Installation & Configuration Guide

Version 4.8.4.45

For Microsoft SharePoint Server

ELEARNINGFORCE

CONTENTS

CONTENTS 3

1 SYSTEM AND SOFTWARE REQUIREMENTS 3

1.1 SERVER SOFTWARE REQUIREMENTS 3

1.2 CLIENT REQUIREMENTS 4

1.3 RECOMMENDED SERVER CONFIGURATION TO BUILD A FARM FOR LMS SUITE 5

2 THE ACCOUNT REQUIREMENTS 7

3 LMS SUITE INSTALLATION 9

3.1 INSTALLATION PACKAGE 9

3.2 LANGUAGE PACKS 9

3.3 INSTALLATION 9

4 LICENSING 18

4.1 SHAREPOINT LMS LICENSE ACTIVATION 18

4.1.1 Managing LMS License 19

4.2 CONFIGURING SHAREPOINT FOR LICENSE ACTIVATION VIA PROXY SERVER 22

4.3 OFFLINE LICENSE ACTIVATION PROCESS 23

4.4 SOLUTIONS PAGE 24

5 INITIAL CONFIGURATION 26

5.1 SHAREPOINT LMS SETUP 26

5.1.1 Global features 26

5.1.2 Create organization site collection 26

5.1.3 Create course site collection 26

5.1.4 Create a Host Named LMS site collection 27

5.2 SHAREPOINT CCM SETUP 27

5.2.1 Create CCM Application Host 27

5.2.2 Activate Profiles Synchronization 29

5.2.3 Create a Host Named CCM Site Collection 32

5.2.4 Configure CCM History and Logging settings 33

5.2.5 Restore CCM Host Configuration 37

5.3 SHAREPOINT REM SETUP 38

5.3.1 Create REM Application Host 38

5.3.2 Create a Host Named REM Site Collection 45

5.3.3 Course Catalog Search 45

5.3.4 REM Publishing feature 50

5.3.5 Restore REM Host Configuration 55

5.4 REPORTING CENTER SETUP 56
5.4.1 Create Web Reports Library 58
5.4.2 Create Excel Reports Library 58
5.4.3 Create SQL Reports Library 59
5.4.4 Recreate SQL Reporting Center Library 62
5.5 PAGE REDIRECTION FOR FULL MUI SUPPORT 62
6 LMS SUITE UPGRADE 65
7 LMS SUITE UNISTALL 67
8 POWERSHELL CMDLETS 73
NEW-LMS365ORGANIZATION 73
NEW-LMS365COURSE 74
CLONE-LMS365COURSE 75
NEW-LMS365CCMSITE 76
NEW-LMS365REMSITE 77
NEW-LMS365REMCOURSE 78
NEW-LMS365REMCOURSEOFFERING 83
GET-LMS365ORGANIZATION 84
GET-LMS365COURSE 85
GET-LMS365CCMSITE 85
GET-LMS365REMSITE 86
GET-LMS365CONFIGURATION 86
SET-LMS365CONFIGURATION 87
SET-LMS365CCMCONFIGURATION 88
SET-LMS365REMCONFIGURATION 89
SET-LMS365TRACKINGDATABASE 90
GET-LMS365CCMHISTORYSETTINGS 91
SET-LMS365CCMHISTORYSETTINGS 91
RESTORE-LMS365HIERARCHY 92
ATTACH-LMS365CCMLOSTSITES 92
ATTACH-LMS365REMLOSTSITES 92
PROVISION-LMS365REMSERVICESCONTENT 93
CHECK-REMINTEGRITY 93
RENEW-LMS365REMPUBLISHINGPAGES 94
SET-REMCOURSEOFFERINGSACCESSENDDATEOPTION 94
IMPORT-REMEXTERNALCERTIFICATES 94

Get-LMS365REMDefaultCertificateTemplate 95
Set-LMS365REMDefaultCertificateTemplate 95
Set-LMS365REMDefaultCourseTemplate 96
Add-LMS365REMSharedField 97
Check-REMCourseSharedFields 97
Fix-LMS365RCLibrary 97
Recreate-LMS365RCLibrary 98
Enable-LMS365ADCache 98
Disable-LMS365ADCache 99
Get-LMS365ADCache 100
Delete-LMS365User 100
Export-LMS365LicenseUsers 101
Move-LMS365Course 102
Attach-LMS365Course 102
Sync-LMS365CCMProfiles 103
Reset-LMS365CCMProfileSyncDate 104
9 STSADM COMMANDS 105

1 SYSTEM AND SOFTWARE REQUIREMENTS

1.1 Server software requirements

SharePoint 2013

- The 64-bit edition of Windows Server 2008 R2 Service Pack 1 (SP1) Standard, Enterprise, or Datacenter or the 64-bit edition of Windows Server 2012 Standard or Datacenter
- SharePoint 2013 Standard or Enterprise on-premises editions (with Service Pack 1 is recommended)
  LMS Suite enrollment module requires SharePoint Managed Metadata & SharePoint Search services; besides this you would usually want to make sure that you also have timer job & workflow services available.
  Refer to the following worksheets to plan for which services will run on your farm: http://www.microsoft.com/en-us/download/details.aspx?id=30367 and http://www.microsoft.com/en-us/download/details.aspx?id=37001)
- Minimum requirements for the database server is one of the following:
  - The 64-bit edition of Microsoft SQL Server 2012
  - The 64-bit edition of SQL Server 2008 R2 Service Pack 1
- Microsoft .NET Framework version 4.5 incl. latest updates
- MS SQL Reporting Services configured in SharePoint Integration mode in case you plan to use SSRS reports of Reporting Center solution (which is optional)
  To configure SQL Reporting Services in SharePoint integrated mode, check these links:
  - For MS SQL 2012 - http://msdn.microsoft.com/en-us/library/jj219068.aspx
  - For MS SQL 2008 R2 - http://technet.microsoft.com/en-us/library/cc281311(v=sql.105).aspx

  Verify a Reporting Services Installation using guide from http://msdn.microsoft.com/en-us/library/ms143773(v=sql.110).aspx
  IMPORTANT! If you plan on using Reporting Center SSRS solution check supported combination of SharePoint and Reporting Services Server and Add-in at https://msdn.microsoft.com/en-us/library/gg492257.aspx

You can check SharePoint minimum software requirements at http://technet.microsoft.com/en-us/library/cc262485.aspx#section4

SharePoint 2016

- The 64-bit edition of Windows Server 2012 R2 Standard or Datacenter
- SharePoint 2016 RTM
  LMS Suite enrollment module requires SharePoint Managed Metadata & SharePoint Search services; besides this you would usually want to make sure that you also have timer job & workflow services available.
- Minimum requirements for the database server is one of the following:
  - The 64-bit edition of Microsoft SQL Server 2014 Service Pack 1 (SP1)
  - Microsoft SQL Server 2016 RTM
- Microsoft .NET Framework version 4.6

- MS SQL Reporting Services configured in SharePoint Integration mode in case you plan to use SSRS reports of Reporting Center solution (which is optional)
  To configure SQL Reporting Services in SharePoint integrated mode, check these links:
  - For MS SQL 2016 - http://whitepages.unlimitedviz.com/2016/03/configuring-ssrs-2016-integrated-mode-sharepoint-2016/

  Verify a Reporting Services Installation using guide from http://msdn.microsoft.com/en-us/library/ms143773(v=sql.110).aspx
  IMPORTANT! If you plan on using Reporting Center SSRS solution check supported combination of SharePoint and Reporting Services Server and Add-in at https://msdn.microsoft.com/en-us/library/gg492257.aspx

You can check SharePoint minimum software requirements at https://technet.microsoft.com/EN-US/library/cc262485%28v=office.16%29.aspx#section4

NOTE:	We recommend having the SharePoint farm connected to an Office Web Apps farm or Office Online Server for optimal user experience when reading and launching office documents. Documents supported by Office Web Apps or Office Online Server are opened in embedded view directly in learning modules or REM material course types instead of saving for download.

To translate LMS Suite in languages other than English you need:

- Language Pack for SharePoint 2013
- Language Pack for LMS Suite solutions (translated in needed languages)

Backup and Recovery Plan

We always recommend having a backup and recovery plan available before deploying anything to your SharePoint environment see http://technet.microsoft.com/en-us/library/cc261687.aspx.

1.2 Client requirements

- For full support use Microsoft Edge, Internet Explorer 11, 10 (32-bit), Google Chrome
  Full list of supported browsers can be found here http://technet.microsoft.com/en-us/library/cc263526.aspx
- Network connectivity to SharePoint server
- Network connectivity to LYNC server in case conference module used
  (integration does not support LYNC Online in the cloud, just on premises server setup)

NOTE:	Some functionality in SharePoint 2013 requires ActiveX controls. This produces limitations on browsers, which do not support ActiveX. Currently only Internet Explorer support this functionality. Microsoft mentions that customers who want a more deeply validated browser interaction experience should strongly consider Internet Explorer. For more details see http://technet.microsoft.com/en-us/library/cc263526.aspx ActiveX Control should be installed in case SharePoint LMS equations feature is used (can be downloaded at https://helpcenter.elearningforce.com/hc/en-us/articles/360001271869-v4-8-for-SharePoint-2013-and-2016)
NOTE:	Although IE10/11 is listed in SharePoint 2013 fully compatible browsers you might run into issues when using it. The behavior might not be expected when using EFI solutions for SharePoint 2013 in IE10/11 as well.

	To ensure better user experience please consider enabling the following compatibility settings: 1. Open Internet Explorer 10/11 2. If the Menu bar is not visible, click **Alt** on your Keyboard. 3. Click Tools | **Compatibility View Settings**. 4. Select Display all websites in Compatibility View. 5. Click Close.

NOTE:	SharePoint LMS, REM, CCM are supported on iPad, windows and android tablets.
NOTE:	LMS Suite was tested with default Claims (Windows Authentication type, NTML) on a farm where servers are located in one domain as this is the most common configuration of our customers.

NOTE:	A system account cannot be used for learning process due to the code limitations. WHAT is the SHAREPOINT/system account: 1. It is the same account used by application pool of your SharePoint web application in IIS at the time of respective web application creation/extension. 2. It is the account used when running the code in under elevated privileges by SPSecurity.RunWithElevatedPrivileges. 3. It is the identity (Network Account) used by the Application Pool when creating/extending a web application in SharePoint and specifying the Application Pool. Every time you try to log on under this account, your account will be displayed as SHAREPOINT\System and you might run into "Unexpected Error" messages. That is why it is highly recommended that end user should not be allowed to use this account to avoid unexpected errors. If you change the identity of App Pool account after creating/extending the SharePoint web application, the new account will not become the SHAREPOINT\System. The best practice is to separate different accounts, only granting the necessary privileges to particular ones. It is better to install SharePoint and run the application pool by separate accounts (i.e. domain\spsetup for installation).

1.3 Recommended server configuration to build a farm for LMS Suite

Minimum requirements	1 WFE 12GB RAM or more 4xCORE 2GHz processor or better 64GB system drive	SQL hardware 16GB RAM or more 4xCORE 2GHz processor or better 64GB system drive 128GB storage or more (fast RAID, prefer hybrid SSD caching)
1200 simultaneous users	1 WFE 16GB RAM or more (depends on how many applications will be hosted on the farm but no less than 8GB)	SQL hardware 16GB RAM or more 4xCORE 2GHz processor or better 64GB system drive

	2x6x3.3GHz processor (hyper-threading) 64GB system drive	128GB storage or more (fast RAID, prefer hybrid SSD caching)
3000 simultaneous users	2 WFE 16GB RAM or more (depends on how many applications will be hosted on the farm but no less than 8GB) 2x6x3.3GHz processor (hyper-threading) 64GB system drive	SQL hardware 16GB RAM or more 4xCORE 2GHz processor or better 64GB system drive 128GB storage or more (fast RAID, prefer hybrid SSD caching)

In general, SQL hardware should have approx. 50% of all WFE capacity. RAM capacity depends on the size of content database that the application works with. You should have as much RAM as at least 10% of your database size, e.g. if it is 1TB database you should have 100GB RAM (we speak about MDF files not the size of log files).

Best performance practices

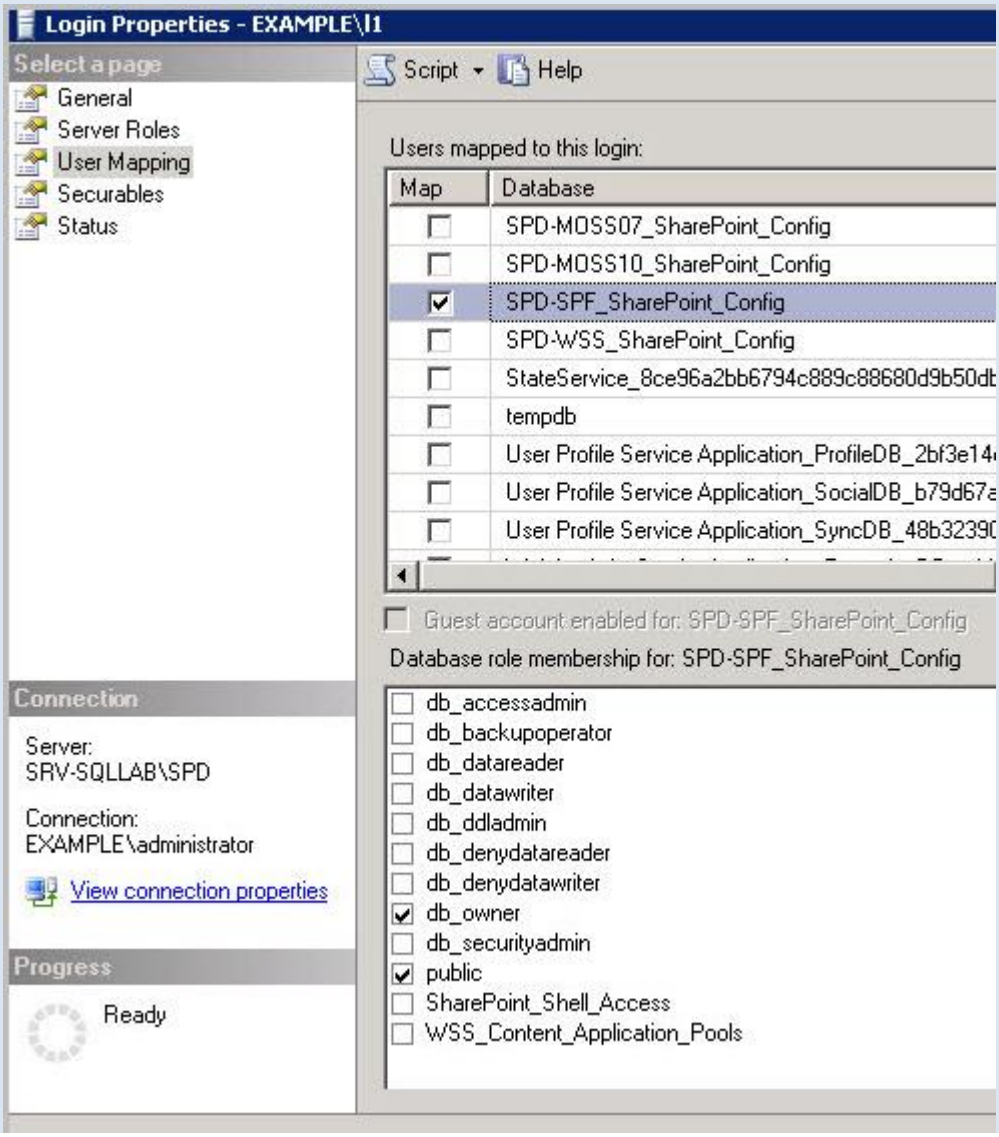
NOTE: To avoid the "bottleneck" effect, our team recommends to

- add no more than 1000-3000 learners per course depending on the number of course tools in use (meaning that you should keep in mind the SharePoint 2013 list limits http://technet.microsoft.com/en-us/library/cc262787.aspx#ListLibrary) e.g. if all 3000 learners go and take a quiz this is already 3000 list items which is OK, but if the number of attempts as big as 10 this is 30000 which already exceeds the list view threshold of 5000;
- keep the number of courses per each user as low as possible;
- optimize the Web Parts set organization page to the minimum required. Close the unused Web Parts collecting the information from different courses;
- keep cache parameter "on" for organization Web Parts;
- use fast HDD for content servers;
- use multiple DB servers and multiple content servers with load balancing for middle and large scale projects.

