Integrated Authentication Configuration Instructions For Virtual EMS

EMS Workplace 7.0
EMS Campus 4.0
EMS Enterprise 7.0
EMS Legal 7.0
EMS District 7.0
EMS Professional 13.0

Dean Evans & Associates, Inc.
Integrated Authentication
Configuration Instructions
For Virtual EMS

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Introduction

The Integrated Authentication module is a component for Virtual EMS that provides single-sign-on capability using Integrated Windows Authentication, your organization's portal, or LDAP. This document lists the steps you must take to configure these Integrated Authentication options for Virtual EMS. If you are unsure whether your organization is licensed for Integrated Authentication or you would like to learn more about it, please contact your Account Executive.

Note: For information on how to enable Integrated Authentication for the EMS Web Client or the Campus Planning Interface, please see the Integrated Configuration Instructions for the EMS Web Client document.

Customer Support

Unlimited toll-free customer support is available to EMS users who have a current Annual Service Agreement (ASA). If you are unable to resolve a problem or answer a question by reading the EMS documentation, contact us at:

Email: support@dea.com
Web: www.dea.com
Phone: (800) 288-4565
Fax: (303) 796-7429

Managing Web Users

In order to make a reservation in Virtual EMS, a user must have an active Web User account with appropriate room request privileges. Several options exist to create Web User accounts within EMS.

New Web User Accounts

Manual Creation

Web User accounts can be created manually by EMS Administrators within EMS or by anonymous Web Users on Virtual EMS themselves. For information on how to create Web User accounts in EMS or how to configure Virtual EMS to allow anonymous Web Users to request an account, please refer to the EMS Setup Guide.

Important: When manually creating a Web User account in an Integrated Authentication environment, you must specify a value in the Web User Network ID field or the External Reference field. The Field Used to Authenticate Web User Virtual EMS Parameter (within System Administration > Settings > Parameters (Virtual tab)) is used by Virtual EMS to determine which value should be used for authentication.

HR Toolkit (for EMS Workplace, EMS Campus, EMS Enterprise, EMS District and EMS Legal only)

The HR Toolkit is an optional component that allows you to automate the creation and maintenance of Web User records in EMS using an outside employee data source like your HR system or another data store within your organization. Please refer to the HR Toolkit Installation Instructions for information. If you are not licensed for the HR Toolkit, but would like to learn more about it, please contact your Account Executive.
Automatic Web User Account Creation

Various configuration settings are available to automatically create Web User records (and assign the appropriate Web Process Template(s) if applicable) when a user hits your Virtual EMS site for the first time. Within the Virtual EMS Parameters area of EMS (System Administration > Settings > Parameters (Virtual tab)), the following parameters must be set accordingly:

<table>
<thead>
<tr>
<th>Area</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Account Management</td>
<td>Auto Create Web User Account (for Integrated Authentication)</td>
<td>Yes</td>
</tr>
<tr>
<td>Account Management</td>
<td>Default Security Template for User</td>
<td>Must be specified</td>
</tr>
<tr>
<td>Account Management</td>
<td>Security Status for User</td>
<td>Active</td>
</tr>
</tbody>
</table>

EMS Workplace, EMS Campus, EMS Enterprise, EMS District, and EMS Legal customers are also able to assign default Web Process Templates when a new Web User account is created. To automatically assign a Web Process Template to new Web Users, select the Available to New Web Users option within your Web Process Template(s) (Configuration > Web > Web Process Templates).

In EMS Professional, the Default Security Template for User parameter shown above is used to assign the correct Web Process Template to new Web User records.

EMS customers using the LDAP Authentication method can use an alternate method to assign a Web Process Template to a Web User based on the LDAP Group(s) that that user belongs to. This approach can be used in addition to or in lieu of the Web Process Template assignment approach discussed above. Please see the LDAP Authentication section below for configuration instructions.

Existing Web User Accounts

Warning for Existing EMS Customers: Before activating any Integrated Authentication option, the Network ID field or External Reference field must be populated on all existing Web User records. Ignoring this step may result in duplicate Web User records.

Integrated Windows Authentication

Overview

Integrated Windows Authentication (IWA) is a built-in Microsoft Internet Information Services (IIS) authentication protocol that can be used to automatically authenticate and sign-in a user to Virtual EMS. Integrated Windows Authentication works only with Internet Explorer and is best used on intranets where all clients accessing Virtual EMS are within a single domain. For more information, please review the following Microsoft TechNet article on IWA.

When a domain user logged onto a networked PC hits the Virtual EMS site, their Active Directory credentials (Domain\User ID) are compared against corresponding Domain\User ID information recorded in the Network ID and/or External Reference fields of your EMS Web User records. If a match exists, the Web User will be automatically logged-into Virtual EMS.

