type: none"> Continued to enhance technical competency of ICT staff through external training and certification 	<ul style="list-style-type: none"> Completed 2013

III. Programme of work in progress (2014-2015)

8. As the report provided at the 96th Executive Council (July 2013), the following specific projects are in progress. Expected results are outlined below, and take into account the current ICT audit conducted by Microsoft and its recommendations.

Area	ACTIVITY/PROJECT	EXPECTED RESULTS	EXPECTED COMPLETION DATE
Application Platform/ Information Systems	Implementation of IPSAS ICT requirements in collaboration with IPSAS team	<ul style="list-style-type: none"> Two new modules of finance system information (ISIS) based on IPSAS methodology – Phase II Maintenance of ISIS – Phase I Databases & information systems affected by IPSAS regulations adapted 	<ul style="list-style-type: none"> Target completion 2015 Ongoing Ongoing
Core Infrastructure/ IT Services & Compliance	Printing services project	<ul style="list-style-type: none"> Consolidation of printing services Provide management control, accessibility and control over confidentiality of printed material Reduce printing costs Support greening policies Update printing equipment to ensure compatibility with implemented software Establish an internal workgroup to establish current UNWTO printing policies and procedures Conduct a competitive bidding process 	<ul style="list-style-type: none"> Target completion 2014
Core Infrastructure / Data centre Management &	ICT Consolidation & services	<ul style="list-style-type: none"> Improve maintenance procedures, expansion and standardization Maintain core server availability average 	<ul style="list-style-type: none"> Ongoing Ongoing

Virtualization		(99.998%) <ul style="list-style-type: none"> Optimize performance, operation and management of the virtualization platform 	<ul style="list-style-type: none"> Ongoing
Business Productivity Infrastructure / Enterprise Mobility	Mobility Services	<ul style="list-style-type: none"> Implement a new platform for management of remote control of mobile devices (MDM) Improve security procedures Define & Implement data protection policies BYOD implementation to improve the user experience at work -Phase I BYOD implementation to improve the user experience at work –Phase II 	<ul style="list-style-type: none"> Target completion 2014 Target completion 2014 Target completion 2014 Target completion 2014 Target completion 2015
Application Platform / BI & Analytics Platform	Enterprise Data Model / Organization-wide Data Consolidation	<ul style="list-style-type: none"> Create an organization-wide data model for all UNWTO's managed data. Improve data classification, indexing, and publishing. Improve data protection (encryption, rights management, etc.) Define policies & procedures to data management Design auditing strategies for the organizational data 	<ul style="list-style-type: none"> Target completion 2015 Target completion 2015 - 2016 Target completion 2015 Target completion 2015 - 2016 Target completion 2016
Core Infrastructure / Business continuity	Business continuity planning	<ul style="list-style-type: none"> Conduct a disaster recovery drill (3 exercises) Updated contingency plan based on system recovery drill recommendations 	<ul style="list-style-type: none"> Completed 2014 Completed 2015
Core Infrastructure / Device deployment & Management	Desktop Virtualization project	<ul style="list-style-type: none"> Implement a client platform deployment that puts the user in the centre as the subject to manage, instead of the device Define policies and procedures to implement client platform management, including operating system deployment, software distribution, application virtualization, user state, etc. Conduct a competitive bidding process 	<ul style="list-style-type: none"> Target completion 2015 Target completion 2015 Target completion 2015
Business Productivity / Collaboration	Collaborative Platform INTRANET/ EXTRANET Platform	<ul style="list-style-type: none"> Improve and extend structures Provide a system of internal controls to allow for information sharing and author control (work flows) over content Develop a knowledge management platform, self-service and reporting Implement search facilities Develop of new services Conduct a competitive bidding process if necessary 	<ul style="list-style-type: none"> Target completion 2014 / Ongoing Target completion 2015 / Ongoing Target completion 2015 / Ongoing Target completion 2015 Target completion 2015 Target completion 2015
Business Productivity / Collaboration	Digital signature project	<ul style="list-style-type: none"> Encourage the use of digital signature to support greening policies Streamline administrative processes Reduce costs 	<ul style="list-style-type: none"> Target completion 2015
Core	ICT Service	<ul style="list-style-type: none"> Review of the ICT services policies and 	<ul style="list-style-type: none"> Target completion

Infrastructure / IT Process & Compliance	Catalogue	<ul style="list-style-type: none"> • obtain Administration approval • Implement services policies organization-wide • Improve ICT's Service Catalogue with the definition of clear Service Level Agreements and Operation Level Agreements • Improve security monitoring and problem & incidents management • Design and define change & configuration management • Create self-service capabilities for users 	<ul style="list-style-type: none"> • 2015 • Target completion 2015 / Ongoing • Target completion 2015 • Target completion 2015 • Target completion 2014 / Ongoing • Target completion 2015 • Target completion 2015
ICT priorities	ICT Training annual plan 2014 -2015	<ul style="list-style-type: none"> • Continue to enhance technical competency of ICT staff through external training and certification 	<ul style="list-style-type: none"> • Ongoing

IV. ICT Strategy for 2016-2017

9. The attached audit report goes in to greater detail on all the capabilities and workloads of the IO model, to support the key findings. It is important to highlight that many of these findings go beyond the sole responsibility of ICT and decisions need to be made at the Senior Management Team level to take actions on some of these findings.

