

Integrating Clarizen with SharePoint

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Chapter 1

Overview

Topics:

- [Supported SharePoint versions](#)
 - [Overview of the integration](#)
 - [Clarizen Server components](#)
 - [Installation files](#)
-

Supported SharePoint versions

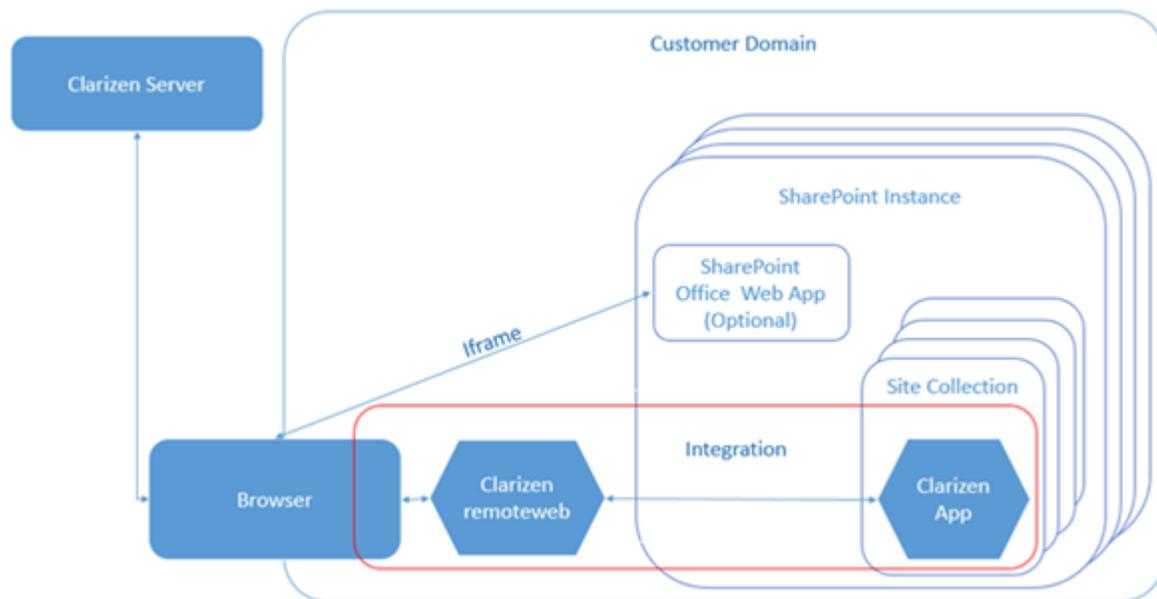
At this time, Clarizen supports integration with SharePoint 2013 on-premise.

Overview of the integration

Clarizen integration with SharePoint adds robust bi-directional content management capabilities into the Clarizen user experience. The integration is supported for all Clarizen item types (e.g. work items, cases, etc.) and allows viewing, creating, and editing SharePoint content (files, folders, sub-sites and sites) directly from Clarizen and linking them to Clarizen items. The linked SharePoint content appears in Clarizen, in the **Files** panel for the linked item.

For more information on the benefits of the integration and the functionality available to Clarizen users post-integration, refer to the [Clarizen integration with SharePoint](#) article.

Clarizen Server components



Note: SharePoint Office Web App is an optional component. To learn more, visit [Microsoft Technet](#). If app is not installed, SharePoint content is opened using Clarizen file viewer.

Clarizen server

The Clarizen web application

Clarizen remoteweb

The new installable component developed by Clarizen for integration with Microsoft SharePoint. Clarizen remoteweb connects the Clarizen application to SharePoint site collections.

You *must* install a separate Clarizen remoteweb for *each* SharePoint site collection.

Clarizen remoteweb *must* be installed in a Windows environment.

Clarizen app

The new Clarizen web component that must be installed for each SharePoint site collection.

Installation files

You will need the following installation files developed by Clarizen to configure the integration:

-  **Note:** At this time, the files are provided to you by Clarizen on a by-request basis.
-  **Note:** You must run scripts 1 - 5 for each SharePoint site collection; you only need to run scripts 6 -7 once during the initial integration.

Table 1: Installation files provided by Clarizen

File name	Where to install	Description
1-ConfigApp.ps1	SharePoint	Updates the configuration files with SharePoint and Clarizen Provider App settings.
2-Install-IIS.ps1	Clarizen re~ moteweb	Creates the app pool, the IIS web site, applies the certificate and bindings.
3-SpTokenIssuer.ps1	SharePoint	Creates the trusted root authority based on the certificate.
4-DeployRemoteWeb.ps1	Clarizen re~ moteweb	Deploys all necessary files to the Clarizen Pro~ vider App machine
5-AppRegNew.ps1	SharePoint	Creates the application content catalog based on the values you provide for the site collection URL and the app catalog admin. It also registers the app domain and the app prefix.
6-RemoteAdministratorAccessDenied.ps1	SharePoint	Activates the remote administration access.
7-AddAdministratorAccessDenied.ps1	SharePoint	Applies additional security for remote adminis~ tration access.
config.xml	SharePoint	Contains integration properties.

Chapter

2

Configuring integration with SharePoint

Topics:

- 1. Verify required SharePoint services are provisioned and started
- 2. Prepare the environment for installing Clarizen remoteweb
- 3. Register Clarizen remoteweb in SharePoint
- 4. Copy the scripts to SharePoint and Clarizen remoteweb
- 5. Copy the SSL certificates to SharePoint and Clarizen remoteweb
- 6. Edit the SharePoint configuration file
- 6. Create configuration file on SharePoint for Clarizen remoteweb
- 7. Install Clarizen remoteweb and enable authentication
- 8. Add Clarizen remoteweb to the list of trusted SharePoint services
- 9. Deploy Clarizen remoteweb
- 11. Create the app catalog and set the admin in SharePoint
- 12. Activate remote administration access in SharePoint
- 13. Activate remoteweb in SharePoint
- 14. Activate remote administration access in SharePoint
- 15. Register SharePoint in Clarizen
- 16. Configure Clarizen to use SharePoint for external storage

1. Verify required SharePoint services are provisioned and started

-  **Note:** These instructions assume that you have already configured an environment for apps for SharePoint. If the environment has not been configured, refer to the [instructions from Microsoft for SharePoint 2013](#) on how to configure the environment.

Verify the following SharePoint service applications are provisioned and started:

Table 2: Required SharePoint service applications

Service name	More information
Subscription Settings and App Management service applications	https://technet.microsoft.com/en-us/library/fp161236.aspx#ConfigureAppServices
User Profile service	http://social.technet.microsoft.com/wiki/contents/articles/12518.sharepoint-2013-user-profile-service-application.aspx

2. Prepare the environment for installing Clarizen remoteweb

-  **Note:** You must be system and domain administrator to perform this task.

To prepare the environment for installing Clarizen remoteweb:

1. Appoint a machine with a Windows OS within same domain as your SharePoint apps.
2. Configure a sub-domain for Clarizen remoteweb. To simplify troubleshooting, Clarizen recommends naming your sub-domain **remoteweb**.

For example:

`<sharepoint-apps-domain-name>.remoteweb.com`

3. From the Microsoft web site, [download and install Web Deploy](#) which simplifies deployment of Web applications to IIS servers.
4. Create a SSL certificate for the Clarizen remoteweb and add it to the Certificate store.

3. Register Clarizen remoteweb in SharePoint

In the SharePoint farm, as a SharePoint administrator, register Clarizen remoteweb as follows:

1. Navigate to the following URL:

`<Share_Point_domain_name>/_layouts/15/appregnew.aspx`

Where, `<Share_Point_domain_name>` is the domain name of the SharePoint farm.

2. In the next screen:

The screenshot shows a configuration form with the following fields and values:

- App ID:** 06c51829-81b0-410d-ada9-e4ebf1e24ce2 (with a Generate button)
- App Secret:** n5/eYcDj6xWV6glVZWXI24fmx3Mghv3/vGpw= (with a Generate button)
- Title:** Sample App
- App Domain:** remoteweb (with an 'x' icon and an example: "www.contoso.com")
- Redirect URI:** (with an example: "https://www.contoso.com/default.aspx")

- Click **Generate** for the **App ID** field.
- Click **Generate** for the **App Secret** field.
- In the **Title** field, enter the title of the Clarizen remoteweb, e.g. **remoteweb**.
- In the **App Domain** field, enter the domain name of the Clarizen provider app, e.g. **remoteweb**.