2 THE ACCOUNT REQUIREMENTS

NOTE:	Verify that object cache user accounts (the Portal Super User and Portal Super Reader accounts) are configured in a proper way. See detailed information at https://technet.microsoft.com/en-us/library/ff758656(v=office.16).aspx.
NOTE:	Account who runs the installer should have the following permissions: 1. The user should be a local administrator on the server; 2. The user should be a farm administrator; 3. The user should have DBO (database owner) permissions on the farm's config database in order to add and deploy a SharePoint solution; (If you're not sure what your farm's config database is you can check it in the windows registry, notably HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Shared Tools\Web Server Extensions\15.0\Secure\ConfigDb)
NOTE:	The application pool account of the web application for the web application where LMS Suite is deployed should have the following minimum set of permissions: 1. Machine-level permissions: - The application pool account is a member of WSS_WPG (necessary for write access to local storage of persisted objects in 'C:\ProgramData\Microsoft\SharePoint\Config' and etc) 2. SQL Server and database permissions: - The application pool accounts for Web applications are assigned to the SP_DATA_ACCESS role for the content databases; - This account is assigned to the WSS_CONTENT_APPLICATION_POOLS role associated with the farm configuration database; - This account is assigned to the WSS_CONTENT_APPLICATION_POOLS role associated with the SharePoint_Admin content database The above requirements are not SharePoint LMS specific but generic for SharePoint (for the reference check https://technet.microsoft.com/en-us/library/cc678863.aspx#Section3). 3. db_owner on custom databases (reporting center, tracking, plagiarism databases, etc) 4. User should have read rights in Active Directory (it's important because there are environments with nontrivial AD structure and trust configuration, and sometimes app pool account can read one domain but doesn't have read permissions to other connected domains)
NOTE:	Account used for SharePoint Services Timer Service should be: ▪ a farm admin ▪ a domain user ▪ a local admin The requirements for this particular account are not SharePoint LMS specific but generic for SharePoint (for the reference check http://technet.microsoft.com/en-us/library/cc678863.aspx#Section1) The account used for SharePoint Services Timer Service should match the application pool identity for the SharePoint Central Administration web site (for the reference check Server Farm-level accounts at http://technet.microsoft.com/en-us/library/cc263445.aspx)

NOTE: You can check and set *DBO permissions* at **SQL Management Studio> Security>Logins>** (new login) > **Properties**:



3 LMS SUITE INSTALLATION

3.1 Installation Package

LMS Suite has a single installation package, which includes the following products:

- SharePoint LMS (farm solution name: elearningforce.sharepoint.lms.wsp);
- SharePoint REM (farm solution name: elearningforce.sharepoint.rem.wsp);
- SharePoint CCM (farm solution name: elearningforce.sharepoint.ccm.wsp);
- SharePoint Dashboard (farm solution name: elearningforce.sharepoint.dashboard.wsp);
- Reporting Center (farm solution name: elearningforce.sharpeoint.reportingcenter.wsp).

You may only use some of the products from LMS Suite but they are installed as a package (unless you select 'LMS Core Only' mode). Installer also includes the following farm solutions, which are shared among LMS Suite products: Elearningforce.SharePoint.Common.wsp and Elearningforce.SharePoint.Scorm.wsp.
They are retracted and removed from the solution storage in case all LMS Suite products are removed. During upgrade the installer checks whether there are newer versions of these solutions in the installation package, and in this case re-deploys them.

3.2 Language packs

In order to have a fully translated LMS Suite you should install language packs for all the products from the suite. However, you may wish to use SharePoint LMS product only, then you just need to install language packs for LMS and shared solutions i.e.:

- elearningforce.sharepoint.lms.wsp
- elearningforce.sharepoint.common.wsp
- elearningforce.sharepoint.scorm.wsp

To install language pack(s) with the solution it should be placed in the same folder as the installer. In this case, language pack(s) will be installed from the folder automatically. Language pack's name should be in the following format: [solutionname].[language].wsp

E.g. for the Danish locale language packs should look like:

- elearningforce.sharepoint.lms.da-DK.wsp
- elearningforce.sharepoint.common.da-DK.wsp
- elearningforce.sharepoint.scorm.da-DK.wsp

NOTE:	When installation is finished go to Central Administration > System Settings > Manage Farm Solutions and verify that the language packs are in **Deployed** status.

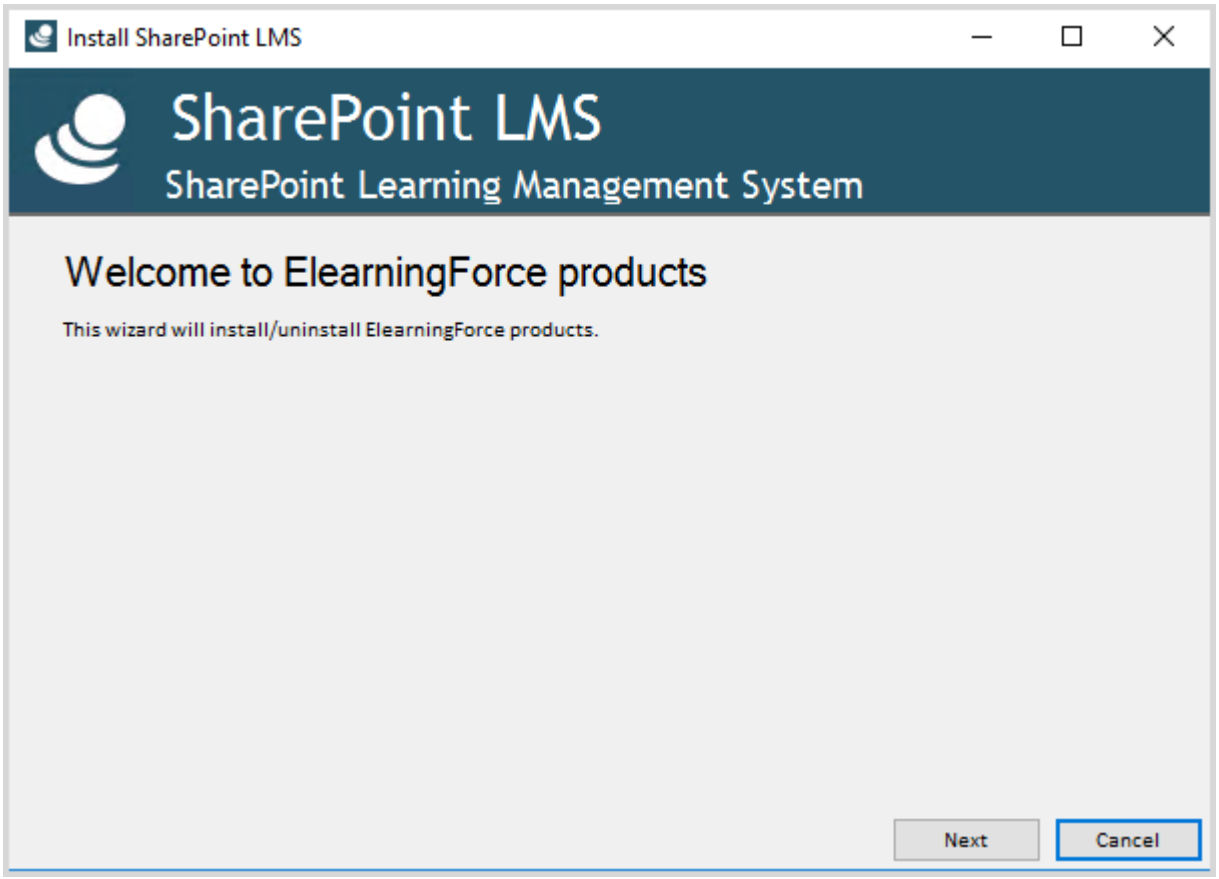
3.3 Installation

NOTE:	We recommend pausing the search service application in case you're using continuous crawl, and resuming it after the installation is done. To do that go to **Central Administration >Manage Service Applications > Search Service Application > Crawling > Pause/Resume** > use to pause or resume the search service application

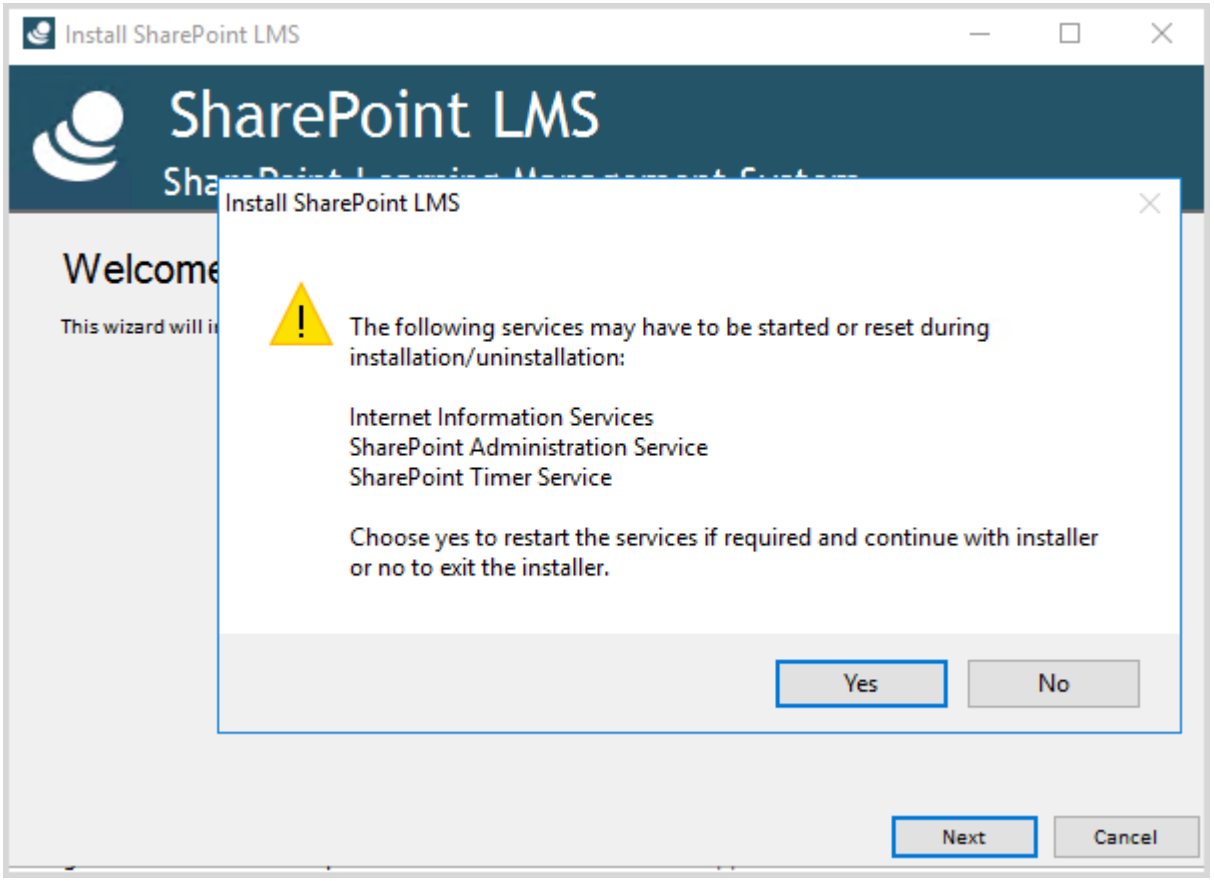
	crawling and indexing.

To install LMS Suite follow the steps described below,

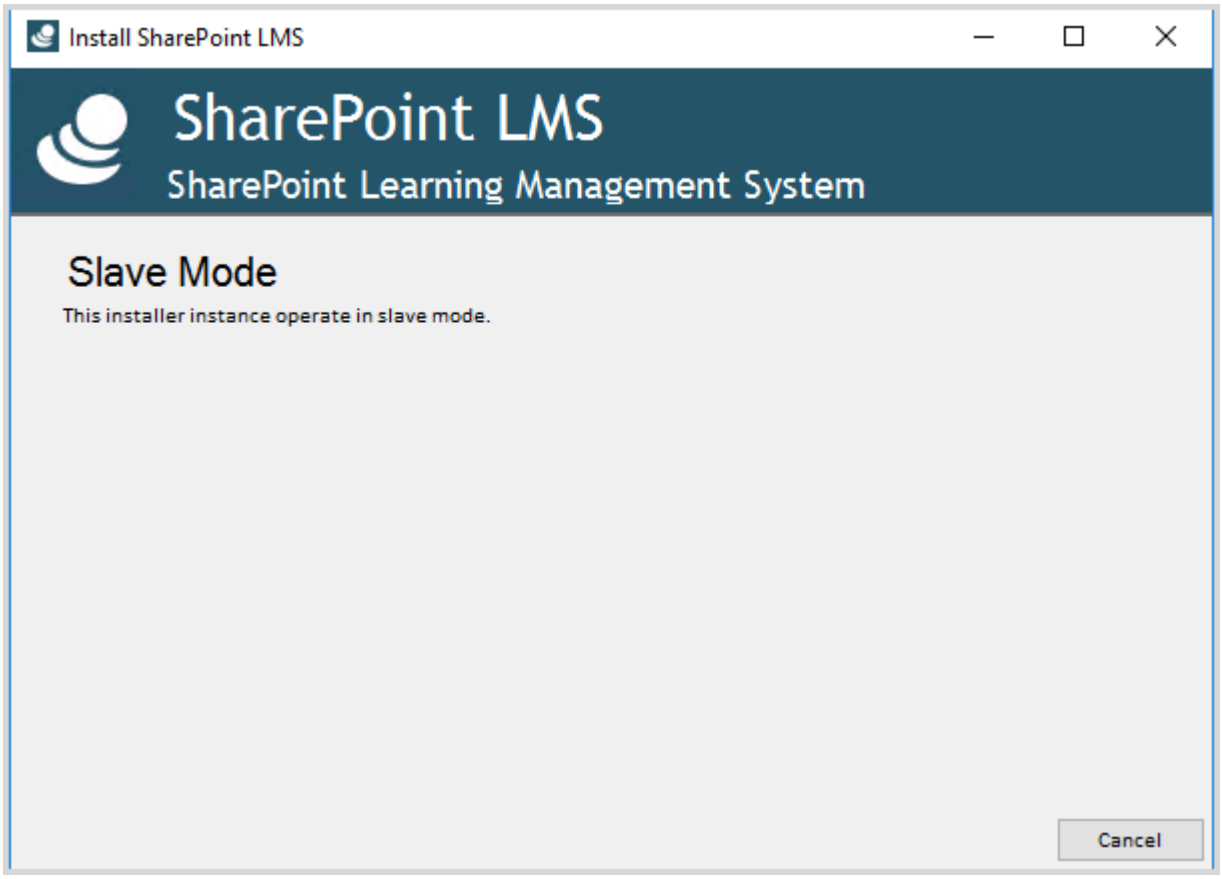
1) Make sure you have an existing web application where you want to install LMS Suite.
2) Create a custom database for SharePoint LMS solution. The system requires creating a special database for storing custom SharePoint LMS tables (3 tables for SharePoint LMS Tracking module functionality).
   Make sure you create an empty database with any title and grant DBO permissions to the application pool account running SharePoint LMS web application. Later on we'll need a name of this database to specify in SharePoint LMS Global features.
3) Copy the installation package on the farm servers and unpack it.
   a. On **a single server farm** run *Elearningforce.SharePoint.LMS.Install.exe* and click **Next** to proceed:



Confirm that services will be restarted or reset during the installation and click **Next** to proceed:

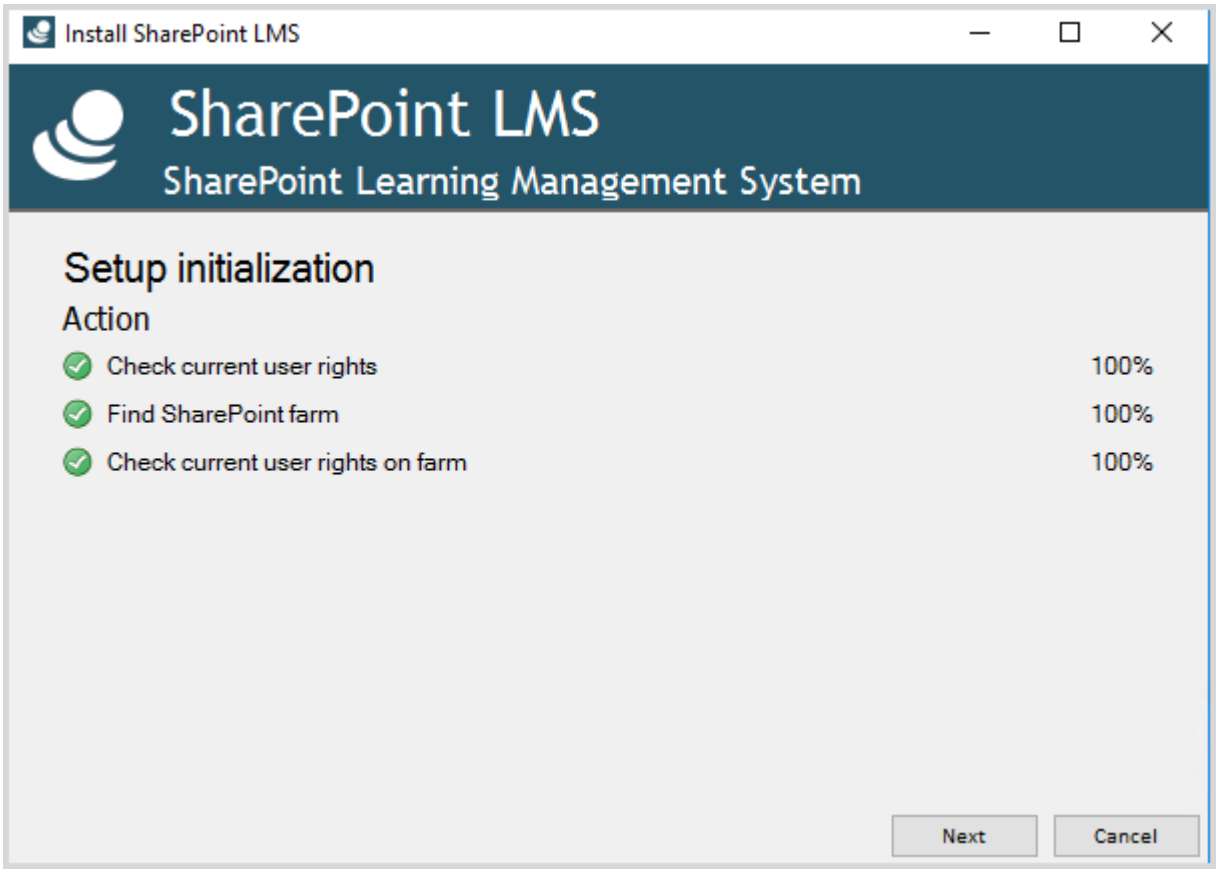


b. On a **multiple server farm** run *Elearningforce.SharePoint.LMS.Install.exe* on application and web-front end servers. On the machine where LMS Suite installer was first launched the installer runs in *Master mode,* on the rest of the servers installer runs in *Slave mode*:

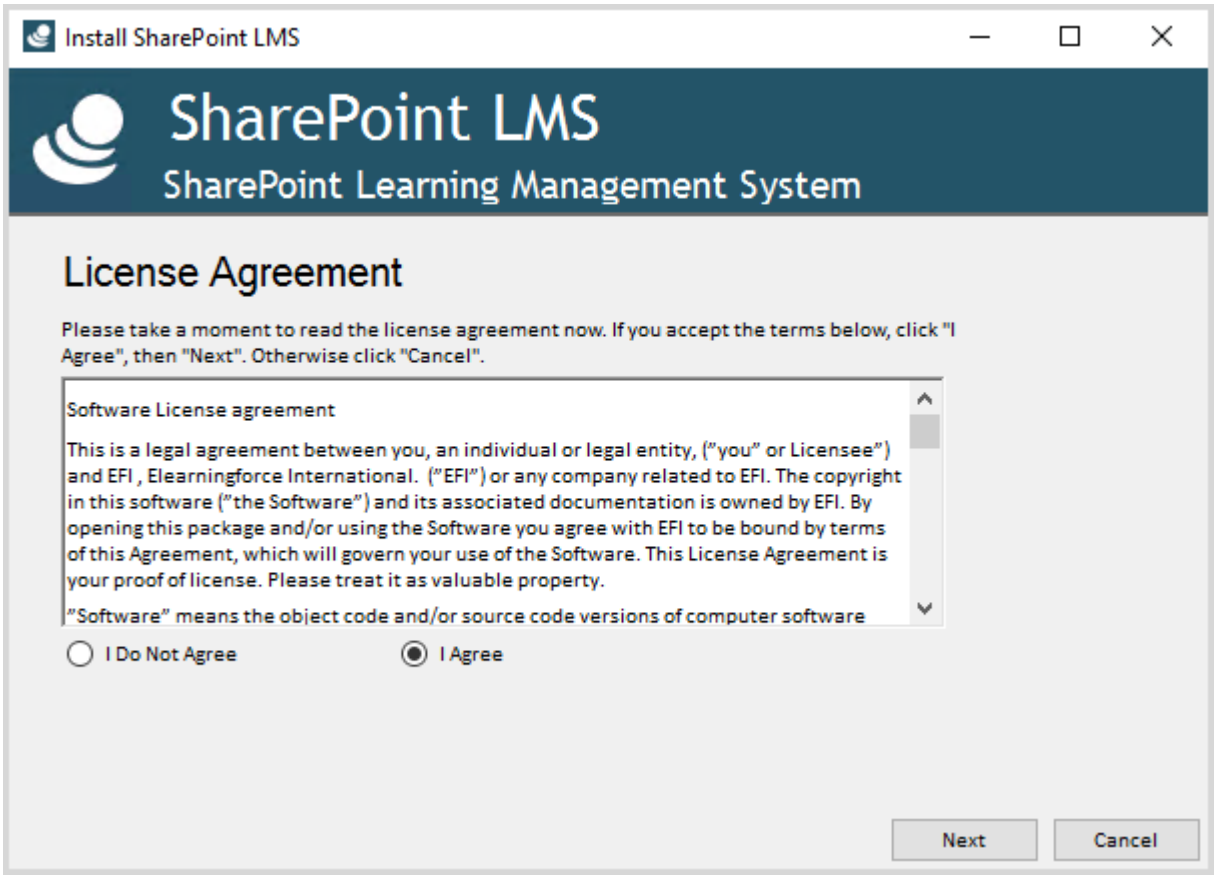


The installer running in Master mode will not proceed until you run installer on all the rest of the servers i.e. they have to be launched altogether.

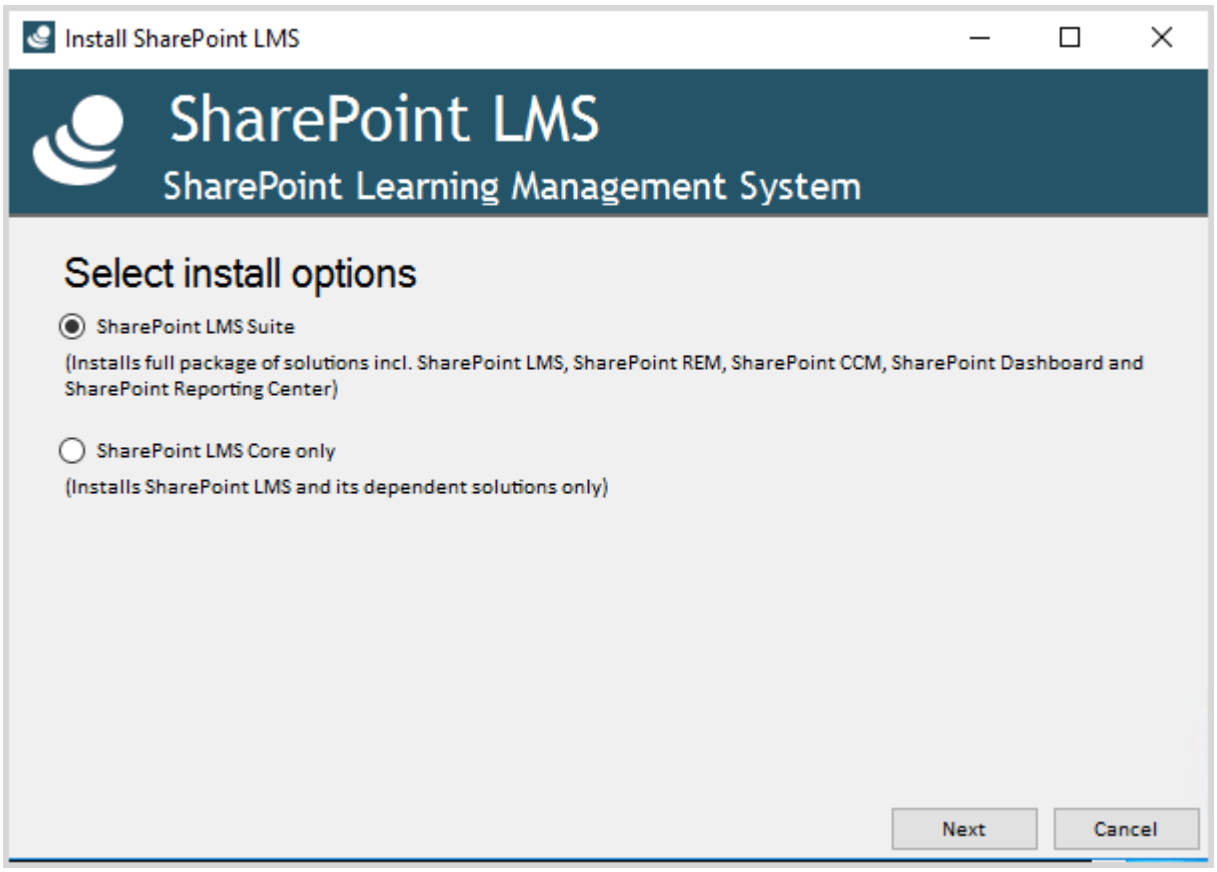
Once done the installer in Master mode will continue to checking if the account that runs the installer has enough permissions (mentioned in Chapter 2 "The Account Requirements").
Click **Next** to proceed:



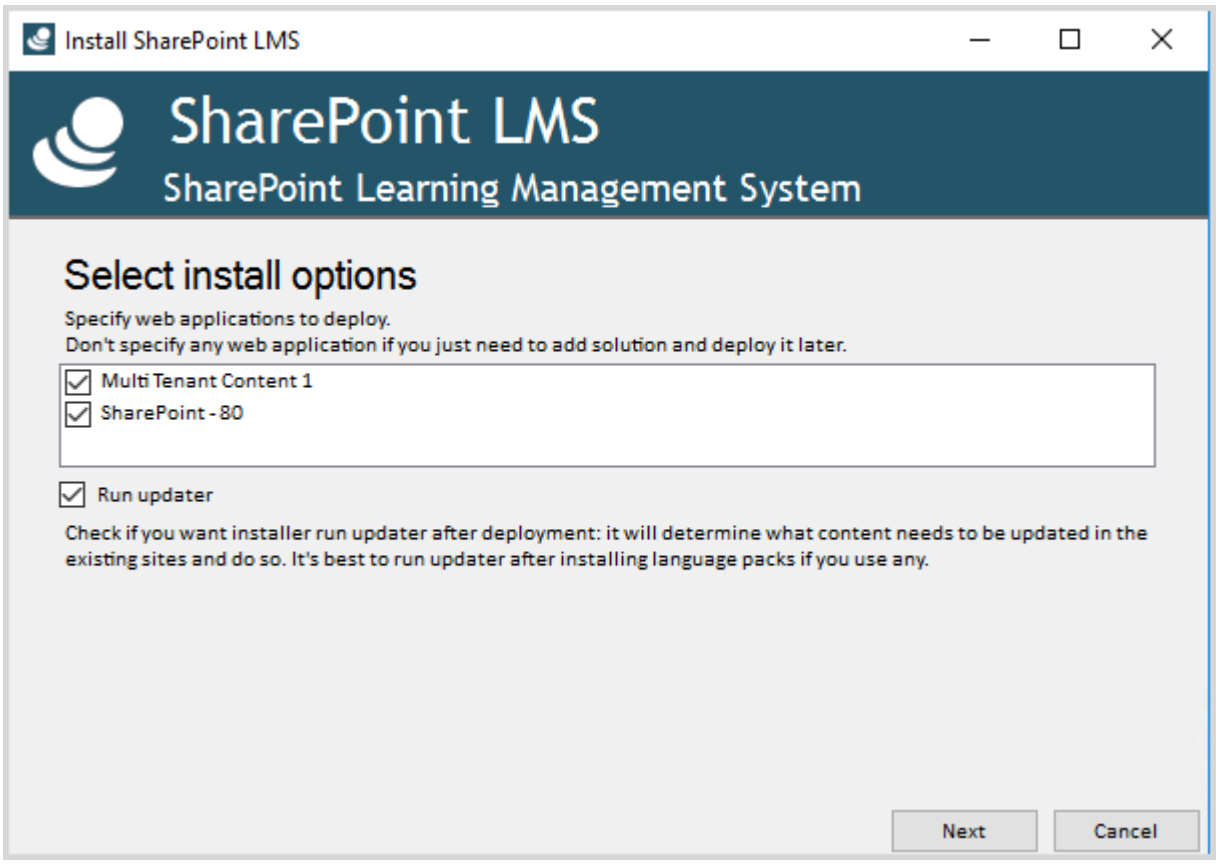
4) Read the license agreement Click **I agree** to accept the terms given below:



5) Select whether you want to run full or minimal installation:

