

E-Smith / SME Server How-To Guide

Compiled By: Abe Loveless (loveless@lth5.k12.il.us)

Compiled Date: April 18, 2002

Sources:

<http://www.tech-geeks.org>

<http://www.shiloh.stclair.k12.il.us/bk/esmith/>

<http://www.lth5.k12.il.us/e-smith>

<http://myezserver.com/downloads/mitel>

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BATCH FILES FOR ADDING/REMOVING USERS ON SMEv5.x

The adduser and deluser scripts provided by Filippo Carletti (carletti_AT_mobilialia.it). I believe he copied them directly from the E-Smith distribution, with minor modifications. The batch_users.sh script was created by Abe Loveless.

Scripts modified by Abe Loveless - abe_AT_lovelesscentral.org

PROBLEM:

You need to add/remove multiple usernames to/from your SME v5.x server, using a batch type process.

SOLUTION:

Obtain the current version of the accompanying scripts. The .tar.gz file can be found at:

http://www.tech-geeks.org/contrib/loveless/batch_users/abl-batch_users-0.3.tar.gz

Either download the file and move it to your SME Server or retrieve it via "wget" directly to your SME server. To use "wget", simply login to the console of your SME server, and type "wget http://Complete_URL/Listed/Above".

DIRECTIONS:

1. Verify that /opt/utilities has been created
 - "mkdir -p /opt/utilities"
2. Copy the downloaded *.tar.gz file to /opt/utilities
 - "cp FileName.tar.gz /opt/utilities/"
3. Extract the file
 - "tar -xzf FileName.tar.gz"
4. Delete or move FileName.tar.gz
 - (Delete) "rm -f FileName.tar.gz"
 - (Move) "mv FileName.tar.gz /Path/To/New/Location"
5. Create your user list with the format:
 - USERNAME:PASSWORD:FIRSTNAME:LASTNAME
 - Save the file with whatever name you like.
6. Copy file to /opt/utilities/batch_users/user_list
 - "cp FILENAME.txt /opt/utilities/batch_users/user_list/"
7. Change to /opt/utilities/batch_users directory
 - "cd /opt/utilities/batch_users"
8. Execute script
 - "./batch_users.sh"
9. The script will ask you if you wish to Add or Delete users (a or d).
10. The script will prompt you to enter the full path to your user list.
 - "/opt/utilities/batch_users/user_list/FileName.txt"
11. Results will be displayed on the screen.
12. Verify add/delete in the Server-Manager of your server.

PACKAGE HISTORY:

- April 18, 2002: Added prompt for add/delete. Also changed to new scripts provided by Filippo Carletti.
- Current package name: abl-batch_users-0.3.tar.gz
- February 25, 2002: Added user prompts for file location. This allows the user to keep multiple user lists in the ../user_list directory, and add/delete users based on the appropriate list.
- Current package name: abl-batch_users-0.2.tar.gz
- February 24, 2002: Initial release of this how-to and .tar.gz package.
- Current package name: abl-batch_users-0.1.tar.gz

TO-DO LIST:

- Development finished, until I receive feedback (abe_AT_lovelesscentral.org).

AUTOMATED BACKUP TO DESKTOP COPIED TO A SHARED DIRECTORY

Issue: You need to backup your SME Server on a regular basis, and would like this to be done automatically.

Solution: Recently, Filippo Carletti posted a sample script to the E-Smith Developer's list serv. This script will emulate the same action as the "Backup to Desktop" function of the server-manager. The script generates the same "smeserver.tgz" file, and then copies it to a shared directory of another server/workstation on your network.

This document will illustrate how you can use this script and the accompanying shell script to automate this process. The original message from Filippo can be found at the bottom of this message.

Prepared By: Abe Loveless (abe_AT_lovelesscentral.org)

Prepared Date: April 18, 2002

Note: This is known to work when using a Windows98 workstation as the location for the backup. I experienced troubles when trying to backup to a Windows2000 Pro. machine. I have not tested on any other operating systems. Search for this article on <http://www.tech-geeks.org> for the most current information. (Be sure to check the "Comments" of the article.)

Installation Instructions:**Create a Share:**

1. Create a share on a Windows Wkstn/Server
(Don't know if Novell would work.)
2. Make sure a user has full R/W access to the shared directory.

Install on E-Smith (Login as root):

1. Download and extract package.
 - 1a. "wget http://www.tech-geeks.org/
contrib/
loveless/
desktop_backup/
desktop_backup.tar.gz"
 - 1b. "tar -xzf desktop_backup.tar.gz"
2. Create directory
 - 2a. "mkdir -p /opt/administration/desktop_backup"
3. Copy extracted files to new directory
 - 3a. "cd desktop_backup"
 - 3b. "cp * /opt/administration/desktop_backup/"
4. Modify the "run_backup.sh" script...
 - 4a. "pico run_backup.sh"
 - 4b. Change the 4 variables that are specified.
PC_NAME: (NetBios Name)
SHARE_NAME: (Share name on Wkstn/Server)
USER_NAME: (Username that the script should use to connect to the share.)
PASSWORD: (Password for the user.)
 - 4c. CTRL X to close, Y to save, Enter to keep same filename
5. Test the script
 - 5a. Type: "/opt/administration/desktop_backup/run_backup.sh"

Un-successful:

 - Check variable entry
 - Verify network connection to shared directory
 - Try setting up on Windows98 to see what it does

Successful:

 - Continue to next step

6. Add file to cron.x to run on specified interval
 - 6a. "cp /opt/administration/desktop_backup/run_backup.sh /etc/cron.daily"
 - 6b. Other options are "cron.hourly", "cron.weekly", or "cron.monthly"
7. Backup will run as scheduled... the admin user of your server should get an email notification after each run.

Things to note... The backup file will be overwritten each time. If you want to save the backups on the Win server, you'll need to schedule a batch file on the Server/Workstation to rename/move the file.

UN-INSTALL:

1. Remove the cron entry
 - "rm -f /etc/cron.X/run_backup.sh"
 - (Where X is the correct cron directory (daily, weekly, monthly))
2. Remove the /opt/administration/desktop_backup directory
 - "rm -Rf /opt/administration/desktop_backup"

CHANGING THE SHARE DIRECTORY:

1. Setup the new directory.
2. Edit /opt/administration/desktop_backup/run_backup.sh to reflect new info.
3. Copy updated run_backup.sh to /etc/cron.daily (or which ever cron. you use.)

Hope this is helpful.

As always, no warranties of any kind.

<ORIGINAL MESSAGE>

-----Original Message-----

From: Filippo Carletti [mailto:carletti@mobilia.it]
Sent: Friday, February 08, 2002 9:06 AM
To: devinfo@lists.e-smith.org
Subject: [e-smith-devinfo] Desktop Backup script

Attached a small shell script which mimics the Backup to Desktop panel function. Useful for cron jobs.

Create a share on a pc, give permission to write into that share to a user and call:

```
desktop_backup.sh pc_name share user password
```

You will find a file named smeserver.tgz with the same content as if it were done by panel backup function.

Work is based on old suggestions given by Charlie on the list.

Ciao,
Filippo

</ORIGINAL MESSAGE>

How to restart Squid with a clean cache

First of all, you must stop Squid of course. You can use the command:
`squid -k shutdown`

The fastest way to restart with an entirely clean cache is to over write the swap.state file. Note, you can not just remove the swap.state file, or truncate it to zero size. Instead, you should put just one byte of garbage there. For example:

```
echo "" > /var/spool/squid/swap.state
```

Restart squid:
`squid`

Specific Site - No Cache

Thursday, January 17 2002 @ 08:40 AM CST
 Contributed by: Abe Loveless

Don't want to use your cache??

This How-To shows how to configure your E-Smith / SME Server to allow direct connections to individual domains... every time.

All you have to do is edit the squid.conf template on your E-Smith / SME Server and rebuild the template.

Connect to your console as root.

1. Make the squid.conf custom template directory
`"mkdir -p /etc/e-smith/templates-custom/etc/squid/squid.conf"`
2. Change to the squid.conf template directory.
`"cd /etc/e-smith/templates-custom/etc/squid/squid.conf"`
3. Open a new file for your access lists.
`"pico 20ACL40no-cache"`
4. Create an access list for each site that you want to allow direct access
`"acl GROUP-NAME dstdomain DOMAIN-NAME"`
5. Save and Close the file
`CTRL-X, press Y to save, ENTER to keep the filename"`
6. Create an "always_direct" file
`"pico 80always_direct60no-cache"`
7. Make the always_direct entries for each group
`"always_direct allow GROUP-NAME"`
8. Save and Close the file
`CTRL-X, press Y to save, ENTER to keep the filename"`
9. Expand the templates
`"/sbin/e-smith/signal-event console-save"`
10. Re-start squid
`"/etc/rc.d/init.d/squid restart"`

Download a sample 20ACL40no-cache and 80always_direct60no-cache.

