

**2010 MICHIGAN SKILLSUSA CHAMPIONSHIPS
TASK & MATERIALS LIST**

SKILL OR LEADERSHIP AREA: Internetworking

TASKS TO BE PERFORMED:

The contest will consist of three parts, TAC, CCNA test, and hands-on evaluations. The hands-on evaluation will consist of cable construction; punch down (wall jack); and Router and Switch configurations.

TAC Problem:

The purpose of the TAC problem is to test a contestant's ability to isolate and solve a customer problem on the telephone by asking questions.

CCNA Evaluation:

The purpose of the CCNA portion of the contest is to test a contestant's complete knowledge of internetworking. Questions from the written evaluation will be taken from the following general internetworking topic areas:

- OSI model and industry standards
- Network topologies
- IP addressing. Including subnet masks
- Networking components
- Basic network design
- Beginning router configurations
- Routed and routing protocols
- Advanced router configurations
- LAN switching theory and VLANs
- Advanced LAN and LAN switched design
- WAN theory and design
- WAN technology, PPP, Frame Relay, ISDN
- Network troubleshooting
- Wireless technology

Hands-On Evaluation:

The purpose of the hands-on component of the contest will be to test a contestant's ability to design, install, troubleshoot, and maintain internetworks. Given a set of networking equipment (cable, fiber, hubs/switches, routers, etc.), the contestants must, in a finite amount of time, install or repair a network and demonstrate that the installation properly runs internet applications. Given a logical topology and network requirements, the contestants will be able to develop a useable network that meets or exceeds the documentation provided. The vision and context is that client companies would request a demonstration booth that runs a particular Internet application – and contestants, given equipment and tools, would provide the appropriate connectivity for the application to run successfully.

STUDENT MUST SUPPLY (Contestants will not be allowed to share laptop/tools):

- Resume – 1 page
- Safety glasses with eye shields or goggles. (Prescription glasses can be used only if they are equipped with side shields. If not, they must be covered with goggles.)
- Copper cable terminating tools
- DB9 to RJ45
- Cable tester
- Laptop computer with Ethernet connection, com port and USB port

TECHNICAL COMMITTEE WILL SUPPLY:

- Computer workstation for written portion of contest
- V. 35 cables
- Cisco routers
- All other support or test equipment not specifically required for the contestant to furnish

CLOTHING REQUIREMENT (if different from National contest):

For Men:

- White polo shirt with black dress slacks
- Black socks
- Black leather shoes

For Women:

- White polo shirt with black dress slacks or skirt
- Black socks or black or clear seamless hose
- Black leather shoes

Revised 12/15/09

Scoring Sheet
INTERNETWORKING

Items Evaluated	Possible Points	Contestant Number
CABLING (Construction and testing of common workstation and MDF/IDF cabling)	250	
LAN / WAN Networking (Workstation, switch, basic router configuration and Advance router configuration)	250	
TAC - Professionalism (Isolate and solve customer problem over telephone)	250	
(Written test) CCNA Test	250	
Safety, Clothing Penalty and Resume (minus 0-10% of total points)		
Subtotal		
TOTAL	1000	

SCORECARD Internetworking

Items Evaluated	Possible Points	Contestant Number				
Structured Cabling	100					
LAN Network Troubleshooting	100					
Basic Router Configuration	100					
Advanced Router Configuration	200					
LAN/WAN Design	100					
End to End Networking	100					
Online Written Test	100					
Technical Assistance Call (TAC)	100					
Professionalism (Resume, Teamwork, Dress, Timesheet)	100					
Résumé Penalty	0 or -50 only					
Clothing Penalty	0 to -50					
Safety Penalty						
Total Possible Points	1000					

Date:

Judges' Signatures:
