

CE/106/2(f)  
Madrid, 11 August 2017  
Original: English

## المجلس التنفيذي

الدورة ١٠٦

تشنغدو، الصين، ١٢ أيلول/سبتمبر ٢٠١٧  
البند ٢(و) من جدول الأعمال المؤقت

### المسائل الإدارية وما اتصل منها بالنظام الأساسي

### (و) تكنولوجيا المعلومات والاتصالات في الأمانة

#### أولاً. مقدمة

١. يشكّل برنامج تكنولوجيا المعلومات والاتصالات مجال دعمٍ أساسي ضمن منظمة السياحة العالمية يُناط به تطبيق التكنولوجيا بغرض تسهيل أداء وظائفها الأساسية، بما في ذلك البنية التحتية لخدمة الويب. كما يوفّر البرنامج إحدى قنوات التواصل الرئيسية مع الجهات المعنية الداخلية والخارجية. وتقدّم هذه الوثيقة تقريراً مرحلياً عن تنفيذ خطة عمل تكنولوجيا المعلومات والاتصالات ولمحة عن الخطط والمبادرات المستقبلية.

٢. ويقدم برنامج تكنولوجيا المعلومات والاتصالات الخدمات لما يزيد عن ٢٠٠ عميلٍ داخلي بالإضافة إلى الدول الأعضاء. وتشمل الوظائف الرئيسية للبرنامج بنيةً تحتية داخلية مؤلفة من ٤٠ خادماً وأكثر من ٢٦٠ جهاز كمبيوتر موصول بالشبكة، إدارة المنصة الداخلية للتعاون والمعلومات (الإنترنت/الإكسترنيت)، تطوير وصيانة نظم المعلومات، وإدماج التطبيقات التكنولوجية المعيارية، فضلاً عن دعم الموظفين والتدريب على الأنظمة. ويتولّى برنامج تكنولوجيا المعلومات والاتصالات أيضاً إدارة آلية الولوج إلى المنظمة وصيانة أجهزة الكمبيوتر الشخصية والمعدات المحمولة بما في ذلك أجهزة الكمبيوتر، الأجهزة الطرفية أو الملحقات بالإضافة إلى الأجهزة اللوحية وغيرها من الأجهزة المحمولة.

٣. إن التقدم السريع والتغيرات التكنولوجية المتواصلة، وتنامي المخاطر على أمن البيانات والأنظمة، وتزايد الطلب على المصادقية في تقديم الخدمات، جميعها عوامل تجعل من إدارة هذا المجال مسألةً صعبةً للغاية، ولاسيما أن الموارد البشرية تقتصر على ٤ موظفين، معاونين اثنين وطالبٍ متدرّبٍ واحد.

٤. ووفقاً للمقرّر (CE/DEC/13(XCIV)، رحّب المجلس التنفيذي بمبادرة الأمين العام ببقاء المجلس بانتظام على إطلاع بما يجري على مستوى إستراتيجية وتطورات برنامج العمل الخاص بتكنولوجيا المعلومات والاتصالات. ولقد أعدّ هذا التقرير لأجل هذه الغاية، إذ يقدم تقريراً عن الفترة ٢٠١٦-٢٠١٧ وملخصاً عن الأنشطة الجارية/المستقبلية في مجال تكنولوجيا المعلومات والاتصالات.

٥. وكما ذكر سابقاً في تقرير الدورة السادسة والتسعين للمجلس التنفيذي، وافق الأمين العام على اقتراح برنامج تكنولوجيا المعلومات والاتصالات بإجراء تدقيق متابعة تكنولوجي شامل. ومن المزمع لخلاصة هذا التدقيق الذي قامت به شركة مايكروسوفت، والذي يُرفق طيّباً ملخصه التنفيذي بالإضافة إلى استنتاجاته (المرفق الأول)، أن توفّر توجهات واضحة لتطوير الخطة الإستراتيجية لبرنامج تكنولوجيا المعلومات والاتصالات لغاية العام ٢٠١٧.

#### ثانياً. خطة عمل برنامج تكنولوجيا المعلومات والاتصالات المُنجزة حتى تاريخه

٦. يبيّن جدول المرفق الثاني المشاريع المحدّدة التي نُفّذت حتى تاريخه، منذ التقرير الذي رُفِع إلى الدورة الرابعة بعد



المئة للمجلس التنفيذي (تشرين الأول/ أكتوبر ٢٠١٦).

