Linux Internet Kiosks – David Collie

Implementing robust and secure Internet kiosk solutions using Linux

Abstract

The popularity of Internet Kiosks has been growing. This requires machines that are made available for public usage and are managed effectively with minimal hassle. Linux provides a solution that is robust, secure, and inexpensive to meet the unique needs of these machines.

Outline

- Why was Linux chosen over other solutions?
- Open nature of Linux facilitates customization.
- Wealth of excellent documentation for Linux.
- Secure and easily locked down.

Current Issues

- Many solutions overly complex.
- Difficult to manage.
- Unnecessary hardware requirements.
- Expensive to purchase commercial kiosks.

Methods

- Customized Linux live CD to provide a minimal environment with only the required software installed.
- Utilized the flexibility and openness of Firefox's user interface in order to customize and lock-down the user experience.
- Developed helper scripts to aid in setting preferences and managing setup and startup.

Results

- A secure client appliance that can provide authenticated browsing through the Network Authentication Appliance
- A robust software package that will run 24 hours a day and will recover gracefully in the event of failures.
- Uses an auto-kickoff script that will disconnect a user from the NAA when the browser is closed.

Demo

Kiosk demonstration.

Summary

- A stand-alone system that can be deployed easily on new or old machines, to provide a secure and hassle free experience for users and administrators.
- The system also creates the possibility of centrally managing and deploying kiosks across campus.

Future Directions

- Setup a central server to allow diskless booting of kiosk machines which then mount the cd-image from the server.
- With a centrally managed setup, kiosks could be deployed in areas such as the UW Place common room and Village 1.