Designing and Deploying Computer Networks (DDCN)



NANOG88, Seattle, June 2023

Dr. Hosein F. Badran

Senior Director, Internet Growth and Trust

badran@isoc.org

Target Audience

Introductory course in networking fundamentals targeting

- Junior engineers
- Fresh graduates
- Individuals staring a career in networking



Course objectives

- Understand how the Internet works (routing, DNS etc.), what a network is, the TCP/IP Suite and Network Standard organizations.
- Understand the components of a network, and differentiate between LAN, MAN and WAN.
- Understand the LAN technologies (Network devices, cable, and wireless), then design and install small LAN infrastructure.
- Connect the LAN to the Internet using the most common Internet services through mobile, ADSL, and Fibre.
- Troubleshoot small LANs and Internet connections.



Course description

The course contains theoretical and practical components and starts with the <u>fundamentals of networking</u>, <u>Ethernet</u>, as well as <u>Wi-Fi technologies</u>. It continues with the <u>planning</u>, <u>designing</u>, <u>and deployment of simple LANs</u>, covering the most common ways to connect a LAN to the Internet (Mobile Internet, ADSL, Fiber) and how to set up the connections.

In addition, the course covers the most <u>common maintenance issues</u> and addresses how to solve them.

The course does not include the planning, design and deploying of LANs that require other <u>advanced equipment or concepts</u>.



Upcoming Course Offerings

Course offered once per quarter:

- Quarter 3 September 11th October 20th
- Quarter 4 October 23rd December 1st



The ASK

- Publicize the course with your networks of
 - Junior engineers
 - Fresh graduates
 - Individuals staring a career in networking
- Help reach local universities and colleges
- Identify tutors for face-to-face offerings



Thank you.

Dr. Hosein F. BadranSenior Director, Internet Growth and Trust badran@isoc.org

Rue Vallin 2 CH-1201 Geneva Switzerland

Rambla Republica de Mexico 6125 11000 Montevideo, Uruguay

Science Park 400 1098 XH Amsterdam Netherlands 11710 Plaza America Drive Suite 400 Reston, VA 20190, USA

66 Centrepoint Drive Nepean, Ontario, K2G 6J5 Canada

6 Battery Road #38-04 Singapore 049909

