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# stoneware, inc.

Stoneware™ Inc.

Moodle Integration

*Stoneware, Inc.*

*webNetwork 5e*

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## Overview

This document will describe how to secure and integrate a Moodle 1.7.1 server into a webNetwork 5 environment. The document will provide two separate ways to integrate the Moodle server into the system based on a secure/non-secure configuration.

## Secure-Mode Integration

Secure mode integration will integrate the Moodle server behind the webNetwork System when the Moodle Server configured to communicate over both HTTPS (443) and HTTP (80) protocols. The steps below will outline how to configure the Moodle server and the webNetwork web application:

### Moodle Server

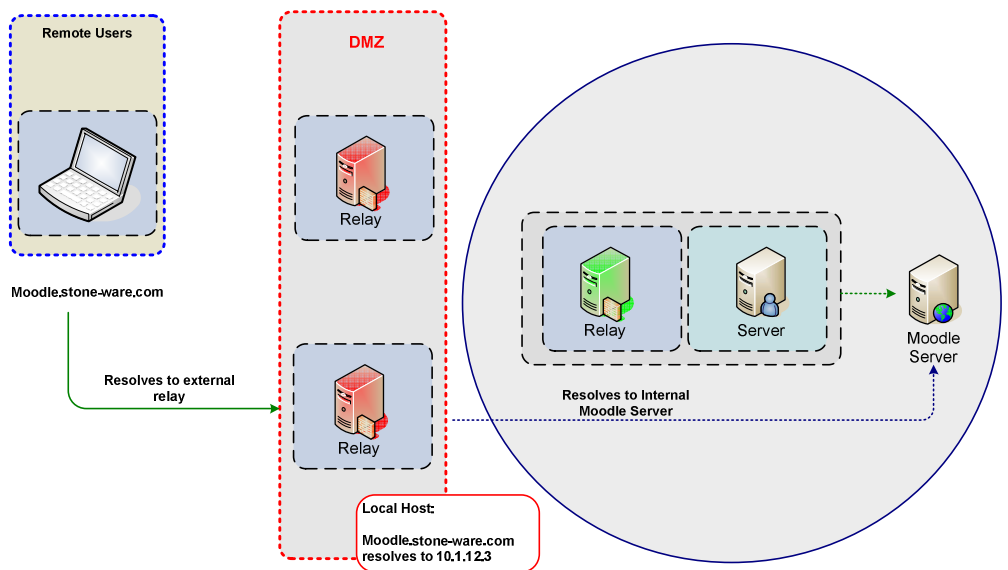
1. Enable the Moodle Server to listen on both ports 443 and 80
2. Modify the config.php file found in the root of the Moodle directory
  - a. Change `$CFG->wwwroot = 'https://[moodle server]/moodle'`

*\*Note - The [moodle server] will be the same as the virtual DNS name assigned to the web application described later in this document*
3. Restart the Moodle Server

### DNS

DNS will need to resolve properly for the Moodle integration to work. DNS entries should resolve the end user DNS queries back to the webNetwork Relay (not the moodle server). Use a local host entry on

the webNetwork Server/Relay to resolve the Moodle DNS name back to the actual internal server.



## webNetwork System

1. Login to the webNetwork System as an ADMIN user
2. Open the webAdmin Dashboard under the ADMIN menu
3. Expand the WEB APPLICATIONS ADMIN folder
4. Right-Click and select the CREATE VIRTUAL WEB SERVER
5. Enter MOODLE as the name of the new web application
6. Select the NEXT button
7. Select USE DEFAULT CONTEXT and select the NEXT button to continue
8. Enter the HOST ADDRESS of the internal Moodle server
  - a. This can be the internal DNS name or the internal IP address of the Moodle Server
9. Select the NEXT button to continue
10. Enter **443** for the PORT NUMBER of the Moodle Server
11. Check the INTERNAL SERVER USES SSL
  - a. The webNetwork System will communicate over SSL to the internal Moodle Server. This will eliminate any SSL to non-SSL protocol changes.
12. Select the NEXT button
13. Enter the Virtual DNS Name of the Moodle Server
  - a. This is a DNS name that will be assigned to the webNetwork Relay that will reference the moodle web application. *Example:* moodle.stone-ware.com . This DNS name should resolve to the relay's IP address and not the actual Moodle Server.
14. Select the NEXT button to continue
15. Enter the STARTUP URL for the Moodle Server of **/moodle/login**
16. Select the NEXT button to continue
17. Press the SELECT button to browse and select a menu where the Moodle link will be created
18. Select the NEXT button to continue
19. Press the SELECT button to browse and assign users that will have access to the Moodle application through the webNetwork System.
20. Select the NEXT button to continue
21. The status screen should be displayed. Select the DONE button.

The Moodle application will be automatically configured and loaded. Login with an account that has been granted access to the Moodle application and test the configuration.

