EZproxy and Electronic Resources: The Guard at the Gate

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EZproxy and Electronic Resources

- Overview - DiCarlo
- Local Self-Administration - Clark
- Authentication Methods – Landry
- Configuration and Troubleshooting - Caswell
EZproxy and Electronic Resources

- Access to licensed databases remotely
- Seamless Access Environment
- Usage Measures
EZproxy and Electronic Resources

- Access to licensed databases remotely

Need to authenticate remote user and pass that information to database provider.

EZproxy can do both of these tasks.
EZproxy and Electronic Resources

- Seamless Access Environment

EZproxy operates as an intermediary server.

EZproxy dynamically alters the URLs within web pages provided by database vendor.
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- Usage Measures
  EZproxy uses standard web server log format.
  - 123LogAnalyzer
  - Analog
  - FastStats Analyzer
  - Sawmill
  - Summary
  - The Webalizer
  - WebTrends
EZproxy and Electronic Resources

http://www.usefulutilities.com
EZproxy and Electronic Resources

Managing your own proxy server

- Hardware/OS Specs
- Firewalls
- Log files
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Hardware/OS Requirements

- Pentium 200 processor
- 128 Mb RAM
- Windows NT 4.0, 2000, 2003, XP
- Also compatible with LINUX and Solaris OS
- Get a UPS!
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EZproxy and Firewalls

- Ports 2048 – 2248 must be accessible
- Using NAT? Need internal+external static IPs
- 200 ports too many? Use proxy by hostname
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Log Files

- Log files can be rotated
- Our method: use a script
- Use task scheduler to run script periodically
- Save the resulting log file to a new file
cd\ezproxy
set currentdate=%date:~10,4%%date:~4,2%%date:~7,2%
set fn=ezproxy-%currentdate%.log
if exist %fn% del %fn%
ezproxy log ezproxy-%currentdate%.log
type %fn%>>\ezproxy\logs\logbackup\%fn%
del %fn%
Web Server Statistics for [Noel Memorial Library]

Program started at Mon-20-Sep-2004 15:01.

General Summary

This report contains overall statistics.

Successful requests: 4,839
Average successful requests per day: 695
Successful requests for pages: 80
Average successful requests for pages per day: 11
Failed requests: 70
Redirected requests: 1,005
Distinct files requested: 1,621
Distinct hosts served: 254
Corrupt logfile lines: 2
Data transferred: 198.60 megabytes
Average data transferred per day: 28.56 megabytes

Monthly Report
Organisation Report

This report lists the organisations of the computers which requested files.

Listing the top 20 organisations by the number of requests, sorted by the number of requests.

reqs: %bytes: organisation
-----: -------: ---------
1055: 13.11%: 12
941: 2.47%: 68,206
371: 0.86%: 24,242
272: 0.50%: 139,76
...
EZProxy Authentication

Jeremy Landry
Automation Librarian
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Types of Authentication

- LOUIS Supported Unicorn CGI Script
- Text File
- Pattern
- LDAP
- RADIUS
- Referral URL
- CGI Scripts and External Scripts
LOUIS Unicorn Script

- This is the supported authentication model for LOUIS.
- The LOUIS CGI script validates a user based on the user’s patron record in Unicorn.
- Is executed on a secured server. Therefore, patron information is sent encrypted.
To authenticate, a user must:

- Exist in your Unicorn Database.
  No user record, no access.
- Have an approved **User Status**
  (usually OK or DELINQUENT).
- Have an approved **User Profile**.
- Know his or her **User ID** or **Alt ID**.
- Know his or her **PIN**.
To authenticate, a user must:

- Have a **Privilege Expires Date** that has not been reached or is within the grace period allowed for your site.

- Be able to connect to the Unicorn server at LOUIS. (If the user is connecting through a site’s EZProxy, that server must be able to connect with LOUIS.)
Sites without their own EZProxy:

- Allow access to users with a **Privilege Expires Date** of less than 30 days ago.
- Allow users with any **User Profile** access.
- Allows access to users with any **User Status**.
Sites with their own EZProxy server:

- May specify certain **User Statuses** to block:
  - Such as BLOCKED or BARRED.
- May block certain **User Profiles**:
  - Such as STAFF
- May modify the grace period given to users whose **Privilege Expires Date** has passed.
  - Default is 30 days.
Settings for Nicholls

- We block access to users with:
  - A User Status of:
    - BLOCKED or BARRED
  - A User Expires Date:
    - More than 30 days ago

- All User Profiles are authenticated.
Text File

- Fairly simple to maintain.
- Specify the file name, and have a copy FTP’d to your EZProxy on a regular basis.
- Allows you to group users easily.
- This is important if certain databases are only licensed for certain majors.
- Uses the basic format of:
  :username:password:group
123456789:ilovebks
456789345:changeme
565657345:565657345
453456366:rertert
123456791:12346789
123456792:12346789
123456792:12346789
444333222:444444444:nursing
444333223:444444444:nursing
444333224:444444444:nursing
444333225:444444444:nursing
Pattern

