



The Collegiate Cybersecurity Championship Cup

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Why Conduct Cyber Security Competitions?

- **Raise the level of awareness and interest in Cyber Security.**
 - For students (college, high school, middle school)
 - For industry/government/citizens
- **Encourage students to consider entering the career field.**
- **Provide opportunities for participants that they might not otherwise have in a traditional academic program or in their normal duties.**
- **Provide feedback to instructors on their educational programs.**

Existing Cyber Security Competitions

- **DEFCON Capture the Flag**
- **Cyber Defense Exercise (CDX), 2001**
- **International Capture the Flag (iCTF), UC-Santa Barbara, 2004**
- **National Collegiate Cyber Defense Competition (NCCDC) Program, UT-San Antonio, 2005**
- **DC3 Digital Forensics Challenge, 2006**
- **Panoply, UT-San Antonio, 2010**
- **National Cyber League, 2012**
- **CyberPatriot High School Competition, 2009**
- **And there are others...**

Challenges with the Existing Competitions

- **Current competitions are separate, disparate events with very little, if any, coordination between them.**
- **No plan to de-conflict and help ensure maximum possible participation by students.**
- **How do schools pick which competition is “right” for their own program/goals?**

Benefits of a Championship Cup

- Further help raise the level of awareness of cyber security for both students and the general public.
- Involvement in competitions has been shown to be a motivator for both competitors and coaches. A championship cup will help encourage maximum participation in all competitions.
- Help establish coordination and cooperation between existing competitions.
- Help establish unified common body of knowledge for the competitions as a whole.

Other Championships and Championship Cups

- **NHL Stanley Cup, NFL Lombardi Trophy, FIFA World Cup, NCAA Championships**
- **Boxing “belts” from four different organizations**
- **Golfing FedEx cup**
 - **Created to generate interest in the later part of the golf season**
 - **Takes existing events and uses them in an elimination system.**
 - **Somewhat less successful because of existing Master’s Tournament.**
- **NASCAR Sprint Cup**
 - **Points awarded for placing in races as well as for specific accomplishments such as being in the lead for a lap.**
 - **Helped to unify NASCAR and generate public interest in what had been a series of disparate races with the “Chase for the Champion”.**
- **United States Dressage Federation (USDF) has year end awards recognizing champions in a variety of categories.**

Issues With Establishing a Championship Cup

- No existing overall governing body.
- Need for cooperation between existing competitions.
- Evaluation of the relative merit and thus “weight” that would be given to each competition.
 - Differences in size and complexity of the various competitions
 - What competitions will be part of the program? How will new competitions become part of the program?
- Need to separate collegiate competitors for competitions that allow others to compete (e.g. DEFCON).
- Eligibility rules
 - Grad students, full/part-time students, seasons of eligibility, verification of student status
- Rules governing single or multiple teams per institution.
- Sponsorship and funding of the cup program.

Way Ahead

- **UTSA/CIAS is moving ahead to initiate a championship cup program.**
 - **Seeking input/ideas on how this program should be conducted.**
 - **Meeting held Sept 2012 with selected individuals representing various existing competitions to discuss the issues mentioned previously and to examine the initial guidelines for the cup.**
 - **Initial formula for determining the winner has been developed**
- **2013-2014 will be used as a pilot year to evaluate initial formula and select the first winner.**
- **Adjustments will be made based on feedback for the 2014-2015 academic year and beyond.**

Initial Cut at Method to Calculate the Winner

- **What is it that we want to stress/encourage?**
- **What do we want to “reward”?**
 - **Size of competition**
 - **Team versus individual competitions**
 - **Success (winning)**
 - **“Level” (e.g. national versus local)**
 - **Format (e.g. head-to-head versus indirect)**
 - **Hands-on versus Academic**
 - **Breadth (number of skills/subject areas covered)**
 - **Depth (e.g. beginner, journeyman, expert)**
- **Score based on size value X multipliers**

Method to Include Competitions in the Cup

- **Competitions need to be evaluated based on the criteria mentioned.**
- **Schools submitting applications to be considered for the championship cup may include all competitions they were involved in.**
 - **Competitions can request they be evaluated and included in the championship cup.**
 - **Schools can request competitions be evaluated but multipliers will be lower than if the competition had made the request (to ensure best information is obtained).**
 - **Competitions not evaluated to be part of program will receive default values for criteria.**

Getting Started

- Process for schools to apply to be considered for the championship will be made available online.
- If you have a competition that you would like to have included in the initial group of competitions scored, please contact:
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Questions?



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