

## Salesforce Connect

# **User Guide**

Installing, configuring and using Salesforce Connect



## **Table of Contents**

	Overview	
	Capabilities	
1.1.1	Expose Salesforce contacts as Sitecore users	
1.1.2	Capture Salesforce contact data in xDB	
1.1.3	Caching	
1.1.4	Multiple Salesforce Accounts	
1.2 C	Comparing full and partial Salesforce support	6
1.2.1	Full support	6
1.2.2	Partial support	
Chapter 2	Full Salesforce support installation	
2.1 S	Salesforce configuration	8
2.1.1	Install the Sitecore Salesforce packages	8
2.1.2	Create a new connected app for Sitecore	11
2.1.3	Create a new permission set	13
2.1.4	Create a new profile	20
2.1.5	Create a new user	25
2.2 S	Sitecore configuration	28
2.2.1	Install the Sitecore package	28
2.2.2	Modify domains.config	
2.2.3	Modify web.config	
2.2.4	Modify Sitecore. Salesforce.config	
2.2.5	Additional steps if using a Salesforce package namespace prefix	
	Ipgrading from partial to full Salesforce support	32
2.3.1	Install the Sitecore Salesforce package	
2.3.2	Update Salesforce profile	
2.3.3	Modify web.config	
2.3.4	Modify Sitecore. Salesforce.config	
Chapter 3	Partial Salesforce support installation	
	Salesforce configuration	
3.1.1	Create a new connected app for Sitecore	
3.1.2	Create a new permission set	
3.1.3	Create a new profile	
3.1.4	Create a new user	
3.2 S	Sitecore configuration	
3.2.1	Install the Sitecore package	
3.2.2	Modify domains.config	
3.2.3	Modify web.config	
3.2.4	Modify Sitecore.Salesforce.config	
Chapter 4	Using Salesforce Connect	
	Mapping Salesforce objects to Sitecore users	
4.1.1	Membership provider	
4.1.2	Role provider	
4.1.3	Profile provider	
4.1.4	Caching	
	Experience Database integration	
4.2.1	Contact Facet	
	Configuring multiple Salesforce accounts	
4.3.1	Modify domains.config	
4.3.2	Modify Sitecore.Salesforce.config	
4.3.3	Modify web.config	
Chapter 5	Troubleshooting	
	Authentication	
5.1.1	Authenticating from Sitecore	
5.1.2	Reset password on Salesforce contact	
J. 1 . Z		



5.2	Sitecore user management	5
5.2.1	User creation	57





## Chapter 1 Overview

This chapter provides an overview of Salesforce Connect.



## 1.1 Capabilities

This section provides an overview of the capabilities of Salesforce Connect.

## 1.1.1 Expose Salesforce contacts as Sitecore users

Salesforce contact appear in Sitecore as users. This enables the following:

- Salesforce contacts can be created using the Sitecore API
- Salesforce contacts can be managed using the Sitecore User Manager
- Salesforce contacts can log into Sitecore sites
- Sitecore user profile can be populated with data from Salesforce

## 1.1.2 Capture Salesforce contact data in xDB

xDB stores Sitecore contact data in facets. If a Sitecore contact is identified as a Salesforce contact, contact data from Salesforce is exposed to Sitecore through a Sitecore contact facet. This makes Salesforce contact data available for Sitecore segmentation and other uses.

## 1.1.3 Caching

In order to minimize the number of API calls Sitecore must make to Salesforce the module makes extensive use of caching.

## 1.1.4 Multiple Salesforce Accounts

Salesforce Connect is compatible with multiple Salesforce accounts. In other words, a single Sitecore instance can have connections to one or more Salesforce accounts.



## 1.2 Comparing full and partial Salesforce support

When you install Salesforce Connect you must decide whether you want full or partial Salesforce support.

## 1.2.1 Full support

Full support requires a package be installed on Salesforce. The installation must be performed by an administrator of your Salesforce environment.

Before you install the package Salesforce clearly describes exactly which changes will be made to your Salesforce environment.

## 1.2.2 Partial support

Partial support does not require an extra package be installed on Salesforce. However, without the extensions included in the package, the following Salesforce Connect functionality is unavailable:

- A. Sitecore cannot create new Salesforce contacts
- B. Sitecore cannot authenticate Salesforce contacts



## Chapter 2 Full Salesforce support installation

This chapter describes how to install Salesforce Connect with full Salesforce support.



## 2.1 Salesforce configuration

This section describes the configuration that must be performed on Salesforce. An administrator for your Salesforce environment must follow these instructions.

## 2.1.1 Install the Sitecore Salesforce packages

One package adds custom fields to the Salesforce Contact object. The other package adds a custom object type to Salesforce that allows Sitecore roles to be associated with a Salesforce Contact.

- 1. Log into the Salesforce Workbench (https://workbench.developerforce.com)
- 2. Navigate to migration > deploy



3. Click Choose File and select the file Salesforce.Role.CustomObjects.zip





4. Select the options "Allow Missing Files" and "Single Package" and click Next

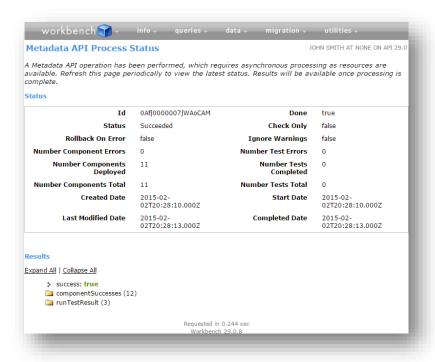


5. Click Deploy

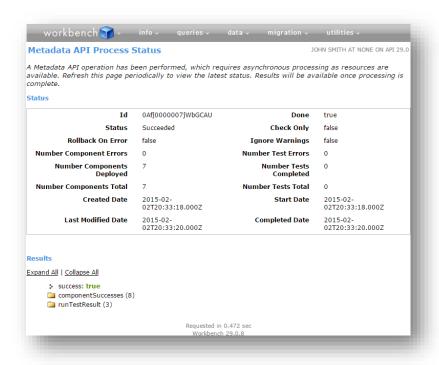




6. The status screen will tell you the package was installed



Deploy the file Salesforce.Contact.CustomFields.zip using the previous instructions starting from step 2.



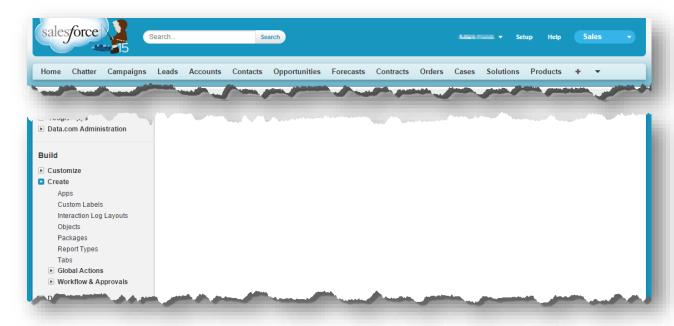
8. Log out of the Salesforce Workbench



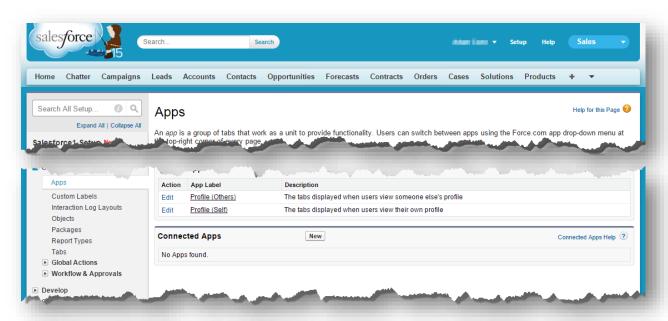
## 2.1.2 Create a new connected app for Sitecore

This connected app informs Salesforce that Sitecore will be making API calls to Salesforce.

- 1. Log into Salesforce.com as an administrator
- 2. Navigate to Create > Apps in the left-hand menu in the "Build" section

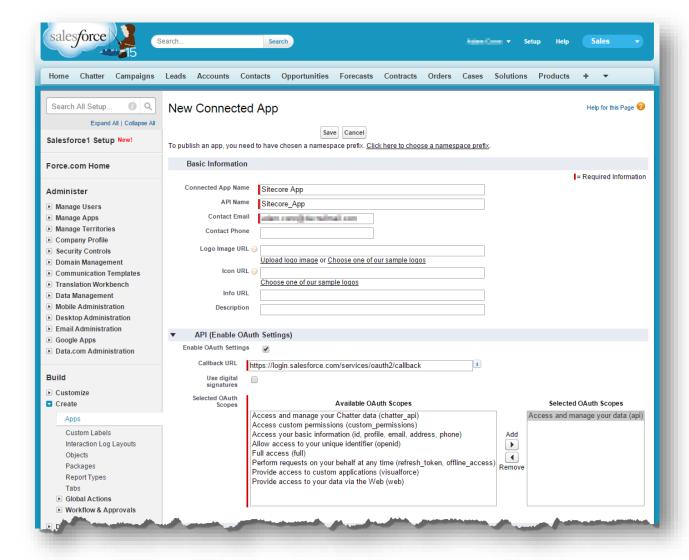


3. Click "New" in the "Connected Apps" section





- 4. Enter values for the following fields and click Save
  - a. Connected App Name
  - b. API Name
  - c. Contact Email
  - d. Enable OAuth Settings: checked
  - e. Callback URL: https://login.salesforce.com/services/oauth2/callback
  - f. Selected OAuth Scopes: Access and manage your data (api)





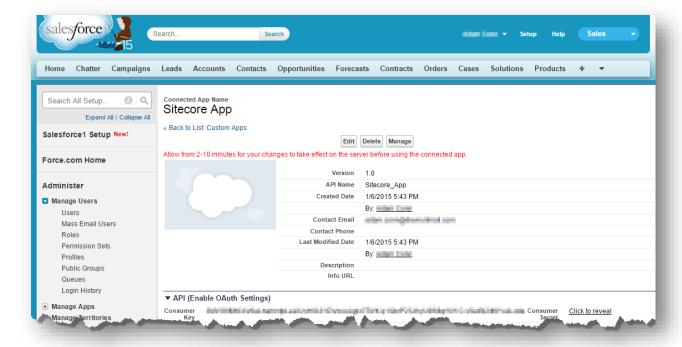
5. A confirmation screen will indicate that the new connected app was created. Click Continue.



## 2.1.3 Create a new permission set

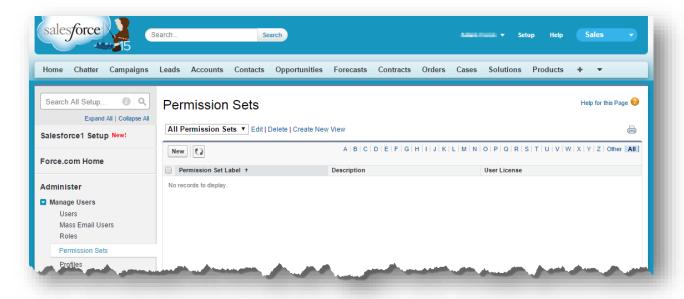
This permission set encapsulates the security settings that are required in order for Sitecore to be able to interact with Salesforce.

Navigate to Manage Users > Permission Sets

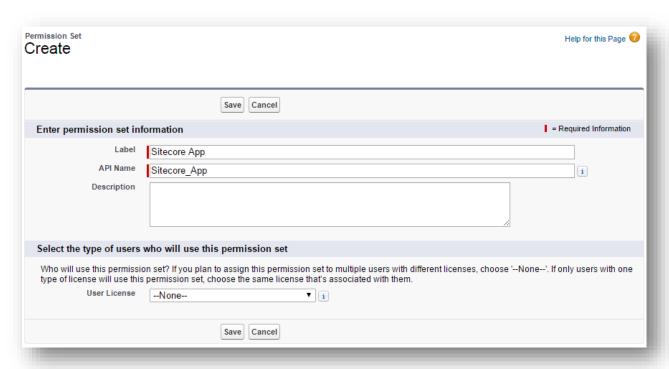




#### 2. Click New

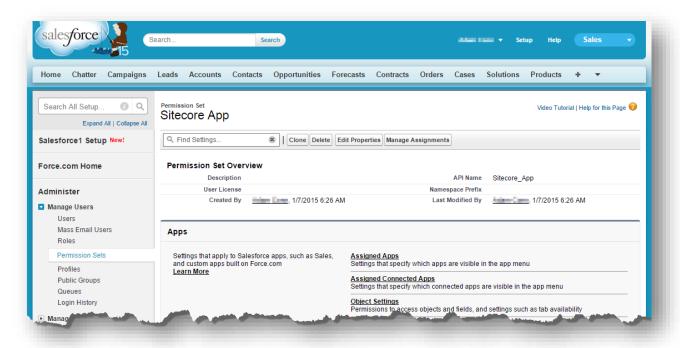


- 3. Enter values for the following fields and click Save
  - a. Label: Sitecore App
  - b. API Name: Sitecore\_App

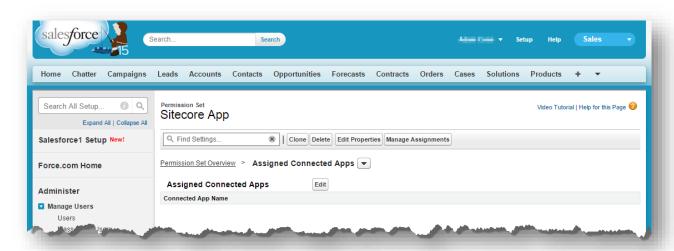




4. Click "Assigned Connected Apps" in the "Apps" section

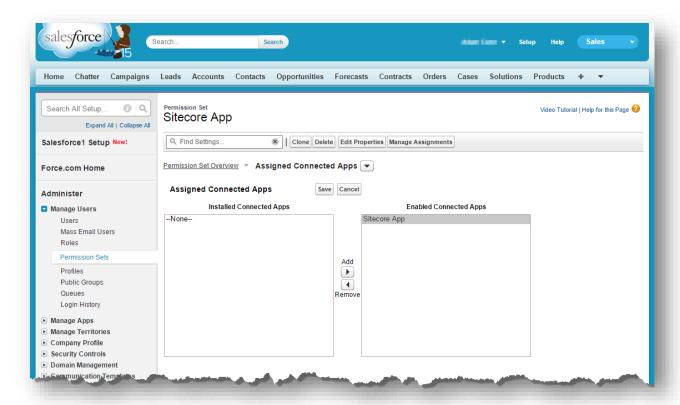


5. Click "Edit"

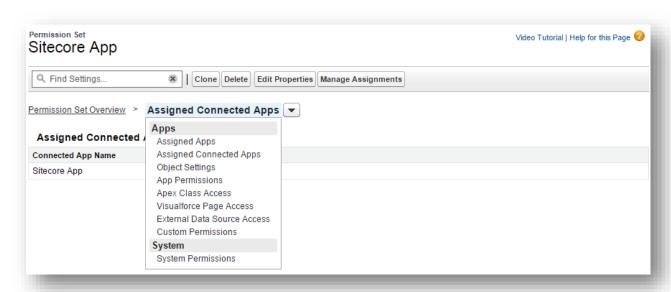




6. Add the connected app you created in the previous section and click Save

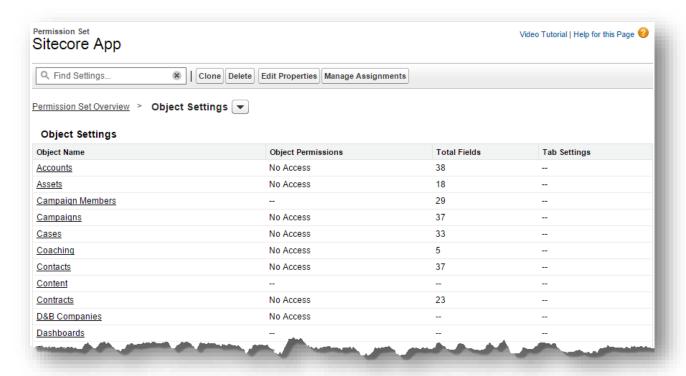


7. Navigate to Assigned Connected Apps > Object Settings

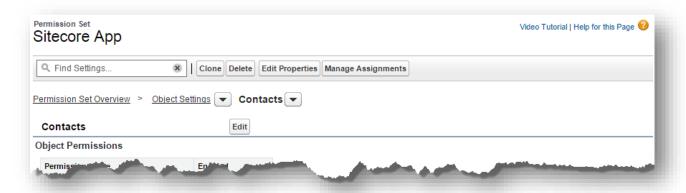




#### 8. Click "Contacts" in the "Object Settings" section

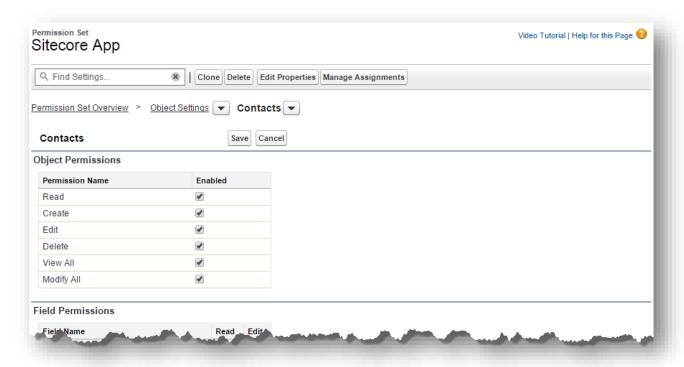


#### 9. Click "Edit"

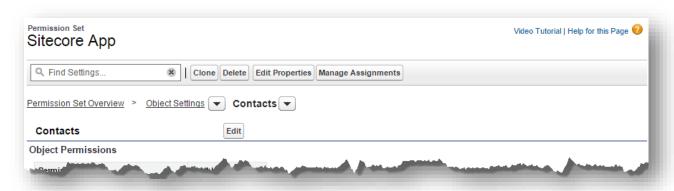




10. Check all of the boxes in the "Object Permissions" and "Field Permissions" sections and click Save (note: ignore any box that is disabled)

