



Using the Rewrite Proxy Server and Multiple IP Product

By: Dan Pfohl & Gillian (Jill) D. Ellern

Abstract

Presentation made to the IUG conference about the ILS proxy server in the software. This proxy server was an older licensed copy of EZProxy and used the library's patron database. Settings, setup, screenshots, consortium issues, reports and statistics, and examples were included in the presentation slides. Also included were problems and solutions for using the software.

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Archived version from NC DOCKS available at: <http://libres.uncg.edu/ir/wcu/listing.aspx?id=37407>.

A photograph of a person's hands typing on a computer keyboard. The keyboard is a standard QWERTY layout with grey and black keys. In the background, a computer monitor is visible, displaying a blue screen. The text is overlaid on the image.

Using the Proxy Rewrite Server and Multiple IP Product

By Dan Pfohl and Jill Ellern

Presented to the
Innovative Users Group
Boston, MA
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Summary

- Background/Justification
- Implementation Issues/Timeline
- Problems/Solutions
- Decisions/Alternatives
- What's next

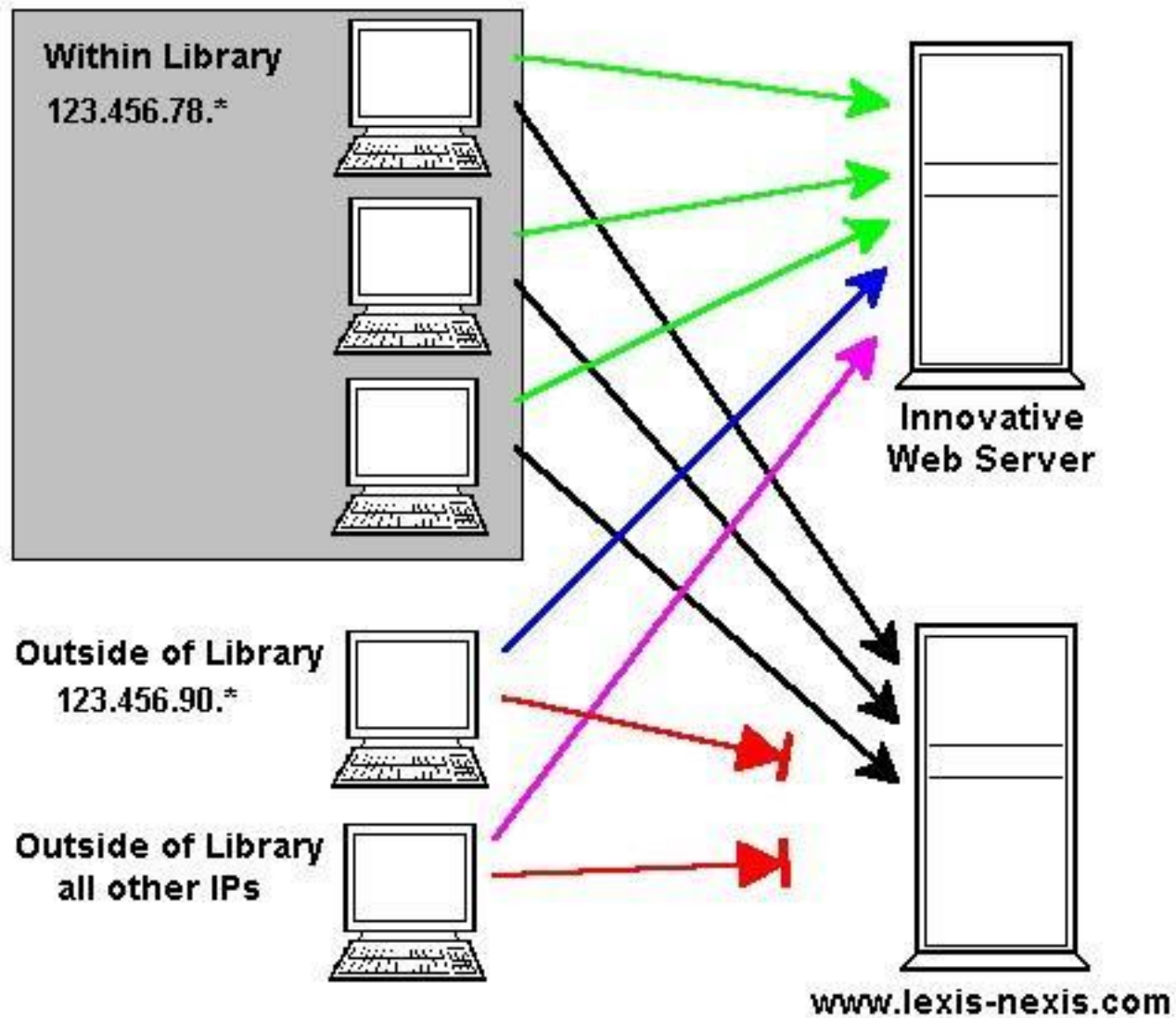
What is WAM?

- Web Access Management
 - This is a solution for libraries wanting to provide remote patron verification to licensed databases.
- How does it work?
 - uses a **proxy server** to control access to licensed Web servers, providing resource access to valid patrons searching from home, from the office, or from anywhere in the world. WAM fully controls the access and authentication issues to libraries serving a geographically distributed user base.

