

**NorthEast Collegiate Cyber Defense Competition  
(February 27 – March 1, 2009)**

Hosted by

**B. Thomas Golisano College of Computing and Information Sciences  
NETWORK SECURITY AND SYSTEM ADMINISTRATION  
(NSSA)**

Rochester Institute of Technology

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### **Mission**

The mission of the NorthEast Collegiate Cyber Defense Competition (NECCDC) is to provide institutions that have 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.

NECCDC 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.
- Create interest and awareness among participating institutions and students.

NECCDC 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.

In an effort to help facilitate the development of a regular, regional level cyber security exercise, the Network Security and System Administration Department at Rochester Institute of Technology in Rochester New York has agreed to host the 2009 NorthEast Collegiate Cyber Defense Competition (NECCDC) for the Northeastern region in February of 2009. This will be the second NECCDC, the first having been hosted by the Department in February of 2008. While similar to other cyber defense competitions in many aspects, the NECCDC is unique in the region 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.

### **Competitor's Scenario**

You have just been hired as the network and security administrators at a small company and will be taking administrative control of all information systems. You know very little about the network, what security level has been maintained, or what software has been installed. You have one hour to familiarize yourself with the network and systems and to begin the security updates and patches before the red team starts actively attacking your company. In the midst of all the commotion, you have to keep up with the needs of the business and user demands while maintaining service level agreements for all critical Internet services. Welcome to the first day of the NorthEast Collegiate Cyber Defense Competition (NECCDC).

NECCDC is a three day event and the first competition in the region that specifically focuses on the operational aspect of managing and protecting an existing "commercial" network infrastructure. Not only do students get a chance to test their knowledge in an operational environment, they will also get a chance to network with industry professionals who are always on the look out for up and coming engineers. NECCDC provides a unique opportunity for students and industry professionals to interact and discuss many of the security and operational challenges the students will soon face as they enter the job market.

NECCDC not only benefits the students involved, but will also benefit corporations as these graduates will be bringing a more experienced skill set to their jobs upon beginning their employment. NECCDC also provides direct feedback for schools to exercise, reinforce, and examine their security and information technology curriculum. For more information on attending, participating, sponsoring, or volunteering for the 2009 NorthEast Collegiate Cyber Defense Competition, send email to [Peter.Lutz@rit.edu](mailto:Peter.Lutz@rit.edu).

### **Goals**

The Collegiate Cyber Defense Competition allows institutions of higher education which offer an information assurance or computer security curriculum to assess their students' depth of understanding and operational competency in managing the challenges inherent in protecting an enterprise network infrastructure and business information systems.

The competition features a controlled competitive environment that can:

- Provide a meaningful mechanism for institutions to evaluate their programs.
- Gives students an opportunity to apply the theory and skills they have learned in their course work.
- Foster a spirit of teamwork, ethical behavior, and effective communication both within and across teams.
- Open a dialog and awareness among participating institutions, students, and sponsoring organizations.
- Lets participants have fun!

### **Corporate Sponsorship**

**We are seeking corporate sponsorship** to ensure the competition's success and maintain the high quality of this program. Sponsorships help defray costs for the hosting institution and participating educational institutions and increase the number of students entering the workforce who can be a part of this invaluable experience. We also are seeking industry professionals to serve as judges, exercise designers and general support staff.

As a Corporate Sponsor, you will:

- Save thousands of dollars in recruiting fees by observing potential employees "in action" and assessing their skills in a realistic setting.
- Save valuable time, by not interviewing potential employees who lack the skills and enthusiasm your company expects.
- Interact with student participants in a meaningful way by serving as a judge or by providing scenario expertise.
- Allow potential employees to find out more about your company.

**Please consider how you can be a part of this important event.**

### **Sponsorship Opportunities**

There are quite a few challenges associated with developing and hosting a competition of this nature. The availability of funding, volunteer staffing, and acquiring equipment (hardware and software) are some of the challenges that we face in preparation for NECCDC. The NSSA relies heavily on sponsorships to alleviate the costs of items such as food and beverages, equipment, hardware or software, facilities, bandwidth, and other costs associated with the competition. It takes a significant amount of time and manpower to plan, prepare for, and host a competition of this size and complexity.

The types of sponsorships that NSSA would like to obtain are funding, hardware, software, volunteers, and marketing items or gifts for the competitors. We are reaching out to companies in the following Industries:

- Information Security
- Information Technology
- Broadband Providers
- Publishing companies (including magazines)
- Local Companies (food, drinks)

We are currently in the planning phase for 2009, in which we are looking to invite the institutions in the region (New York and New England) to the regional competition. We will be looking for corporate partners and sponsors to help make the competition a success.

### **Sponsorship Levels**

#### **Platinum: 1 Sponsor**

\$5,000 - Sponsor receives title recognition with tagline next to their logo on program materials and a logo on the web site as a Platinum sponsor, a table at the event to speak with students and faculty, and a keynote presentation slot during the awards luncheon. There will be one VIP dinner for all sponsors and competition support staff. Also, the Platinum sponsor awards the 1st-place team competitors with the winning team trophy. The winning team trophy will include the sponsor's logo.

#### **Gold: 1 Sponsor**

\$3,000 - Sponsor receives title recognition with tagline next to their logo on program materials and a logo on the web site as a Gold sponsor, and a table at the event to speak with students and faculty. There will be one VIP dinner for all sponsors and competition support staff. Also, the Gold sponsor awards the 2nd-place team competitors with the winning team trophy. The 2nd-place team trophy will include the sponsor's logo.

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### *Fund Raising Strategies*

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#### **Silver: 1 Sponsor**

\$2,000 - Sponsor receives title recognition with tagline next to their logo on program materials and a logo on the web site as a Silver sponsor, and a table at the event to speak with students and faculty. There will be one VIP dinner for all sponsors and competition support staff. The Silver sponsors will host one dinner during the three day competition.

#### **Bronze: 2 Sponsors**

\$1000 - Sponsors one lunch during the three day competition. The company logo is displayed on the web site and at the event as a Bronze sponsor. Also, the sponsor's logo will appear on the web site as a Bronze sponsor.

#### **Friends:**

\$500 - Sponsors one snack break during the three-day competition. **We need 4.** One in the PM on Friday, one in the AM and one in the PM on Saturday, and one in the AM on Sunday.