Implementing and Demystifying ILLiad's Integrated SAML Module

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Overview

- ILLiad Authentication Options
- Why SAML Integrated Module
- What is SAML
- User Login Experience
- Attribute/Metadata Exchange in the Background
- Getting Started
- Items to Ask Your SAML Administrator
- Items Your SAML Administrator Will Ask You
- Wrap Up

ILLiad Authentication Options

- ILLiad Authentication (ILLiadAuth)
- LDAP Authentication
- RemoteAuth
  - Usually requires and intermediary system
    - Ex: OCLC's EZ Proxy
  - ILLiad SAML authentication (NEW)

Why is Upstate Medical University interested in the SAML module?

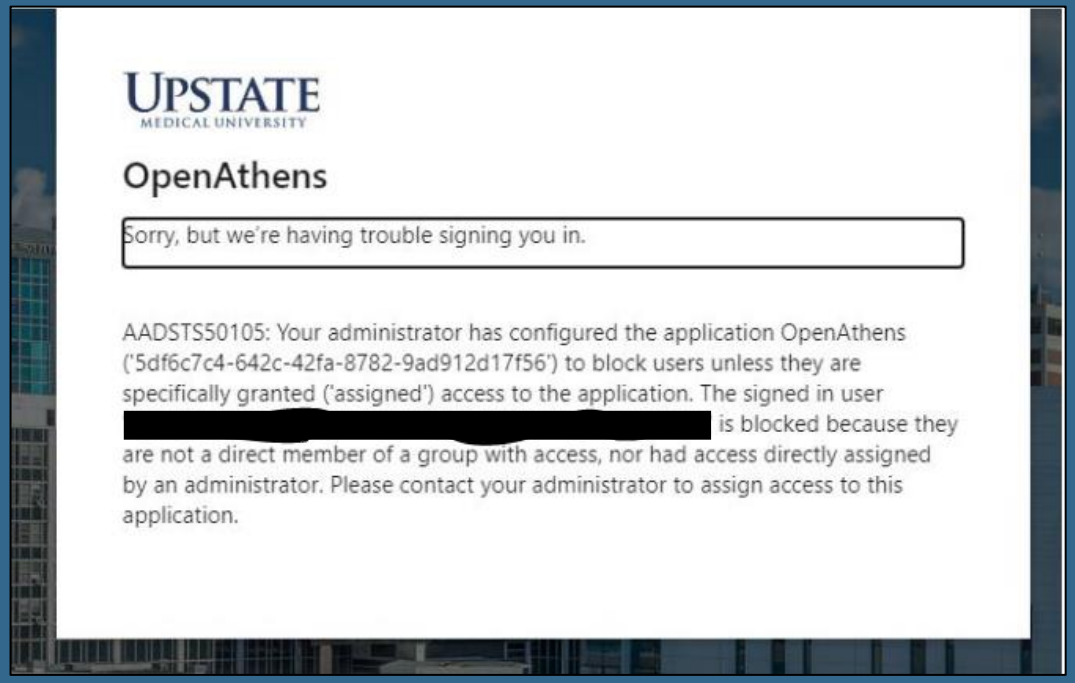
- SAML is more secure than LDAP
- Improve user experience with single sign on
- OpenAthens implemented in 2019
  - Currently uses campus Azure system and local OpenAthens accounts
- ILLiad is the only library funded product still running through EZ Proxy

What is SAML?