Sample 20ACL40no-cache file:

```
acl tech-geeks dstdomain tech-geeks.org
```

Sample 80always_direct60no-cache file:

```
always_direct allow tech-geeks
```

Note: To add more sites at a later date... you should add the entries to these 2 files, expand the template and re-start squid as shown above.

Current How-To can be found at:

<http://www.tech-geeks.org/article.php?story=20020116193415578>

Or, just go to <http://www.tech-geeks.org> and search for "no cache"... the same article will be returned.

Phorum Installer for Mitel SME Server

Developer: Abe Loveless (abe_AT_lovelesscentral.org)

Date Created: March 14, 2002

Issue: Need a web based discussion board installed on SME Server.

Pre-requisite: PhpMyAdmin (Web based GUI for MySQL Administration) must be installed. See the PhpMyAdmin directory at <http://myezserver.com/downloads/mitel/contrib/> for details.

Directions:

1. Login to console of server
2. Download current abl-phorum.*.tar.gz file
 - type: "wget <http://www.tech-geeks.org/contrib/loveless/phorum/abl-phorum-3.3.2a.tar.gz>"
3. Extract file.
 - "tar -xzf abl-phorum-3.3.2a.tar.gz"
4. Change to abl-phorum-* directory
 - "cd abl-phorum-3.3.2a"
5. Execute install script
 - "./install.sh"
6. Browse to PhpMyAdmin
 - <https://server-ip/phpmyadmin> (Login as "admin" with your password)
 - Create a database called "phorum", then click "Reload MySQL"
 - Click "Home", then "Users"
 - Add a new user with the following characteristics
 - Any Host
 - UserName: phorum
 - Password: (Something hard, this won't be used much)
 - Priveleges: Uncheck All
 - GO, then click "Reload MySQL"
 - Click "Grants" for the user "phorum"
 - Add Priveleges with the following characteristics
 - Database: Phorum
 - Any Table
 - Any Column
 - Priveleges: Check All
 - UnCheck: Grant
 - GO
 - Click "Home", then click "Reload MySQL", then Close browser
7. Browse to the web based configuration
 - http://server_ip/phorum/admin
8. Follow on-screen instructions
 - Database Type = MySQL
 - Server Name = localhost
 - Database Name = phorum
 - Database UserName = phorum
 - Database Password = (Password that you entered for the "phorum" user)
 - Main Table = (keep default)
 - Create the Admin User
 - UserName: admin (or whatever you want)
 - Password: (Whatever you want)
 - Verify Phorum URL and enter admin's e-mail address
9. Configuration Complete. Read the paragraph below for the next step.

Once configuration is complete, you'll need to create a new forum. Once this is finished, access the forum by browsing to <http://Server-Address/phorum>. You can access the Administrator's screen by browsing to <http://Server-Address/phorum/admin/index.php>.

For the most current information, browse to <http://www.tech-geeks.org> and search for "phorum". Please post any questions/comments regarding this how-to as comments to the articles on this site. This is the first release of my how-to, so I may have left something out.

Original Application located at <http://www.phorum.org/>.

Some components of this script were designed by Darrell May at:

- <http://myezserver.com/downloads/mitel>

PROGRAM: DIRECTORY INDEXER

Modified by: Abe Loveless (abe_AT_lovelesscentral.org)
 Modified on: March 12, 2002
 Current Version: abl-indexer-0.2-1.tar.gz

```
# lophty directory indexer
# copyright 2001 brian donovan, indexer-script@lophty.com
#
#
# This program is free software; you can redistribute it and/or
# modify it under the terms of the GNU General Public License
# as published by the Free Software Foundation; either version 2
# of the License, or (at your option) any later version.

# This program is distributed in the hope that it will be useful,
# but WITHOUT ANY WARRANTY; without even the implied warranty of
# MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.  See the
# GNU General Public License for more details.
#
# You should have received a copy of the GNU General Public License
# along with this program; if not, write to the Free Software
# Foundation, Inc., 59 Temple Place - Suite 330, Boston, MA 02111-1307, USA.
#
```

The original code for this directory indexer is copyrighted as per the notice above. I have made a couple small changes and additions to the package to make this script better suit my needs. Development has been done on a standard SME Server v5.1.2 (<http://www.e-smith.org>).

The actual code for the index.php script has remained largely untouched from the original. My changes are listed below:

- Added a line break (
) toward the top of the page to make the directory name display correctly. Previously, it was getting chopped off.
- Added a banner at the top of the page to better display what section of the site is being indexed.
- Added an "Up One Level" link to assist with navigation
- Added a "Modified by:..." notice at the bottom of the page

The other modifications that I have made to this package are more related to organization than to the original script. Once this package has been extracted, you will find the following directory structure:

- indexer
 - indexerfiles
 - dir.gif
 - file.gif
 - dirindexer.css
 - master_indexes
 - index.php
 - update_indexer
 - abl-update_indexer-*.pl
 - config.txt
 - run_update.sh
 - update_indexer.cron
 - GPL.txt

- IndexerFiles - This is the original directory containing the .css file and the images used in the standard index.php
- Master_Indexes - Is a directory used for ease of administration. The index.php file now resides in this directory. If you are indexing different sites, you may have a need for more than one original index.php file. Place them all in this directory with different filenames.
- Update_Indexer - This directory contains the Perl script that I wrote to traverse a specified directory path and copy the specified file to index.php in each directory. Simply, edit the config.txt file and execute run_update.sh. If you want, copy the update_indexer.cron to the appropriate cron location to schedule the event.

INSTALLATION INSTRUCTIONS for SME Server:

1. Login as root
2. Download the current package from tech-geeks.org
 - SitePath = www.tech-geeks.org/contrib/loveless/indexer
 - FileName = abl-indexer-0.2-1.tar.gz
 - Command = "wget http://SitePath/FileName" (Type the actual values.)
3. Verify installation directory exists
 - "mkdir -p /opt/utilities"
4. Move downloaded file to installation location
 - "mv abl-indexer-0.2-1.tar.gz /opt/utilities/"
5. Extract file
 - "tar -xzf abl-indexer-0.2-1.tar.gz"
6. Delete or Move the .tar.gz file to another location
7. Change banner in index.php to reference your server
 - Change to master_indexes directory
 - "cd /opt/utilities/indexer/master_indexes/"
 - "pico index.php"
 - CTRL w to search for: "tech-geeks.org" (It should only appear once, change the value to your site
 - CTRL x to exit, y to save, ENTER to keep the name
8. Edit config.txt to reference path to be indexed
 - "cd .."
 - "cd update_indexer"
 - "pico config.txt"
 - Edit the 2nd line to match your particular needs
 - Path to MasterFile should be the same.
 - Change the MasterFile name if necessary
9. Execute run_update.sh to distribute your master file to each sub-directory
 - "./run_update.sh"
10. If necessary, copy the update_indexer.cron to an appropriate cron directory for automatic scheduling.
 - "cp /opt/utilities/indexer/update_indexer/update_indexer.cron /etc/cron.daily/"

NOTES:

1. To edit the colors and layout of index.php, make your changes to the .css file located in the IndexerFiles directory.
2. If the run_update.sh script doesn't run, your version of Perl probably doesn't have the File-Recurse function loaded. If this is the case, you'll need to download the File-Recurse-0.11.tar.gz file from <http://www.tech-geeks.org/contrib/loveless/indexer/> Simply download and extract the file to a directory on your server. Follow the directions in the README file to install the Perl module. I found this to be pretty simple on my SME v5.1.2 server.

I hope this utility is useful, and that it provides a solution for your sites. Of course, this software comes without any warranty of any kind. Use at your own risk.... and all of that general disclaimer stuff.

EZ MAILING LIST MANAGER w/WEB ARCHIVE

DEVELOPED BY: Abe Loveless - (abe_AT_lovelesscentral.org)

DATE: March 25, 2002

DESCRIPTION: This package will install a web-based archival system for the EZMLM list server on E-Smith/SME Server v5.x. I have pulled from existing applications, customized them in some cases, and developed my own scripts to develop this application. I incorporated the MHonArc (<http://www.mhonarc.org>) mail-to-html converter for the archiving of the messages. I'm using Perlfect's (<http://www.perlfect.com/freescripts/search/>) search engine to provide search capabilities to the archive. And, I am using custom scripts to provide individual archival/indexing of each list on the system.

