Progress®
Kemp® LoadMaster®

Technical Note Customizing SSO Authentication Forms

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Introduction

Progress Kemp's Edge Security Pack (ESP) simplifies the secure publishing of applications with pre-authentication of clients and Single Sign-On to improve the user experience. ESP can be fully integrated into your current authentication and authorization directories, including Microsoft Active Directory.

With the 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.

Document Purpose

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

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.

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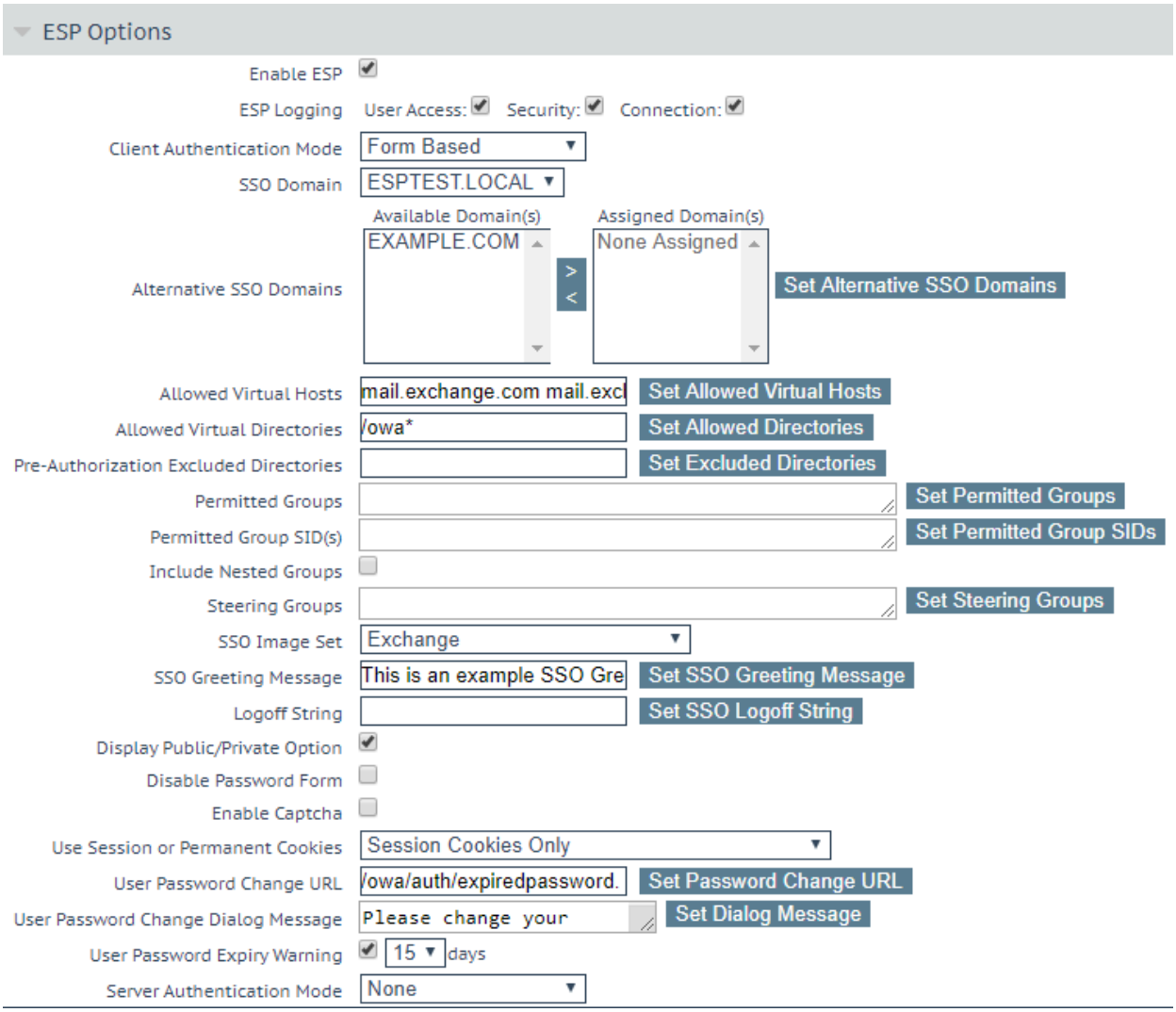
- SSO Greeting Message
- SSO Image Set
- Backing Up and Restoring a Custom SSO Image Set
- Display Public/Private Option