### ثالثاً. خطة عمل برنامج تكنولوجيا المعلومات والاتصالات قيد التنفيذ (٢٠١٧-٢٠١٨)

٧. يرد في جدول المرفق الثالث الوضع الحالي للمشاريع الجارية التي أُبلغ عنها للمرة الأولى خلال الدورة الرابعة بعد المئة للمجلس التنفيذي (أكتوبر/تشرين الأول ٢٠١٦). وتُعرض فيه النتائج المرجوة، مع الأخذ بعين الاعتبار بالتدقيق الحالي لبرنامج تكنولوجيا المعلومات والاتصالات الذي أجرته شركة مايكروسوفت وبتوصياته.

### رابعاً. إستراتيجية تكنولوجيا المعلومات والاتصالات للفترة ٢٠١٧-٢٠١٨

٨. يتناول تقرير التدقيق بمزيد من التفاصيل مجمل الإمكانيات وطاقات العمل التي يوفرها نموذج تحسين البنية التحتية، وذلك تأكيداً على الإستنتاجات الرئيسية. ومن الأهمية بمكان التشديد على أن العديد من هذه الإستنتاجات يتخطى صلاحية برنامج تكنولوجيا المعلومات والاتصالات وحده، وينبغي إتخاذ القرارات على مستوى فريق الإدارة العليا بغية إتخاذ الإجراءات بشأن بعض هذه الإستنتاجات.

٩. وكما ذُكر في التقرير السابق، إن منصة التطبيق هي المجال الذي أُحرز فيه أقل قدر من التقدم منذ التدقيق السابق، وبالرغم من تطوير نظام جديد للمعلومات المالية إستناداً إلى منهجيات التطوير الرسمية، إلا أن الحاجة لا تزال تدعو إلى إعادة تحويل العديد من التطبيقات المحيطة، ويجب بلورة نموذج لتطوير التطبيقات على صعيد المنظمة ككل.

١٠. ويتعيّن على منظمة السياحة العالمية أن تنظر في تعزيز ثقافة إدارة المشاريع في جميع الأنشطة والمبادرات والمشاريع التي تقوم بها. ومن شأن ذلك أن يساعد في تتبّع التقدم المحرز في المشاريع وفي الإدارة العامة للموارد.

١١. ورَكَز برنامج تكنولوجيا المعلومات والاتصالات على الحاجة إلى إنشاء نموذج للبيانات على صعيد المنظمة ككل لكافة البيانات التي تديرها المنظمة ولتطوير التطبيقات. ويجري حالياً تقييم العديد من الخيارات من أجل إتخاذ قرار بشأن الإستراتيجية الأفضل لتكنولوجيا المعلومات والاتصالات، مع التشديد بشكل خاص على وجوب تركيز المنظمة على بيئة التحوّل الرقمي. وتم إجراء مناقصة عامة بغرض إدخال نظام مركزي لإدارة المعلومات إلى منظمة السياحة العالمية. ومع الأسف، لم تحمل نتيجة هذا النشاط أي خيار مالي قابل للتنفيذ. وعليه، إننا بصدد تحديد المنظمات الأخرى التابعة للأمم المتحدة التي سبق أن قامت بهذه المهمة، بحيث يتسنى لنا أن "نرتكز" على مناقصتها العامة وأن نتعاقد على الخدمات مباشرة مع المورد. وفي حال تعدّد ذلك، سيُعيّن على برنامج تكنولوجيا المعلومات والاتصالات أن يجري مناقصة عامة ثانية بشروط تقنية معدّلة.

١٢. وفي ظل بيئة تقنية سريعة التطور، تتمحور جملة من القضايا الأساسية الواجبة المعالجة حول الإطار الأمني للحفاظ على سلامة أصول المعلومات والنظم التابعة لمنظمة السياحة العالمية، فيما تتوسّع للتماشي مع ولايات الأمم المتحدة ومهامها ولمواكبة تطبيق الممارسات الفضلى. ومن المقرر إجراء تدقيق للبنية التحتية الحالية لتكنولوجيا المعلومات والاتصالات في النصف الثاني من عام ٢٠١٧.

١٣. وفي ظل التغييرات في هيكلية العمل في منظمة السياحة العالمية والتكنولوجيات الناشئة، يواصل برنامج تكنولوجيا المعلومات والاتصالات مواءمة دوره وهيكلته من أجل تحسين إيصال الخدمات إلى أقصى حدّ وضمان رضا المستخدمين. وإن التحسينات الكبرى المُدخلة على برنامج CDP (التخطيط القائم على المستهلك) لضمان الأداء الأمثل وللإمتثال للشروط الأمنية عبر تحسين الهيكلية المادية قد وفر زيادة في الأمن وتحسناً في توافر المعدّات ونمواً ممكناً من أجل التكيّف مع الإحتياجات التنظيمية في المستقبل.

