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Secure the Future - Academic Competition Overview

Cyber-attacks against business systems are increasing with intensity having the potential to inflict wide-spread damage to production and compromise organization reputation. It is more important than ever for cybersecurity practitioners and leaders to understand the magnitude of the problem paired with solutions to defend their corporate business systems and applications in order to maintain trust with their customers, partners, and shareholders. This academic competition is designed to challenge actively enrolled undergraduate students how to make decisions regarding protection of operational assets through the analysis, comparison, and selection of advanced security tools, methodologies, and implementation options. Additionally, student candidates will research and develop a competition report, summary video, and presentation that at a minimum will include methodologies for deploying end-to-end attack detection, alert triage, threat hunting, investigation, orchestration, and automated response activities. Winners from previous STF competitions are not eligible to participate.

Competition Domains

1. Adversarial Behavior/Artificial Intelligence/Machine Learning
2. Threat Intelligence: Adversary Playbooks, Intelligence Sharing
3. DevSecOps, Site Reliability Engineering, SOAR, Zero Trust Network Access, and SASE
4. Platform Approach (Perimeter, Edge, IoT, Mobile, Data Center, SOC, Cloud)

Competition Industry Sectors

Energy, Transportation, Health Care, Finance (or sector of your choice)

Competition Objectives

1. Determine how to accurately identify variations of known threats through behavioral attack detection, identity patterns, and prediction that automatically create and implement protections across the organization in near real time.
2. Leverage threat intelligence to strategically deploy automated controls for specific adversaries at every stage of the cybersecurity kill chain using adversarial playbooks.
3. Investigate how to avoid complexity by leveraging a platform approach to manage risk, improve operational efficiencies, and automate threat detection/response. Discover how to protect perimeter, endpoint, mobile, and data centers networked through cloud-based services.
4. Examine security, orchestration, automation, and response (SOAR) methods used to automate end-to-end business operations cybersecurity posture. Investigate how organizations can converge wide area networking or WAN, and network security services like CASB, FWaaS, Zero Trust Network Access, Threat Prevention, and Data Protection into a single cloud-delivered service model – Secure Access Service Edge (SASE).

Phase 1: Competition Qualifier (October 1-15, 2024)

Competition students are invited to upload their resume as well as participate in a pre-test to determine their fundamental IT networking knowledge. Candidates that complete the competition requirement and pre-test with a score of 70% or higher will move to the next phase of the competition. Students who possess a valid PCCET certification by 10/15/24 are not required to participate in the pre-test and will automatically move to the next phase of the competition. This competition is limited to 100 students based on top scores from the pre-test qualifier or PCCET.

Phase 2: Competition Research & Learning (October 21 – December 13, 2024)

Students will participate in the Secure the Future Moodle course shell and review the objectives, presentations, case studies, independent research, and resources in each of the four course modules. Students will then complete the assignments and assessment in each of the four course modules.

Phase 3: Competition Report and Video Summary (Deadline – January 3, 2025)

Students will complete and submit their competition report and 5 - minute video summarization for evaluation and grade based on scoring rubrics developed by the Palo Alto Networks Cybersecurity Academy. The top ten candidates from this group will be notified to develop a 15-minute slide deck presentation of their report and move to the final phase of the competition.

Phase 4: Competition Formal Presentation & Prizes (January 2025)

The top 10 candidates will be invited to present their competition report at headquarters in Santa Clara California to board members where they will formally pitch their recommendations for how to secure the future of their selected industry. Palo Alto Networks will cover the cost of travel, meals, and lodging.

From this group, the top 3 candidates will be selected based on their presentation performance. In addition to the cash prizes of $10,000.00 1st place, $5,000.00 2nd place, and $2,500.00 3rd place, the top 10 candidates will be offered interviews that could potentially lead to internships and/or full-time positions with Palo Alto Networks.

STUDENT ENROLLMENT PROCESS

Step 1 - Create a new PANW Cybersecurity Academy LMS account.

Step 2 - Enroll in the 2024 Secure the Future Course to begin the competition.
Self-Enroll Password: 2024PaloAltoSTF!