NOTES: Check the website before installing... I'm working on a how-to for another version of EZMLM. The new one includes a better (more featured) web interface.
<http://www.tech-geeks.org/contrib/loveless/list-archive> (April 18, 2002)

DIRECTIONS:

1. Download and Extract this package (Be sure to get the most current).
 - wget <http://www.tech-geeks.org/contrib/loveless/list-archive/abl-listarchive-0.2.tar.gz>
 - tar -xzf abl-listarchive*.tar.gz
2. Do you already have EZMLM installed? (If so, skip to Number 3.)
 - How-to available at <http://www.shiloh.stclair.k12.il.us/bk/esmith/Ezmlm.htm>
 - RPM's are available in this package for convenience.
 - Directions in a Nutshell:
 - a. Change to source_packages directory
 - cd abl-listarchive-0.2/source-packages
 - b. Install EZMLM rpm's.
 - rpm -Uvh ezmlm-idx-std-0.40-2.i386.rpm
 - rpm -Uvh e-smith-ezmlm-idx-0.1.3-19.noarch.rpm
 - c. Execute necessary commands
 - /sbin/e-smith/signal-event post-upgrade (May take a minute.)
 - /sbin/e-smith/signal-event reboot
3. Change to the abl-listarchive* directory
 - cd abl-listarchive-0.2
4. Run the install script
 - ./install.sh
 - Use the following Values
 - a. Path Name of Perl (Default is correct, just hit Enter): /usr/bin/perl
 - b. Directory to install Executables: /opt/utilities/list-archive
 - c. Does not exist... Create? : y
 - d. Directory to install library files:
 - /opt/utilities/list-archive/library
 - e. Does not exist... Create? : y
 - f. Directory to install Documentation: /opt/utilities/list-archive/docs
 - g. Does not exist... Create? : y
 - h. Directory to install ManPages: /opt/utilities/list-archive/man
 - i. Does not exist... Create? : y
 - j. Verify that directories are correct. "y" to Continue, "n" to re-try.
 - k. Files will be copied to the appropriate directory.
 - l. You must now configure a list.
5. Create a list (If list already created, skip to "5. -Subscribers" .)
 - Open your server's server-manager
 - Under Collaboration, click on "Mailing Lists"
 - Click on "Click here" to create a new list
 - List Name: Type the list name (10 character max.)

- Brief Description: Enter a brief description of the list
 - Options: Accept the defaults, until you research EZMLM at <http://www.ezmlm.org>
 - Owner: Enter the correct e-mail address for the list owner
 - Moderators: Enter any moderators for the list that you may have
 - Subscribers: Enter any subscribers
 - a. These can be updated later
 - b. Users can also subscribe by email, send a message to `listname-help@your.server.domain.com`
 - c. IMPORTANT: You must subscribe a user `LISTNAME-a@your.domain.com`
 - Note the "-a" in the e-mail address above. This is what informs the archive system that it should watch this list.
 - Click Create
6. Create the Archive User
- Under Collaboration, click on "User Accounts"
 - Click on "Click here" to create a new user
 - Account Name: LISTNAME-a
 - First Name: (Your Listname)
 - Last Name: Archive
 - Accept the defaults on everything else
 - Click "Create"
 - Click "Reset Password" for your new account
 - Enter a password in the boxes
 - a. This password won't be used for anything, so you might as well make it hard... reducing the chance of hackers gaining access. If you ever need access to this account, you can reset the password.
 - Click "Change"
7. Send a Test Message to the new list.
- From the e-mail client of a subscribed user, send a test/welcome message to the new list.
 - a. The e-mail address of the list is `LISTNAME@your.server.domain.com`
 - Wait for the subscribed user to receive the new message from the listserver.
8. Force the archive to build.
- Login to the console as root
 - `/opt/utilities/list-archive/mhonarc.cron`
9. View the Archive
- Open your Internet browser.
 - `http://your.server.domain.com/list-archive/LISTNAME/maillist.html`
10. Done. The archive will automatically update on an hourly basis.

CHANGES TO FILESYSTEM:

1. All necessary files copied to `/opt/utilities/list-archive`
2. Created `/home/e-smith/files/primary/cgi-bin/list-archive`
3. Created `/home/e-smith/files/primary/html/list-archive`
4. Copied `/opt/utilities/list-archive/mhonarc.cron` to `/etc/cron.hourly/mhonarc.cron`

FAQ:

1. How do I uninstall?

Delete the directories and files mentioned above.

2. How do I change the frequency of the archive?

Move `/etc/cron.hourly/mhonarc.cron` to the appropriate `cron.*` directory.

Options include `cron.hourly`, `cron.daily`, `cron.weekly`, `cron.monthly`. You can also explore the "crontab" command for custom solutions.

3. Can I see a demo?

My development machine is located at the following address:

- <http://test.tech-geeks.org/list-archive/mylist/maillist.html>

If it's up, you're welcome to look at it. As I said, this is my development machine... I can't guarantee that there will always be a list to view here.

Once I get this into production, I'll post the address in this README.txt file.
(<http://www.tech-geeks.org/list-archive/tech-geeks/maillist.html>)

4. Why is the listname limited to 10 characters?

This is sort of related to SME Server. The SME Server has a 12 character limit on usernames. Because you need to create a user with the username of "listname-a", you are limited to a 10 character listname for the archive to work correctly.

HISTORY:

March 25, 2002 - Initial release of abl-listarchive-0.2.tar.gz

April 1, 2002 - Minor bug fixes relating to incorrect path for list resource files. Fixed in update.pl.

Current release is: abl-listarchive-0.2.1.tar.gz

TO DO:

- Remove verbose headers from message archive
- Automate creation of a list-archive index. This would create an html page of all available list archives on the server, and provide a link to each archive.
- Re-Sort archive, newest on top
- Add Search form to threads.html

CONTACT INFORMATION:

Abe Loveless - abe_AT_lovelesscentral.org

Feedback/Feature Requests Welcome.

CREDITS:

I used resources from the following people/entities:

- MHonArc for the Mail-to-HTML converter (<http://www.mhonarc.org>)
- Perlfect for the Search engine (<http://perlfect.com/freescripts/search/>)
- Bill Kampmeyer for EZMLM How-To
(<http://www.shiloh.k12.il.us/bk/esmith/Ezmlm.htm>)
- Gordon Rowell for EZMLM rpm's
(<ftp://ftp.e-smith.org/pub/e-smith/contrib/GordonRowell/>)

DISCLAIMER:

This software comes without any warranty of any kind. There is no official support. I reserve the right to help out if I can... preferably, I'd like to compile a list of FAQ's and post them somewhere, rather than providing direct support. Hopefully this package proves to be useful.

INSTALLING VIRTUAL PRIVATE NETWORKING - March 8, 2002

This document was created based on my Step-by-Step notes when I installed and configured VPN on my systems. Please see Darrell May's HowTo for more details. (Link at bottom of this document.) - Abe Loveless

Wow this was slick.

Here's my step-by-step for setting up a VPN between 2 servers. This was done on SME v5.1.2

PERFORM ON BOTH SERVERS

1. Login as root
2. Download vpn files
"wget http://www.tech-geeks.org/contrib/loveless/vpn/vpn.tar"
3. Extract the files
"tar -xvf vpn.tar"
4. Change to the vpn directory and execute setup file
"cd vpn"
". install.sh" (Dot Space Install.sh)
5. Copy the ipsec _updown file (This is different for previous versions of SME Server. See the how-to at the link at the bottom of this page.
"cp /usr/lib/ipsec/_updown_1.91 /usr/lib/ipsec/_updown"
"y" to overwrite existing file.

ONCE THE ABOVE STEPS ARE COMPLETED ON ALL SERVERS, CONTINUE TO NEXT PART

ON THE FIRST SERVER

6. Log into the server-manager
7. Under the Security Tab, click on IPSec VPN
8. View the public encryption key
9. Highlight and copy the encryption key

ON THE SECOND SERVER

10. Log into the server-manager
11. Under the Security Tab, click on IPSec VPN
12. Add and IPSec VPN
13. Fill in the blanks using the following guide:
 - Remote router Internal IP (This is the internal IP of the other SME Server.
 - Remote router Internal Subnet (Subnet of Internal network on other SME Server
 - Remote router default gateway (External Router Address / Gateway for other SME Server)
 - Remote router public encryption key (Paste the key from the other server)
 - Accept the other defaults
14. Click Add

ON THE SECOND SERVER

15. Complete steps 6 thru 9

ON THE FIRST SERVER

16. Complete steps 10 thru 14

PERFORM ON BOTH SERVERS

ADD LOCAL NETWORKS

17. Click on Local Networks tab
18. Add the local network of the other server
 - Network Address (Internal network address of other server... ex.10.0.0.0)
 - Subnet Mask (Subnet of Internal network on other server... ex.255.255.255.0)
 - Router (Leave blank)

19. Click Add
20. Add another local network
21. Add the External IP of the other server
 - Network Address (External IP of other server)
 - Subnet Mask (255.255.255.255)
22. Click Add

TEST THE INSTALLATION

23. From the console on one server, try to ping the Internal IP address of the other server. If it doesn't respond, something is wrong.