SSO Greeting Message

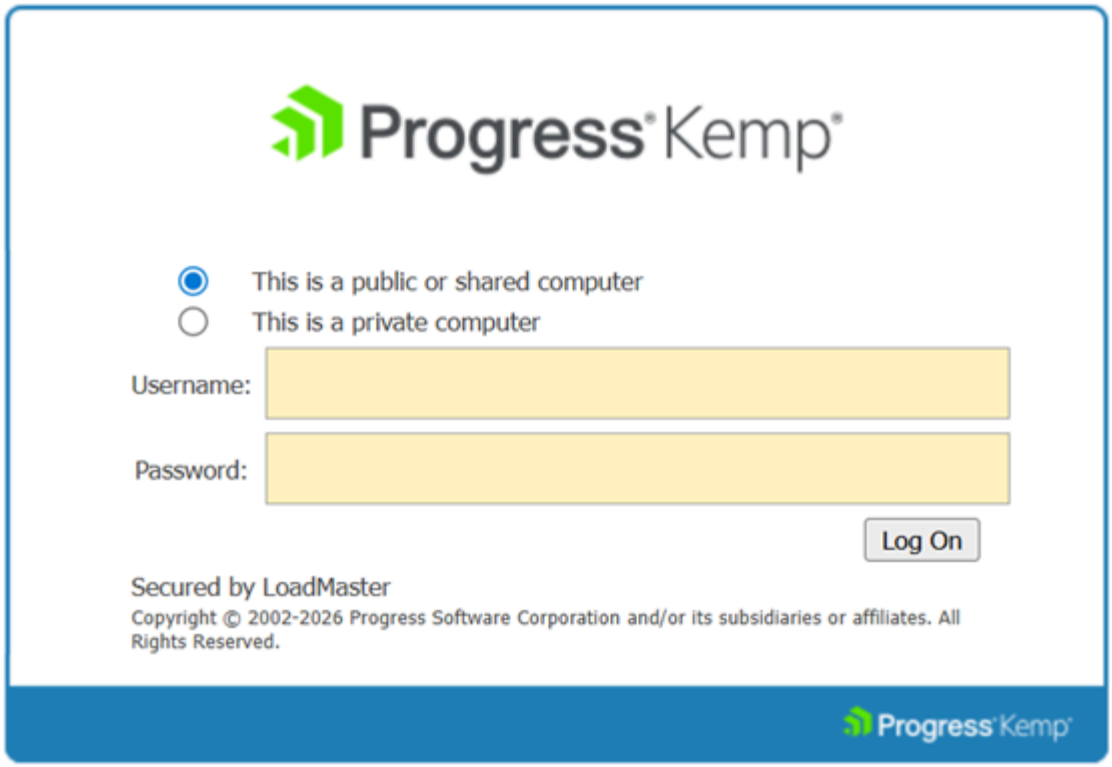
The login form can be customized by adding text. To do this, follow the steps below in the LoadMaster Web User Interface (WUI):