- SAML = Security Assertion Markup Language
- Open standard that allows identity providers (IdP) to pass authorization credentials to service providers (SP)
  - Identity Provider (IdP) = SAML authentication system
  - Service Provider (SP) = ILLiad
- Login information is not managed or stored in the tool users are accessing
- Enables Single-Sign On (SSO) – where users can log in once and those same credentials can be reused in the background to log into other services
- An example of interoperability

Two Primary Purposes

- SAML authentication is the process of verifying the user's identity and credentials
- SAML authorization tells the service provider what access to grant the authenticated user



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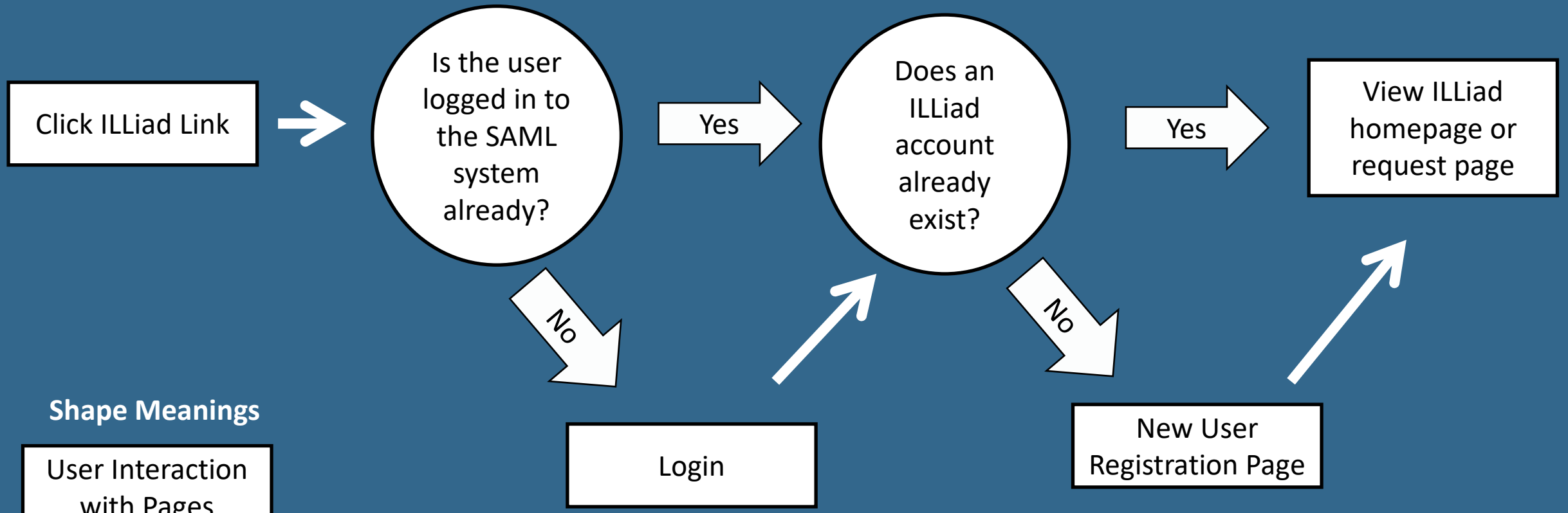
Examples of SAML Systems

- ADFS
- Azure Active Directory
- Central Authentication Server (CAS)
- OpenAthens
- Oracle Identity Federation
- Sailpoint Identity Now
- SecureAuth
- Shibboleth

User Experience – Logging In



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Link Format

- https://**{ILLiadbaseURL}**/illiad/
  - Example: https://upstate.illiad.oclc.org/illiad/

- https://**{ILLiadbaseURL}**/illiad/illiad.dll/OpenURL?&rft.genre=article&rft.title=Nursing+standard.&rft.stitle=Nursing+standard.&rft.atitle=Practical+Leadership+and+Management+in+Healthcare%3A+For+Nurses+and+Allied+Health+Professionals+%E2%80%93+Second+edition Practical+Leadership+and+Management+in+Healthcare%3A+For+Nurses+and+Allied+Health+Professionals+%E2%80%93+Second+edition&rft.jtitle=Nursing+standard.&rft.au=Mabbott%2C+Irene&rft.date=2013&rft.month=08&rft.volume=27&rft.issue=50&rft.number=&rft.spage=28&rft.epage=28&rft.edition=&rft.issn=00296570&rft.eissn=2047-9018&rft.aulast=Mabbott&rft.aufirst=Irene&rft.pub=Scutari+Projects+Ltd%2C&rft.pubdate=%5B1987%5D-&rft.pubyear=&rft.publisher=Scutari+Projects+Ltd%2C&rft.place=Harrow%2C+Middx.+%3A&rft.doi=10.7748%2Fns2013.08.27.50.28.s37&rft.pmid=&rfe_dat=&rfr_id=info%3Asid%2Fprimo.exlibrisgroup.com-crossref&rft_id=info%3Adoi%2F10.7748%2Fns2013.08.27.50.28.s37

