Portal Integration

What Works at Plymouth State University
IUG 2005 — San Francisco

Elaine S. Allard, Systems Librarian
Casey Bisson, Library Systems
Plymouth State University
Lamson Library

Plymouth State
UNIVERSITY

Building on past work

- The library's involvement with the campus portal began during the early stages of considering portal vendors in 2000 and 2001

- The portal went live in Summer 2002 and we presented our work at IUG 2003 in San Jose.

Plymouth State
UNIVERSITY

What can it do?

- Once in the portal, patrons have access to a number of resources without being asked for authentication information

  - Access to WAM-proxied databases is transparent, just click the link!

  - MyMillennium features, like self-service access to the patron record and renewing books is easy too!

- Contact information is pre-loaded in ILL forms, and the portal is used to authenticate patron status before the request can be submitted

Plymouth State
UNIVERSITY

What's new?

- Changed student information systems (now Banner)

- Changed portal platform (Web Platform to Luminis)

- Billing integration

- Implementation of "roles"

- Awareness of identity management as a barrier to further progress

Plymouth State
UNIVERSITY

Identity management?

- A way of authenticating a patron and asserting that authentication info to other systems

- A way of sharing information about who the patron is and what he or she can do (or, what groups/roles the patron is part of)

Plymouth State
UNIVERSITY

Roles?

- Campus Pipeline's "roles" are similar to III's patron type

  ...but unlike patron type, each user can have multiple roles

- Within the portal, roles can be used target specific content for different types of users

Plymouth State
UNIVERSITY

http://www.plymouth.edu/library/

Lamson Library

The University | Academics | Admission | Arts & Events | Athletics | Library | Search | Depts. & Services | Contact Us | myPlymouth

PLYMOUTH STATE UNIVERSITY

Quick Jump

April 11, 2005   PSU Home >

> **Plymouth** > **Lamson Library**   April 11, 2005, 10:46 am

Search LOLA (Library Catalog):   Entire Collection

Select Search Type: [   ]   Search   Help

Advanced Search

Quick Links

Library Home

Online Resources

Journal Articles
Newspaper Articles
Other Databases
**Course/
  Research Guides**
**Library Instruction/
  FYS & IAC**
Theme Year Resources
Style Guides

Web Sites

By Subject
Quick Reference
Other Libraries

Library
   Information

Hours
Library Directory
Interlibrary Loan
News Archive
**My Account/
   Renew Books**

For more features, log-in to the library website using the **myPlymouth** portal.

What's New:

PRINT

Go Green! Information on sustainability and other environmental issues.

Check out our free trials to eHRAF collections in **Ethnography** and **Archaeology**

New Titles added February 1st - February 28th

Earlier news is available in our **news archive**.

Lamson Library Celebrates National Library Week

Celebrate National Library Week at Lamson Library! Activities will take place throughout the week of April 10-16 2005, and there will be gifts, raffles and refreshments!

All week:
- Any time you check out a book or ask a question at one of our three desks (Circulation, Periodicals, or Reference), you will receive a prize!
- Fill out raffle tickets for a $50 gift certificate to Barnes & Noble Bookstore. Drawing will be held Thursday, April 14th.
- For non-PSU library users, come in and get a library card good for one year for FREE!

Monday April 11
Join the library staff for coffee from 8-10:30am on the Main Level of the library. Fill out raffle tickets for a $50 gift certificate to Barnes & Noble Bookstore.

Tuesday April 12
The pre-school and kindergarten classes from the PSU Child Development and Family Center have been invited to visit the library for a story hour, snacks, and book activities.

Thursday April 14
Celebrate libraries at a cake and punch reception, 3-4:30pm on the Main Level of the library.

http://my.plymouth.edu/cp/render.userLayoutRootNode.uP

Q⋅ Google

Campus Pipeline

MYPLYMOUTH

Plymouth State UNIVERSITY

Content/Layout
Channel Admin

Welcome Nathaniel C. Bisson
You are currently logged in.

e-mail   calendar   groups   admin   logout   help

| Welcome | Staff Services | Student Services | Student Life | My Courses | Admin | Library | Help |

April 11, 2005

Campus Announcements ▢▣☒

Computer Store - Special Dell Deal!

Professor Okrant to Sign Newest Novel April 12

PSU Professor discusses Living with ALS

More Campus Announcements...

Personal Announcements ▢▣☒

Fair Trade Coffee 4/11/05-4/15/05

Support PSU Earth Week 2005

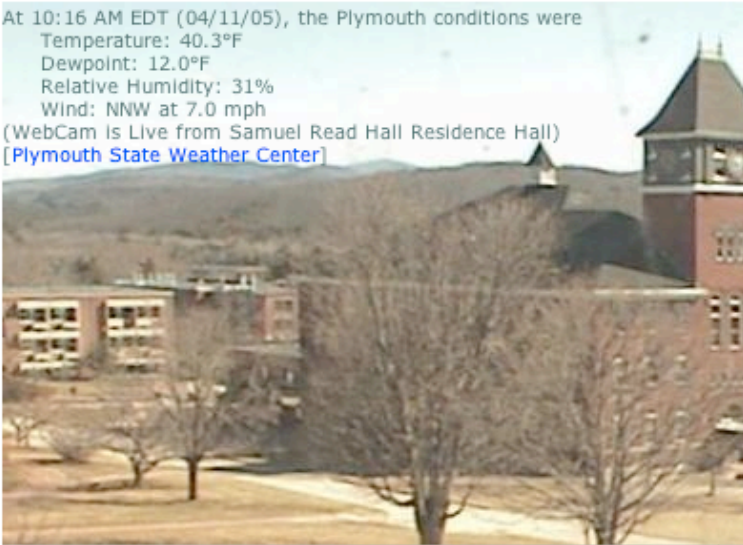The Impacts of NAFTA

More personal announcements...

My Calendar ▢▣☒
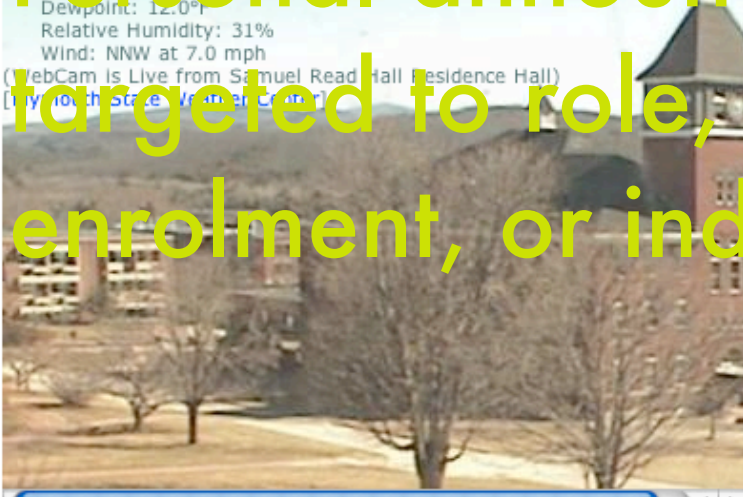
You have 0 events in your calendar today

Campus Calendar and Room Reservation System

Directory Search ▢▣☒

[ ]

○ Students
○ Faculty and Staff

Search By:
Last Name ▾

Search >>

PSU WebCam and Weather ▢▣☒

At 10:16 AM EDT (04/11/05), the Plymouth conditions were
  Temperature: 40.3°F
  Dewpoint: 12.0°F
  Relative Humidity: 31%
  Wind: NNW at 7.0 mph
(WebCam is Live from Samuel Read Hall Residence Hall)
[Plymouth State Weather Center]

Computing Resources ▢▣☒

My Drive   Change Password

Help

MyDrive Quota Usage

190 MB   280 MB

Print Quota Usage

0 Pages   350 Pages

Technology and Learning Center
Equipment Reservations
Buy Computers
Computing Policies
SPAM Filtering

Bookmarks ▢▣☒

Plymouth State University Homepage

PSU Site Index

⊞ ⊟ ⊞ ⊟

Tabs appear based on role

http://my.plymouth.edu/cp/tag.60f2ee74ce23d70c.render.userLayoutRootNode.uP?uP_root=ro

Q▾ Google

Search ▾   Travel ▾   MaisonDigital ▾   Plymouth ▾   Daily Read ▾   Books/Movies/Music ▾   Documentation ▾   Graphics ▾   Alexa Snapshot   Technorati Anywhere!   »

Campus Pipeline

MYPLYMOUTH

Plymouth State UNIVERSITY

Content/Layout
Channel Admin

Welcome Nathaniel C. Bisson
You are currently logged in.

e-mail   calendar   groups   admin   logout   help

| Welcome | Staff Services | Student Services | Student Life | My Courses | Admin | **Library** | Help |

April 11, 2005

> **Lamson Library**

April 11, 2005, 10:22 am

Quick Links

Library Home

Online Resources

Journal Articles

Newspaper Articles

Other Databases

**Course/
Research Guides**

**Library Instruction/
FYS & IAC**

Theme Year Resources

Style Guides

Web Sites

By Subject

Quick Reference

Other Libraries

Library
Information

Hours

Library Directory

Interlibrary Loan

News Archive

**My Account/
Renew Books**

Intranet

Room Schedule

Web Site Statistics

Billing Admin

Edit Tools

Authenticated as

Search LOLA (Library Catalog):   Entire Collection ▾

Select Search Type: ▾   [   ]   Search   Help

Advanced Search

What's New:

🖶 PRINT

Go Green! Information on sustainability and other environmental issues.

