# Charter and Bylaws for the Southeast Collegiate Cyber Defense Competition and Board of Advisors

#### Article I Name

This charter establishes the Southeast Collegiate Cyber Defense Board of Advisors (SECCDC BoA) which shall be solely responsible for providing recommendations for the planning and operation of the Southeast Collegiate Cyber Defense Competition (SECCDC).

## Article II Purpose & Goals

#### **Section One:**

"The mission of the Collegiate Cyber Defense Competition (CCDC) system is to provide institutions with an information assurance or computer security curriculum a controlled, competitive environment to assess their student's depth of understanding and operational competency in managing the challenges inherent in protecting a corporate network infrastructure and business information systems.

## CCDC Events are designed to:

- Build a meaningful mechanism by which institutions of higher education may evaluate their programs.
- Provide an educational venue in which students are able to apply the theory and practical skills they have learned in their course work
- Foster a spirit of teamwork, ethical behavior, and effective communication both within and across teams
- Create interest and awareness among participating institutions and students.

CCDC competitions ask student teams to assume administrative and protective duties for an existing "commercial" network – typically a small company with 50+ users, 7 to 10 servers, and common Internet services such as a web server, mail server, and e-commerce site. Each team begins the competition with an identical set of hardware and software and is scored on their ability to detect and respond to outside threats, maintain availability of existing services such as mail servers and web servers, respond to business requests such as the addition or removal of additional services, and balance security needs against business needs. Throughout the competition an automated scoring engine is used to verify the functionality and availability of each team's services on a periodic basis and traffic generators continuously feed simulated user traffic into the competition network. A volunteer red team provides the "external threat" all Internet-based services face and allows the teams to match their defensive skills against live opponents" (source: http://nationalccdc.org/history.html).

## The mission and objectives of the SECCDC mirror that of the National CCDC.

In an effort to help facilitate the development of a regular, national level cyber security exercise, the Center for Infrastructure Assurance and Security at the University of Texas at San Antonio hosted the first Collegiate Cyber Defense Competition (CCDC) for the Southwestern region in May 2005.

In June 2005, members of the Kennesaw State University's Center for Information Security Education recognized the value of the program, hosting the first SECCDC at KSU in 2006, to provide a regional competition to recognize the best team in the Southeast, and to work to sponsor that team to a National competition to be developed by UTSA.

While similar to other cyber defense competitions in many aspects, the SECCDC, as part of the CCDC, is unique in that it focuses on the operational aspect of managing and protecting an existing network infrastructure. While other exercises examine the abilities of a group of students to design, configure, and protect a network over the course of an entire semester, this competition is focused on the more operational task of assuming administrative and protective duties for an existing "commercial" network.

Teams are scored based on their ability to detect and respond to outside threats, maintain availability of existing services such as mail servers and web servers, respond to business requests such as the addition or removal of additional services, and balance security needs against business needs.

The SECCDC is a regional competition of the National Collegiate Cyber Defense Competition (http://nationalccdc.org)

#### **Section Two:**

SECCDC and the SECCDC BoA shall abide by, operate within and support established National Collegiate Cyber Defense Competition policies in accordance with applicable State and Federal Laws

## Article III Membership

## **Section One: SECCDC Participation**

In order to foster the objectives noted earlier, all processes will be undertaken in way to maximize transparency and facilitate open and appropriate access to SECCDC records, event data and communications.

Participation in the Southeast Collegiate Cyber Defense Competition is open to all 2-year and 4-year academic institutions in the states listed on the National competition web site (http://www.nationalccdc.org/index.php/competition/competitors/ccdc-regionals). Only teams officially sponsored by these institutions may participate in the competition.

If a number of institutions apply to participate in the annual qualification event that exceeds the host institutions ability to support, acceptance will be based on the following priorities:

- 1. Institutions who have successfully fielded a team in the previous year
- 2. Public 4-year academic institutions with established and published degree programs (including concentrations or specializations) in information or computer security.
- 3. Public 2-year academic institutions with established and published degree programs (including concentrations or specializations) in information or computer security.
- 4. Other 4-year and 2-year public and private academic institutions.

Institutions wishing to compete in the SECCDC must submit a letter of intent to the host institution as described in Section Three: Key Dates of Article VI. Conduct of the SECCDC.

