International Civil Aviation Organization | Organisation de l'aviation civile internationale | Organización de Aviación Civil Internacional | Международная организация гражданской авиации | منظمة الطيران المدني الدولي | 国际民用航空组织

Ref.: LN 3/20.1 Lima, 8 September 2015

To: Mr. Philippe Guivarch, Regional Director of Civil Aviation, West Indies and French Guiana
Ms. Chaitrani Heeralall, Director General, Civil Aviation Authority (ag), Guyana
Mr. Andojo Rusland, Minister of Transport, Communication and Tourism, Suriname

Subject: **RLA/03/901 – REDDIG II – Basic course on CISCO Switches and Routers**
(Lima, Peru, 9 to 13 November 2015)

Action required: **Confirm attendance by 23 October 2015**

Sir,

I have the honour to refer to the Eighteenth Meeting of the REDDIG Coordination Committee (RCC/18), held in Lima, Peru, from 2 to 4 March 2015, in which the training plan for 2015 was analyzed for the personnel in charge of the operation and maintenance of the REDDIG nodes equipment's, considering the need to provide a basic course on IP CISCO Switches and Routers, principal equipment's that conform the REDDIG II.

The purpose of this course is to provide the necessary training for the technical personnel in charge of the REDDIG II maintenance that does not possess a solid knowledge about IP networks and related equipments (CISCO routers and switches).

The objective of the course is to provide the abilities and necessary knowledge for the installation, operation and problem solving capacity for connectivity in the REDDIG II, including the configuration of switches, routers and safety implementation.

The course is addressed exclusively to the technical personnel in charge of the maintenance of the REDDIG nodes in each one of the States members.

The complete basic course is conformed of two independent parts and in view of the cost and duration of them, it has been considered to held them in two parts: The first on "Interconnecting Cisco Network Devices Part 1 (ICND1)" to be held from 9 to 13 November 2015 and the second one "Interconnecting Cisco Network Devices Part 2 (ICND2)", scheduled tentatively for 4 to 8 April 2015.

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The description of the content of the course (ICND1 and ICND2) is presented as **Appendix A**. The cost of the ICDN 1 course for 16 persons is approximately USD 8,000.00 and will be covered by the Project RLA/03/901.

In order to participate in the course, one Fellowship for each node installed of the REDDIG II has been considered. If the State in charge of the node would like to include another person in charge of the node´s maintenance, it must assume all the travel expenses, including the registration fee.

I would appreciate receiving a confirmation on participation of your delegates at the course, by sending to this Office the attached Registration Form (**Appendix B**) duly completed for each delegate, no later than **23 October 2015.**

The documentation will be issued in due course on the website of this Office, www.icao.int/sam, *Meetings* option. No printed copies of the documentation will be distributed during the course being desirable that the delegates take them physically or by electronic means.

Were you to require further information regarding this activity, please contact Mr. Onofrio Smarrelli (osmarrelli@icao.int), CNS Officer, ICAO SAM Regional Office in Lima.

Accept, Sir, the assurances of my highest consideration.

Franklin Hoyer
Regional Director
ICAO South American Office
Lima

Enclosure
As indicated

cc: Mr. Claude Miquel, Deputy Director of Civil Aviation, West Indies and French Guiana
Mr. Olivier Jouans, Regional Director of ATM services, West Indies and French Guiana
Mrs. Thelma Douglas Pinas, Permanent Secretary, Ministry of Transport, Communication and Tourism, Suriname
Mr. Faizel Baarn, acting Head of Civil Aviation Department, Suriname
Mr. Brian De Souza, acting Director, CASAS, Suriname

Interconnecting Cisco Network Devices Part 1 (ICND1)

Quién debería asistir

Target candidates:
Individuals seeking the Cisco CCENT certification, or Cisco CCNA Routing and Switching certification. The course is also appropriate for support technicians involved in the basic installation, operation, and verification of LAN networks.

Key job tasks:
Configure: Implement the identified solution by applying the planned implementation processes using Cisco IOS commands and applications in the correct order to the selected devices and portions of the network.
Verify: Use the appropriate show commands and applications to ensure that the solution was correctly implemented and is performing as desired.
Job roles: Entry-level network engineer, network administrator, network support technician, and help desk technician

Prerrequisitos

The knowledge and skills that a learner must have before attending this course are as follows:

- Basic computer literacy
- Basic PC operating system navigation skills
- Basic Internet usage skills
- Basic IP address knowledge

Objetivos del curso

Upon completing this course, you will be able to meet these objectives:

- Describe network fundamentals and build simple LANs
- Establish Internet connectivity
- Manage network device security
- Expand small- to medium-sized networks with WAN connectivity
- Describe IPv6 basics

Contenido del curso

Interconnecting Cisco Networking Devices, Part 1 (ICND1) v2.0 is a five-day, instructor-led training course that teaches learners how to install, operate, configure, and verify a basic IPv4 and IPv6 network, including configuring a LAN switch, configuring an IP router, connecting to a WAN, and identifying basic security threats. Optionally, this course can be followed by the Interconnecting Cisco Network Devices Part 2 (ICND2) course, which covers topics in more depth and teaches learners how to perform basic troubleshooting steps in enterprise branch office networks, preparing learners for Cisco CCNA certification.