10. As evidenced and verified through the Microsoft audit results, all prior findings reported to the 94th Executive Council have been addressed. Significant progress has also been achieved in many of the capabilities and workloads of the Core and the Business Productivity Infrastructures.

11. The Application Platform is the area where lesser progress has been made since the previous audit, and although a new financial information system has been developed based on formal development methodologies, many surrounding applications still need to be reconverted and an organization-wide application development model needs to be defined.

12. UNWTO should look into promoting a project management culture around all the activities, initiatives and projects it undertakes. This will help in the tracking of project progress, and overall management of resources.

13. The current Microsoft audit recommends a review of ICT's infrastructure and the justification of having the Public Web managed by different entities. The recommendation is to move and consolidate the infrastructure governance under ICT as well as the future development needs of this infrastructure, with content publishing responsibility remaining with the corporate communications programme.

14. The ICT Programme believes that the main core and business productivity infrastructure plans are close to completion with the projects planned to 2014-2015 and the focus will need to change urgently to create an Organization-wide data model for all UNWTO's managed data and application development.

15. The formulation of ICT's programme of work for 2016-2017 is based around the key findings of Microsoft's audit and recommendations. The goal proposals can be summarized as follows:

AREA	KEY FINDING	GOAL	TIMING
Application Platform	No Data Culture	<p>Implement an organization-wide data model for all UNWTO's managed data. (Enterprise Data Model) to add value to the organization as will make users more "aware" of the data they can use and how to use it.</p> <p>To:</p> <ul style="list-style-type: none"> • Ensure a single consistent version of enterprise data for sharing throughout an organization • Minimized redundancy, disparity and errors • Ensure data quality, follow organizational standards for varying internal and external data components • Ensure the scalability, flexibility to meet different enterprise requirements. • Ensure data access control 	<ul style="list-style-type: none"> • 2015-2016
Application Platform	No Business Intelligence or Big Data Culture	<p>Implement a reporting platform and infrastructure to:</p> <ul style="list-style-type: none"> • Provide users with tools and templates that can integrate data from various sources for self-service analysis such as reports, graphs, and dashboards • Provide ICT staff with the capacity to monitor and govern the access of all connected data • Provide users with an accessible business collaboration intelligence platform for analysing, searching, and exploring data from a wide variety of data sources, including unstructured data sources <p>Deploy a central data warehouse solution that can extract data from multiple operational or departmental databases and external sources using transactional systems and present multidimensional views of data to a variety of front end BI tools.</p> <p>Design and deploy a BI infrastructure that simplifies the IT burden with a single central location to build, maintain, and manage corporate data sources such as a data warehouse or data marts, data models, data schemas, and data access while providing a variety of designers, tools, and wizards for self-service reporting and analysis.</p> <p>Implement a data management solution to store, manage, and analyse structured and unstructured data at rest or in motion. Set up a distributed storage system and compute clusters to integrate and analyse data from any source residing on-premises or in the cloud in real time instead of simply relying on the batch processing.</p>	<ul style="list-style-type: none"> • 2016-2017
Application Platform	No Custom Development Framework and Lifecycle	<p>Implement an organization wide application infrastructure and development framework to work towards creating a more cohesive application environment, providing maximum value to the business.</p>	<ul style="list-style-type: none"> • 2016 – 2017
Business Productivity Infrastructure	Lack of Project Management & Portfolio Planning Culture	<p>Promote a project management culture around all the activities, initiatives and projects it undertakes.</p> <p>Implement an integrated solution, which is flexible and web-based approach to project management to:</p> <ul style="list-style-type: none"> • automatically synchronize project plans and publish project plans to task lists. • To performs predictive analysis with the flexibility of setting multiple baselines to measure actual versus 	<ul style="list-style-type: none"> • 2016-2017

