

## SCOPE DOCUMENT

<b>Competition Year</b>	2012
<b>Competition Location</b>	RRC – Princess Campus
<b>Trade Number</b>	39
<b>Trade Name</b>	IT- Network Systems Administration
<b>Level</b>	Secondary – Maximum number of competitors - 10

### 1. Introduction

#### 1.1. Purpose of the Challenge

To evaluate each competitor's skills and to recognize excellence and professionalism in the field of IT network systems administration.

#### 1.2. Time

8:00 till 11:00 a.m. and 11:30 till 2:30 p.m.

#### 1.3. Duration of Contest

6 hours

#### 1.4. Skills and Knowledge to be tested

The competition evaluates a competitor's knowledge of computer and network hardware.

### 2. Contest Description

#### 2.1. List of documents produced and timeline for when competitors have access to the documents.

- No other competition document will be released prior to the competition

#### 2.2. Tasks that may be performed during the contest

##### Desktop support

- Identify, install and test hardware components
- Troubleshoot hardware failures
- Perform structured cabling tasks
- Install and configure virtual machines
- Prepare hard drives for operating system setup

- Use disk, system, and file management tools
- Produce technical and end-user documentation
- Demonstrate understanding of software licensing and its applications
- Install, setup, and configure corporate productivity software products
- Install, setup, and configure utility software fulfilling corporate computing goals
- Install and verify correct operation of peripheral devices
- Configure and troubleshoot common home office and small business software operations

#### **Desktop software benchmarking, diagnostics, and troubleshooting**

- Use technical documentation including specifications and procedures
- Use available documentation and logs to identify and resolve problems
- Use utility software to benchmark software or hardware performance
- Use utility software to diagnose software or hardware problems
- Fix and document resolution using customer complaint descriptions
- Choose appropriate diagnostic programs to troubleshoot problems
- Troubleshoot software installation problems
- Troubleshoot common home office and small business problems

#### **Desktop security**

- Perform patch and update management
- Install, configure and verify basic security-related software and cryptographic processes
- Create and update security policies and procedures to ensure security and reliability of network data

### **2.3. Networking**

- Interpret network diagrams
- Create network documentation in written and diagrammatic forms
- Operate basic network diagnostic software
- Calculate for and apply to a network, an addressing scheme using Variable Length Subnet Mask (VLSM) Internet Protocol addressing (IP v4)
- Implement static and dynamic addressing services for hosts in a Local Area Network (LAN) environment
- Implement, verify and troubleshoot hardware and software network configuration
- Implement, verify, and troubleshoot securing of network devices
- Implement, verify, and troubleshoot network address translation
- Implement, verify, and troubleshoot Wide Area Network (WAN) links

- Implement an IP addressing scheme and IP Services to meet network requirements in a Small Office Home Office (SOHO) network
- Install wireless hardware and software on client machines
- Implement, verify, and troubleshoot wireless deployment
- Configure, verify, and troubleshoot securing of wireless communication

### 3. Equipment, Material, Clothing

#### 3.1. Equipment provided by Skills Manitoba

- Suitable computer hardware
- Linksys SOHO Integrated Router device
- Patch cables
- USB wireless NIC

#### 3.2. Material provided by Skills Manitoba

- Cabling consumables
- Suitable computer hardware
- VMWare virtualization software
- Windows XP

#### 3.3. Equipment and material provided by the competitor

- Screwdrivers
- Anti-static wrist strap

#### 3.4. Required clothing (Provided by competitor)

- Competitors must be dressed as appropriate for an office environment.

### 4. Safety Requirements

#### 4.1. No personal protective equipment (PPE) is required

### 5. Assessment

#### 5.1. Point Breakdown

Point Breakdown	/1000
Desktop Support	200
Desktop Software Diagnostics and Troubleshooting	200
Security	250
Networking	350

**NATIONAL COMPETITION ELIGIBILITY:**

- A mark of **70% or higher** must be scored by the gold medalist in order to attend the National Skills Competition

**6. Additional Information**

**6.1. Tie (No ties are allowed)**

In the event of a tie, placement will be determined based on their answer to a theory based question.

**6.2. Competition rules**

Please refer to the competition rules for all general CSC information.

**7. Manitoba Technical Committee Members**

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