- Note: No login parameter. No proxy prefix.

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Pause for Reality

Access Link In Live Action

- Albany Medical College's Schaffer Library of Health Sciences
  - https://amc.illiad.oclc.org/illiad/

What is Happening in the Background?

- If the user is valid, metadata in XML format is getting passed between systems
  - Metadata from your SAML authentication system to ILLiad
    - Specifically, attributes available from the SAML xml file get passed to ILLiad and ILLiad, using the RemoteAuthValidation table in the Customization Manager, translates those attributes to fields in ILLiad

- Metadata = Attributes

Snippet from XML file coming from Azure

```
<Attribute Name="http://schemas.xmlsoap.org/ws/2005/05/identity/claims/surname">
  <AttributeValue>Webb</AttributeValue>
</Attribute>
<Attribute Name="http://schemas.xmlsoap.org/ws/2005/05/identity/claims/emailaddress">
  <AttributeValue>WebbH@upstate.edu</AttributeValue>
</Attribute>
<Attribute Name="http://schemas.xmlsoap.org/ws/2005/05/identity/claims/name">
  <AttributeValue>WebbH@upstate.edu</AttributeValue>
</Attribute>
<Attribute Name="http://schemas.xmlsoap.org/ws/2005/05/identity/claims/forenames">
  <AttributeValue>Heidi</AttributeValue>
</Attribute>
<Attribute Name="hrtitle">
  <AttributeValue>Senior Assistant Librarian</AttributeValue>
</Attribute>
<Attribute Name="employeetype">
  <AttributeValue>STEMP</AttributeValue>
</Attribute>
<Attribute Name="dept">
  <AttributeValue>Library</AttributeValue>
</Attribute>
```

RemoteAuthValidation Table

- Using the snippet from Azure and depending on what fields you want to ingest into ILLiad, the table would look like:

RemoteAuthValidation

ID	NVTGC	ILLiadFieldName	RemoteFieldName	Validation	ValidAction	InvalidAction	ValidDefault	Invalid...	Overwrite	LogIfChang...
1	ILL	Username	CN	.+	accept	reject			No	☐
2	ILL	EMailAddress	http://schemas.xmlsoap.org/ws/2005/05/identity/claims/emailaddr...	.+	accept	ignore			No	☐
3	ILL	FirstName	http://schemas.xmlsoap.org/ws/2005/05/identity/claims/forenames	.+	accept	ignore			No	☐
4	ILL	LastName	http://schemas.xmlsoap.org/ws/2005/05/identity/claims/surname	.+	accept	ignore			No	☐
5	ILL	Department	dept	.+	accept	ignore			Yes	☐