Check out our free trials to eHRAF collections in **Ethnography** and **Archaeology**

New Titles added February 1st - February 28th

Earlier news is available in our **news archive**.

Lamson Library Celebrates National Library Week

Celebrate National Library Week at Lamson Library! Activities will take place throughout the week of April 10-16 2005, and there will be gifts, raffles and refreshments!

All week:
- Any time you check out a book or ask a question at one of our three desks (Circulation, Periodicals, or Reference), you will receive a prize!
- Fill out raffle tickets for a $50 gift certificate to Barnes & Noble Bookstore. Drawing will be held Thursday, April 14th.
- For non-PSU library users, come in and get a library card good for one year for FREE!

Monday April 11
Join the library staff for coffee from 8-10:30am on the Main Level of the library. Fill out raffle tickets for a $50 gift certificate to Barnes & Noble Bookstore.

Campus Pipeline

http://my.plymouth.edu/cp/tag.60f2ee74ce23d70c.render.userLayoutRootNode.uP?uP_root=rc

Search ▾   Travel ▾   MaisonDigital ▾   Plymouth ▾   Daily Read ▾   Books/Movies/Music ▾   Documentation ▾   Graphics ▾   Alexa Snapshot   Technorati Anywhere!   »

Campus Pipeline

MYPLYMOUTH

Plymouth State
UNIVERSITY

Content/Layout
Channel Admin

Welcome Nathaniel C. Bisson
You are currently logged in.

e-mail   calendar   groups   admin   logout   help

Welcome | Staff Services | Student Services | Student Life | My Courses | Admin | Library | Help

April 11, 2005

> **Lamson Library** > **Online Resources**

April 11, 2005, 10:41 am

Quick Links

Library Home

Online Resources
  Journal Articles
  Newspaper Articles
  Other Databases
  **Course/
    Research Guides**
  **Library Instruction/
    FYS & IAC**
  Theme Year Resources
  Style Guides

Web Sites
  By Subject
  Quick Reference
  Other Libraries

Library
  Information

Hours
Library Directory
Interlibrary Loan
News Archive
**My Account/
  Renew Books**

Intranet

Room Schedule
Web Site Statistics
Billing Admin

Edit Tools

Authenticated as

Search LOLA (Library Catalog):   Entire Collection ▾

Select Search Type: ▾   [   ]   Search   Help

Advanced Search

Online Resources

🖨 PRINT

Journal Articles: **Newspaper Articles:**   **Other Databases:**

Journal Title Search -

- **AtoZ List**
    A complete list of journals, magazines and newspapers available to Plymouth State students, faculty and staff online and in the library.

    - Searchable list of titles held or licensed by Lamson Library
    - Includes direct links

⬆ **Journal Articles::**
Click on database name to search.

EBSCOhost includes: (click EBSCOhost to search more than one of the EBSCO databases.)
- **Academic Search Premier** (many full-text) START HERE! Largest. All subjects. [**INFO**]
- **American Humanities Index** (many full-text) [**INFO**]
- NEW! **BasicBIOSIS** (links to full-text) [**INFO**]
- **Business Source Premier** (many full-text) [**INFO**]
- **Clinical Pharmacology** [**INFO**]
- **Communication & Mass Media Complete** (many full-text) [**INFO**]
- **EBSCO Animals** (all full-text) [**INFO**]
- **ERIC** (links to full-text) [**INFO**]
- **Funk & Wagnalls New World Encyclopedia** [**INFO**]
- **Health Source: Nursing/Academic** (many full-text) [**INFO**]
- NEW! **Library Literature & Information Science** (links to full-text) [**INFO**]
- **MAS Ultra--School Edition** (for high schools; many full-text) [**INFO**]
- **MEDLINE** (links to full-text) [**INFO**]

http://www.plymouth.edu/library/redirect.php?http://search.epnet.com/login.asp?profile=web&d

Google

Search ▾ Travel ▾ MaisonDigital ▾ Plymouth ▾ Daily Read ▾ Books/Movies/Music ▾ Documentation ▾ Graphics ▾ Alexa Snapshot Technorati Anywhere! »

LOLA Single Sign-On Proc...

Authenticating portal user for off-campus access to restricted databases. Please wait....

Click here if not redirected within a few seconds.

There was one error opening the page. For more information, choose Activity from the Window menu.

EBSCOhost

http://0-web33.epnet.com.lola.plymouth.edu:80/search.asp?tb=1&_ug=sid+5CE5B2B9%2D66D3... Google

EBSCOhost

EBSCO HOST Research Databases

New Search | View Folder | Preferences | Help

| Basic Search | Advanced Search | Choose Databases |

Sign In to My EBSCOhost

| Keyword | Major Concepts | Indexes |

Database: BasicBIOSIS

Database Help

Find: [   ] in [Default Fields ▼]   (Search) (Clear)

[and ▼] [   ] in [Default Fields ▼]

[and ▼] [   ] in [Default Fields ▼]

Search Tips

📁 Folder is empty.

| Refine Search | Search History/Alerts | Results |

Limit your results: Limiters | Expanders (Reset)

Linked Full Text ☐

Published Date   [Month ▼] Yr: [   ]   to   [Month ▼] Yr: [   ]

Journal Name   [   ]

Publication Type
```
All
Annual Report
Article
Biography
```

Document Type
```
All
Abstracts Only
Bibliography
Biography
```

All

http://my.plymouth.edu/cp/tag.60f2ee74ce23d70c.render.userLayoutRootNode.uP?uP_root=rc ^ Q▾ Google

Search ▾   Travel ▾   MaisonDigital ▾   Plymouth ▾   Daily Read ▾   Books/Movies/Music ▾   Documentation ▾   Graphics ▾   Alexa Snapshot   Technorati Anywhere!   »

Campus Pipeline

MYPLYMOUTH

Plymouth State
UNIVERSITY

Content/Layout
Channel Admin

Welcome Nathaniel C. Bisson
You are currently logged in.

e-mail   calendar   groups   admin   logout   help

Welcome | Staff Services | Student Services | Student Life | My Courses | Admin | Library | Help

April 11, 2005

My Record

Bisson, Nathaniel

[2 requests (holds).](#)

[SORT BY DUE DATE]

[RENEW ALL]

[RENEW SELECTED ITEMS]

ITEMS CHECKED OUT			
RENEW	**TITLE**	**STATUS**	**CALL NUMBER**
☐	U.S. 40: cross section of the Un	DUE 04-12-05	E169 .S85

Plymouth State University, 17 High Street, Plymouth, NH 03264-1595
University System of New Hampshire This page was last revised: *4/4/2005* 2004-2005 All rights reserved.
The Adobe Acrobat PDF Viewer for your web browser can be downloaded from http://www.adobe.com/

Powered by Innovative Interfaces, Inc. 2003

Campus Pipeline

http://my.plymouth.edu/cp/tag.60f2ee74ce23d70c.render.userLayoutRootNode.uP?uP_root=r○

Google

Search ▾   Travel ▾   MaisonDigital ▾   Plymouth ▾   Daily Read ▾   Books/Movies/Music ▾   Documentation ▾   Graphics ▾   Alexa Snapshot   Technorati Anywhere!   ≫

Campus Pipeline

MYPLYMOUTH

Plymouth State
UNIVERSITY

Welcome Nathaniel C. Bisson
You are currently logged in.

Content/Layout
Channel Admin

e-mail   calendar   groups   admin   logout   help

Welcome | Staff Services | Student Services | Student Life | My Courses | Admin | Library | Help

April 11, 2005

> **Lamson Library** > **Your Account** > **Billing History**   April 11, 2005, 10:24 am

Quick Links

Library Home

Online Resources

Journal Articles

Newspaper Articles

Other Databases

**Course/
Research Guides**

**Library Instruction/
FYS & IAC**

Theme Year Resources

Style Guides

Web Sites

By Subject

Quick Reference

Other Libraries

**Library
Information**

Hours

Library Directory

Interlibrary Loan

News Archive

**My Account/
Renew Books**

Intranet

Room Schedule

Web Site Statistics

Billing Admin

Edit Tools

Authenticated as

Search LOLA (Library Catalog):   Entire Collection ▾

Select Search Type: ▾   [   ]   Search   Help

Advanced Search

Billing History

🖶 PRINT

Most recent charges and refunds displayed at the bottom of the screen; does not reflect payments made to the bursar's office.