Hope this helps. See the how-to at the site below for more details and a graphical representation to better explain where everything goes.

NOTE: The vpn.tar used above is simply a local archive of Darrell May's original files located at the following site. You may want to check his site to verify that my vpn.tar file includes the most recent versions.

<http://myezserver.com/downloads/mitel/contrib/freeswan-0.4/>

Program Name: 1 To 1 NAT

Wednesday, February 06 2002 @ 11:48 PM CST

Developed by: Abe Loveless (abe@lovelesscentral.org)

Heavily Contributed by: Chris Watkins

Version Info:

Version: 1_to_1-0.1

Released: 03/14/2002

Changes: 2nd release (Bug Fix)

Description:

This package will help you configure your SME v5.0 Server to perform 1:1 NAT. You should use this utility if you have a need to provide an additional external IP address to your SME Server and have all requests directed to a different computer on your internal network.

Directions:

- 1) Download the package to your SME Server.
 - 1a. "wget http://www.tech-geeks.org/contrib/loveless/1_to_1/1_to_1-0.1.tar.gz"
- 2) Copy the file to /opt/utilities/
 - 2a. "mkdir -p /opt/utilities"
 - 2b. "cp 1_to_1*.tar.gz /opt/utilities/"
- 3) Change directories and extract the file
 - 3a. "cd /opt/utilities"
 - 3b. "tar -xzf 1_to_1*.tar.gz"
 - 3c. Ok to delete archive "rm -f 1_to_1*.tar.gz"
- 4) Change directories, configure, and install the package
 - 4a. "cd 1_to_1"
 - 4b. "pico config.txt"
 - 4c. See "Configuration File" heading in this document
 - 4d. After editing, CTRL-X, y, then ENTER to close the editor
 - 4e. "./install" to install the package
- 5) Reboot to activate changes.
 - 5a. "shutdown -r now"

Configuration File:

The file "config.txt" is used to configure your 1 to 1 NAT settings.

The format of the file is as follows:

New_External_IP, Internal_IP, Allowable_Networks

New_External_IP: The external IP address that you want to forward through the SME Server.

Internal_IP: The internal IP address of the server/computer that you want to respond to requests for the New_External_IP.

Allowable_Networks: This package gives you the flexibility to indicate which networks can have access to the services provided on this external IP. Currently, you either specify "Entire Internet" or "one individual network". Access for multiple networks will be included in the next release.

The syntax for Allowable_Networks is "Network_Address/NetMask"

Example 1 - Entire Internet: "0/0" (No Quotes, of course)

Example 2 - Specific Network: "xxx.xxx.xxx.0/24" (Class C)

Reminders:

1) Local clients will not be able to access the resources on the NATed server via the external IP. The NAT routes will get confused within the server. So, local clients must access these resources using the internal IP address of the appropriate server.

2) If you need to make changes to your configuration, edit the "config.txt" file and run the "update" ("./update") script. Both files are located in /opt/utilities/1_to_1/.

3) You can not have multiple external IP's NATing to the same internal IP address. Each external IP being used must forward to a different internal IP address.

4) If you do something to your server that restores many of the original settings, you can execute the "reset" script located in "/opt/utilities/1_to_1/" or you can re-boot the server. If the services do not return after re-boot, verify that the file /etc/rc.d/rc7.d/S99_1_to_1_NAT exists. If this file does not exist, re-run the /opt/utilities/1_to_1/install script, then re-boot. This should solve the problem.

5) The format of "config.txt" is important. The first line of the file should always be the headings. You may then enter as many config lines as you require. Always separate the fields with a comma... just like the headings.

Current Version: 1_to_1-0.1.tar.gz

Project History:

February 6, 2002

- Initial Release.
- Package named 1_to_1.tar.gz

March 14, 2002

- Bug Fix. Changed the order that the ipchains was entered in the routing table. It was too far down and was getting overridden.
- Changed naming scheme. New package name 1_to_1-0.1.tar.gz

To Do's:

- Server Manager Panel for settings
- Utilize SME Server's internal database for system variable settings

I hope this is useful. This software comes with no warranties of any kind. Use at your own risk.

Please send me your results... abe@lovelesscentral.org Or post them on <http://www.tech-geeks.org>

Install Port Forwarding on your SME Server

Problem: You need to forward a Port through the SME Server to a host on the internal network. For example, you may wish to forward port 80 through the SME server to an internal IIS server for your main website.

Solution: Install the Port Forwarding Panel developed by Darrell May. His link is shown here: <http://myezserver.com/downloads/mitel/contrib/portforwarding-0.0.1/>

Instructions:

1. Login to your servers console
2. Download the current port forwarding panel.

```
wget http://myezserver.com/
downloads/
mitel/
contrib/
portforwarding-0.0.1/
dmc-mitel-portforwarding-0.0.1-4.noarch.rpm
```
3. Install the rpm

```
"rpm -Uvh dmc-mitel*.rpm"
```
4. Browse to your server's server-manager
5. Click on Port Forwarding
6. Follow the on-screen instructions.

Notes: Be sure to check the site above for the most current version of the .rpm file.

How-To Install SquidGuard on SME 5.x

Monday, January 07 2002 @ 05:08 PM CST
 Contributed by: Abe Loveless

Installing the SquidGuard Content Filter on E-Smith/SME Server

Background Info.

This SquidGuard Content Filter incorporates with an E-Smith/SME Server to provide free Internet Content Filter service. You must have a fully functional SME server, and your clients proxying through the server. (Server Only Mode: Set the proxy settings in your browser, or Server and Gateway Mode: Transparent proxy from the internal network to your external network.)

This version of the SquidGuard content filter can be automatically configured to update nightly with the blacklist compiled at:

<http://www.tech-geeks.org/servers/sme/v5.0/squidguard/blacklists.tar.gz>

This list is (or will be) a compilation of the following blacklists:

<http://ftp.ost.eltele.no/pub/www/proxy/squidGuard/contrib/blacklists.tar.gz>

ftp://ftp.univ-tlse1.fr/pub/resear/cache/squidguard_contrib/adult.tar.gz

These 2 lists are downloaded nightly and re-compiled to eliminate duplicate entries and re-generate the necessary files needed by this version of SquidGuard.

The Installer:

SquidGuard3.1.tar.gz has been modified from Trevor Ouellette's original version. His original version can be obtained at:

<ftp://ftp.e-smith.com/pub/e-smith/contrib/TrevorOuellette/squidguard30.tar.gz>

This version is available at:

<http://www.tech-geeks.org/servers/sme/v5.1.x/squidguard/install/squidguard3.1.tar.gz>

The 3.1 version contains some minor enhancements.

1. Extraction of the file will automatically create the install directory.
2. Some of the internal file locations have moved slightly.

Instructions:

1. Login to your console as "root"
2. Download the current version of squidguard
 - "wget <http://www.tech-geeks.org/servers/sme/v5.1.x/squidguard/install/squidguard3.1.tar.gz>"
3. Extract the file
 - "tar -xzf squidguard3.1.tar.gz"
4. Change to "sg3" directory
 - "cd sg3"
5. Install SquidGuard
 - "./install.sh"
6. Reboot your Server
 - "shutdown -r now"

This version should work on all current versions of E-Smith / SME Server. That's all there is to it. You should now be filtering content. To edit the custom blacklist, click on the Content Filter panel in your Server-Manager.

