

SkillsUSA Maryland State Championship

Cyber Security State Competition Update (2/18/25)



Cyber Security

Thank you for participating in the SkillsUSA Maryland Cyber Security competition on **Saturday, March 29, 2025**. This year, there will be five distinct sections of the competition:

Sections:

1. CompTIA Security+ Technical Exam (Multiple Choice Questions)
2. Cisco Packet Tracer Challenge
3. Network (Wireshark)/Digital Forensics Challenge
4. Log Analysis Challenge
5. Technical Interview Challenge

Schedule (Subject to Change):

08:00 – 08:10 am	Orientation
08:10 – 08:40 am	Technical Exam
08:40 – 12:00 pm	Competition Performance
12:00 pm – 12:30 pm	Lunch
12:30 pm – 1:00 pm	Competition Performance
1:00 – 1:30 pm	End of Contest/Contest Debrief

Equipment and Materials:

Supplied by each contestant (each team member should have):

- Resume
- Writing instrument
- Laptop or desktop computer capable of running Cisco Packet Tracer and Wireshark
 - Minimal software needed/website access on laptop or desktop for contest:
 - Cisco Packet Tracer version 8.2.2 (as of this writing)
 - Wireshark version 4.4.3 (as of this writing)
 - Ability to access Google Suite including Google Forms
 - Ability to access <https://bellard.org/jslinux/> and <https://www.metadata2go.com/>

Competition Details:

The technical exam portion of the state competition (section 1) will be completed via Google Forms with paper backups should there be any technical difficulties. ***Both*** team members will ***separately*** be completing the technical exam and then added together to comprise the team score. This testing will be separate from any of the testing students completed in the SkillsUSA online testing system prior to the start of the competition.

Students can have one or both team-members log on to access and download the Packet Tracer material from their contestant Google Drive folder (section 2) ***using their own laptop*** on the CCCTC public Wi-Fi. Please check to ensure your equipment is functional prior to the competitive event. Students will also need at least one member to ***create a free Cisco NetAcad*** username and password. Please visit www.netacad.com for a free account. It is also **recommended** that you sign-up and practice on the Intro to Packet Tracer free course to become familiar with the software prior to the event. ***End devices, switches, routers, firewalls, and servers*** may be configured during this challenge.

Students can have one or both team-members log on to access and download the Wireshark PCAP material from their contestant Google Drive folder (section 3) ***using their own laptop*** on the CCCTC public Wi-Fi. Please check to ensure your equipment is functional prior to the competitive event. Wireshark will only be used for analyzing pre-captured PCAP data and students ***will not*** have to capture live traffic on their laptops. Students will also complete a digital image metadata forensics challenge using a free web browser-based tool.

Students can have one or both team-members log on to access and download the log analysis (text file) material from their contestant Google Drive folder (section 4) ***using their own laptop*** on the CCCTC public Wi-Fi. Students will complete a log analysis challenge using a free web browser-based command line tool.

During the morning competition performance time, students will have a scheduled technical interview (section 5) with a panel to mimic a real-life scenario meeting similar criteria specified in the “Professional Activities Station” on the Cyber Security SkillsUSA National Technical Standards. Students will be given 10 minutes to provide a verbal response to technical questions.

FAQs:

Q: "The update stated that the students will need to bring their own laptops to the event. What specs are required for the competition? Will they be required to download anything? Will they need to be able to install software?"

A: The laptops must be able to run Packet Tracer and Wireshark software and be able to navigate the internet. These are the only needed special applications to compete. ***I highly recommend installing Packet Tracer AND Wireshark PRIOR to the competition.*** Please verify ***prior*** to arriving the day of the competition these applications have been successfully installed, can be opened with student permissions, and in the case of Cisco Packet Tracer, logged in.

Q: "I have some students competing in Cyber Security. Could you give us some more insight? Will their laptops need to have admin rights?"

A: Admin rights are **not** required AFTER installing Packet Tracer and Wireshark. No additional software will be required as the only other accesses needed will be Google Suite tools such as Google Forms or Google Docs as well as other free and openly available web-browser-based digital forensics and log analysis command-line tools.

Note:

Specific written test or challenge questions, including the specific assessment items in the Packet Tracer, Wireshark PCAP, digital image forensics, log analysis, or technical interview will not be addressed by the Chair prior to the competitive event. Please reference the Cyber Security SkillsUSA National Technical Standards for further guidance of what subject matter students should be expected to perform within.

Additional Questions?:

Please email arthurbridder@gmail.com and CC SkillsUSA Maryland State Director Chuck Wallace at charles.wallace@maryland.gov with any queries regarding the competitive event. Responses will be compiled and shared with competing students and instructors via the State Conference webpage.

Brad Ridder
SkillsUSA Maryland Cyber Security Contest Chair