Please also check your bill in Banner Self Service.

2005-01-25 00:00:00	805	**Picturing the bomb : photographs from the secret w...**	LOST	$22.45
		Barcode: 30109003433052 Call Number: QC773.A1+F47+1995		
2005-02-01 16:02:28	805	INVOICE 2005-02-01 16:02:28	Replacement Costs	$22.45
2005-02-02 00:00:00	992	**Picturing the bomb : photographs from the secret w...**	LOST	$-22.45
		Barcode: 30109003433052 Call Number: QC773.A1+F47+1995		
2005-02-03 14:46:26	992	INVOICE 2005-02-03 14:46:26	Replacement Costs	$-22.45

http://my.plymouth.edu/cp/tag.60f2ee74ce23d70c.render.userLayoutRootNode.uP?uP_root=rc

Google

Search ▾   Travel ▾   MaisonDigital ▾   Plymouth ▾   Daily Read ▾   Books/Movies/Music ▾   Documentation ▾   Graphics ▾   Alexa Snapshot   Technorati Anywhere!   »

Campus Pipeline

MYPLYMOUTH   Plymouth State UNIVERSITY

Content/Layout
Channel Admin

Welcome Nathaniel C. Bisson
You are currently logged in.

e-mail   calendar   groups   admin   logout   help

Welcome | Staff Services | Student Services | Student Life | My Courses | Admin | Library | Help   April 11, 2005

> **Lamson Library** > **Interlibrary Loan** > **Books**   April 11, 2005, 10:43 am

Quick Links

Library Home

Online Resources

Journal Articles

Newspaper Articles

Other Databases

**Course/
Research Guides**

**Library Instruction/
FYS & IAC**

Theme Year Resources

Style Guides

Web Sites

By Subject

Quick Reference

Other Libraries

**Library
Information**

Hours

Library Directory

Interlibrary Loan

News Archive

**My Account/
Renew Books**

Intranet

Room Schedule

Web Site Statistics

Billing Admin

Edit Tools

Authenticated as

Search LOLA (Library Catalog):   Entire Collection

Select Search Type: Search   Help

Advanced Search

ILL Request for Books   PRINT

Fields in red are required.

Patron Information

Name: Nathaniel Bisson

Status: Staff

Address: MSC# 40 - Lamson
                   Library

Phone Number: 535 2256

Email: cbisson@plymouth.edu

Item Information

Title:

Author:

Publisher:

Place of publication:

Publication date:

Certain features available only to staff, based on username

Single Sign-On Details

Plymouth State
UNIVERSITY

Details details

- Identity management is key...

- Single sign-on only works because all servers are "on the same page" and can identify patrons in a common (or, at least, translatable) way

All these servers?

Banner Systems

- Banner systems are the ID authority
- ID info pushed to each server

Luminis Message Broker
real-time, on demand

MySQL
daily

Ill patron load
daily

Portal Server

Web Server

InnoPAC Server

Plymouth State
UNIVERSITY
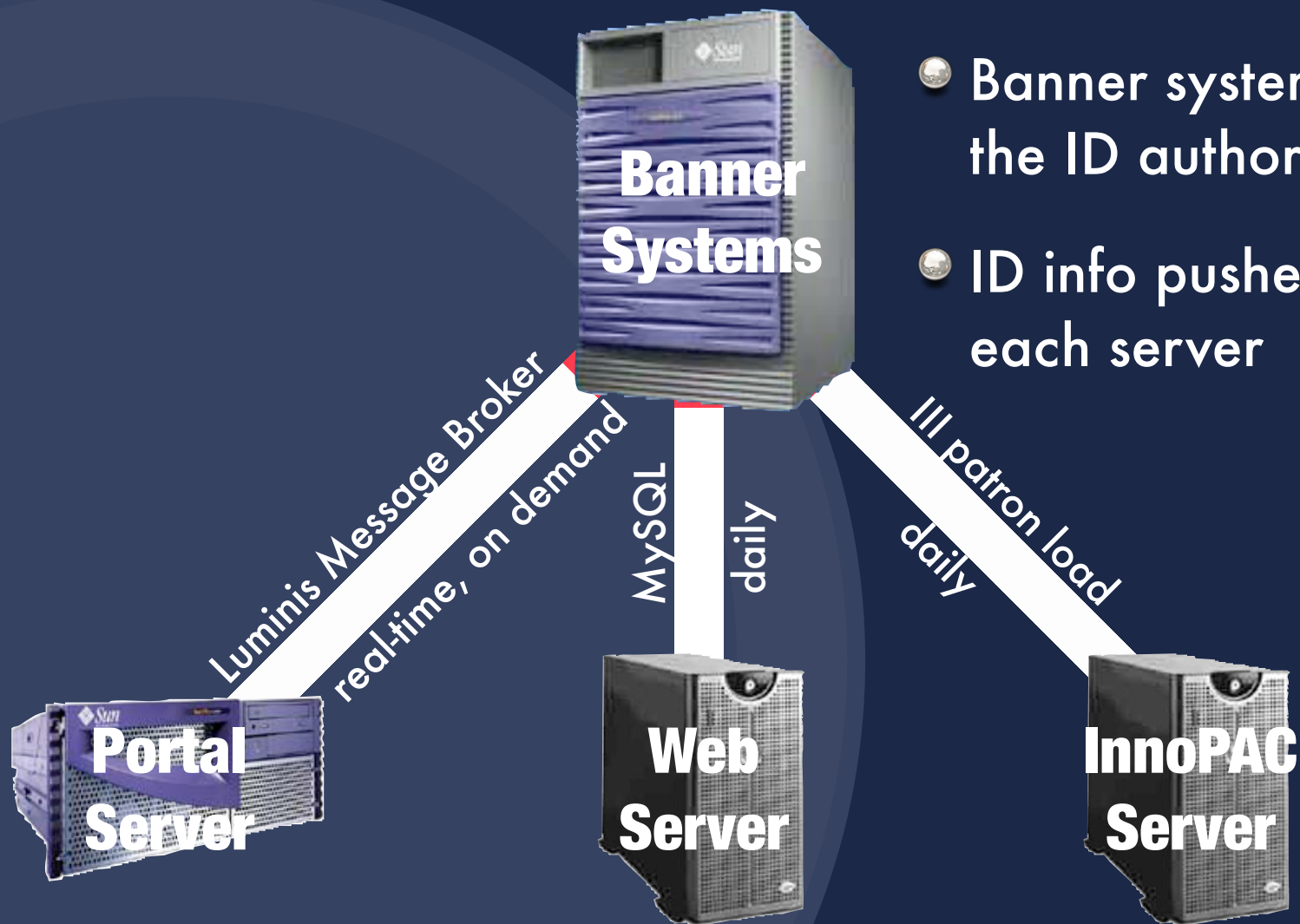
The library tab

- CPIP is used to assert ID info to the webserver (CPIP = Campus Pipeline Integration Protocol)