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

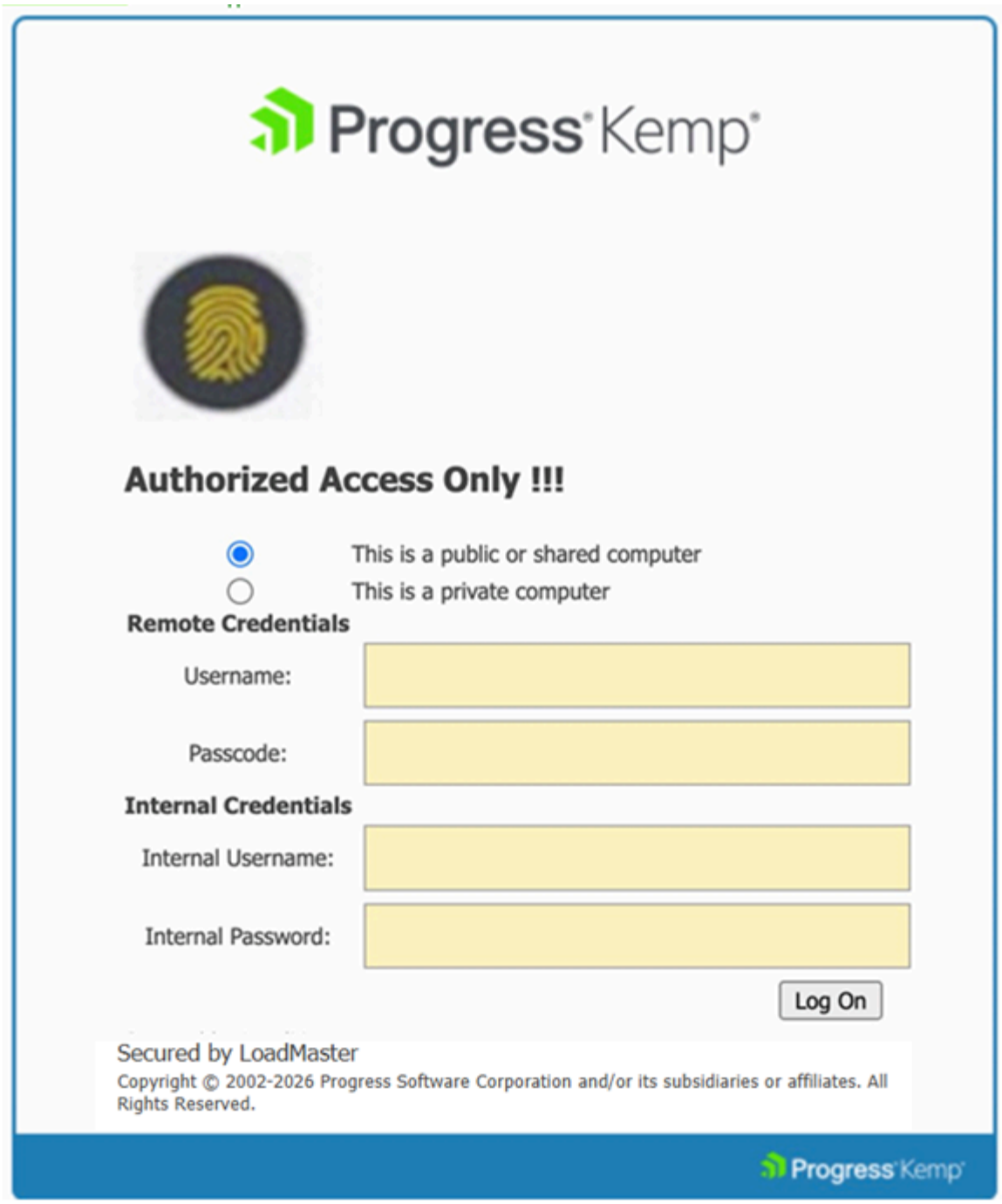


4. Ensure that ESP is enabled.
5. Ensure that the Client Authentication mode is set to Form Based.
6. Enter the text that you would like to appear on the form within the **SSO Greeting Message** text box.
7. Click the Set SSO Greeting Message button.

Note: The message can have up to 255 characters.



