

Contest Description

COMPETITION DATE: April 9, 2022	CONTEST AREA NAME: IT Network System Administration
CONTEST AREA NUMBER: 39	LEVEL: Secondary
DURATION OF CONTEST: 6 hours	LOCATION: Virtual

CONTEST INTRODUCTION

Purpose of the Challenge.

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

Skills and Knowledge to be tested.

The competition evaluates a competitor's knowledge of computer and network hardware, and systems administration of Windows and Linux operating systems.

CONTEST DESCRIPTION

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

DOCUMENT	DATE OF DISTRIBUTION VIA WEBSITE
No other competition document will be released prior to the competition	

I ask that the following may be performed during the contest.

Essential Skills

- Create, interpret, and modify network diagrams.
- Create, interpret, and modify network, and system documentation, and processes
- Use Windows capture technology such as Windows Steps Recorder and Snipping tools

Physical system setup

- Identify, install, connect and test hardware components
- Setup and network workstations
- Create and test networking cable
- Basic system configuration as required

Desktop system configuration

- Install and configure virtual machines
- Install Operating Systems
- Install, setup, and configure corporate productivity software products
- Install and verify correct operation of peripheral devices
- Use disk, system, and file management tools
- Configure operating system functionality including tasks such as: setting Windows themes and control panel settings
- Configure Windows networking in a workgroup environment including shares, permissions, printers

Networking

- Operate basic network diagnostic software utilities such as ping, ipconfig, etc
- Calculate and apply to a network, an IPv4 and/or IPv6 addressing scheme using subnetting and/or Variable Length Subnet Mask (VLSM).
- Configure a home wireless routing/firewall solution

Troubleshooting

- Analyze and resolve common Desktop problems
- Analyze and resolve common home Network problems
- Use available documentation and logs to identify and resolve problems
- Fix and document resolution using customer complaint descriptions
- Troubleshoot software installation problems
- Problem examples might include things like; inability to login, cannot access website, or machine not starting properly etc.

Cyber-Security s

- Recognize safe online practices
- Maintaining and hardening critical services
- Recognize the need for and implement protections from malware attacks
- Answering forensics questions (need for Cybersecurity, attacks, Concepts and Techniques, ...)

Note: Competitors will not be allowed to compete if the above items are not brought and used.

EQUIPMENT, MATERIAL, CLOTHING

Equipment and Material supplied by Skills Canada-Newfoundland and Labrador

- VMWare Desktop virtualization software
- Cisco Packet Tracer 8.0.1 or higher
- .iso files for Windows 10 (or newer) and Ubuntu 20.04 or newer

Equipment and Material Competitor must supply:

- Suitable computer hardware

Minimum Hardware Requirements:

- 16 GB of DDR3 RAM
- 250 GB HDD
- CPU that supports Virtualization (2.5 GHz or greater)
- Single Monitor
- Windows 10/11

Recommend:

- 32 GB of DDR4 RAM
- 512 GB SSD
- CPU that supports Virtualization (3.5 GHz or greater)
- Dual Monitor
- Windows 10/11

- Internet connection

Required clothing (Provided by competitor)

- Competitors must be dressed as appropriate for an office environment

SAFETY REQUIREMENTS

The health, safety and welfare of all individuals involved with Skills Canada NL are of vital importance. Safety is a condition of participation and shall not be sacrificed for the sake of expediency. At the discretion of the judges and technical committees, any competitor can be denied the right to participate should they not have the required proper safety equipment and/or act in an unsafe manner that can cause harm to themselves or others.

- No PPE required

Note: Competitors may have to follow CNA COVID protocols during competition.

List of required personal protective equipment (PPE) supplied by Skills Canada NL:

- Mask

List of required personal protective equipment (PPE) supplied by Competitors:

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Note: Competitors will not be allowed to compete if the above items are not brought and used.

EVALUATION/JUDGING CRITERIA

Point Breakdown

POINT BREAKDOWN	/1000
Cyber-Security	250
Desktop system configuration	250
Networking	250
Troubleshooting	250

ADDITIONAL INFORMATION

Tie (No ties are allowed)

In the event of a tie, the competitor with the highest score in the Troubleshooting criteria, if this score is tied placement will be determined on highest score in the networking criteria, if still tied placement will be determined on highest score in the cyber-security criteria.

Competition Rules

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

YouTube Link

Refer to YouTube link about advice from our technical members on this competition category

<https://youtu.be/7pApnQMh2kA>

PROVINCIAL TECHNICAL COMMITTEE MEMBERS

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