- Used to connect to all sorts of 'external' systems, not just libraries

- Ask me about YaleCAS

Portal Server

Web Server

InnoPAC Server

Client
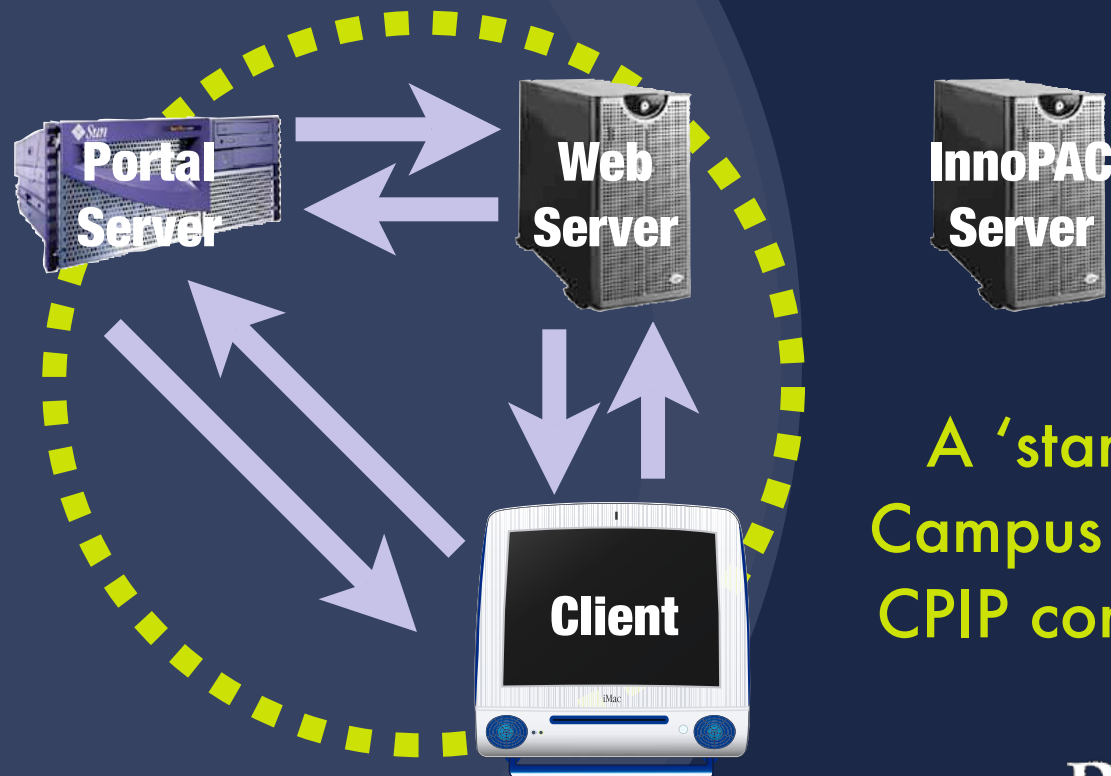
A 'standard' Campus Pipeline CPIP connection

Plugging into III
The Challenge

- There is no 'standardized' or supported way to assert user information on the InnoPAC server as required for single sign-on

Plymouth State
UNIVERSITY

Plugging into III

So how does it work?

- The PSU single sign-on hack works by automating the submission of the authentication credentials

- We use III's standard patron log in process, but submit the information in a hidden form

Plymouth State
UNIVERSITY

Connecting to WAM

Banner Systems

Portal Server

Web Server

InnoPAC Server
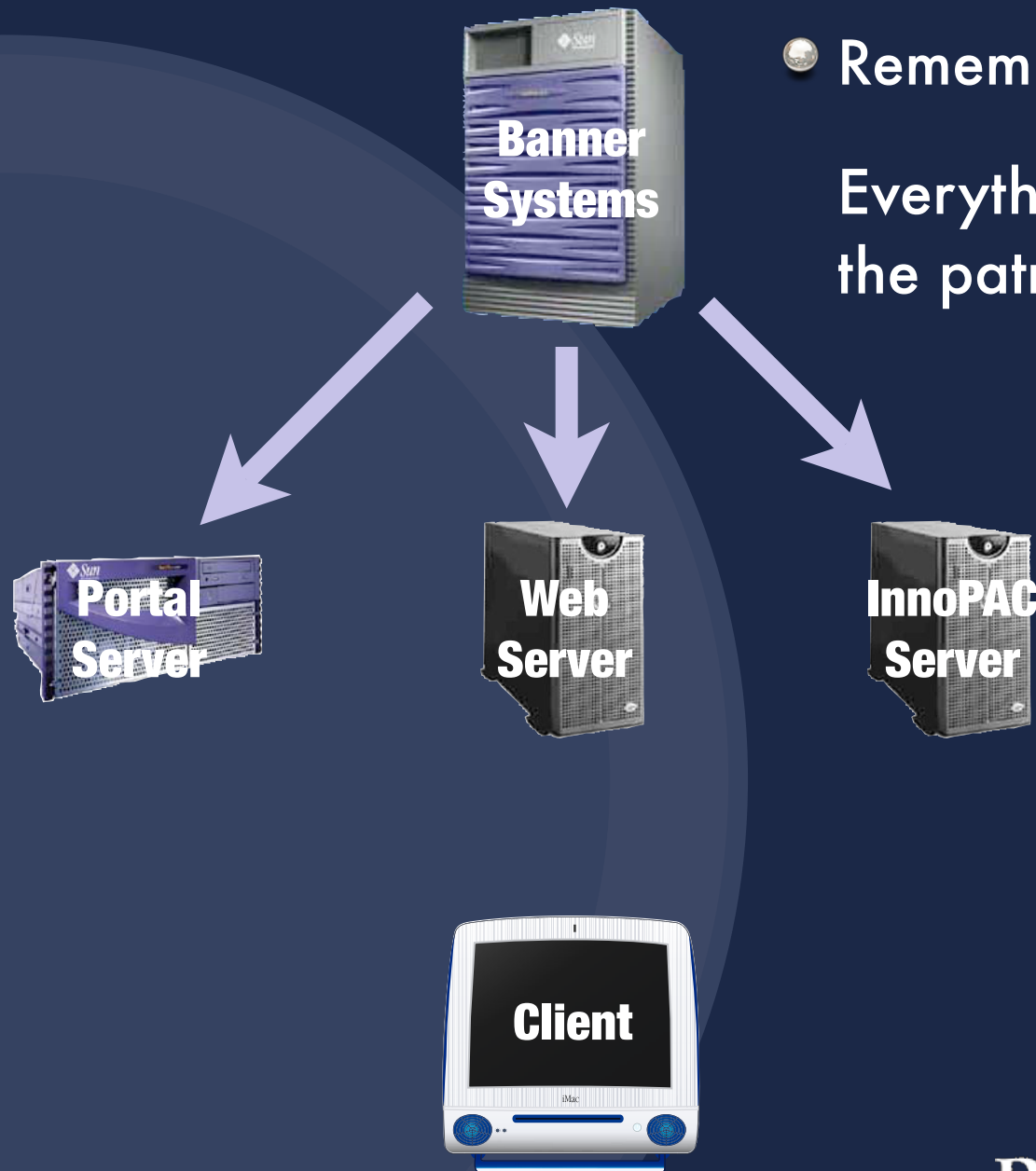
Client

- Remember:

  Everything starts with the patron load

Plymouth State
UNIVERSITY

Connecting to WAM

- Client clicks on a WAM-enabled link which connects to the WS

- The WS looks up the patron's name, barcode, and PIN (the InnoPAC authentication credentials)

- The WS returns a web page with a JavaScript that causes the client browser to submit authentication credentials to the InnoPAC

Portal Server

Web Server

InnoPAC Server

Response with Special JavaScript

Page Request

Authentication Credentials

Client

Plymouth State
U N I V E R S I T Y
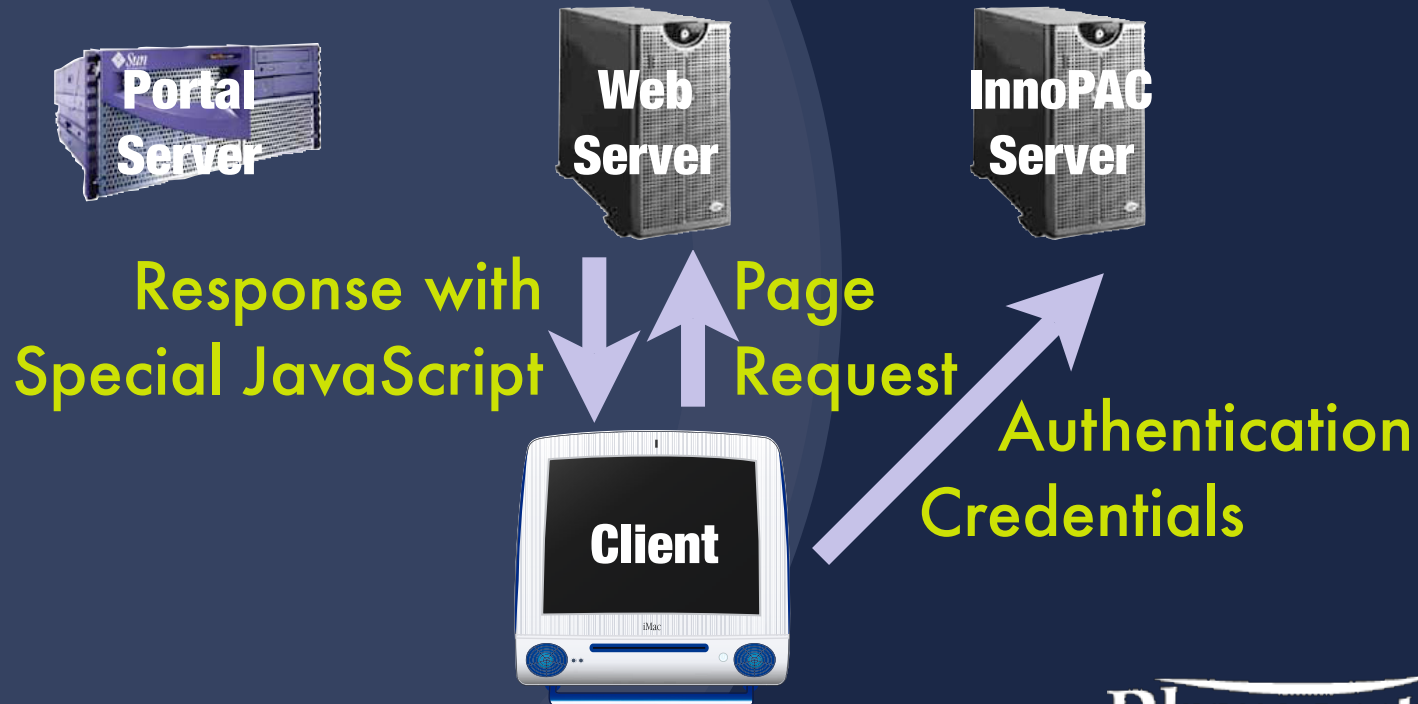
Connecting to WAM