Configure SquidGuard

1. Perform the steps above to install SquidGuard on your server.
2. Login to the Web-Based Server Manager
 - <http://server-ip/server-manager>
 - Username "admin" Password - your password
 - You can change the configuration settings from this website
3. Click on the "Content Filter" link under the "Security" Heading.
4. Customizing the Trusted/Untrusted List (Trusted = Good, Untrusted = Bad)
 - 3 ways to customize
 - o Entire Domain
 - Entering microsoft.com would block all access to *.microsoft.com
 - o Specific Expression
 - Entering xxx would block all requests for the characters xxx
 - o Specific URL
 - Enter a specific url (<http://www.fruit.com>)
 - How to Block/Allow custom sites
 - o Select your type of customization
 - Select Trusted/Untrusted
 - o Enter your Information
 - o Click "Submit Data"
5. View the contents of custom list.
 - Select Custom Type
 - o Select Trusted/Untrusted
 - Click on "View"
6. To Remove a site from the custom list
 - Follow the directions to Block the site
 - Check the box "Remove Entry"
 - Click on "Submit Data"
7. Specify individual IP addresses to pass the filter
 - Under IP Security Controls
 - o Type the IP address
 - Select Restricted/Full Internet Access
 - Click on "Submit Data"
 - To filter an IP address after it has been allowed full access, just follow the above directions and select "Restricted Access"
8. Reconfigure SquidGuard to download the master list from Tech-Geeks.Org
 - Enter the following url in the BlackList Controls URL section:
 - <http://www.tech-geeks.org/servers/sme/v5.1.x/squidguard/blacklists.tar.gz>
 - Click Submit Data
9. Configure Automatic E-Mail
 - Squidguard will automatically download the new blacklist each night.
 - It will send an e-mail notification to the "admin" user of your SME Server to report success/failure
 - In the Server-Manager, click the "Other E-Mail Settings" heading
 - Enter your e-mail address in the "Forwarding address for administrative notices" box
 - Click "Save"
 - All automated messages to the "admin" user will now be forwarded to your normal e-mail account

Note: While the system saves changes, you won't be filtering. Once it comes back up, your changes will be active.

Tracking User Activity using Squid-access logs and identd.

Friday, April 19 2002 @ 06:00 AM CDT

Contributed by Chris Watkins and Mark Drone, who naturally disclaim any responsibility for what this might possibly do to your system ;-)

Introduction: Many squidguard users have been asking about the ability to track user activity in the squid-access log. This how-to will show how to add this capability to networks where user authentication is done. Currently, the websites are tracked in the squid-access.log file by IP address. By running the ident daemon (identd.exe) as a startup utility, usernames will also be added to the squid-access log. This log file is viewable from the server-manager panel and can be filtered to target particular usernames.

(We recommend that you install SARG to gain maximum benefit from this utility. Bill Kampmeyer has an excellent easy-to-follow how-to at <http://www.shiloh.stclair.k12.il.us/bk/esmith/sarg/sarg.htm>)

Phase 1: Setting up the workstation environment

1. Download the identd.exe program on your local workstation or server.
 - <http://www.tech-geeks.org/contrib/mdrone/archives/identd130.zip> (tested version)
2. Extract the archive and copy the identd.exe file to an obscure directory on your local machine, or IDEALLY, copy the identd.exe file to a network share on your favorite server (be it Novell, Win2K, Linux, Unix, E-smith, etc.). A server-based placement ensures that the user has an authentic username on the network. A server-based placement works well in conjunction with a logon script that calls the daemon when a session is initiated.

As a test location on a local machine, place the identd.exe in the c:windows or c:winnt directory. To launch this utility, run the following from the command line (you might want to include its location in your PATH and/or create a shortcut or batch file and put it in the startup folder):

```
$PATHidentd.exe -q
```

[Reference: The "-q" switch will cause identd.exe to shutdown when the user logs off of the machine. Without the "-q" option, a reboot is needed to shutdown the daemon. Chris and I recommend that you read the "Installation.html" and "cmd.html" files in the docs folder of the the identd130.zip archive to learn more about the installation and command line options]

Phase 2: Setting up Squid to use Authentication

You will need command line access to your e-smith box to do the following.

- a. Create a couple of directories:
 - # mkdir /etc/e-smith/templates-custom/etc
 - # mkdir /etc/e-smith/templates-custom/etc/squid

Change to the appropriate directory:

```
# cd /etc/e-smith/templates-custom/etc/squid/
```

- b. Copy the squid.conf template directory to the templates-custom directory
 - # cp -R /etc/e-smith/templates/etc/squid/squid.conf ./ (Note the DOT FORWARD SLASH)

[Step c. below can be skipped without incident, but we thought you'd like to see that you can create files using the "touch" command]

- c. Create a file called "20ACL40ident"

```
# touch 20ACL40ident
```

Create a file called "40http_access05ident"

```
# touch 40http_access05ident
```

- d. Edit the "20ACL40ident" file

```
# pico 20ACL40ident
```

Type in the following line, taking care to hit the "Enter" key at the end of the line:

```
"acl names ident root admin" - (No Quotes)
```

Save and exit Pico by using CTRL-X followed by "y" when prompted, then Enter

- e. Edit the "40http_access05ident" file

```
# pico 40http_access05ident
```

Type in the following lines, take care to hit the "Enter" key at the end of each line

```
"http_access allow names localsrc" - (No Quotes)
```

```
"http_access deny names" - (No Quotes)
```

Save and exit Pico by using CTRL-X followed by the "y" when prompted, then Enter

- f. Rebuild the /etc/squid/squid.conf file by expanding the template:

```
# /sbin/e-smith/expand-template /etc/squid/squid.conf
```

- g. Restart Squid:

```
# /usr/local/squidGuard/squid-reset
```

Just for good measure, check your work, as it is easy to make a mistake when creating and editing the files. A test of the installation includes browsing a few websites while you're logged in with your username (or a clever alias), and then checking the squid-access log, filtering for your username.

LOCAL AREA Blacklist Repository V5.0

http://www.lth5.k12.il.us/e-smith/SquidGuard/squidguard_list.htm

A local blacklist database is housed at the above URL. Anyone may add sites to the local blacklist. If the local blacklist is installed on your squidGuard filter, the sites listed in this database will be added to the "untrusted" list of your server on a weekly basis. All sites that you specifically add to your system's "untrusted" list will remain intact. The weekly update will only add the sites in our database to your list.

To add the local blacklist to a squidGuard untrusted list:

- 1) Go to the website and click the "Make a current list" link.
- 2) Login as "root"
- 3) Download the installer by typing:
 "wget <http://www.lth5.k12.il.us/e-smith/SquidGuard/db/sg-custom>"
- 4) Type "ls" and enter to verify the installer file (sg-custom) is present.
- 5) Type "chmod 700 sg-custom" and enter to make the file executable
- 6) Type "./sg-custom" and enter to install the list.

NOTES: The list is rebuilt at 10:00 PM CST each night. You can also force a re-build of the list by going to the website above and "Click Here" to build a current list. Your server will update automatically each week and send a notification to the "admin" user of your server.

Changing the "Access Denied" Page

There are two options, if you want to change the default block page. Either create a new page and direct SquidGuard to the new file, or modify the existing file.

- I. I've made a new file... how do I tell SquidGuard where it is?
- You need to edit the squidGuard.conf template.
 - 1. "pico /etc/e-smith/templates/usr/local/squidGuard/squidGuard.conf/60-acl-default"
 - a. Toward the bottom of the file you will see something like "pass trusted !aggressive all redirect <http://10.0.0.1/cgi-bin/blocked.cgi>..."
 - b. Change the url in this line to reflect the full url of your new block page
 - c. CTRL X to exit, Y to Save, Enter to keep the same name.
 - 2. Expand the template
 - a. "/sbin/e-smith/expand-template/ /usr/local/squidGuard/squidGuard.conf"
 - 3. Restart squid
 - a. "/usr/local/squidGuard/squid-reset"

NOTES:

1. Your new file should be placed in /home/e-smith/files/primary/html if it is an html file. If your new file is a .cgi file, it should be in /home/e-smith/files/primary/cgi-bin. The page can also reside on some other server.
2. When calling a graphic for the above scenario, the source of the graphic (<img src=) use the <http://xxxxxxxx> as the graphic source.)

II. I want to edit the blocked.cgi file

1. Open the blocked.cgi file
 - a. "pico /home/e-smith/files/primary/cgi-bin/blocked.cgi"
2. Make your changes to the page.
3. CTRL X to Exit, Y to Save, ENTER to keep the filename
4. Changes should be viewable immediately

Change the default Proxy Port (3128) for the Content Filter

Problem: You have an existing Proxy Server that uses a Port Number different from the E-Smith / SME Server. Instead of modifying each of your clients, you would rather change the port number on the server.