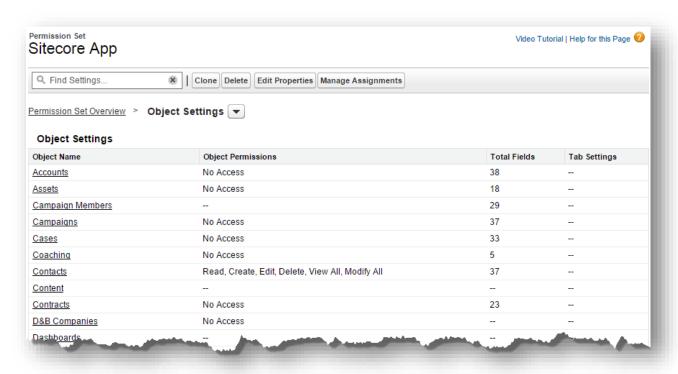


11. Click "Object Settings"





12. The Object Settings screen indicates that permissions have been assigned to Contacts objects.

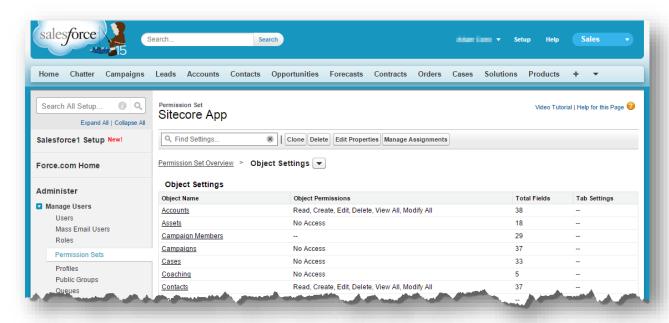




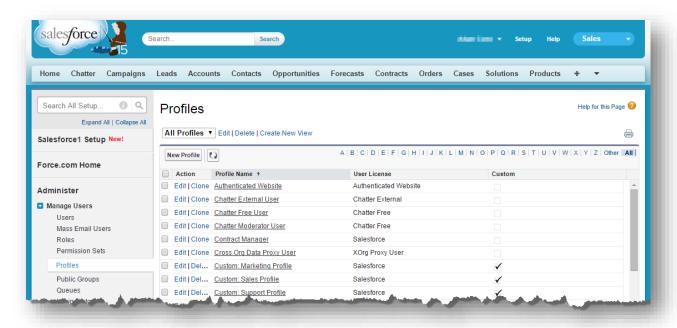
## 2.1.4 Create a new profile

This profile represents a new type of Salesforce user that Sitecore uses to interact with Salesforce.

1. Navigate to Manage Users > Profiles

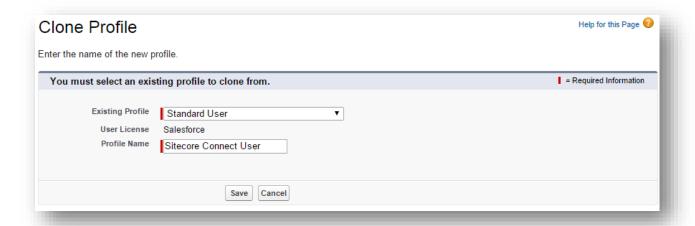


2. Click New Profile

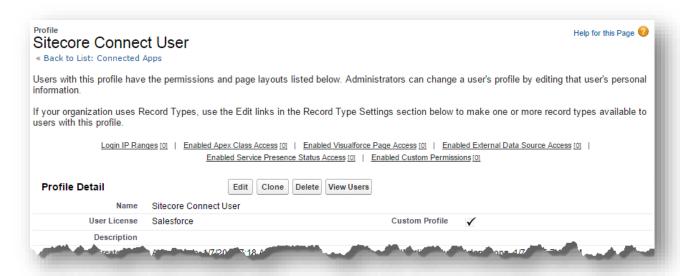


- 3. Enter values for the following fields and click Save
  - a. Existing Profile: Standard User
  - b. Profile Name: Sitecore Connect User



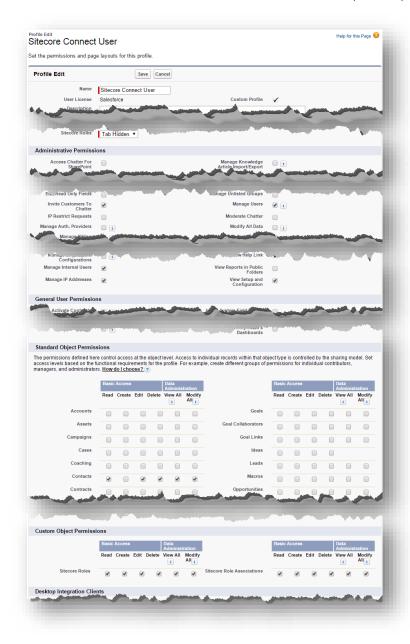


#### 4. Click Edit



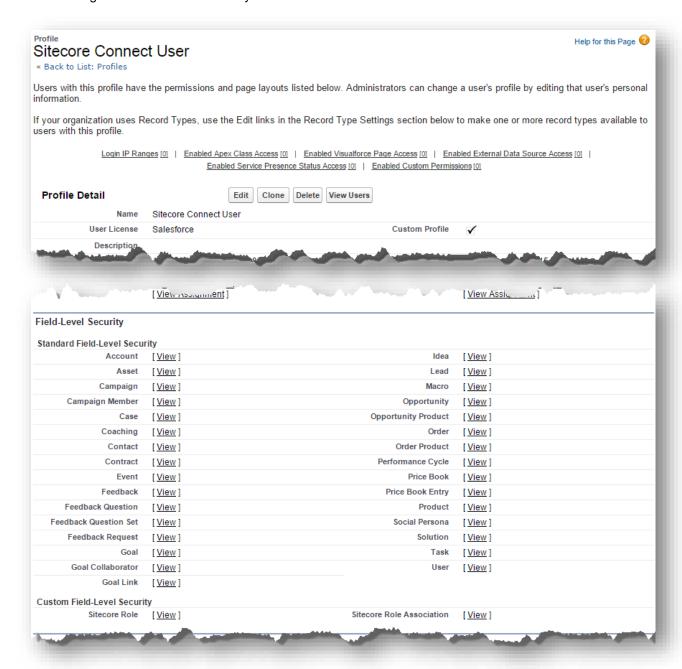


- 5. Set the following permissions and click Save
  - a. Administrative Permissions
    - i. Manage Users
    - ii. View Setup and Configuration
  - b. Standard Objects Permissions
    - i. Contacts: Read, Edit, Delete, View All, Modify All
  - c. Custom Object Permissions
    - i. Sitecore Roles: Read, Create, Edit, Delete, View All, Modify All
    - ii. Sitecore Role Associations: Read, Create, Edit, Delete, View All, Modify All





#### 6. Navigate to Field-Level Security > Contact > View

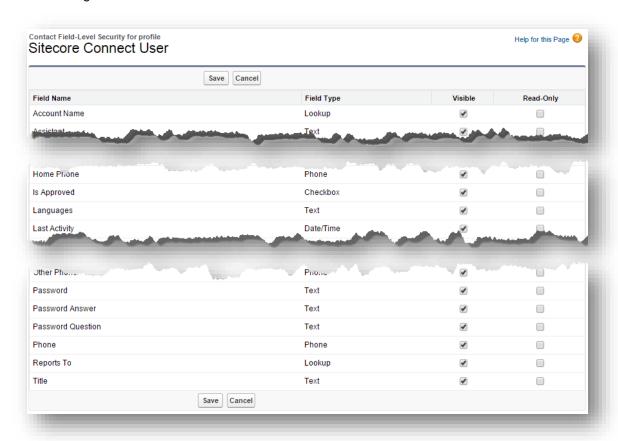




#### 7. Click Edit



- 8. Ensure the "Visible" box is checked for the following fields and click Save:
  - a. Is Approved
  - b. Last Activity
  - c. Last Login
  - d. Last Password Changed
  - e. Password
  - f. Password Answer
  - g. Password Question





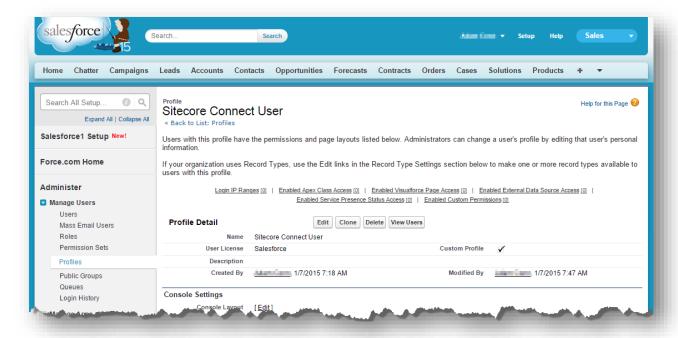
9. Click Back to Profile



#### 2.1.5 Create a new user

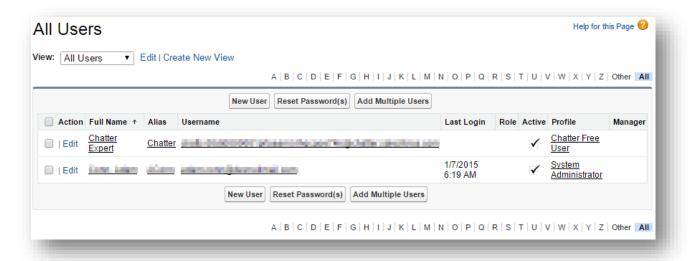
This is the Salesforce user account that Sitecore will use to communicate with Salesforce.