## Port 80-Mode Integration

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Port 80 mode integration will integrate the Moodle server behind the webNetwork System when the Moodle Server configured to communicate over the HTTP (80) protocol. The steps below will outline how to configure the Moodle server and the webNetwork web application:

### Moodle Server

1. Enable the Moodle Server to listen on port 80
2. Modify the config.php file found in the root of the Moodle directory
  - a. Change `$CFG->wwwroot = 'https://[moodle server]/moodle'`
3. In the ***moodle/lib/weblib.php*** file replace the section of code displayed below:

```
if (isset($_SERVER['HTTPS'])) {
    $protocol = ($_SERVER['HTTPS'] == 'on') ? 'https://' : 'http://';
} else if (isset($_SERVER['SERVER_PORT'])) { # Apache2 does not export
$_SERVER['HTTPS']
    $protocol = ($_SERVER['SERVER_PORT'] == '443') ? 'https://' : 'http://';
} else {
    $protocol = 'http://';
}
```

***with the code below:***

```
if (isset($_SERVER['HTTPS'])) {
    $protocol = 'https://';
} else if (strncmp($CFG->wwwroot, 'https', 5) == 0) {
    $protocol = 'https://';
} else {
    $protocol = 'http://';
}
```

4. Save the changes
5. Restart the Moodle Server

## webNetwork System

6. Login to the webNetwork System as an ADMIN user
7. Open the webAdmin Dashboard under the ADMIN menu
8. Expand the WEB APPLICATIONS ADMIN folder
9. Right-Click and select the CREATE VIRTUAL WEB SERVER
10. Enter MOODLE as the name of the new web application
11. Select the NEXT button
12. Select USE DEFAULT CONTEXT and select the NEXT button to continue
13. Enter the HOST ADDRESS of the internal Moodle server
  - a. This can be the internal DNS name or the internal IP address of the Moodle Server
14. Select the NEXT button to continue
15. Enter **80** for the PORT NUMBER of the Moodle Server
16. Select the NEXT button
17. Enter the Virtual DNS Name of the Moodle Server
  - a. This is a DNS name that will be assigned to the webNetwork Relay that will reference the moodle web application. Example : moodle.stone-ware.com . This DNS name should resolve to the relay's IP address and not the actual Moodle Server.
18. Select the NEXT button to continue
19. Enter the STARTUP URL for the Moodle Server of **/moodle/login**
20. Select the NEXT button to continue
21. Press the SELECT button to browse and select a menu where the Moodle link will be created
22. Select the NEXT button to continue
23. Press the SELECT button to browse and assign users that will have access to the Moodle application through the webNetwork System.
24. Select the NEXT button to continue
25. The status screen should be displayed. Select the DONE button.

The Moodle application will be automatically configured and loaded. Login with an account that has been granted access to the Moodle application and test the configuration.

## Single Sign-on

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This section of the document will describe how to configure single sign-on from the webNetwork System to the Moodle server:

Single Sign-on to Moodle can be accomplished by using LDAP Authentication. An SSO form will be created that passes the webNetwork username and password to Moodle LDAP login. Accounts can be created in Moodle by way of LDAP login. When a user authenticates for the first time an account will be created for that user in Moodle. The LDAP agent can be used to assign a role to a user (course creator, teacher, student, and guest). Please refer to Moodle documentation for this process.

1. Login to the webNetwork System as an ADMIN user
2. Start the webAdmin Dashboard located under the ADMIN menu
3. Expand the WEB APPLICATIONS ADMIN folder
4. Right-Click the WEB APPLICATIONS ADMIN folder and select CREATE FORM
5. Enter a form name of MOODLE-SSO-FORM
6. Select the NEXT button
7. Select the CLOSE button
8. Enter the Properties for the MOODLE Single Sign-on form
  - a. **Form Type** - CLIENT
  - b. **Form Name** - login
  - c. **Form Trigger** - /moodle/login/
  - d. **Form Method** - POST
  - e. **Form Inputs**
    - i. Name = **username** | Value = **@@typelessuserid@@**
    - ii. Name = **password** | Value = **@@password@@**
    - iii. Name = **Login** | Value = **Login**
    - iv. Name = **testcookies** | Value = **1**
9. Select the SAVE button
10. Copy the contents of the FORM TRIGGER and paste it into the STARTUP URL of the MOODLE web application (MOODLE-WEBAPP)
  - a. Expand the WEB APPLICATIONS ADMIN folder
  - b. Select the MOODLE-WEBAPP
  - c. In the STARTUP URL section add /moodle/login as the value

*\*Note - if the form wizard was used to create the Moodle SSO login form, this step will be completed automatically by the wizard*

11. Select the OPTIONS panel from the dropdown list
12. Set DISABLE in the HOST AUTHORITY section
13. Select the AUTHENTICATION panel from the dropdown panel
14. Select the ADD button and locate the MOODLE-FORM under the webNetwork Relay
15. Select the OK button when complete
16. Select the SAVE button to apply changes to the Moodle web application
17. Test the single sign-on process with an account that has already been created in the Moodle server.