- InnoPAC accepts authentication credentials

- InnoPAC sets browser cookie to identify the client

- After a delay, the client attempts to load the WAM URL for the protected resource

Portal Server

Web Server

InnoPAC Server

Browser Cookie

Client

WAM Authentication Page Request Credentials

Plymouth State
UNIVERSITY
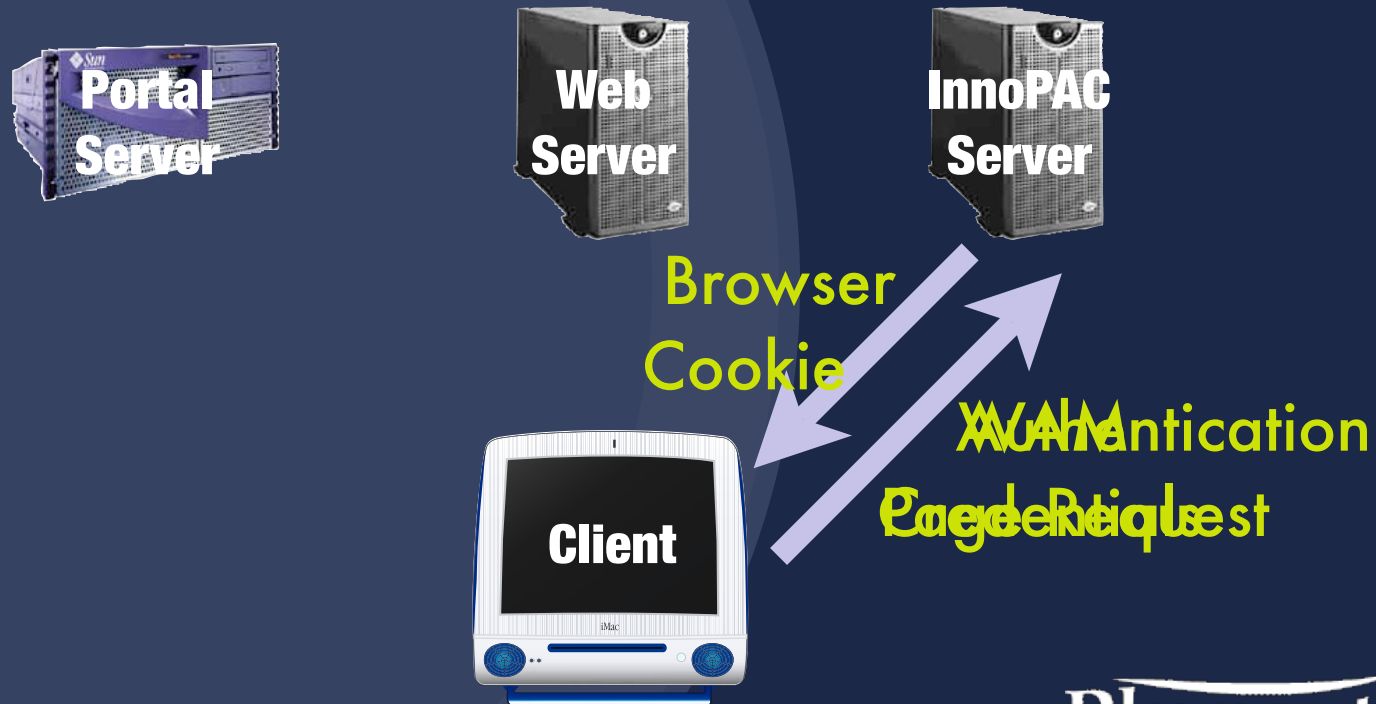
Connecting to WAM

- InnoPAC receives WAM request and identifying cookie from client

- InnoPAC recognizes the valid cookie and fulfills the WAM request

- Client has no idea what magic just went on

Portal Server

Web Server

InnoPAC Server

Protected Content

WAM Page Request

Client

Plymouth State
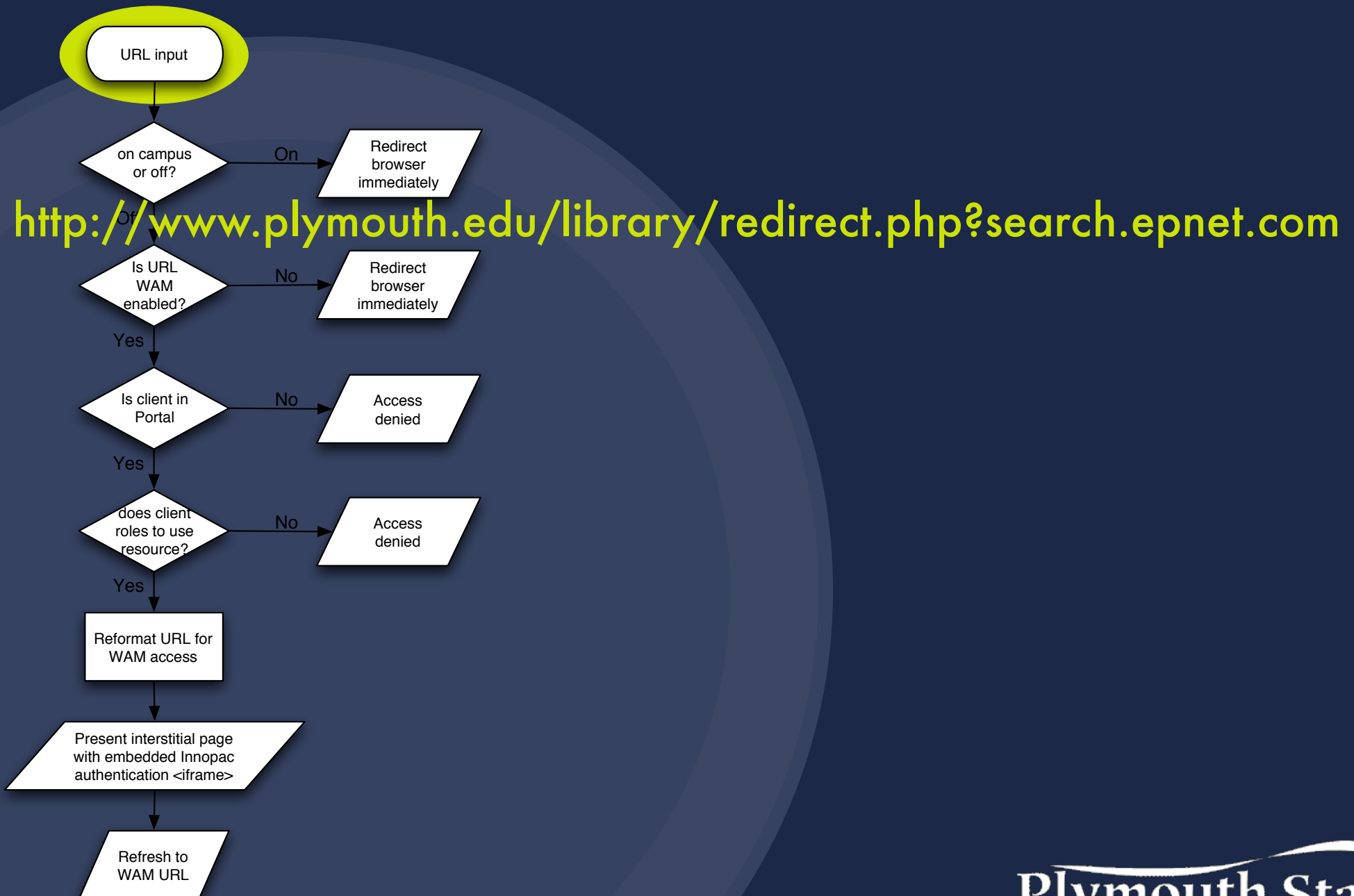UNIVERSITY

Connecting to WAM
What's this redirect script?

