

Student Assessment Project Result
CET 2620 (Cisco Projects in Routing Design and Administration)
Spring 2012

Program Learning Outcome:

The CET faculty have identified the program learning outcome to be assessed in the Cisco capstone course (CET 2620C) as “Build inter-networked environments, incorporating routers, bridges, and switches”.

Assessment measure:

The following assessment measure is used to monitor student success and program effectiveness. The assessment method used for CET 2620C is a formative and summative online assessment that measures student performance and knowledge of networking concepts and skills. It provides an immediate and targeted feedback to the instructor and the student.

The skill assessment is provided by the Cisco Academy web site and is available to all students who are enrolled in CET 2620C course.

The skill assessment measures the following:

Students are expected to:

1. Finish designing the IP addressing scheme.
2. Implement the addressing in the network to meet the stated requirements.
3. Configure and verify WAN technologies.
4. Configure and verify a DHCP server implementation.
5. Configure EIGRP to enable communication with the rest of the network.
6. Configure NAT to translate addresses for traffic destined to the Internet.
7. Implement access control lists as part of a security policy.

Assessment Rubric:

The following rubric is used to evaluate the skill Based Project:

Rubric for Evaluating Skill Based Project – CET 2620

Program Learning Outcomes Addressed and Project Criteria	Levels of Achievement			
	Beginning (None) 1	Developing (Novice) 2	Competent (Partial) 3	Accomplished (Proficient) 4
<i>DHCP Configuration</i> <i>DHCP excluded addresses</i> <i>DHCP pool configuration</i>	Demonstrate inadequate understanding of configuring a router as a DHCP server	Some evidence of DHCP configuration	demonstrates good understanding of DHCP configuration with minor mistakes	Demonstrate complete understanding of configuring and verifying a router as a DHCP server
<i>WAN Configuration</i> <i>HDLC encapsulation configuration</i> <i>PPP encapsulation configuration</i> <i>PPP CHAP configuration</i> <i>Frame Relay configuration</i> <i>DLCI configuration</i>	Most components of a basic serial connection are not configured	Partial solution to configure a serial connection	Most components of WAN configuration are correct	Demonstrates complete understanding of configuration and verification of serial connection
<i>Routing Configuration</i> <i>EIGRP routing configuration</i> <i>Default route configuration</i>	Demonstrates inadequate understanding of router configuration; incomplete EIGRP and default route configuration	Demonstrates partial understanding of routing configuration	Most routers are configured properly	Routing configuration complete; demonstrate complete understanding of EIGRP protocol
<i>NAT Configuration</i> <i>NAT overload configuration</i> <i>NAT interface configuration</i>	Very little or no evidence of NAT configuration	Shows some understanding of NAT configuration	Shows good understanding of NAT configuration with minor mistakes	Demonstrate complete understanding of how to configure and verify NAT
<i>Access Control List (ACL)</i> <i>Secure access to router</i>	Incomplete solution to access control list	Demonstrate partial understanding of ACL	Good evidence of implementing ACL with few mistakes	Demonstrate complete understanding of configuring, applying and verifying ACL

Terminology

Beginning (None) – 0% to 25% of possible points

Developing (Novice) – 26% to 50% of possible points

Competent (Partial) – 51% to 85% of possible points

Accomplished (Proficient) – 86% to 100% of possible points

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Semester: Spring 2012

Total Students (taking the assessment): 16

Performance Components	None	Novice	Partial	Proficient
<i>DHCP Configuration</i>	4	0	8	4
<i>WAN Configuration</i>	0	1	7	8
<i>Routing Configuration</i>	3	2	7	4
<i>NAT Configuration</i>	2	2	7	5
<i>ACL Configuration</i>	3	10	2	1
<i>Total</i>	12	15	31	22

