



Ministry of cooperatives
Labour and Social Welfare



Iran Technical and Vocational
Training Organization

Deputy of training
Plan and curriculums office

Competency Training standard

Title

**640-911: Introducing Cisco Data Center
Networking (DCICN)**

*Iran Technical and Vocational
Training Organization*

Occupational group
INFORMATION TECHNOLOGY (IT)

International code

2523-53-154-1

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Revision Process:

- Scientific content
- According to market
- Equipment
- Tools

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Definitions:

Job standard:

The characteristics ' required competencies and abilities for Efficient Performance in work environment is called "the Job standard", and sometimes “The Occupational standard”

Training standard:

The Training Map for achieving the Job’s subset Competencies.

Job title:

Is a set of Tasks and Abilities which is expected from an employed person in the defined level

Job description:

A statement covering the most important elements of a job, namely the position or title of the job, the duties, job’s relation with other jobs in a occupational field, the responsibilities, workplace conditions and required performance standards.

Course duration:

The minimum of time which is required to achieve the training objects.

Admission requirements:

The minimum of competencies and abilities which are obligatory for a potential admission.

Evaluation:

The process of collecting evidence and judgment about whether a competency is achieved or not.

Include: written examination, practical examination

Required Qualifications for Trainers:

The minimum of Trainer’s technical and vocational abilities which the trainer is required to have.

Competency:

The ability of efficient performing a duty in a variety of workplaces conditions

Knowledge:

The minimum set of facts and mental capacities which is necessary for achieving a competency. This can include science, (Mathematics, physics, chemistry or biology), technology or technical.

Skill:

The minimum coordination between mind and body for achieving an ability or competency. It normally applied to practical skills.

Attitude:

A set of emotional behaviors required for achieving a competency and can have non-technical skills and occupational ethics.

Safety:

The cases which doing or not doing something can cause harm or accident

Environmental Consideration:

A set of consideration about the act which should be done to minimize the environmental damage or pollution.

Competency Title:**Introducing Cisco Data Center Networking (DCICN)****Competency Description:**

The 640-911 DCICN Introducing Cisco Data Center Networking is one of the exams associated with the CCNA Datacenter Certification. This exam tests a candidate's knowledge of networking concepts for the Data Center environment, based on Nexus-OS. You will learn fundamental information on how a Data center network works, how to configure virtualization in the network, addressing schemes, troubleshooting and configuration skills. Candidates can prepare for this exam by taking the course DCICN, Introducing Cisco Data center Networking.

Admission Requirements:

minimum degree of education: Post first year of high school

minimum physical and mental ability:-

Prerequisite skills: -

Course duration:

Course duration: 30 hours

-Theoretical :10 Hours

-Practical :20 Hours

-Apprenticeship:... Hours

-Project:... Hours

Evaluation :(%)

Exam Time	90 minutes
Number of questions	65-75
Exam Number	640-911
Associate Certification	CCNA Data Center

IRANTVTO Evaluation :(%)

Written Examination:25%

Practical Examination:65%

Ethics:10%

Required Qualifications for Trainers:

Computer or IT or ART related Bachelor with 2 years' experience

Competency Training Standard

Competencies

~	Title
1	Describe How a Network Works
2	Configure, Verify and Troubleshoot a Switch with VLANs and Interswitch Communications Using Nexus
3	Implement an IP Addressing Scheme and IP Services to Meet Network Requirements in a Medium-Size Enterprise Branch Office Network Using Nexus
4	Configure, Verify, and Troubleshoot Basic Router Operation and Routing on Cisco Devices Using Nexus



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Contents analysis form

Title: Describe How a Network Works	time			
	theoretical	practical	total	
	Determined by the instructor			
Knowledge ,skill ,attitude ,safety, Environmental Consideration				Equipments ,tools, materials ,books
Knowledge and Skill: Describe the purpose and functions of various network devices <ul style="list-style-type: none"> - Interpret a network diagram - Define physical network topologies Select the components required to meet a network specification <ul style="list-style-type: none"> - Switches - Describe and identify Nexus hardware specifications - Describe and identify Nexus licensing requirements Use the OSI and TCP/IP models and their associated protocols to explain how data flows in a network <ul style="list-style-type: none"> - IP - TCP - UDP Describe the purpose and basic operation of the protocols in the OSI and TCP <ul style="list-style-type: none"> - TCP/IP - OSI layers 	Determined by the instructor			From Cisco
Attitude: Speed and accuracy in doing the right thing				
Health & Safety: Compliance with safety protection in the workplace				
Environmental Consideration: Compliance with environmental protection				

Training standard

Contents analysis form

Title:	time			
	theoretical	practical	total	
	Configure, Verify and Troubleshoot a Switch with VLANs and Interswitch Communications Using Nexus	Determined by the instructor		
Knowledge ,skill ,attitude ,safety, Environmental Consideration				Equipments ,tools, materials ,books
Knowledge and Skill: Explain the technology and media access control method for Ethernet <ul style="list-style-type: none"> - IEEE 802 protocols - CSMA/CD Explain basic switching concepts and the operation of Cisco switches <ul style="list-style-type: none"> - Layer 2 addressing - MAC table - Flooding Describe and configure enhanced switching technologies <ul style="list-style-type: none"> - VTP - VLAN - 802.1q - STP 	Determined by the instructor			From Cisco
Attitude: Speed and accuracy in doing the right thing				
Health & Safety: Compliance with safety protection in the workplace				
Environmental Consideration: Compliance with environmental protection				

Title: Implement an IP Addressing Scheme and IP Services to Meet Network Requirements in a Medium-Size Enterprise Branch Office Network Using Nexus	time			
	theoretical	practical	total	
	Determined by the instructor			
Knowledge ,skill ,attitude ,safety, Environmental Consideration				Equipments ,tools, materials ,books
Knowledge and Skill: Describe the operation and benefits of using private and public IP addressing <ul style="list-style-type: none"> - Classfull IP addressing - RFC 1918 - RFC 4193 Describe the difference between IPv4 and IPv6 addressing schemes <ul style="list-style-type: none"> -Comparative address space - Host addressing 	Determined by the instructor			From Cisco
Attitude: Speed and accuracy in doing the right thing				
Health & Safety: Compliance with safety protection in the workplace				
Environmental Consideration: Compliance with environmental protection				

Training standard
Contents analysis form

Title: Configure, Verify, and Troubleshoot Basic Router Operation and Routing on Cisco Devices Using Nexus	time			
	theoretical	practical	total	
	Determined by the instructor			
Knowledge ,skill ,attitude ,safety, Environmental Consideration				Equipments ,tools, materials ,books
Knowledge and Skill:	Determined by the instructor			From Cisco
Describe and configure basic routing concepts - Packet forwarding -Router look-up process (Exec mode, Exec commands, Configuration mode)				
Describe the operation of Cisco routers - Router boot-up process - POST - Router components				
Attitude: Speed and accuracy in doing the right thing				
Health & Safety: Compliance with safety protection in the workplace				
Environmental Consideration: Compliance with environmental protection				