



ARAB REGION

Human Capacity Building
on Internet Protocol version 6
(IPv6) for Arab LDCs (9RAB16024)



BACKGROUND

Today the Internet does not mean only accessing Web Sites and checking emails.

Explosive growth in network devices diversity and mobile communication, forces the global adoption of Internet Protocol (IP) services and Technologies built over it. IP is considered by the market as the common denominator to converge different application layers such as data, voice, and audio. However, these new devices require many more IP addresses to interconnect all kinds of IP appliances besides just the computers currently interconnected on the Internet. This is the main reason for overwhelming the IPv4 address space. This exhaustion prompted the Internet Engineering Task Force to come to consensus to develop the next-generation Internet Protocol which is the IPv6.

The project was launched in December 2016 and completed in May 2017.



WHY WAS THE PROJECT NEEDED?

Internet Protocol version 6 is a version of the Internet Protocol (IP) intended to succeed Internet Protocol version 4, which currently directs almost all Internet traffic, but is running out of addresses. IPv6 allows up to 2¹²⁸ addresses, a massive increase from the 2³² (about 4.3 billion) addresses possible with IPv4, and includes several other improvements.

To gain the full benefits of IPv6, most hosts on the Internet, as well as the networks connecting them, will need to deploy this protocol.

PARTNER

Telecommunications
Regulatory Authority (TRA),
United Arab Emirate

National Telecommunications
Corporation (NTC)
of Sudan- IPv6 Training Center

BENEFICIARY COUNTRIES

ITU has collaborated with the competent Sudanese authorities for the purpose of organizing training programs on IPv6 for the Arab LDCs (**Comoros, Djibouti, Somalia, Sudan, Mauritania, Yemen**) and **Palestine**. The project has met the overall objective of the ITU-D (for the period of 2014-2018) on HCB “Build human and institutional capacity, provide data and statistics, promote digital inclusion”.



OBJECTIVE

The overall objective of the project was to build human and institutional capacity of the Arab LDCs and Palestine in order to improve the technical skills in the development and use of IPv6 and assist them to better deploy the IPv6.



PROJECT ACTIVITIES

- Designing of the agenda and organization of workshops / trainings;
- Selecting and inviting other interested partners;
- Utilizing the internal qualified and certified expertise of NTC to deliver the training activities of the project;
- Creation of training material and delivery of the training courses in relevant areas;
- Analysis of the feedback; and
- Submission of the closure report.

RESULTS

By implementing this project, the following results were achieved:

- Two (2) face-to-face training activities were provided
- 31 Professionals in IPv6 from Arab LDCs and Palestine trained;
- 20 Professionals in IPv6 from Arab LDCs and Palestine become certified in IPv6 certificate level 1 and level 2 (IPv6 security);



RESULTS

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No. of participants that completed the training:

31

02

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No. of male participants:

23

03

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No. of female participants:

8

04

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No. Of certified IPv6:

20



LESSONS LEARNED

Lessons learned from the implementation of the project:

- Sound stakeholder cooperation is essential for the success of the project.
- Establishing a long-term project coordination mechanism enabled the probability of success, as well as continuity and good results.
- Good financial management resulted in the project closing with ceiling even the estimates with lower than the real cost of the project items due to the currency inflation in the beneficiary countries.
- Participants are eager for learning and IPv6 is critical and priority areas for them.
- Good Follow-up with the different stakeholders including project coordinator are critical.
- Diversity in Language and culture is not a barrier for learning.

CONCLUSION AND RECOMMENDATIONS

The project was implemented between 1 December 2016 and 31 May 2017 in the Arab LDCs and Palestine efficiently and effectively, activities were completed, and results were achieved as planned. The project successfully designed, offered and implemented the activities, by training 31 professionals using face-to-face mode in IPV6 related issues. The training activities of the project accredited by NAV6.

The technical capabilities of the staff on IPv6 development and deployment have been upgraded and professionals in IPv6 received high quality certified training. People trained will be able to transfer their technological knowledge to co-workers and to their citizens that can trigger a domino effect in the development and deployment of IPv6 as next generation of the IP infrastructure.

This experience and best practices can be replicated to benefit broader ITU members including Africa region in which the NTC as implementing institution had showed their willingness to train members from Africa and use their IPv6 center capabilities for the benefits of Africa members.