

MODERNIZE



UN Photo/Mark Garten

TRANSFORM



UN Photo/Mark Garten

OPTIMIZE



UN Photo/Marco Dormino

GOVERN

INNOVATE

unite

information • innovation • transformation
technology for a better world



UN Photo/Nektarios Markogiannis

FORWARD

The increasing role of technology in supporting the United Nations and the decisions of the Member States and governing bodies have guided the development of the United Nations Information and Communications Technology Strategy. We are committed to fully exploiting the great promise of the Information Age to support the work of the UN in the areas of peace and security, development, human rights, and international law.

We will be judged by how we respond to today's challenges—to demographic shifts, climate change, humanitarian issues, and to a host of other trials—and to how we formulate a plan for technology to help us deliver on our mission. Technology is changing the ways in which priorities are delivered, information is gathered, work is done, risks are managed, and business objectives are met.

In an increasingly hyper-connected world, we have the opportunity to shape the planet we leave to our children and theirs. Technology is an integral part of the UN's overall strategy in helping to deliver on that responsibility. When the Organization is supported by modern tools and processes, and is collaborating across boundaries, the whole world and future generations will benefit.



Innovation lies at the heart of addressing the interlinked challenges of global development... Every development success has drawn in large measure from absorbing knowledge, technology and ideas and adapting them to local conditions. In other words, by innovating.