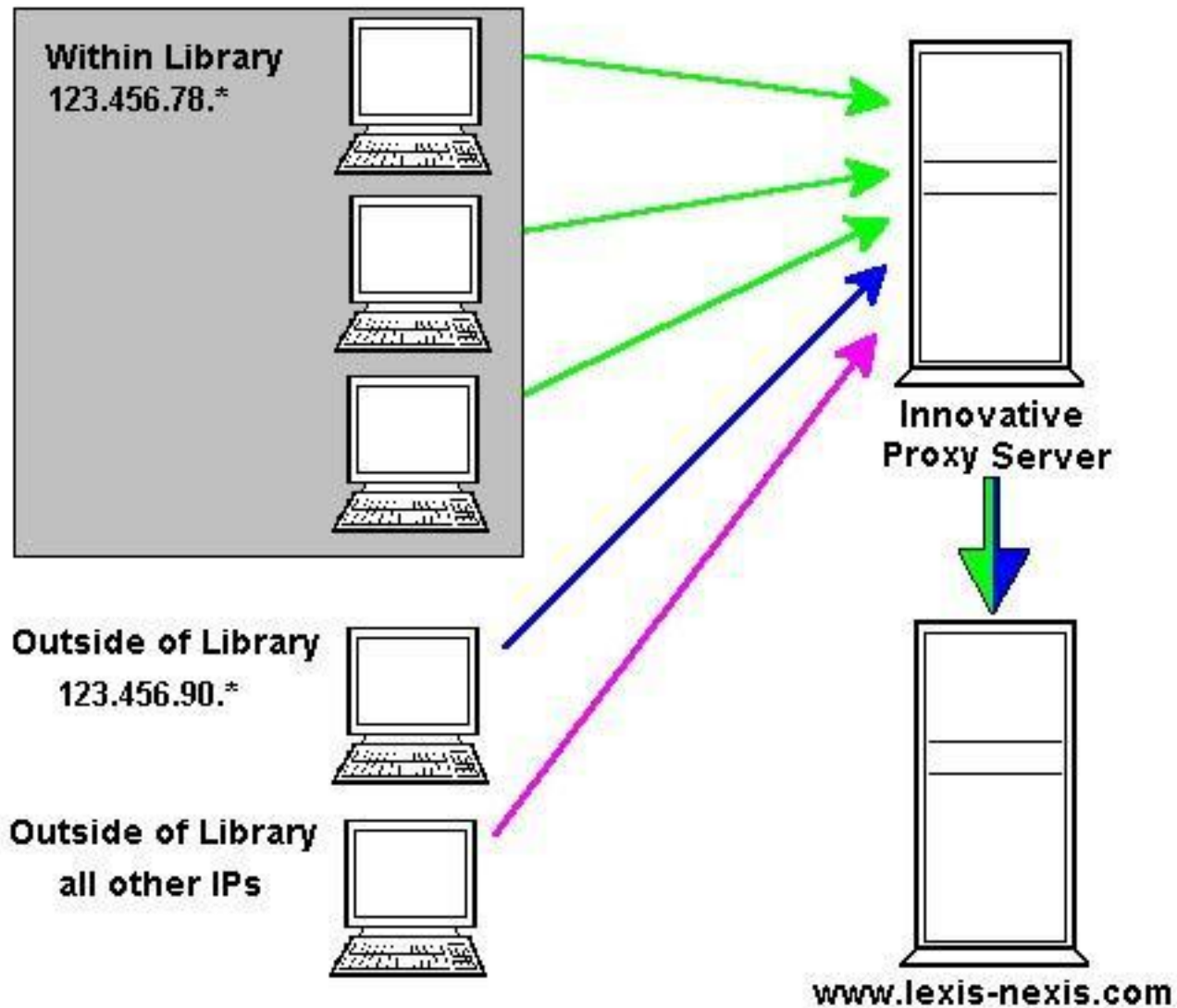
What does WAM do?

- Provides patrons anywhere in the world with access to licensed commercial online databases and electronic journals.
- Authenticates remote users on a database-by-database basis by using library-defined criteria and the existing patron database.
- Generates detailed usage statistics in a graphical format.
- Supports two different methods of proxying: proxy rewrite and browser-configured proxy

