



Custom Authentication Form

Technical Note

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1 Introduction

With Kemp's Edge Security Pack (ESP), it is possible to specify how clients, which are connecting to the LoadMaster, are authenticated. One of the options is **Form Based** authentication. When this option is selected, clients must enter their user details within a form to be authenticated on the LoadMaster.

When **Form Based** authentication is enabled, it is possible to customize the login form that the user sees.

For more information on ESP, and the various methods of authentication, refer to the [ESP, Feature Description](#).

1.1 Document Purpose

This document describes how to customize the login form when **Form Based** authentication is selected as the **Client Authentication mode**.

1.2 Intended Audience

This document is intended to be read by anyone who is interested in finding out how to customize the Kemp ESP authentication form.

2 Customizing the Login Form

There are two ways to customize the ESP login form:

- Using the SSO Greeting Message text box
- Using a Single Sign On (SSO) image set

The **SSO Greeting Message** text box is an easy way of adding some text to the login form.

The SSO image set option should be used for further customizations, such as configuring the form to have a desired look and feel.

Refer to the relevant section below to find out more.

2.1 SSO Greeting Message

The login form can be customized by adding text. To do this, follow the steps below in the LoadMaster Web User Interface (WUI):

1. In the main menu of the WUI, select **Virtual Services** and **View/Modify Services**.
2. Click **Modify** on the relevant Virtual Service.

2 Customizing the Login Form

3. Expand the **ESP Options** section.

ESP Options

Enable ESP

ESP Logging

User Access:

Security:

Connection:

Client Authentication Mode

Form Based

SSO Domain

ESPTTEST.LOCAL

Available Domain(s)

EXAMPLE.COM

Assigned Domain(s)

None Assigned

Alternative SSO Domains

Set Alternative SSO Domains

Allowed Virtual Hosts

mail.exchange.com mail.ex

Set Allowed Virtual Hosts

Allowed Virtual Directories

/owa*

Set Allowed Directories

Pre-Authorization Excluded Directories

Set Excluded Directories

Permitted Groups

Set Permitted Groups

Permitted Group SID(s)

Set Permitted Group SIDs

Include Nested Groups

Steering Groups

Set Steering Groups

SSO Image Set

Exchange

SSO Greeting Message

This is an example SSO Gr

Set SSO Greeting Message

Logoff String

Set SSO Logoff String

Display Public/Private Option

Disable Password Form

Use Session or Permanent Cookies

Session Cookies Only

User Password Change URL

https://server/link

Set Password Change URL

User Password Change Dialog Message

You must change your password.

Set Dialog Message

Server Authentication Mode

None

4. Ensure that ESP is enabled.

5. Ensure that the Client Authentication mode is set to Form Based.

6. Enter the text that you would like to appear on the form within the **SSO Greeting Message** text box.

7. Click the Set SSO Greeting Message button.

The message can have up to 255 characters.