1. Navigate to Manage Users > Users

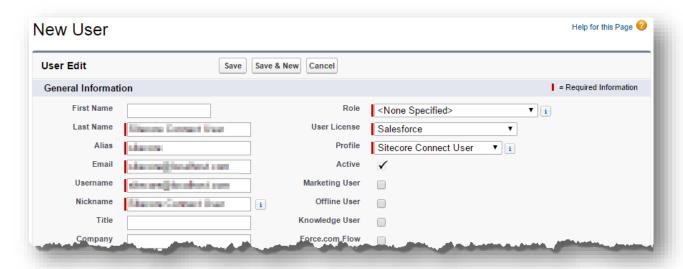




#### 2. Click New User

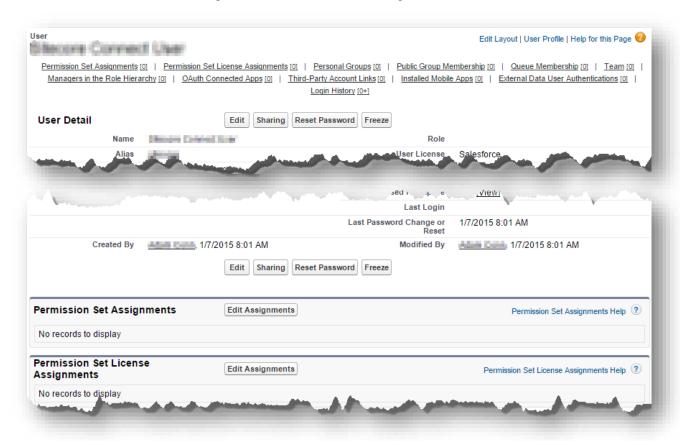


- 3. Enter values for the following fields and click Save
  - a. Last Name: [any value]
  - b. Alias: [any value]
  - c. Email: [any value]
  - d. Username: [any value]
  - e. Nickname: [any value]
  - f. Role: <None Specified>
  - g. User License: Salesforce
  - h. Profile: Sitecore Connect User

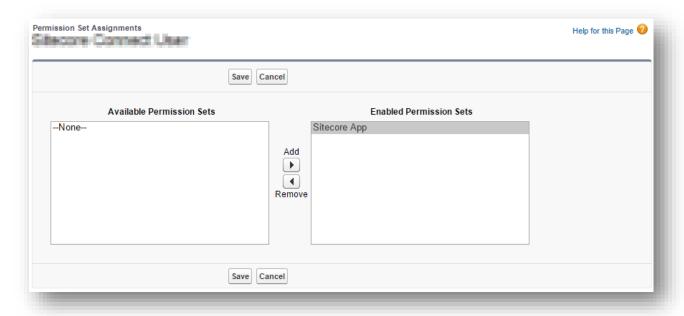




4. In the Permission Set Assignments section click Edit Assignments



5. Add the "Sitecore App" permission set and click Save





## 2.2 Sitecore configuration

This section describes the configuration that must be performed on Sitecore. An administrator for your Sitecore environment must follow these instructions.

## 2.2.1 Install the Sitecore package

Install the Sitecore installation package for Salesforce Connect.

## 2.2.2 Modify domains.config

Add the highlighted configuration:

## 2.2.3 Modify web.config

Make the following changes to configuration > Sitecore:

```
<switchingProviders>
   <membership>
    <previder providerName="sql" storeFullNames="true" wildcard="%" domains="*"</pre>
    cprovider providerName="salesforce" storeFullNames="false" wildcard="%"
domains="salesforce" />
   </membership>
   <roleManager>
    ignoredUserDomains="" allowedUserDomains="" />
    domains="salesforce" />
   </roleManager>
   file>
    domains="salesforce" />
    ignoredDomains=""
   </profile>
  </switchingProviders>
```



#### Make the following changes to configuration > system.web:

```
<membership defaultProvider="sitecore" hashAlgorithmType="SHA1">
      oroviders>
        <clear />
        \verb| <add name="sitecore" type="Sitecore.Security.SitecoreMembershipProvider,"|\\
Sitecore.Kernel" realProviderName="switcher" providerWildcard="%"
raiseEvents="true" />
        <add name="sql" type="System.Web.Security.SqlMembershipProvider"</pre>
connectionStringName="core" applicationName="sitecore"
minRequiredPasswordLength="1" minRequiredNonalphanumericCharacters="0"
requiresQuestionAndAnswer="false" requiresUniqueEmail="false"
maxInvalidPasswordAttempts="256" />
        <add name="switcher" type="Sitecore.Security.SwitchingMembershipProvider,</pre>
Sitecore.Kernel" applicationName="sitecore"
mappings="switchingProviders/membership" />
        <add name="salesforce"
type="Sitecore.Salesforce.Security.SalesforceMembershipProvider,
Sitecore.Salesforce" applicationName="sitecore" readOnly="false"
enablePasswordReset="true" minRequiredPasswordLength="1"
passwordStrengthRegularExpression=".*" minRequiredNonalphanumericCharacters="0"
maxInvalidPasswordAttempts="5" passwordAttemptWindow="0"
requiresQuestionAndAnswer="false" requiresUniqueEmail="true" />
      </providers>
    </membership>
    <roleManager defaultProvider="sitecore" enabled="true">
      oviders>
        <clear />
        <add name="sitecore" type="Sitecore.Security.SitecoreRoleProvider,</pre>
Sitecore.Kernel" realProviderName="switcher" raiseEvents="true" />
        <add name="sql" type="System.Web.Security.SqlRoleProvider"</pre>
connectionStringName="core" applicationName="sitecore" />
        <add name="switcher" type="Sitecore.Security.SwitchingRoleProvider,</pre>
Sitecore.Kernel" applicationName="sitecore"
mappings="switchingProviders/roleManager" />
        <add name="salesforce"
type="Sitecore.Salesforce.Security.SalesforceRoleProvider, Sitecore.Salesforce"
readOnly="false" applicationName="sitecore" />
      </providers>
    </roleManager>
    file defaultProvider="switcher" enabled="true"
inherits="Sitecore.Security.UserProfile, Sitecore.Kernel">
      cproviders>
        <clear />
        <add name="salesforce"
type="Sitecore.Salesforce.Profile.SalesforceProfileProvider, Sitecore.Salesforce"
readOnly="false" />
        <add name="sql" type="System.Web.Profile.SqlProfileProvider"</pre>
connectionStringName="core" applicationName="sitecore" />
        <add name="switcher" type="Sitecore.Security.SwitchingProfileProvider,</pre>
Sitecore.Kernel" applicationName="sitecore" mappings="switchingProviders/profile"
/>
      </providers>
      cproperties>
        <clear />
        <add type="System.String" name="SC_UserData" />
        <add type="System.String" name="FirstName"</pre>
customProviderData="salesforce:FirstName" />
       <add type="System.String" name="LastName"</pre>
customProviderData="salesforce:LastName" />
       <add type="System.String" name="JobTitle"</pre>
customProviderData="salesforce:Title" />
        <add type="System.DateTime" name="Birthdate"</pre>
customProviderData="salesforce:Birthdate" />
```



## 2.2.4 Modify Sitecore.Salesforce.config

Make the following changes.

1. Uncomment the following section: configuration > sitecore > salesforce > clients > client

- 2. Enter the consumer key and consumer secret values for the connected app you configured in Salesforce. Those values can be located by:
  - a. Log into Salesforce as an administrator
  - b. Navigate to Build > Create > Apps > Connected Apps > Sitecore App
- 3. Enter the security token value for the Sitecore user you created in Salesforce. That value can be located by:
  - a. Log into Salesforce as the Sitecore user
  - b. Navigate to My Settings > Personal > Reset My Security Token
- 4. Navigate to the following section: configuration > sitecore > pipelines > submitContact



5. Ensure that the name of your domain is listed under the processor WriteSalesforceData.

This is a performance-related setting. It ensures that Sitecore only tries to save the Salesforce data to xDB for users in a Salesforce domain. (The alternative is to remove the domains element. This will result in Sitecore trying to save the Salesforce data for every user, whether or not the user is a member of a Salesforce domain.)

