IOWA STATE UNIVERSITY, INFORMATION ASSURANCE STUDENT GROUP

REGIONAL CYBER DEFENSE COMPETITION SCENARIO

SPRING 2006

PREPARED BY BEN BLAKELY AND NATE EVANS

The Cinderella Data Corporation (CDC) is a small dot-com startup in Metropolitan, Iowa. A building has just been leased and twenty-five employees are ready to go to work on their mission of creating organized databases out of old written records or mismanaged data files. The actual database work will be delegated to the employees working on the projects (on their personal machines), but a secure network that will be able to meet federal regulations regarding the security of CDC's client's data must be designed.

As the Information Technology Team for CDC, your team has been assigned the task of designing a secure network that will hold up in the face of attack. Your team is only responsible directly for the servers and a kiosk machine available to all employees in the break room. Employees will be responsible for the setup of their own machines as most are tech savvy (given the nature of CDC). There are many issues to be addressed with this setup, as flexibility and usability are of the utmost importance, but the security of client data cannot be sacrificed in the process. This data may be in the form of data files on a central file server, emails to or from CDC employees, or in the future it may be available for review on CDC's web server.

No specific software requirements have been outlined for your team, but it is expected that whatever software is used does not add to the cost of the project or violate any copyright law. This said, any secure and usable implementation is acceptable as long as it provides the following items:

Web Server for www.cdcN.com

An outside web development team has been contracted to design CDC's site and will provide your team with the content and the server once the business opens on March 10th. This will need to be placed outside of any NAT you have setup and proper management of www.cdcN.com will need to handled by your team.

Email Server for @cdcN.com

This service will provide accounts for the staff with spam filtering and virus protection. A list of users will be provided. Additionally, configuration of cdcN.com is needed, so that mail is directed to the appropriate address. Users should be able to check email from both inside and outside the corporate network using both POP and IMAP. Your team is also expected to set up a web mail interface to allow users to access their email via a web browser.

File Server

Each user should have a home directory and there should be a common directory that acts as a "scratch space" for any user to temporarily upload data to for sharing purposes. Users should be able to access files from both inside (smb) and outside (ftp) the campus network. Users should be able to log in to this service with the same credentials as above.

Remotely Accessible Programming Environment

Users have requested to have a centrally available, remotely accessible programming environment accessible to them for testing. Users should be able to log in to this service with the same credentials that they use for the email server and file server and compile C/C++ programs using GCC.

The use of a firewall is strongly encouraged, but it must be able to come down (allow all traffic) with fifteen minutes notice to allow testing of the internal network by an external security certification authority.

The new building is not accessible to your team until CDC is open for business. Due to this fact, all setup will be done remotely. The equipment will be set up as you request and remote KVMs and power relays will be made available.