RemoteAuthValidation in the Wild

- Albany Medical College

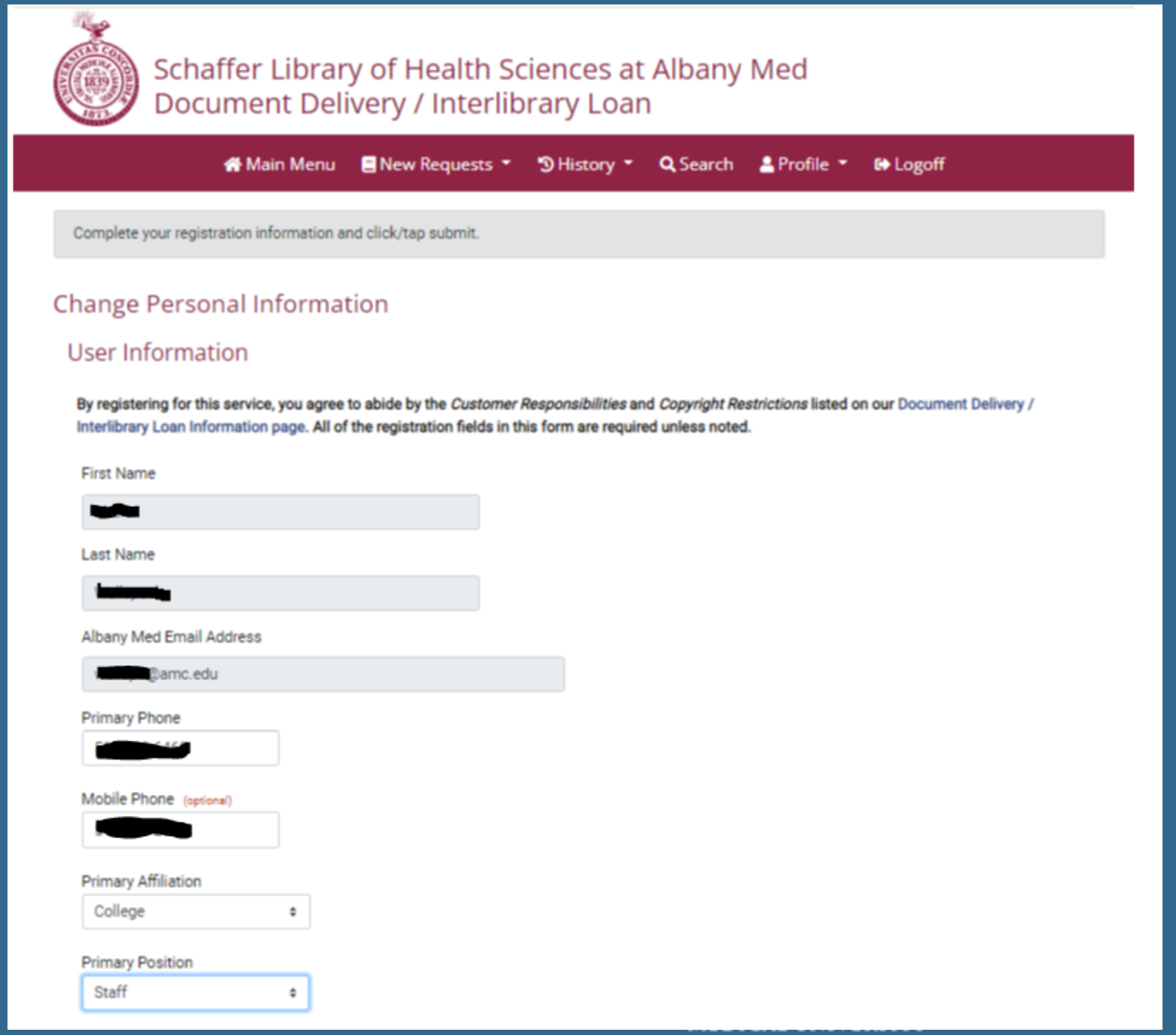
RemoteAuthValidation

ID	NVTGC	ILLiadFieldName	RemoteFieldName	Validation	ValidAction	InvalidAction	ValidDefault	InvalidDefault	Overwrite	LogIfChanged
1	ILL	Username	http://schemas.xmlsoap.org/ws/2005/05/identity/claims/name	.+	accept	reject			No	☐
9	ILL	EMailAddress	http://schemas.xmlsoap.org/ws/2005/05/identity/claims/emailaddress	.+	accept	ignore			No	☐
10	ILL	LastName	http://schemas.xmlsoap.org/ws/2005/05/identity/claims/surname	.+	accept	ignore			Yes	☑
11	ILL	FirstName	http://schemas.xmlsoap.org/ws/2005/05/identity/claims/givenname	.+	accept	ignore			Yes	☑

- Using Azure
- Lessons learned: fields are case sensitive

New User Registration

- NewAuthRegistration.html
- Choose to show but not allow the user to edit fields coming from Azure: First Name, Last Name, and Email



Ready for Implementation? Now What?

