



## ITU Regional Training Workshop on IPv6 and IoT Strategy, Policy, and Implementation for Arab

### States

**Khartoum-Sudan, 31 May-02 June 2022 (Hybrid)**

09:00– 15:00 (Khartoum Time)

#### Objective:

The training workshop are aiming to assist Member States by supporting smooth and well managed transition from Internet Protocol version 4 (IPv4) to Internet Protocol version 6 (IPv6) for Internet of Things (IoT) infrastructure, IPv6 for 5G, IPv6 for Industry 4.0, DNSSEC for IoT Security, services, and applications deployments, raising awareness through conducting theory and practical sessions. The training workshop is being organized with support of ICANN, ISOC and RIPE NCC.

#### Target population:

This training workshop is recommended for policy makers, regulators, IPv6 practitioner, IT managers, IoT designers, IoT developers, IoT implementers and anyone who is ready to master the steps or acquire policy strategic knowledge required to implement IPv6 and IoT based Networks.

#### Draft Agenda

	Morning Session (9 am to 12 pm)	Lunch Break	Afternoon Session (1 pm to 3 pm)
<b>Day1 (Tuesday 31 May)  Setting the Scene</b>	0900-09:25 Opening Remarks from ITU and partners: <ul style="list-style-type: none"><li>- Mr. Adel M. Darwish, Regional Director of ITU Arab Regional Office</li><li>- Eng. Hisham Ibrahim, Chief Community Officer, RIPE NCC</li><li>- Baher Esmat   Vice President, Stakeholder Engagement - Middle East and Managing Director Middle East and Africa, ICANN</li><li>- Ms Nermine El Saadany   Senior Policy Advisor for the Middle East Region, ISOC</li></ul>	12:00-13:00	13:00-14:00 National IPv6 Deployment Cases <ul style="list-style-type: none"><li>- Eng. Musaab AlAmmar   Internet Services Development Department, CITC-Saudi Arabia</li><li>- Eng. Ahmed Atya   Director, Numbering and Licensing Department, TPRA-Sudan  </li><li>- Eng. Meshal Al Mheiri   Manager, Digital Policies Development, TDAR -UAE</li></ul> 14:00-15:00 Examples of industry of IPv6 Adoption and IoT Applications (Use cases) <ul style="list-style-type: none"><li>- Mr Ramesh R Chandra   Reliance Jio Infocomm Limited (RJIL) Experience-India  </li></ul>

	<ul style="list-style-type: none"> <li>- Eng. Mohamed EL Kamil, Acting Director General of TPRA-Sudan</li> </ul> <p>09:25-09:30 Group photo</p> <p>0930-10:00 Coffee break</p> <p>10:00-12:00 Setting the context</p> <ul style="list-style-type: none"> <li>- Why IPv6? Eng. Salih Shihab Eldin Mahmoud   ITU Expert  </li> <li>- Status of IPv6 in the Arab region, Dr Chafic Chaya   Regional Communications Manager, Middle East, RIPE NCC</li> <li>- IPv6 transition strategies and technologies, Eng. Intisar Alhaj   ITU Expert</li> <li>- ITU activities on IPv6, Dr Walid Mathlouthi   Head of Futrue Network and Spectrum Divison, ITU</li> <li>- IoT policies and strategies, Dr Navaneethan C. Arjuman   ITU Expert</li> </ul>		<ul style="list-style-type: none"> <li>- Mr George Bratoveanu   Technical Director   Jordan European Internet (JCS)</li> <li>- Eng. Hanadi Abdelrahman   Senior Professional, Network and Transport Dept, SUDATEL</li> <li>- Eng. Jamil Toukan   Manager, IP Core and Transmission Network, Orange Jordan</li> </ul>
<p><b>Day 2</b> <b>(Wed 1 June)</b> <b>Technical Sessions</b></p>	<p>09:00-11:00 IPv6 fundamental including IPv6 best practices and deployment Eng. Jad Elcham   Learning and Development Program Manager, RIPE NCC</p> <p>1100-11:30 Coffee break</p> <p>11:30-12:00</p> <ul style="list-style-type: none"> <li>▪ Best practices for deploying IPv6 on your network, Dr Navaneethan C. Arjuman   ITU Expert</li> </ul>	<p>12:00-13:00</p>	<p>13:00-13:45 DNSSEC for IoT Security</p> <ul style="list-style-type: none"> <li>- Mr Paul Muchene   Technical Engagement Specialist, Middle East and Africa, ICANN</li> <li>- Mr Yazid Akanho   Technical Engagement Specialists for the Middle East and Africa, ICANN</li> </ul> <p>13:45-14:30 Building IXPs and connectivity Mr Hanna Kreitem   Senior Technical Advisor, ISOC</p> <p>14:30-15:00</p>

	<ul style="list-style-type: none"> <li>▪ Network security evaluation for IPv6 deployment, <a href="#">Eng. Hiba Alamin</a>   ITU Expert</li> </ul>		<p><b>Hands-on Labs</b></p> <ul style="list-style-type: none"> <li>▪ Configuring BGP4+, <a href="#">Eng. Salih Shihab Eldin Mahmoud</a>,   ITU Expert</li> <li>▪ Demonstration of several IPv6 attacks, <a href="#">Eng. Mohamed ABDELHAFEZ FADUL</a>   ITU Expert</li> </ul>
<p><b>Day 3 (Thu 2 June)</b> <b>Technical and Practical</b></p>	<p>09:00-12:00 IoT Fundamental Trainers:</p> <ul style="list-style-type: none"> <li>▪ <a href="#">Dr Navaneethan C. Arjuman</a>   ITU Expert  </li> <li>▪ <a href="#">Eng. Sara Moahmed</a>   ITU Expert</li> <li>▪ <a href="#">Eng. Intisar Alhaj</a>   ITU Expert</li> </ul> <ul style="list-style-type: none"> <li>✓ IoT Concepts and Terminologies</li> <li>✓ Basic Building Block of IoT</li> <li>✓ Architecture</li> <li>✓ Enabling Technologies of IoT</li> <li>✓ IoT Security and Top Governance Issues</li> <li>✓ IoT Case Studies and Future Predictions</li> </ul>	<p>12:00-13:00</p>	<p>13:00-14:00 IoT Security Trainer: <a href="#">Dr Navaneethan C. Arjuman</a>   ITU Expert</p> <ul style="list-style-type: none"> <li>✓ IoT Security Overview</li> <li>✓ Baseline Policies for IoT Security</li> <li>✓ IoT Vulnerabilities</li> <li>✓ IoT Endpoint Security Guidelines</li> <li>✓ IoT Security Recommendations</li> </ul> <p>14:00-15:00 Hands-on Labs <a href="#">Eng. Mohamed ABDELHAFEZ FADUL</a>   ITU Expert</p> <ul style="list-style-type: none"> <li>- Setup the testbed for IoT AUTOMATIC WATERING PLANT SYSTEM using the Arduino IoT software and hardware</li> <li>- WiFi for IoT security test</li> </ul>