The information is saved in the **config.xml** file on the SharePoint machine.

4. Copy the scripts to SharePoint and Clarizen remoteweb

To copy the installation files:

- On the SharePoint server and the remoteweb machine, create a new directory (e.g. **C:_autoinstall**).
- From the Clarizen distribution, copy the following files to the directory on the SharePoint machine:
 - 1-ConfigApp.ps1**
 - 3-SpTokenIssuer.ps1**
 - 5-AppRegNew.ps1**
 - 6-RemoteAdministratorAccessDenied.ps1**
 - 7-AddAdministratorAccessDenied.ps1**
 - config.xml**
- From the Clarizen distribution, copy the following files to the directory on the remoteweb machine:
 - 2-Install-IIS.ps1**
 - 4-DeployRemoteWeb.ps1**

5. Copy the SSL certificates to SharePoint and Clarizen remoteweb

Copy the SSL certificates you have previously generated as follows:

- On the SharePoint server and the remoteweb machine, create a new directory (e.g. **C:\certs**).

 **Note:** Make sure that you have the **Read** permissions for the directory.

2. Copy the following certificate files to *both* the SharePoint and remoteweb machines:

- remoteweb.pfx
- remoteweb.cer
- <share_point>.pfx
- <share_point>.cer

 **Note:** The files names must be the same on both machines.

6. Edit the SharePoint configuration file

On the SharePoint server, navigate to the location where you have copied the **config.xml** file (e.g. C:_autoinstall) and update values for the remoteweb environment:

```
<key>
  <name>RemoteWebUrl</name>
  <value>https://remoteweb2</value> // URL of Clarizen remoteweb
</key>
<key>
  <name>RemoteWebIIS</name>
  <value>remoteweb2</value> // IIS name of Clarizen remoteweb - used for
deployment
</key>
<key>
  <name>IISAppPoolName</name>
  <value>remotewebup2-App</value> // Desired pool name of Clarizen remoteweb
</key>
<key>
  <name>IISDirectoryPath</name>
  <value>C:\inetpub\wwwroot\remotewebup2</value> // Installation path for
Clarizen remoteweb
</key>
<key>
  <name>ClientID</name>
  <value>2fef4201-12c9-49c7-8e32-836237a675af</value> // Clarizen remoteweb
ID as assigned when you registered remoteweb in SharePoint
</key>
<key>
  <name>CertificateLocation</name>
  <value>C:\Certs\remoteweb.pfx</value> // The path to the SSL certificate
.pfx file (File name must match the name of remotewebIIS key)
</key>
<key>
  <name>CertificateLocationCer</name>
  <value>C:\Certs\remoteweb.cer</value> // The path to the SSL certificate
.cer file (File name must match the name of remotewebIIS key)
</key>
<key>
  <name>CertificateName</name>
  <value>remoteweb</value> // The name of the certificate
</key>
<key>
  <name>CertificatePassword</name>
  <value>password</value> //Certificate password
</key>
<key>
```

```

<name>IssuerId</name>
<value>ba94fcd8-3200-428a-be66-b1e24d3a5926</value> // SharePoint issuer ID,
used for creating the trusted root authority
</key>
<key>
<name>AppProductID</name>
<value>55fa87ed-d298-44ea-8c13-1c57d63e9864</value> // App product ID (Do
not change)
</key>
<key>
<name>AppDomain</name>
<value>testphapp.imf.local</value> // App domain name
</key>
<key>
<name>AppPrefix</name>
<value>AppSubscription</value> // App domain prefix
</key>

```

6. Create configuration file on SharePoint for Clarizen remoteweb

In this step, you must run the **1-ConfigApp.ps1** script on the SharePoint machine. The script updates the SharePoint configuration files with the desired settings for Clarizen Provider Web.

