2021 PROVINCIAL SKILLS CANADA COMPETITION

SkillsCanada Alberta

INSPIRE. DEVELOP. ELEVATE.

CONTEST DESCRIPTION

CONTEST AREA: IT NETWORK **S**UPPORT **A**DMINISTRATION	**LEVEL:** Post-Secondary
COMPETITION DATE AND TIMES:	**LOCATION:** V**IRTUAL**

Orientation	Saturday May 1st	8:00-8:30
Competition Day 1	Saturday May 1st	8:30AM – 4:00PM

DURATION: 8:30AM – 4:00 PM	WorldSkills Trade #: 39

COMPETITION FORMAT: (VIRTUAL**)**
Competitors will participate remotely from a safe location of their choosing (home, post-secondary institute (pending express permission), office, etc.). Location specific COVID-19 protocols must be followed. Competitors will be responsible to prepare their competition space with all of the required tools, equipment, materials, and technology (as listed below) that will be needed to complete the competition.

COMPETITION ORIENTATION: The competition will begin with a virtual orientation. Competitors will join the assigned videoconference link that will be emailed to all registered competitors for the competition orientation. Camera's MUST be on and competitors visible on the camera during the orientation.

SAFETY:
The health, safety, and welfare of all individuals involved with Skills Canada Alberta are of vital importance. Safety is a condition of participation with Skills Canada Alberta 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.
Safety Checklist: It is the responsibility of each competitor and teacher to review the Safety Checklist (https://skillsalberta.com/additional-2021-competition-resources/) in advance of the competition and ensure they are able to meet all safety requirements. During the orientation, the safety checklist will be formally reviewed.

AWARDS CEREMONY INFORMATION: Please join us for a live virtual awards ceremony on May 13th at 6:30PM.

Please note: This document is subject to change as competition information is updated. Competitors are responsible for staying up to date with the most recent information. Check the footer for last updated date. Changes will be highlighted in yellow

CONTEST INTRODUCTION

This competition will test the competitor's ability to install and manage servers and clients on a Network, including Windows and Linux Systems along with Cisco devices in a network environment. It will occur in two parts, and competitors will work individually on each, although the competition will be considered "open book" meaning competitors may search for solutions online, but should not be discussing with others solutions or asking for help.

SKILLS AND KNOWLEDGE TO BE TESTED

Competitors will be setting up their systems and network environment in a virtualized network environment (Hyper-V) hosted by Microsoft Azure Labs. Connectivity to this environment and introduction to working in Hyper-V will be introduced in the system orientation for those that require it.

- The virtual network will involve Windows clients, servers and Linux operating systems carrying out standard network services like DNS, DHCP, and Active Directory.
- Networking activities will all be done using Packet Tracer software to design and creating virtual Networks. This will involve the use of Cisco routers and switches through a CCNA level of knowledge.

PROJECT DESCRIPTION

- Install and configure various operating systems (see supplied software for versions) in a virtual environment.
- Using Packet Tracer to virtualize Cisco device configuration.
- Install and configure Active Directory on Windows server for user and group management.
- Configure networking services on a Linux machine - installation of services may have to happen off of the DVD/iso file, rather than the Internet.
- Understand routing concepts and how they are implemented on Cisco routers.
- Configuration of a Cisco router and switch from the command interface.
- Perform basic network administration and security.
- Understand switching concepts such as VLANs, Spanning Tree, and Ethernet port characteristics.
- Understanding of TCP/IP and ability to perform subnet calculations, and assign addresses, including variable length subnetting.
- Properly record system documentation.
- Time management.

EQUIPMENT & MATERIALS

Skills Canada Alberta Provided Tools, Materials, and Equipment

Cisco Packet Tracer	**Provided by committee**	
Azure Labs	**Connectivity and account Provided by Skills Alberta**	

Competitor Provided Tools, Materials, and Equipment

Internet Access		
System capable of running application like packet tracer and providing RDP connection to the Internet		

JUDGING CRITERIA

Cisco - 34% (% completion)

Windows and Linux support and administration 66%

TIE BREAKING PROCESS

Highest score on the Cisco packet tracer will be the first tie breaker, the highest score on Linux evaluated materials will be the second tie breaker, the highest score on Windows evaluated materials will be the second tie breaker.

CLOTHING REQUIREMENT

Appropriate work clothing must be worn to compete. All clothing must be neat and clean, and free of rips and tears. Casual wear such as shorts and open toed shoes/sandals will not be permitted. No loose-fitting clothes or jewelry.

ADDITIONAL INFORMATION

Skills Canada Alberta Regional and Provincial Rules and Regulations
Regional and Provincial Rules and Regulations

Post-Secondary Competitor Information is available here.

Lunch
Lunch will be provided by Skills Canada Alberta

Team Alberta Information
Team Alberta will be selected from competition Gold medalists who will then be eligible to participate at the Skills Canada National Competition (SCNC) in a virtual format May 25-30, 2021. It is recommended that competitors review the SCNC contest description to be familiar with the national contest description and project at http://www.skillscanada.com/.

Ethical Conduct
We recognize that participants will be competing individually in their own unique environments. We expect all competitors to compete fairly, respecting and abiding by the established rules in the true spirit of Skills Canada Alberta.

Letter of Participation
Competitors who participate in the 2021 Provincial Skills Canada Competition are eligible for a Letter of Participation by request by contacting katherinek@skillsalberta.com.

==COMMITTEE MEMBERS==

Doug Warden		
Gerald Chung		
Shan Kempen		
Mehrshad Sahabsara		