

## INTRODUCTION

### **Experience**

If it's an issue with EZproxy's configuration, authentication, vendor platforms, I've probably seen it before and know how to resolve the issue.

### **PALNI Libraries**

I've personally established service for several of these libraries. During the process, I can say with confidence that service has improved for patrons.

## OVERVIEW

### Overview

The goal of this presentation is to take about 20-25 minutes to provide an overview of OhioNET's proxy service, from the ground up.

If you're interested in offloading the burden of running a proxy server... to focus on other more important tasks, you'll be able to get a sense of what that process would look like.

If you are already using our proxy services, you'll gain more insight into what we're doing in the background, on your behalf, to ensure your patrons retain access to your subscription services.

### Hosted Service

If you are considering moving to a hosted platform, we'll take care of the technical heavy lifting.

### Behind the Scenes

These are some of the critical and value-added services that we provide behind the scenes, on your behalf, to ensure that access to your subscription resources is maintained.

1. Updating and patching any security vulnerabilities on the OS level
2. IP switching, Country of Origin, reviewing exceeded download thresholds for egregious volume or bandwidth usage, confirming and removing any IP or Users getting blocked for excessive failed login attempts.
3. Maintaining patron security and privacy when using electronic resources
4. Working with the Expedient Data Center in Upper Arlington staff to mitigate DDoS, configure firewalls, coordinate maintenance and backups, and ensuring reliable server uptime.
5. Upgrade the application after testing (SEE NOTES FOR UPCOMING RELEASE 7.1)
6. Whether it's moving to a new URL or domain, switching to HTTPS
7. Monitoring vendor emails, mailing lists, support requests, internal communications... and then applying updates on the fly.

## SUPPORT

### **Support**

Caveat: Any drastic changes to personalization of the proxy pages after the initial setup, we typically limit to once per year.

Most proxy service users don't see a need to change things once they are in place unless there are branding or name changes that need to be incorporated.

Mention: After-hours support, which is strictly for emergencies, which we mainly define as a system outage. Not for setting up new resources.

### **Slide (HOWEVER...)**

## IMPLEMENTATION

### Implementation

In this section, I'll address the question of: "What an EZproxy implementation project looks like as we begin a new implementation of EZproxy, or transition to hosted EZproxy service with OhioNET"

#### What's needed for setup?

1. We prefer to have a single point of contact at the library and within the IT department.
2. So, this is used during the initial configuration to EZproxy. Most institutions don't want on-campus users to authenticate to EZproxy - each and every time - to use a subscription resource. By configuring the on-campus IP range, we can tell EZproxy to step out of the way if it sees a connection originating from an on-campus IP. This removes a step in the access workflow for your subscription resource users. However, easing use in one area has implications for another, as we'll see in just a moment.
3. We need to know what resources you purchase so those resources can be configured for access via EZproxy. If you're already self-hosting, we can use your config.txt file as a starting point.

### Authentication

As far as user authentication, EZproxy supports quite a few options... but typically the institutions using our hosted EZproxy service want to authenticate users directly against their library ILS system.

1. Azure AD Premium 1 or E3 Subscription

#### What you would need to do?

1. Since EZproxy is an IP authentication tool, you'll need to contact all of your subscription vendors and ask them to register your new EZproxy IP address on your account. This is the step that allows EZproxy to provide off-campus access.
2. Work with us to provide us with campus logos, set color schemes, customize information screens with local library contact information... for users to reference if any issues arise.
3. Provide local IT contact for setting up authentication. Might involve adjustments to campus firewalls, NAT, test accounts in your directory services, among others.
4. Adjust your subscription resource URLs to use EZproxy. This is an easy process, but it does take a little time to complete. As you'll need to review your library website, A-Z lists, campus LMS systems, etc...
5. Test: two steps

Authentication (Are the folks supposed to have access able to login?)

- While testing authentication, we force on-campus connections to go through EZproxy. It gives you a chance to authenticate, while on-campus, just to make sure authentication and resources are working as expected.

Resource Access (Can you access the resources you pay for?)

- Typically, it's enough to have a staff member test out the most popular or common proxied resources from both on-campus and from home (or off-campus). You'll want to ensure that you're able to (1) authenticate, (2) access the database/journal/etc. and (3) browse that resource, read a full-text article, or whatever the case might be.

6. Handle communications, announcements, etc. with your community. To give a heads-up about this upcoming change.

## ADVANCED CONFIGURATION TOPICS

### Advanced Topics (slide)

Discuss a few topics that you might not be aware of, mainly, the concept of resource groups and the reporting dashboard that's included with all of our EZproxy installations, AWSTATS.

### Groups

Access groups allow finer control over who is authorized to remotely access subscription resources... and which resources they are authorized to access.

To make these granular distinctions on the EZproxy side, we need some value released back to EZproxy to be able to make authorization and routing decisions.

This may require adjustments to the person schema in active directory, or enrichments to the data on the local side, just to collect or define the values needed for this level of computational decision-making.

### AWstats

I'd like to give a general picture of what it can do, what it can't do, and some considerations to keep in mind. We'll also briefly run through the interface... to provide a quick orientation to help you get started.

### What it is not

First, what it is not. An absolute source of truth.

There are a few reasons that I make this claim.

1. First, AWstats suffers from the same shortcomings as other statistical analysis platforms. It's dependent on source data. Data that we capture in the proxy logs is not meant for longitudinal or relational analysis. It's short-lived, as its main purpose is for troubleshooting and to identify potential bad actors attempting to gain access.
2. Data capture is dependent on user workflows. If all traffic is not routed through EZproxy, you're not seeing the whole picture. As earlier mentioned, it's common to bypass EZproxy for on-campus to provide a more seamless experience for users. As a result, EZproxy doesn't see that usage.
3. Lastly, there can be a lot of noise and very little signal in web server logs.

## What it can do

On the flip side, log files are excellent for some tasks.

## Explore

1. Unique Visitors - [not factual, but a representation/trend]
  - a. Keep in mind, any time a person clears cookies => Unique
2. Total Visitors
  - a. Contains duplication
3. Hits - [Not so useful]
  - a. Any elements that loads on a page counts as a hit
4. Visit Duration
  - a. High < 30s counts: People without login credentials wouldn't be able to traverse the site.
5. File Type - [Not so useful]
  - a. more about the make-up of the subscription content, than information about usage
6. Downloads - user interaction w/ content
7. Operating Systems
  - a. Target platforms. Media files specifically. (e.g. Flash on macOS)
8. Browsers [click on all]
  - a. More for developers. Websites appear differently in browsers.

## Implementing additional tools

ezPAARSE/ezMETRICS

1. Parse: Disassemble components of log entries generated by reverse proxies. Community provides a collection of pre-built parsers. (enrichment)
2. Metrics: Ingests ezPAARSE'd data for calculation, visualization, and dashboard production.

At the moment, no support for ezPAARSE or ezMETRICS. We haven't had the sustained interest or commitment from any of our proxy subscribers to warrant the necessary effort to architect a solution, cost analysis (staff time, technology costs), build the ETL data pipelines, etc.

Of course, we'd be open to hearing a proposal from PALNI.

If you wanted to run either of these applications locally on your own infrastructure, we are providing raw audit log data for local processing.

## WRAP UP

### **Costs**

\$1300 billed annually to PALNI

### **Contact - Q&A**

- Interested in transitioning to hosted EZproxy
- Setting up log shipments
- Or, just have questions about anything for the presentation.
- OhioNET maintains a mailing list to announce EZproxy schedule maintenance, global platform changes.