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

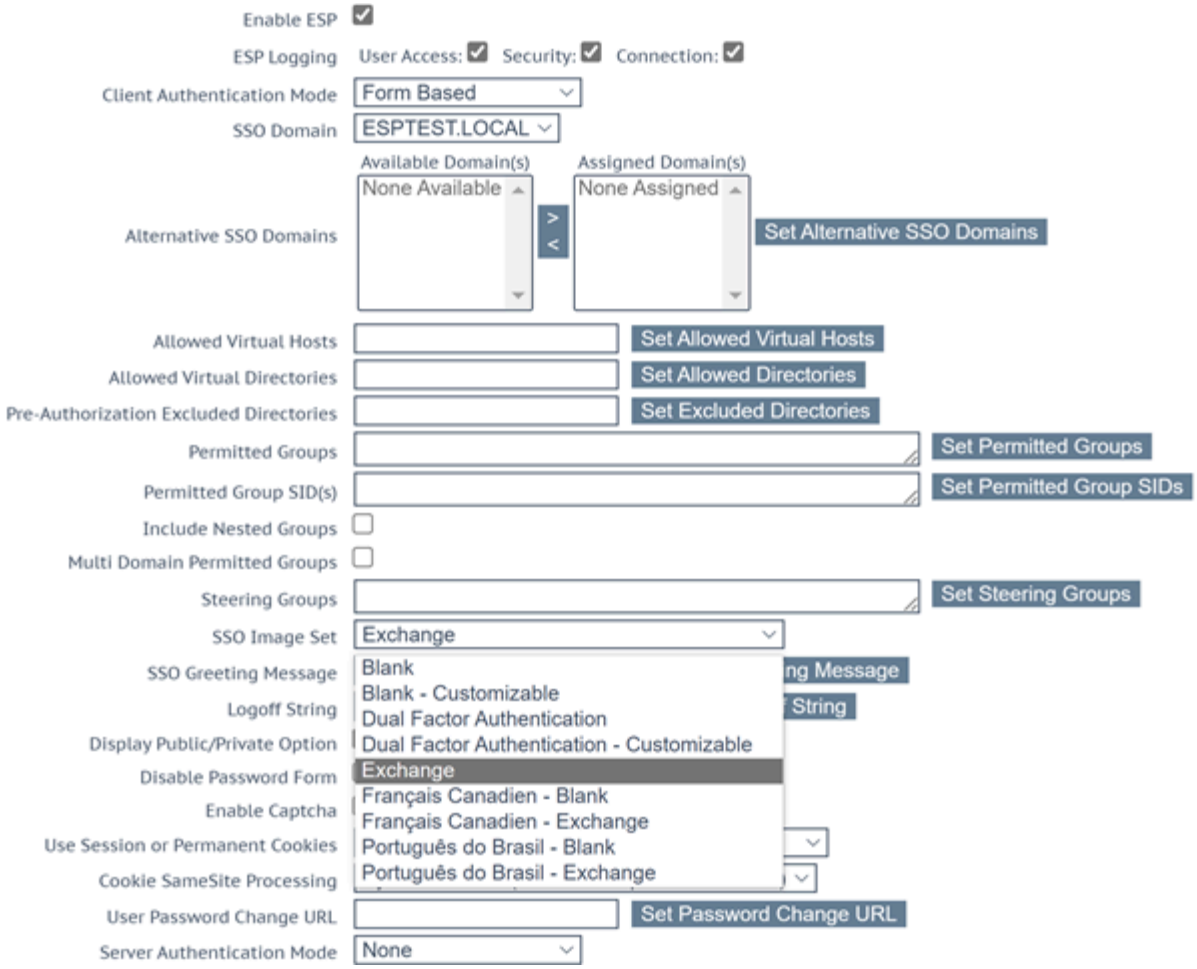


The SSO Greeting Message field accepts ASCII characters and HTML code, so you can insert an image if required.