		<p>forecasted progress</p> <ul style="list-style-type: none"> To calculate project durations and dates, and plan, manage, and track projects, availability, utilization, and work progress through timesheets 	
Business Productivity Infrastructure	No Social Computing Culture	<p>Promote social computing behaviour inside UNWTO, which will help identify subject matter experts, while promoting better interactions between employees. This will impact in innovation and help retain knowledge inside the Organization.</p> <p>Upgrade a collaboration platform infrastructure to the latest version and deploy to:</p> <ul style="list-style-type: none"> provide discussion forums to help users exchange information and discuss various topics while maintaining history and version through team workspaces, blogs, wikis, and document libraries within team provide a publishing experience for individual users or teams to find people based on personal profile attributes 	<ul style="list-style-type: none"> 2016 - 2017
Business Productivity Infrastructure	Moving Commodity based IT to cloud based solutions	UNWTO should conduct a cost benefit analysis on commoditizing IT services to Hybrid Cloud solutions.	<ul style="list-style-type: none"> 2016 - 2017
Business Productivity Infrastructure	Lack of true Enterprise Mobility	<p>Improve Remote Access Services and define a clear “Bring Your Own Device” strategy that will enable the majority of the Organization to be able to be more productive. The project to cover this goal is part of the POW 2014-2015, See Mobility services.</p>	<ul style="list-style-type: none"> 2014 - 2015
Core Infrastructure	No Cloud culture	UNWTO needs to implement cloud culture or cloud awareness in terms of private, public and/or hybrid cloud. UNWTO should conduct a cost benefit analysis of this strategy.	<ul style="list-style-type: none"> 2015 - 2017
Core Infrastructure	Architectural design based on traditional architecture principles	The new cloud world has created newer architecture principles that UNWTO needs to be aware of with regards to Enterprise Architecture, and which will need to be reflected on and decide on whether a strategy change is in order.	
Core Infrastructure	Need to change from a device mindset to user mindset	<p>UNWTO must change its focus to offer a modern approach to client platform deployment puts the user in the centre as the subject to manage, instead of the device. Project to cover this goal is part of the POW 2014-2015, see Desktop Virtualization project</p>	<ul style="list-style-type: none"> 2014 - 2015
Core Infrastructure	Need improvements on IT Processes & Compliance	<p>Improve ICT's Services Catalogue with a clear definition of Service Level Agreements and Operation Level Agreements</p> <p>Improve security monitoring, problem, change & configuration management.</p> <p>Implement self-service capabilities for users.</p> <p>Projects to cover these goals are part of the PoW 2014-2015, see Core Infrastructure.</p>	<ul style="list-style-type: none"> 2014 - 2015

16. In a rapidly evolving technology environment a major set of issues which must also be addressed revolves around the security framework to preserve the integrity of the UNWTO's information assets and systems, while it expands to align to United Nations mandates and application of best practices.

17. With changes in the UNWTO's business structure and emerging technologies, ICT continues to adapt its role and structure in order to maximize service delivery and ensure user satisfaction.

18. ICT will have to regularly adjust its PoW to address these issues and provide the appropriate framework for continual change, compliance and planning to result in a revised two-year roadmap that will be presented at the next Executive Council. However challenging these assignments, strict resource control has to be observed, being one of the risks to address for timely completion of the programme of work.

V. Actions to be taken by the Executive Council

19. The Executive Council is requested:

- (a) To note the progress in the technology infrastructure already implemented by the Organization while acknowledging that a rapidly evolving technology environment and budgetary constraints represent a set of unique challenges in the near future; and
- (b) To take note of the audit reports on the status of ICT activities in this document.

Annex I. Executive Summary of the Microsoft Audit on Infrastructure Optimization Assessment on UNWTO

Executive Summary

As part of the Partnership between Microsoft and the United Nations World Tourism Organization (UNWTO), on June 30th and July 1st 2009, Microsoft conducted an Infrastructure Optimization Assessment on UNWTO's Information & Communication Technology (ICT) area.

As part of the continued evolution of UNWTO's IT assets, ICT requested again that Microsoft ran a new assessment to compare progress against the maturity levels of 2009, focusing again on all three IO Models:

- Core Infrastructure Optimization (Core IO)
- Business Productivity Infrastructure Optimization (BP IO)
- Application Platform Optimization (APO)

This analysis, conducted between the days of May 7th and June 27th, also identifies, jointly in consensus with ICT, the future desired state of all capabilities and workloads of each IO model. This will help UNWTO in defining the future initiatives it must work on in order to reach a state where it is comparable to the desired maturity levels defined.

The results of the IO assessment look forward to helping UNWTO in:

- Aligning IT strategies to Business strategies.
- Identifying and structuring key initiatives for UNWTO's maturity evolution moving forward.
- Guarantee that the maximum benefits on UNWTO's technologies investment are being realized.
- Guarantee that a common approach to initiative development is followed in order to avoid effort duplication and that any solution provided is based on the knowledge of all the initiatives taking place and the strategy defined.
- Guarantee that the future development, deployment and operation of the solutions respond correctly UNWTO's business needs and its user needs.