١٤. ولقد اضطرّ برنامج تكنولوجيا المعلومات والاتصالات إلى أن يعدّل برنامج عمله على نحو منتظم لكي يعالج المسائل السالفة الذكر ويؤمّن الإطار المناسب للتغيير المتواصل وللإمتثال والتخطيط. أما خارطة الطريق المُنقّحة لفترة سنتين التي يفترض بها معالجة استنتاجات تدقيق مايكروسوفت والتوصيات التي كان من المقرر تطويرها أساساً عام ٢٠١٧، فتمت إعادة جدولتها لتطويرها إلى عام ٢٠١٨، بسبب انخفاض عدد الموظفين بنسبة ٢٥ في المئة خلال الفترة ٢٠١٦-٢٠١٧. ومن المتوقع أن يكون موظفو برنامج تكنولوجيا المعلومات والاتصالات متاحين بكامل عديدهم في القسم المتبقي من عام ٢٠١٧.

١٥. وتستند صياغة خطة عمل تكنولوجيا المعلومات والاتصالات للفترة ٢٠١٥-٢٠١٨ إلى الإستنتاجات الأساسية للتدقيق الذي أجرته مايكروسوفت وتوصياته. ويرد ملخصاً عن الأهداف المقترحة في جدول المرفق الرابع.

#### خامساً. الإجراءات الواجب اتخاذها من قبل المجلس التنفيذي

١٦. المجلس التنفيذي مدعو إلى أن:

(أ) يحيط علماً بتقارير التدقيق بشأن وضع الأنشطة المتصلة بتكنولوجيا المعلومات والاتصالات الواردة في هذه الوثيقة؛

(ب) ويلحظ التقدم المحرز على مستوى البنية التحتية التكنولوجية التي سبق للمنظمة أن طبقتها، مع الإقرار بأن البيئة التكنولوجية السريعة التطور والقيود المرتبطة بالميزانية يطرحان جملةً من التحديات الفريدة في المستقبل القريب.

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

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 7<sup>th</sup> and June 27<sup>th</sup> of 2014, 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 positive improvement from the previous 2009 audit in 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 mind-set to User mind-set.** 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 centre 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 Catalogue 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 (no 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, and 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

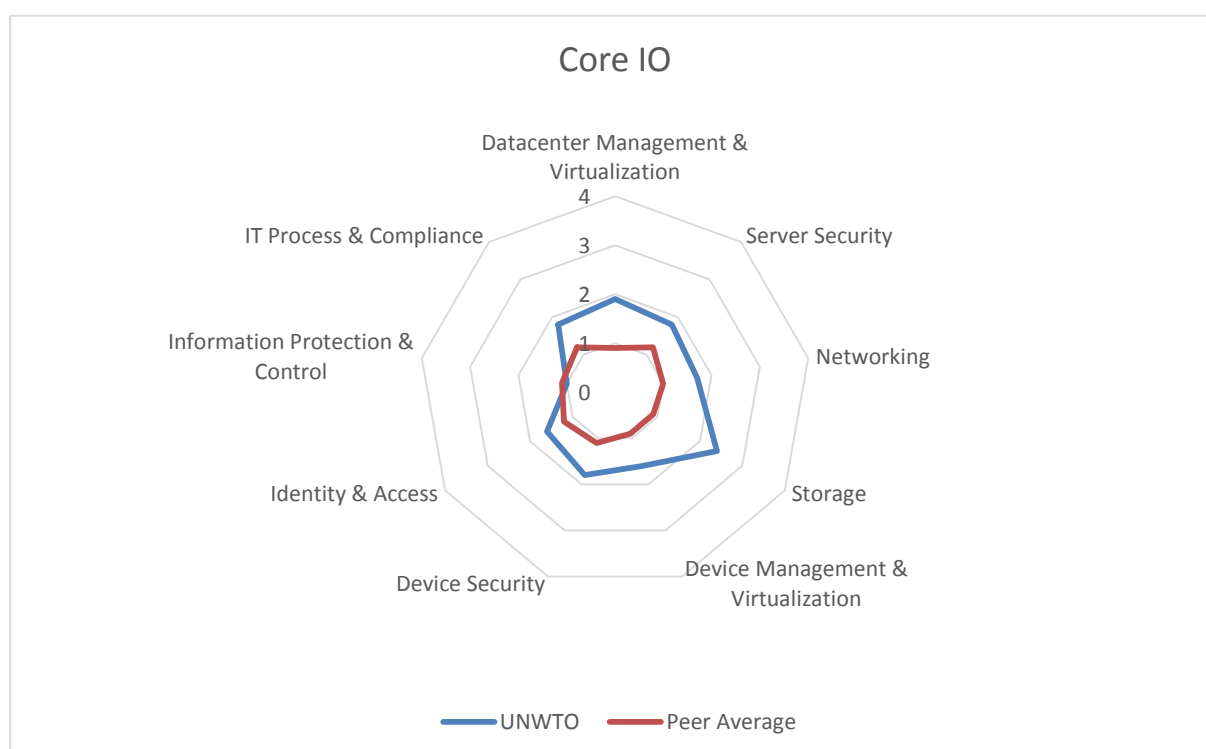
Following is an extract of the report entitled "United Nations World Tourism Organization Infrastructure Optimization Assessment" carried out by Microsoft Auditors whose original text is available in: <http://lmd.unwto.org/event/executive-council-ninety-ninth-session>