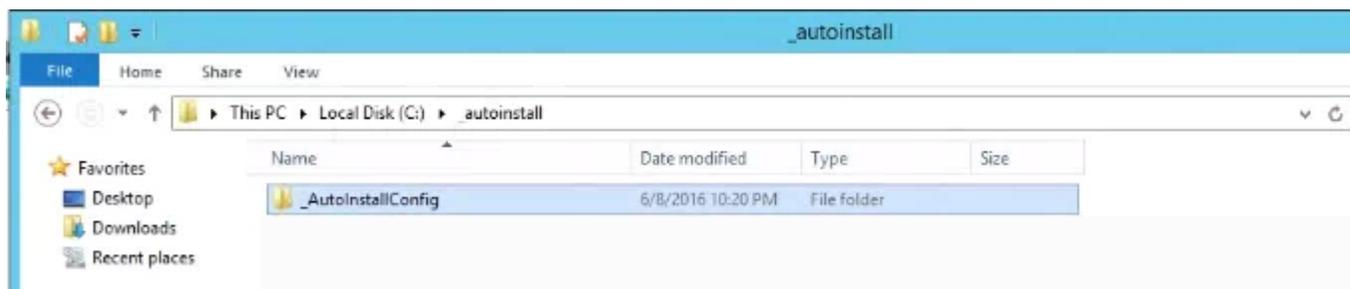
To run the script:

1. On the SharePoint machine, as a SharePoint administrator, navigate to the location where you copied Clarizen scripts e.g. `C:_autoinstall`).
2. In the SharePoint Management Shell, execute the **1-ConfigApp.ps1** script.

The script creates the **_AutoInstallConfig** sub-folder.

3. Copy the entire contents of the sub-folder to the Clarizen remoteweb machine to the following directory:

_autoinstall



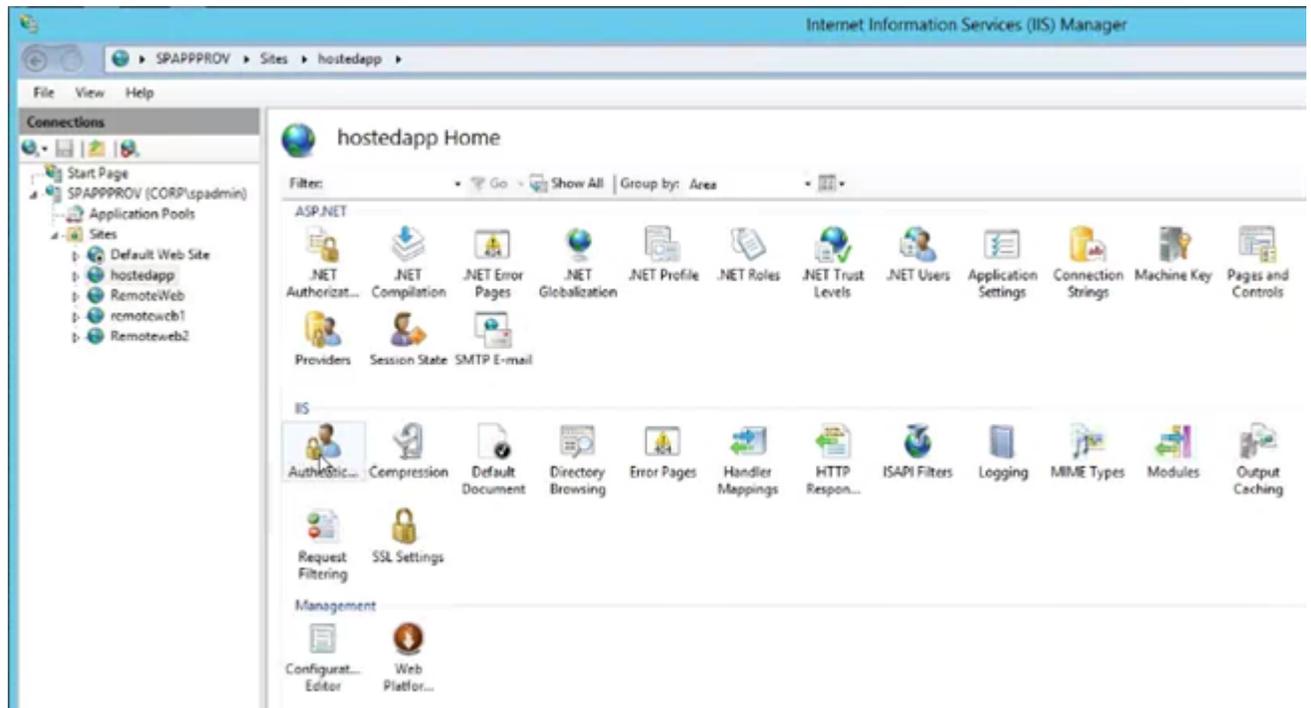
7. Install Clarizen remoteweb and enable authentication

In this step, you must run the **2--Install-IIS.ps1** script on the Clarizen remoteweb machine. This script creates the app pool, the IIS website, applies the SSL certificate, and site bindings.