Additionally, a special mention has to be made regarding the IO model itself, which has evolved from the previous assessment due to the appearance of the new megatrends in the industry like Cloud, Social Computing, Enterprise Mobility, etc. which didn't exist or weren't as relevant as today. This report also intends to help UNWTO understand their current state on these new trends and provide guidance on how to move forward in their adoption.

This report goes into greater detail on all the capabilities and workloads of the IO Model, to support the key findings below. It is important to highlight that **many of these findings go beyond the sole responsibility of ICT and decisions need to be made at the Senior Management Team level to take action** on some of these findings.

Key Findings:

General Improvement in Core IO and BPIO: There has been good improvement from the previous audit in 2009 on many of the capabilities and workloads of the Core IO Model and the Business Productivity IO Model as it is shown in the report. The Application Platform is still very much in the same Basic state as in the previous audit, and although a new financial information system has been developed based on formal development methodologies, still many surrounding applications need to be reconverted and an organization-wide application development model needs to be defined.

In the area of **Core Infrastructure**, the main findings are:

Virtualization. UNWTO has clearly embraced virtualization of all its workloads and implemented to an acceptable degree of monitoring, management and reporting of deployed systems. The Public Web is completely virtualized as well. This has helped UNWTO in consolidating into fewer physical servers the server footprint that existed in 2009, which in terms have help provide better availability and disaster recovery to the overall infrastructure.

Public Web Assets totally decoupled from ICT governance. The fact that ICT's infrastructure and the Public Web are deployed and managed by different entities (the former by ICT and the latter by an external provider not linked with ICT), makes it harder to maintain a total control of the server infrastructure regarding compliance,

monitoring and reporting to upper management on the health status of services, as well as additional solution, administration and support costs. Moreover, it represents a risk to UNWTO as these assets are not governed at all by the organization's policies. The recommendation is to move and consolidate the infrastructure governance under ICT as well as the future development needs of this infrastructure, while the content publishing responsibility remaining with the Corporate Communications department. This means that all Public Web services would become ICT services and the Corporate Communications department would be its main customer.

Additional findings are a direct consequence or have a direct relationship with the previous finding:

Myriad of solutions for same purposes (no standardization) and use of commercial open source software. It comes to our attention that UNWTO's has chosen many different virtualization, monitoring & management solutions, with apparently no interoperability / communications between them, based on commercial open source and/or community software, with no formal roadmap regarding their evolution and where additional services need to be purchased to get access to newer versions or support. This is aggravated by the fact that different solutions are in place to do the same thing whether on-premises or on the Public Web infrastructure, adding up to admin & support costs, as well as licensing costs. This represents both a risk and a high cost component as it requires a lot of effort to build a consolidated view of the platform. A TCO study around the true cost of these solutions (HW, SW, Administration, Support, etc.) against a centralized and unified platform should be done in order to validate whether a change of strategy is necessary. UNWTO should definitely work in consolidating and standardizing its Internal and Public Web assets.

Identity consolidation, synchronization and federation. UNWTO should look into consolidating identities and using SSO for all of their IT assets be it internal or Public. This will require defining a directory synchronization and federation strategy between them in order to provide a true identity solution for cloud based services.

No Cloud culture. Although virtualization has been embraced at the core of the IT organization, there is no cloud culture or cloud awareness in terms of private, public and/or hybrid cloud, which is an area of opportunity UNWTO needs to move towards for many additional benefits to be gained in terms of flexibility, elasticity, scalability, disaster recovery, lower TCO, while at the same time enabling the organization to determine the real costs per UNWTO's department, which could eventually be used to create a chargeback model if desired.

Architecture design based on traditional architecture principles. The new cloud world has created newer architecture principles that UNWTO needs to be aware of with regards to Enterprise Architecture (for instance, multiple cheap storage pools vs. traditional SAN based storage), and which will need to be reflected on and decide on whether a strategy change is in order. These include changes in the following architectural areas:

Infrastructure Architecture (Server, Network, Storage, Clients, etc.)

Information Architecture (Collaboration, Social, Search, etc.)

Solution Architecture (Application Infrastructure and Framework, Development Lifecycle, etc.)

Device mindset to User mindset. UNWTO has made important efforts in keeping its client platform updated, focusing principally on the device. A modern approach to client platform deployment puts the user in the center as the subject to manage, instead of the device. This impacts many traditional strategies around client platform management, including operating system deployment, software distribution, application virtualization, user state, roaming, etc. that need to be looked into by UNWTO. (Refer to the Persona Analysis suggestion mentioned in the "What's Next" chapter).