Esquema Detallado del Curso

Day 1: Course Introduction, Building a Simple Network

- Course Introduction
- Module 1: Building a Simple Network
- Lesson 1-1: Exploring the Functions of Networking
- Lesson 1-2: Understanding the Host-to-Host Communications Model
- Lesson 1-3: Introducing LANs
- Lesson 1-4: Operating Cisco IOS Software
- Lesson 1-5: Starting a Switch
- Lab 1-1: Performing Switch Startup
- Lesson 1-6: Understanding Ethernet and Switch Operation
- Lesson 1-7: Troubleshooting common Switch Media Issues
- Lab 1-2: Troubleshooting Switch Media Issues

Day 2: Establishing Internet Connectivity

- Review of Day 1
- Module 2: Establishing Internet Connectivity
- Lesson 2-1: Understanding the TCP/IP Internet Layer
- Lesson 2-2: IP Addressing and Subnets
- Lesson 2-3: Understanding the TCP/IP Transport Layer
- Lesson 2-4: Exploring the Functions of Routing
- Lesson 2-5: Configuring a Cisco Router

- Lab 2-1: Performing Initial Router Setup and Configuration
- Lesson 2-6: Exploring the Packet-Delivery Process
- Lesson 2-7: Enabling Static Routing
- Lesson 2-8: Managing Traffic Using ACLs
- Lesson 2-9: Enabling Internet Connectivity

Day 3: Managing Network Device Security

- Review of Day 2
- Lab 2-2: Connecting to the Internet
- Module 3: Managing Network Device Security
- Lesson 3-1: Securing Administrative Access
- Lab 3-1: Enhancing the Security of the Initial Configuration
- Lesson 3-2: Implementing Device Hardening
- Lab 3-2: Device Hardening
- Lesson 3-3: Implementing Traffic Filtering with ACLs

Day 4: Building a Medium-Sized Network

- Review of Day 3
- Lab 3-3: Filtering Traffic withACLs
- Module 4: Building a MediumSized Network
- Lesson 4-1: Implementing VLANs and Trunks
- Lesson 4-2: Routing Between VLANs
- Lab 4-1: Configuring ExpandedSwitched Networks
- Lesson 4-3: Using a Cisco
- Network Device as a DHCP Server
- Lab 4-2: Configuring a DHCP Server
- Lesson 4-4: Introducing WAN Technologies
- Lesson 4-5: Introducing Dynamic Routing Protocols
- Lesson 4-6: Implementing OSPF
- Lab 4-3: Implementing OSPF

Day 5: Introducing IPv6

- Review of Day 4
- Module 5: Introducing IPv6
- Lesson 5-1: Introducing basic IPv6
- Lab 5-1: Configure and Verify Basic IPv6
- Lesson 5-2: Understanding IPv6
- Lab 5-2: Configure and Verify Stateless Autoconfiguration
- Lesson 5-3: Configuring IPv6 Routing
- Lab 5-3: Configure and Verify IPv6 Routing
- Lab: ICND1 Superlab

Interconnecting Cisco Network Devices Part 2 (ICND2)

Quién debería asistir

ICND2 is designed for those who have a firm background in data networking, have some hands-on experience with Cisco routers and switches, and are looking to increase their knowledge of installation, maintaining, and troubleshooting medium-sized switched and routed networks or for those who are looking to achieve the first level of Cisco certification, the CCNA.

We strongly recommend that other students start with ICND1.

