



ISSUE 56 | NOV 2016

THE CYBERSENTINEL

The official newsletter of CyberPatriot—AFA's National Youth Cyber Education Program

COMMISSIONER'S CACHE



As you read this, Round 1 of the largest youth cyber defense competition in history will be either right around the corner, underway, or in our rear view mirror.

The biggest. In history. That's profound, and it has become reality through extraordinarily relevant content (who ISN'T concerned with cybersecurity nowadays?) and demonstrated success (please see our recent amazing biennial survey results). AFA's CyberPatriot is working, and we're glad that you

are part of it.

It's fueled by our generous sponsors (led by the Northrop Grumman Foundation) and it is supported by thousands of coaches, educators, and volunteers (including dedicated AFA members worldwide) who promote it daily. And most of all, it is driven by the tens of thousands of students who see the amazing opportunity it is. Thanks to all of you for helping us write cyber history.

Bernard K. Skoch | National Commissioner



DATES TO KNOW

NOV. 2	Competitor Registration & Reg. Fee Payment Deadline
NOV. 4	Deadline to Request Special Competition Date for Round 1
NOV. 11-13	CP-IX Round 1
NOV. 14	Special Rd. 1 Competition Date
DEC. 9-11	CP-IX Round 2



CYBERPATRIOT IX ROUND 1: NOV. 11-13* [SEE COACHES CORNER ON P. 2 FOR SPECIAL COMPETITION DATE]

The Exhibition Rounds are over. The Practice Round is over. It's show time!

The first round of CP-IX begins promptly at 9:00am ET on Friday, Nov. 11, and will run until 10:00pm ET on Sunday, Nov. 13. The full list of available competition windows for the weekend are as follows:

Friday: 9:00 am ET—3:00 am ET (Saturday)

Saturday: 8:00 am ET—11:59 pm ET

Sunday: 10:00 am ET—10:00 pm ET

Teams can select any 6-hour time period within the available times above to compete.

As in past years, team coaches will receive an email with image download instructions on or before the Monday prior to the start of the round. Coaches are encouraged to download the image and verify the checksum before the day of competition. At 9:00am ET on Friday, Nov. 11, a password to extract the zipped im-

ages will be emailed. Coaches can unzip the files, but should not open the image in VMWare player until their team is ready to compete for the 6 hours.

There are a few changes this season that teams should be aware of:

Cisco Networking Challenge in Round 1

For the first time the Cisco Networking Challenge is part of Round 1 for high school teams. It will make up 10% of their Round 1 scores. The challenge will consist of a quiz and Packet Tracer 7.0 exercise.

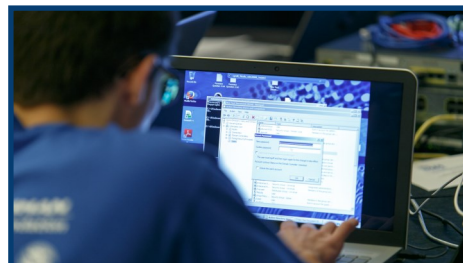
Unique IDs & Cisco Credentials on Dashboard

Unique Identifiers are no longer be part of the StartEx email. Instead, coaches can find their team Unique IDs and Cisco login credentials on the Coach's Dashboard. Teams are responsible for protecting these credentials, and great care should be taken not to mix-up the Unique IDs.

To avoid lock-out/forgot password delays, please ensure you can access your Dashboard prior to the start of the round on Nov. 11.

Image Disabled Warnings

Teams must immediately enter their correct team Unique IDs upon opening the image. Failure to do so will result in a series of warnings and the image becoming disabled. If the image becomes disabled due to using an incorrect or no Unique ID, the image must be deleted and then unzipped again.





AT&T RAISES \$5,000+ FOR CYBERPATRIOT PROGRAM

On the evening of Oct. 24, 2016, Cyber Diamond sponsor AT&T held its first annual Cybersecurity Silent Auction, in conjunction with its 18th annual Cybersecurity Conference. AT&T and other conference sponsors donated over 20 unique items for bid, and during the Welcome Reception guests were encouraged to visit the sponsor's Solution Showcase to view the items and place bids.