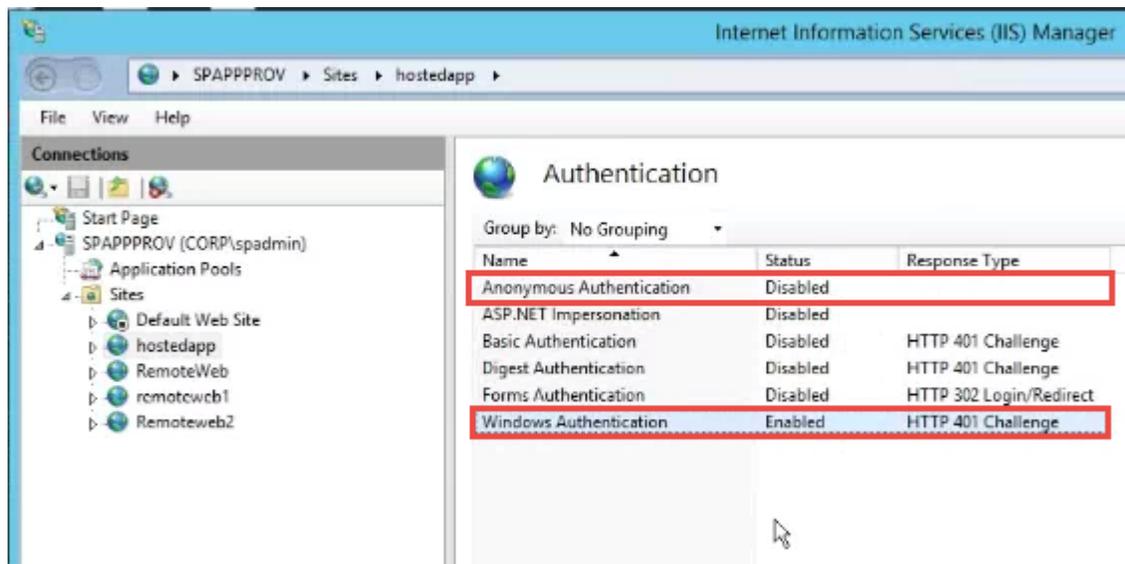
To run the script:

1. On the remoteweb machine, navigate to the location where you copied the Clarizen scripts e.g. C:_autoinstall).
2. In the Administrator Power Shell, execute the **2--Install-IIS.ps1** script.

After the script is executed, in IIS, verify that the remoteweb site is created correctly.



3. Verify site bindings for **remoteweb**:
 - a. In the **IIS > Sites > remoteweb**.
 - b. In the right-hand-side **Actions** panel, click **Edit Site > Bindings**, verify the name of the SSL certificate (e.g. **remoteweb**).
4. In the IIS section of the hostedapp screen, double click the **Authentication** icon.
5. In the **Authentication** screen:
 - Set **Anonymous Authentication** to **Disabled**
 - Set **Windows Authentication** to **Enabled**