IT Processes & Compliance. Although work has been done in order to define ICT's Service Catalog and several policies have been put in place, there is still much work to do in this area, starting with the definition of clear Service Level Agreements and Operation Level Agreements, better Security monitoring, Problem, Change & Configuration Management and finally with Self-Service capabilities for users.

In the area of **Business Productivity Infrastructure**, the main findings are:

Lack of true Enterprise Mobility. In today's cloud and devices world, it is uncommon for employees to request access to corporate assets from their devices to be able to keep up to speed with work at any time and from anywhere they are. UNWTO needs to improve its Remote Access Services and define a clear "Bring Your Own Device" strategy that will enable the majority of the organization (not only selected users) to be able to be more productive. Some work is under way on this area, but additional improvements are required to achieve this vision.

Moving Commodity based IT to Cloud based solutions. A lot of infrastructure has been deployed over the years which has been deemed Commodity IT by the industry for some time now. UNWTO should look into the benefits (TCO comparison) of Commoditizing IT Services to Hybrid Cloud solutions which can be operated by less that might be costing to have those services still on-premises. This applies mainly to Business Productivity

Infrastructure solutions such as Messaging, Unified Communications, Collaboration & Content Management. If this is not the case, UNWTO should still look into upgrading its Business Productivity Infrastructure to the latest versions as many new trends and technologies have been incorporated. Some work is already under way in the latter, as recent projects being implemented go to towards achieving this (i.e. SharePoint 2013 upgrade)

No Social Computing Culture. In today's world, the ability to share information in a "social manner" has crawled beyond the public social networks into the enterprise. Creating a true social culture in UNWTO will bring benefits in user productivity, innovation management, knowledge retention and subject matter experts identification.

Project Management & Portfolio Planning: A lack of formal project management and portfolio planning has been identified. UNWTO should look promoting a project management culture in the organization around all the activities, initiatives and projects it undertakes. This will help in a much better resource management and project following for all the organization. Additionally, UNWTO should look into implementing a project portfolio management infrastructure, once a project management culture has been established, as this will help define priorities within the organization, based on UNWTO's resources and returned value delivered by the projects.

In the area of **Application Platform**, the main findings are:

No Data Culture. This area represents one of the biggest areas of risk and improvement for UNWTO. There isn't a comprehensive understanding of all the data existing in the organization. No organization-wide data model exists for all UNWTO's managed data. UNWTO needs to improve its *data classification, indexing, publishing, protection (encryption, rights management) and auditing* strategies for the organizational data. This will add value to the organization as will make users more "aware" of the data they can use and how to use it.

No Business Intelligence or Big Data culture: In today's competitive landscape, it is of utmost importance to be able to gather & process data almost in real time in order to take informed decisions on company strategy. UNWTO should look into creating a Business Intelligence platform and a Big Data platform that will take all the organization information as well as unstructured information found in the web to provide business analysts with better information on which to build UNWTO's publications and any other information assets it might need to build.

No Custom Development Framework and Lifecycle. UNWTO's current Application Infrastructure is based on siloed/monolithic applications with no interaction or communications between them. UNWTO should look into creating an organization wide Application Infrastructure & Development framework to work towards creating a more cohesive application environment, providing maximum value to the business.