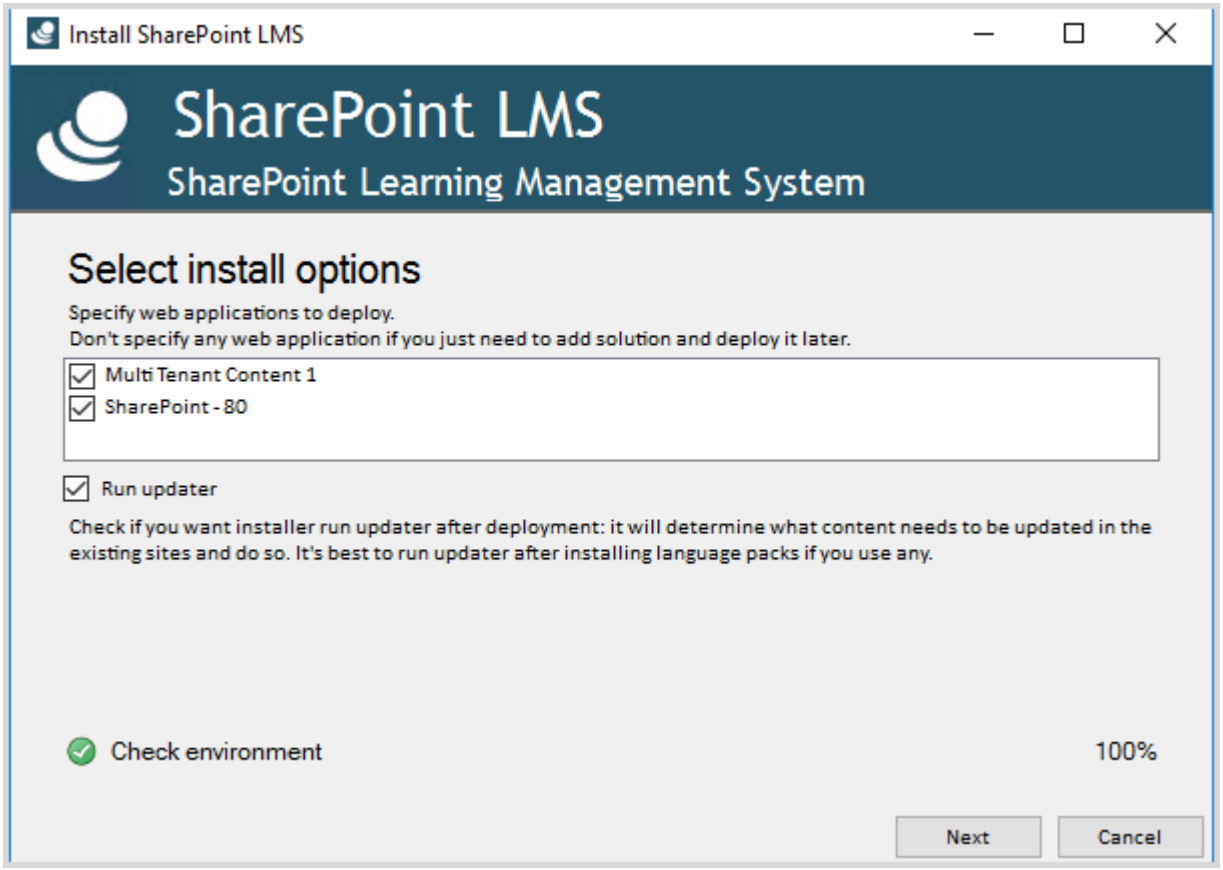


6) Select a web application where LMS Suite will be deployed and press **Next**:



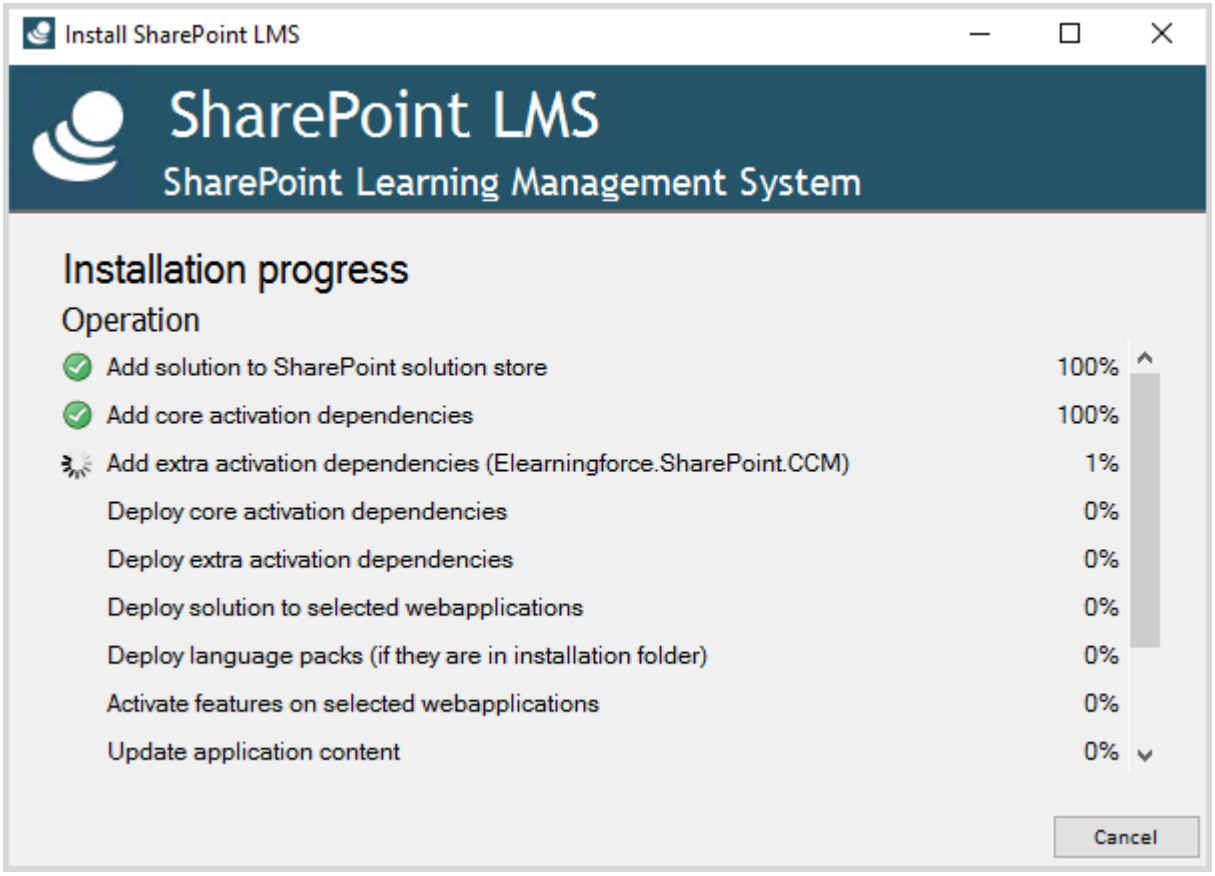
NOTE:	There is an option to 'Run updater' which will run update executables for each product of the suite after solution deployment and is a required step during upgrade. Check it if you upgrade to a newer version.

7) At this step the installer checks the SharePoint farm setup to determine whether deploying to the specified web application will be enough:

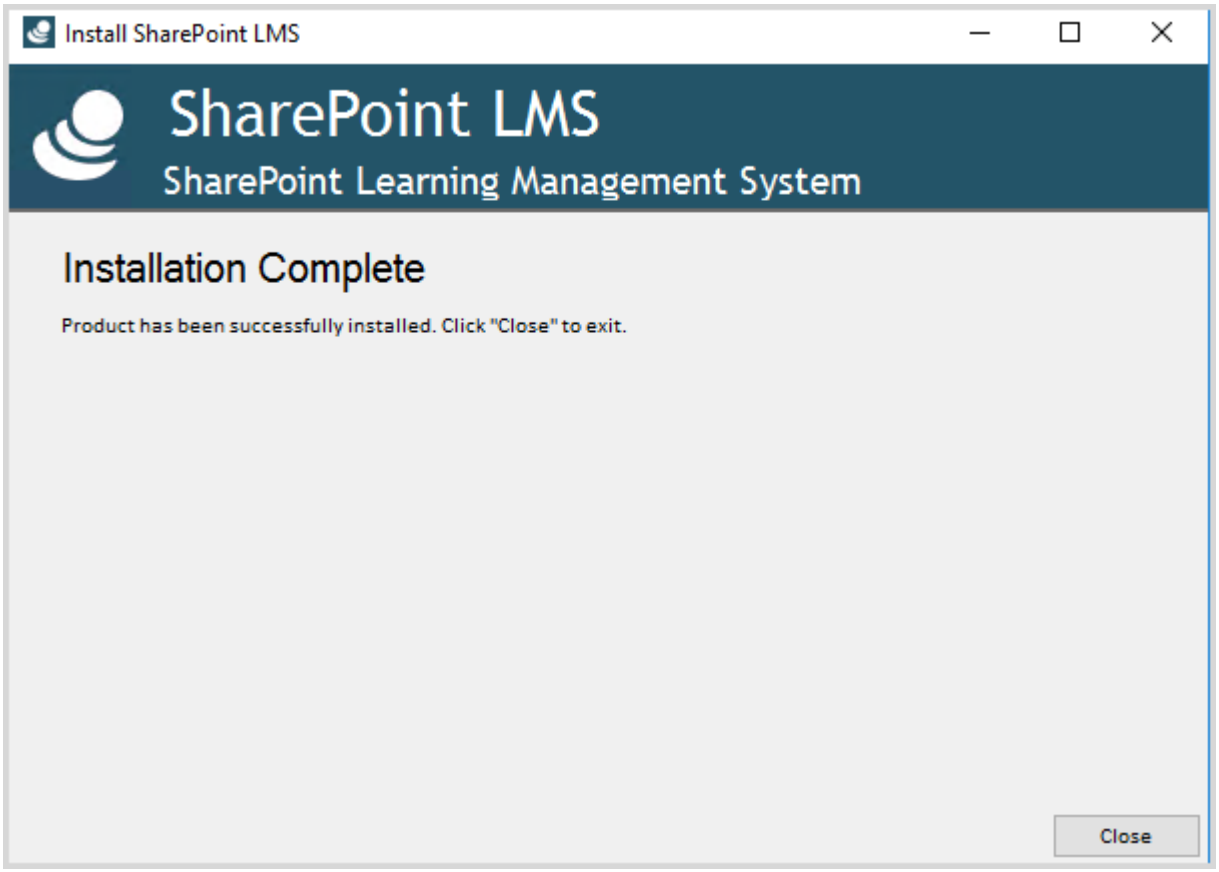


On the farm where an application server doesn't have a Web Application role the solution should also be deployed to Central Administration web application. Click **Next** to proceed when this is checked:

8) Wait until all the installation procedures are complete (100%)**:**



9) Click **Close** to finish the installation (in case of a multiple server install do it on all the WFE servers which have been used to run the installation process):



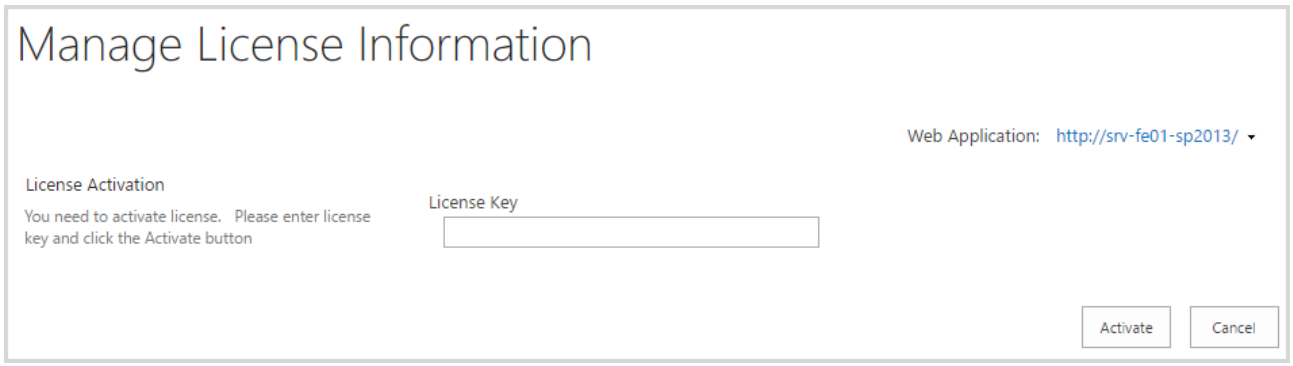
NOTE:	When installation is finished go to Central Administration > System Settings > Manage Farm Solutions and verify that the language packs are in **Deployed** status (if you included language packs). In case they're in **Not deployed** status perform the following additional steps: ▪ deploy language pack (it is deployed globally) ▪ run **Install-SPApplicationContent** command on all servers in the farm ▪ restart IIS and SharePoint timer service on all servers in the farm

LMS Suite is now installed to your SharePoint farm. If any issues were met during the installation you will find the log files of the installation and update process in the same folder together with the installation files.

4 LICENSING

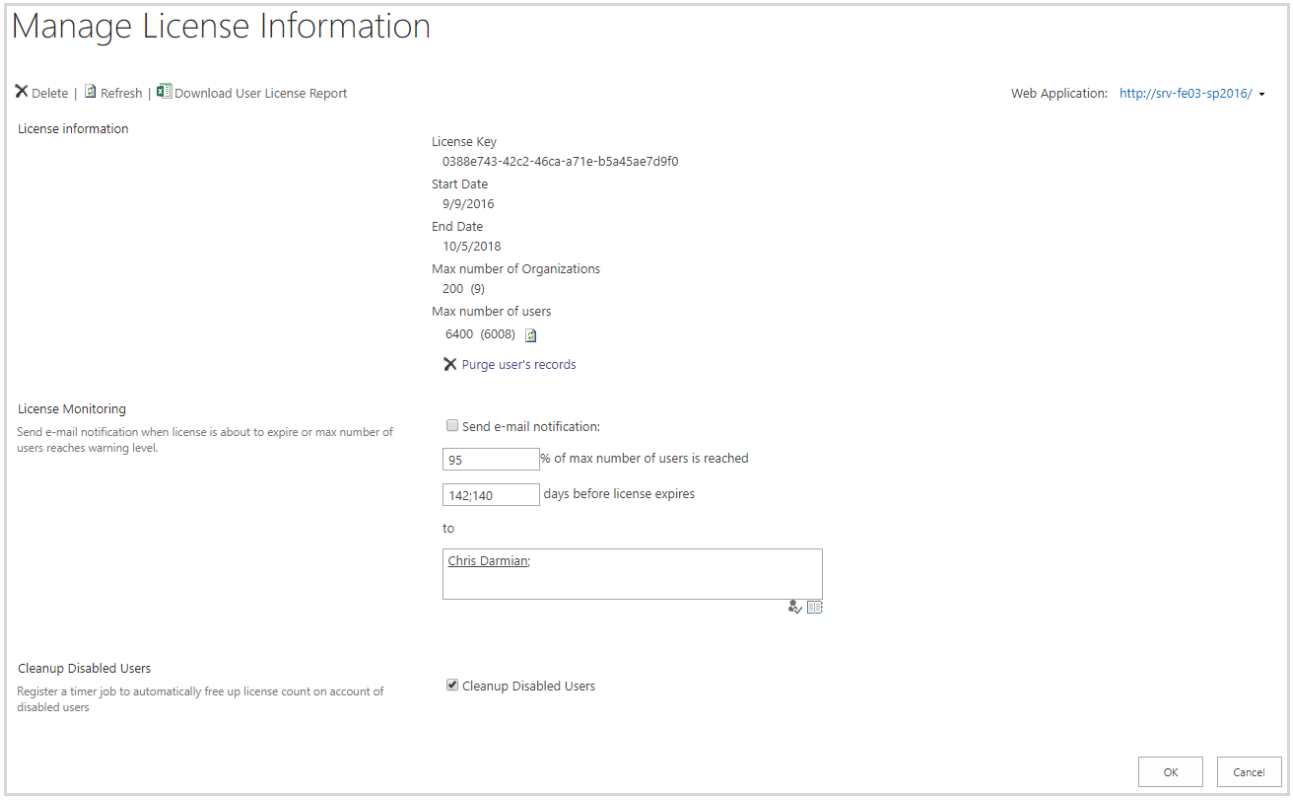
4.1 SharePoint LMS License Activation

To activate your SharePoint LMS license go to **Central Administration > Application Management > SharePoint LMS > Manage License information**. Verify that you have selected the correct web application where LMS Suite was deployed. Enter the license key and click **Activate**:



NOTE: SharePoint server must have route to license.elearningforce.com

To check the current status of your SharePoint LMS license, go to **Central Administration > Application Management > SharePoint LMS > Manage License Information**:

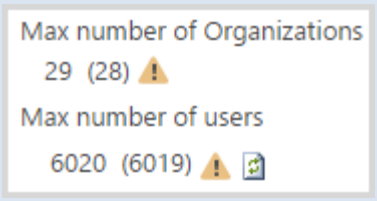
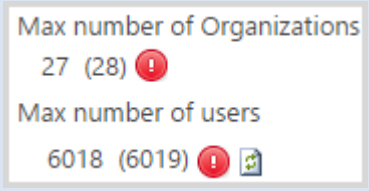


NOTE: Data about the number of users is changed in License Information with some delay due to caching data from resolved AD groups.