- All off-campus links go through a redirect script running on the web server

- The redirect script makes decisions about what to do based on the destination URL, the client's network location, status in the portal, and role memberships

- Any URL from any page can be WAM enabled

Plymouth State
UNIVERSITY

How does it connect?

URL input

on campus or off? — On → Redirect browser immediately

Off

http://www.plymouth.edu/library/redirect.php?search.epnet.com

Is URL WAM enabled? — No → Redirect browser immediately

Yes

Is client in Portal — No → Access denied

Yes

does client roles to use resource? — No → Access denied

Yes

Reformat URL for WAM access

Present interstitial page with embedded Innopac authentication <iframe>

Refresh to WAM URL

Plymouth State
UNIVERSITY

How does it connect?

URL input

on campus or off? — On → Redirect browser immediately

Off

Is URL WAM enabled? — No → Redirect browser immediately

Yes

Is client in Portal — No → Access denied

Yes

does client roles to use resource? — No → Access denied

Yes

Reformat URL for WAM access

Present interstitial page with embedded Innopac authentication <iframe>

Refresh to WAM URL

Check IP range

158.136.*.* = on campus

everything else =
off campus

Plymouth State
UNIVERSITY

URL input

on campus or off? — On → Redirect browser immediately

Off

Is URL WAM enabled? — No → Redirect browser immediately

Yes

Is client in Portal — No → Access denied

Yes

does client roles to use resource? — No → Access denied

Yes

Reformat URL for WAM access

Present interstitial page with embedded Innopac authentication <iframe>

Refresh to WAM URL
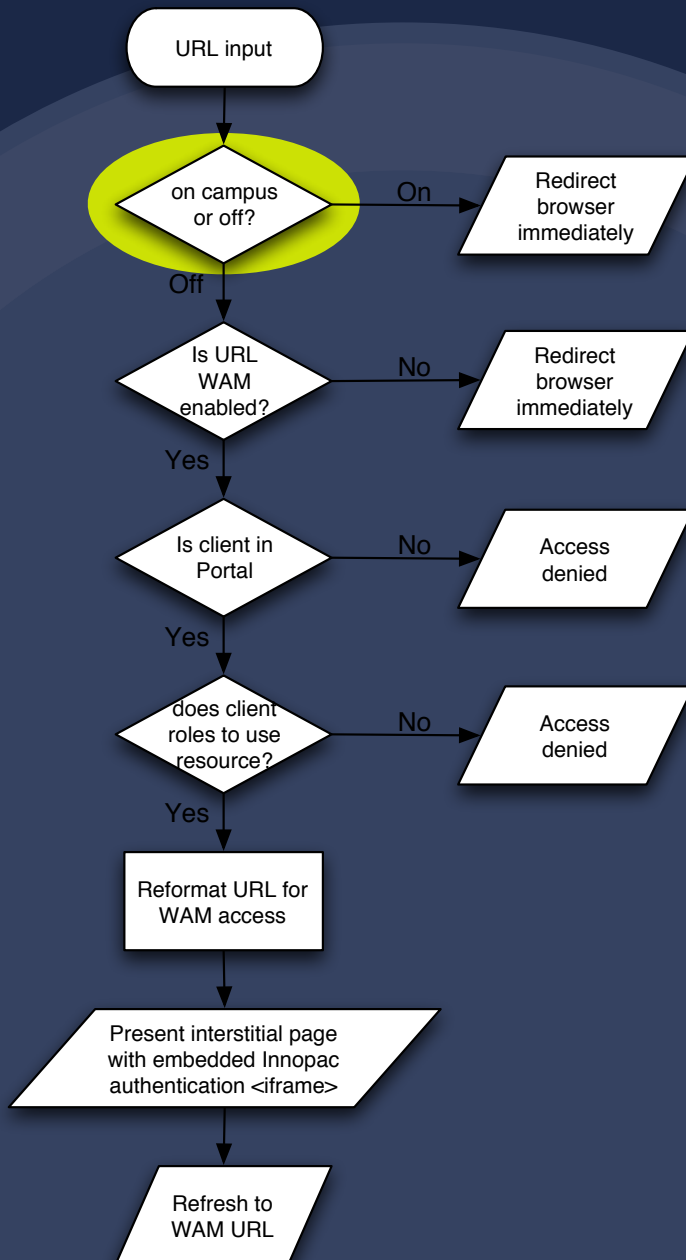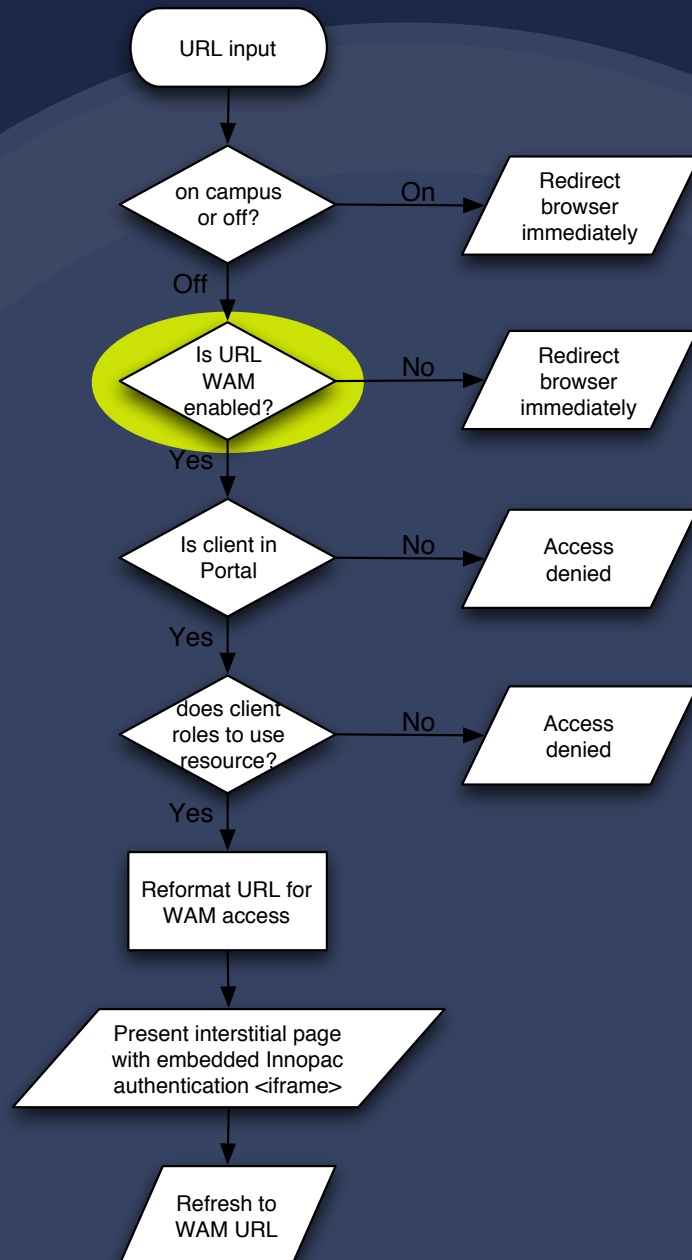
Is the destination URL in the WAM table?