Here are the directions for changing the Port Number:

1. Login as Root.
2. Change to the squid template directory:
"cd /etc/e-smith/templates/etc/squid/squid.conf"
3. Create a new file and store the http_port variable
Open a new file in an editor: "pico 35http_port"
Type: "http_port 8080" or whatever your port number should be.
Type: "CTRL x" to exit
Type: "y" to Save
Press "enter" to keep the filename
4. Rebuild the config files
Type: "/sbin/e-smith/signal-event console-save"
5. Either Reboot server or Restart Squid.
Reboot: "shutdown -r now"
or
Restart: "services squid restart"

Setting the Proxy in Internet Explorer

Tools/Internet Options/Connections/LAN Settings
Enter the IP of the proxy server
Enter the PORT number 3128

Setting the Proxy in Netscape

Edit/Preferences/Advanced/Proxies
Select Manual Update, Click View
Enter the IP of the proxy server
Enter the PORT number 3128

Disabling Proxy changes in Netscape

In the Programs/Netscape/Communicator/Program folder
Rename "prefui32.dll" to *newname* (remember this so you can reverse the status)
This will disable all the changes under Edit/Preferences

Disabling Proxy changes in Internet Explorer

In the Windows/System folder
Rename "inetctl.cpl" to *newname* (remember this so you can reverse the status)
This will disable all the changes under Tools/Options

SARG (Squid Analysis Report Generator)

Summary : SARG - Squid Analysis Report Generator templates

Description : SARG is a Squid Analysis Report Generator that allows you to view "where" your users are going on the Internet. This package adds e-smith specific templates. The reports are generated every night at midnight and can be viewed at <http://yourserver/squid> (admin password required). Tested only on SME5.

Features: - Creates daily, weekly and monthly reports at midnight - Reports are kept indefinitely in `/var/www/html/squid`, accessible from server-manager panel (Administration section) or directly at <http://yourserver/squid> - squid access.log is rotated every month

Todo: - create report on the fly - web interface to various config parameters - deletion of old reports on demand - access to reports to selected users

Mini-HOWTO: -

Download and install Sergei Dushenkov SARG package

- `wget http://ptt.mcl.ru/orso/7x/sarg-1.2.1-1.i386.rpm`
- `rpm -Uvh sarg-1.2.1-1.i386.rpm`

Download and install e-smith specific templates

- `wget http://www.mobilia.it/filippo/download/mitel/SME5/e-smith-sarg-1.2.1-2.noarch.rpm`
- `rpm -Uvh e-smith-sarg*.rpm`

Wait until midnight or create a report manually by executing `"/usr/sbin/sarg.daily"`. Then browse to <http://yourserver/squid> or reload server-manager and click on SARG reports link in Administration section.

This how-to is adapted from <http://www.shiloh.stclair.k12.il.us/bk/esmith/sarg/sarg.htm>, which is based on an e-mail sent from Filippo Carletti to the E-Smith Developers list serve.

Installing the GeekLog on your E-Smith/SME Server.

Contributed by: Abe Loveless

Date: March 26, 2002

Description: GeekLog is a content management portal. For an example, GeekLog is a web-based application that runs the front-end of the website located at <http://www.tech-geeks.org>. Users can subscribe, post articles, add calendar entries, any number of things. This document will show you how to install GeekLog on your E-Smith/SME Server and how to set it to be your homepage.

Requirements:

- phpMyAdmin should be installed first. This is a WebBased GUI for managing the MySQL Databases on your server.
 - Download latest rpm from Darrell May
 - `wget http://myezserver.com/downloads/mitel/contrib/phpmyadmin-2.2.3/dmc-mitel-phpmyadmin-2.2.3-1.noarch.rpm`
 - Install the package
 - `rpm -Uvh dmc-mitel-phpmyadmin*.rpm`
- It is now accessible at the following url:
 - `https://your.server.domain.com/phpmyadmin`
 - Login as "admin" with your password.

Installation of GeekLog - Begin Here.

From the Console:

(Please remember to substitute the current version of Geeklog where necessary.)

- Download the current .tar.gz file from <http://geeklog.sourceforge.net>
- Create the installation directory - `"mkdir /opt/utilities"`
- Copy .tar.gz file to /opt/utilities/ - `"cp geeklog-1.3.4.tar.gz /opt/utilities/"`
- Extract the file - `"tar -xzf geeklog-*.tar.gz"`
- Change Ownership of new directory - `"chown -R www:www geeklog-*`
- You need a web accessible directory to use for the web content.
 - a. Create an I-Bay with web accessibility or use an existing web accessible path
 - b. To make the geeklog portal be the homepage of your e-smith/sme server, we'll use `/home/e-smith/files/primary/html/`
- Copy contents of "public_html" to your web directory


```
"cd /opt/utilities/geeklog-*/public_html"
"cp -Rp * /home/e-smith/files/primary/html/"
```

 (The "p" will preserve attributes.)
- Change permissions on Log directory


```
"chmod -R 777 /opt/utilities/geeklog-*/logs/"
```
- Change permissions on Backend directory


```
"chmod -R 777 /opt/utilities/geeklog-*/public_html/backend/"
```
- Copy a config file so we can retrieve SQL password


```
"cp /root/.my.cfg /home/e-smith/files/primary/html/sql.txt"
```
- Open this file in a browser and copy the 75 character password


```
"http://Server-IP/sql.txt"
```

 Copy and paste the 75 character password into a blank text document (NotePad)
- Delete the sql.txt file


```
"rm -f /home/e-smith/files/primary/html/sql.txt"
```

SEE THE NEXT PAGE TO CONTINUE WITH THE BROWSER SECTION OF THE INSTALLATION

From the Browser:

- Create the Database
 - `https://server-name/phpmyadmin` - username:admin password:your-password
 - Create Database -"geeklog"
- WebBased Installer - `http://server-name-content-dir/admin/install/install.php`
- Read the page... it should say everything is ok, and you're ready to begin.
- Choose New Installation
- Installation directory: `"/opt/utilities/geeklog-*`
- Edit System Variables
- HTML Directory - `"/home/e-smith/files/primary/html/"`
 - Be sure to end with a `"/"`.
- Log Directory - `"/opt/utilities/geeklog-*/logs/"`
- Cookie Directory - `"/"`
- RDF File - `"/opt/utilities/geeklog-*/public_html/backend/geeklog.rdf"`
 - Allow MySQL Backups: Check the box
- Edit Site Settings - Fill in your values, click Next.
- Database Settings
- UserName:root
- Password:(Paste the password from your blank text document above)
- Keep Default Table Names

That's it... the next page should complete the process and deliver you to your new site.

Finishing Up:

- Now that GeekLog is setup and configured correctly, you must secure your installation. First, be sure that you deleted the `sql.txt` document as described above. Second, either secure or delete the `/admin/install` directory. The best option would be to delete this directory, otherwise potential hackers could gain access to the `install.php` script and re-configure your whole site. To delete this directory simply type the following:

```
"rm -Rf /home/e-smith/files/primary/html/admin/install"
```

- Log in to your new GeekLog site with the names/passwords that are given. You should remove any users that you don't need, and change the passwords of all accounts that you do need. As new users register with the site, you will see the list of accounts grow.

Recovery from power interruption with file check errors on reboot.

Occasionally every system will lose power. You want to be sure to have your E-Smith / SME Server running through a UPS. Linux, like all Operating Systems, frowns on incorrect shutdown procedures. A power interruption, or just killing the power, may cause a file check error to occur during the boot process.

If this occurs, there are a few utilities that you can use to repair your disk and get the system booted correctly. You will need to login as root, and execute the following commands. In all cases, do not actually type the quotes, the last character is a number, and there is a space between "fsck" and "/dev/..".

The following instructions vary depending on the harddrives inside your individual computer and their configuration. Choose the configuration that matches your system. "Test All Drives" should work if your system isn't listed here.

1 Drive (IDE):

Type: "fsck /dev/hda1" and ENTER

Type: "fsck /dev/hda6" and ENTER

Reboot: "shutdown -r now"

1 Drive (SCSI):

Incomplete.

2 Drives RAID1 Mirror (IDE):

Incomplete.

2 Drives RAID1 Mirror (SCSI):

Type: "fsck /dev/md0" and ENTER

Type: "fsck /dev/md1" and ENTER

Reboot: "shutdown -r now"

Test All Drives:

(If you are un-sure what you have, this may be best. However, documentation suggests that you should be careful doing this. See the following article:

<http://e-smith.org/bboard/read.php?v=t&f=1&i=13728&t=13720>)

Type: "fsck -A" and ENTER

Reboot: "shutdown -r now"

The 2 options above are incomplete because, as of this writing, I do not have a test machine available that fits those configurations. If someone with this configuration would want to report their results to me, I would appreciate it. Just send me an e-mail with your disk configuration, and I'll update the information.