Without WAM



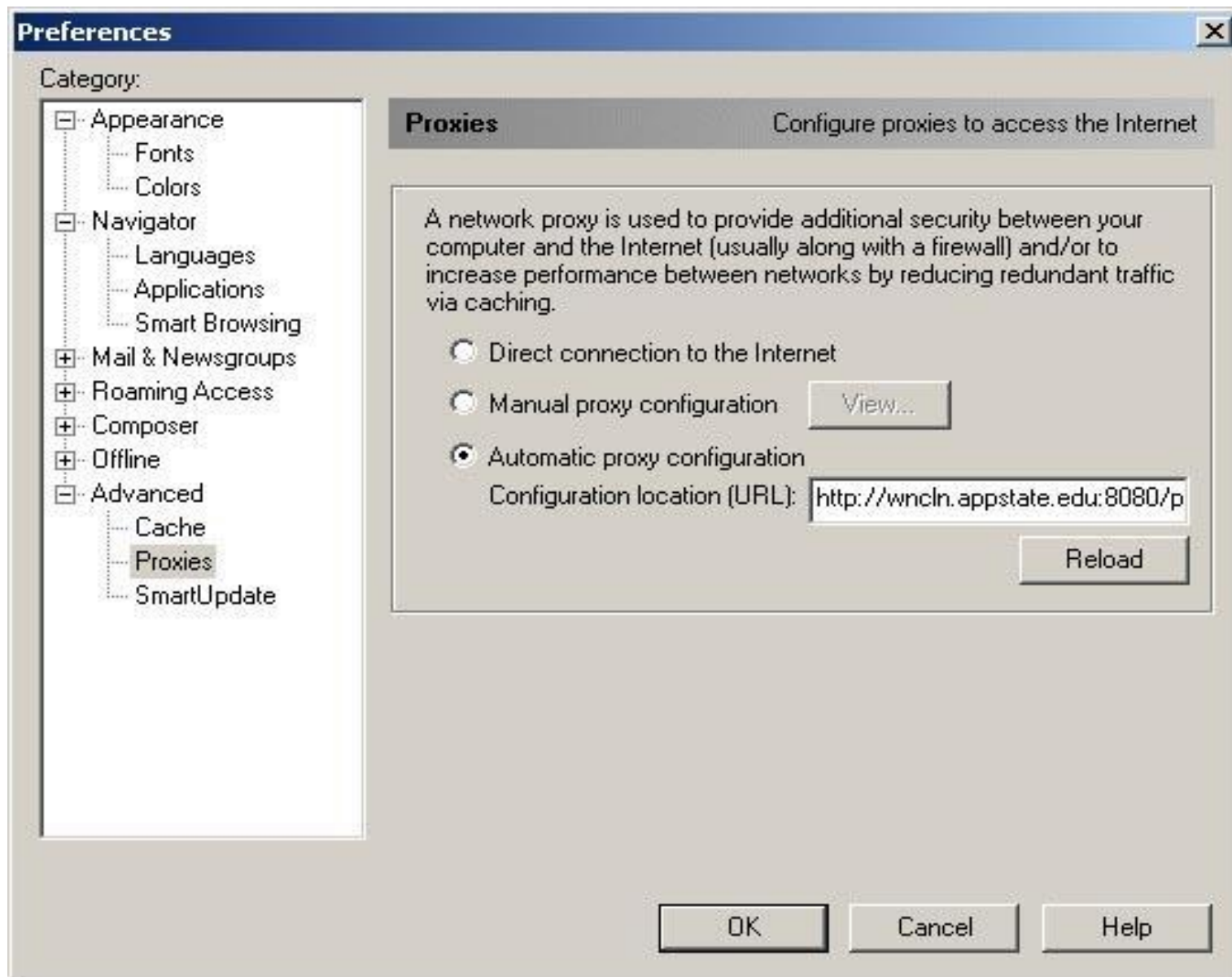
With WAM



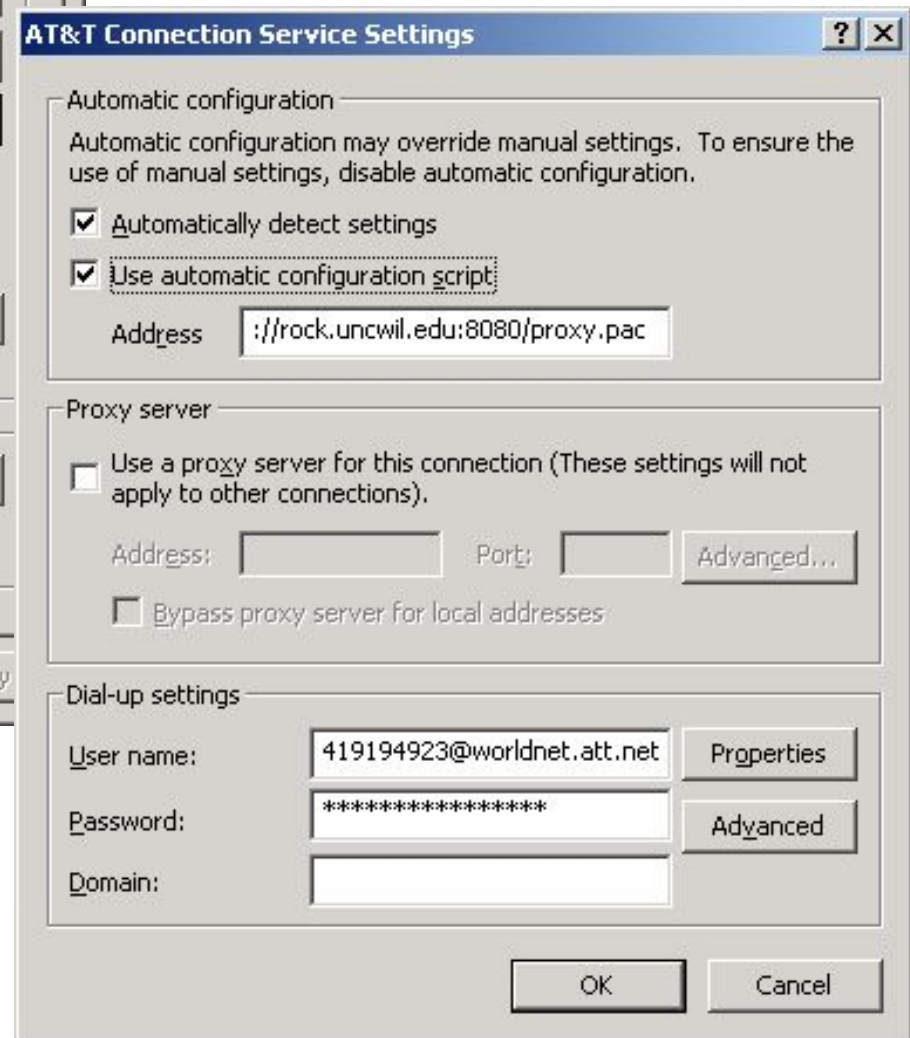
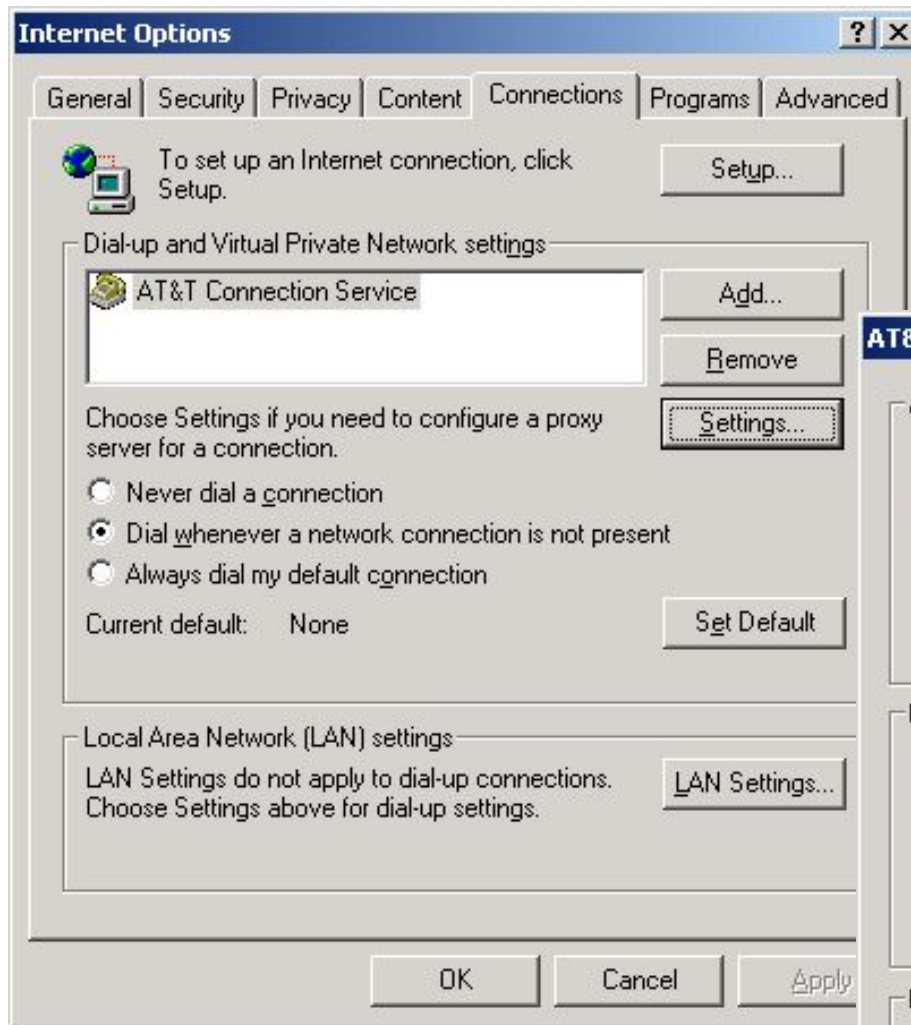
Browser Proxy