Ban Ki-moon, Secretary-General,
Geneva, 1 July 2013

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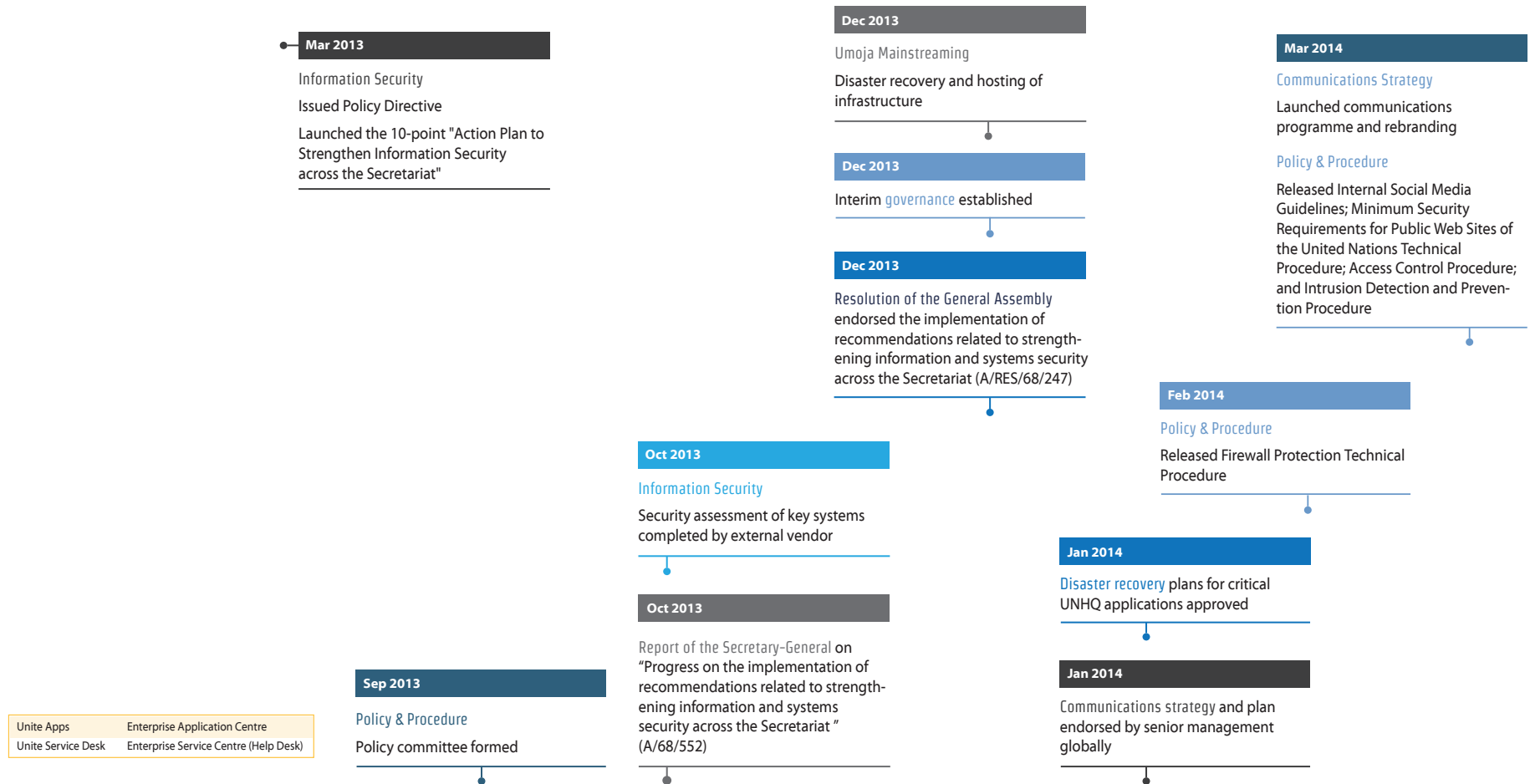
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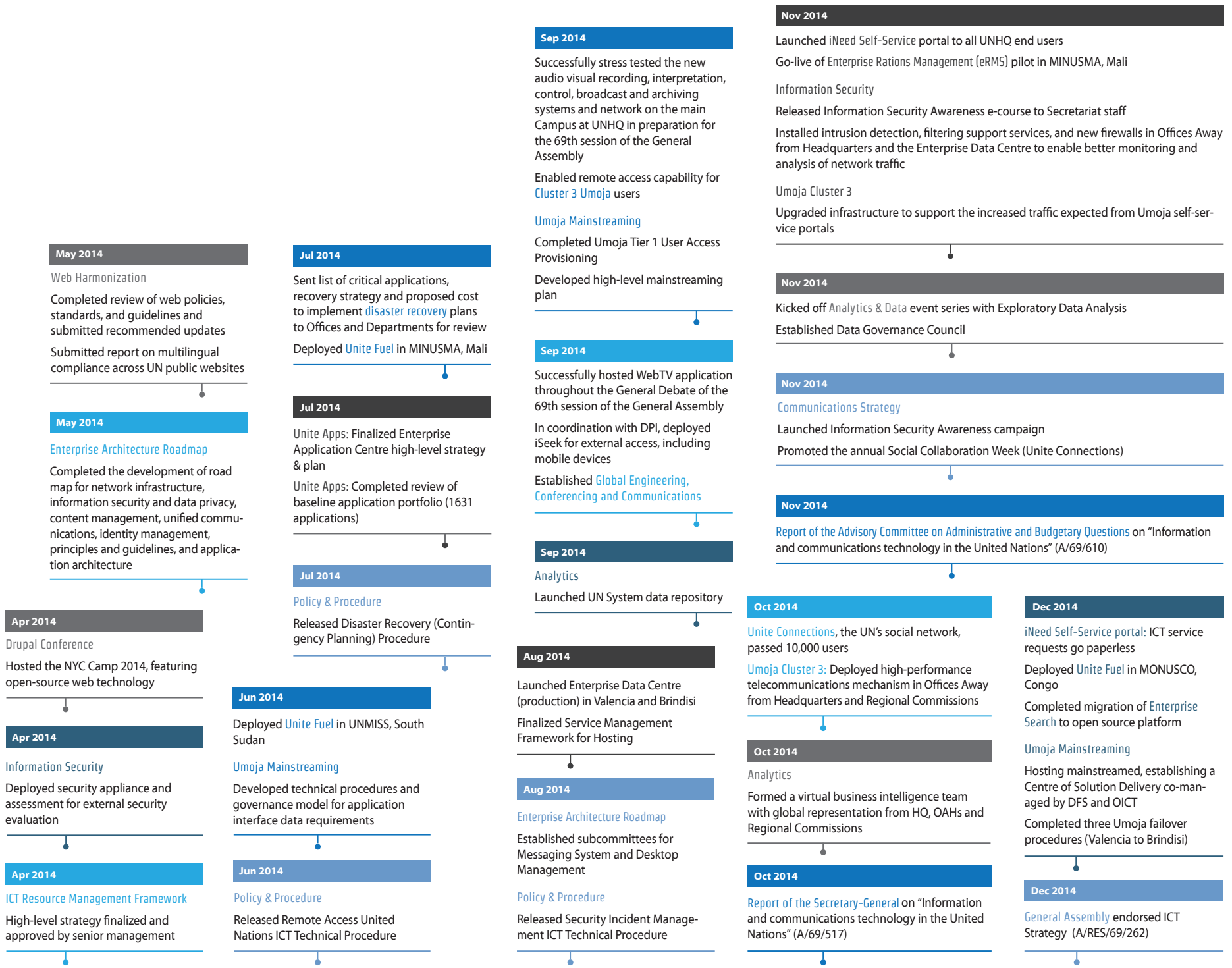
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KEY ACCOMPLISHMENTS

Following are highlights of the many achievements that made 2014 an extremely successful year for information and communications technology in the United Nations. Foremost among these accomplishments was the submission of the United Nations Revised Information and Communications Technology Strategy (A/69/517), which was endorsed by the General Assembly (A/RES/69/262) and is a priority for the Organization. There is much to do to fully realize our vision of the new strategy. Over the next five years, the Office of Information and Communications Technology and its partners globally will continue to modernize, transform and innovate ICT in the UN, while strengthening governance and optimizing our resources. Accomplishing these goals will require a team effort. Together, we will transform ICT in the United Nations and help the Organization realize the fullness of its mission.





