

SME Server Contrib Plugin Completion

Skills Required:

1. PHP
2. Linux server configuration familiarity (eg. Apache configuration files, dhcp configuration files, etc)
3. Preferably though not required basic understanding of Perl.
4. SQL / MySQL Database skills

Job Breakdown

1. Create an SME Server (CentOS Variant see www.smeserver.org) 8 Virtual Machine
2. Currently one form has a blank text box that is used to type Day codes and time (e.g. MTWHF 08:00-17:00). Change this form to have checkboxes for the day and a start / end time then creating with javascript a hidden field that should provide the text as per the previous mentioned date format http://wiki.contribs.org/SME_Server:Documentation:Developers_Manual section relating to the control panel.
3. Convert a perl script from running as a cron job to running in a loop
4. Change Squid redirector to show a connection error page if the Internet connection is down (which is recorded in a MySQL database). Show information from the MySQL database about connection status in the generated page.
5. Write a basic GUI client for Windows in Python (or other suitable language) that will interpret an HTTP XML response for the user and display as a toolbar:
 1. Show the same toolbar to users as the popup toolbar
 2. Start on startup and show in the system tray
 3. Show an alert when the bandwidth status of the user changes from green to yellow, and from yellow to red.
 4. Allow users to click options for scheduling a download or upload that will simply open a browser window for the correct page.
 5. Alert users when the Internet connection is not working.
 6. Should be packaged as an EXE installer for windows and a .deb file for Ubuntu Linux.
6. Add a fixed IP option to the SME Server control panel to allow a fixed MAC to be associated with a specific IP address. This should generate an appropriate fragment in dhcpd.conf using the SME server config options.

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7. Apply IONCube protection PHP files that do not interact with GPL licensed code. Ensure that all code that interacts with GPL code is intact and tarball it in compliance with the GPL license.
8. Do performance analysis
 1. Create a simulated poor performance network connection using normal Linux QoS (google simulated wan iptables)
 2. Create a performance recording application to log the difference between putting requests through the simulated poor network connection and NSM when:
 1. Cache not primed
 2. Cache primed

Deliverables

- RPM Build environment for the above and .rpm files for the SME plugin (existing RPM build environment will be provided)
- Source, build environment and compiled versions of the Windows and Linux client packages
- Performance analysis for a simulated 32, 64, 128 and 256kbps connection as per point 8 source and build environment for performance analysis application.