## Core Infrastructure Optimization Profiles for UNWTO

### Current Profile for ICT (AS IS)

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

### Current Maturity Peer Review Comparison (ICT)



Comparison of current infrastructure optimization versus peer average performers in Non-profit, 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:

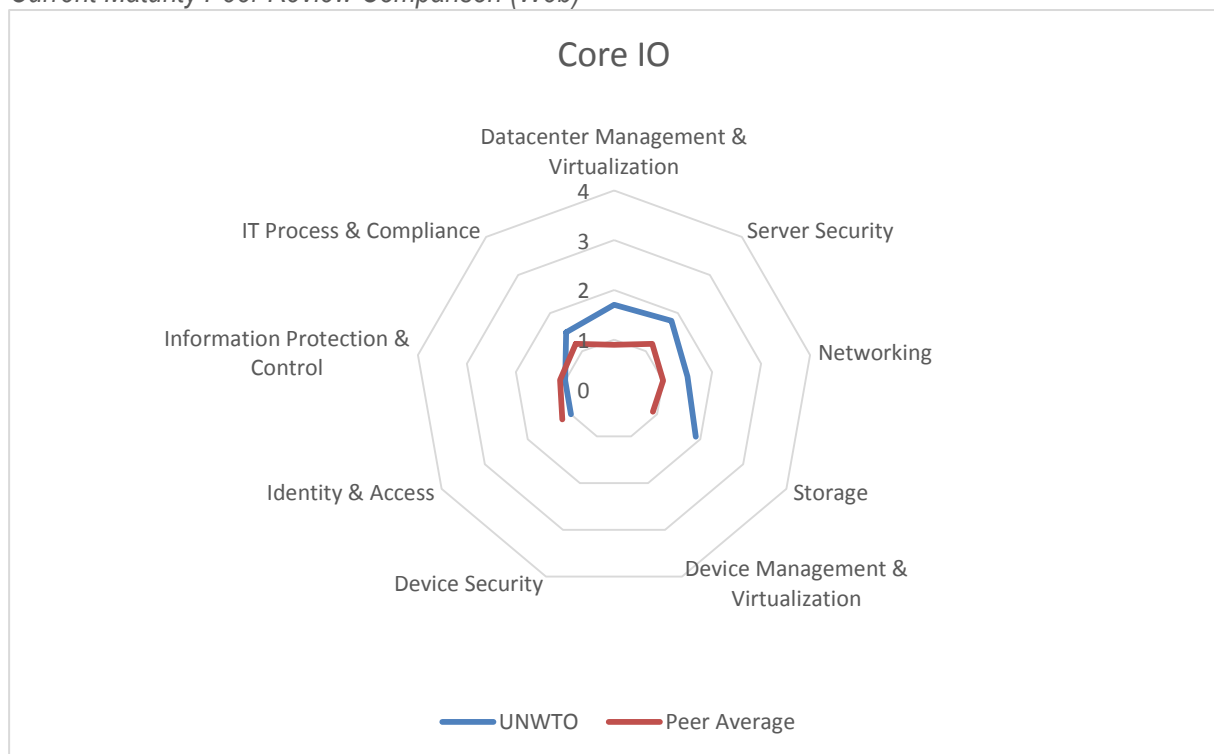
Basic - 1, Standardized - 2, Rationalized - 3, Dynamic - 4



### Current Profile for Public Web (AS IS)

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

### Current Maturity Peer Review Comparison (Web)



Comparison of current infrastructure optimization versus peer average performers in Non-profit, 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:

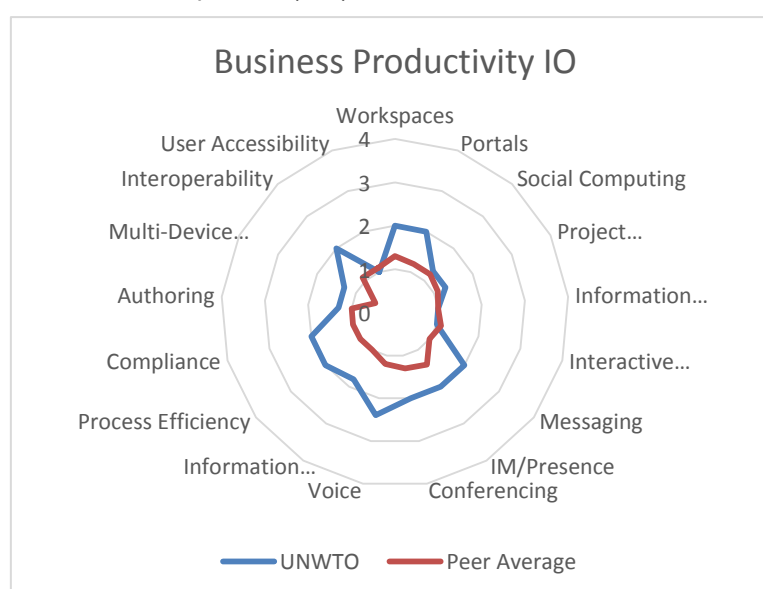
Basic - 1, Standardized - 2, Rationalized - 3, Dynamic - 4

## 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
<b>Total</b>		<b>19</b>	<b>27</b>	<b>6</b>		<b>52</b>

### Current Maturity Peer Review Comparison (ICT)



Comparison of current infrastructure optimization versus peer average performers in Non-profit, 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:

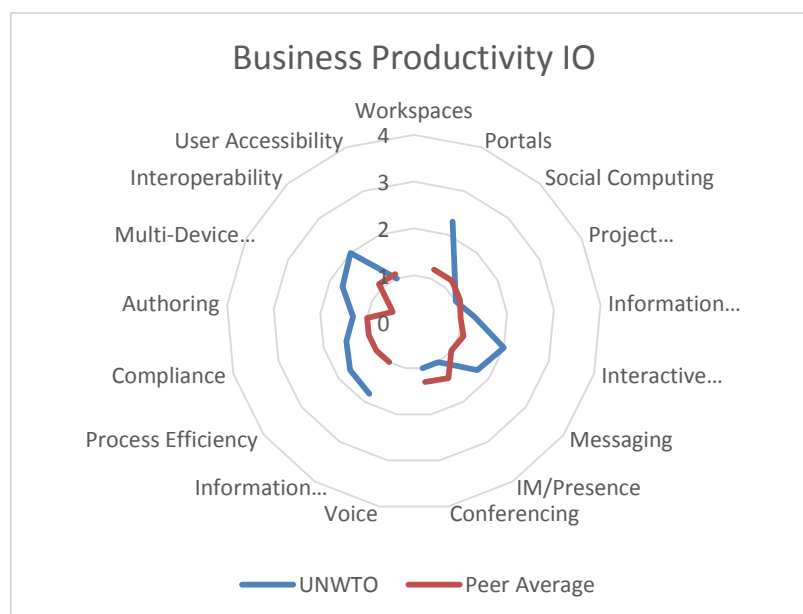
Basic - 1, Standardized - 2, Rationalized - 3, Dynamic - 4

منظمة السياحة العالمية - وكالة متخصصة تابعة للأمم المتحدة

## Current Profile for Public Web (AS IS)

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

## Current Maturity Peer Review Comparison (Web)



Comparison of current infrastructure optimization versus peer average performers in Non-profit, 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	
<b>BI &amp; Analytics Platform</b>	Business Intelligence	6				6
	Data Warehouse Management	6				6
	Big Data	3				3
	Information Services & Marketplaces	4				4
<b>Database and LOB Platform</b>	Transaction Processing	2	2			4
	Data Management	2	1			3
	Application Infrastructure	5	1			6
<b>Custom Development</b>	Internet Applications	3				3
	Component & Service Composition	5				5
	Enterprise Integration	2				2
	Development Platform	1	1			2
	Application Lifecycle Management	5	1			6
<b>Total</b>		<b>44</b>	<b>6</b>			<b>50</b>

### Current Profile for Public Web (AS IS)

Capabilities	Workloads	Workload Elements				Total
		Basic	Standardized	Rationalized	Dynamic	
<b>BI &amp; Analytics Platform</b>	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
<b>Database and LOB Platform</b>	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
<b>Custom Development</b>	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
<b>Total</b>		<b>3</b>	<b>4</b>	<b>1</b>		<b>8</b>