The following configuration shows two Salesforce domains being configured:

## 2.2.5 Additional steps if using a Salesforce package namespace prefix

Only follow the instructions in this section if your Salesforce environment is configured to use a package namespace prefix.

The namespace prefix must be added to the names of the custom object and custom fields. The examples below are based on the namespace prefix being "abc".

Custom objects are defined under configuration > sitecore > salesforce > configurations > api > rolesApi

Node	Default value	Sample value with prefix
roleObjectName	SitecoreRole	adc_SitecoreRole
roleAssociationObjectName	SitecoreRoleAssociation	abc_SitecoreRoleAssociation

Custom fields are defined under configuration > sitecore > salesforce > configurations > fieldMapping

Node	Default value	Sample value with prefix
password	SC_Passwordc	abc_SC_Passwordc
passwordAnswer	SC_PasswordAnswerc	abc_SC_PasswordAnswerc
passwordQuestion	SC_PasswordQuestionc	abc_SC_PasswordQuestionc
isApproved	SC_IsApprovedc	abc_SC_IsApprovedc
lastLoginDate	SC_LastLoginc	abc_SC_LastLoginc
<b>lastActivityDate</b>	SC_LastActivityc	abc_SC_LastActivityc
lastPasswordChangedDate	SC_LastPasswordChangedc	abc_SC_LastPasswordChangedc



## 2.3 Upgrading from partial to full Salesforce support

This section describes how to upgrade an environment that is configured for partial Salesforce support to full Salesforce support.

This section assumes the environment was configured as described in Chapter 3.

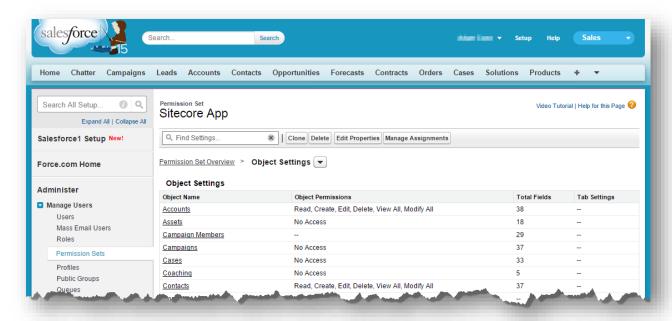
## 2.3.1 Install the Sitecore Salesforce package

Follow the steps in section 2.1.

## 2.3.2 Update Salesforce profile

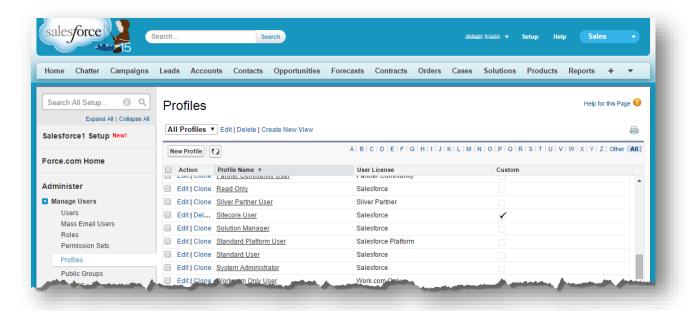
This profile represents a new type of Salesforce user that Sitecore uses to interact with Salesforce.

1. Navigate to Manage Users > Profiles

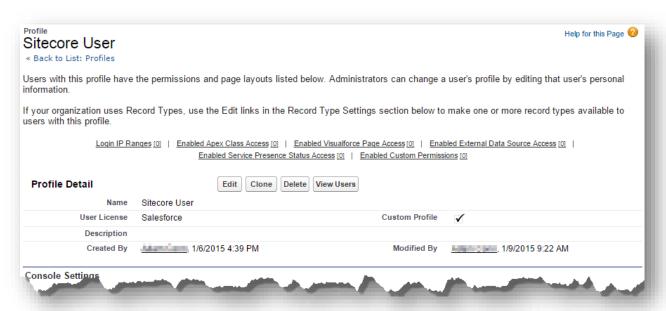




#### 2. Click Sitecore User

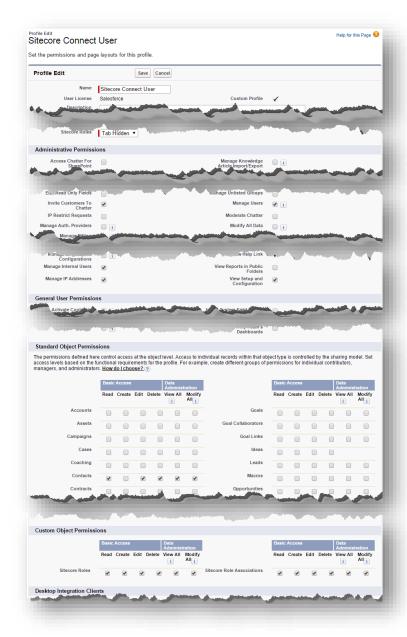


#### 3. Click Edit



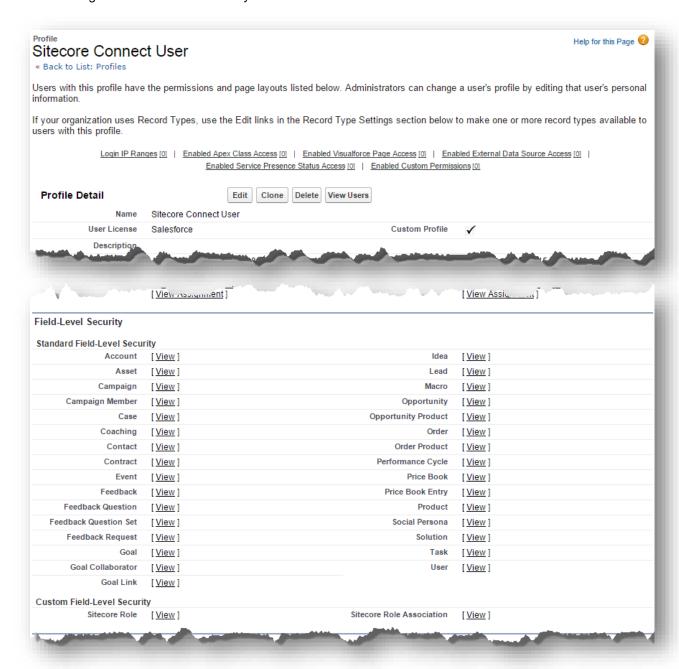


- 4. Set the following permissions and click Save
  - a. Custom Object Permissions
    - i. Sitecore Roles: Read, Create, Edit, Delete, View All, Modify All
    - ii. Sitecore Role Associations: Read, Create, Edit, Delete, View All, Modify All





#### 5. Navigate to Field-Level Security > Contact > View

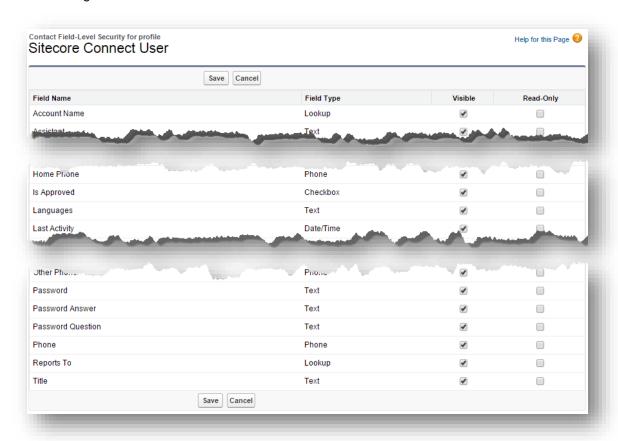




#### 6. Click Edit



- 7. Ensure the "Visible" box is checked for the following fields and click Save:
  - a. Is Approved
  - b. Last Activity
  - c. Last Login
  - d. Last Password Changed
  - e. Password
  - f. Password Answer
  - g. Password Question





#### 8. Click Back to Profile



# 2.3.3 Modify web.config

Make the following changes to configuration > Sitecore:

```
<switchingProviders>
    <membership>
     domains="salesforce" />
    </membership>
    <roleManager>
     cprovider providerName="sql" storeFullNames="true" wildcard="%" domains="*"
ignoredUserDomains="" allowedUserDomains="" />
     domains="salesforce" />
    </roleManager>
    cprofile>
     <previder providerName="salesforce" storeFullNames="false" wildcard="%"</pre>
domains="salesforce" />
     <previder providerName="sql" storeFullNames="true" wildcard="%" domains="*"</pre>
ignoredDomains="" />
    </profile>
  </switchingProviders>
```

#### Make the following changes to configuration > system.web > roleManager:



## 2.3.4 Modify Sitecore.Salesforce.config

Make the following changes to configuration > sitecore> salesforce > configurations > fieldMapping:

```
<fieldMapping type="Sitecore.Salesforce.Configuration.SalesforceFieldMapping,
Sitecore.Salesforce">
 <id>Id</id>
 <login>Email</login>
 <email>Email
 <description>Description</description>
 <password>SC Password c</password>
 <passwordAnswer>SC_PasswordAnswer__c
 <passwordQuestion>SC_PasswordQuestion__cpasswordQuestion>
 <isApproved>SC IsApproved c</isApproved>
 <isLockedOut></isLockedOut>
 <createdDate>CreatedDate
 <lastLoginDate>SC LastLogin c</lastLoginDate>
 <lastActivityDate>SC_LastActivity__c</lastActivityDate>
  <lastPasswordChangedDate>SC LastPasswordChanged c</lastPasswordChangedDate>
</fieldMapping>
```

If your Salesforce environment is configured with a package namespace prefix you must also follow the steps in section 2.2.5.