2 Customizing the Login Form



 **kemp**

☒ This is a public or shared computer
☐ This is a private computer

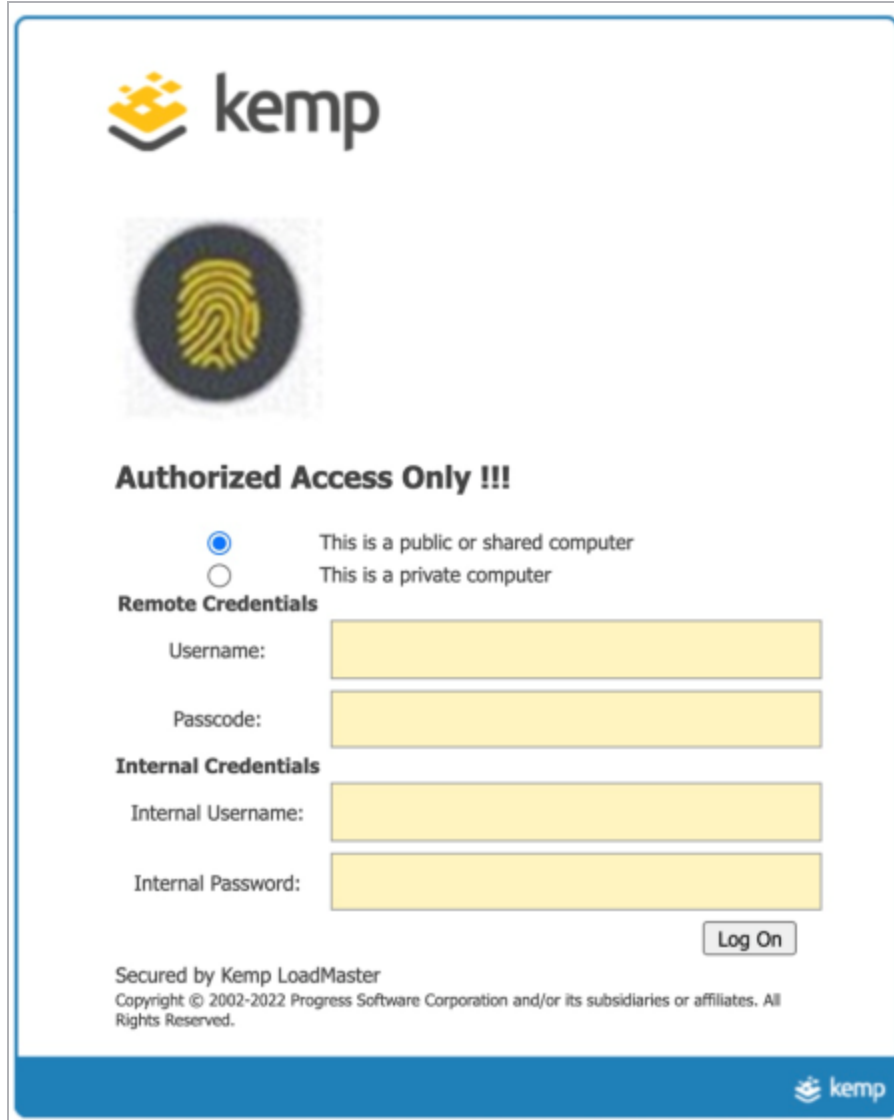
Username:

Password:

Secured by Kemp LoadMaster
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 **kemp**

An example Exchange login form with an SSO greeting message is shown in the screenshot above.



The image shows a custom authentication form for Kemp LoadMaster. At the top is the Kemp logo. Below it is a circular icon containing a yellow fingerprint. The text "Authorized Access Only !!!" is displayed. There are two radio buttons: the first is selected and labeled "This is a public or shared computer", and the second is labeled "This is a private computer". Under the heading "Remote Credentials", there are input fields for "Username:" and "Passcode:". Under the heading "Internal Credentials", there are input fields for "Internal Username:" and "Internal Password:". A "Log On" button is located to the right of the "Internal Password" field. At the bottom, it says "Secured by Kemp LoadMaster" and "Copyright © 2002-2022 Progress Software Corporation and/or its subsidiaries or affiliates. All Rights Reserved." The Kemp logo is also in the bottom right corner.

The SSO Greeting Message field accepts HTML code, so you can insert an image if required.

However, there are several characters that are not supported. These are the grave accent character (`) and single quotes ('). If a grave accent character is used in the SSO Greeting Message, the character will not display in the output, for example a ` b ` c becomes abc. If a single quote is used, users will not be able to log in.

2.2 SSO Image Set

ESP Options

Enable ESP ☒

ESP Logging

User Access: ☒ Security: ☒ Connection: ☒

Client Authentication Mode

Form Based

SSO Domain

ESPTTEST.LOCAL

Available Domain(s)

None Available

Assigned Domain(s)

None Assigned

Set Alternative SSO Domains

Allowed Virtual Hosts

Set Allowed Virtual Hosts

Allowed Virtual Directories

Set Allowed Directories

Pre-Authorization Excluded Directories

Set Excluded Directories

Permitted Groups

Set Permitted Groups

Permitted Group SID(s)

Set Permitted Group SIDs

Include Nested Groups ☐

Steering Groups

Set Steering Groups

SSO Image Set

Exchange

SSO Greeting Message

SO Greeting Message

Logoff String

SO Logoff String

Display Public/Private Option

Disable Password Form

Use Session or Permanent Cookies

User Password Change URL

assword Change URL

User Password Change Dialog Message

Set Dialog Message

Server Authentication Mode

None

The **SSO Image Set** option is only available if **Form Based** is selected as the **Client Authentication mode**. The SSO image sets available are:

- Blank
- Dual Factor Authentication
- Exchange
- French Canadian - Blank
- French Canadian - Exchange
- Brazilian Portuguese - Blank
- Brazilian Portuguese - Exchange
- Any custom SSO image sets which have been uploaded

When using the Exchange image set, you must select the image set in the **LM_Auth_Proxy**, **OWA**, and **ECP** SubVSs.

