Title
Introduction to Electronic Resources and Remote Access Issues

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Author
Eggleston, Holly

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What is an Electronic Resource?

- Journals, books, encyclopedias, databases, datasets, images, audio
- Indexes and/or full text
- For paid resources, can be a one time payment or ongoing annual subscription
- Subject to use and access restrictions beyond regular copyright

* Indexes or full text – users can move between resources using “link resolver software” such as SFX or Metalib
Who Buys Electronic Resources at UC?

- Locally by individual campus
- Multiple-campus
- CDL for system-wide resources

Multiple campus – one campus negotiates for all participating campuses, and CDL manages renewals and recharges
Most institutions have been working with electronic resources for 10 years, some longer.

- Availability of home computing and increase in distance education make electronic resources practical and appealing

- Users expect information to be online and easy to access - they've been well trained with web searching.

- Typical library licenses hundreds of vendors and publishers, with resources reaching into the thousands when including individual journals.

- Resources are expensive, and take up a large portion of most libraries' collections budgets

- Substantial staff time is allocated to ordering, maintaining and troubleshooting these resources

- These resources are predominantly leased, not purchased, which makes them subject to a large number of legal obligations - including who can access and from where, and how they can be used.

- Lots of work has been and continues to be done to target at integration of disparate electronic services -- including the rise of Google scholar, link resolver software such as sfx and serials solutions.
Our licenses require defining our access and restricting to particular subsets of users

• Issues with providing IP

• Public machines – can be login or no login. In the case of login, walkin users obtain a guest username and password
Why change?

Remote access is one of the primary complaints. Service integration that relies on IP address access control doesn't work from home.
- Solutions to allow this traditionally rely on user-side configuration
  - User error
  - Browser compatibility
  - Firewalls
  - And other configuration conflicts
- Remembering passwords –
  - The whole argument for single sign on.
  - Proxy
  - Personalized resource
  - Library account

For library technical services – IP maintenance.
- Requires maintenance of list, contacting all vendors, hoping that they have updated the list.
  - This has ongoing concerns for reliability of access for the resource, legal implications in adherence to our licenses

Admitting this is preaching to the choir, linking into IT initiatives to address these types of problems.
Remote Client Access Challenges

- Requires proxy or client VPN software to assign campus-controlled IP to user machine
- Often requires user to configure their machine
  - User confusion
  - Lockdown environments
- Multiple passwords to remember
- Maintenance of IP list at the institution
- Maintenance of IP list at the vendor

- Traditional proxy and regular VPN require users to configure their local machines and is browser dependant

- Both VPN and traditional proxy run into problems with local machine and firewall configurations.

- Also these logins are not single sign on, requiring yet more passwords

- If vendor has personalized functionality, user needs to login to resource in addition to logging in to proxy.

- So we’re interested in getting away from both the need for user side configuration and vendor IP access
In an Ideal World ...

- Integrated access to licensed library resources regardless of user location
- Consistent user experience for authentication
- Reduced maintenance overhead for library resources
- Reliable authentication for vendors

No user configuration of computers
Use a single password for access to all resources
No IP’s needed
Next Steps

- Rewrite proxies (EZProxy, WebVPN)
- Single sign-on authentication (Shibboleth)
  - SSO enabled proxy
  - SSO enabled electronic resources
- InCommon Library/Shibboleth Project

Sue Perry from UCSC and Albert Morita of Riverside will be detailing their experiences with using rewrite proxies in a production environment.

Shibboleth – all of the UC campuses have implemented Shibboleth to different degrees, and belong to the InCommon federation. There is currently work being done by InCommon and other international federations such as JISC to encourage adoption of Shibboleth by library resource vendors as an alternative method of authentication, particularly with the movement from Athens to Shibboleth as the primary method of authentication for international federations.

Nationally, the InCommon Library/Shibboleth project is a pilot consisting of six institutions: Cornell University, Penn State, UC San Diego, The University of Chicago, University of Maryland, and The University of Washington. The project was started in 2007 to explore the issues in implementing access to library services and electronic resources using Shibboleth authentication.
TRADITIONAL PROXY
AT UC SAN DIEGO

Holly Eggleston, UC San Diego Libraries
What is Squid Proxy?

- Filters requests between client computer and known websites
- Provides access control and authentication
  - Assigns known campus IP address to home computer’s web session
  - Requires login
- Requires configuration of browser on home computer
- Requires maintenance of proxy autoconfig script

* Maintenance of proxy autoconfig file as resources are added and removed, and as URL’s change.
* Implementation rationale – inexpensive, best option at the time given the early stage of rewrite proxy development and problems with dynamic content.

* One of four primary authentication stores, phasing out

* Configuration conflicts: “The proxy server itself very rarely turns out to actually be the culprit in these situations, but tracking down the actual source of these problems (usually a misconfigured or buggy vendor content site) has been known to consume a lot of my time.”

* Client VPN is used for client-based (non-web based) library resources, as well as employee tools.
Now: Screenshot of Remote access page
Now: Screenshot of adding proxy line to Tools, Options, Advanced, Network
Now: Screenshot of proxy prompt
Squid Proxy Challenges

- Maintenance is done manually and prone to breakage
- User configuration error
- Configuration conflicts with client machines and vendor sites
- Lockdown machines
UC San Diego Next Steps

- Joined Library/Shibboleth project (2007)
- Piloting alternative access configurations
  - Shibboleth-enabled EZProxy
  - Shibboleth-enabled electronic resources
  - Shibboleth-enabled Cisco WebVPN (in process)
- Investigating ILS-managed services
  - ILL, library account management

Implemented Shibboleth with the release of 1.0
Initially focused on campus services, currently in production
Currently piloting electronic resource access using hybrid EZProxy solution
  - high use
  - programmatically complex
  - historically problematic
Production rollout for resources for historically problematic populations
  (biomed)

We are a III shop, and are in discussions with them for shibboleth compatibility with ILS services

Also working on how to integrate this as participants of the larger UC system - some of the solutions implemented by single systems create conflict with our multi-campus cataloging/shared SFX database.

UCSD recently implemented Cisco WebVPN – another rewrite proxy, and are working on integrating Shibboleth login to provide an alternate option for the hybrid environment.

Other participants are further along in their production library implementations such as University of Maryland, who has a production environment using EZProxy, SFX, shib enabled library services and campus portal.