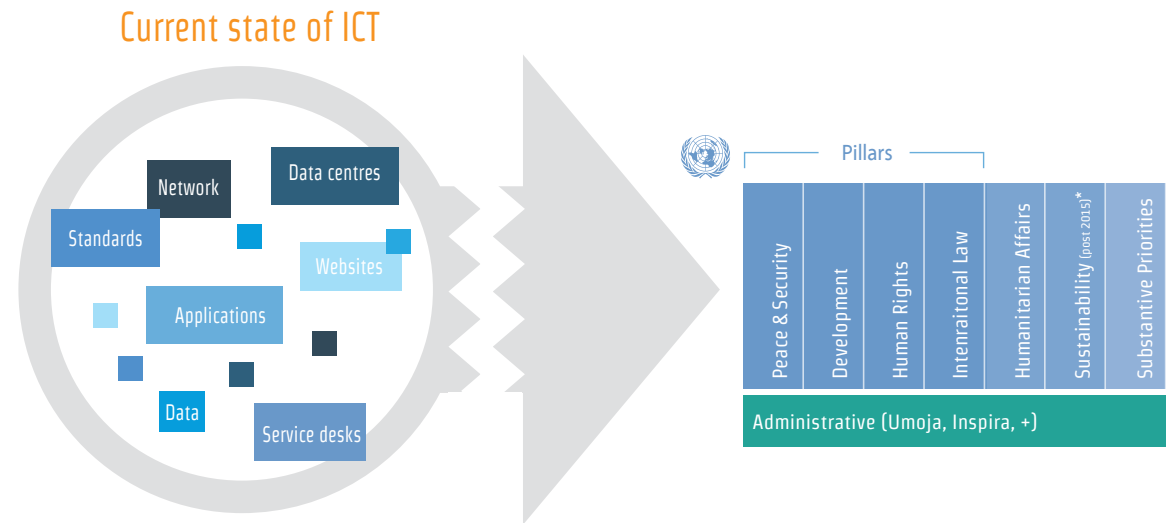
WHERE WE ARE

Fragmentation

Information and communications technology (ICT) at the UN is in a state of transition. Many positive efforts have begun, but much more remains to be done. Our technology structure is highly fragmented across the Secretariat and in all duty stations and field missions. It does not comply with technical standards; is not properly governed; and in, many cases, is not secure, resilient or robust.

Alignment

ICT must be better configured to support the work of the UN and the transformation agenda, including Umoja and IPSAS. Technology has been regarded as a utility, separate from the substantive business; however, these are inextricably linked.



*As of March 2015 under consideration by the General Assembly

THE WAY FORWARD

In collaboration with colleagues across the Secretariat, we have developed a modern responsive ICT strategy for the UN. We have received tremendous input from the Member States, and important feedback from the Board of Auditors, the various ICT governance bodies, and our dedicated ICT professionals globally.

The General Assembly endorsed all the elements of the strategy, which defines the roadmap for information and communications technology for the coming five years and is designed to meet the challenges of a world that is increasingly reliant on advances in technology.

We will shift the approach to technology in the UN to one that fosters innovative solutions in support of the substantive work, programmes and mandates of the Organization. Ultimately, the implementation of this strategy will position the Secretariat to harmonize and solidify existing technology programmes, and then fully leverage the unprecedented opportunities that technology has to offer.

The strategy provides a common vision for ICT delivery in the UN through modernization, transformation and innovation. It establishes a framework for improved governance, strong leadership and optimal use of ICT resources to support effective decision-making. This publication introduces you to the fundamentals of our strategy.



MODERNIZE

Modernization is essential for the UN to carry out its mission and mandates more effectively and efficiently. Without updating our capabilities, the risks to the Organization are considerable. It is essential, therefore, that we prioritize the ability of ICT to support the UN and its Member States with effective and efficient technology.

Through modernization, the Organization will be better able to leverage the expected benefits of enterprise solutions; to effectively protect data and information; to ensure resilience in the face of disaster; to strengthen accountability; and to utilize innovation to support its core work.

