CA Spectrum® and CA Embedded Entitlements Manager

Integration Guide
CA Spectrum Release 9.4 - CA Embedded Entitlements Manager
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CA Technologies Product References

This document references the following CA Technologies products:

- CA Spectrum®
- CA Embedded Entitlements Manager (CA EEM)

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Chapter 1: CA Spectrum Integration with CA EEM

This section contains the following topics:

- About the CA Spectrum Integration with CA Embedded Entitlements Manager (see page 7)
- Intended Audience (see page 7)
- How to Configure CA Spectrum/CA EEM Integration (see page 8)
- Support for Multiple Active Directory Domains (see page 11)

About the CA Spectrum Integration with CA Embedded Entitlements Manager

Single Sign-On lets CA Spectrum users integrate with LDAP (Lightweight Directory Access Protocol) and Active Directory user management systems.

Single Sign-On is a separate component that uses the CA Embedded Entitlements Manager (CA EEM) solution. It is not configured as part of the CA Spectrum installation. Instead, you must activate it after you install CA Spectrum by modifying configuration settings from the Administration pages on the OneClick server.

Intended Audience

This guide is intended for administrators who want to set up authorization access for CA Spectrum with CA EEM. The CA Spectrum integration with CA EEM addresses the need for fine-grained access control to CA Spectrum enterprise applications and other applications integrated with CA Spectrum.

Before using this guide to integrate CA Spectrum with CA EEM, you should have knowledge about CA Spectrum user management and you should be familiar with the OneClick Administration pages. No special knowledge of CA EEM is required to specify integration parameters from the CA Spectrum environment. However, some knowledge of how to configure integration parameters in the CA EEM environment is required.
How to Configure CA Spectrum/CA EEM Integration

Follow this process to configure the integration of CA Spectrum and CA EEM:

1. **Install CA EEM.**
   
   **Note:** For more information, see the CA EEM documentation. We recommend that you install CA EEM on a separate machine.

2. **Register CA Spectrum users with CA EEM** (see page 8).

3. **Configure the CA EEM server for single sign-on in OneClick** (see page 10):
   a. Configure CA EEM server connection parameters.
   b. Test connectivity to the CA EEM server.
   c. Save connection parameters settings.

Register CA Spectrum Users with CA EEM

After installing CA EEM, register CA Spectrum users in CA EEM before you configure Single Sign-On settings for them.

**Follow these steps:**

1. Open a browser and navigate to the CA EEM home page.
2. Log in as the CA EEM administrator.
   
   **Default:** EiamAdmin.

3. Click the Manage Identities tab.
4. Click the New User icon in the Users panel.
5. Add the CA Spectrum user to the CA EEM system by supplying values in the fields provided.

**Note:** You can point CA EEM to an LDAP or Active Directory server from the Configure tab. CA EEM 12.0 and later can point to more than one LDAP or Active Directory server. For more information, see [Support for Multiple Active Directory Domains](#) (see page 11).
Tip: Create CA Spectrum Users for Single Sign-On

Creating user accounts in CA Spectrum requires entering a password manually. This step may not be possible if CA Spectrum is integrated with CA Embedded Entitlements Manager for Single Sign-On. But if CA Spectrum is integrated with an LDAP server, you can create users with blank passwords. The LDAP server then handles user authentication.

If your CA Spectrum deployment requires you to use SSO through CA EEM, and if EEM is integrated with an LDAP server, configure the LDAP server in CA Spectrum, and then configure SSO settings.

Note: Configure EEM with the LDAP server first, and then configure CA Spectrum and create user accounts.

Follow these steps:

1. Log in to the OneClick Web Console.
2. Configure the Web Console with your LDAP server as described in the Administrator Guide.
3. Launch the OneClick Console.
4. In the Users tab of the Navigation panel, select the top-level Users node and click Creates a New User.
   The Create User dialog opens.
5. Create a user account, but leave the password blank. Save the user account.
6. Repeat the previous steps to create all required CA Spectrum users.
7. Close the OneClick Console.
8. In the OneClick Web interface, click the Administration tab.
9. Click the Single Sign-On Configuration link.
10. Complete CA Spectrum configuration with EEM.
11. Restart the Tomcat server on the OneClick Web server host for the changes to take effect.

Now LDAP users can log in to CA Spectrum and can be authenticated using the EEM Server.
Configure OneClick to Connect to the CA EEM Server

Before configuring OneClick to connect to the CA EEM server, create policy configurations that let the host connect to the CA EEM Server. For more information, see the CA EEM documentation.