21 July 2014

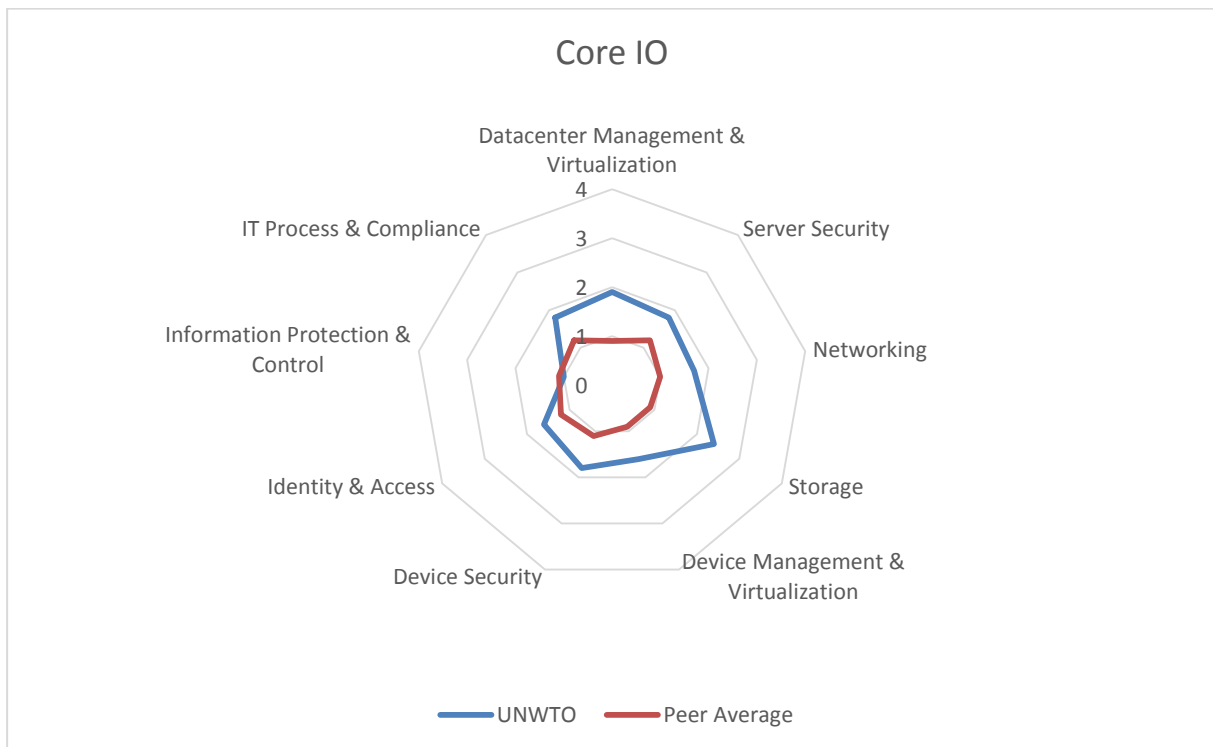
Following is an extract of the report entitled "United Nations World Tourism Organization Infrastructure Optimization Assessment" carried out by Microsoft Auditors whose original text is available in: <http://lmd.unwto.org/event/executive-council-ninety-ninth-session>

Core Infrastructure Optimization Profiles for UNWTO

Current Profile for ICT (AS IS)

Capabilities	Workloads	Workload Elements				Total
		Basic	Standardized	Rationalized	Dynamic	
Datacenter Management & Virtualization	Datacenter Management & Virtualization	2	9	1		12
	Server Security	1	4			5
	Networking	3	2	1		6
	Storage	1	3	4		8
Device Deployment & Management	Device Management & Virtualization	6	10			16
	Device Security	1	3			4
Identity & Security Services	Identity & Access	2	3			5
	Information Protection & Control	5				5
IT Process & Compliance	IT Process & Compliance	4	11	1		16
Total		25	45	7		77

Current Maturity Peer Review Comparison (ICT)