Note: The **SSO Greeting Message** displays up to 255 characters. Any ASCII character is accepted and will be displayed in the message, with two exceptions: the grave accent character (` ) and the single quote ( **'** ).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.

Note: In addition to ASCII characters, HTML-encoded characters are also accepted and can be used to display non-ASCII characters in the login form; just type HTML-encoded characters into the **SSO Greeting Message** text box in the LoadMaster. For example, for the letter **Ä**, you must type the HTML-encoded code for this letter, for example, **Ä**. For further information, please see: List of XML and HTML character entity references.

SSO Image Set



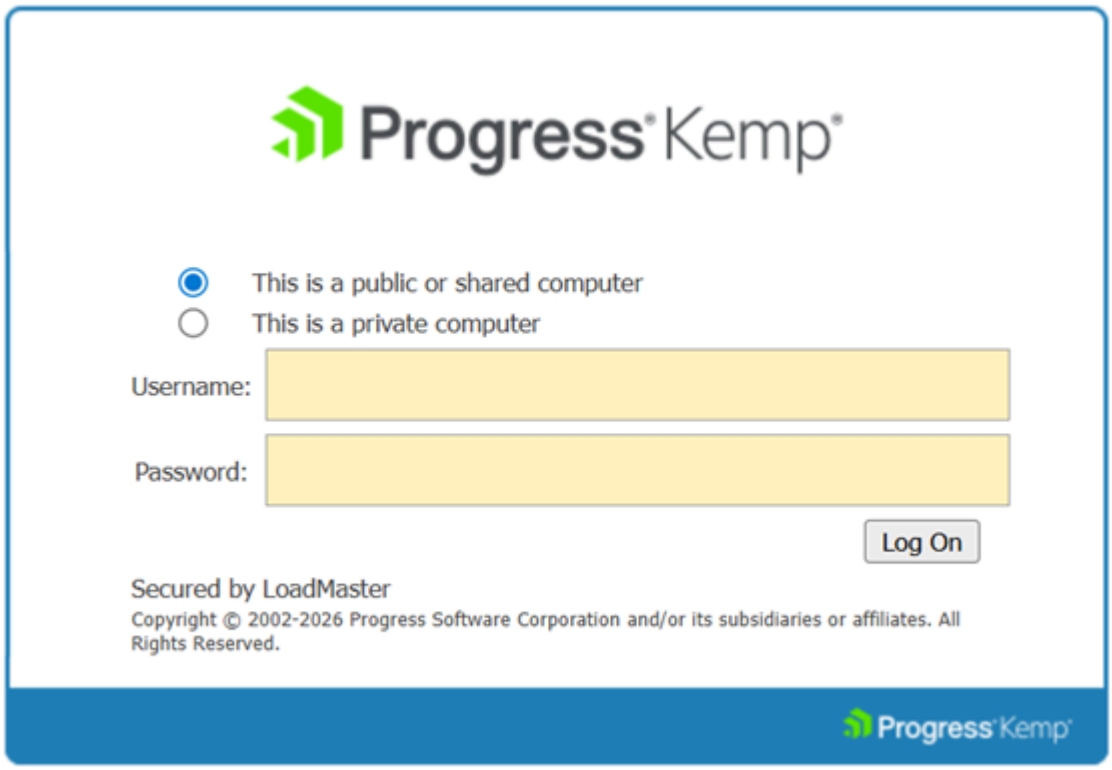
The **SSO Image Set** option is only available if **Form Based** is selected as the **Client Authentication mode**. The SSO image sets available are:

- Blank
- Blank Customizable
- Dual Factor Authentication
- Dual Factor Authentication - Customizable
- Exchange