Note: The Field Used to Authenticate Web User Virtual EMS Parameter (within System Administration > Settings > Parameters (Virtual tab)) is used by Virtual EMS to determine which value should be used for authentication.
Activating Integrated Windows Authentication for IIS 6.0

1. On the web server that hosts your Virtual EMS site, open IIS Manager.
2. Locate your Virtual EMS website.

3. Right-click your Virtual EMS site and choose Properties. The Properties screen will open.
4. Go to the Directory Security tab and click the Edit button under the Authentication and access control section. The Authentication Methods screen will open.
5. Uncheck the Enable anonymous access option. The Integrated Windows authentication option should be the only option checked.

6. Click OK to exit the Authentication Methods screen. Click OK again to exit the Properties screen. You have completed the necessary IIS configuration steps for IIS 6.0.

Activating Integrated Windows Authentication for IIS 7

1. On the web server that hosts your Virtual EMS site, open IIS Manager.
2. Locate and highlight your Virtual EMS website.
3. Double-click the **Authentication** option in the **IIS** section.

4. Right-click the **Windows Authentication** option and select **Enable**.
5. Right-click the **Anonymous Authentication** option and select **Disable**.
6. You have completed the necessary IIS configuration steps for IIS 7.

**LDAP Authentication**

**Overview**
Lightweight Directory Access Protocol (LDAP) is an application protocol for querying directory information. The LDAP Authentication method provides single-sign-on capability using your organization's LDAP environment and can be used in both intranet and internet deployments of Virtual EMS.
When a user logs-into Virtual EMS with their User ID and Password, their credentials are authenticated against LDAP and compared against corresponding user information recorded in the Network ID and/or External Reference fields of your EMS Web User records. If a match exists, the Web User will be logged-into Virtual EMS inheriting any Web Process Template rights that their LDAP Group has been assigned to.

**Note:** The Virtual EMS LDAP-Web Process Template assignment process requires that your implementation of LDAP stores group information (e.g. staff, student, department, etc.) as a Directory Service object containing a property (i.e. member) that contains the users that belong to your various groups.

**Note:** The **Field Used to Authenticate Web User** Virtual EMS Parameter (within System Administration > Settings > Parameters (Virtual tab)) is used by Virtual EMS to determine which value should be used for authentication.

**Configuration**

1. Log-into Virtual EMS with a Web User that belongs to a Web Security Template containing the Web Administrator role (Configuration > Web > Web Security Templates).
2. Redirect your browser to:
   
   http://[ServerName]/VirtualEMS/LDAPConfiguration.aspx (replace [ServerName] with the name of your web server)

4. Select the **Authenticate users via LDAP** checkbox to enable LDAP authentication.
5. Select the **Use LDAP to assign Process Templates** checkbox if LDAP will be used to assign Web Process Templates to your Web Users.
6. **Use advanced communication options:** Skip this step for Active Directory environments. Enabling this checkbox requires that you complete the settings on the **Communication Options** tab.

7. In the **Path for LDAP Query** field, specify a valid LDAP path (example – LDAP://YourCompany.com)

8. **List of Domains:** Skip this step if your organization uses a single domain. Otherwise, provide a comma separated list of your domains.

9. In the **LDAP Domain\User** field, enter a Domain User account that has rights to query LDAP (example – YourDomain\User)

10. In the **Password** field, enter a valid Password for the User Account entered in the previous step.

11. Specify the appropriate LDAP **Authentication Type** for your environment.

   **Note:** The other tabs (**Communication Options**, **Core Properties**, **Non-AD Config** and **LDAP Queries**) should only be edited with assistance from our Support Department when special circumstances arise with unique configurations of LDAP.

12. Click **Save**.

   **Note:** If you want Web Users to inherit Web Process Templates based on the LDAP Group(s) they belong to, proceed to Step #13. Otherwise, you have completed the configuration process.

13. Within EMS, go to the Web Process Templates area (**Configuration** > **Web** > **Web Process Templates**).

14. Within a Web Process Template, locate the **LDAP Groups** tab and map the appropriate LDAP Group(s) to that Web Process Template.

15. Click **OK**.

**Portal Authentication**

**Overview**

The Portal Authentication method provides Virtual EMS single sign-on capability using your organization's portal (e.g. SiteMinder, Plumtree, uPortal, etc.). When a user logged into your portal accesses Virtual EMS, a predefined user-specific variable (e.g. email address, employee/student ID, network ID, etc.) captured by your portal/sign-on page is compared against corresponding information recorded in the **Network ID and/or External Reference** fields of your EMS Web User records. If a match exists, the Web User will be automatically logged-into Virtual EMS.

**Note:** The **Field Used to Authenticate Web User** Virtual EMS Parameter (within **System Administration** > **Settings** > **Parameters (Virtual tab)**) is used by Virtual EMS to determine which value should be used for authentication.