**Annex II. ICT work plan completed to date**

AREA	ACTIVITY/PROJECT	RESULTS	DATE COMPLETED
Business Productivity Infrastructure / Enterprise Mobility	Mobility Services	<ul style="list-style-type: none"> <li>Improved security procedures</li> <li>Define &amp; Implement data protection policies</li> <li>ShareFile Service implemented</li> </ul>	Completed 2016
Core infrastructure / Data Centre	ICT Infrastructure Consolidation & Services	<ul style="list-style-type: none"> <li>Migration to Exchange 2013</li> <li>SQL Server upgrade 2016</li> <li>CPD Room upgrade / optimization</li> <li>Acquisition of 45 desktop computers and 20 laptops (renewal plan 2016)</li> <li>Expansion of storage capacity of the server cabin</li> <li>Enlargement of the mail server hardware</li> <li>Optimization of the virtual server of Antispam</li> <li>Expand of telephony service due to users necessities</li> <li>Improvement in network security: Firewall upgrade (including users recognition, content and malware filtering)</li> <li>Upgrade the wifi system for security improvements and new functionalities</li> </ul>	Completed 2016-2017
Core infrastructure Data Centre Management	Business continuity planning	<ul style="list-style-type: none"> <li>Updated contingency plan</li> <li>Conducted a disaster recovery drill exercise</li> <li>Strategic rethinking of backup copy outsourcing</li> <li>Consolidated procedures, controls, reports and monitoring of security backups</li> <li>Optimization of the backups system</li> </ul>	Completed 2016-2017
Core infrastructure / Data Centre	Web Services infrastructure	<ul style="list-style-type: none"> <li>Changed cloud service provider.</li> <li>Introduction of a new external technical support company, new requirement definition 12x7</li> <li>Software updated</li> <li>Improved security procedures</li> </ul>	Completed 2016
Business Productivity / Content Creation & Management	Collaborative Platform INTRANET/EXTRANET platform	<ul style="list-style-type: none"> <li>Improved and extended structures and sections</li> <li>Provided a infopath new capabilities and SQLdata connection</li> </ul>	Completed 2016-2017
Application Platform / Enterprise Information Management	Enterprise Information Management System	<ul style="list-style-type: none"> <li>Analysis &amp; market research for the selection of the Enterprise Information Management tool.</li> <li>Conduct a competitive bidding process to hire a company to develop a new platform</li> </ul>	Completed 2016
Core Infrastructure / IT Process & Compliance	Help Desk Platform	<ul style="list-style-type: none"> <li>Implemented a centralized request service to maximize the use of ICT resources to the Organization. – Phase I.</li> <li>Improved security, productivity and reduced IT overhead</li> </ul>	Completed 2016

Core Infrastructure / IT Process & Compliance	Organizational approval of document standards, document procedures to establish policies and guidelines	<ul style="list-style-type: none"> <li>• Updated documents in both operations and services areas: standards, document procedures, and proposed policies and guidelines</li> <li>• Creation of new procedures of ICT internal controls</li> </ul>	Target completion 2016
ICT Priorities	ICT Training annual plan 2016	<ul style="list-style-type: none"> <li>• Continued to enhance technical competency of ICT staff through external training and certification</li> </ul>	Completed 2016

## Annex III. ICT work plan in progress (2017-2018)

Area	ACTIVITY/PROJECT	EXPECTED RESULTS	EXPECTED COMPLETION DATE
Application Platform/ Information Systems	Enhancement of Athena Requirements in collaboration with Budget & Finance	<ul style="list-style-type: none"> <li>• Developments of modules of the UNWTO Financial Management IT System (Athena II plan) which comprises: a) purchase management , b) accountable payables</li> <li>• Maintenance of Athena I</li> <li>• Integration of Athena with the new Enterprise Information Management System</li> </ul>	Target completion 2018 / On-going
Core infrastructure / Data Centre / cloud based solutions	ICT infrastructure consolidation	<ul style="list-style-type: none"> <li>• Migration of Oracle 11 to Oracle 12</li> <li>• Conduct a cost benefit analysis and feasibility study on commoditizing Oracle services to hybrid cloud solutions</li> </ul>	Target completion 2017
Core infrastructure / Data Centre / cloud based solutions	ICT infrastructure consolidation	<ul style="list-style-type: none"> <li>• Conduct a cost benefit analysis and feasibility study on commoditizing Exchange services to hybrid cloud solutions</li> <li>• Conduct a cost benefit analysis and feasibility study on commoditizing MSOffice services to hybrid cloud solutions (MS365)</li> </ul>	Target completion 2018
Core infrastructure Data Centre Management	Business continuity planning	<ul style="list-style-type: none"> <li>• Conducted a disaster recovery drill exercise</li> </ul>	Target completion 2017
Core infrastructure Data Centre / Identity & security services	Security Plan	<ul style="list-style-type: none"> <li>• Security audit of the ICT Infrastructure, Services &amp; Information</li> <li>• Implementation of good practices</li> </ul>	Target completion 2017
Core Infrastructure/ IT Services & Compliance	Printing services project	<ul style="list-style-type: none"> <li>• Close bidding process</li> <li>• Consolidation of printing services</li> <li>• Provide management control, accessibility and control over confidentiality of printed material</li> <li>• Reduce printing costs</li> <li>• Support greening policies</li> </ul>	Target completion 2017 Ongoing
Core Infrastructure / Device Deployment & Management	Telephony Services & mobility	<ul style="list-style-type: none"> <li>• Close bidding process on Fix telephony service</li> <li>• Network improvements in security, devices management and quality of services</li> <li>• Use of best technology practices</li> </ul>	Target completion 2017 / Ongoing
Business Productivity Infrastructure / Enterprise Mobility	Mobility services	<ul style="list-style-type: none"> <li>• Migration to a new MDM system with more functionalities (the initial system has lack of user functionalities)</li> <li>• Improve security procedures</li> <li>• Define &amp; Implement data protection policies</li> </ul>	Target completion 2017 / Ongoing
Core Infrastructure / IT Process & Compliance	Help Desk Platform	<ul style="list-style-type: none"> <li>• Implemented a centralized request service to maximize the use of ICT resources to the Organization. – Phase II.</li> <li>• Improved security, productivity and reduced IT overhead</li> </ul>	Target completion 2017 / Ongoing
Core Infrastructure / Data centre Management & Virtualization	ICT Consolidation & services	<ul style="list-style-type: none"> <li>• Improved maintenance procedures, expansion and standardization</li> <li>• Improved core server availability average (99.998%)</li> </ul>	Target completion 2017 / Ongoing

