Getting to know
Banner 9 Administrative Applications

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Disclaimer

The views and opinions in this presentation are those of the presenter and do not necessarily reflect the position of Ellucian.
Introduction

Your benefits from attending this session

Trying to figure out all pieces needed for Banner 9 Admin Pages used to be like putting a puzzle together.

Now it is straight forward and a lot easier.

I will share what we did to get Banner 9 up and running in an effort to help you get started and be successful with your adoption of Banner 9 Administrative Pages.

Agenda

1 Banner 9 Admin Pages overview
2 Single Sign-on for Banner 9
3 Ellucian Solution Manager (ESM)
4 Application Navigator and Banner 9 Admin Configuration
5 Wrap up and Q & A
What are Banner 9 Admin Pages?

Banner 9 Admin Pages = Banner 8 INB forms

Only look and feel has changed
No functionality changes

Only 1 application to deploy for all Banner 9 Admin Pages
Before and After
Banner Form to Banner 9 page

Before ...

Today ...

Banner 9 Administrative Pages Architecture

Single Sign On For Banner 9

Application Navigator

Banner 9 Administrative Pages

Oracle Database

Ellucian Solution Manager (ESM)
Banner 9 Administrative Pages
Features

• Major changes in look and feel
• No reimplementation
• Modern web oriented architecture
• Oracle Forms free applications
• No Java applet required on the end user’s browser
• Browser agnostic
• Reduces training requirements and end user support

Banner 9 Administrative Pages
Hardware Requirements

<table>
<thead>
<tr>
<th>Product</th>
<th>Minimum Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle Tier Servers CPU and memory</td>
<td>Quad core with 16 – 32 GB memory</td>
</tr>
<tr>
<td>Middle Tier Servers Platforms</td>
<td>RH Linux 5 - 7</td>
</tr>
<tr>
<td></td>
<td>Windows 2008</td>
</tr>
<tr>
<td></td>
<td>Solaris 10</td>
</tr>
<tr>
<td></td>
<td>AIX 6.1</td>
</tr>
<tr>
<td></td>
<td>HP-UX 11iV3 (11.31)</td>
</tr>
<tr>
<td>Middle Tier Servers Software</td>
<td>Oracle WebLogic 10.3.6</td>
</tr>
<tr>
<td></td>
<td>Apache Tomcat 6 or 7</td>
</tr>
<tr>
<td>Database hardware/software</td>
<td>no change</td>
</tr>
</tbody>
</table>
Lamar University
Hardware Configuration

<table>
<thead>
<tr>
<th>Product</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle Tier Servers</td>
<td>2 Quad Core (8vCPUs)</td>
</tr>
<tr>
<td>CPU and memory</td>
<td>16 GB RAM</td>
</tr>
<tr>
<td>Middle Tier Servers</td>
<td>RH Linux 6 on VMWare</td>
</tr>
<tr>
<td>Platform</td>
<td></td>
</tr>
<tr>
<td>Middle Tier Servers</td>
<td>Oracle WebLogic 10.3.6</td>
</tr>
<tr>
<td>Software</td>
<td>2 servers, load-balanced</td>
</tr>
<tr>
<td>Database hardware/software</td>
<td>no change (2 Node RAC database)</td>
</tr>
</tbody>
</table>

Decide on Application Servers
Weblogic or Tomcat?

<table>
<thead>
<tr>
<th>Weblogic</th>
<th>Tomcat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing, supported, robust,</td>
<td>Open source</td>
</tr>
<tr>
<td>but pricey</td>
<td></td>
</tr>
<tr>
<td>Obfuscated passwords</td>
<td>Clear text configuration files</td>
</tr>
<tr>
<td>Multiple managed servers per</td>
<td>Multiple instances of tomcat</td>
</tr>
<tr>
<td>VM</td>
<td></td>
</tr>
</tbody>
</table>

Similar memory requirements.
The application is using the memory
Job Submission Change
Oracle Wallet

- Oracle Wallet is a requirement for Banner 9 Job Submission
- Oracle Wallet supports communication with Job Submission through a proxy user
- Banner General 8.8 delivers this change
- JobSub is accessed through the Application Navigator
- “Authorize banjsproxy” for INB users

**Tip:** Modify all third party scripts with passwords

Does your institution have customizations or modifications in your existing Banner environment?

https://banner9guide.ellucian.com/
Single Sign-on for Banner 9 Administrative Pages

- Single Sign-on is a requirement for Banner 9 Admin Pages
- SSO is a process that allows a user to securely access multiple systems with a single login, without repeated requests for login
- Banner 9 supports a claims-based authentication based on UDCIdentifier
UDC Identifier

- A global unique identifier, GUID, assigned to each user

- UDCID is an unchanging, system-generated, 32-character, alphanumeric value

  `<UDCIdentifier>36BE6D6D18560C44E0440003BA33B440</UDCIdentifier>`

- The UDCID identifies a user whenever access to protected resources is requested

- UDCID has to be stored in two places:
  1. Banner database
  2. User Data store (Active Directory, LDAP ...)