- Must be on version 9.2
- Check out the documentation
  - It includes step by step setup and indicates who needs to do what (library staff vs. staff that host/manage the ILLiad server)
  - https://support.atlas-sys.com/hc/en-us/articles/4410632522131-RemoteAuth-Configuring-the-Integrated-SAML-Module
- Contact your SAML Administrator
- Contact your ILLiad server host
  - OCLC → contact OCLC, express interest, and ask to get on the list
  - Self hosted or other hosting providers → start the conversation. Send the documentation.

What You Need to Ask From the SAML Admin

- Metadata URL
  - ILLiad hosting provider will need this information to get started
    - Examples:
      - https://login.openathens.net/saml/2/metadata-idp/upstate.edu
      - https://login.microsoftonline.com/{localcodefromazure}/federationmetadata/2007-06/federationmetadata.xml?appid=5df6c7c4-642c-42fa-8782-9ad912d17f56
      - https://idp.upstate.edu/metadata/samlidp/OpenAthens_SAML_IDP_Profile
- What attributes to release (ex: username, email, first name, etc.)
- Format of attributes – What the attribute “Name” is that will pass through the XML file
  - SAML Administrator should be able to see these values
- Security Certificate
  - If required, after some of the configuration is setup, the SAML admin can generate a security certificate

Questions the SAML Administrator Will Ask

- ILLiad Metadata URL
  - Once files are configured, it will be https://{ILLiadserverURL}/illiad/metadata/
  - ILLiad hosting provider will download this and give you the file after you have given the ILLiad host your SAML's metadata URL and configured some files using that information
- Attributes
  - Which ones and why?
- Security Certificates
  - These come as files from the ILLiad hosting provider once some initial configuration files are set up

Where is Upstate in Implementation?

- Documentation read
- Metadata URL for OpenAthens sent to OCLC
- Waiting for OCLC to start the configuration process
- Remote Authentication Table is minimally configured except for the username field which is currently setup for EZ Proxy
- Note: because Upstate is using OpenAthens as the SAML product, the SAML administrator is within the library

Expected Next Steps

- OCLC will populate saml.config file and then run a powershell script on the server
- OCLC will send ILLiad metadata file from the url https://upstate.illiad.oclc.org/ILLiad/metadata
- Upstate will use the metadata file to create “ILLiad” as a resource in SAML system
- Upstate will set attributes to release - Since we are using OpenAthens, we will release only the minimum needed for ILLiad specifically. Not a global release of all attributes in the system.
- Exchange security certificates

Expected Steps at Go Live

- OCLC updates IdpMapping.config
- Upstate edits files in the Customization Manager
  - RemoteAuthWebLogoutURL – We will send users to an intermediary page for now because some users will need to logout of two systems to fully logout: OpenAthens AND Azure.
  - RemoteAuthValidation - confirm values and switch username from EZ Proxy Version to field needed from OpenAthens
  - UseLegacyRemoteAuthHandling - set to no
- Upstate changes access URLs

Additional Resources

- Documentation from Atlas Systems
  - RemoteAuth Configuring the Integrated SAML Module
  - Automatic User Creation
  - ILLiad Database Tables
  - Configuring RemoteAuth Validation Table
- Presentations by Atlas Systems
  - IDS Spring 2022 Virtual User Group
    - Introducing Integrated SAML Setup with Single Sign-on Support (Video)
  - Atlas Training
    - ILLiad Integrated SAML Module

Special Thanks to Debra Wellspeak at Albany Medical College

Questions and Next Steps

- Will email the IDS listserv with a synopsis of implementation as an OCLC hosted site

- Contact
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