Plymouth State
UNIVERSITY
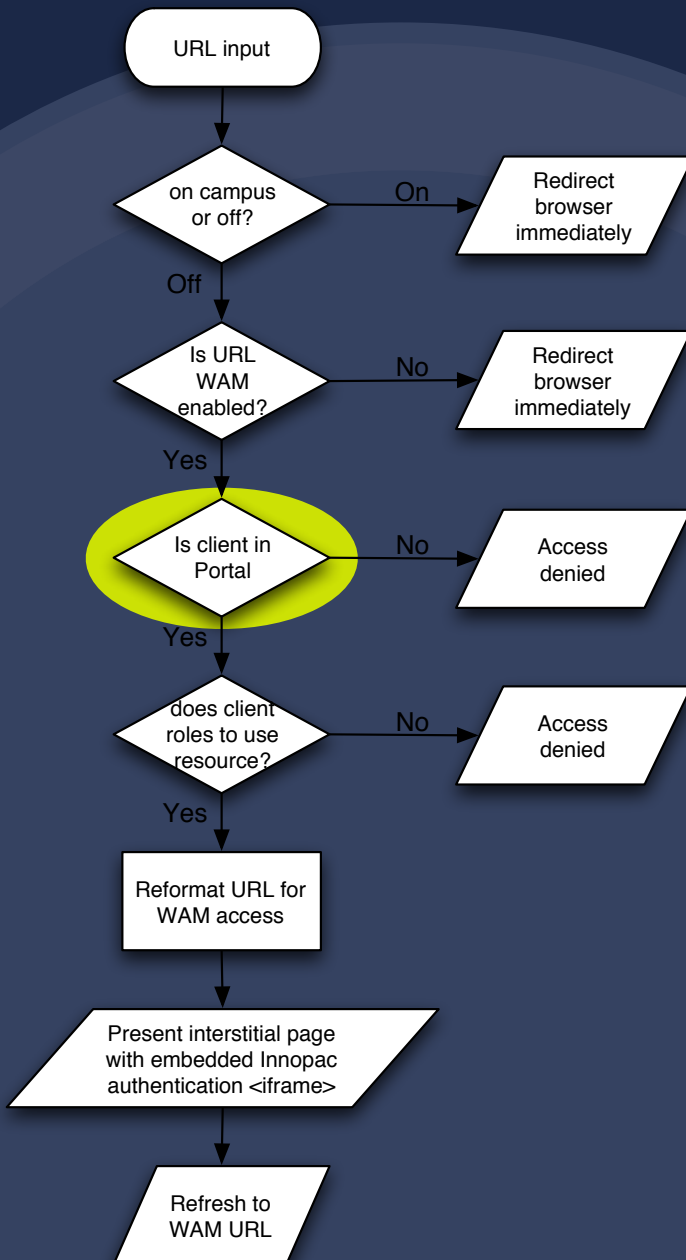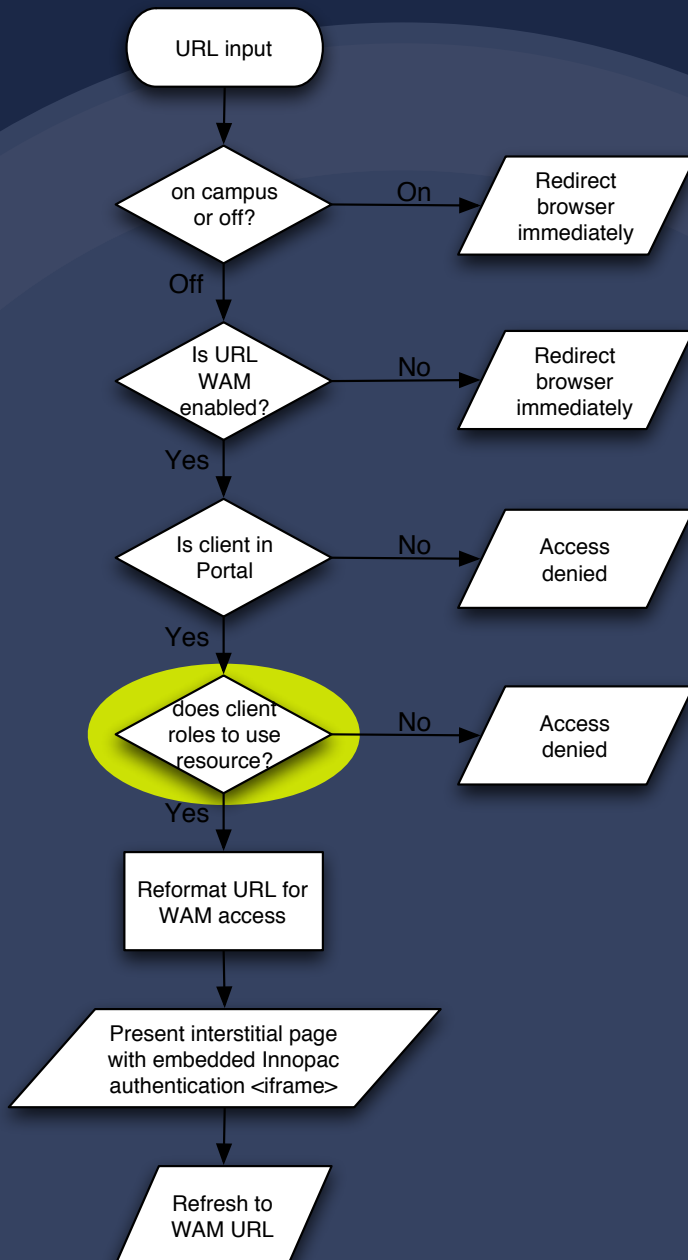
How does it connect?

Are client roles listed among acceptable roles for the WAM resource?

Plymouth State
UNIVERSITY

How does it connect?

URL input

on campus or off? — On → Redirect browser immediately

Off

Is URL WAM enabled? — No → Redirect browser immediately

Yes

Is client in Portal — No → Access denied

Yes

does client roles to use resource? — No → Access denied

Yes

Reformat URL for WAM access

Present interstitial page with embedded Innopac authentication <iframe>

Refresh to WAM URL
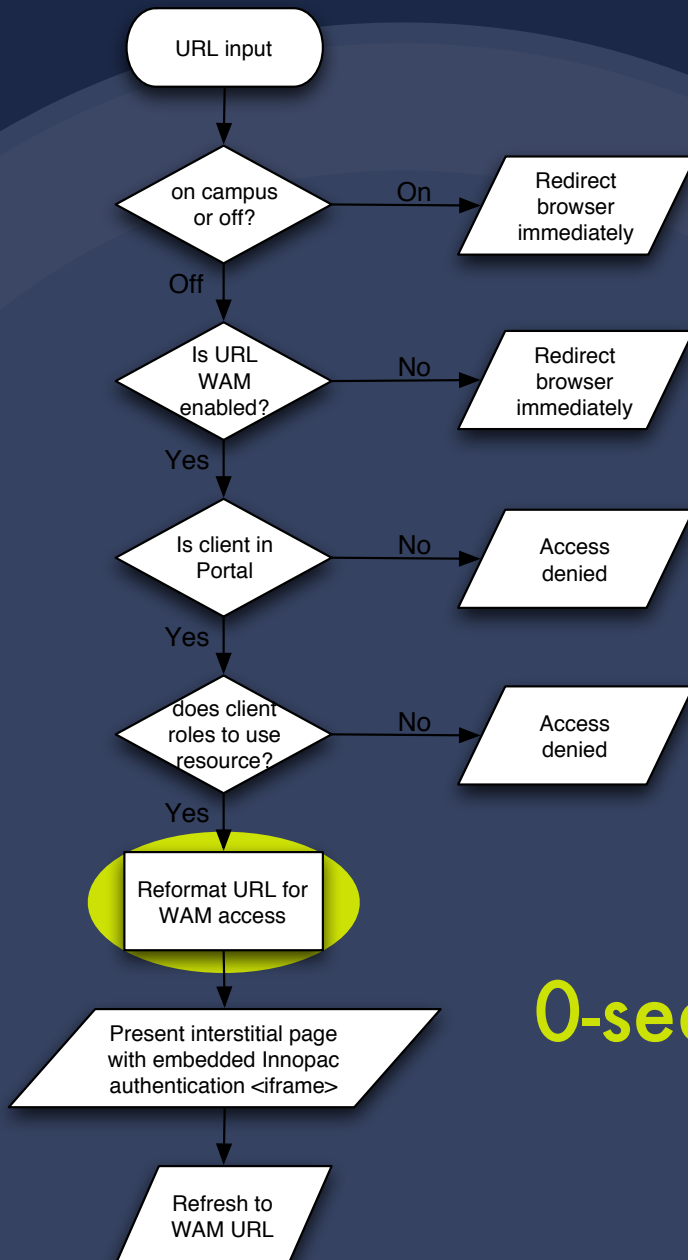
"search.epnet.com"
becomes
0-search.epnet.com.lola.plymouth.edu

Plymouth State
UNIVERSITY

How does it connect?