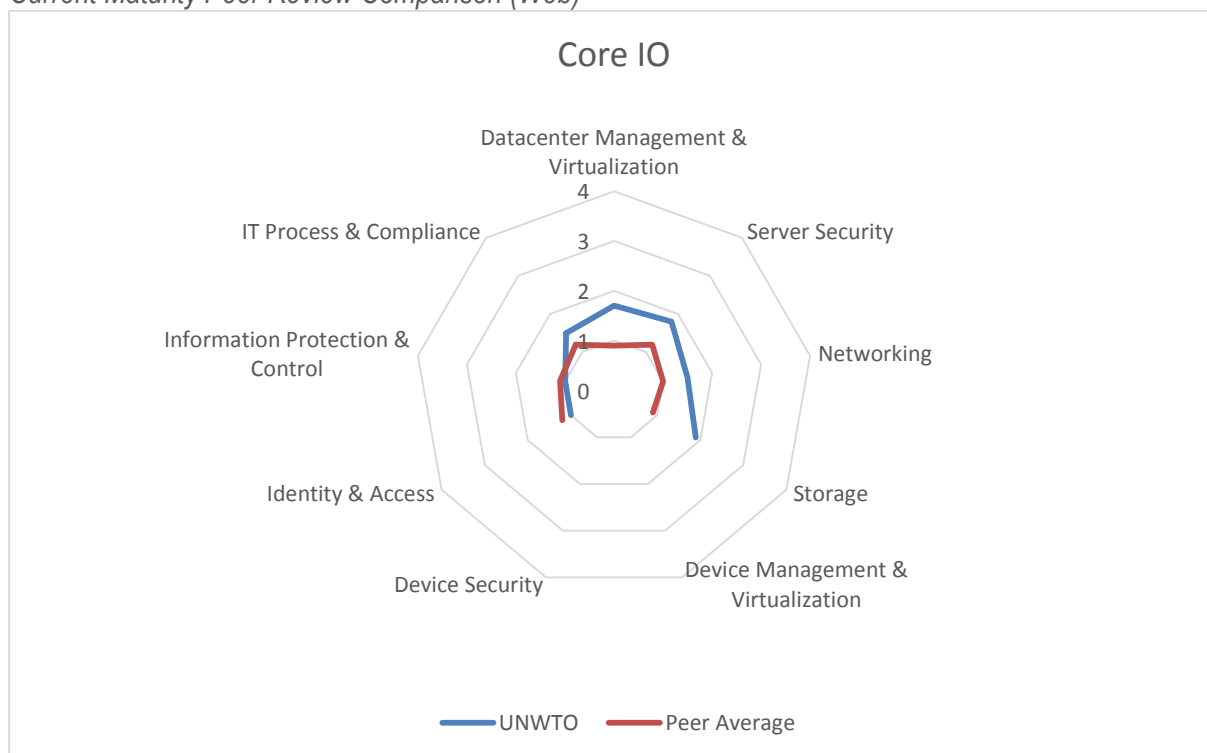


Comparison of current infrastructure optimization versus peer average performers in Nonprofit, from EMEA. The peer data is collected and aggregated from all participants using this tool. This data is maintained according to privacy policies and only presented in aggregate form: Basic - 1, Standardized - 2, Rationalized - 3, Dynamic - 4

Current Profile for Public Web (AS IS)

Capabilities	Workloads	Workload Elements				Total
		Basic	Standardized	Rationalized	Dynamic	
Datacenter Management & Virtualization	Datacenter Management & Virtualization	4	8			12
	Server Security	1	4			5
	Networking	3	3			6
	Storage	2	5	1		8
Device Deployment & Management	Device Management & Virtualization	N/A	N/A	N/A	N/A	N/A
	Device Security	N/A	N/A	N/A	N/A	N/A
Identity & Security Services	Identity & Access	5				5
	Information Protection & Control	5				5
IT Process & Compliance	IT Process & Compliance	8	8			16
Total		28	28	1		57

Current Maturity Peer Review Comparison (Web)



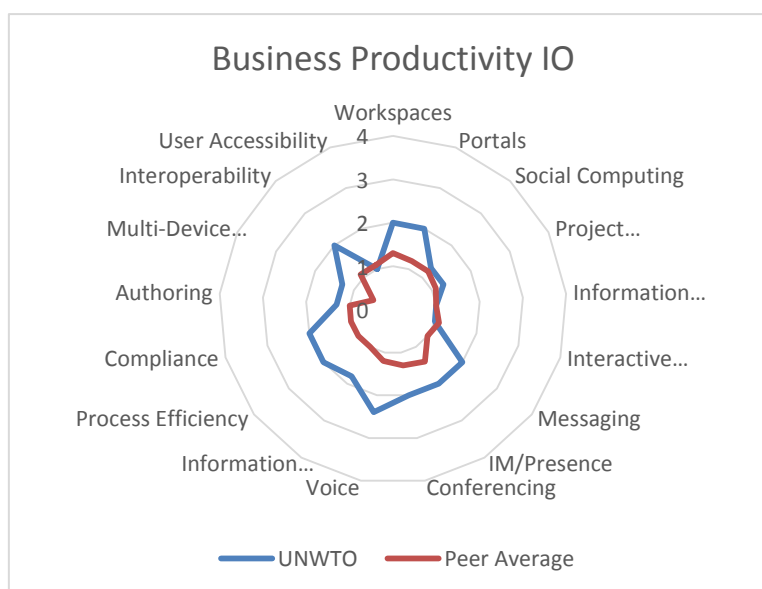
Comparison of current infrastructure optimization versus peer average performers in Nonprofit, from EMEA. The peer data is collected and aggregated from all participants using this tool. This data is maintained according to privacy policies and only presented in aggregate form: Basic - 1, Standardized - 2, Rationalized - 3, Dynamic - 4

Business Productivity Infrastructure Optimization Profiles for UNWTO

Current Profile for ICT (AS IS)

Capabilities	Workloads	Workload Elements				Total
		Basic	Standardized	Rationalized	Dynamic	
Collaboration	Workspaces	1	1	1		3
	Portals	1	2	1		4
	Social Computing	2	1			3
	Project Management	2	1			3
	Information Access	3				3
	Interactive Experience & Navigation	1				1
Messaging	Messaging	2	2	2		6
Unified Communications	IM/Presence		3			3
	Conferencing		3			3
	Voice		3	2		5
Content Creation & Management	Information Management	1	3			4
	Process Efficiency		3			3
	Compliance		2			2
	Authoring	2	1			3
	Multi-Device Support	2	1			3
	Interoperability		1			1
	User Accessibility	2				2
Total		19	27	6		52

Current Maturity Peer Review Comparison (ICT)