Enterprise solutions enable data sharing and overcome information silos. Key enterprise solutions include Umoja (our enterprise resource planning system), Inspira (our human resources system), collaboration tools, modern web development, document management, and mobile applications.

Umoja is transforming the way the UN manages its physical, financial and human resources. It will replace hundreds of systems across the Secretariat formerly supported by local ICT. This enterprise solution will succeed through support, partnership and a plan for mainstreaming, including enterprise support, security and infrastructure.

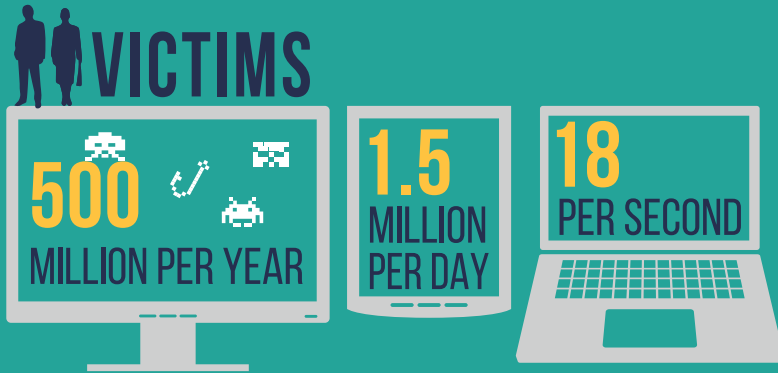
IPSAS will facilitate better management of ICT assets, strengthening accountability. To ensure, compliance, we will coordinate global technology assets management.

Over the next two years, the network and infrastructure of the global Secretariat will be updated, strengthening security and performance across the Organization.

A comprehensive framework for information security has been established and mechanisms for cyber crime risk management are under development.

We continue to make great progress in planning and implementing disaster recovery plans and procedures for critical infrastructure, systems and applications.

GLOBAL STATISTICS ON INFORMATION SECURITY:



MORE THAN **200** MILLION IDENTITIES EXPOSED

The text '200' is in large yellow font, while 'MILLION IDENTITIES EXPOSED' is in smaller dark blue font. The background features a pattern of small human icons.

EFFECTS OF HURRICANE SANDY ON UNHQ:

CLOSED FOR **3** DAYS

The text '3' is in large white font, and 'DAYS' is in smaller white font, all on a teal background.

APPROXIMATELY **3,000** STAFF FORCED TO MOVE TO TEMPORARY OFFICES AROUND MANHATTAN

The text '3,000' is in large teal font. The background features a pattern of small human icons.

EXTENSIVE FLOOD DAMAGE TO FACILITIES CAUSED BY RISING WATER FROM THE EAST RIVER

The text is in white font on a blue, cloud-like background.



FIRE DAMAGE CAUSED BY DAMAGE TO CIRCUIT BREAKERS

The text is in dark blue font, with a yellow fire icon above it.

TRANSFORM

We will restructure ICT globally, strengthening oversight and accountability while increasing the availability of accurate and timely information to support decision-making. An enterprise delivery framework will deliver ICT services to staff members across the Secretariat more efficiently and effectively.

Enterprise Data Centres (EDCs)

The use of EDCs rather than local centres, will bring about efficiencies in hardware, software, facilities and staffing.

Enterprise Application Centres (EACs)

Current application centres (New York, Bangkok and Vienna) will be strengthened, expanding their application development and support globally, including web hosting and web development.

Regional Technology Centres (RTCs)

The strategic direction of ICT should be linked to local business operational needs. Existing UN offices in Nairobi, New York, Bangkok, and Geneva will be assigned RTC status. These centres will be responsible for harmonizing ICT services across regions, institutionalizing governance, and implementing the strategy. These regions, along with the peacekeeping regions supporting field missions in the Middle East, Africa, and Asia, will support the Organization.

Enterprise Service Desks (ESDs)

Five primary facilities (UNGSC, UNON, UNOG, ESCAP, UNHQ) will provide around-the-clock support through a more efficient shared-service model. The global Unite Service Desk will support Umoja as a priority and expand to other enterprise applications and other shared ICT services.