Prerrequisitos

Before taking Interconnecting Cisco Network Devices Part 2 (ICND2), students should take:

- Interconnecting Cisco Network Devices Part 1 (ICND1)

Objetivos del curso

Upon completing this course, you will be able to meet these objectives:

- Operate a medium-sized LAN with multiple switches, supporting VLANs, trunking, and spanning tree
- Troubleshoot IP connectivity
- Configure and troubleshoot EIGRP in an IPv4 environment, and configure EIGRP for IPv6
- Configure and troubleshoot OSPF in an IPv4 environment, and configure OSPF for IPv6
- Define characteristics, functions, and components of a WAN
- Describe SNMP, syslog, and NetFlow, and manage Cisco device configurations, Cisco IOS images, and licenses

Esquema Detallado del Curso

Module 1: Implementing Scalable Medium-Sized Networks

- Lesson 1: Troubleshooting VLAN Connectivity
- Lab 1-1: Troubleshooting VLANs and Trunks
- Lesson 2: Building Redundant Switched Topologies
- Lab 1-2: Optimizing STP
- Lesson 3: Improving Redundant Switched Topologies with EtherChannel
- Lab 1-3: Configuring EtherChannel
- Lesson 4: Understanding Layer 3 Redundancy
- Module 2: Troubleshooting Basic Connectivity
- Lesson 1: Troubleshooting IPv4 Network Connectivity
- Lab 2-1: Troubleshooting IP Connectivity
- Lesson 2: Troubleshooting IPv6 Network Connectivity

Module 3: Implementing an EIGRP-Based Solution

- Lesson 1: Implementing EIGRP
- Lab 3-1: Implementing EIGRP
- Lesson 2: Troubleshooting EIGRP
- Lab 3-2: Troubleshooting EIGRP
- Lesson 3: Implementing EIGRP for IPv6
- Lab 3-3: Implementing EIGRP for IPv6
- Lesson 4: Module Summary
- Lesson 5: Module Self-Check

Module 4: Implementing a Scalable, Multi-area Network, OSPF Based Solution

- Lesson 1: OSPF Overview
- Lesson 2: Multiarea OSPF IPv4 Implementation
- Lab 4-1: Configuring Multiarea OSPF
- Lesson 3: Troubleshooting Multiarea OSPF
- Lab 4-2: Troubleshooting Multiarea OSPF
- Lesson 4: Examining OSPFv3
- Lab 4-3: Configuring OSPF for IPv6
- Lesson 5: Module Summary
- Lesson 6: Module Self-Check

Module 5: Wide-Area Networks

- Lesson 1: Understanding WAN Technologies
- Lesson 2: Configuring Serial Encapsulation
- Lab 5-1: Configuring and Troubleshooting a Serial Connection
- Lesson 3: Establishing a WAN Connection Using Frame Relay
- Lab 5-2: Establishing a Frame Relay WAN
- Lesson 4: Introducing VPN Solutions
- Lesson 5: Configuring GRE Tunnels
- Lab 5-3: Establishing a GRE Tunnel
- Lesson 6: Module Summary
- Lesson 7: Module Self-Check

Interconnecting Cisco Network Devices Part 2 (ICND2)

Module 6: Network Device Management

- Lesson 1: Configuring Network Devices to Support Network Management Protocols
- Lab 6-1: SNMP and Syslog Basic Configuration
- Lab 6-2: Analyzing NetFlow Data
- Lesson 2: Managing Cisco Devices
- Lesson 3: Licensing
- Lab 6-3: Managing Cisco Devices and Licensing

Module S: ICND2 Superlab

- Lab S-2: ICND2 Superlab

APÉNDICE B/APPENDIX B

ORGANIZACIÓN DE AVIACIÓN CIVIL INTERNACIONAL
INTERNATIONAL CIVIL AVIATION ORGANIZATION

Proyecto Regional RLA/03/901 - Sistema de Gestión de la REDDIG y Administración del Segmento Satelital
Regional Project RLA/03/901 - REDDIG Management System and Administration of the Satellite Segment

Curso básico sobre Switches y Routers CISCO
Basic course on CISCO Switches and Routers

Lima, Perú, 9 al 13 de noviembre de 2015 / Lima, Peru, 9 to 13 November 2015

FORMULARIO DE REGISTRO / REGISTRATION FORM

Participaré en el curso ☐
Will participate in the course

1. Estado/*State:*
   Organismo/*Organization:* _____

2. Nombre/*Name:* _____

3. Cargo/*Position*: _____

4. Dirección oficial /
   Business address: _____

   _____

5. Tel.: _____ Fax: _____ E-mail: _____

6. Hotel o dirección en la ciudad/
   Hotel or local address: _____

7. Información de vuelo/
   Flight information:
   Vuelo de llegada/ fecha/ hora/
   Arrival flight/ date/ hour: _____
   Vuelo de salida/ fecha/ hora/
   Departure flight/ date/ hour: _____

Firma /
Signature: _____ Fecha /
Date: _____

Por favor envíe este formulario a: / Please return this form to: icaosam@icao.int