Identity Mapping

1. **UDCID in Banner database**
   
   Generate and store the UDC_IDENTIFIER for Banner persons in Banner Database

   ![Diagram](https://via.placeholder.com/150)

   - SPRIDEN
   - ID
   - PIDM

   - GOBUMAP
   - UDCID
   - PIDM

   - AD

2. **UDCID in Active Directory**

   Populate Active Directory with UDC_IDENTIFIERs
   
   - **Initial load** - all INB users
   - **ongoing process** – new Banner 9 users

   **Tools for these two processes** (generate and populate AD):
   
   - BEIS Identity Export Utilities or
   - Custom scripts provided by Ellucian
Single Sign On Identity Providers for Banner 9 Admin Pages

Banner 9 is CAS and SAML2 compliant

Single Sign On Identity Providers which support CAS or SAML2:
- EIS or Ellucian Ethos Identity
- CAS
- Shibboleth
- ADFS
- Okta
and other SSO Identity Providers (CAS or SAML2)

Single Sign-on configuration for Banner 9 Administrative Pages

Single Sign-on two part configuration:

1. Identity Provider configuration (EIS, CAS)

2. Web Applications configuration
   - Application Navigator
   - Banner Admin Common
1. Single Sign-on for Banner 9
Identity Provider Configuration

EIS/CAS needs to know the Banner 9 application URLs protected for SSO

a) Add CAS service definition for each Banner 9 application to CAS/EIS page for authorization

```
https://b9-host1:7010/applicationNavigator
https://b9-host1:7020/BannerAdmin
```

b) The service definition must have

- `UDC_IDENTIFIER`
- Extension Attribute field (matching AD)

**Tip**: The URLs are in Banner table general.GUBMODU

2. Single Sign-on for Banner 9
Web Applications Configuration

**Application Navigator**
```
applicationNavigator_configuration.groovy
```
CAS Configuration section

**Banner Admin**
```
config.properties
```
Single Sign On section

Authentication Provider - CAS or SAML

Authentication assertion attribute - `UDC_IDENTIFIER`

EIS/CAS server URL - ex. `https://eis-server.edu:port/cas`
Single Sign-on for Banner 9
Banner Security

- All INB user needs to be added on GSASECR form in INB (if not already)

- Users must be authorized to log on to Banner as user BANPROXY

GSASECR form

- Authorize BANPROXY
- Authorize BANJPROXY

or

grant connect through banproxy

1. Banner 9 Admin Pages - overview
2. Single Sign-on for Banner 9 Admin Pages
3. Ellucian Solution Manager (ESM)
4. Application Navigator and Banner 9 Admin configuration
5. Wrap up and Q & A
What is Ellucian Solution Manager (ESM)?

ESM is the future of keeping your Banner current!

- ESM is an application for managing the environments and the software received from Ellucian
- ESM is a requirement for Banner 9 Administrative Applications
- Everything you do manually today to keep your Banner current, is automated with ESM

Ellucian Solution Manager

- There is no license fee to download, install and use ESM
- You could configure all Banner environments in one instance of ESM. (We have 12 environments, configured in ESM)
- ESM only downloads licensed products
- Why you need ESM?
  Use ESM to:
  install all Banner 9 prerequisite releases and deploy Banner 9 related web applications
Lamar University LOVES ESM

2 years ago …

<table>
<thead>
<tr>
<th>Upgrade</th>
<th>Manual</th>
<th>Automated</th>
</tr>
</thead>
<tbody>
<tr>
<td>tas80500u</td>
<td>3 hours</td>
<td>11.5 min**</td>
</tr>
<tr>
<td>res82300u</td>
<td>2.5 hours</td>
<td>20 minu.</td>
</tr>
<tr>
<td>pay81103u</td>
<td>2 hours</td>
<td>5 minutes</td>
</tr>
<tr>
<td>pay81104u</td>
<td>2.5 hours</td>
<td>5 minutes</td>
</tr>
<tr>
<td>pos81101u</td>
<td>3 hours</td>
<td>5 minutes</td>
</tr>
<tr>
<td>bwp81102u</td>
<td>2.5 hours</td>
<td>10 minutes</td>
</tr>
<tr>
<td>bwp80700u</td>
<td>2 hours</td>
<td>3 minutes</td>
</tr>
</tbody>
</table>