Area	ACTIVITY/PROJECT	EXPECTED RESULTS	EXPECTED COMPLETION DATE
		<ul style="list-style-type: none"> <li>Conducted performance optimization, operation and management of the virtualization platform</li> </ul>	
Core infrastructure / Data Centre Management	Web Services infrastructure	<ul style="list-style-type: none"> <li>Conduct a competitive bidding to hire a company to develop a new Customer Relationship Management System (CRM)</li> <li>Develop and implement a new CRM</li> </ul>	Target completion 2018 / Ongoing
Application Platform /Enterprise Information Management	Enterprise Information Management System	<ul style="list-style-type: none"> <li>Develop and implementation of a new Enterprise Information Management platform with Opentext. Fase I</li> </ul>	Target Completed 2017 / Ongoing
Application Platform / BI & Analytics Platform	Enterprise Data Model / Organization-wide Data Consolidation	<ul style="list-style-type: none"> <li>Create an organization-wide data model for all UNWTO's managed data.</li> <li>Improve data classification, indexing, and publishing.</li> <li>Improve data protection (encryption, rights management, etc.)</li> <li>Define policies &amp; procedures to data management</li> <li>Design auditing strategies for the organizational data</li> </ul>	Target completion 2017-2018 / Ongoing
Core Infrastructure / Device deployment & Management	Desktop Virtualization project	<ul style="list-style-type: none"> <li>Implement a client platform deployment that puts the user in the centre as the subject to manage, instead of the device</li> <li>Define policies and procedures to implement client platform management, including operating system deployment, software distribution, application virtualization, user state, etc.</li> <li>Conduct a competitive bidding process</li> </ul>	Target completion 2017-2018
Business Productivity / Collaboration	Collaborative Platform INTRANET/ EXTRANET Platform	<ul style="list-style-type: none"> <li>Improve and extend structures</li> <li>Develop a knowledge management platform, self-service and reporting</li> <li>Improve search facilities</li> <li>Develop of new services</li> <li>Conduct a competitive bidding process if necessary</li> </ul>	Target completion 2017-2018 / Ongoing
Business Productivity	New UNWTO WebSite & enhancing current Social Media strategy	<ul style="list-style-type: none"> <li>Conduct a competitive bidding process to hire a company to develop a new Web page.</li> <li>Develop and Implement a new UNWTO institutional WEB page</li> </ul>	Target completion 2017-2018 / Ongoing
Business Productivity / Collaboration	Digital signature project	<ul style="list-style-type: none"> <li>Encourage the use of digital signature to support greening polices</li> <li>Streamline administrative processes</li> <li>Reduce costs</li> </ul>	Target completion 2018
Core Infrastructure / IT Process & Compliance	ICT Service Catalogue	<ul style="list-style-type: none"> <li>Review of the ICT services policies</li> <li>Implement services policies organization-wide</li> <li>Improve ICT's Service Catalogue with the definition of clear Service Level Agreements and Operation Level Agreements</li> <li>Improve security monitoring and problem</li> </ul>	Target completion 2017 / Ongoing