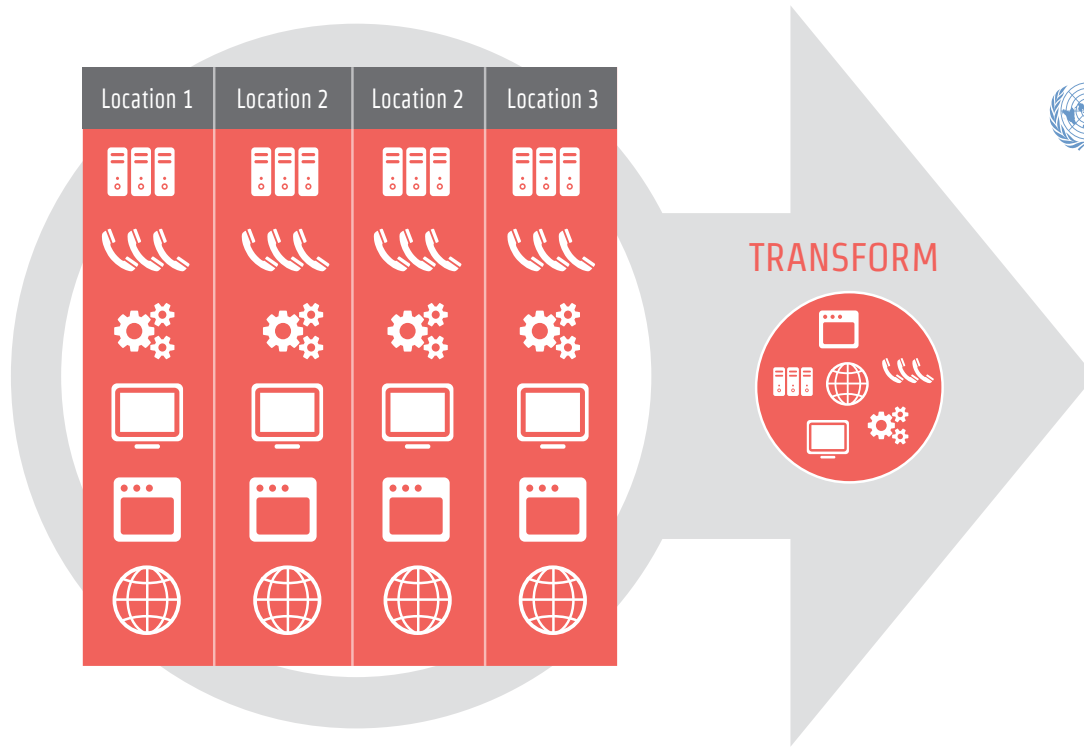
Enterprise Network Operations Communications and Security (ENOCS)

ENOCS will provide constant monitoring and critical response coordination for global network, security, asset health, and disaster management. Its primary responsibility is to monitor and respond to infrastructure/network failure and security breaches.

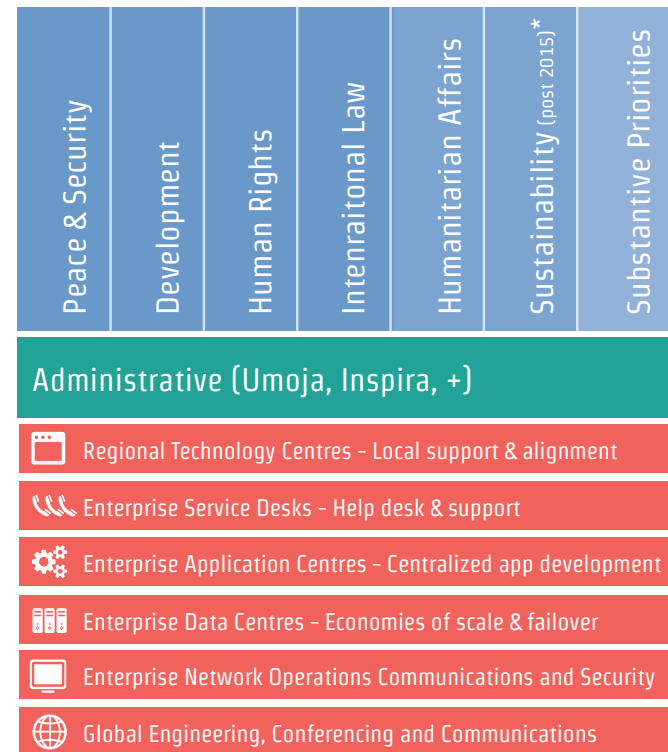
Global Engineering, Conferencing and Communications

The focus of this centre is on improving existing services and attaching priority status to critical offerings such as virtual meetings and teleconferencing. Video conferencing services will be harmonized through the establishment of technical standards, standard operating procedures, tools, and operations.

Current state of ICT



Pillars



*As of March 2015 under consideration by the General Assembly

These are times of great technological change, as advancements that support improved connectivity, such as fibre and low earth orbit satellites, have been critical to extending the reach of technology. For this Organization to remain effective, we must take advantage of cutting-edge tools to become more efficient in our work and to make better decisions. We will proactively leverage new technologies to innovate our business processes, strategies and services.