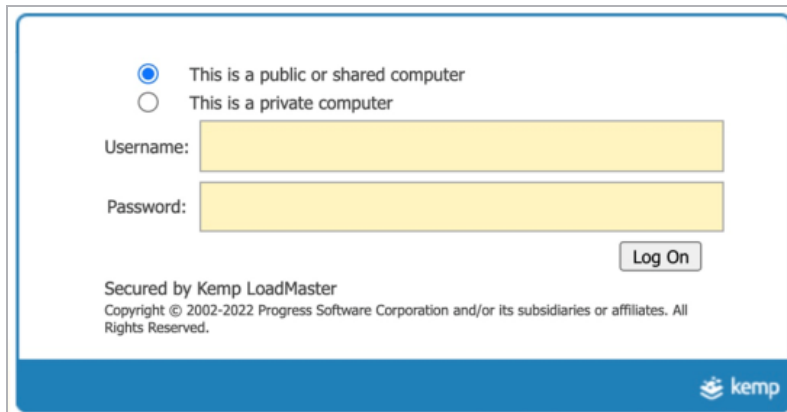
Exchange Form



The Exchange Form is a login interface. At the top left is the Kemp logo, consisting of a yellow icon and the word 'kemp' in black. Below the logo are two radio buttons: the first is selected and labeled 'This is a public or shared computer', and the second is unselected and labeled 'This is a private computer'. Below these are two yellow input fields: the first is labeled 'Username:' and the second is labeled 'Password:'. To the right of the password field is a 'Log On' button. At the bottom left, there is text: 'Secured by Kemp LoadMaster', 'Copyright © 2002-2022 Progress Software Corporation and/or its subsidiaries or affiliates. All Rights Reserved.' At the bottom right is a small Kemp logo.

The **Exchange Form** contains the Kemp logo.

Blank Form



The Blank Form is a login interface. It contains the same elements as the Exchange Form, but without the large Kemp logo at the top left. It has the two radio buttons for computer type, the 'Username:' and 'Password:' input fields, the 'Log On' button, and the copyright text at the bottom left. A small Kemp logo is still present at the bottom right.

The **Blank Form** does not contain the large Kemp logo.

Dual Factor Authentication



The image shows a login form for Kemp LoadMaster. At the top left is the Kemp logo. Below it are two radio buttons: the first is selected and labeled 'This is a public or shared computer', and the second is unselected and labeled 'This is a private computer'. Under the first radio button is the section 'Remote Credentials' with two yellow input fields: 'Username:' and 'Passcode:'. Under the second radio button is the section 'Internal Credentials' with two yellow input fields: 'Internal Username:' and 'Internal Password:'. A 'Log On' button is located to the right of the 'Internal Password' field. At the bottom left, it says 'Secured by Kemp LoadMaster' and 'Copyright © 2002-2022 Progress Software Corporation and/or its subsidiaries or affiliates. All Rights Reserved.' At the bottom right is the Kemp logo.

The **Dual Factor Authentication** form contains four fields - two for the remote credentials and two for the internal credentials.

Remote Credentials are credentials that are used to authenticate against remote authentication servers such as RADIUS, before allowing the user to authenticate against Domain Servers such as Active Directory servers.

Internal Credentials are credentials that are used to authenticate against the internal domain servers such as Active Directory Servers.

If the **Authentication Protocol** of the relevant **SSO Domain** is set to **RADIUS and LDAP**, the **SSO Image Set** must be set to **Dual Factor Authentication**.

2.2.1 Custom SSO Image Set Guidelines

It is possible to add your own SSO image set to customize the look and feel of the login form. The custom SSO image set must be in the format of a .tar file. Template .tar files are available from the Kemp Documentation site: <https://kemptechnologies.com/loadmaster-documentation/>. There is one template for regular login forms and one for dual factor authentication.