If an institution that does not meet the above criteria wishes to compete, their acceptance will be based on the number of eligible teams submitting letters of intent that are otherwise eligible.

The top eight (8) teams in the virtual qualifier (SECCDQC) will be invited to the on-site regional competition, subject to the availability of host institution facilities.

## Section Two: SECCDC BoA Membership

Membership in the SECCDC BoA is open to one primary voting faculty or staff advisor for institutions that have successfully fielded teams to a SECCDC on-site regional event in at least one of the preceding three seasons. The membership roster will be updated annually immediately following the regional on-site competition. In the event that a member's institution does not successfully field a team within the three previous years, they will be removed from the roster, three years and one day after they last successfully fielded a team.

The official means of communications between BoA members shall be the SECCDC-Adv list service hosted by Kennesaw State University (KSU). While an institution may request that more than one faculty member be listed on the list service, only one faculty member will serve as a voting member. Under no circumstance shall any institution have more than one vote on SECCDC issues presented to the general membership. This specifically includes voting on changes to bylaws or event operations.

The SECCDC and SECCDC BoA shall not discriminate on the basis of race, color, age, religion, national origin, sexual orientation, sex, marital status, disability or status as a U.S. Veteran.

120 An institution's voting member is required to respond to SECCDC communications in a timely 121 manner and actively support SECCDC efforts. 122 Proxies for voting shall be submitted to the Director in writing or private electronic 123 communications prior to a vote. Proxies must be specific to the vote at hand. A separate proxy is 124 required for each item voted upon. 125 126 Feedback for the conduct of the SECCDC and its qualification competition shall be solicited from 127 the membership at the conclusion of each SECCDC season and used to guide SECCDC operations 128 for the upcoming season. Any member of the SECCDC Board of Advisors may submit 129 recommendations to the executive committee at any time by emailing infosec@kennesaw.edu. 130 The Director of the SECCDC BoA shall specifically solicit feedback from the general membership 131 after each SECCDC season, and the executive board shall review the feedback and recommend 132 133 revisions to the conduct of the SECCDC event as possible, subject to financial and technological 134 restrictions of the event. 135 136 Article IV Officers 137 Section One: Roles and Responsibilities 138 **Director** 1) 139 The chief executive officer of the SECCDC BoA shall be the designated as the director. 140 Responsibilities of the director include: 141 Preside over all meetings whether face-to-face or virtual 142 Issuing formal communications of the SECCDC 143 Coordinating the efforts of the SECCDC BoA and its officers 144 Coordinating with National CCDC and serving as a Liaison between the SECCDC BoA and 145 the National CCDC. 146 Coordinating the selection of the annual SECCDC regional host institution. Assisting the SECCDC regional host with the development of the SECCDC in compliance 147 with National CCDC policies and practices. 148 149 Certify the results of the annual SECCDC regional competition, and report the winning institution to the National CCDC executive board. 150 151 Establish priorities of expenditures based on available grants, sponsorships and registration 152 153 Audit SECCDC host institution financial reports 154 Preside over all SECCDC events. 155 156 **Associate Director for Operations** 157 158 for Operations (AD-Ops). 159 Responsibilities of the associate director for operations include: 160 Preside over meetings in the absence of the Director

The second executive officer of the SECCDC BoA shall be designated as the Associate Director

- Coordinate SECCDC promotions and publicity of events
- Co-certify the results of the annual SECCDC regional competition
- Serve as Regional Host Coordinator (see below)

## **Associate Director for Membership**

The third executive officer of the SECCDC BoA shall be designated as the Associate Director for Membership (AD-Mem). Responsibilities of the associate director for membership include:

- Assist with the coordination of SECCDC promotions and publicity of events
- Assist with the recruiting of new institutions to compete in the SECCDC
- Assist in the auditing of SECCDC host institution financial reports (as needed)
- Serve on behalf of the member institutions as liaison to the executive committee.