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

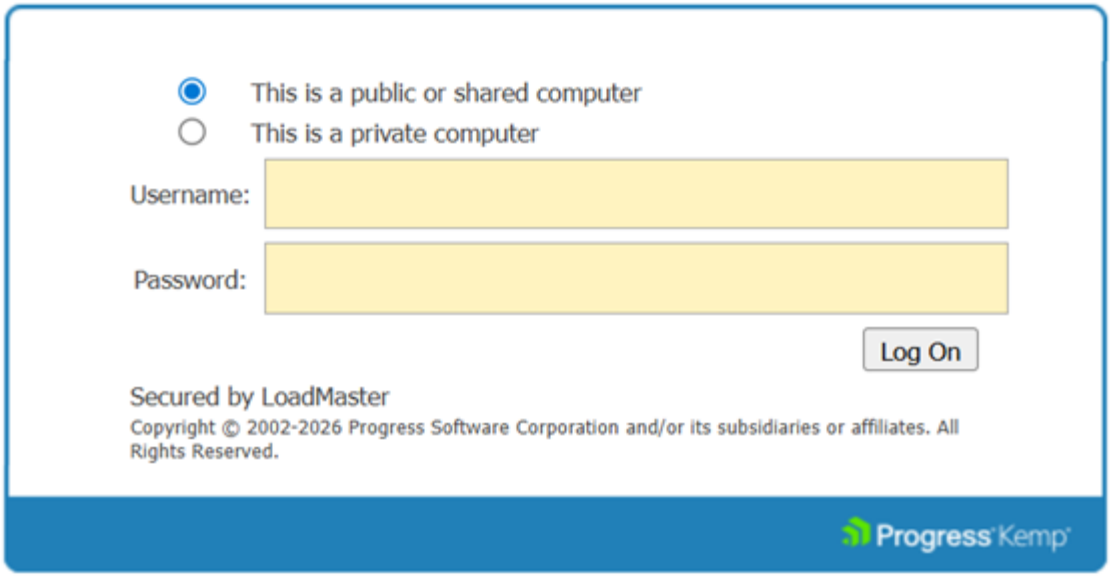
Note: When using the Exchange image set, you must select the image set in the **LM_Auth_Proxy**, **OWA**, and **ECP** SubVSs.

Exchange Form



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

Blank Form



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

Dual Factor Authentication



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.

Note: 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**.

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- Custom SSO Image Set Guidelines
- Uploading a Custom SSO Image Set

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 here: Single Sign-On Custom Images. There is one template for regular login forms and one for dual factor authentication.

After you download the file, you must unzip it before you can upload it to the LoadMaster.

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

…

lm_initial.html: The lm_initial.html is a dummy ESP login page which you can modify or use as is. This page will be presented for authentication when you connect to the ESP Virtual Service. The public/private option becomes available on the ESP login page if **Display Public/Private Option** is enabled. By default, this option is enabled.

lm_logout.html: The lm_logout.html is a dummy ESP logout page which you can modify or use as is. This page prompts when you successfully log out from ESP service.

Note: 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.

    Note: 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.

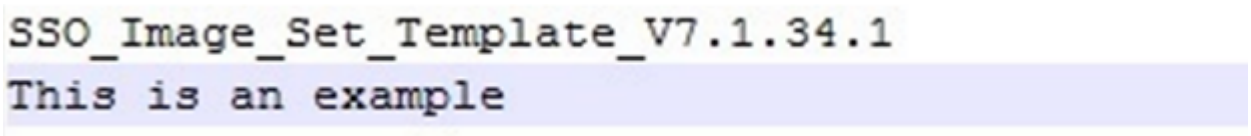
- All image set resources should contain non-encoded characters, that is, ASCII.
- The full list of required files for the image set is as follows:

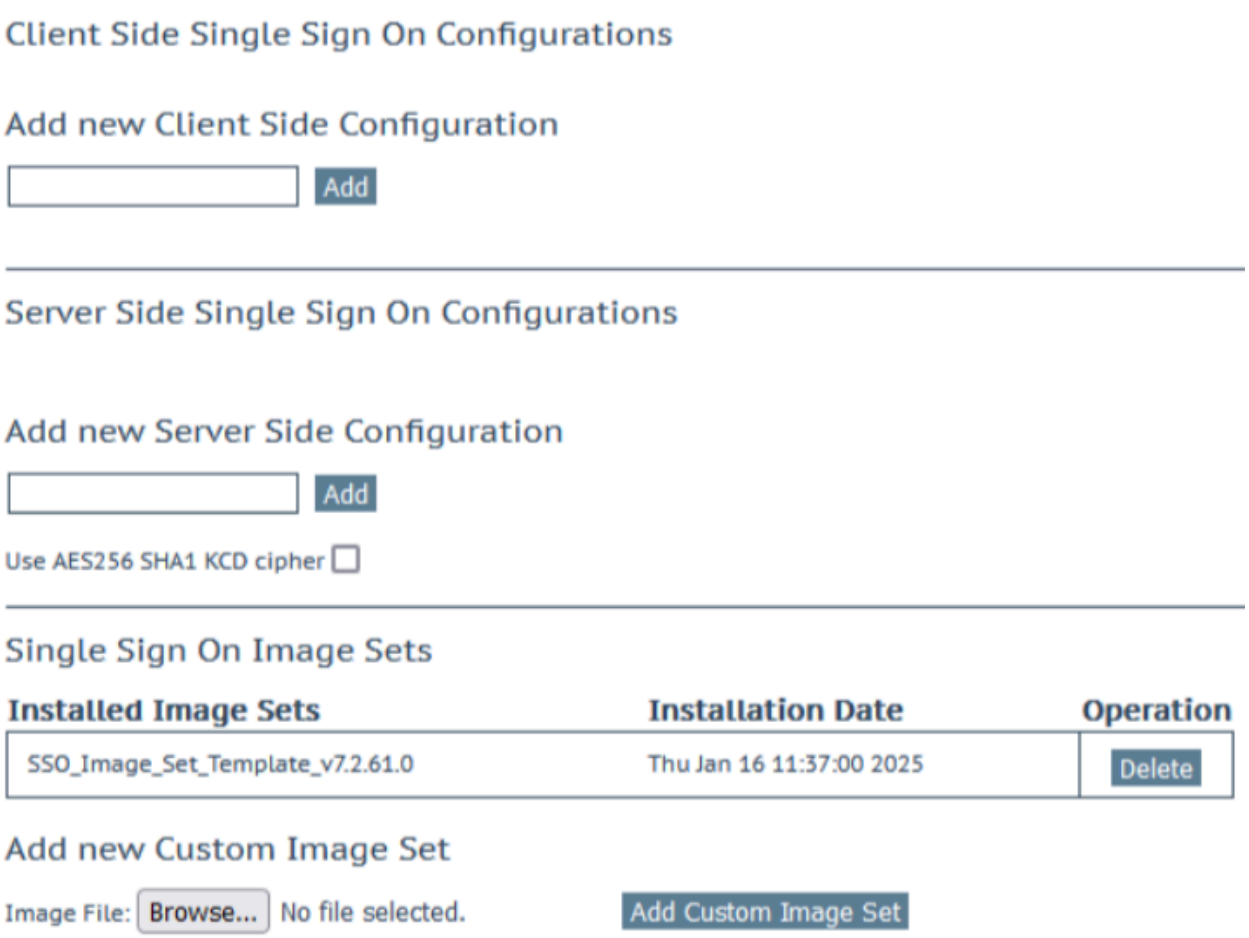
```
# Default manifest of all files that are part of the logon
# screens.
#ident "$Id: EN-Blank.manifest 21364 2022-02-11 15:19:55Z [illegible] $ [illegible]"
#
# Format is "filename filetype".
# The first file is the initial login screen
# The second file is the logout screen.
#

lm_initial.html
lm_logout.html Text/html
lm_sso.js
espblank.png
espbottom.png
favicon.ico
kmgerror.png
kmgexleft.png
kmgexlogo.png
kmgexright.png
kmgleft.png
kmgright.png
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.

Note: 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.

Note: 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 1 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:**<img src=*URL* width=*NN* height=*NN*>**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.

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**.

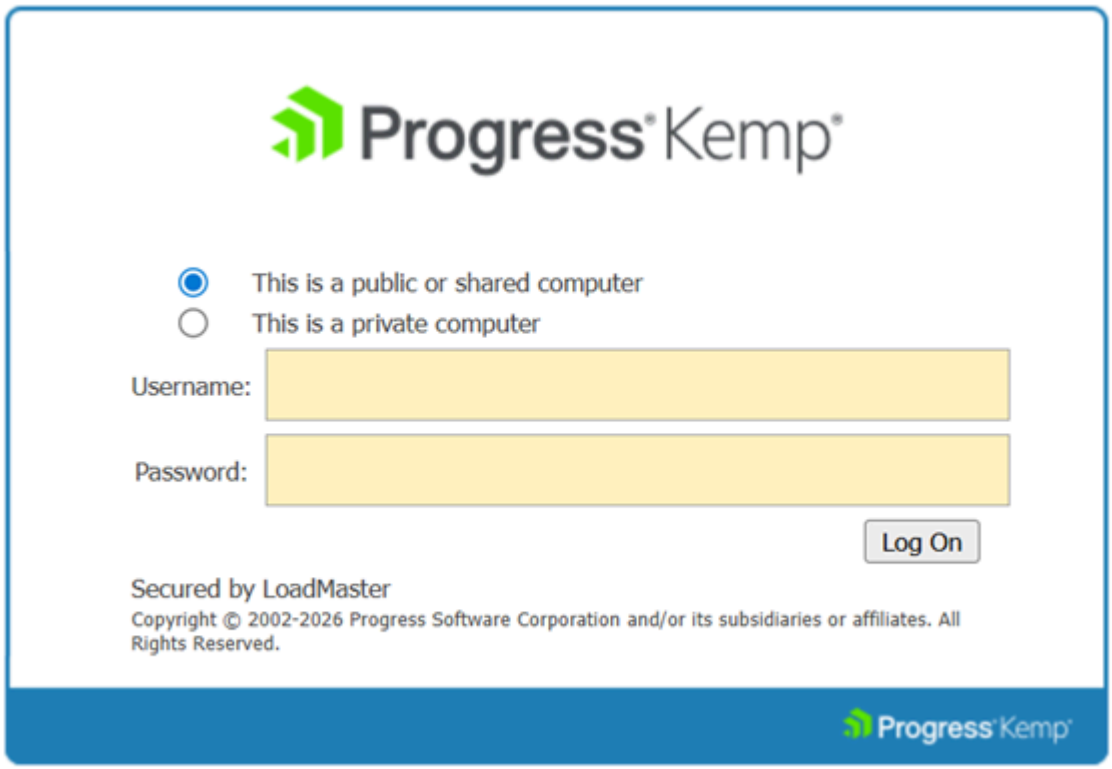
After adding the file, the supplied image set(s) is listed on this page. It will also be available to select in the **SSO Image Set** drop-down list in the **ESP Options** section of the Virtual Service modify screen.

Note: You can rename an image set by renaming the folder within the **imagesets** folder. After uploading, the new image set name is displayed in the **SSO Image Set** drop-down list.

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.

Display Public/Private Option



Enabling the **Display Public/Private Option** check box in the **ESP Options** section of the Virtual Service modify screen will display a public/private option on the ESP login page. Based on the option the user selected on the login form, the **Session Timeout** value is set to the value specified for either public or private in the **Manage SSO** domain screen. If the user is on a public or shared computer, they should use the default option (**This is a public or shared computer**), which does not save their credentials locally.

3

References

Some useful links are as follows:

Edge Security Pack (ESP) Feature Description

Single Sign-On Custom Image Sets