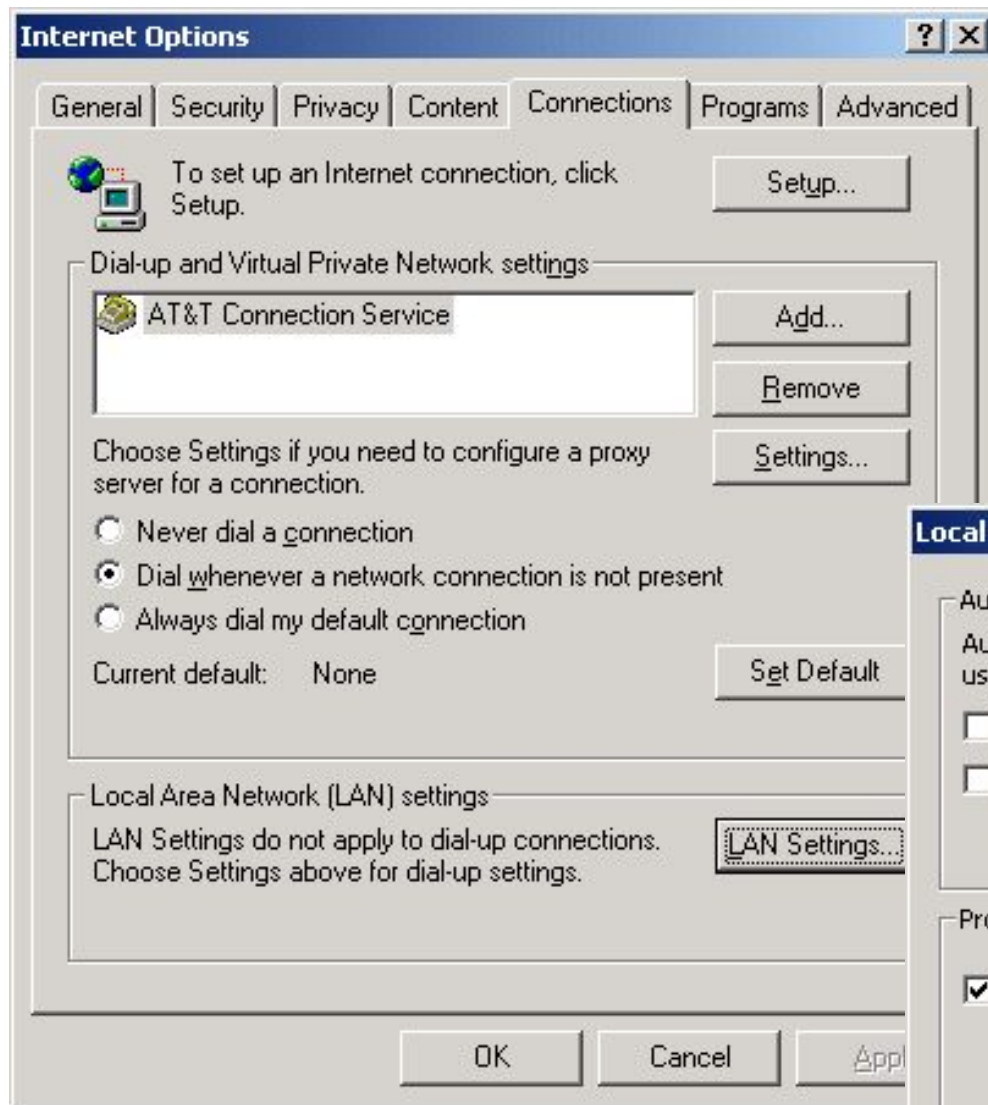
- Make changes in the settings of the Browser (Netscape 3.0 and up or I.E. 3.0 or up)
- Must have cookies ON
- Must enable JAVA

