

Lab 4 CyberCIEGE Viruses and Worms

CyberCIEGE is an information assurance (IA) training tool that illustrates computer and network security principles through simulation and resource management trade-offs. CyberCIEGE players construct computer networks and make choices affecting the ability of these networks and the virtual users to protect valuable assets from attack by both vandals and well-motivated professionals.

The CyberCIEGE “Stop Worms and Viruses” scenario is an example of an extremely simple security awareness training scenario. Also, this scenario provides first time players with an introduction to CyberCIEGE, including several of the game interfaces and features.

As with all CyberCIEGE scenarios, students are encouraged to explore the effects of “wrong” choices as well as trying to select the correct choices. Plan on playing the scenario several times before finally going through it making what you believe are the correct choices. If you do not make mistakes, you do not see the scary movie.

This scenario explores the following concepts:

- One of the biggest causes of proliferation of malicious software is through user execution of email attachments.
- Viruses often proliferate by reading a user’s email address book and sending itself as an attachment to those addresses.
- Worms often proliferate by first executing as an attachment to an email and then exploiting local network vulnerabilities to spread to other machines without additional user intervention.
- In many cases, an enterprise cannot reasonably operate without the use of email attachments. Therefore, users need help in distinguishing “executable” email attachments from other forms of email attachments.
- Even non-executable email attachments (e.g., “.doc” or “.pdf”) have some potential to distribute malicious software. This risk is often reduced through use of antivirus software.

In this scenario you can largely ignore Zones and physical security issues. The scenario requires that you modify only one procedural setting on one computer. Also, don’t worry about hiring or firing support staff or the trustworthiness of your virtual users.

4.1 Preparation

Access CyberCIEGE as described in “CyberCIEGE Information Assurance Training Tool Availability at NPS”.

From the CyberCIEGE folder on the desktop, open the CyberCIEGE icon. This will start the “Campaign Player” seen in **Error! Reference source not found.**



Figure 4-1. Campaign Player

Select “Stop Worms” and click the “Play” button.

4.2 Play

4.2.4 Watch Bad Things Happen

After reading the briefing displayed in the window, click the OK button.

Click the play button to begin the scenario (a help balloon text will appear to show you the play button.)

In your first time through, don't make any configuration changes. Just press the "esc" key to move past each balloon text. Don't even bother to click the "Objectives" button. See what happens if you just let the scenario progress.

After the pop-up dialog explains what has happened, simply restart the game by selecting the GAME tab and pressing the "r" key.

4.2.5 Play the Scenario to Succeed

Now play the game again. This time, after pressing the play button find and click on the "Objectives" button.

Follow the instructions in the Objectives button. Text balloons will appear to guide you.

Making the proper procedural security choice completes phase one of this scenario.

4.2.6 Take a Quiz

The scenario now will ask a series of questions. To answer, you must press the "y" or the "n". If you get an answer wrong and the game ends, simply press the "r" key to restart it.

4.2.7 Explore CyberCIEGE

You are done with this lab. Press the "k" key to bring up a keyboard shortcut list. That will tell you how to navigate around the office. Feel free to play any of the other scenarios. By default, you must complete certain scenarios before progressing to the next scenario. You may unlock all of the scenarios via the "Advanced / Preferences" choice in the Campaign Player menu.

4.3 Clean Up

Exit the scenario by clicking the "Quit" button in the GAME screen.

The "View Log" button lets you view a log of what occurred during the game.

Use the "Advanced / Collect Logs" choice in the Campaign Player to collect your logs into a zip folder that can be emailed or dropped into the CyberCIEGE-logs folder if running on a CS-3600 VM.

END OF LAB

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