#### **Regional Host Coordinator**

Serving as the regional host coordinator is a primary responsibility of the Associate Director. Responsibilities of the regional host include:

- Work with KSU Faculty to coordinate facilities and a network infrastructure capable of providing independent rooms for up to 10 teams.
- Coordinate the development of an opposition force "red team," a conference judging "white

- team" and competition support administration "gold team".
- Solicit and collect applications for teams to compete in the SECCDC.
- Solicit and collect sponsors and donations to support the SECCDC.
- Organize and provide travel and lodging information for the SECCDC.
- Distribute preliminary competition information.
- Conduct the SECCDC and submit the results to the SECCDC Director for certification.
- Coordinate meals and refreshments during the event for the participants.
- Coordinate all associated SECCDC event components and needed materials.
- Draft and present a post event report to the SECCDC Executive Committee detailing the
  conduct of the event and expenditure of finances in accordance with the appropriate section
  below.

## **Section Two: Officer Appointments and Removals**

In order to provide long-term continuity and leadership for the SECCDC, the Director shall be a joint appointment with whoever is the current Director of the Kennesaw State University Center for Information Security Education. The Associate Director for Operations shall similarly be a joint appointment with whoever is the current Associated Director of the Kennesaw State University Center for Information Security Education. The Associate Director for Membership shall be the primary voting faculty representative from the winning institution of the previous SECCDC.

## **Eligibility**

In order to be eligible to serve as an officer of the SECCDC BoA, candidates must be the primary representative of an institution that qualifies for membership in the Board of Advisors.

#### **Executive Committee**

The Director, Associate Director-Operations and Associate Director-Membership shall comprise the Executive Committee of the organization. The National CCDC Director shall serve as an ex-officio (non-voting) member of the executive committee. The Executive Committee shall meet as needed to address key issues. The Executive Committee shall appoint such committees as are required to carry out organization goals.

## Officer/Advisor Removal

An officer may be removed from office upon recommendation supported by a ¾ majority of the general membership if their actions are deemed inappropriate by the membership. The officer shall be permitted to address the BoA membership about any charges made concerning his/her performance; however the officer is not permitted to participate in the deliberation of the membership regarding the charges.

Advisor membership may be revoked for any actions deemed inappropriate when a motion to revoke membership is supported by a simple majority of the SECCDC executive committee and ratified by a ¾ majority vote by the general membership.

#### Article V. Finances

All monies collected for the SECCDC including sponsorships, registration fees and donations will be collected and dispersed by the Director and used to support the event, based on budget recommendations of the Associate Director-Operations, with the advice of the rest of the executive committee.

Upon conclusion of the annual SECCDC, a financial report showing all monies collected and all expenses incurred will be made available upon request.

In the event the organization collects funds in excess of expenses, all remaining funds will be expended to purchase materials to benefit future SECCDC competitions.

Each institution that participates in the SECCDC will be expected to pay a registration fee to assist in offsetting the expenses associated with the event, to include meals and refreshments for team members. This fee will be determined by the executive committee based on expected expenses and sponsorships.

## **Section One: General**

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Components for the regional SECCDC will be in compliance with published advisories from the National CCDC. The National CCDC web site will serve as the primary information resource for the host institution coordinator (http://www.nationalccdc.org). All records, files, documents and communications associated with the SECCDC are the intellectual property of the event and subject to review and disclosure upon request of a member institution, or the National CCDC.

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### **Section Two: Location**

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As the responsibilities and equipment needed to support the SECCDC are very burdensome, the SECCDC will usually be held at Kennesaw State University (KSU), with KSU providing rooms and the networking and computing infrastructure. This arrangement will continue until such time as facilities at Kennesaw State University are no longer available, conduct of the event at KSU is unfeasible, or upon request of the KSU facilities coordinators, at least 6 months prior to any competition.

Should an institution other than KSU strongly desire to host the competition, they must demonstrate capability in a written proposal to the Executive Committee. Permission to host the event may be awarded by the Executive Committee upon a unanimous vote, after a review of the proposal. As all equipment and supplies purchased for the SECCDC to date were acquired through KSU purchasing channels, they may not be moved, shared or re-distributed outside the university, thus requiring any institution petitioning to host the event to demonstrate clear financial and technological capability to do so.

## **Section Three: Rules**

Rules will be aligned with the most current National CCDC Rules posted at http://www.nationalccdc.org/rules.html. Each variance from these rules must be reviewed and approved by a majority vote from the membership at least 90 days in advance of the event in order to allow for timely posting as provided below. The host institution must post the final version of the annual rules in a publicly accessible location and distribute to the membership at least 90 days prior to the event.