Saved time over 15 hours... per school

Lamar University still LOVES ESM today…

...
Three main functions of ESM

1. Automates Banner patching and upgrading process

2. Automates Banner web applications deployment

3. Template driven provisioning of new servers (VMs)

Leverage ESM for the Banner patching process

- Automatically downloads Banner releases in all environments

- ESM keeps track of the Banner releases (installed with ESM or manually)

- Shows the latest installed and the latest available version of all products in every environment configured in ESM

- Determines dependencies for uninstalled upgrades
Leverage ESM for the Banner patching process (cont’d)

- Installs multiple upgrades with the same upgrade job
- Installs user-selected Banner upgrades, including the prerequisites
- Automated installation goes through the same steps as the manual process
- ESM produces detailed log files
- You can access and download the release documentation any time

Leverage ESM for the Banner web application deployments

- Automatically deploys web applications (Banner 9 Admin and SSB)
- Automated deployments go through the same steps as the manual deployments
- ESM produces and keeps detailed log files of the deployment steps
- ESM keeps a history of deployed web applications
- You can deploy a new web application, or redeploy an existing from ESM
Leverage ESM to provision new servers/VMs

- Provision new servers and VMs using templates
- ESM automatically downloads the provisioning templates
- ESM keeps the provisioning templates
- Access or download the provisioning documentation any time

ESM takes care of itself

- ESM is self-upgradable
- ESM automatically downloads its own upgrades
- Upgrade ESM with a click of a button

For more information on ESM

98781- Lamar University shares why Ellucian Solution Manager is your new best friend

3/22/17 (Wednesday) 11:15 AM
1 Banner 9 Admin Pages overview
2 Single Sign-on for Banner 9 Admin Pages
3 Ellucian Solution Manager (ESM)
4 Application Navigator and Banner 9 Admin configuration
5 Wrap up and Q & A

Application Navigator
- Provides a single interface and navigation functions for Banner 9 Administrative applications
- It is a requirement for Banner 9 Admin Pages
**Application Navigator**

**Building the menu for Banner 9**

- **GUAPAGE**
  - AppNav menu
  - Information listed

- **GUAOBS**
  - AppNav menu
  - Information listed

**Configuration files:**

- **Shared configuration file** - `banner_configuration.groovy`
  - Administrative User DataSource – connection to the database
  - Online help
  - Transaction timeout

- **Application Navigator configuration file** - `applicationNavigator_configuration.groovy`
  - Application Navigator Display Name – (University Name)
  - Single Sign-on and UDCID
  - Session Timeout

- **Banner Admin Common configuration file** - `config.properties`
  - DB connection
  - Single Sign-on and UDCID
  - Logging settings

---

**Banner 9 Admin Pages and Application Navigator Configuration**

Configuration files:

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- **Banner Admin Common configuration file** - `config.properties`
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  - Single Sign-on and UDCID
  - Logging settings
Before deploying, make sure:

- Banner prerequisites, patches and upgrades are installed with ESM
- Configuration files completed
- Only two applications to deploy:
  - Application Navigator 2.x
  - Banner Admin Common 9.3.x

Banner 9 Admin Applications Navigation

1. Log in to your Identity provider (EIS/CAS) using a valid user name and password.
2. Access Application Navigator
3. Navigate to any Banner 9 Admin page without being prompted for a second login.
Banner 9 Administrative Pages

What we covered

- Single Sign On
  For Banner 9
- Application Navigator
- Banner 9
  Administrative Pages
- Oracle Database
- Ellucian Solution Manager (ESM)

How to introduce Banner 9 to the users?

Banner 9 is an IT project, not a Functional project
New look and feel - No functionality changes

- Communication
  - Power users / decision makers need to be involved early
  - Functional users – Ready to work with the Banner users on campus
  - Technical people – involved during the whole process

- Orientation and testing
  - Market the go-live date for each major office on campus
  - Functional users work with the Banner users
  - Exercise the applications in ways that are normal for the functional users
  - Test normal business processes. Again, no functional changes
Questions & answers

Session ID 98843

#ellive17

98843 - Getting to know Banner Administrative Applications (9.x)
3/21/17 (Tuesday) 10:00 AM

98781 - Lamar University shares why Ellucian Solution Manager is your new best friend
3/22/17 (Wednesday) 11:15 AM

Summary

- Establish Single Sign-On
- Get ESM ready to apply required Banner upgrades and deployments
- Determine hardware and software needs for middle-tier servers (Decide WebLogic or Tomcat)
- Get current, stay current – with Banner releases
- Configure and Deploy Application Navigator and Banner 9 Admin Common
- Orientation plans ready – communicate with your users
- Ellucian Support – If help is needed, check with Action Line
Thank you

We want to hear from you—feedback survey
Access session surveys by using the survey widget on the mobile app or by logging into your session schedule builder.

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vesna@lamar.edu

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