All funds raised from the silent auction — \$5,030 to be exact — benefited CyberPatriot. Thank you AT&T for your continued support of the program.

Pictured: Todd Waskelis, Executive Director of AT&T Security Solutions presents CyberPatriot Commissioner Bernie Skoch with a check for the proceeds from the silent auction.

CP-IX COMPETITION AND RULE CHANGES

There are several changes to the CyberPatriot competition design and rules this season to include a few changes that may not be familiar to you. Below are a few from the CyberPatriot IX Rules Book.

High School and Middle School Cisco Networking Challenges

High school teams compete in the Cisco Networking Challenge beginning in Round 1. Packet Tracer 7.0 is the standard Packet Tracer software. The challenges in Rounds 1 and 2 will be worth 10% of the team's total score for each round. Middle School teams have an unscored practice quiz and Packet Tracer exercise during the State Round. The Middle School Regional Round includes a scored quiz and Packet Tracer exercise for 10% of the round's score.

CP-IX is Final Season for 32-Bit, Host Computer Operating Systems

All teams will be required to have 64-bit, host computer operating systems beginning in CyberPatriot X. Teams still using 32-bit computers and operating systems are encouraged to plan now to avoid an issue with participating in CyberPatriot in October 2017.

Middle School State Round

The Middle School Division now has three qualification rounds in which ALL middle school teams may compete. The State Round is the final qualification round. Advancement to the Semifinals and awards are based on scores from ALL Middle School Division qualification rounds, not only the State Round.

"Single Driver" Policy for Images

Teams must have only a single connection to each image. A console login, RDP, SSH, etc. all count as a connection to the image. The connection to the image is limited to the competitors in the same physical location as the running image.

For more information check out the CyberPatriot IX Rules Book at:
<http://www.uscyberpatriot.org/competition/rules-book>

Technical questions and other competition related questions should be sent to cpoc@uscyberpatriot.org.

Coaches' Corner

- **Special Round 1 Competition Date.** Given the scheduling conflict between Round 1 and Veteran's Day, we have scheduled one special competition date (for teams that cannot compete during Nov. 11-13 due to school closures. Only registered Coaches shall fill out the request form below no later than Friday, Nov 4.

[Special Competition Date Request Form](#)

After completing the form, coaches must email documentation to CPOC@uscyberpatriot.org. Failure to send required documentation will result in denial of a request. Documentation must include a signed statement from the school's principal or assistant principal on school letterhead stating that the school was closed Nov. 11-13.

- **CP-IX Registration Fee Payment.** Team registration fees and/or fee waiver requests must be submitted no later than Nov. 2. Acceptable forms of payment include POs, checks (made out to "Air Force Association"), online credit card payments (through dashboard), and over the phone credit card payments. Unpaid teams will have their Round 1 scores withheld until payment is received.
- **Cisco Training and Meeting:** Nov. 2, 2016 from 10am–4pm. The format is an open Q&A chatroom on all things Cisco. Participation is NOT required. Meeting Link: [WebEx](#), Meeting Password: **CPCoach**
- **Coaches Meeting/Open Q&A.** The next online Coaches Meeting is Monday, Nov. 7, 2016. The format is a WebEx chat session for any CyberPatriot topic.

SPOTLIGHT: CYBERPATRIOT SUCCESS STORIES

Courtesy of *15 under 15: Rising stars in cybersecurity* by Sara Sorcher and Ann Hermes. Read the full stories at <http://passcode.csmonitor.com/hackerkids>

Blanca Lomberra, 15, had never considered a career in computers, until last year when she signed up for a cybersecurity and technology class on a whim. Yet as an eighth grader at Lairon College Preparatory Academy, a public school where most students receive public assistance and learn English as a second language, computer security turned out to be a major source of inspiration.

Through the class taught by teacher Kathy Smith, who has led the charge to enroll her students in high-tech training programs that could elevate their job prospects down the line, Blanca attended a summer camp for hacker girls hosted by Facebook. She spoke on a panel for CyberGirlz Silicon Valley, and competed in CyberPatriot, the national cyber defense competition.