Netscape Settings

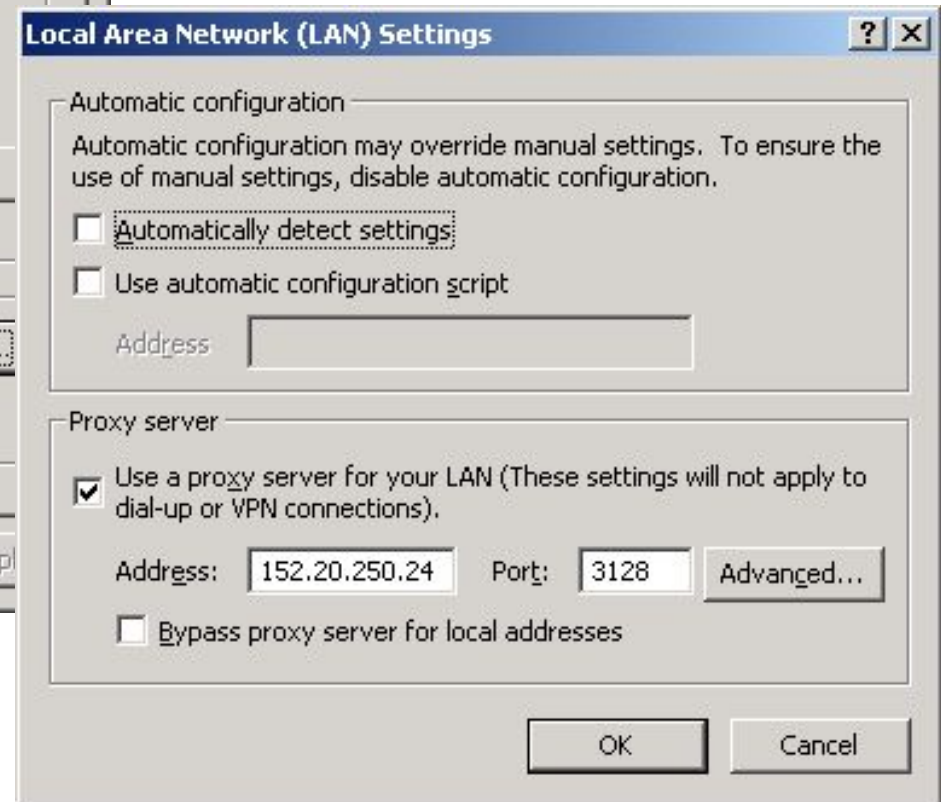


IE Dial-Up Proxy Settings





IE Cable Modem Proxy Settings



Forward Table Maintenance

	Token	IP/HostName	Srv	Ver?	Ptype	Home	DB ID	Database Name
01 >	abcclio	*.abc-clio.com	0	5	51-81,132,			clio
02 >	acm	www.acm.org	0	5	51-81,132,			acm-unca/asu
03 >	acs	pubs.acs.org	0	5	51-81,132,			ACS Web Editi
04 >	aip	*.aip.org	0	5	132,140-19			AIP Journals
05 >	ams	www.ams.org	0	5	51-81,132,			ams
06 >	anb	www.anb.org	0	5	200-222			ANB
07 >	anth	*.rlg.org	0	5	132,140-19			anthropologic
08 >	bgmi	198.112.169.13	0	5	51-81,132,			B&G Master In
09 >	ap	accuweather.ap	0	5	132,140-19			AP Photo Arch
10 >	bgmi	*.galenet.com	0	5	51-81,132,			B&G Master In
11 >	bgmi	*.gale.com	0	5	51-81,132,			B&G Master In
12 >	bgmi	*.galegroup.co	0	5	51-81,132,			B&G Master In
13 >	cch	tax.cchgroup.c	0	5	51-81,200-			CCH - wcu
14 >	chad	*.chadwyck.com	0	5	51-81,132,			IIMP - asu/wc
15 >	collsrc	www.collegesou	0	5	51-81,200-			coll. source