# **Chapter 3 Partial Salesforce support installation**

This chapter describes how to install Salesforce Connect with partial Salesforce support.



## 3.1 Salesforce configuration

This section describes the configuration that must be performed on Salesforce. An administrator for your Salesforce environment must follow these instructions.

## 3.1.1 Create a new connected app for Sitecore

Follow the steps in section 2.1.2.

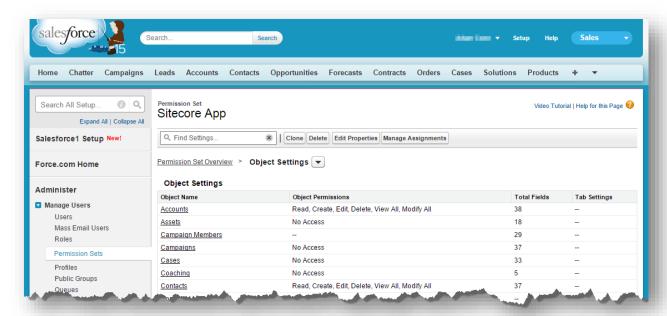
## 3.1.2 Create a new permission set

Follow the steps in section 2.1.3.

### 3.1.3 Create a new profile

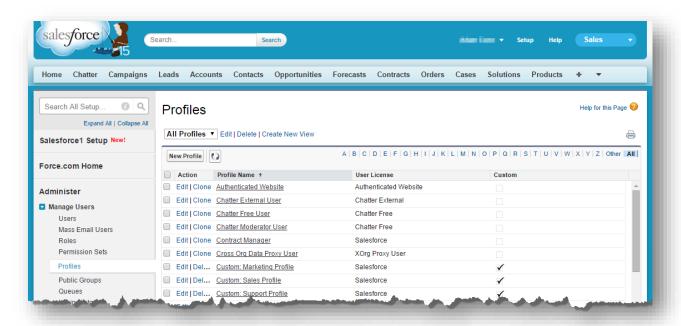
This profile represents a new type of Salesforce user that Sitecore uses to interact with Salesforce.

1. Navigate to Manage Users > Profiles

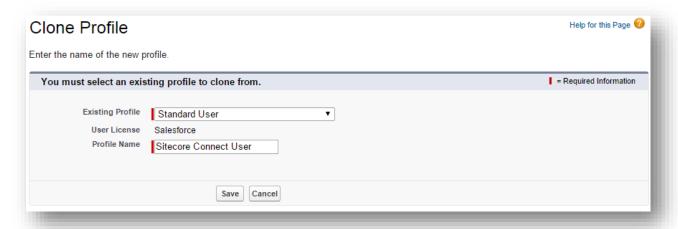




#### 2. Click New Profile

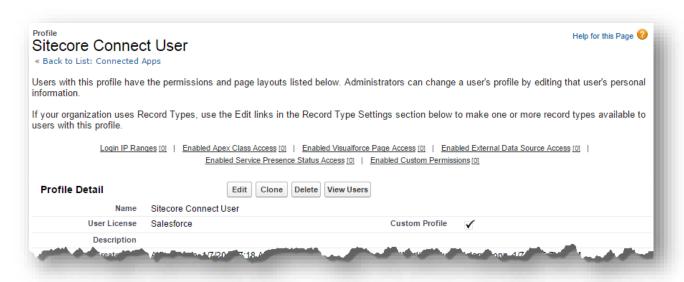


- 3. Enter values for the following fields and click Save
  - a. Existing Profile: Standard User
  - b. Profile Name: Sitecore Connect User



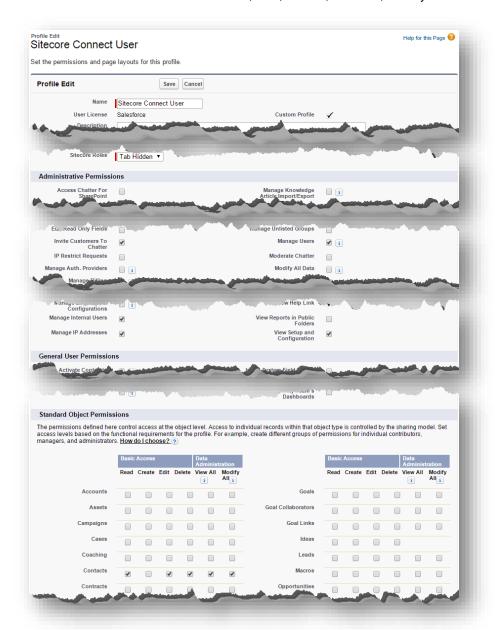


#### 4. Click Edit





- 5. Set the following permissions and click Save
  - a. Administrative Permissions
    - i. Manage Users
    - ii. View Setup and Configuration
  - b. Standard Objects Permissions
    - i. Contacts: Read, Edit, Delete, View All, Modify All



### 3.1.4 Create a new user

Follow the steps in section 2.1.5.



## 3.2 Sitecore configuration

This section describes the configuration that must be performed on Sitecore. An administrator for your Sitecore environment must follow these instructions.

## 3.2.1 Install the Sitecore package

Follow the steps in section 2.2.1.

## 3.2.2 Modify domains.config

Follow the steps in section 2.2.2.

# 3.2.3 Modify web.config

Make the following changes to configuration > Sitecore:



#### Make the following changes to configuration > system.web:

```
<membership defaultProvider="sitecore" hashAlgorithmType="SHA1">
      oroviders>
        <clear />
        \verb| <add name="sitecore" type="Sitecore.Security.SitecoreMembershipProvider", \\
Sitecore.Kernel" realProviderName="switcher" providerWildcard="%"
raiseEvents="true" />
        <add name="sql" type="System.Web.Security.SqlMembershipProvider"</pre>
connectionStringName="core" applicationName="sitecore"
minRequiredPasswordLength="1" minRequiredNonalphanumericCharacters="0"
requiresQuestionAndAnswer="false" requiresUniqueEmail="false"
maxInvalidPasswordAttempts="256" />
        <add name="switcher" type="Sitecore.Security.SwitchingMembershipProvider,</pre>
Sitecore.Kernel" applicationName="sitecore"
mappings="switchingProviders/membership" />
        <add name="salesforce"</pre>
type="Sitecore.Salesforce.Security.SalesforceMembershipProvider,
Sitecore.Salesforce" applicationName="sitecore" readOnly="false"
enablePasswordReset="true" minRequiredPasswordLength="1"
passwordStrengthRegularExpression=".*" minRequiredNonalphanumericCharacters="0"
maxInvalidPasswordAttempts="5" passwordAttemptWindow="0"
requiresQuestionAndAnswer="false" requiresUniqueEmail="true" />
      </providers>
    </membership>
    file defaultProvider="switcher" enabled="true"
inherits="Sitecore.Security.UserProfile, Sitecore.Kernel">
      cproviders>
        <clear />
        <add name="salesforce"
type="Sitecore.Salesforce.Profile.SalesforceProfileProvider, Sitecore.Salesforce"
readOnly="false" />
        <add name="sql" type="System.Web.Profile.SqlProfileProvider"</pre>
connectionStringName="core" applicationName="sitecore" />
        <add name="switcher" type="Sitecore.Security.SwitchingProfileProvider,</pre>
Sitecore. Kernel application Name="sitecore" mappings="switchingProviders/profile"
/>
      </providers>
      cproperties>
        <clear />
        <add type="System.String" name="SC_UserData" />
<add type="System.String" name="FirstName"</pre>
customProviderData="salesforce:FirstName" />
        <add type="System.String" name="LastName"</pre>
customProviderData="salesforce:LastName" />
        <add type="System.String" name="JobTitle"</pre>
customProviderData="salesforce:Title" />
        <add type="System.DateTime" name="Birthdate"</pre>
customProviderData="salesforce:Birthdate" />
        <add type="System.String" name="Phone"</pre>
customProviderData="salesforce:Phone" />
      </properties>
    </profile>
```



## 3.2.4 Modify Sitecore.Salesforce.config

Make the following changes.