Technological Advancements

There are many ways ICT impacts how the UN will be expected to work—potentially in relation to: field commodity management; fibre optics and digitization; enterprise computing; mobile technology; mobile solutions; cloud computing; flexible work places and the analysis of data for tracking and early detection purposes.

Recognizing that advances in technology are occurring constantly, we will be open to new advances in and the development of technology to support the substantive work of the UN. ICT in enterprise computing, for example, has the potential to support best practices in eLearning, digitization of documents and retrieval of multimedia data, restoration and management of documents and archives, as well as broadcast and video conferencing. Externally, social networks, volunteer initiatives, and the growth of free and open source software highlight the need for the UN to be active in the Big Data movement. The Office for the Coordination of Humanitarian Affairs (OCHA),

for example, utilizes open source mapping on a daily basis to provide humanitarian information on global crises, such as mapping the affected areas in West Africa during the Ebola outbreak.

Analytics

We will broaden global capacity in analytics, enabling the development of innovative solutions that could assist in crisis management, strengthening oversight and accountability, and supporting informed decision-making.

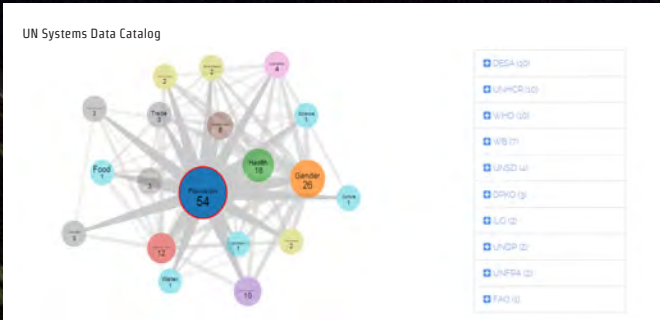
Partnership

The strategy is designed to stimulate innovation through greater collaboration with the UN system in all areas. Progressive technology will serve as a catalyst, leading to a greater collaboration between the UN and our partners.

Cyber Diligence

While rapid advancements in technology have resulted in many direct and indirect benefits, there also have been unintended consequences and risks. The threat of cyber crime will increase as more and more systems connect to the Internet. Cyber security has become a critical issue.

As such, the strategy sets forth a coherent cyber diligence approach to address the risks. This requires full engagement and support. As we embrace developments in technology, in each particular situation, we must assess how various innovations can be leveraged. It is equally important, however, that we remain cognizant of cyber security and privacy to ensure we protect our people, our infrastructure and our work.

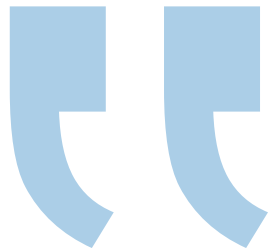


Our analyses and assessments, as well as the recommendations of the General Assembly and the Board of Auditors, influence our work on strengthening governance of ICT at the UN, laying the foundation for normalization, standardization and compliance.

The strategy establishes an effective governance framework, which is integral to strengthening management and accountability of ICT resources and activities while deriving the greatest value.

Providing strong central leadership, the Chief Information Technology Officer (CITO) is the most senior manager responsible for the overall direction and performance of ICT activities in the UN. The CITO's overarching role is to create and sustain a set of shared views, programmes and values, and to implement innovative technologies to support and facilitate the work of the UN. All entities of the Secretariat report to the CITO on all issues relating to ICT activities, resource management, standards, security, architecture, policies and guidance.

Through the strengthened and inclusive governance structure, we will create and enforce policies, procedures, guidelines, as well as enterprise architecture and standards that ensure ICT effectively supports the core work of the Organization.



In the long term, the cost of staying where we are is a lot higher than moving forward as the strategy prescribes.

Atefeh Riazi, Assistant Secretary-General and Chief Information Technology Officer (ASG/CITO)



OPTIMIZE

The new economic environment is causing everyone to rethink how we can be more effective through innovation, technology deployment and investment.

Human Resources

ICT professionals are integral to achieving the goals set out in the Secretary-General's vision for ICT in the UN. An updated staffing model with associated career paths for a modern and mobile workforce is critical to our collective success. OICT will work with the Office of Human Resources to design job profiles and establish training and mobility programmes that enable staff to achieve career goals.