These templates can be modified to gain the desired look and feel. Guidelines on the tar file are below:

- The .tar file should have the following folder structure:

```
imagesets/  
    <IMAGESETNAME>/  
        lm_initial.html  
        lm_logout.html  
        MANIFEST  
        ...
```

When compressing the .tar file, please ensure to compress the **imagesets** folder, not the folder above or beneath it.

- Multiple image sets can be included:

```
- imagesets/<IMAGESETNAME_1>/<files>  
    /<IMAGESETNAME_2>/<files>
```

- The name that you specify as **<IMAGESETNAME_*>** is the name that will appear in the **SSO Image Set** drop-down list in the WUI. This name can contain Unicode characters.

If the name of the custom SSO image set is the same as one of the default SSO image set names, the default one has precedence.

- All image set resources should contain non-encoded characters, that is, ASCII.
- The full list of required files for the image set is as follows:

```
# Default manifest of all files that are part of the logon
# screens.
#ident "$Id: EN-Blank.manifest,v 1.1.2.2 2014/01/30 08:57:05 phil
Exp $ phil"
#
# Format is "filename filetype".
# The first file is the initial login screen
# The second file is the logout screen.
#

lm_initial.html
lm_logout.html
lm_sso.js
espblank.gif
espbottom.gif
favicon.ico
kmgerror.gif
kmgexleft.gif
kmgexlogo.gif
kmgexright.gif
kmgleft.gif
kmgright.gif
kmgstyle.css
|
```

- A file called **MANIFEST** is mandatory. This file should contain a list of files that exist in the directory that should be loaded as part of the set. If the **MANIFEST** file does not exist, the image set will not work. Lines in this file can be commented out by adding # to the start of the line. Blank lines are ignored. The last line of the MANIFEST file must be a new line.
- The first uncommented line should contain the file for the main login page
- The second uncommented line should contain the file for the logout page
- All other files defined in the file, for example image, CSS or Javascript files, can be used by the login and logout pages
- If a listed file is missing, it will simply not be present on the page. For example, if a line in the **MANIFEST** refers to **image.jpg** and that image file is missing from the tar, it will be a broken image on the page.

The logical format of the main login page cannot be changed. If the format is not maintained, problems will occur. The formatting and any CSS can be changed at will.

- A file called **INFO** is read. This is a simple text file which contains a description of the image set and perhaps a version number. The contents of this file are displayed on the admin WUI to help identify which package/version has been installed. For example, this could contain version information.

The **INFO** file is not mandatory. If it does not exist or if it is blank, only the installed date is displayed in the WUI.

- The maximum size restriction on images is approximately 100 MB. This is dependent on the amount of space on /tmp for storing the file as it is being downloaded. There is also an additional limit for how much space is available on the flash (the 512 MB boot partition). Multiple large image sets can cause problems.
- Image file names can be a maximum of 31 characters long.
- The syntax for adding an image to a custom authentication form is as follows:

Replace **URL** with the URL of the image.
Replace **NN** for **width** and **height** with the desired values.
- If a package is installed multiple times, the older packages are overwritten.
- It is the responsibility of the package builder to verify that all components included are valid. A missing file will not be displayed. Broken pages may cause problems.

2.2.2 Uploading a Custom SSO Image Set

To upload the custom SSO image set to the LoadMaster, follow the steps below in the LoadMaster WUI:

1. In the main menu, select **Virtual Services** and **Manage SSO**.
2. Click **Choose File**.
3. Browse to and select the .tar file.
4. Click **Add Custom Image Set**.

After adding the file, the supplied image set(s) is listed on this page. It will also be available to select in the **SSO Image Set** drop-down list in the **ESP Options** section of the Virtual Service modify screen.

2.3 Backing Up and Restoring a Custom SSO Image Set

Any custom SSO image sets that exist on the LoadMaster are contained in any LoadMaster backups that are taken. They are restored when **VS Configuration** is selected when restoring a backup file.

References

Unless otherwise specified, the following documents can be found at <http://kemptechnologies.com/documentation>.

ESP, Feature Description

Custom SSO Image Set Template

[Custom-Image-Set](#)

Last Updated Date

This document was last updated on 27 July 2023.