1. Uncomment the following section: configuration > Sitecore > salesforce > clients > client

- 2. Enter the consumer key and consumer secret values for the connected app you configured in Salesforce. Those values can be located by:
  - a. Log into Salesforce as an administrator
  - b. Navigate to Build > Create > Apps > Connected Apps > Sitecore App
- 3. Enter the security token value for the Sitecore user you created in Salesforce. That value can be located by:
  - a. Log into Salesforce as the Sitecore user
  - b. Navigate to My Settings > Personal > Reset My Security Token
- 4. Make the following changes to configuration > sitecore> salesforce > configurations > fieldMapping:

```
<fieldMapping
type="Sitecore.Salesforce.Configuration.SalesforceFieldMapping,
Sitecore.Salesforce">
           <id>Id</id>
           <login>Email</login>
           <email>Email
           <description>Description</description>
           <password></password>
           <passwordAnswer></passwordAnswer>
           <passwordQuestion></passwordQuestion>
           <isApproved></isApproved>
           <isLockedOut></isLockedOut>
           <createdDate>CreatedDate
           <lastLoginDate></lastLoginDate>
           <lastActivityDate></lastActivityDate>
           <lastPasswordChangedDate></lastPasswordChangedDate>
         </fieldMapping>
```



# **Chapter 4 Using Salesforce Connect**

This chapter describes how to use Salesforce Connect.



# 4.1 Mapping Salesforce objects to Sitecore users

Salesforce Connect uses ASP.NET membership components to expose Salesforce entities as Sitecore users.

## 4.1.1 Membership provider

The membership provider is responsible for interacting with Salesforce objects and representing those objects as Sitecore users.

By default Salesforce Connect reads all contacts from Salesforce. This behavior can be changed. For example, an alternate objects may represent what should be exposed as Sitecore users.

The mapping of the Salesforce objects to the Sitecore user model is defined in the Sitecore. Salesforce.config file in the following section:

configuration > sitecore > salesforce > configurations > configuration > api > contactsApi

## 4.1.2 Role provider

The role provider is responsible for determining which roles a Sitecore user is a member of.

By default Salesforce Connect uses the SitecoreRole object in Salesforce to determine which roles a Sitecore user is a member of. This object is populated when Sitecore users are added to roles using the Sitecore User Manager or the Sitecore API.

#### Note:

The SitecoreRole object is a custom object that is added to your Salesforce environment when the Salesforce package is installed. This explains why the role provider is not used with partial Salesforce support mode.

If a different means for associating roles to a user is required the default behavior can be changed. In this case a custom IRolesApi implemented is required. This is configured in the Sitecore.Salesforce.config file in the following section:

configuration > sitecore > salesforce > configurations > configuration > api > rolesApi

## 4.1.3 Profile provider

The profile provider is responsible for populating the Sitecore user's profile.

The mapping of Salesforce properties to the Sitecore user profile is defined in web.config in the following section:

configuration > system.web > profile > properties

By default the following properties are mapped from Salesforce to the Sitecore user profile:

Salesforce contact field	Sitecore user property
FirstName	FirstName
LastName	LastName
Title	JobTitle
BirthDate	Birthdate
Phone	Phone



# 4.1.4 Caching

In order to minimize the number of Salesforce API calls that are made Salesforce Connect uses caches to store data that is read from Salesforce. The caches are defined in the Sitecore.Salesforce.config file in the following section:

configuration > sitecore > salesforce > configurations > configuration > api



# 4.2 Experience Database integration

This section describes how Salesforce Connect integrates Salesforce data with the Sitecore Experience Database (xDB).

### 4.2.1 Contact Facet

Salesforce Connect stores Salesforce contact data in xDB through a contact facet named "Salesforce Data". This contact facet is defined in the Sitecore.Salesforce.config file.

#### Note:

Salesforce Connect does not include an extension to display Salesforce data in the Sitecore Experience Profile (xProfile). The Salesforce data is in the xDB but that data will not appear in the xProfile.



# 4.3 Configuring multiple Salesforce accounts

This section describes how to integrate multiple Salesforce accounts with a single Sitecore server.

## 4.3.1 Modify domains.config

Each Salesforce account requires a unique domain in Sitecore. This is configured in the domains.config file. The following is an example of two domains being defined for two Salesforce accounts:

```
<?xml version="1.0" encoding="utf-8"?>
<domains xmlns:sc="Sitecore">
  <domain name="sitecore" ensureAnonymousUser="false" />
  <domain name="extranet" />
  <domain name="default" isDefault="true" />
  <domain name="salesforce1" AccountNameValidation=".+" ensureAnonymousUser="false"</pre>
defaultProfileItemID="{4F2D283A-1035-498F-8E66-B02EC5B816E0}" />
  <domain name="salesforce2" AccountNameValidation=".+" ensureAnonymousUser="false"</pre>
defaultProfileItemID="{4F2D283A-1035-498F-8E66-B02EC5B816E0}" />
  <sc:templates>
    <domain type="Sitecore.Security.Domains.Domain, Sitecore.Kernel">
      <ensureAnonymousUser>true</ensureAnonymousUser>
      <locallyManaged>false</locallyManaged>
    </domain>
  </sc:templates>
</domains>
```

## 4.3.2 Modify Sitecore.Salesforce.config

Each Salesforce account requires a unique Salesforce provider in Sitecore. This is configured in the Sitecore. Salesforce.config file.

The following is an example of two providers being defined for two Salesforce accounts. This is configured in the section configuration > sitecore > salesforce:

```
<salesforceManager defaultProvider="salesforce1">
  cproviders>
    <clear/>
    <add name="salesforce1" type="Sitecore.Salesforce.SalesforceProvider,</pre>
Sitecore.Salesforce"/>
    <add name="salesforce2" type="Sitecore.Salesforce.SalesforceProvider,</pre>
Sitecore.Salesforce"/>
  </providers>
</salesforceManager>
<clients>
  <client provider="salesforce1" type="Sitecore.Salesforce.Client.SalesforceClient,</pre>
Sitecore.Salesforce.Client" singleInstance="true">
    <param desc="authenticator"</pre>
type="Sitecore.Salesforce.Client.Security.PasswordAuthenticator,
Sitecore.Salesforce.Client">
      <consumerKey>##########</consumerKey>
      <consumerSecret>##########</consumerSecret>
      <userName>##########</userName>
      <password>##########</password>
      <securityToken>##########</securityToken>
    </param>
    <rateLimitWaiting>120</rateLimitWaiting>
  <client provider="salesforce2" type="Sitecore.Salesforce.Client.SalesforceClient,</pre>
Sitecore.Salesforce.Client" singleInstance="true">
```



```
<param desc="authenticator"</pre>
type="Sitecore.Salesforce.Client.Security.PasswordAuthenticator,
Sitecore.Salesforce.Client">
      <consumerKey>##########</consumerKey>
      <consumerSecret>##########</consumerSecret>
     <userName>##########</userName>
      <password>##########</password>
      <securityToken>##########</securityToken>
   </param>
    <rateLimitWaiting>120</rateLimitWaiting>
  </client>
</clients>
<configurations>
 <configuration default="true" provider="salesforce1"</pre>
type="Sitecore.Salesforce.Configuration.SalesforceConfiguration,
Sitecore.Salesforce">
    <param desc="name">$(provider)</param>
    <client ref="salesforce/clients/*[@provider='$(provider)'][1]"/>
 </configuration>
  <configuration default="true" provider="salesforce2"</pre>
type="Sitecore.Salesforce.Configuration.SalesforceConfiguration,
Sitecore.Salesforce">
    <param desc="name">$(provider)</param>
    <client ref="salesforce/clients/*[@provider='$(provider)'][1]"/>
  </configuration>
</configurations>
```

## 4.3.3 Modify web.config

Web.config must be updated to handle the two Salesforce providers.