Key a number or

F > FORWARD

J > JUMP

D > DELETE an entry

B > BACKWARD

A > ADD an entry

+ > ADDITIONAL options

Choose one (1-76,F,B,J,A,D,M,I,C,P,Q,+)

Forward Table Maintenance

1	> Token	lexis
2	> IP Address/Host Name	*.lexis-nexis.com
3	> Port	80
4	> Service Level	0
5	> Verify	5
6	> Valid Patron Types	51-81,132,140-222
7	> Valid Patron Home Libs	
8	> Database Identifier	
9	> Database Name	lexis-nexis

Key a number or
P > PRINT
Q > QUIT
Choose one (1-9,P,Q)

A password is required to use the library proxy server to access this site.

For example, type "Jane Smith"

Enter your name:

For example, type "312312..." Do not include dashes

Enter your ID number:

Enter your ID # exactly as it is shown on your ID card!
(Including the 2 digits following your SS#.)

[\(Return to Previous Screen\)](#)

Problems with Browser Proxy

- Multiple directions for setting up.
- Difficult to implement on patron end
 - Despite user documentation, many patrons need lots of help setting it up
 - Patron's knowledge needs to be high on Windows, browsers, ISPs, etc.
- Troubleshooting is difficult.
- Incompatible with some ISPs, firewalls, and other proxy servers
- Only 1 proxy server can exist in communication line for III's proxy to work.

Problems with Browser Proxy

- Works best with older browsers – Netscape 4.78
- Downloading browser software is time-consuming. Distribution on CDs helps.
- Seems to have problems with Macintosh with cable modem.

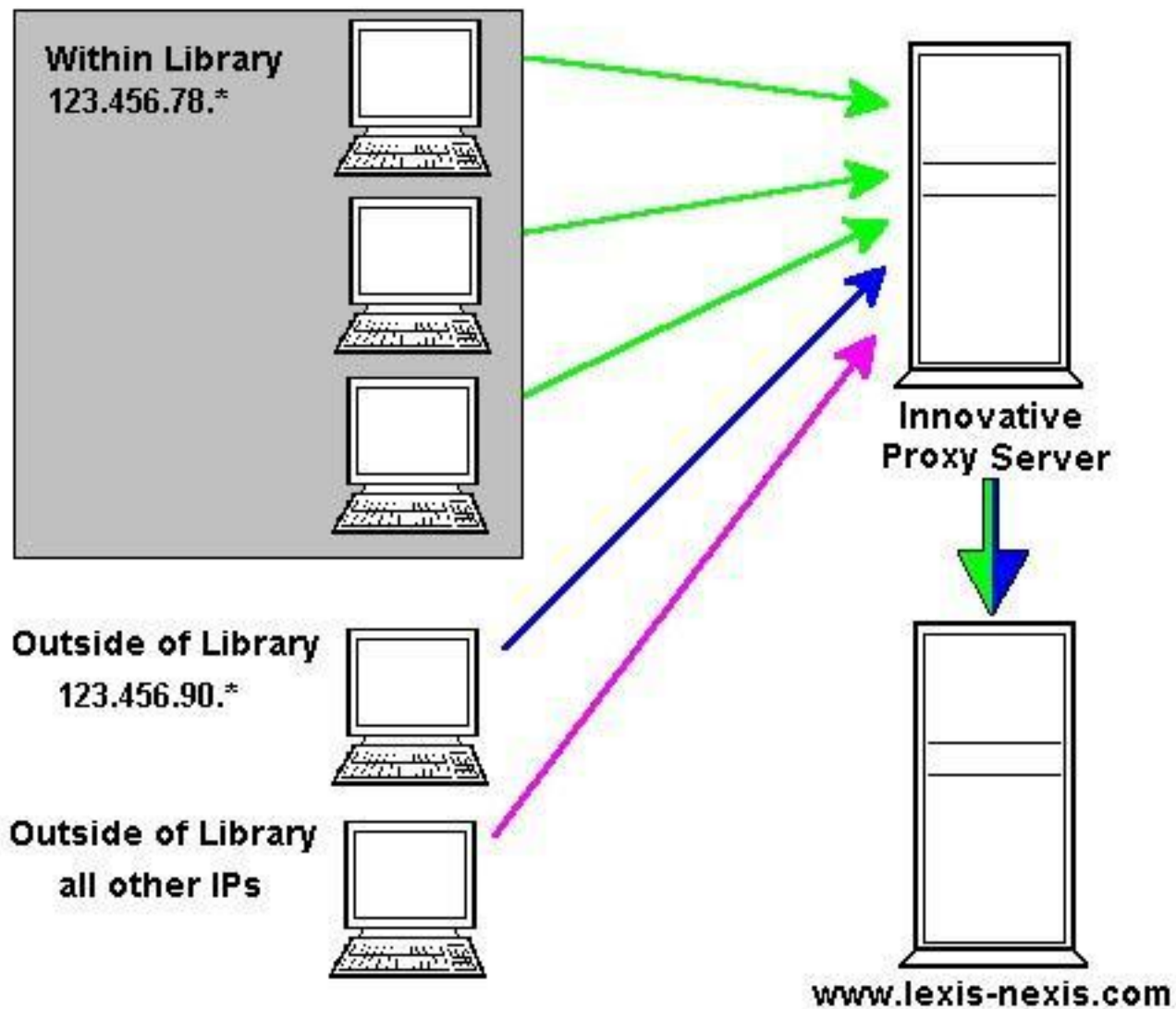
Solutions for Browser Proxy

- NC LIVE password.
- Allow passage through corporate firewall.
- Step-by-Step directions for setups.
- URL-embedded account logon/password.
- Hidden web page with connecting URL.
- Conversations with Computer Center, Reference Desk, and Systems Unit about responsibilities.

