Курс за мрежови специалисти

Знания и умения, които ще придобиете във **ВУСИ IT АКАДЕМИЯ**

с Networking Academy CCNAv7

(Packet Tracer версия 7.3.0.)

Първо ниво CCNv7: *Introduction to Networks*

- Build simple LANs, perform basic configurations for routers and switches, and implement IPv4 and IPv6 addressing schemes;
- Configure routers, switches, and end devices to provide access to local and remote network resources and to enable end-to-end connectivity between remote devices;
- Develop critical thinking and problem-solving skills using real equipment and Cisco Packet Tracer;
- Configure and troubleshoot connectivity a small network using security best practices;
- Explain how physical and data link layer protocols support the operation of Ethernet in a switched network;
- Configure routers to enable end-to-end connectivity between remote devices;
- Create IPv4 and IPv6 addressing schemes and verify network connectivity between devices;
- Explain how the upper layers of the OSI model support network applications.

Второ ниво CCNAv7: *Switching, Routing, and Wireless Essentials*

- Work with routers, switches and wireless devices to configure and troubleshoot VLANs, Wireless LANs and Inter-VLAN routing;
- Configure and troubleshoot redundancy on a switched network using STP and EtherChannel. Troubleshoot inter-VLAN routing on Layer 3 device;
- Configure redundancy on a switched network using STP and EtherChannel;
- Troubleshoot EtherChannel on switched networks;

- Configure dynamic address allocation in IPv6 networks;
- Configure WLANs using a WLC and L2 security best practices;
- Configure switch security to mitigate LAN attacks;
- Configure IPv4 and IPv6 static routing on routers;
- Develop critical thinking and problem-solving skills using real equipment and Cisco Packet Tracer;
- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.

Трето ниво CCNAv7: *Enterprise Networking, Security, and Automation*

- Work with routers and switches using OSPF in point-to-point and multiaccess networks;
- Mitigate threats and enhance network security using access control lists and security best practices;
- Explain how to mitigate threats and enhance network security using access control lists and security best practices;
- Implement standard IPv4 ACLs to filter traffic and secure administrative access;
- Configure NAT services on the edge router to provide IPv4 address scalability;
- Explain techniques to provide address scalability and secure remote access for WANs;
- Explain how to optimize, monitor, and troubleshoot scalable network architectures;
- Explain how networking devices implement QoS;
- Implement protocols to manage the network;
- Explain how technologies such as virtualization, software defined networking, and automation affect evolving networks;
- Understand virtualization, SDN, and how APIs and configuration management tools enable network automation;
- Develop critical thinking and problem-solving skills using real equipment and Cisco Packet Tracer.