



Stoneware™ Inc.

Blackboard Integration

Stoneware, Inc.

Configuration Sheet

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Introduction

This document provides the information necessary to secure and provide single sign-on for Blackboard Learning Systems (Release 6) from Blackboard, Inc.

Objectives

- Secure the Blackboard System through a HOST and Web Application object.
- Create a single sign-on form for Blackboard Learning Systems.

Requirements

- webNetwork 4.0e with HotFix2e installed

Steps for creating a Blackboard Web Application and Host

1. Login to the webNetwork as a webNetwork administrator
2. Start webAdmin
3. Browse and EXPAND the Stoneware container (organizational unit)
4. Create a HOST object
 - a. Select the CREATE a NEW OBJECT panel from the left frame
 - b. Select HOST from the list of objects
 - c. Select the NEXT button
 - d. Enter an object name for the inbox (i.e. – Blackboard Server)
 - e. Select the NEXT button (object is created)
 - f. Select the CLOSE button
5. Enter the HOST object properties
 - a. Enter the HOST address (enter the **IP address** of the Blackboard Server on the internal network).

- b. Enter the HOST port (enter port that the Blackboard Server is using to communicate – **80** or 443)
6. Select the SAVE button
7. Create a Web Application for the Blackboard Server
 - a. Select the CREATE a NEW OBJECT panel from the left frame
 - b. Select WEB APPLICATION from the list of objects
 - c. Select the NEXT button
 - d. Enter an object name for the Blackboard Application (i.e. – **Blackboard v6**)
 - e. Select the NEXT button (object is created)
 - f. Select the CLOSE button
8. Enter the Web Application PROPERTIES
 - a. Web Application Type – **HTTP/HTTPS Virtual Server**
 - b. DNS Name – **blackboard.stone-ware.com**
 - i. **** This should be the DNS name of the Blackboard Server, however, it should resolve to the IP address of the webNetwork Relay. Browser clients will see the Relay as the Blackboard server.*
 - c. Assigned HOSTS – browse and select the Blackboard **HOST** object created in the earlier steps (i.e. – Blackboard Server)
 - d. Assigned Relays – browse and select the webNetwork Relay or Relays that should provide access to the Blackboard application.
 - e. Startup URL – enter the URL to launch the Blackboard login page (i.e. - **/webapps/login**)
9. Select the NEXT button
10. Select the NEXT button to skip the OPTIONS screen
11. Select the NEXT button to skip the AUTHENTICATION screen
12. Select the NEXT button to skip the RULES ENGINE screen
13. Enter the Information to create a Blackboard LINK for end users
 - a. Enter a LINK name (i.e. – **Blackboard**)
 - b. Check the NEW WINDOWS box
 - c. Press the SELECT button next to LINK MENU box to designate a menu in which to create the new link – Select OK when finished.
 - d. Press the SELECT button next to the ASSIGN USERS box to designate the webNetwork users that will have access to the Blackbox application.
14. Select the DONE button to complete the wizard
15. Wait 1 minute for the Blackboard Web Application to load

16. Test the new Blackboard application
 - a. Login as a user that has been granted access to the Blackboard application
 - b. Select the Blackboard link located under the selected menu.
 - c. Verify that the Blackboard login page appears in the new window.

Steps for Creating a Single Sign-on Form

Once the Blackboard application has been configured and is working through the webNetwork Relay you are ready to create a single sign-on form to provide users with seamless access to the Blackboard application through the webNetwork system.

1. Login to the webNetwork as a webNetwork administrator
2. Start webAdmin
3. Browse and EXPAND the webNetwork Default Relay configuration object or any of your Relay Configuration objects.
4. Create a FORM object
 - a. Select the CREATE a NEW OBJECT panel from the left frame
 - b. Select FORM from the list of objects
 - c. Select the NEXT button
 - d. Enter an object name for the inbox (i.e. – **Blackboard Form**)
 - e. Select the NEXT button (object is created)
 - f. Select the CLOSE button
5. Enter the form PROPERTIES
 - a. Form Name - **login**
 - b. Form URL - **/webapps/login**
 - c. Form ACTION - **/webapps/login**
 - d. Form METHOD – **POST**
 - e. Form INPUTS
 - i. **user_id = @@typelessuserid@@**
 - ii. **ecoded_pw = @@base64encode(password)@@**
 1. **** This will encode the user's password in Base 64 encoding before sending it to the Blackboard system (a requirement of Blackboard)*

2. You can pass other Lockbox or Stoneware variables to the Blackboard system if the user's login credentials do not match their Blackboard credentials (see Lockbox or Stoneware Variables)
6. Select the SAVE button to update the new form
7. Browse and Select the Blackboard Web Application object
8. Select the AUTHENTICATION panel from the dropdown panel list at the top of the right frame in webAdmin.
9. Select the ADD button next to the FORM section of the page.
10. Browse and select the form object created in the steps above.
11. Select the OK button once you have found the form.
12. Select the SAVE button to update the Blackboard v6 web application.
13. Wait for the webNetwork Relay to reload the form changes (1 min).
14. Test the new Blackboard application
 - a. Login as a user that has been granted access to the Blackboard application
 - b. Select the Blackboard link located under the selected menu.
 - c. Verify that the Blackboard login page appears in the new window and the user has been signed on.