	The delay for some changes in license information is the following, • add AD group with user to Learners group - 1-3 sec; • disable user in AD ~ 1 m 30 sec; • enable user in AD ~ 1 m 40 sec.

4.1.1 Managing LMS License

LMS license counts members of Learners group on LMS courses. If REM is installed on the farm, LMS license counts users who have at least one registration with 'Waiting for Start Date' or 'Enrolled' statuses (users who have registrations with 'Wait for Approval', 'Certificate Expired', 'Cancelled', 'In Waiting List', 'Course Completed', and 'Course Not Completed' statuses are not counted in the license only if they are not added to Learners group on LMS course).

NOTE:	If user both is a member of Learners group on LMS course and has registrations (with 'Waiting for Start Date' and 'Enrolled' statuses) on REM site, he is counted in LMS license only once.
NOTE:	The refresh button next to Max number of users forces the update of the user count. When you click this button, a progress bar with the number of processed users, REMs, and courses appears: The refresh icon on the top of the page forces the update of all license properties from the license server site.
NOTE:	When there is only 5% of maximum number of users/organizations left, a warning sign will appear next to the counter:  When maximum number of users/organizations has been exceeded, an error sign will appear next to the counter: 

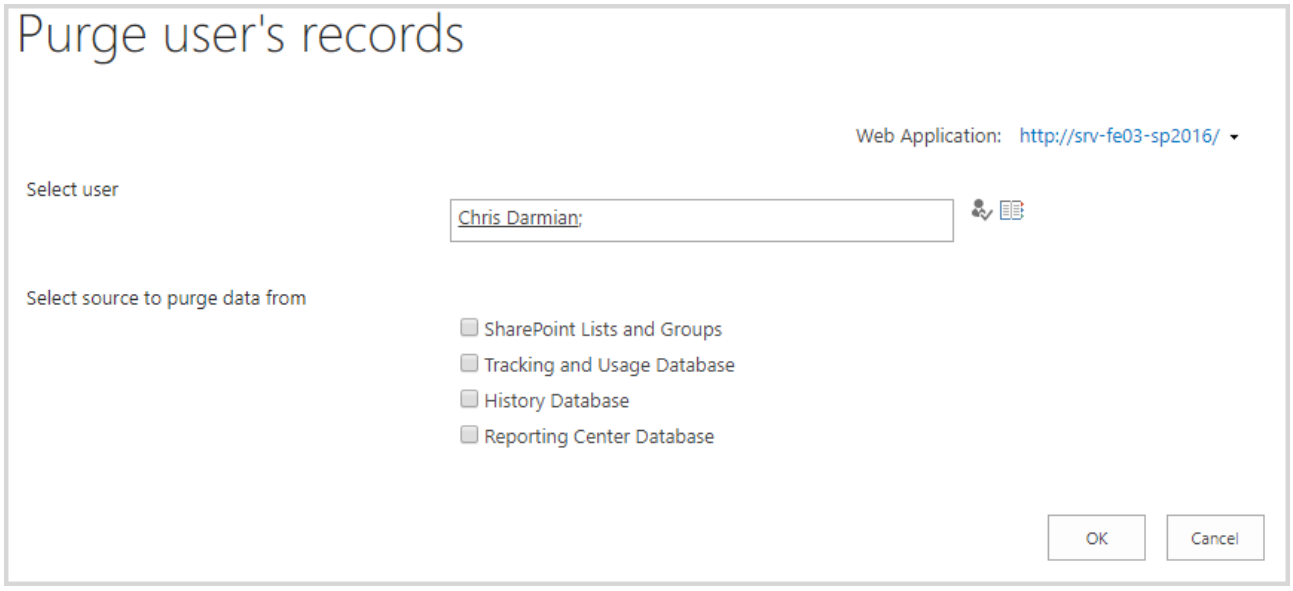
On Manage License Information page, it is possible to:

1. download user license report, in which all users that are counted in the LMS license will be specified. To do this, click Download User License Report link at the top of the page. After that, an .xlsx file will be downloaded to your local computer (all users will be grouped by courses).

NOTE:	The same action can be performed using a PS command: Export-LMS365LicenseUsers (.csv and .xlsx file can be generated).

2. purge (permanently delete) user's data from LMS and databases. To do this, click Purge user's records link. You will be presented with the page with the user selector field:

Select a user, and then select source(s) from where you want to purge user's data:

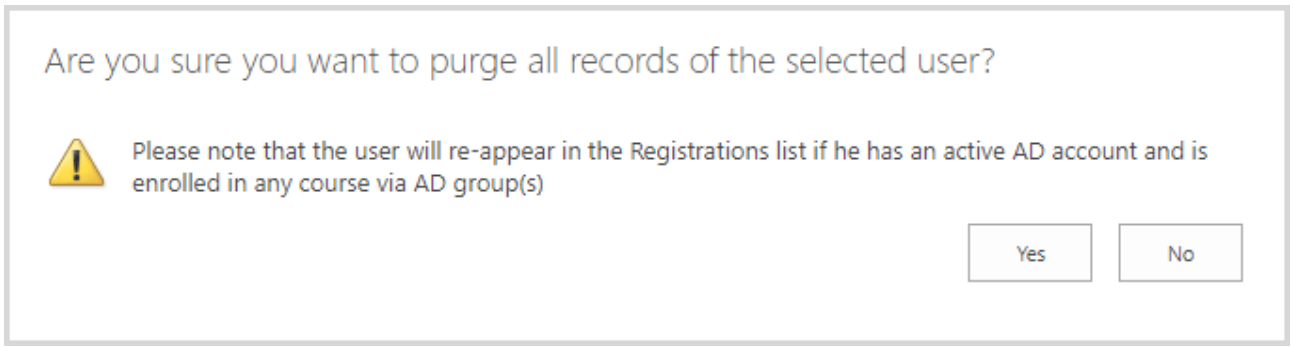


You can select all sources or only certain of them. If you select **'SharePoint Lists and Groups'**, user will be deleted from all SharePoint groups he is in; his 'Teacher' role, and all related data (Personal Profile, Action Plan, Personal Competencies, all attempts and user folders, attendance, survey responses, Assignment tasks, Gradebook items, registrations, enrollment requests, and certificates) will be deleted as well.

If you select:

1. **'Tracking and Usage Database'**, user's records will be deleted from the LMS Tracking database;
2. **'History Database'**, user's records will be deleted from the CCM History database;
3. **'Reporting Center Database'**, user's records will be deleted from the RC database (please be advised that if you delete data only from the RC DB, it will re-appear there after synchronizing the DB).

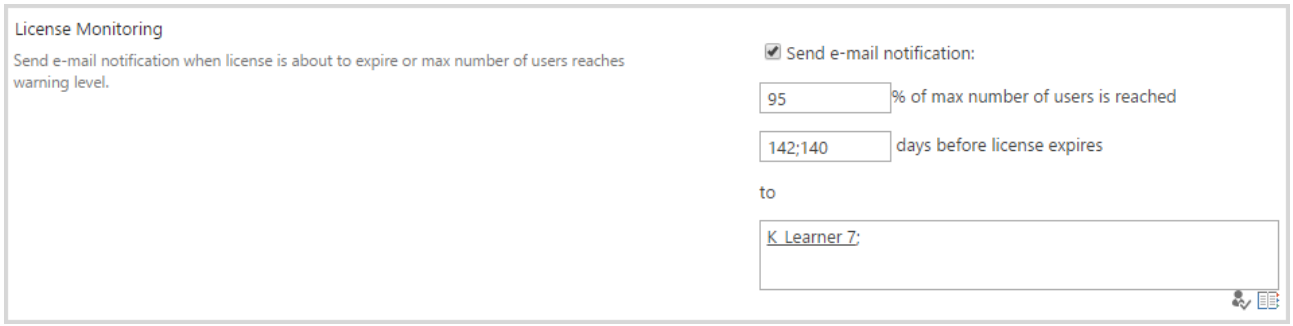
After you have selected source(s), a confirmation message will appear:



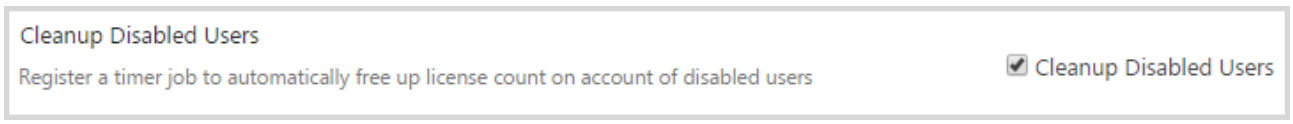
Click 'Yes' button to confirm purging process.

NOTE: The same action can be performed using a PS command: Delete-LMS365User.

4. specify e-mail notification settings. In License Monitoring section, you can specify whether to send e-mail notifications when maximum number of users is reached and/or number of days when license is about to expire. In the first case, specify number of users in %, and in the second – specify number of days before license expires (you can specify several number of days separated by semicolon), and then choose user(s) who will receive notification:

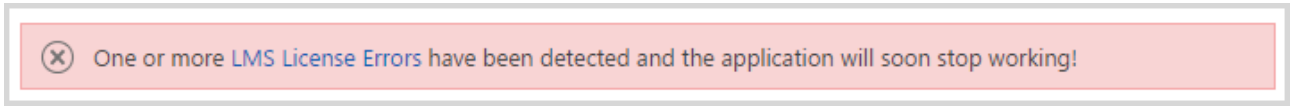


5. free up license count on account of disabled users or not. To do this, select Cleanup Disabled Users checkbox:



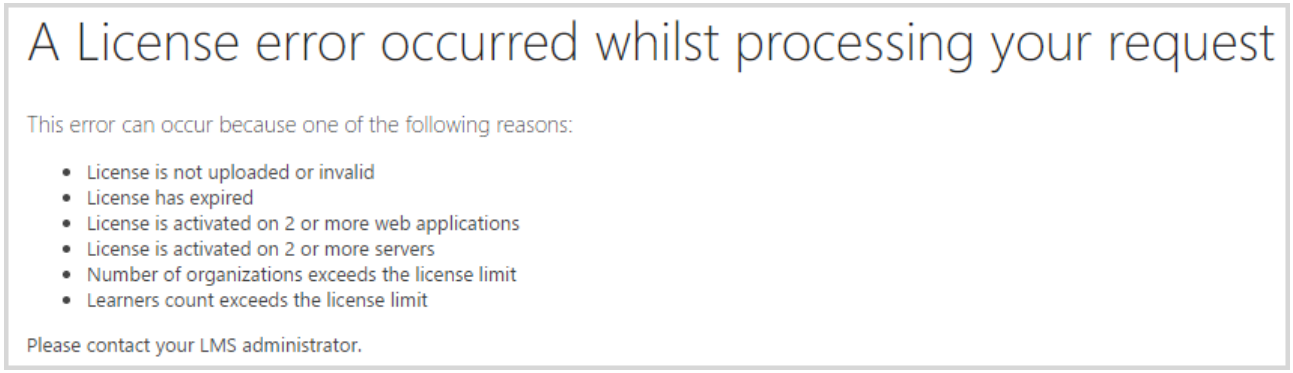
NOTE:	If this option is selected, ELEARNINGFORCE – LMS: Cleanup Disabled Users job appears in Job Definitions section. This job removes users disabled in AD/deleted from AD from Learners group on LMS courses and cancels users' registrations on REM sites.

When license becomes invalid, 14 days period for handling license issues starts. During this period, the system does not stop working, only warning appears on CCM, REM, Dashboard, and LMS sites pages:



NOTE:	14 days period is reset only after it has ended, therefore, e.g. if administrator has handled license issues in 5 days since the first license notification, and in 2 days after that license becomes invalid again, administrator will have only 7 days before the system stops working.

If license issues have not been handled in 14 days period, all users (except site collection administrator) will be redirected on the page with the License error:



Site collection administrator will see the following error on CCM, REM, Dashboard, and LMS sites pages:

Clicking 'LMS License Errors' link will redirect user to the License error page (/licenseerror.aspx).

4.2 Configuring SharePoint for License Activation via Proxy Server

NOTE:	To activate SharePoint LMS license via proxy server you need to specify the proxy server in the web.config file of your Central Administration virtual directory using the System.Net element.

The steps to do that are as follows,

1. Open up the web.config file
2. Look for the .xml node <system.net>
3. There should be a <defaultProxy> xml node inside <system.*net*>.

If there's not, create it.

4. There should be a <proxy> xml node inside <defaultProxy>.

If there's not, create it.

5. If you have an autoDetect="True" attribute, remove it.
6. Add the following attributes to the <proxy> xml node

proxyaddress="http://proxy.company.com:8080"
bypassonlocal="true"

7. Save the web.config file.

Then activate the license.