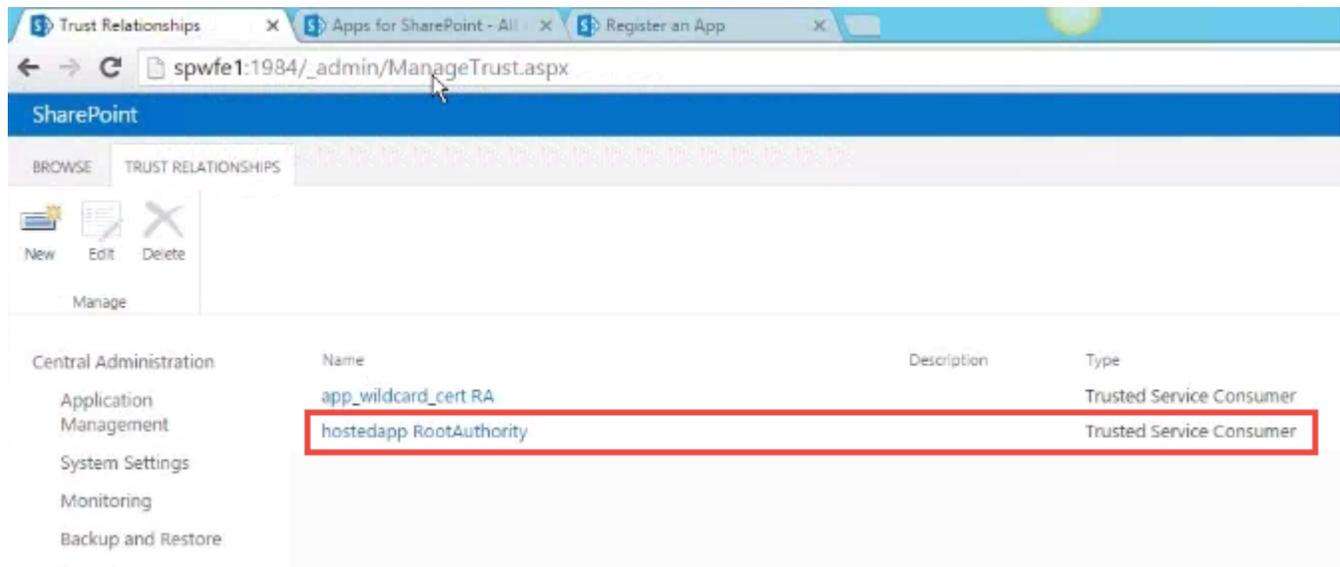


8. Add Clarizen remoteweb to the list of trusted SharePoint services

In this step, you must run the **3-SpTokenIssuer.ps1** script on the SharePoint machine. The script creates the trusted root authority based on the certificate.

To add Clarizen remoteweb to the list of trusted SharePoint services:

1. On the SharePoint machine, as a SharePoint administrator, navigate to the location where you copied the Clarizen scripts e.g. `C:_autoinstall`).
2. In the SharePoint Management Shell, execute the **3-SpTokenIssuer.ps1** script. When prompted **YES | NO**, enter **YES**.
3. Once the process completes successfully, to check the trusted root authority, go to Manage Trusts from Central Administration by navigating to the `<sharepoint-domain-name>/_admin/ManageTrust.aspx` URL.



9. Deploy Clarizen remoteweb

In this step, you must run the **4-DeployRemoteWeb.ps1** script on the Clarizen remoteweb machine. This script deploys all necessary files to the remoteweb IIS.

To run the script:

1. On the remoteweb machine, navigate to the location where you copied the Clarizen scripts e.g. `C:_autoinstall`)
2. In the Windows PowerShell, execute the **4-DeployRemoteWeb.ps1** script.
3. In order to integrate with the Clarizen application, edit the **web.config** file and set the value for the **Access-Control-Allow-Origin** key to the URL of your Clarizen application.

For

```

71
72 <system.webServer>
73 <httpProtocol>
74 <customHeaders>
75
76 <add name="Access-Control-Allow-Origin" value="https://app2.clarizen.com" />
77

```

11. Create the app catalog and set the admin in SharePoint

In this step, you must run the **5-AppRegNew.ps1** script on the SharePoint machine.

The script creates the app catalog for the site collection URL and sets the admin user. You must provide the site collection url and the app catalog admin when prompted by the script.

The script also registers the app domain and the app prefix.

To run the script:

1. On the SharePoint machine, navigate to the location where you copied the Clarizen scripts e.g. `C:_autoinstall`)
2. In the Administrator Power Shell, execute the **5-AppRegNew.ps1** script.

12. Activate remote administration access in SharePoint

 **Note:** You only need to run this script once when configuring integration for the first SharePoint site collection.

In this step, you must run the **6-RemoteAdministratorAccessDenied.ps1** script on the SharePoint machine.

The script activates the Remote Administration Access for SharePoint.

To run the script:

1. On the SharePoint machine, navigate to the location where you copied the Clarizen scripts e.g. `C:_autoinstall`)
2. In the Administrator Power Shell, execute the **6-RemoteAdministratorAccessDenied.ps1** script.