1. Login as root
2. Type: "mail loveless@tech-geeks.org < /etc/fstab"
3. Logout.
4. Send me an e-mail through your normal client to let me know you sent the above file and let me know your drive type and configuration. The file above displays which "/dev/*" value your system uses, but it doesn't display the drive type.

Thanks.

Abe Loveless

Installation of PHProjekt

PHProjekt is a modular application for the coordination of group activities and to share informations and document via intranet and internet. Components of PHProjekt: Group calendar, project management, time card system, file management, contact manager, mail client and 9 other modules. <http://www.phpprojekt.com>

This works on E-Smith 5.1.2 with all current blades installed as of March 27, 2002. This is after the PHP uploads problem was addressed by E-Smith. I am using Projekt version 3.2

1. Download the latest PhProjekt from <http://www.phpprojekt.com>
 - a. You will have to download the appropriate file, then copy to your server.
2. PhpMyAdmin must be installed. If you do not have it installed, follow the directions below, otherwise, skip to #3.
 - a. Login as root
 - b. Download the installation files:
 - i. `wget http://myezserver.com/downloads/mitel/contrib/phpmyadmin-2.2.3/dmc-mitel-phpmyadmin-2.2.3-1.noarch.rpm`
 - c. Install the rpm
 - i. `rpm -Uvh dmc-mitel-phpmyadmin*.rpm`
3. Create MySQL Database and Securing MySQL access
 - a. Browse to `https://your-server/phpmyadmin`
 - b. Create New Database.
 - i. Enter Name: "projekt"
 - ii. Click Create
 - c. Click Home, then click Users
 - d. Add a new user:
 - i. Any Host
 - ii. UserName: projekt
 - iii. Password: (Something Hard, it won't be used much)

NOTE: Remember this data, you will need it when you run setup.php
 - e. Click "Check All"
 - f. Click "Go"
 - g. Click "Home"
 - h. Click "Reload MySQL"
 - i. Click "Users"
 - j. Click "Grants" of the user that you just created
 - k. Click "Revoke Priveleges"
 - l. Click "Reload MySQL"
 - m. Click "Grants" of the user that you just created
 - n. Click "Revoke Grant"
 - o. Click "Reload MySQL"
 - p. Click "Grants" of the user that you just created
 - q. Select the "projekt" database from the drop-down box
 - r. Click "Check All"
 - s. Un-check "Grant"
 - t. Click "Go"
 - u. Click "Home"
 - v. Click "Reload MySQL"
4. Make the installation directory, copy the files, and extract
 - a. `mkdir -p /opt/groupware`
 - b. `cp phpprojekt.tar.gz /opt/groupware`
 - c. `cd /opt/groupware`
 - d. `tar -xzf phpprojekt.tar.gz`
 - e. `rm -f phpprojekt.tar.gz`
5. Create Upload directory
 - a. `mkdir -p /opt/groupware/phpprojekt-3.2/upload`

- (Depending on your Phprojekt version, the directory above may be different)
6. Set permissions on the directory
 - a. `"cd phprojekt-3.2"`
 - b. `"chown -R www:www ."`
(Do not overlook the `."` At the end.
 7. Make a custom template for `httpd.conf`
 - a. Create the directory
 - i. `"mkdir -p /etc/e-smith/templates-custom/etc/httpd/conf/httpd.conf"`
 - b. Change to the new directory
 - i. `"cd /etc/e-smith/templates-custom/etc/httpd/conf/httpd.conf"`
 - c. Create config file
 - i. `"pico projekt"`
 - d. Type the following into the file (Each line up to the next bullet.):


```
#-----
# Project 3.2
#-----
Alias /projekt /opt/groupware/phprojekt-3.2
<Directory /opt/groupware/phprojekt-3.2>
AddType application/x-httpd-php .php .php3 .phtml
Options Indexes +Includes FollowSymLinks
AllowOverride Options FileInfo
order deny,allow
deny from all
allow from all
</Directory>
```
 - e. Save and Exit
 - i. CTRL X to exit, Y to Save, ENTER to keep the name
 - f. Expand the template
 - i. `"/sbin/e-smith/expand-template /etc/httpd/conf/httpd.conf"`
 - g. Restart httpd
 - i. `"service httpd restart"`
 8. Browse to <http://hostname/projekt/setup.php>
 - a. Choose the Action and click Submit
 - b. Host: localhost
 - c. Username: The name you choose in PhPMyAdmin
 - d. Password: The password you choose in PhPMyAdmin
 - e. Name of Database: The database name you entered in PhPMyAdmin
 9. You should get a series of config options and status reports. Explanations can be found in `/opt/phprojekt-3.2/doc/en`.
(Don't forget to improve the root password.)
(Most settings can be altered by editing `config.inc.php` in the projekt root.)

Erratum:

- LDAP: You will probably want to disable (0) LDAP. I never could get it to work. You will get a 'you are not allowed to enter' error and may see 3 columns of login screens. If you figure it out please email me. May be possible to enable by adding ldap specifics to `ldapconf.inc.php` in lib directory. Just noticed those are not set properly. Will test ASAP.
- Mail Attachments: Do not work unless you create a folder called "attach" inside the projekt root folder with owner `www:www` and `RWX-RW` permissions. This folder is not automatically created. (Version 3.2 or later does create this.)
- Speed Boost for dialup clients: Edit `php.ini` in `/etc`. Set `"output_buffering=On` and set `"output_handler="` to `"output_handler=ob_gzhandler"`. Browser must support deflate encoding.
- It might be a good idea to delete/move the `/opt/groupware/phprojekt-3.2/setup.php` file. Once the system is setup, the `setup.php` file will prompt for a password. But, the system would be more secure if it wasn't available.

Login by browsing to <http://hostname/projekt/index.php>
Be sure to check the PhProjekt website for bugfixes.

Accessing your SME Server Remotely

One of the great things about Linux and the E-Smith / SME Server is it's ability to allow administrators to make configuration changes without actually being at the server console.

The first thing you will need to do is enable Remote Access via SSH in you server-manager. Login to the server-manager, click on Remote Access. Enable SSH access (Choose Private or Public), and allow Administrative Command Line Access Over SSH, then click Save.

This document contains instructions for 3 different types of remote access to your server. Remote Access to the console, Remote Access to the Server-Manager, and Secure Copy will let you transfer/manipulate files on the server.

Remote Access to the Console:

We recommend the PuTTY client. It is a single executable, so there is no setup on your workstation.

1. Download the PuTTY client (putty.exe) at the following location:
 - a. <http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html>
2. Double-click the putty.exe file to open the program
3. Type your server's IP address in the HOST NAME box
4. Click on the SSH protocol
5. Assign a name in the Saved Sessions box and click on Save
6. Select the Session, and click on Open
7. You should be presented with the login prompt of your server

Remote Access to the Server-Manager:

Problem: You are away from your E-Smith/Mitel SME server and need to access the command line or the server-manager web page using a graphical web browser like IE.

Solution: Use PuTTY to access your system via a secure shell (ssh) and tunneling. View the how-to document at the following location:

<http://myezserver.com/downloads/mitel/howto/putty-howto.html>

WinSCP: Secure Copy

WinSCP is similar to a beefed up WS-FTP. You can move files, rename files/folders, create new files/folders, even change permissions and ownership of files/folders. In order to use this program, you must have PuTTY downloaded to the same directory on your workstation.