If the proxy server **requires authentication** you should use "useDefaultCredentials" parameter for passing an authentication e.g.

```
< defaultProxy enabled="true" useDefaultCredentials="true" >
        < proxy bypassonlocal="True" proxyaddress="http://yourproxy"/ >
< /defaultProxy >
```

4.3 Offline License Activation Process

For the **first time activation**, please follow the steps below:

- Logon to one of the SP servers in farm and run the following command: `stsadm -o splms-preactivatelicense -url <URL of web application> -licenseid <License id> -file <Filename 1>`
- Copy the generated file to any workstation with the access to the Internet, and then run `OfflineLicenseActivator.exe Filename 1` (path to the file generated in the previous step) `Filename 2` (path to the result file that will be generated after activator has run).
  For example, `OfflineLicenseActivator.exe C:\request.txt C:\result.txt`.
  You can download Offline License Activator here. If you do not have the workstation with the Internet access, please contact the LMS365 Support Team (support@elearningforce.com)
- Copy the generated result file to the server, and then run the following command: `stsadm -o splms-activatelicense -url <URL of web application> -file <Filename 2>`

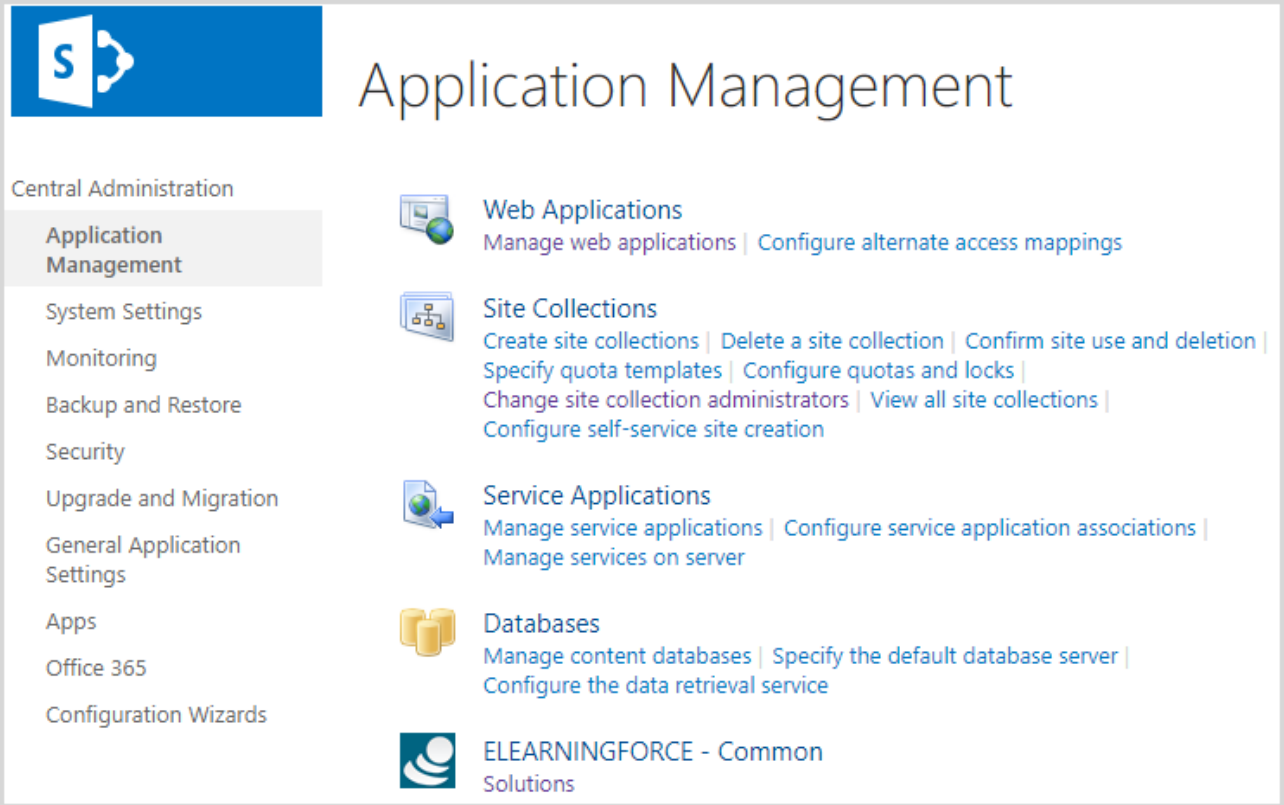
For the **reactivation** after extending the license, please follow the steps below:

- Logon to one of the SP servers in farm and run the following command: `stsadm -o splms-preactivatelicense -url <URL of web application> -licenseid <License id> -file <Filename 1> -message Reactivation message`

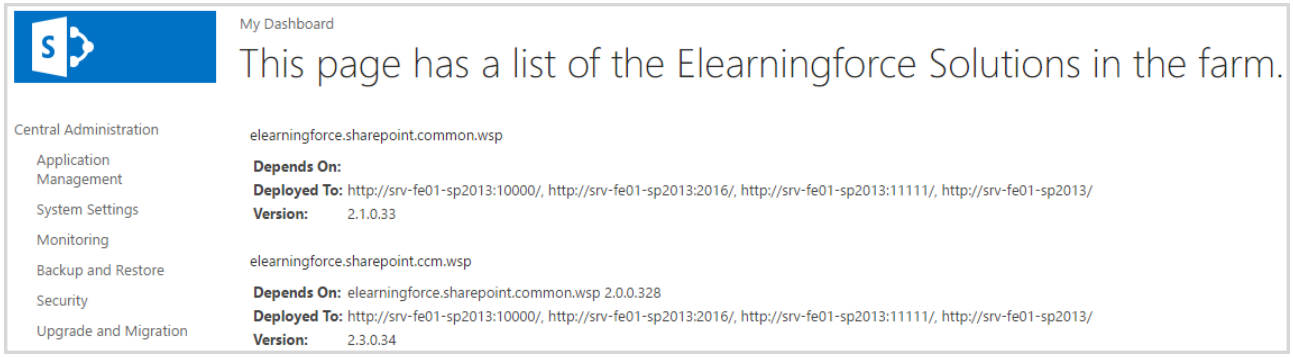
- Copy the generated file to any workstation with the access to the Internet, and then run `OfflineLicenseActivator.exe Filename 1` (path to the file generated in the previous step) `Filename 2` (path to the result file that will be generated after activator has run) `-reactivation`.
  For example, `OfflineLicenseActivator.exe C:\request.txt C:\result.txt -reactivation`.
  You can download Offline License Activator here. If you do not have the workstation with the Internet access, please contact the LMS365 Support Team (support@elearningforce.com)
- Copy the generated result file to the server, and then run the following command: `stsadm -o splms-activatelicense -url <URL of web application> -file <Filename 2>`

4.4 Solutions page

In the Application Management of the Central Application you will find ELEARNINGFORCE Solutions page:



You may refer to this page to check solutions of the LMS Suite installed in the farm and their current versions (mostly important it shows the minimum version of the shared solutions that a product from the suite requires):


My Dashboard
This page has a list of the Elearningforce Solutions in the farm.
Central Administration
Application Management
System Settings
Monitoring
Backup and Restore
Security
Upgrade and Migration
elearningforce.sharepoint.common.wsp
Depends On:
Deployed To: http://srv-fe01-sp2013:10000/, http://srv-fe01-sp2013:2016/, http://srv-fe01-sp2013:11111/, http://srv-fe01-sp2013/
Version: 2.1.0.33
elearningforce.sharepoint.ccm.wsp
Depends On: elearningforce.sharepoint.common.wsp 2.0.0.328
Deployed To: http://srv-fe01-sp2013:10000/, http://srv-fe01-sp2013:2016/, http://srv-fe01-sp2013:11111/, http://srv-fe01-sp2013/
Version: 2.3.0.34

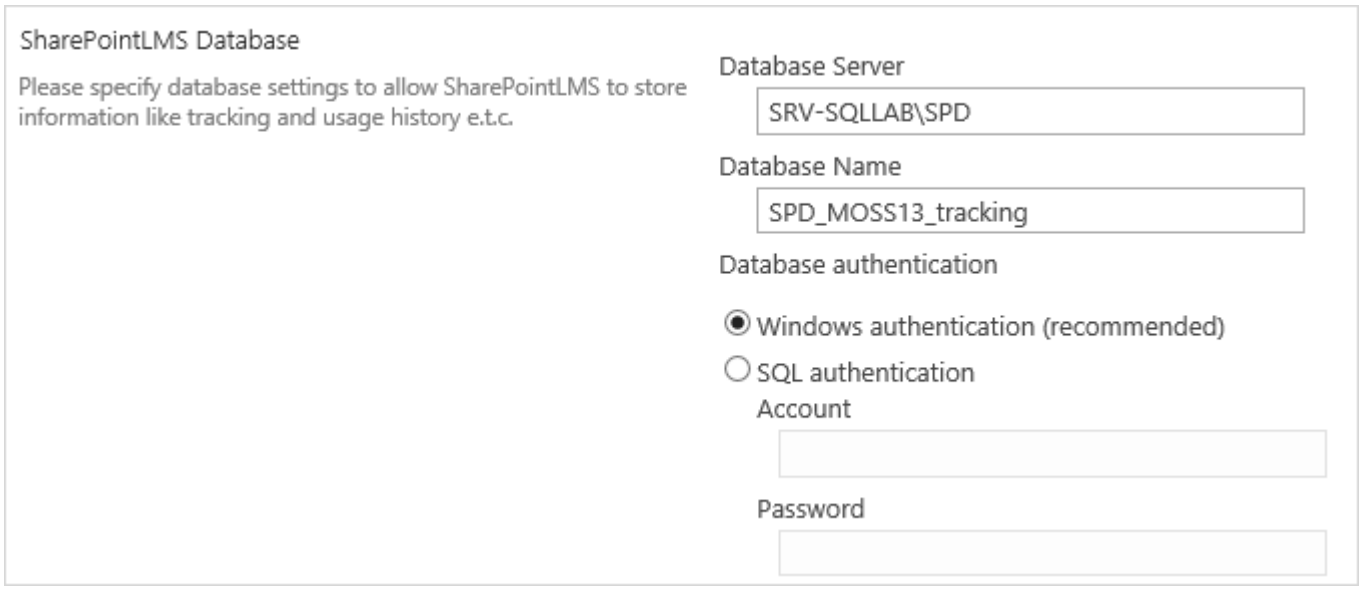
5 INITIAL CONFIGURATION

5.1 SharePoint LMS Setup

5.1.1 Global features

To set up global settings go to **Central Administration > Application Management > SharePoint LMS > Global features**. Verify that you have selected the right web application where SharePoint LMS was deployed.

A single required setting to configure right away is **SharePoint LMS Database** (Tracking Database) i.e. the database that was created specifically for SharePoint LMS. It stores tracking stats & usage history:



Database Server name is placed automatically (just verify whether it is correct or any instance should be specified), enter the **Database Name** and save the changes. The rest of the options are either configured by default or optional and described in SharePoint LMS Administration Guide document.

5.1.2 Create organization site collection

Go to **Central Administration > Application Management > SharePoint LMS > Organization > Create organization** to verify it's possible to create an organization site successfully. Make sure you select the right web application while creating it otherwise it will not appear in the front end interface. For more info on organization management check SharePoint LMS Administration Guide document.

5.1.3 Create course site collection

Open the organization site collection that you've created (as a site collection administrator) and go to **Site Actions > Create Course** to verify the course site collections can be created successfully.

At this point SharePoint LMS is initially configured and can be used by administrators and content creators.

5.1.4 Create a Host Named LMS site collection

To create host named LMS organization you need to use stsadm command:

```
stsadm –o createorganization –url "http://custom-host-lms" –title "HNSC organization" –owner example\administrator –hostHeaderWebApplication http://real-webapplication-URL
```

Once organization is created you can create host named courses using user interface e.g. http://custom-host-lms/course01, http://custom-host-lms/course02.

Limitations:

1. You cannot create several LMS sites (organizations and courses) with the same server relative URL within one web application.
2. If the organization is host-named you can create host named courses ONLY within the organization.

5.2 SharePoint CCM Setup

You do not need to do any configuration within SharePoint CCM solution and may skip this chapter in the following cases:

- You use SharePoint LMS solution only
- You use SharePoint LMS & SharePoint REM solutions but excluding 'Line Management' and 'Dashboard' functionality

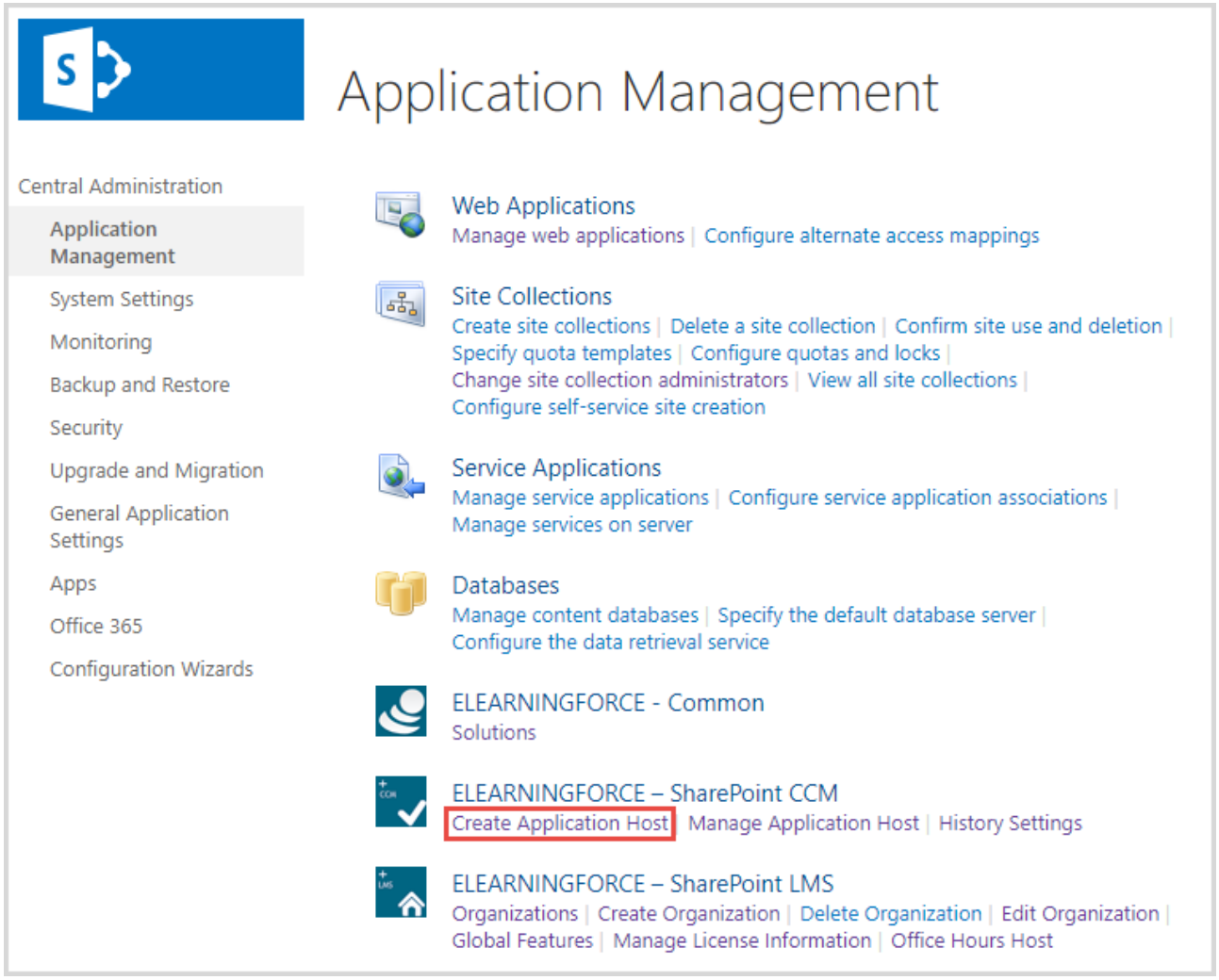
In other cases it's required to perform initial configuration of the SharePoint CCM solution (it can be done by administrator):

- You use 'Line Management' functionality in SharePoint REM
- You use SharePoint Dashboard solution
- You use 'SharePoint Reporting Center' solution