In the interest of transparency, each team faculty advisor and team member will sign disclosure agreements prior to the event, affirming that ALL information submitted during the SECCDC is open to external review and scrutiny. Any team or member refusing to sign the agreement will not be allowed to compete. Upon completion of the event, a team may request their competition scores. All requests received within 90 days of the event will be honored. All team files will be destroyed 90 days after the event. Should an external entity request a copy of the competition network logs or event documentation, the executive committee will review the request and honored if appropriate.

# **Section Four: Key Dates**

The Southeast Collegiate Cyber Defense Competition's virtual qualification competition (SECCDQC) shall be held between February 20th and March 15th, unless an alternate date is approved by a majority vote of the executive committee, in order to provide sufficient time to announce results and allow the winning team time to prepare for the National CCDC. The onsite regional competition shall be held during KSU's spring break, usually late March-early April

The Associate Director/host coordinator must distribute a call for participants for the competition no later than **December 15**<sup>th</sup> of the year preceding the competition.

Institutions wishing to compete in the SECCDC must submit a letter of intent to the host institution no later than January 31st of the year of the competition. Selected institutions will be notified based on the above priorities and notified no later than February 15th of the competition year. Selected institutions must submit their registration fees no later than February 30th of the competition year. If for some reason an institution selected determines that it may not be able to compete, it should notify the host coordinator as soon as possible.

## **Section Five: Support Teams**

The host institution coordinator will be responsible for soliciting support teams for their event. These teams will be mutually exclusive. These will include at a minimum:

Red Team – the Red team will consist of individuals serving to externally assess and attempt to penetrate the competition teams' systems. Red teams should be selected so as to challenge but not overwhelm the competition teams' efforts. At the beginning of the annual SECCDC event, the Red team will elect a Captain to serve as the liaison between the Red Team and the White Team for scoring purposes. Red team members should be selected based on personal ability and experience in penetration testing and vulnerability assessment.

White Team – the White team will consist of individuals serving as judges to internally assess and report on the performance of the competition teams. One or more White team members will be assigned to each competition team. No White team member may be assigned to a team from their own institution. At the beginning of the annual SECCDC event, the White team will elect a Captain to serve as the primary scorekeeper for all scored events. White team members should be selected based on their professional experience and should be faculty members or industry professionals.

Gold Team – the Gold team will consist of individual serving as competition coordinators and supervisors. Select members of the Gold Team will be identified as reviewers for challenges and appeals to event activities as outlined in the appeals section below. Gold team members should be selected based on competition and professional experience.

Black Team – the Black team will consist of individuals selected to provide technical support in the administration and operation of competition systems.

## **Section Six: Team Packets**

The host institution coordinator will develop and publish a team packet including all rules and materials relevant to the competition teams. While all details of the event need not be disclosed, all rules, restrictions, access methods, and permissible materials must be specified, based on published National CCDC rules and guidelines.

The host institution coordinator must submit a team packet specifying the competition rules and general configurations to all competing teams no later than **14 days** prior to each competition event (qualification and on-site regional).

# **Section Seven: Configuration and Services**

The event systems will be configured in a manner consistent with past SECCDC and CCDC events. While some variation is encouraged to keep the event challenging, the core premise of the configuration is as follows:

A variety of modern operating systems providing a functional but vulnerable network, with either proxy-based access to the Internet (preferred) or a default route to the Internet enabled.

At least one server providing multiple services to include but not limited to:

Web (static and e-commerce)

Email

Database

Domain Name Services

File Services

Additional services may be specified at the beginning of the competition, or during the competition in an injection.

A method of service assessment must be developed to determine a team's ability to keep the service functional during the competition. This assessment must be conducted frequently, at regular intervals, and have a score commensurate with other categories.

The pre-competition configuration and list of all planned services and method of assessment must be compiled by the host institution coordinator and submitted for approval by the executive committee no later than 30 days prior to the event. This information will not be shared with the membership, until such time as the competition begins.

## **Section Eight: Injections**

The host institution coordinator will also develop injections consistent with past SECCDC and CCDC events. Again, some variation is encouraged to keep the event challenging, while maintain the core premise of real-world business changes to the systems and their configuration.

A method of injection assessment must be developed to determine a team's ability to respond to business requests for services. This assessment must have a score commensurate with other categories.