Blanca, now a freshman at Andrew Hill High School, wants to go to college and then go into marketing at a tech company or be a software engineer. She would be the first in her family to do that. Her older siblings didn't finish high school and her mom completed school until the 3rd grade.

"There are a lot of jobs [in cybersecurity]," Blanca says. "Companies need people from other countries to fill them because they don't have enough right here, and I'm living in Silicon Valley."

Her career ambitions have kept her motivated despite the efforts of some kids to tear her down for earning recognition as a girl in tech. "This kid was like, 'Oh, you're a woman. You can't go into cybersecurity. That's just for men,'" she recalls. "That hurt my feelings and I thought, 'Oh, okay, I can't do it.'"

Then, she says, "after I walked away, I was like, 'Why do I have to listen to him? He's not in security. He's not in CyberPatriot. How can he know I can't make it? It motivated me more to prove him wrong, and to show myself I am capable of many things, and you can't let society define who you are. Nobody can tell you what to do.'"



Through hard work and dedication, her school-skipping fantasy came true. The duo made it to nationals, beating out some 460 teams from across the country to get there.

It was an intense challenge. Min was literally running around the table, manning five computers running the Windows operating system and Isag was juggling three with Linux. "They [the attackers] would keep on leaving messages and we had to block them from logging us out of our computer," Min recalls. "We were like, fighting them. When I first got hacked I was really scared and surprised because the mouse was moving, and I was yelling at Isag, 'I got hacked!' It was just going crazy."

But it was also thrilling. The pair, who share a love for competition and Korean pop star G-Dragon, have known each other since third grade, and say it's their bond together that helped them win the competition. Under pressure, Min says, "you have to talk to each other about what's going on. We just talked to each other naturally, since we were close." This was especially helpful, as Min says, "since we're really shy around high schoolers or other middle schoolers most of the times."

The competition also helped them build confidence. "Guys are meant to be energetic and more into adventure stuff and girls are kind of supposed to be like, princesses and very girly," says Isag, who is 14. "It helps us know that girls can be just as good as boys."

But this year, the program that manages the state-funded after school activities canceled the middle school CyberPatriot program, Min explains as she breaks into tears. Kids at their school aren't joining the program, Isag adds, because they "don't like studying anything." But she believes it's critical they start paying attention to these issues, even if it means more homework. "When you get hacked, you might not actually know [when] you have been hacked," Isag says. "If you learn about cybersecurity, you'll know – and how to prevent it."

Min and Isag can't compete this year, but they are shadowing the high school's CyberPatriot team and taking on side projects.