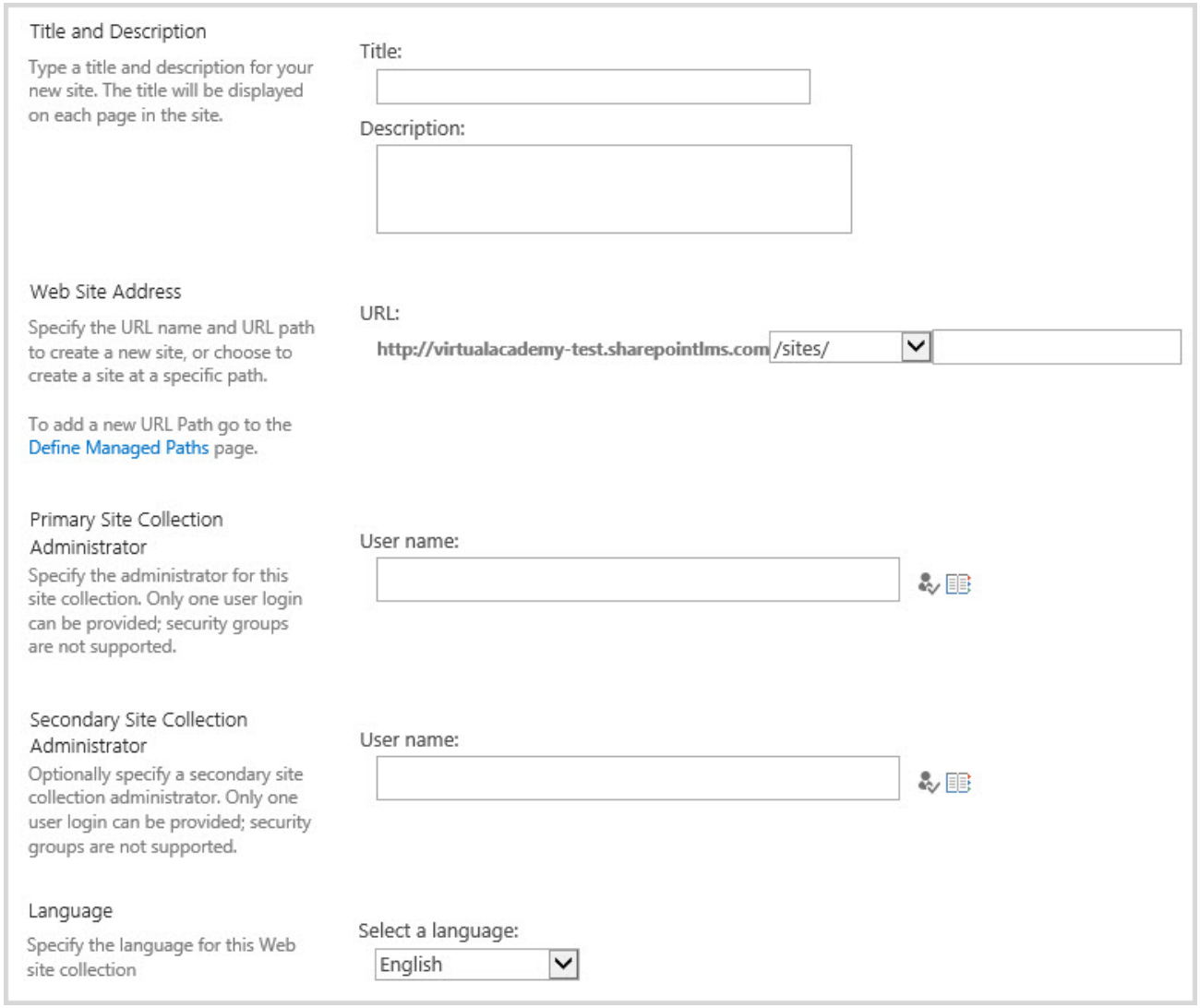
Minimal configuration includes creating a CCM host site collection, activating profiles synchronization & running initial synchronization to create CCM profiles for all the end-users. Afterwards profiles synchronization will run according to timer job schedule. CCM profiles are required to be created because the solutions were streamlines and consolidated to have a single reusable manager provider.

5.2.1 Create CCM Application Host

Go to **Central Administration > Application Management > ELEARNINGFORCE - SharePoint CCM > Application Host**:



In the opening form select the correct web application and fill in the required fields:



Click **OK** to create the CCM host site collection.

NOTE:	If you intend to use large AD groups on your CCM host site, we highly recommend to enable AD groups cache by running the following PowerShell cmdlet: `Enable-LMS365ADCache http://CCM_host_URL` This will configure settings for the "ELEARNINGFORCE - Common: AD Group Resolver" timer job. The job runs every hour. After it has finished running, CCM will resolve AD groups much faster because of using AD groups cache.

5.2.2 Activate Profiles Synchronization

SharePoint CCM product is centered on CCM user profile. In order to avoid manual work of adding CCM profiles the solution provides two ways of profiles synchronization:

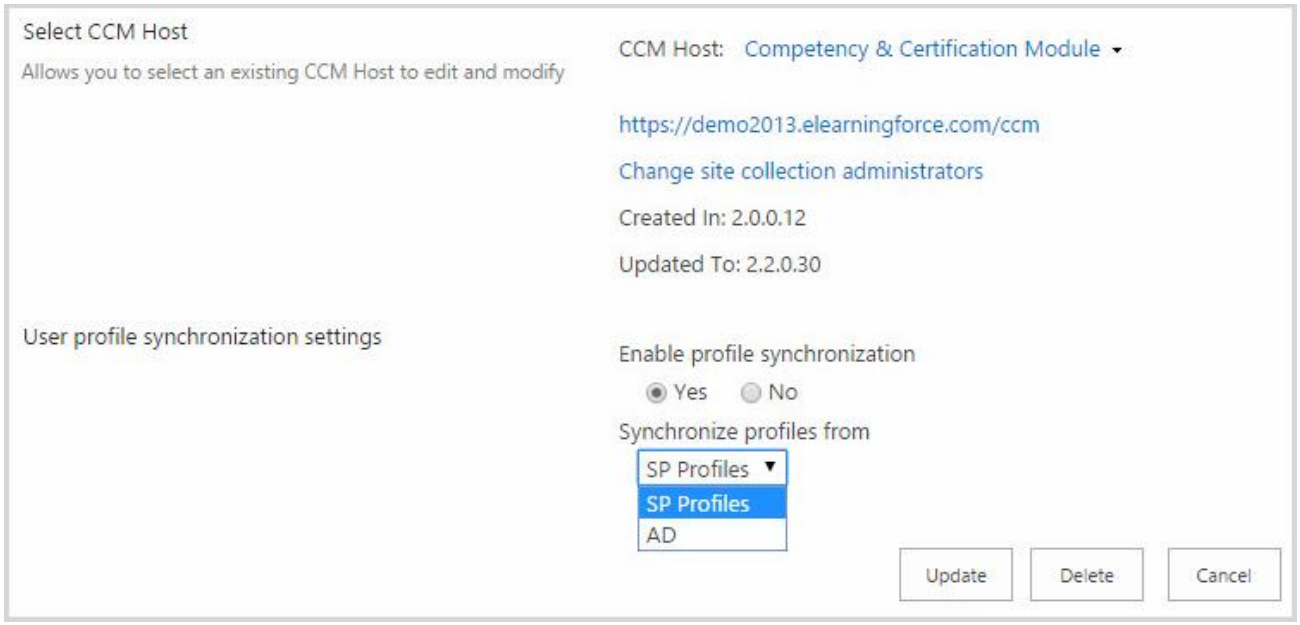
1. synchronization with SharePoint User Profiles (default and recommended approach)
2. synchronization with Active Directory users

NOTE:	A user can only have a profile in one CCM host on the same web application. Please consider that when planning your setup. We do not support a case when one user has

	several CCM profiles within one web application.
NOTE:	You can only use one of the two synchronizations. We encourage to use synchronization with SharePoint User Profiles as it might be possible that feature of synchronization with Active Directory users will be deprecated in future versions.

Synchronization is controlled by web application scope feature **'ELEARNINGFORCE – CCM: User Profile Synchronization Job'** which is activated during LMS Suite installation. The feature registers **'ELEARNINGFORCE – CCM: User Profile Synchronization Job'** timer job which is set to run daily by default.

Synchronization is disabled by default but you can change that when you create or modify CCM host site. You need to go to **Central Administration > Application Management > Manage Application Host** under SharePoint CCM, and edit **User profile synchronization settings**:



Set 'Enable profile synchronization' option to 'Yes', and select the source to synchronization profiles from, then save the changes.

If synchronization is activated it will create CCM profiles as well as update profile information. When timer job runs, it checks users from

1. Site Administrators Group;
2. Employees Group;
3. People Administrators Group;

and creates missing CCM profiles and updates existing ones. If there is enough information to set all required fields then profiles are created in 'Active' status, otherwise in 'Incomplete'.

NOTE:	If user's profile is disabled in Active Directory, the system sets CCM profile of that user in Deactivated status once the timer job runs (valid for synchronization with AD users). If you want user's CCM profile to be deactivated when his SP profile does not exist or has been deleted, you need to apply additional configuration to User Profile Service. See

	https://helpcenter.elearningforce.com/hc/en-us/articles/213276909 for more details on this issue.
NOTE:	The system does not empty values after the sync if they were emptied in Active Directory or SharePoint User Profile.

5.2.2.1 Define fields to be synchronized by the CCM User Profile Synchronization Job (with SP User Profile)

You can choose which fields to be synchronized by the CCM User Profile Synchronization Job (with SP User Profile). To do so follow the steps below:

1. Navigate to **C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\15\TEMPLATE\XML**
2. Open the **CCMProfilesSPSyncConfig.xml** file:

```
<Configuration>
  <Mappings>
    <Mapping ExternalField="FirstName" CCMField="PrivateFirstName" DefaultValue="[First Name]" />
    <Mapping ExternalField="LastName" CCMField="PrivateLastName" DefaultValue="[Last Name]" />
    <Mapping ExternalField="Department" CCMField="Department" />
    <Mapping ExternalField="SPS-JobTitle" CCMField="Jobs" DefaultValue="[Job]" ValueConverter="JobConverter" />
    <Mapping ExternalField="Manager" CCMField="Manager" ValueConverter="UserConverter" />
    <Mapping ExternalField="SPS-Birthday" CCMField="BirthDate" />
    <Mapping ExternalField="WorkPhone" CCMField="PrivateWorkPhone" />
    <Mapping ExternalField="HomePhone" CCMField="HomePhone" />
    <Mapping ExternalField="WorkEmail" CCMField="PrivateEMail" />
    <Mapping ExternalField="Fax" CCMField="Fax" />
    <Mapping ExternalField="SPS-HireDate" CCMField="EmploymentStartDate" />
    <Mapping ExternalField="PictureURL" CCMField="PrivatePicture" />
  </Mappings>
</Configuration>
```

3. Update the file as needed
4. Save the file.

NOTE:	For more information on the field definition in the SharePoint, please contact your System Administrator. For more information on the field definition n the CCM User Profiles, please, contact the CCM Administrator or the ELEARNINGFORCE help center.

5.2.2.2 *Define the fields to be synchronized by the CCM User Profile Synchronization Job (with AD User Profile)*

You can choose which fields to be synchronized by the CCM User Profile Synchronization Job (with AD User Profile). To do so follow the steps below:

1. Navigate to **C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\15\TEMPLATE\XML**
2. Open the **CCMProfilesADSyncConfig.xml** file:

```
<Configuration>
  <Mappings>
    <Mapping ExternalField="manager" CCMField="Manager"
ValueConverter="UserValueConverter"/>
    <Mapping ExternalField="givenName" CCMField="PrivateFirstName"/>
    <Mapping ExternalField="sn" CCMField="PrivateLastName"/>
    <Mapping ExternalField="telephoneNumber" CCMField="PrivateWorkPhone"/>
    <Mapping ExternalField="facsimileTelephoneNumber" CCMField="Fax"/>
    <Mapping ExternalField="streetAddress" CCMField="Address"/>
    <Mapping ExternalField="l" CCMField="City"/>
    <Mapping ExternalField="st" CCMField="State"/>
    <Mapping ExternalField="postalCode" CCMField="ZIP"/>
    <Mapping ExternalField="mail" CCMField="PrivateEMail"/>
  </Mappings>
</Configuration>
```

3. Update the file as needed;
4. Save the file.

NOTE:	To add user's job title from AD 'Title' field to CCM 'Jobs' field use the following guide. For more information on the field definition in the AD, please contact your System Administrator. For more information on the field definition n the CCM User Profiles, please, contact the CCM Administrator or the ELEARNINGFORCE help center.

5.2.3 Create a Host Named CCM Site Collection

Host Named Site Collection is a feature of SharePoint that allows individual site collections to have their own top-level URL. To create a Host Named Site for CCM solution, follow these steps:

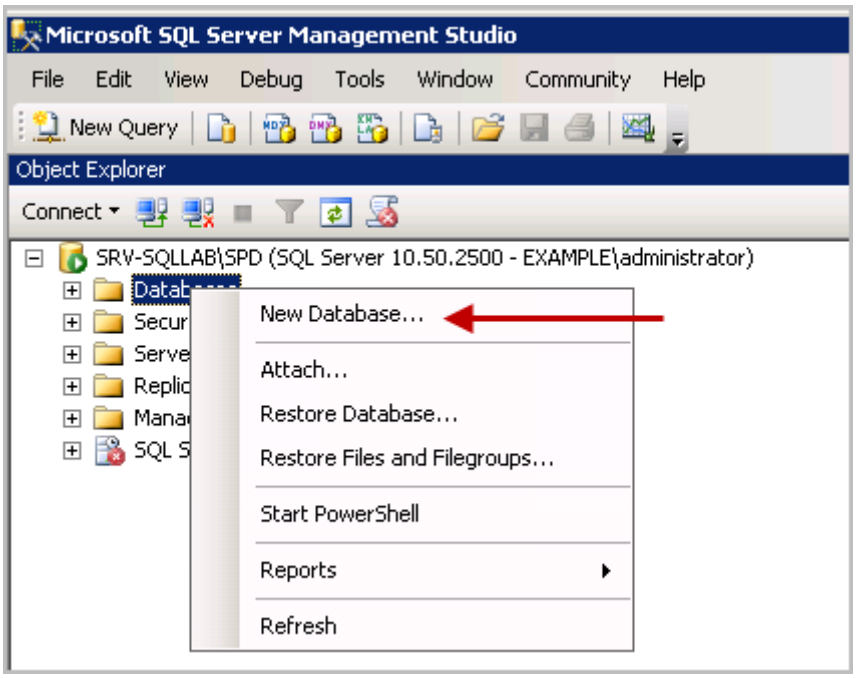
1. Open C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\15\CONFIG\CCM\hnsc_config.xml;
2. Add host headers as described in the file. Use the following syntax to define host names: <host name="example.com"/>;
3. Go to CCM host creation page in CA;

4. Select your previously added entry from drop-down menu when specifying host address;
5. Create CCM host and check that it has been created and works correctly.