The following is an example of

The following is an example of the configuration from the section configuration > sitecore:

```
<switchingProviders>
    <membership>
     />
     domains="salesforce" />
     orider providerName="salesforce2" storeFullNames="false" wildcard="%"
domains="salesforce" />
    </membership>
    <roleManager>
     ignoredUserDomains="" allowedUserDomains="" />
     cprovider providerName="salesforce1" storeFullNames="false" wildcard="%"
domains="salesforce" />
     cprovider providerName="salesforce2" storeFullNames="false" wildcard="%"
domains="salesforce" />
    </roleManager>
    file>
     domains="salesforce" />
     cprovider providerName="salesforce2" storeFullNames="false" wildcard="%"
domains="salesforce" />
     <previder providerName="sql" storeFullNames="true" wildcard="%" domains="*"</pre>
ignoredDomains="" />
    </profile>
  </switchingProviders>
```

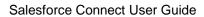


The following is an example of the configuration from the section configuration > system.web > roleManager:

```
<membership defaultProvider="sitecore" hashAlgorithmType="SHA1">
      oviders>
        <clear />
        <add name="sitecore" type="Sitecore.Security.SitecoreMembershipProvider,</pre>
Sitecore.Kernel" realProviderName="switcher" providerWildcard="%"
raiseEvents="true" />
        <add name="sql" type="System.Web.Security.SqlMembershipProvider"</pre>
connectionStringName="core" applicationName="sitecore"
minRequiredPasswordLength="1" minRequiredNonalphanumericCharacters="0"
requiresQuestionAndAnswer="false" requiresUniqueEmail="false"
maxInvalidPasswordAttempts="256" />
        <add name="switcher" type="Sitecore.Security.SwitchingMembershipProvider,</pre>
Sitecore.Kernel" applicationName="sitecore"
mappings="switchingProviders/membership" />
        <add name="salesforce1"
type="Sitecore.Salesforce.Security.SalesforceMembershipProvider,
Sitecore.Salesforce" applicationName="sitecore" readOnly="false"
enablePasswordReset="true" minRequiredPasswordLength="1"
passwordStrengthRegularExpression=".*" minRequiredNonalphanumericCharacters="0"
maxInvalidPasswordAttempts="5" passwordAttemptWindow="0"
requiresQuestionAndAnswer="false" requiresUniqueEmail="true" />
        <add name="salesforce2"</pre>
type="Sitecore.Salesforce.Security.SalesforceMembershipProvider,
Sitecore.Salesforce" applicationName="sitecore" readOnly="false"
enablePasswordReset="true" minRequiredPasswordLength="1"
passwordStrengthRegularExpression=".*" minRequiredNonalphanumericCharacters="0"
maxInvalidPasswordAttempts="5" passwordAttemptWindow="0"
requiresQuestionAndAnswer="false" requiresUniqueEmail="true" />
      </providers>
    </membership>
    <roleManager defaultProvider="sitecore" enabled="true">
      oviders>
        <clear />
        <add name="sitecore" type="Sitecore.Security.SitecoreRoleProvider,</pre>
Sitecore.Kernel" realProviderName="switcher" raiseEvents="true" />
        <add name="sql" type="System.Web.Security.SqlRoleProvider"</pre>
connectionStringName="core" applicationName="sitecore" />
        <add name="switcher" type="Sitecore.Security.SwitchingRoleProvider,</pre>
Sitecore.Kernel" applicationName="sitecore"
mappings="switchingProviders/roleManager" />
        <add name="salesforce1"</pre>
type="Sitecore.Salesforce.Security.SalesforceRoleProvider, Sitecore.Salesforce"
readOnly="false" applicationName="sitecore" />
        <add name="salesforce2"</pre>
type="Sitecore.Salesforce.Security.SalesforceRoleProvider, Sitecore.Salesforce"
readOnly="false" applicationName="sitecore" />
      </providers>
    </roleManager>
    file defaultProvider="switcher" enabled="true"
inherits="Sitecore.Security.UserProfile, Sitecore.Kernel">
      cproviders>
        <clear />
        <add name="salesforce1"</pre>
type="Sitecore.Salesforce.Profile.SalesforceProfileProvider, Sitecore.Salesforce"
readOnly="false" />
        <add name="salesforce2"</pre>
type="Sitecore.Salesforce.Profile.SalesforceProfileProvider, Sitecore.Salesforce"
readOnly="false" />
        <add name="sql" type="System.Web.Profile.SqlProfileProvider"</pre>
connectionStringName="core" applicationName="sitecore" />
```



```
<add name="switcher" type="Sitecore.Security.SwitchingProfileProvider,</pre>
Sitecore. Kernel application Name = "sitecore mappings = "switching Providers/profile"
/>
      </providers>
      cproperties>
        <clear />
        <add type="System.String" name="SC UserData" />
        <add type="System.String" name="FirstName"</pre>
customProviderData="salesforce1:FirstName|salesforce2:FirstName" />
        <add type="System.String" name="LastName"</pre>
customProviderData="salesforce1:LastName|salesforce2:LastName" />
        <add type="System.String" name="JobTitle"</pre>
customProviderData="salesforce1:Title|salesforce2:Title" />
        <add type="System.DateTime" name="Birthdate"</pre>
customProviderData="salesforce1:Birthdate|salesforce2:Birthdate" />
        <add type="System.String" name="Phone"</pre>
customProviderData="salesforce1:Phone|salesforce2:Phone" />
      </properties>
    </profile>
```





# Chapter 5 Troubleshooting

This chapter describes how to troubleshoot Salesforce Connect.

#### 5.1 Authentication

This section describes common errors that may occur when trying to authenticate a Salesforce contact using Sitecore.

## 5.1.1 Authenticating from Sitecore

Attempting to use Sitecore to authenticate a Salesforce contact results in the following exception:

```
Exception: Sitecore.Salesforce.Client.Exceptions.SalesforceException
       Id = '003j0000006pcVsAAI' AND = 'jEEaie1thG8GTtDezbo6hX8NFmc='
       ERROR at Row:1:Column:60
       unexpected token: '='
       Source: Sitecore.Salesforce.Client
          at Sitecore.Salesforce.Client.SalesforceClient.HttpGet[T](String resource)
          at Sitecore.Salesforce.Api.ContactsApi.CheckHashedFieldEquality(String userId,
String fieldName, String value)
          at Sitecore.Salesforce.Security.SalesforceMembershipProvider.ValidateUser(String
username, String password)
          at Sitecore.Data.DataProviders.NullRetryer.Execute[T](Func`1 action, Action
recover)
          at Sitecore.Security.SitecoreMembershipProvider.ValidateUser(String username,
String password)
System. Web.UI. WebControls. Login. AuthenticateUsingMembershipProvider (AuthenticateEventArgs e)
          at System.Web.UI.WebControls.Login.AttemptLogin()
          at System.Web.UI.WebControls.Login.OnBubbleEvent(Object source, EventArgs e)
          at System. Web. UI. Control. Raise Bubble Event (Object source, Event Args args)
          at System.Web.UI.Page.ProcessRequestMain(Boolean includeStagesBeforeAsyncPoint,
Boolean includeStagesAfterAsyncPoint)
```

The following options are available to fix this exception:

- A. Do not attempt to authenticate Salesforce contacts when partial Salesforce support is configured.
- B. Configure full Salesforce support.

## 5.1.2 Reset password on Salesforce contact

Salesforce contacts that are created by Salesforce will not have a password set. In order for those contacts to be able to log into Sitecore a password must be set.

#### Note:

This functionality is only available when using full Salesforce support. Partial Salesforce support does not support authentication.

The password is stored on a custom field on the Salesforce contact. The default field name is SC\_Password\_\_c.

#### Note:

The field name will be different if the Salesforce environment is configured to use a package namespace prefix. See section 2.2.5 for more information.

The field value must be encrypted using SHA-1. The following C# code demonstrates how you can generate the field value that must be saved in the Salesforce contact's password field.

```
var password = "xxx123";
var managed = new System.Security.Cryptography.SHA1Managed();
var bytes = System.Text.Encoding.UTF8.GetBytes(password);
var hashedPassword = System.Convert.ToBase64String(managed.ComputeHash(bytes));
```



# 5.2 Sitecore user management

This section describes common errors that may occur when trying to manage a Salesforce contact using the Sitecore User Manager.

#### 5.2.1 User creation

When using the Sitecore User Manager to create a new user results in the following exception:

```
Exception: System.ArgumentException
                 Message: An item with the same key has already been added.
                 Source: mscorlib
                        at System.Collections.Generic.Dictionary`2.Insert(TKey key, TValue value, Boolean
add)
                        \verb|at Sitecore.Sales force.Security.Sales force Membership Provider.Create User (String Institute of Control 
username, String password, String email, String passwordQuestion, String passwordAnswer,
Boolean isApproved, Object providerUserKey, MembershipCreateStatus& status)
                        at Sitecore.Security.SwitchingMembershipProvider.CreateUser(String userName, String
password, String email, String passwordQuestion, String passwordAnswer, Boolean isApproved,
Object providerUserKey, MembershipCreateStatus& status)
Sitecore.Security.SitecoreMembershipProvider.<>c DisplayClass9.<CreateUser>b 8()
                        at Sitecore.Data.DataProviders.NullRetryer.Execute[T](Func`1 action, Action
recover)
                        at Sitecore.Security.SitecoreMembershipProvider.CreateUser(String username, String
password, String email, String passwordQuestion, String passwordAnswer, Boolean isApproved,
Object providerUserKey, MembershipCreateStatus& status)
                        at System.Web.UI.WebControls.CreateUserWizard.AttemptCreateUser()
System.Web.UI.WebControls.CreateUserWizard.OnNextButtonClick(WizardNavigationEventArgs e)
                        at System.Web.UI.WebControls.Wizard.OnBubbleEvent(Object source, EventArgs e)
                        at System.Web.UI.Control.RaiseBubbleEvent(Object source, EventArgs args)
                        at System.Web.UI.Page.ProcessRequestMain(Boolean includeStagesBeforeAsyncPoint,
Boolean includeStagesAfterAsyncPoint)
```

The following options are available to fix this exception:

- Do not attempt to authenticate Salesforce contacts when partial Salesforce support is configured.
- B. Configure full Salesforce support.