Proxy Rewrite Method

- Licensing EZProxy software into Innopac
- Available now as enhancement to WAM
- “The proxy rewrite method uses URL configurations to make the Innovative server act as a proxy server for patron browses. Using this method, the client browser software requires no configuration. Patron browses automatically use the Innovative server as a proxy to external resources.” (from manual)

WAM with Proxy Rewrite



Proxy Rewrite Setup

- DNS configuration changes needed:
*.unccllc.coast.uncwil.edu IN A 152.20.26.1
- Links to resources:
<http://0-web.lexis-nexis.com.unccllc.coast.uncwil.edu/cis>
- Resource must be in WAM table
- Review Limit Network Access settings

DNS Wildcarding

- User Manual, p. 102147.
- CSDirect FAQs on Web Access Management – Proxy Rewrite Method.
 - Set up
 - DNS Configuration
 - Firewalls

How do you move from Browser to Rewrite Proxy?

- Figure out how to change your URLs
- Test page
- Change your URLs in your homepage, subject guides, etc.
- Test
- Global Update appropriate 856 fields
- Test

Global Update Steps

- Compile review file of all MARC 856 fields
- Export list to Excel and sort the list
- Review the list, removing all government and other non-licensed resources
- Create sub-lists in Innopac
- Millennium Cataloging Global Update

Implementation Timeline/Milestones

NC Coastal Consortium

- Purchase
- Software installed
- URLs transformed
- Tests
- Marketing

Implementation Timeline/Milestones

WNCLC

- Purchase of system months before install
- Software installed/manual sent (May 2003)
- Changed IP number of Library system
- Script creation and testing
- URLs changes in web pages and Innopac
- Notifying all the database vendors
- Testing
- Marketing/Changes to Library homepage

Consortia issues

- IP of the Innopac system is always the same regardless of who in the consortium is using it or how (Browser or Rewrite) it's used.
 - Database vendors think user is from campus where hardware is
 - Change to Consortium
 - Live with it
 - If multiple databases from a single vendor
 - Get access to subscriptions of hardware location library
- Not a problem when that was just home access
 - Change links and it's all access (even in library building).
- FirstSearch fix (and problems with it).
- JSTOR's Custom Collections.

Statistics

- From Web Management Reports – Web Access
- Reports Generated:
 - Connections by DATE
 - Connections by TIME OF DAY
 - Connections by PTYPE
 - Connections by DATABASE
 - Connections by PTYPE/DATABASE

SUMMARY OF FORWARDING SERVICE USAGE 03-15-04 to 03-15-04 by PTYPE/Database

Patron Type		Wiley	WCU reserves	umi	silver platter	Science Direct	ABI/Inform	peonline.org	ovid journals	Oxford English Dictionary	oclc	NISC - asu	NetLibrary	all nclive	mu
	51 UNCA FACULTY	0	0	0	0	0	0	0	0	15	11	0	0	1	
	52 UNCA ADJUNCT FACULTY	0	0	2	0	0	1	0	0	0	0	0	0	2	
	66 UNCA STUDENT	0	0	275	123	40	3	0	0	143	623	0	0	131	
	70 UNCA CHAPEL HILL	0	0	0	0	0	0	0	0	0	0	0	0	1	
	132 ASU FACULTY	0	0	0	7	12	0	0	0	0	0	0	0	5	
	140 ASU GRAD ASST	0	0	0	82	17	0	0	0	0	0	0	0	3	
	141 ASU GRAD STUDENT	0	0	17	371	124	0	0	17	0	190	16	0	35	
	153 ASU STUDENT	0	0	469	594	137	0	0	0	201	452	20	6	94	

200 WCU UNDERGRAD	0	0	188	143	0	0	0	0	0	19	25	0	0	37
201 WCU GRAD	0	0	2	0	0	0	0	0	0	0	0	0	0	17
205 WCU HONORS	0	0	0	173	0	0	0	0	0	0	0	0	0	17
210 WCU UNCA UNDERGRAD	0	0	97	0	0	0	0	0	0	0	0	0	0	21
211 WCU UNCA GRAD	0	0	64	49	0	0	0	0	0	0	0	0	0	48
220 WCU FACULTY	0	0	13	0	0	2	0	0	0	0	131	0	0	3
Non-Verified	7	814	173	69	677	15	1	93	14	19	0	0	0	147
Total	7	814	1300	1611	1007	21	1	110	392	1451	36	6	562	

Statistics

“Statistics are tracked by IP address and the database that is being accessed. One access attempt is defined as the consecutive attempts of the same IP using the same entry in the Forward Table (based on the contents of the URL) to access a database.”