Financials

The Organization's estimated annualized ICT budget for the period of 2014-15 (resources for Umoja included) is \$718.3 million. This represents a decrease in ICT budgets of \$91.6 million from the 2010 annualised ICT budget of \$809.9 million. Approximately 76 percent of the annualized ICT budget for the period 2010-2015 pertains to peacekeeping operations, with the remaining 24 percent directed to non-peacekeeping ICT service provision and ICT strategic management.

Global Sourcing

The ICT global sourcing strategy will streamline the procurement process and reduce spend on divergent and duplicative contracts. Global sourcing will be implemented through Umoja to support process integrity and visibility in compliance with IPSAS. A multi-tier structure for contract management will ensure proper control and accountability for global, regional and local contracts.



85%

RESOURCES WE
SPEND TODAY
TO “KEEP THE
LIGHTS ON”

Approximately

76%

of the annualized ICT
budget for the period
2010-2015 pertains to
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24%

directed to
non-peacekeeping ICT
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strategic management



DECREASE
in ICT budgets from 2010

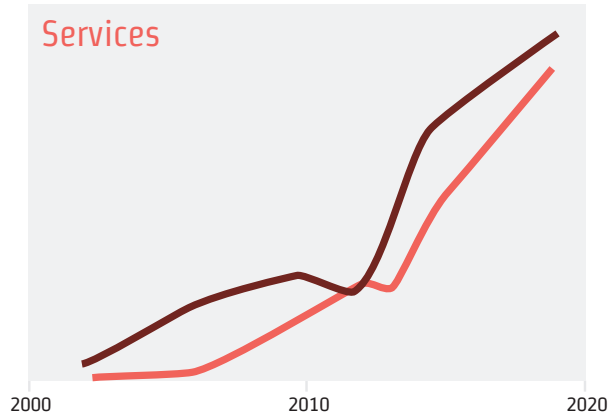


We will change finite, non-renewable resources such as oil and natural gas into a permanent asset: i.e. education, scientific and technological knowledge and innovation. This essentially will be our passport to the future.

H.E. Dilma Rousseff, President of the Federative Republic of Brazil, Address to the General Assembly, 24 September 2014

FACTS & FIGURES

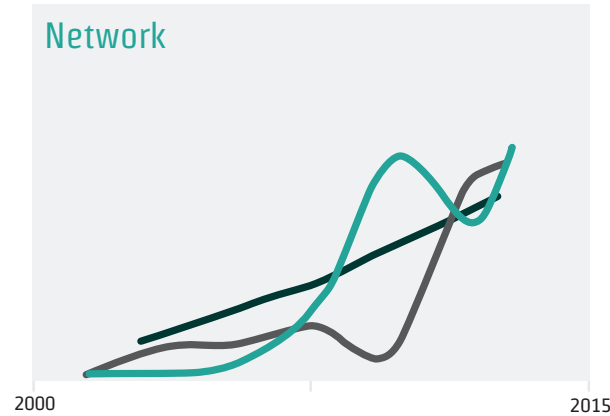
Services



Video Conferences
The use of video conferencing is expected to continue to increase, as indicated by the steep rise since 2011.

Storage Manage
The growth of storage projected through 2019.

Network

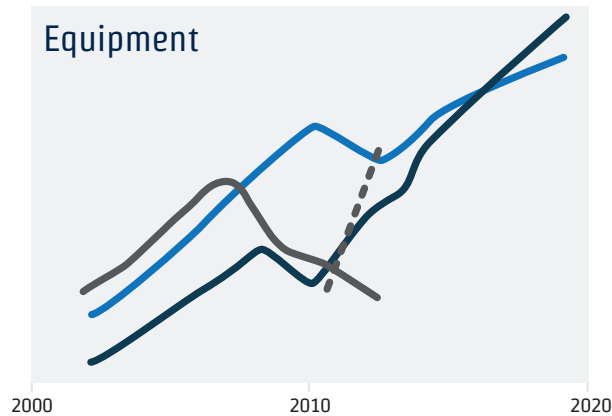


Firewall
Needed to accommodate a geographically dispersed workforce and handle the growing number of threats.

Internet Bandwidth
Bandwidth requirements continue to grow.

Remote Access Users
The growing need for secure remote access to the UN network and technology services.

Equipment



Servers
The number physical servers is decreasing, but the number of virtual servers is growing along with administration and management overhead.