- Simply specify a pattern to search for in usernames and/or passwords.
- Nicholls uses this method as a backup when we lose connectivity to Unicorn Production at LOUIS.
- Passwords are not necessary.
Sample Patten File
(ezproxy.usr)
LDAP

- Is a method of authenticating using existing usernames and passwords from network logins.
- LDAP is an “add-in” that is available for many platforms.
- Your network system must use LDAP.
- With an admin login, a tool is available for configuring LDAP with EZProxy 3.0.
Tool for Configuring LDAP

http://ezproxy.yoursite.edu:2048/ldap
RADIUS

- RADIUS is similar to LDAP, but it is much easier to configure for use with EZProxy.
- Your RADIUS administrator will need your EZProxy IP.
- RADIUS is an add-in that is available for many platforms.
- RADIUS allows the use of a shared “secret” between EZProxy and the RADIUS server.
Sample RADIUS Entry
(ezproxy.usr)

- Your ezproxy.usr file only needs this line:

  ::radius=radserv.yourlib.org,secret=linkup
Referral URL

- Great for classroom management systems that require a user login such as Blackboard.
- Biggest drawback is that users may attempt to bookmark these links. If they do use the bookmarks, they will be prompted to login to EZProxy again.
Sample Referring URL File

(ezproxy.usr)

```plaintext
# Be careful to only include pages and
# directories that cannot be displayed
# without logging in.
#
::referer=http://blackboard.yoursite.edu/*
::referer=http://webct.yoursite.edu/loggedin/*
::referer=http://studentportal.yoursite.edu/loggedin/*
```
EZProxy is designed to allow CGI scripts to control the entire login process.

This means that you no longer have to maintain the login.htm and loginbu.htm pages in EZProxy.

CGI scripts are as versatile as your programmer and database are.
External Scripts

- Operate on the same principle as CGI.
- Allow also use of ASP, PHP or other programming languages as well as CGI.
- Uses the login.htm and loginbu.htm files on the EZProxy server.
- Allows for making cosmetic changes more easily to these login pages.
Other Server Services

You can also authenticate against existing usernames and passwords for such services as:

- FTP
- Email (IMAP and POP)
- Windows Domains
Sample File
(ezproxy.usr)

# FTP
::ftp=ftpserv.mysite.edu
#
# Email (IMAP)
::imap=imapserv.mysite.edu
#
# Email (POP)
#
::pop=popserv.mysite.edu
#
# Windows Domain
# Can only be used if your EZProxy is running on Windows. Also, the EZProxy computer must be
# a member of the Domain or a member of a Domain that has a trust relationship with the Domain
#
::domain=(your-domain)
#
#
Multiple Authentication Methods

- It is possible to use more than one authentication method at a time.
- It does take some time to work out the bugs.
- If you are calling the LOUIS CGI script as suggested by the EZProxy documentation, that is the only method of authentication your users will have available.
Nicholls has written a small batch file that replaces the ezproxy.usr file we normally use, with a pattern file when we lose connectivity to LOUIS. This allows our users access to our databases, even when our catalog is down. A similar file reverses the process when access is restored.
More information

- **EZProxy Authentication:**

- **EZProxy in General:**
  - [http://www.usefulutilities.com](http://www.usefulutilities.com)
EZproxy and Electronic Resources

- Running EZproxy on the campus web server
  - Primary webserver for [www.selu.edu](http://www.selu.edu)
    - Average 18,000 visits/day
  - Hardware
    - IBM xSeries 345
    - Dual Intel Xeon 2.8ghz processors
    - 2.5 gig memory
    - 210 gig RAID-5 storage
  - Software
    - Redhat Linux 7.3
    - Apache/MySQL
EZproxy and Electronic Resources

- Configuration file

  T Books in Print
  U http://www.booksinprint.com
  D booksinprint.com

  T Chemical and Chemical Engineering Ref Books
  U http://www.knovel.com
  D knovel.com
  D hbcpnetbase.com

  T ComAbstracts
  U http://www.cios.org/www/absrch.htm
  D cios.org
Forcing login for some resources

T Electronic Reserves
U http://www.selu.edu/Library/EReserves/
H www.selu.edu

T RIA Checkpoint Registration
U http://www.checkpoint-registration.riag.com/schools
D riag.com

# this option excludes users oncampus from being proxied
E 147.174.0.0-147.174.255.255

N www.selu.edu

## Databases begin
EZproxy and Electronic Resources

- Customizing EZproxy sign-on page

http://www.selu.edu:2048/login
EZproxy and Electronic Resources

- Troubleshooting common problems
  - Convenient off-campus access
  - Firewalls
  - Spyware & viruses
  - Browsers
  - Incorrect ID’s or invalid users

http://www.selu.edu/Library/ElectronicRes/AccessFAQ/