(<http://csdirect.iii.com/faq/wam.shtml#statistics>)

Statistics Caveats

- One statistics file for the consortium
- Must be compiled/captured/cleared on regular schedule
- Can get too large to handle – counts all uses of rewrite proxied URLs
- Unverified patron counts

Known Issues on CSDirect

Refine issue:	By date:	By module:	By Resolution:	Go
<input type="text"/>	<input type="text"/>	Web Access Management	<input type="text"/>	
<u>Issue</u>	<u>Last Updated</u>	<u>Description</u>	<u>Module</u>	<u>Resolved</u>
Rewriting proxy URLs and URL check	2004-03-03	If the library includes rewriting proxy URLs in 856 fields, they are being reported as "host not found" errors by the URL verification program. This program will be changed in a future release to recognize rewriting proxy URLs as valid. In the meantime, the Help Desk can add "http://0-" to the system's URL block file so that these URLs will be ignored by the verification program. [Report Issue]	Web Access Management	Release 2002 Phase 3
Proxy Rewrite to Web of Science	2004-03-03	Using the rewrite proxy method to Web of Science generates an error message when choosing "full search" Standard proxy appears to work fine.	Web Access Management	Release 2002 Phase 3
Proxy rewrite and the HOME library field	2004-03-03	The "HOME" library column in the forward table is being ignored in WAM rewriting proxy connections. Fix for Release 2002, Phase 2 is now available. Please contact the Help Desk to have it installed if you use this feature. Note: for Phase 2 only, if any home library code is less than 5 characters, you must pad the entry with spaces to make sure each entry is 5 characters in length. For example, to specify locations aaa, bbb, and ccc in the HOME column of the forward table, use: aaa ,bbb ,ccc (two spaces following each code).	Web Access Management	Release 2002 Phase 2
DSL and Cable modems access to proxied databases	2004-03-03	After phase 2 upgrade, some DSL and shared cable modem users have been unable to use any of the proxied databases. The patron authentication page simply refreshes.	Web Access Management	Release 2002 Phase 3
Access to Informit Database	2004-03-03	Since Phase 2 upgrade, access to Full Text Document, specifically Informit, via proxy rewrite fails.	Web Access Management	Release 2002 Phase 3
AVS Limit by	2004-02-19	In an alternate language Web OPAC AVS search, the description of	Web Access	Millennium

Other problems

- JSTOR issues
 - Custom Collections
- ABC-CLIO
- Lexis-Nexis
- Branding
- Complexity of links

Multiple IP product

- A expensive cost item
- Became available in beta Rel. 2002, Phase 3. As general release -
- Changes the broadcasted IP of the III server based on the home library of the patron or ptype.
- (There are other solutions but with other costs/problems for consortia)

Rewrite proxy link
with Multiple IP

WAM Authentication

FSU Home
Library Code

UNCP Home
Library Code

UNCW Home
Library Code

FSU IP Address
to vendor site

UNCP IP Address
to vendor site

UNCW IP Address
to vendor site

Recognized
as FSU

Recognized
as UNCP

Recognized
as UNCW

Everybody's Happy!

*** INNOPAC -- Copyright 1999, Innovative Interfaces Inc ***
*** WEB ACCESS MANAGEMENT ***

W > Change WEB Access Management table

I > Change VERIFIED patron table for Web Access Management

U > Change UNVERIFIED patron table for Web Access Management

V > VERIFY Universal Resource Locators (URLs)

Q > QUIT

Choose one (W,I,U,V,Q) █

WAM IP Table Maintenance

	IP address to use	Home Library or Libraries	Patron Types
1 >	152.20.26.10	all	0-2,6-9
2 >	152.20.26.20	all	101,103,104,108-111
3 >	152.20.26.30	all	200-206,209,215-217,

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*** WEB ACCESS MANAGEMENT ***

W > Change WEB Access Management table

I > Change VERIFIED patron table for Web Access Management

U > Change UNVERIFIED patron table for Web Access Management

V > VERIFY Universal Resource Locators (URLs)

Q > QUIT

Choose one (W,I,U,V,Q)

WAM Unverified IP Table Maintenance

	IP address to use	Pattern for Remote IP
01 >	152.20.26.10	152.6.*.*
02 >	152.20.26.20	152.21.*.*
03 >	152.20.26.30	152.20.[0-2][0-5].*
04 >	152.20.26.30	152.20.26.[2-9]
05 >	152.20.26.30	152.20.26.3[1-9]
06 >	152.20.26.30	152.20.26.[4-9][0-9]
07 >	152.20.26.30	152.20.26.1[0-9][0-9]
08 >	152.20.26.30	152.20.26.2[0-4][0-9]
09 >	152.20.26.30	152.20.26.25[0-4]
10 >	152.20.26.30	152.20.2[7-9].*
11 >	152.20.26.30	152.20.[3-9][0-9].*
12 >	152.20.26.30	152.20.1[0-9][0-9].*
13 >	152.20.26.30	152.20.2[0-4][0-9].*
14 >	152.20.26.30	152.20.25[0-4].*

Tricks

- Changing your “Limit Network Access”
 - Using Service Levels with same login
- Can change patron validation screen help lines
- Scope authentication forms

Multiple IP Address Caveats

- IP Class of Innopac Server – How NOT to do it.
- Providing valid IP address ranges to vendors
- Authentication with journal publishers
- Scripting to save user licenses

A photograph of a person's hands typing on a computer keyboard. The keyboard is a standard QWERTY layout with grey and black keys. The person's hands are in the foreground, slightly blurred, showing the motion of typing. In the background, a computer monitor is visible, displaying a blue screen. The overall scene is dimly lit, with the primary light source coming from the monitor.

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