URL input

on campus or off? — **On** → Redirect browser immediately

Off

Is URL WAM enabled? — **No** → Redirect browser immediately

Yes

Is client in Portal — **No** → Access denied

Yes

does client roles to use resource? — **No** → Access denied

Yes

Reformat URL for WAM access

Present interstitial page with embedded Innopac authentication <iframe>

Refresh to WAM URL
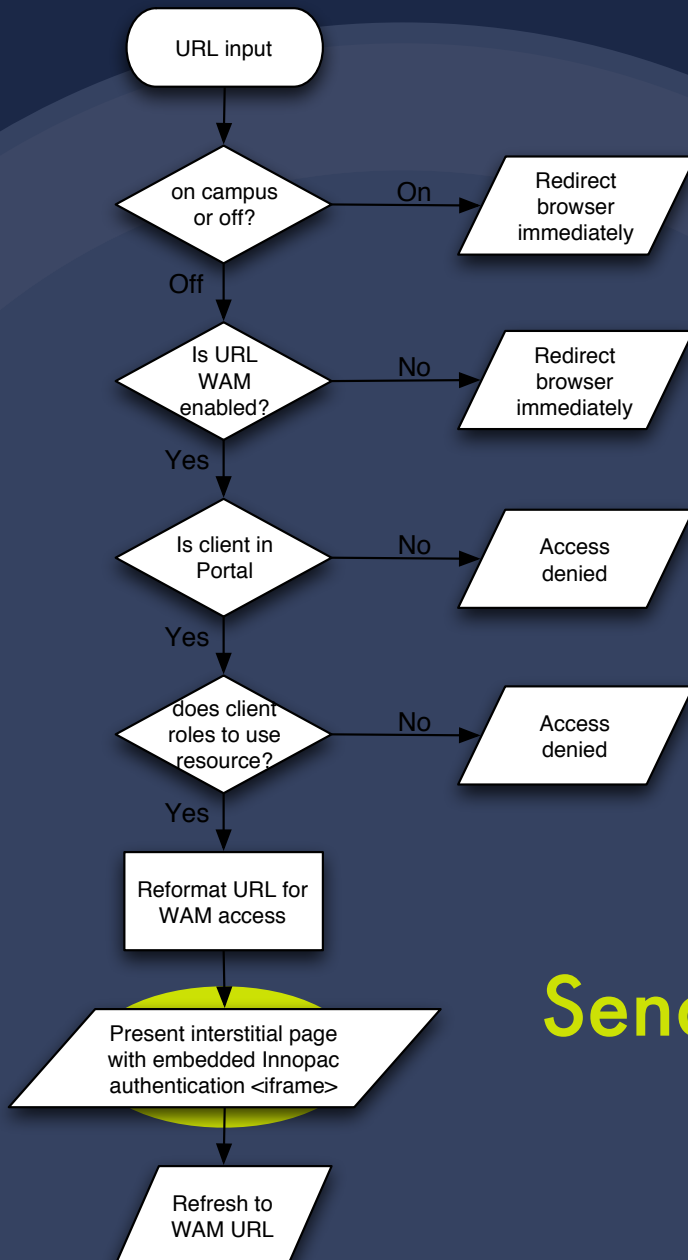
Send the authentication page to client with tricky JavaScript

Plymouth State
UNIVERSITY

URL input

on campus or off? — On → Redirect browser immediately

Off

Is URL WAM enabled? — No → Redirect browser immediately

Yes

Is client in Portal — No → Access denied

Yes

does client roles to use resource? — No → Access denied

Yes

Reformat URL for WAM access

Present interstitial page with embedded Innopac authentication <iframe>

Refresh to WAM URL

Wait a moment, then have client load WAM URL

Plymouth State
UNIVERSITY

Connecting to WAM
What's this JavaScript?

- It's part of a web page that contains a hidden form pre-loaded with authentication credentials

- A one line JavaScript submits the form

- The InnoPAC can't tell the difference, and sets the appropriate cookie in the client browser

Plymouth State UNIVERSITY

Connecting to WAM
Tricking the InnoPAC

```
<form name='patform' method='post'
     action='http://lola.plymouth.edu/patroninfo'>
  <input name='name' type='hidden' value='Joe Pseudo'>
  <input name='code' type='hidden' value='12345678'>
  <input name='pin' type='hidden' value='5678'>
</form>

<script language='JavaScript'>
  location.href='javascript:document.patform.submit()'
</script>
```

Plymouth State
UNIVERSITY

Plugging into III

What about LDAP
…or the Patron API?

- III's LDAP client software allows you to use authentication credentials stored on a remote server, perhaps one shared by a number of services

  - …But, it still requires that patrons enter a password when using protected resources

- Patron API allows a remote server to check the authenticity of a PIN against the patron database or get information about a patron

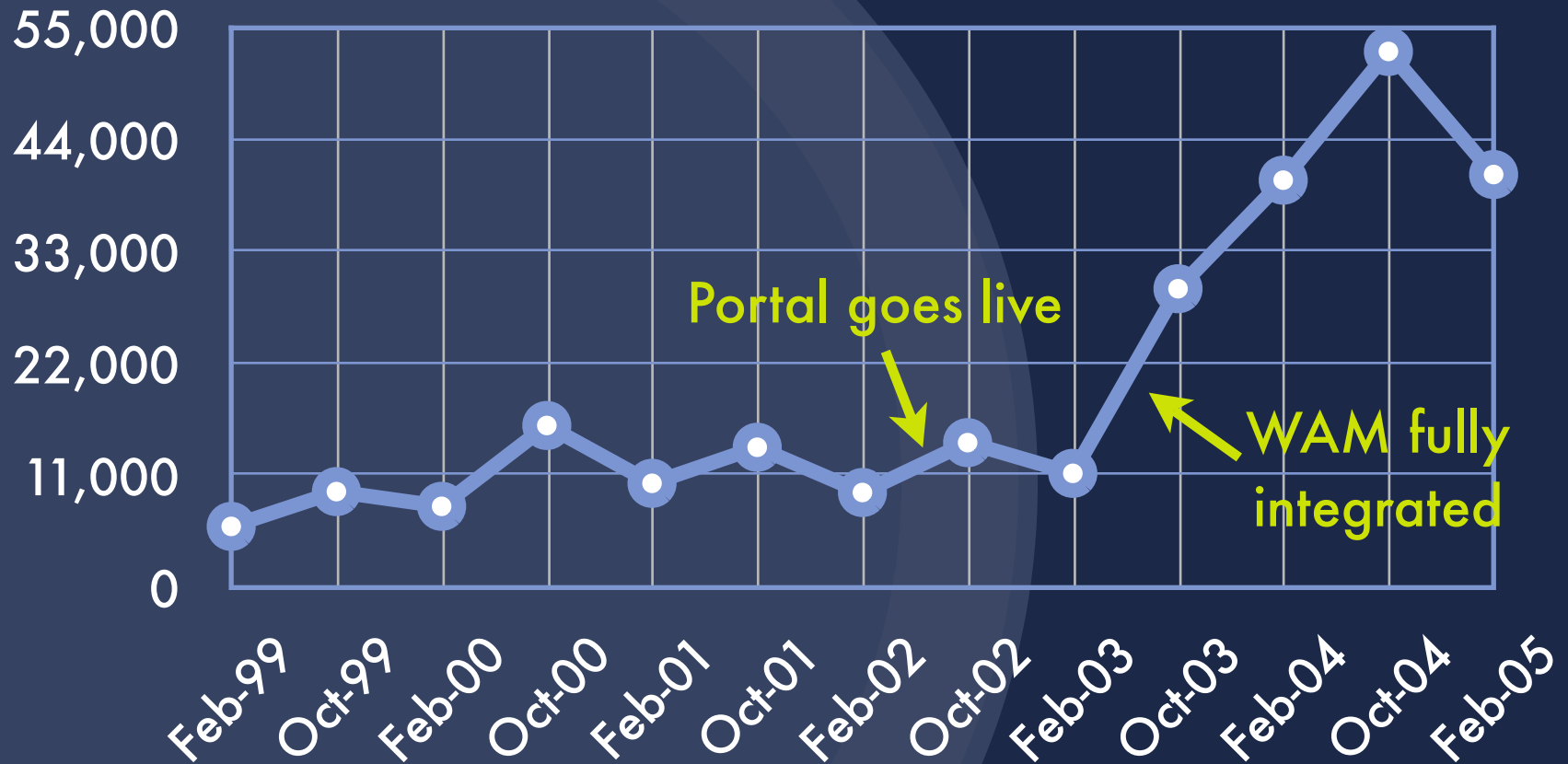 - …But, it's basically the reverse of what's needed for single sign-on

Plymouth State
U N I V E R S I T Y

Lessons Learned

Lessons learned
Technical considerations

- Standards for single sign-on and identity management are maturing slowly; vendor support is often limited

- Going it our own way has created a small house of cards that keeps us on our toes

Plymouth State
UNIVERSITY

Lessons learned
Do they like it?

- To patrons, all our integration efforts are just meeting their expectations of ease of use

- They love it, and they don't even know what a miracle it is

Plymouth State
UNIVERSITY

What's next?

- Integration with XML Server to offer resources based on a student's major or class schedule

- Deeper integration with WebCT to present all relevant library resources — reserves, bibliographies, research guides, recent acquisitions in the subject area — within the context of individual courses in WebCT

- Posting overdue notices and bills to "personal announcements" in the portal welcome page

Questions?

Elaine S. Allard, Systems Librarian
Casey Bisson, Library Systems
Plymouth State University
Lamson Library

http://www.plymouth.edu/library/?portal