Area	ACTIVITY/PROJECT	EXPECTED RESULTS	EXPECTED COMPLETION DATE
		& incidents management • Design and define change & configuration management • Create self-service capabilities for users	
ICT priorities	ICT Training annual plan 2017	• Continue to enhance technical competency of ICT staff through external training and certification	Target Completion 2017 / Ongoing

## Annex IV. ICT work plan for 2015-2018

	KEY FINDING	Action to be taken	PRE - Requirements	Priority
1.-	<b>Public Web Assets totally decoupled from ICT governance.</b> Direct consequences: - Myriad of solutions for same purposes, no standardization. - No Identity consolidation, synchronization and federation	Move and consolidate the infrastructure governance under ICT as well as the future development needs of this infrastructure.	<ul style="list-style-type: none"> <li>Executive Management decision</li> <li>Business vision</li> </ul>	Very High
2.-	<b>No Data Culture</b> One of the biggest areas of risk. UNWTO needs to improve its data classification, indexing, publishing, protection (encryption, rights management) and auditing strategies for the organizational data	Design & Implement an organization-wide data model for all UNWTO's managed data. (Enterprise Managed 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.	<ul style="list-style-type: none"> <li>Executive Management decision</li> <li>Business vision</li> <li>Data classification, Definitions, metrics</li> <li>Information Governance</li> <li>Organization and Roles</li> <li>Information Life Cycle</li> <li>Polices, Procedures</li> </ul>	Very High
3.-	<b>No Business Intelligence or Big Data Culture</b>	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.  Implement a reporting platform and infrastructure.  Design and deploy a BI infrastructure that simplifies the IT burden.	<ul style="list-style-type: none"> <li>Executive Management decision</li> <li>Business vision</li> <li>Strategy</li> <li>Project scope</li> <li>Roles, Responsibilities</li> </ul>	Very High
4.-	<b>No Custom Development Framework and Lifecycle</b>	Implement an organization wide application infrastructure and development framework to work towards creating a more cohesive application environment, providing maximum value to the business.	<ul style="list-style-type: none"> <li>Executive Management</li> <li>Business vision</li> <li>Project scope</li> </ul>	High
5.-	<b>Lack of Project Management &amp; Portfolio Planning Culture</b>	Promote a project management culture around all the activities, initiatives and projects it undertakes.	<ul style="list-style-type: none"> <li>Executive Management decision</li> <li>Business vision</li> </ul>	High

	KEY FINDING	Action to be taken	PRE - Requirements	Priority
		Implement an integrated solution, which is flexible and web-based approach to project management.	<ul style="list-style-type: none"> <li>• Project scope</li> <li>• Strategy</li> <li>• Policies</li> </ul>	
6.-	<b>No Social Computing Culture</b>	Promote social computing behavior 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.	<ul style="list-style-type: none"> <li>• Executive Management decision</li> <li>• Business vision</li> <li>• Project scope</li> </ul>	High
7.-	<b>Lack of true Enterprise Mobility. UNWTO needs to improve its Remote Access Services.</b>	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.	<ul style="list-style-type: none"> <li>• Business vision</li> <li>• Strategy</li> <li>• Policies</li> </ul>	High
8.-	<b>Moving Commodity based IT to cloud based solutions</b>	UNWTO should conduct a cost benefit analysis on Commoditizing IT services to Hybrid Cloud solutions	<ul style="list-style-type: none"> <li>• Business vision</li> <li>• Project scope</li> <li>• Strategy</li> <li>• Policies</li> </ul>	High
9.-	<b>Need to change from a Device mindset to user mindset</b>	UNWTO must change its focus to offer a modern approach to client platform deployment puts the user in the center as the subject to manage, instead of the device. Desktop Virtualization project	<ul style="list-style-type: none"> <li>• Business vision</li> <li>• Project scope</li> <li>• Policies</li> <li>• SLA's</li> <li>• Procedures</li> </ul>	High
10.-	<b>Need improvements on IT Processes &amp; Compliance</b>	<p>Improve ICT's Services Catalog with clear definition of Service level Agreements (SLA's) and Operation Level Agreements (OLA's)</p> <p>Improve security monitoring, problem, change &amp; configuration management.</p> <p>Implement Self-service capabilities for users.</p>	<ul style="list-style-type: none"> <li>• Business vision</li> <li>• Policies</li> <li>• SLA's</li> <li>• OLA's</li> <li>• Procedures</li> </ul>	High
11.-	<b>No Cloud culture</b>	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"> <li>• Business vision</li> <li>• Project scope</li> </ul>	Medium
12.-	<b>Architectural design based on traditional architecture principles</b>	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.	<ul style="list-style-type: none"> <li>• Business vision</li> <li>• Project scope</li> <li>• Strategy</li> </ul>	Medium