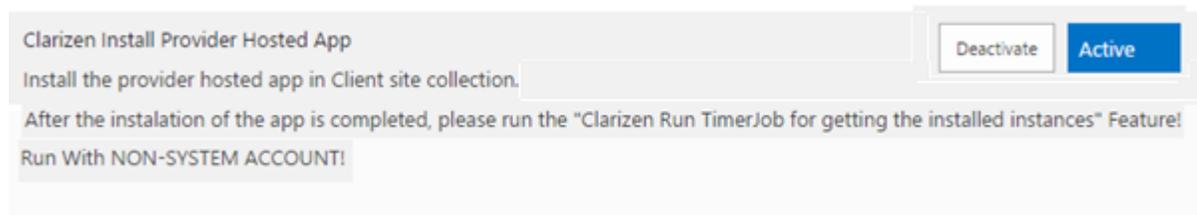
13. Activate remoteweb in SharePoint

To activate the integration with remoteweb in SharePoint:

1. Navigate to the following URL:

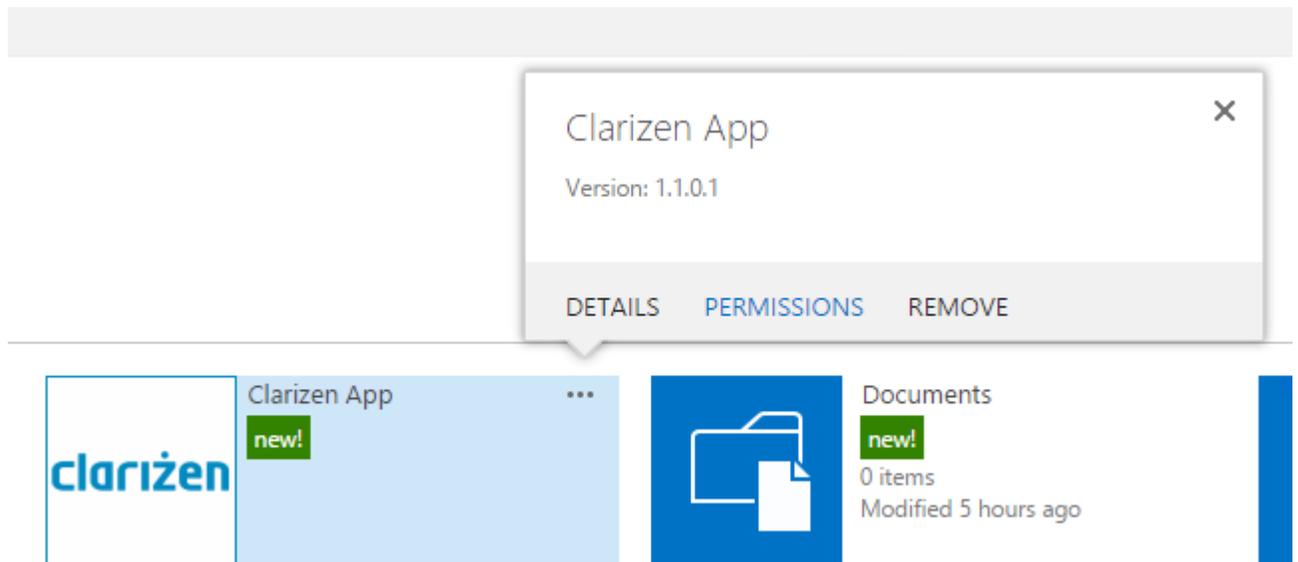
`https://<sitecollectionurl>/_layouts/15/ManageFeatures.aspx?Scope=Site`

2. Click **Activate**.



It may take a few minutes before the application is successfully activated. Once successfully activated, it appears in site contents.

3. Click the three dots > **Permissions**.



4. Choose the appropriate permissions (the permissions are granted to the entire Clarizen application and not an individual user) and click **OK**.

"Clarizen App" uses the following permissions

Let it have full control of this site collection.

Let it have full control of this site.

Let it have full control of the list:

Documents ▼

Let it access basic information about the users of this site.

Let it share its permissions with other users.