The program is available at the following link: <http://winscp.vse.cz/eng/>

1. Download the current WinSCP.exe file (Currently version 2)
2. Double-click the executable file
3. It retrieves a listing of your PuTTY stored sessions, Select the correct session.
4. Click on "Load" - The Basic window should open with your HostName filled in
5. Specify the "root" username and your password. (You must login as root!)
6. It should connect to the server and open a window that will let you view your local machine and the remote machine (server)
7. Move files around as you need, Right click on a file and go to Properties to change permissions and ownership.
8. When finished, click "DisConnect"

Commonly Used Linux Commands

Command	Description
* more	"ANY-COMMAND more" will pause the output to let you view page by page.
* --help	"ANY-COMMAND --help" will display the help files for the specific command.
cat /dev/null > <FILENAME>	Clears the contents of a file. Great for resetting log files.
cat <FILENAME> grep <word/phrase>	Scans a file and looks for the occurrence of a word or phrase.
cd ..	Change Directory - Up One
cd <DIRECTORY NAME>	Change Directory
chmod PERMISSION FILENAME	Change permissions of a file. Specify the appropriate PERMISSIONS and the FILENAME.
chown OWNER:GROUP FILENAME	Change ownership of a file. Specify the OWNER and GROUP and the FILENAME to be affected.
cp -r SRC_DIR DST_DIR	Copy directories to another path.
cp SRC_FILE DST_FILE	Copy a file to another path
Df	Shows the size and usage of the major disk partitions.
du -h	Estimated filespace usage. Generates a listing of the sizes of directories and subdirectories in human readable form.
du -h /DIRNAME	Same as above, but specifies a directory to start in.
exit or CTRL D	Log out of the console
History	Shows all commands issued... stored in .bash_history file
Last	Generates a historical listing of logins.
less <FILENAME>	Similar to the "more" command. Used for reading text files page by page. "Spacebar" moves to next page; "q" key quits.
Ll	List a directory contents and show more details (file size, permissions, timestamp)
Ls	List a directory contents.
ls -a	Lists all files, including hidden "dot" files within the current directory.
mail <u>email@address</u> < <FILENAME>	Mails a file to whomever (usually you). Useful if you want to review the contents of a file away from the console or SSH session.
mkdir <DIRECTORY NAME>	Create a Directory
mv SRC DST	Move files or directories to a different path.
netstat -a	Lists active Internet connections
nslookup IP-ADDRESS	Finds the domain name associated with an IP address.
pico <FILENAME>	A text editor
pico -w <FILENAME>	The "-w" switch puts pico in "wide" mode so that it doesn't wordwrap. Necessary for some types of coding or config files.
rm <FILENAME>	Delete a file
rm -f <FILENAME>	Removes the file without the interactive prompt

<code>rm -R <DIRECTORY NAME></code>	Removes the directory and all of its contents... Similar to the "deltree" command in MS-DOS. Directory does not have to be empty to use this. In this mode it is interactive, prompting you for each deletion.
<code>rm -Rf <DIRECTORY NAME></code>	See above. No interactive prompting.
<code>rmdir <DIRECTORY NAME></code>	Remove a directory. The directory must be empty.
<code>ssh HOST</code>	Starts an SSH session to another SSH-secured server.
<code>su - admin</code>	Substitute user. When logged is an root, you can "su - USERNAME" to a different user.
<code>tail LOGNAME</code>	Handy to see the last few lines of a log file to monitor recently logged events. Useage: "tail /var/log/maillog"
<code>Top</code>	Server Useage Report. This command will display a listing of the most used current processes, with memory status. CTRL C to exit.
<code>wget <FULL URL></code>	Download a specific file from the command prompt.
<code>whereis <COMMAND></code>	Finds locations of binaries (commands) and associated support files (man, source, etc.) "whereis perl" returns more information than "which perl".
<code>which <COMMAND></code>	Shows the path to a given binary (command) file.
FTP COMMANDS	
<code>Bin</code>	Change to Binary mode for file transfer
<code>get FILENAME</code>	Retrieve a file to the ftp server
<code>put FILENAME</code>	Post a file to the ftp server
<code>mget *</code>	Retrieve multiple files from the ftp server
<code>mput *</code>	Post multiple files to the ftp server
SHORTCUTS	
<code>ALT F1, ALT F2, ALT F3</code>	Switch between windows on the console
<code>tap ESC twice</code>	autofill for filenames and/or commands
<code>Up Arrow</code>	Use the up arrow to browse recently entered commands.

Another useful tool is the "find" command. Below you will find an excerpt regarding the usage of the "find" command.

```
-----
Finding Things in Linux
-----
```

'find' has probably the most bizarre usage syntax of any UNIX program I've used. It just doesn't act like a "normal" program. You'd expect to be able to type something like "find myfilename.txt" and 'find' would find it. No such luck.

'find' instead has this strange concept of command-line "predicates" and "verbs". First you tell 'find' "what" you are looking for, then you tell it "what to do to it" when it's found it. It's strange and hard to get used to, but once you have managed, it's very powerful. The best way to start is by example:

```
find /usr -name '*cat*' -print
```

This example tells 'find' to find to start looking in "/usr" and any subdirectories below it, look for files with a name that matches '*cat*' (make sure you quote-escape any wildcards in your find commands, otherwise the shell will try to interpret them before 'find' gets 'hold of them), and finally, when it finds one, print out the path.

This is probably the most common way anyone will use 'find,' but it's just the tip of the iceberg. Here's a more complicated example:

```
find /home -type f -atime -1 -name '*.txt' -print
```

This command tells 'find' to look in "/home" and all subdirectories, look for files that are type "f" (for "regular file", as opposed to "d" for directory, because under UNIX, directories are just special types of file) with an access (or modification), in time of less than 1 day prior ending in "txt," and to print out the pathnames to all files found.

In other words, it prints the full pathname of all text files that have been modified within the last day anywhere under the "/home" directory. Pretty cool, huh? I use this one all the time when I'm trying to find that file I was working on yesterday, but can't remember what I called it or where I saved it.

'find' isn't limited to just finding files either; try this one on for size:

```
find . -name '*.bak' -exec rm {} \;
```

This looks for files ending in ".bak" in this directory and all subdirectories and then erases them. In 'find' terminology the '{} ' means "the name of the file you just found for each file you find." The "-exec" keyword should be obvious -- until it finds a semi-colon, it treats anything as the command to run. The "\" in front of the semicolon is to escape the semi-colon from the shell. 'find' will then exec the command you pass to it on each file it finds.

Combine these and other 'find' commands and you can get something like this:

```
find / -name '*.bak' -type f -atime -1 -size +1m -exec rm {} \;
```

This is a command that will start in the root directory and delete any "normal" file that ends in .bak that has been accessed in the last 24 hours and is larger than 1MB.

When you start making complicated "sentences" like that for 'find', the syntax starts to make a lot more sense and doesn't seem quite as strange anymore. Learning 'find' should be an essential part of your toolbox; read the man pages or info files to find out about the other parameters it will take. Learn 'find' and you'll never get lost.

Important Resource Listing

Linux Resources:

1. <http://www.oreillynet.com/linux/cmd/> - Linux Command Reference
2. <http://freshmeat.net/> - Cutting edge Open Source projects
3. <http://sourceforge.net/> - Cutting edge Open Source projects
4. <http://www.linuxcommand.org/index.html> - Linux Commands Resource/Tutorial
5. <http://richtech.ca/seul/> - Open Source School Management
6. <http://www.washington.edu/computing/unix/shell.html> - Shell Scripting Tutorial
7. <http://www.ctssn.com/> - Linux Basics Tutorial
8. <http://steve-parker.org/sh/first.shtml> - Shell Scripting Tutorial

E-Smith / SME Server Resources:

1. <http://www.tech-geeks.org> - Good resource for How-to documents and other stuff
2. <http://www.tech-geeks.org/contrib> - Free How-to documents and other stuff
3. <http://www.lth5.k12.il.us/e-smith> - Tutorials and other info. Related to K-12
4. <http://www.shiloh.stclair.k12.il.us/bk/esmith/> - Free How-to documents
5. <http://myezserver.com/downloads/mitel/> - A lot of free how-to documents
6. <http://www.e-smith.org> - Developer's site for E-Smith / SME
7. <http://www.e-smith.org/cgi-bin/contrib.cgi> - E-Smith Contributed How-To documents
8. <http://www.e-smith.org/bboard/search.php?> - Discussion Forum Search
9. <http://www.squidguard.org> - SquidGuard content filter
10. <http://www.tech-geeks.org/list-archive/tech-geeks/threads.html> - TechGeeks Archive
11. <http://www.stclair.k12.il.us/e-smith/> - St. Clair County ROE Added documents

Other Interesting Applications w/How-to documents:

1. <http://www.shiloh.stclair.k12.il.us/bk/esmith/>
 - **Manhattan Virtual Classroom** (Very Cool for Schools)
 - System Monitor
 - Setting up a Staff Web Server
 - Network Time Sync
2. <http://www.e-classifieds.net/products/free.html>
 - Classified System (No How-to available yet, but it was easy to setup)
 - Example site: <http://www.tech-geeks.org/cgi-bin/classifieds/classifieds.cgi>
3. <http://www.tech-geeks.org/contrib/bbutts/links2/>
 - Searchable Links Archive
 - Example site: <http://www.tech-geeks.org/LINKS/>
4. <http://www.tech-geeks.org/contrib/mdrone/chmod-calc.html>
 - Permissions Calculator
 - Select the appropriate permissions, the site will return the binary value for use in the "chmod" command.