Several built-in authentication methods to pass-in credentials are available including:

- Server Variable (Header Variable)
- Session
- Form
- Cookie
- Query String

For a more detailed explanation of the authentication methods outlined above, please see the **Appendix**.
**Installation/Configuration**

1. Within the Virtual EMS Parameters area of EMS (System Administration > Settings > Parameters (Virtual tab)), the following parameters must be set accordingly:

<table>
<thead>
<tr>
<th>Area</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authentication</td>
<td>Portal Authentication Cookie Key</td>
<td>Required if Portal Authentication Method = Cookie</td>
</tr>
<tr>
<td>Authentication</td>
<td>Portal Authentication Method</td>
<td>Server Variable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Session</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Form</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cookie</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Query String</td>
</tr>
<tr>
<td>Authentication</td>
<td>Portal Authentication Variable</td>
<td>User variable to be compared against the EMS Web User External Reference/Network ID field</td>
</tr>
</tbody>
</table>

2. Direct users to the default Virtual EMS page:

(http://[ServerName]/VirtualEMS/Default.aspx) (replace [ServerName] with the name of your web server)

**Appendix**

**Portal Authentication Methods**

**Server Variable Method (Header Variable)**

Server Variable/Header Variable is a collection of variables that are set by Internet Information Server (IIS). Applications like SiteMinder create custom server variables for portal site use.

**Code example:**

Set the Portal Authentication Method parameter to Server Variable and type the appropriate variable for the Portal Authentication Variable parameter. Direct users to your Virtual EMS Default.aspx page.

**Session Method**

A session is a way to provide/maintain user state information in an inherently stateless environment. It provides access to a session-wide cache you can use to store information.

In order to use the session method, set the Portal Authentication Method parameter to Session and type the appropriate variable for the Portal Authentication Variable parameter. Then you must create an asp.net web page and name it with the .aspx extension similar to the example below. The asp.net web page created must be copied into the Virtual EMS root web directory. It must be copied there in order for Virtual EMS to read the session variable.

You will need to pass through the user’s email address or external reference to your asp.net web page.
Integrated Authentication Configuration Instructions for Virtual EMS

**Code example in vb.net:**
```vbnet
<%@ Import Namespace="System" %>
<script runat="server" language="vb">
    Sub Page_Load(ByVal sender As System.Object, ByVal e As System.EventArgs)
        Session.Item("VEMSSession") = "test@dea.com"
        Response.Redirect("Default.aspx")
    End Sub
</script>
```

**Form Method**

Forms enable client-side users to submit data to a server in a standardized format via HTML. The creator of a form designs the form to collect the required data using a variety of controls, such as INPUT or SELECT. Users viewing the form fill in the data and then click Submit to send the data to the server.

To use the form method, set the **Portal Authentication Method** parameter to **Form** and type the appropriate variable for the **Portal Authentication Variable** parameter. To create portals through a form, create a web page with a form similar to below. Once the user logs on through the portal, the form below can be submitted to log the user on to Virtual EMS.

**Code example in HTML:**
```html
<Form name="form1" method="Post" action="http://[ServerName]/VirtualEMS/Default.aspx">
    <input type="hidden" id="VEMSFORM" name="VEMSFORM" value="test@dea.com">
    <input type="submit" value="submit">
</Form>
```

**Cookie Method**

A cookie is a small piece of information stored by the browser. Each cookie is stored in a name/value pair called a crumb—that is, if the cookie name is "id" and you want to save the id's value as "this", the cookie would be saved as id=thi.

You can store up to 20 name/value pairs in a cookie, and the cookie is always returned as a string of all the cookies that apply to the page. This means that you must parse the string returned to find the values of individual cookies. Cookies accumulate each time the property is set. If you try to set more than one cookie with a single call to the property, only the first cookie in the list will be retained.

To use the cookie method, set the **Portal Authentication Method** parameter to **Cookie** and type the appropriate variable for the **Portal Authentication Cookie Key** parameter. Then create a web page with code similar to below. Once the user logs on through the portal, take their user logon information and create a cookie. After the cookie is created send the user to your Virtual EMS Default.aspx page.

**Code example in Active Server Pages 2.0:**
```vbnet
<%@LANGUAGE="VBSCRIPT" %>
<%
    Response.Expires = -1
    Response.Cookies("VEMSCookie")("CookVal") = "test@dea.com"
    Response.Cookies("VEMSCookie").Path = "/"
    Response.Cookies("VEMSCookie").Expires = DateAdd("m", 3, Now)
    Response.Redirect("http://[ServerName]/VirtualEMS/Default.aspx")
%>
```
**Query String Method**

A query string is information appended to the end of a page’s URL. An example using portal authentication is below

**Code example:**

http://[ServerName]/VirtualEMS/Default.aspx?MCQS=test@dea.com

To use the query string method, set the **Portal Authentication Method** parameter to *Query String* and type the appropriate variable for the **Portal Authentication Variable** parameter.