The list of all planned injections and the method of assessment must be compiled by the Associate Director-Operations and submitted for approval by the Director no later than 30 days prior to the event. This information will not be shared with the membership, until such time as the competition begins.

## **Section Nine: Incident Response**

The host institution coordinator will also organize and conduct an external assessment by a group of Red Team members to assess the relative security of the teams' networks. This should also be consistent with past SECCDC and CCDC events.

It is the responsibility of the Gold Team to ensure that Red Team assessments and penetration testing operations are structured so as to challenge the teams, but not to completely overwhelm the team's ability to function.

A method of incident success and response assessment must be developed to determine a team's ability to respond these external intrusions. This assessment must have a score commensurate with other categories. Incident response may be assessed as a component of injections.

The plan of implementation for the Red Team and the method of assessment for Red Team activities along with competition team incident response actions must be compiled by the host institution coordinator and submitted for approval by the executive committee no later than 30 days prior to the event. This information will not be shared with the membership, until such time as the competition begins.

## **Section Ten: Scoring**

Overall scoring should be comprised of the various components: Service Provision, Injection Response and Incident Success (Red Team activities). The scoring system should be consistent with past SECCDC and CCDC events. The overall scoring structure and plan of implementation must be compiled by the Associate Director-Operations and submitted for approval by the Director no later than 30 days prior to the event.

#### **Section Eleven: Conduct of the Event**

The conduct of the event should be consistent with past SECCDC and CCDC events. The exact number of days the competition will encompass will depend on the availability of facilities at the host institution:

- Day 1: Teams will report for check-in and pre-configuration activities.
- Day 2: Main competition activities, including red team actions, business injections, and service maintenance requirements.
- Day 3: Team presentations and Awards Ceremony. Note: the awards ceremony may be conducted at the end of day two if necessary.

The Associate Director-Operations will be responsible for coordinating appropriate meals and refreshments.

## **Section Twelve: Challenges and Appeals**

In the event of a challenge to a White or Gold Team action:

Once a White team member has scored an event, the team may only challenge on errors of fact. Errors of fact consist of information reported that is erroneous, or was lost after being delivered to a White team member.

To challenge a score the team captain must document in writing the actions of the team that justify review of the judge score, including affidavits from team members as to the completion of the assigned task and the time of completion.

Challenges will only be accepted if a team reports successful completion of a task, and has demonstrated in their team logs that the action was completed and delivered to the White team judge. If a White team judge has signed off on a team log indicating completion of a task, but the operations center for the event has no record of the task completion, the senior Gold team member present will rule on the challenge.

Challenges must be submitted within 2 hours of posting of scores. In no case will any appeal be accepted or considered once the competition final team scores have been posted and determination of winners has been made.

Appeals are only applicable to the disqualification of an individual or competition team.

In the event an individual or team is disqualified according to competition rules prior to the conclusion of the event, the disqualified individual or team must report to their faculty advisor or sponsor. If the faculty advisor or sponsor feels the disqualification is unfounded, they must submit a written appeal within 2 hours of the disqualification. Disqualified individuals are ineligible for individual awards or team trophies.

In the case of disqualified individuals, all appeals will be reviewed by the competition host coordinator, who may consult additional gold team members as appropriate. The presence of the faculty advisor or sponsor or disqualified individual is not required. All decisions made by the host coordinator with regard to individual disqualifications are final. Disqualified teams are also ineligible for individual awards or team trophies.

In the case of a team disqualification, all appeals will be reviewed by the entire Gold team, with input from the appropriate White Team member, and the faculty sponsor. The faculty sponsor may make the case for reversal of the appeal.

All decisions of the White and Gold teams with regard to competition results are final upon conclusion of the event. At no point during the appeals process will any white or gold team member be permitted to rule on their own prior decision(s).

## Article VII. Amendments & Ratification

Amendments and revisions to this charter must be submitted in writing at a regular meeting of the SECCDC BoA, which may be conducted electronically. All proposed revisions will be voted on electronically. In order to adopt the amendment or revision, a majority vote (50% plus 1) of a quorum of the general membership is necessary.

This charter and bylaws was adopted and approved on January 1, 2008.

1st Revision: ratified January 10, 2010. 2<sup>nd</sup> Revision: ratified April 22, 2014.

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