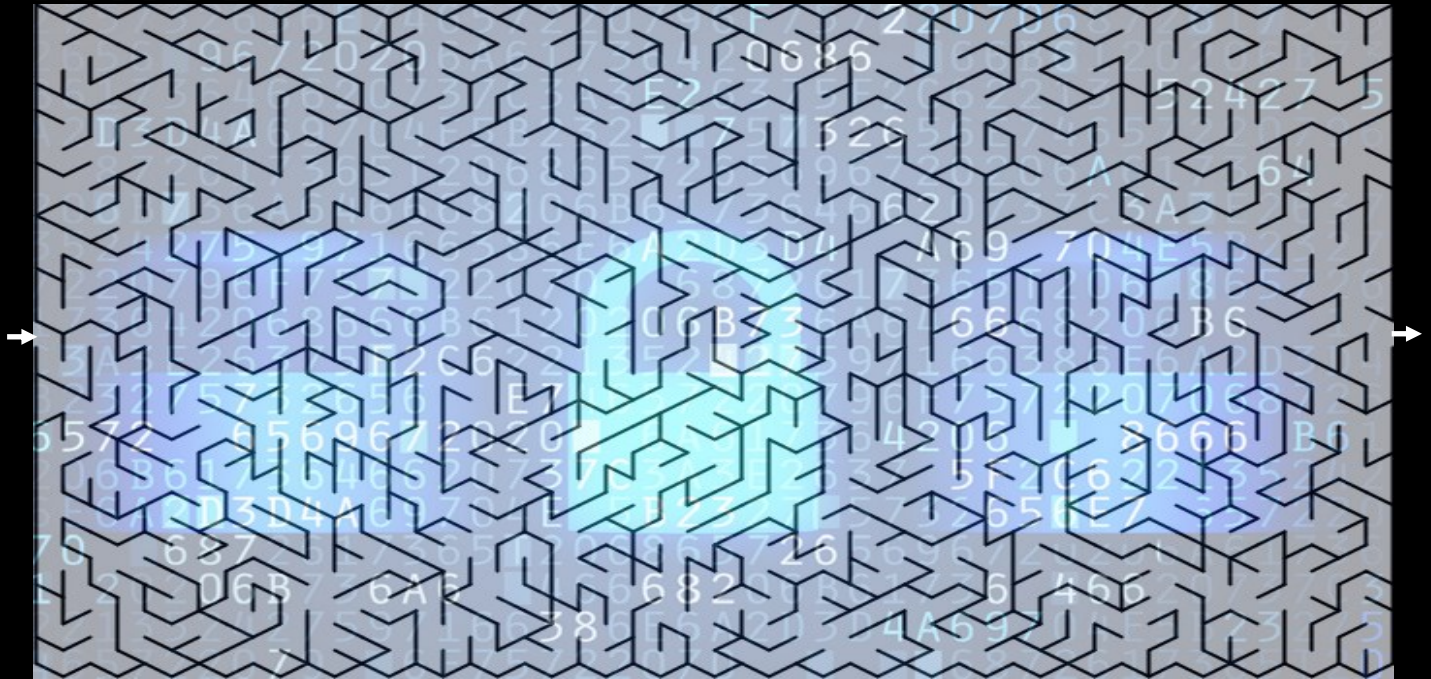


When Min Kim and Isag Kim (no relation) realized they were the only two students at their school who were signed up for CyberPatriot, they never thought they had a shot at going very far. "I just wanted to go to nationals since I would get to go to Baltimore and stay at the hotel and miss school for a week," says Min, 13, of last year's middle school competition. "I was just going all out for that. But I didn't really think we would go. We only joked about it."

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MAZE.EXE

Can you make it through the maze in under 60 seconds?



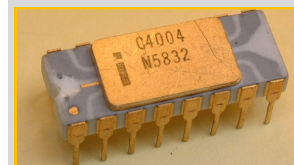
T-SHIRTS AND MORE! CP-IX PARTICIPANT KITS

T-shirts, coins, and other CyberPatriot gear (affectionately known as “Participant Kits”) are coming soon! To ensure orders are fulfilled correctly, we will not begin sending packages until after Round 1 (Nov. 11-13) when all rosters are finalized. Unpaid teams will not receive participant kits. Here’s how the process works:

1. Coaches register their competitors to their rosters and provide a t-shirt size.
2. CyberPatriot staff pulls the rosters to use as order slips. If a student is not registered to the roster, he/she will not receive the participant kit items. This season’s kits will include the following items for the Coach and each registered Competitor appearing on the Coach’s roster(s): T-Shirt, challenge coin, lapel pin, stylus pen, charging cables, participation certificate
3. Packages will be sent to the shipping address provided by the Coach during the online registration process. Coaches with multiple teams will receive 1-2 boxes containing gear for all teams.
4. Coaches will be notified when their package has been sent.

Please note: Participant kits for mentors will be sent separately at a later date. Only mentors who are officially registered and linked to a team roster will receive a package.

THIS MONTH IN CYBER HISTORY



Nov. 15, 1971 — On this day in cyber history, the first advertisement for a microprocessor, the Intel 4004, appeared in the journal

Electronic News. The chip was designed by a four-person team at Intel, a start-up company founded by Gordon Moore and Robert Noyce a few years earlier. Intel engineers Federico Faggin, Ted Hoff, Stan Mazor, and Masatoshi Shima designed the 4004 while undertaking a custom circuit design for Busicom, a Japanese calculator maker.

Intel 4004 had 2,250 transistors, handling data in four-bit chunks, and could perform 60,000 operations per second.

For more information, visit:

<http://www.computerhistory.org/tdih/November/15/>

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