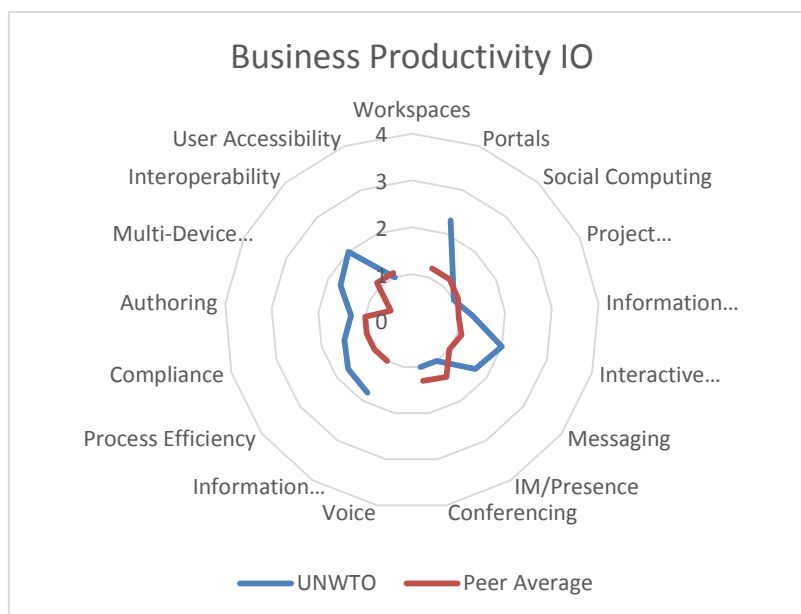


Comparison of current infrastructure optimization versus peer average performers in Nonprofit, from EMEA. The peer data is collected and aggregated from all participants using this tool. This data is maintained according to privacy policies and only presented in aggregate form:
Basic - 1, Standardized - 2, Rationalized - 3, Dynamic - 4

Current Profile for Public Web (AS IS)

Capabilities	Workloads	Workload Elements				Total
		Basic	Standardized	Rationalized	Dynamic	
Collaboration	Workspaces	N/A	N/A	N/A	N/A	N/A
	Portals	1	1	2		4
	Social Computing	2	1			3
	Project Management	3				3
	Information Access	2	1			3
	Interactive Experience & Navigation		1			1
Messaging	Messaging	2		1		3
Unified Communications	IM/Presence	3				3
	Conferencing	3				3
	Voice	N/A	N/A	N/A	N/A	N/A
Content Creation & Management	Information Management	2	1	1		4
	Process Efficiency	1	2			3
	Compliance	1	1			2
	Authoring	2	1			3
	Multi-Device Support	2		1		3
	Interoperability		1			1
	User Accessibility	2				2
Total		26	10	5		41

Current Maturity Peer Review Comparison (Web)



Comparison of current infrastructure optimization versus peer average performers in Nonprofit, from EMEA. The peer data is collected and aggregated from all participants using this tool. This data is maintained according to privacy policies and only presented in aggregate form: Basic - 1, Standardized - 2, Rationalized - 3, Dynamic - 4

Application Platform Optimization Profiles for UNWTO

Current Profile for ICT (AS IS)

Capabilities	Workloads	Workload Elements				Total
		Basic	Standardized	Rationalized	Dynamic	
BI & Analytics Platform	Business Intelligence	6				6
	Data Warehouse Management	6				6
	Big Data	3				3
	Information Services & Marketplaces	4				4
Database and LOB Platform	Transaction Processing	2	2			4
	Data Management	2	1			3
	Application Infrastructure	5	1			6
Custom Development	Internet Applications	3				3
	Component & Service Composition	5				5
	Enterprise Integration	2				2
	Development Platform	1	1			2
	Application Lifecycle Management	5	1			6
Total		44	6			50

Current Profile for Public Web (AS IS)

Capabilities	Workloads	Workload Elements				Total
		Basic	Standardized	Rationalized	Dynamic	
BI & Analytics Platform	Business Intelligence	N/A	N/A	N/A	N/A	N/A
	Data Warehouse Management	N/A	N/A	N/A	N/A	N/A
	Big Data	N/A	N/A	N/A	N/A	N/A
	Information Services & Marketplaces	N/A	N/A	N/A	N/A	N/A
Database and LOB Platform	Transaction Processing	N/A	N/A	N/A	N/A	N/A
	Data Management	N/A	N/A	N/A	N/A	N/A
	Application Infrastructure	1	2			3
Custom Development	Internet Applications	1	1	1		3
	Component & Service Composition	N/A	N/A	N/A	N/A	N/A
	Enterprise Integration	N/A	N/A	N/A	N/A	N/A
	Development Platform	1	1			2
	Application Lifecycle Management	N/A	N/A	N/A	N/A	N/A
Total		3	4	1		8