If there's something wrong with the app's permissions, click [here](#) to trust it again

OK



Clarizen App

After this step, the Clarizen application is installed in the SharePoint site collection.

14. Activate remote administration access in SharePoint

Note: You only need to run this script once when configuring integration for the first SharePoint site collection.

In this step, you must run the **7-AddAdministratorAccessDenied.ps1** script on the SharePoint machine.

The script closes the Remote Administration Access for SharePoint for security reasons.

To run the script:

1. On the SharePoint machine, navigate to the location where you copied the Clarizen scripts e.g. `C:_autoinstall`)
2. In the Administrator Power Shell, execute the `7-AddAdministratorAccessDenied.ps1` script.

15. Register SharePoint in Clarizen

To register SharePoint in Clarizen:

1. Open the following SharePoint URL:

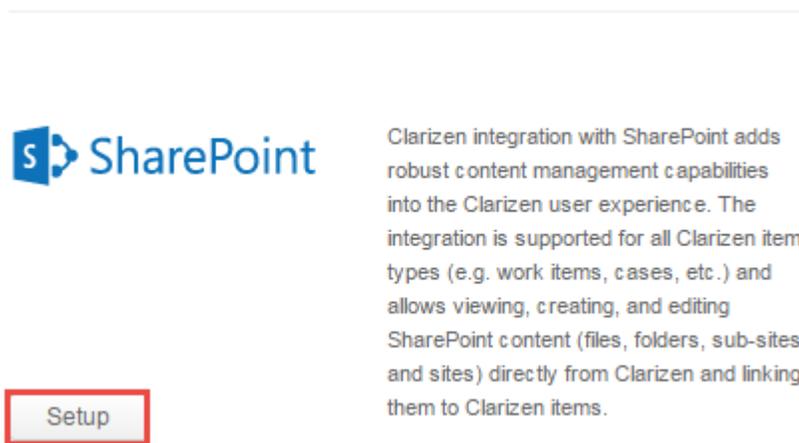
`http://<site_collection_url>/Lists/InstalledClarizenApps/AllItems.aspx`

For example:

`http://spwfe1:1984/Lists/InstalledClarizenApps/AllItems.aspx`

The page displays parameters that you must enter in Clarizen to complete the integration as described in the next steps.

2. In Clarizen, as a System Administrator, navigate to **Settings > Extensions**.
3. In the **SharePoint** section, click the **Setup** button.



4. In the pop-up screen, enter values for the following parameters:

 **Note:** You can retrieve values for some of the parameters from the **AppFullURL** in **Step 1** above.

Example of the **AppFullURL**:

```
https://remoteweb.corp.projecteam.com/Pages/Default.aspx?
SPHostUrl=https://clarizenrock1.corp.projecteam.com&SPLanguage=en-
US&SPClientTag=0&SPProductNumber=15.0.4763.1000&SPAppwebUrl=https://appde
mo-8e83423b7520e4.appdemo.corp.projecteam.com/ClarizenHostedApp
```

- **Hosted App URL:** The first section (before the ? sign) of the **AppFullURL** value from the screen in **Step 1** above. For example, `https://remoteweb.corp.projecteam.com/Pages/Default.aspx`
- **Site Collection Name:** Name of the SharePoint Site Collection.
- **Site Path:** The value of the **SPHostUrl** parameter in the **AppFullURL**. For example, `https://clarizenrock1.corp.projecteam.com`

- **Site Full Connection URL:** Copy the **AppFullURL** value from the screen in **Step 1** above.

For example:

```
https://remoteweb.corp.projecteam.com/Pages/Default.aspx?
SPHostUrl=https://clarizenrock1.corp.projecteam.com&SPLanguage=en-
US&SPClientTag=0&SPProductNumber=15.0.4763.1000&SPAppweburl=https://appde
mo-8e83423b7520e4.appdemo.corp.projecteam.com/ClarizenHostedApp
```

5. Click **OK**.

16. Configure Clarizen to use SharePoint for external storage

To configure Clarizen to use SharePoint for external storage:

1. In Clarizen, as a System administrator, navigate to **Settings > System Settings > Files and Collaboration**.
2. Select the desired option for the **Allow linking to external storage** property. For example, if you only store content in SharePoint, select **SharePoint**. The default value is **Allow All**.

3. Click **Save**.