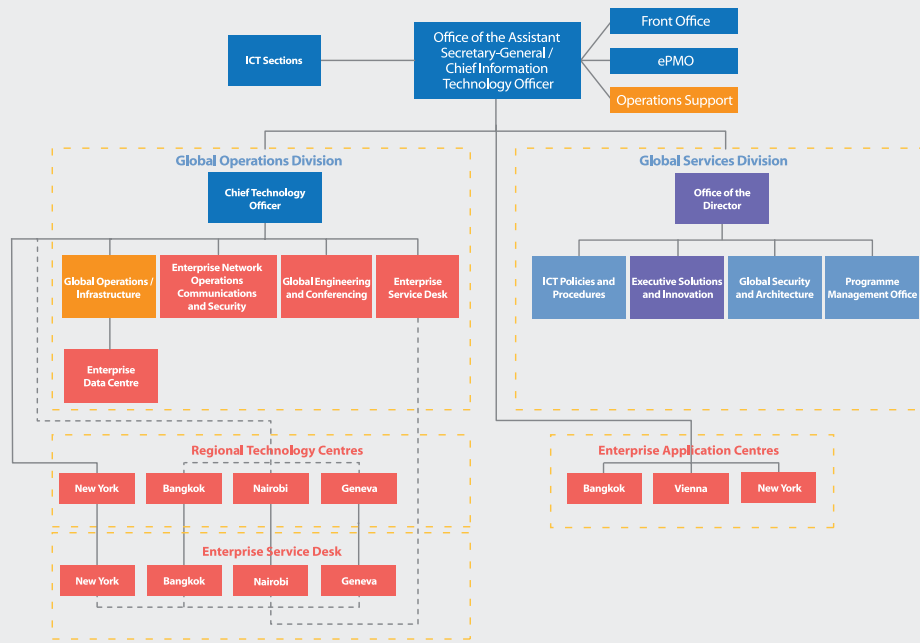
Email Servers
Shows the growth projected through 2019.

Mobile Devices
The solid line is blackberry use.
The dotted line depicts the rise of smartphone use.

Overview of information technology and communications resources for the bienniums 2010-2011 to 2014-2015 including resources for Umoja (millions of USD)

	Regular budget	Extrabudgetary	Support account	Peacekeeping missions	Special political missions	Total				
2010-2011	301.5	24.9	144.3	1,048.4	Included in regular budget	1,519.0	umoja	Total including umoja	Annual	Annual including umoja
2012-2013	210.6	24.9	73.8	963.6	58.8	1,331.7	100.7	1,619.7	759.55	809.85
2014-2015	240.7	28.4	37.7	950.7	49.8	1,307.3	137.3	1,469.0	665.85	734.50
Total 2010-2015	752.8	78.2	255.8	2,962.7	108.6	4,158.1	129.4	1,436.7	653.65	718.35
							367.4	4,525.4	2,079.05	2,262.70

ORGANIZATIONAL STRUCTURE OF THE OFFICE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY



STRATEGIC ROADMAP



1. State of Good Repair

Modernize

- 2. Umoja Deployment and Mainstreaming
- 3. Solution Delivery and Modernization
- 4. Cyber Security and Organizational Resiliency

Transform (Harmonize)

- 5. Enterprise Service Desk (Help Desk)
- 6. Solutions/Applications Standardization
- 7. Infrastructure, Network and Hosting
- 8. Global Engineering, Conferencing, and Communications
- 9. Restructure Organizational Model



Innovate

- 10. Analytics & Business Intelligence
- 11. Collaboration and Coordination
- 12. Focus Solution Delivery on Substantive Business

Govern

- 13. Governance Framework
- 14. Metrics and Reporting
- 15. Architecture and Standardization
- 16. ICT Policies and Procedures
- 17. Communications Strategy

Optimize

- 18. Human Resource Strategy
- 19. Financial Framework
- 20. Global Sourcing Strategy

CONCLUSION

Since the UN's founding, the world has become a markedly better place in many respects. Infant mortality has been reduced and life expectancy has increased. Millions of people have been lifted out of poverty. Millions more have been empowered to demand positive change. In each case, technology has been a vital component—from MRI's and CAT Scans in medicine to improvements in the manufacturing sector to social media galvanizing movements worldwide.

Today, innovations in technology are happening at an astonishing speed. And we have no doubt that these advances will play an integral role in responding to the many remaining challenges and the ones we have yet to face. Whether in reducing carbon emissions, building more sustainable economies, or providing sustenance for millions of people who will have to survive on dwindling resources.

The ICT strategy is designed to support the Organization's mission with innovation, information and transformation. The core work of the UN is what gives direction to our mission, and ultimately the aspiration that we use technology and innovation to reduce human suffering.



A single flower does not make spring, while a hundred flowers bring spring to the garden. Humankind now lives in one and the same global village; all nations are interconnected and interdependent and working with one another like never before; the world is becoming a tight-knit community of shared destiny.

H.E. Xi Jinping President of the People's Republic of China, International Conference on Engineering Science and Technology, 3 June 2014



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