Follow these steps:

1. Log in to the OneClick web server.
2. Click Administration in the menu bar on the OneClick home page.
   The system verifies your administrator credentials.
3. Click Single Sign-On Configuration in the Administration Pages panel on the left.
   The Single Sign-On Configuration page opens.
4. Select CA EEM in the Choose SSO Option section.
   The CA EEM Single Sign-On Configuration section opens.
5. Specify the following parameters for connecting with the CA EEM server in the CA EEM Server Connectivity section:

    **CA EEM Server Hostname**
    Specifies the host name of the CA EEM server you want to connect to.

    **OneClick Server Domain Name**
    Specifies the domain where the OneClick server resides (for example, ca.com).
    
    *Note*: If you are trying to inter-operate between eHealth and CA Spectrum using CA EEM or CA SiteMinder®, a second-level domain or greater is required for the cookie domain.

    Cookies are restricted to a certain domain level for security reasons. According to "RFC 2901" and "RFC 2965", cookies cannot be set to a top-level domain (such as .com, .org, .gov). A minimum of second-level domain is required. For more information, consult the RFC documentation.

    If a domain name ends with a two letter country code, a minimum of a third-level domain is required. A cookie that is set to a second-level domain is visible at all of its third-level domains. However, a cookie that is set to a third-level domain is not visible at its parent second-level domain or at other sub domains. If no domain name is specified when a cookie is written, the cookie domain attribute defaults to the domain name where the application resides.

    **Spectrum Application Name in CA EEM**
    Specifies the name of the CA Spectrum application in CA EEM, enabling you to set up rules in CA EEM. Enter spectrum in this field.

    **Proxy URL**
    Specifies the URL to be used for proxy connectivity.
6. Select Yes in the Authentication Logging section to enable logging to either the Tomcat log or to a specified log location for debugging connectivity issues.

7. (Optional) Perform the following steps to test the configuration:
   a. Complete the Test Username field and the Test Password field with appropriate credentials for testing the connection to the CA EEM server.
   b. Click Test.
      The OneClick Console notifies you when proper authentication occurs.

8. Click Save.
   CA Spectrum verifies whether the CA EEM single sign-on conflicts with any other SiteMinder single sign-on option. If a conflict is detected, you see an error. Otherwise, a dialog asks you to restart the web server.

9. Click OK.

10. The system saves the information to an eem-sso.conf configuration file in the Tomcat directory. You can find the file at the following location:
    
    $SPECROOT/custom/sso/eem-sso.conf

11. Restart Tomcat to let the changes take effect.
    OneClick is configured to connect to CA EEM server.

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Support for Multiple Active Directory Domains

CA Spectrum leverages the multiple Active Directory domains feature of CA EEM to authorize users from multiple domains. CA EEM 12.0 and later versions support this feature.

For example, User1 and User2 are two users belonging to different domains, "Domain1.com" and "Domain2.com" respectively. With this feature, user1 and user2 can connect to OneClick. When you create these users in OneClick, supply user names that are identical to the principal names of these users in CA EEM.

- If the principal name of "User1" of "Domain1.com" in CA EEM is "Domain1.com\User1", in CA Spectrum create this user as "Domain1.com\User1".
- If the principal name of "User2" of "Domain2.com" in CA EEM is "Domain2.com\User2", in CA Spectrum create this user as "Domain2.com\User2".

Two users with the same user name can exist in more than one domain. Include the domain prefix for such identical users during the OneClick authentication. For example, supply "Domain1.com\User1" and "Domain2.com\User1". When a user with the same user name is not present across domains, during the OneClick authentication domain prefix before the user name is not mandatory.

Note: Do not use the "User@Domain" format to configure principal name in CA EEM, CA Spectrum supports only the "Domain\User" format.
As a result, when User1 and User2 of two different domains try to access the OneClick, CA Spectrum sends an authentication request to CA EEM. When CA EEM successfully authenticates these two users by resolving its actual domain, CA Spectrum authorizes them to access the SpectroSERVER.

CA EEM 12.0 supports the following two configuration types to enable the multiple Active Directory domains feature:

- Active Directory Domain
- Active Directory Forest

For more information about configuring multiple domains in CA EEM, see the *CA EEM 12.0 Implementation Guide*. 
Chapter 2: Troubleshooting CA Spectrum Integrations with CA EEM

This chapter describes how to respond to potential authentication problems with the CA Spectrum CA EEM integration.

Cannot Log In to CA Spectrum

**Symptom:**
User unable to authenticate to CA Spectrum.

**Solution:**
Verify that the user name and password have been entered correctly in CA Spectrum.

Configuration Test Fails

**Symptom:**
Unable to authenticate with CA EEM though the CA Spectrum configuration test.

**Solution:**
Verify that the proper user name, password, server name, and port have been entered.
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