5.2.4 Configure CCM History and Logging settings

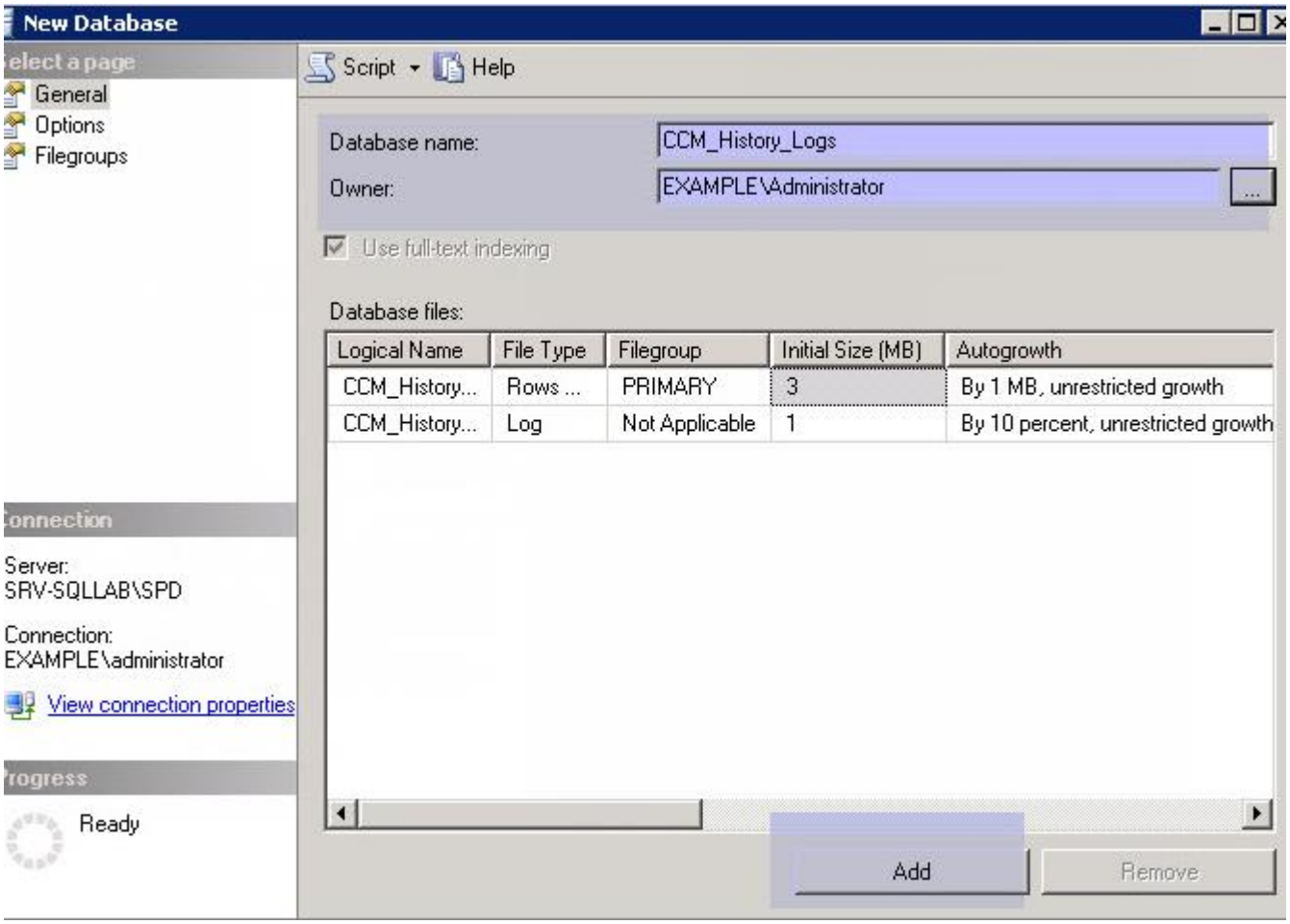
The purpose of the History database setting is to avoid overgrowth of Database. To configure it, dothe following actions:

- First you need to create a new content database that will be used for logging CCM history data. To do that, open **SQL Management studio** and connect it to your farm database server. Click **Database** folder to create a new database:

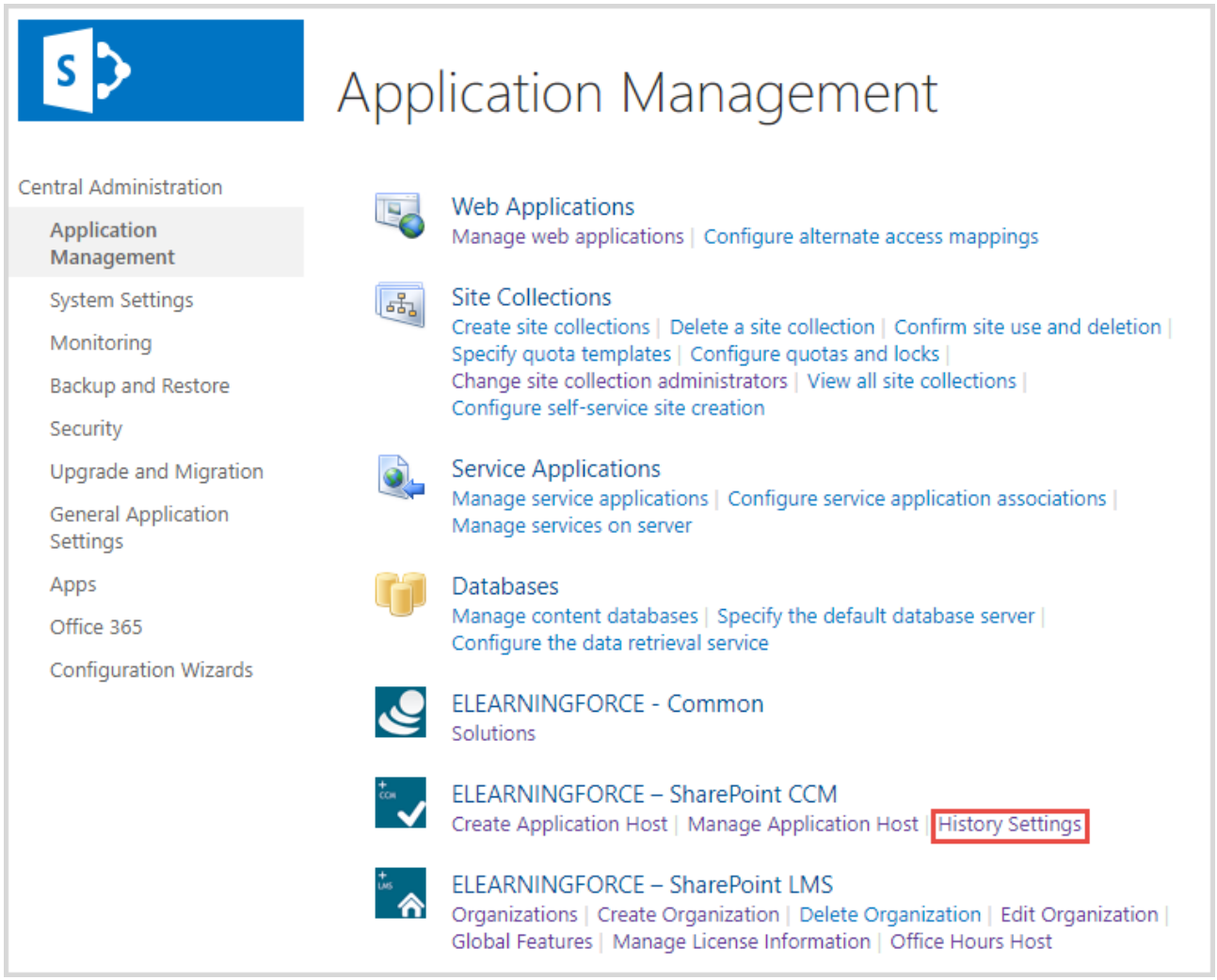


NOTE:	The folders for history database should be created in all Database servers in the Farm. (or only one folder if there is only one Database server). Write permissions to this folder should be granted to: • the account under which owstimer runs; • the Central Administration web application pool account.

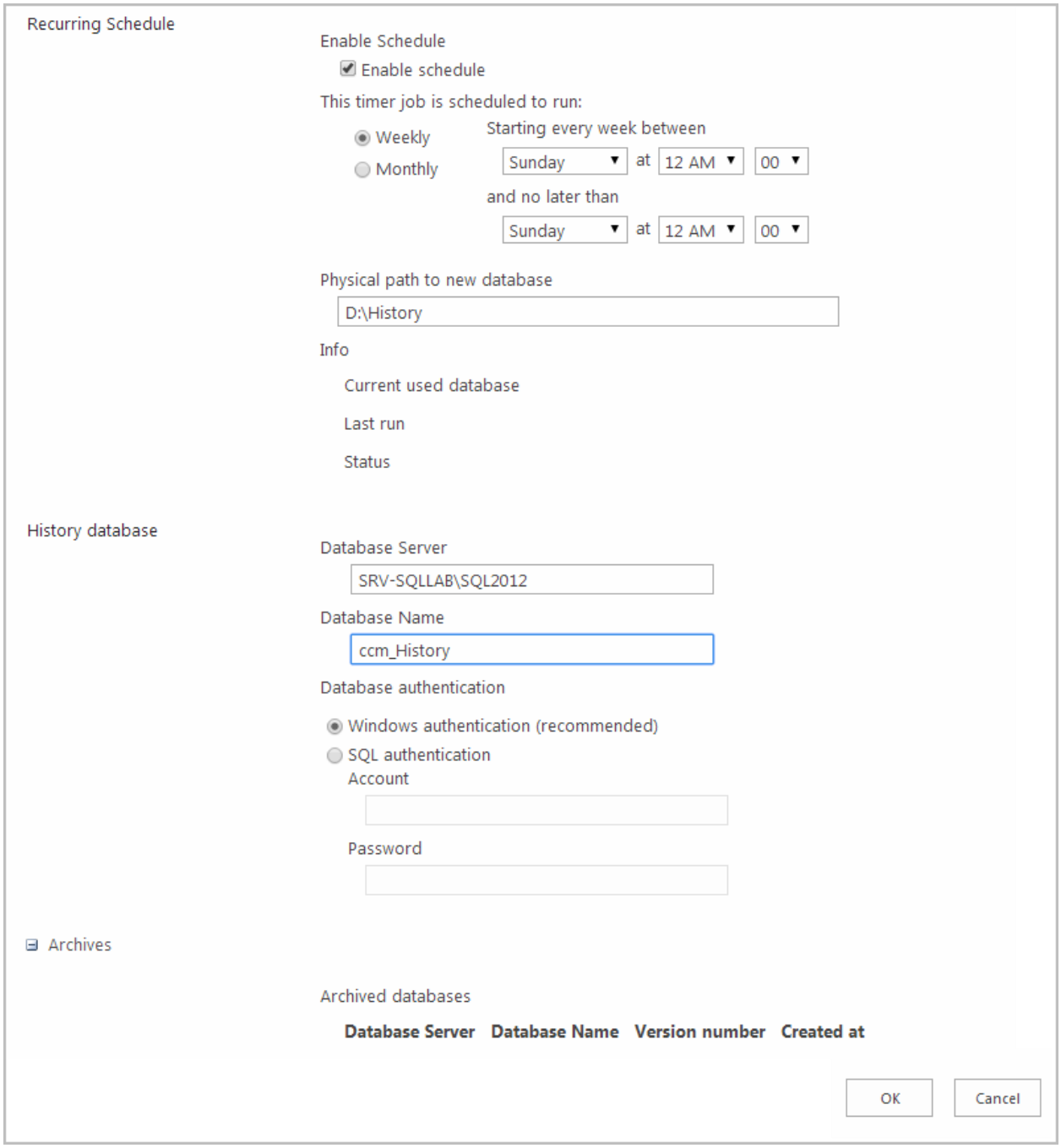
- Specify the database name (any name) and owner (it must be the web application pool account running CCM):



- Click Add button to create a new content database.
- Go to Central Administration > Application Management > CCM > History Settings:



- Configure the settings in the opening form:



- *Recurring Schedule* –allows you to set up a schedule for archiving the CCM history loggings database. You need to specify **the timer job start** to perform archiving and the **physical path**, where the archived databases will be stored (once the job runs a new archive will be created).

NOTE:	Physical path should be of the **C:\ccm_archive** kind. You also need to make sure that the account under which owstimer runs has 'write' permissions to this folder.
NOTE:	When you configure these settings the timer job **'ELEARNINGFORCE - CCM: History Archiving Schedule Job'** is registered for the web application and the system tries to do a check and create a history DB archive at once (in the specified path). The only difference is that it is done under the CA application pool account settings at this time. To additionally check this you could generally run the job immediately and check the

	archive is created (it will be also shown under CA>History Settings>Archives), and on the CCM site collection in the History module you will be able to select this archive database to search then.

NOTE:	When the Enable schedule setting is set, a new database is created each time for every scheduled period.

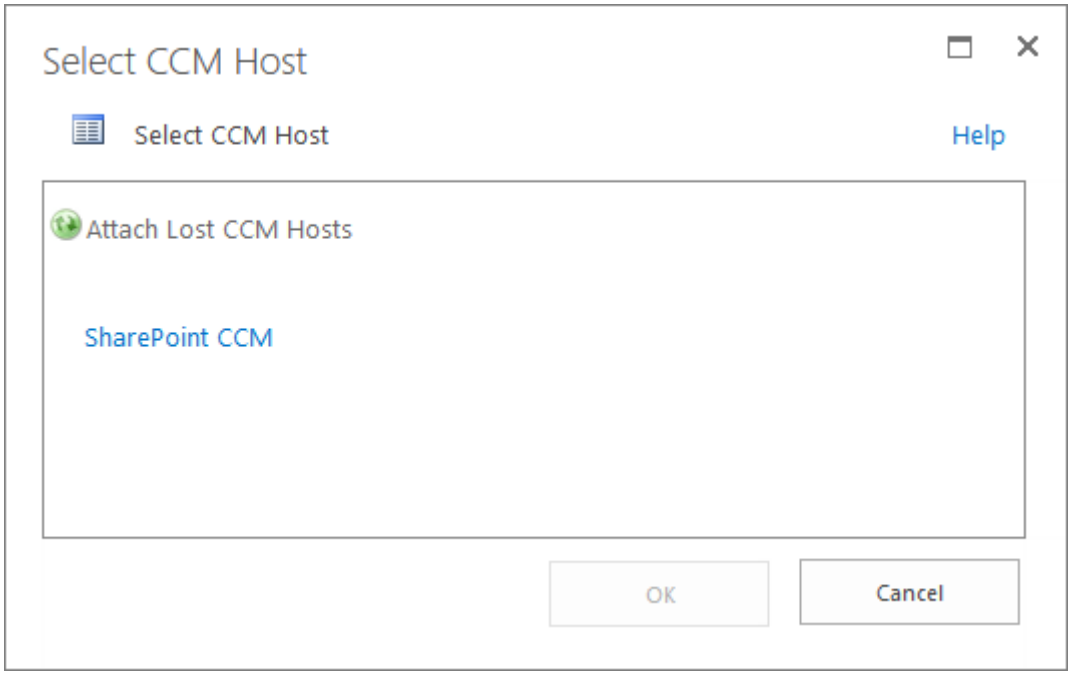
- *History database* – specify the name of the content database that was created specifically for CCM history logs in the 'Database Name' field. The 'Database Server' field is usually identified automatically.

It is also recommended to keep the Windows authentication setting.

- *Archives* – shows you the place and date of the database archives created.

5.2.5 Restore CCM Host Configuration

In certain cases you might need to restore CCM host configuration. That is, for example, when you reattach content database that includes CCM host site, or after you restored the backup of CCM host site collection. To do that go to **Central Administration > Application Management > SharePoint CCM > Manage Application Host** and click '**Attach Lost CCM Hosts**' button on the host selection dialog:



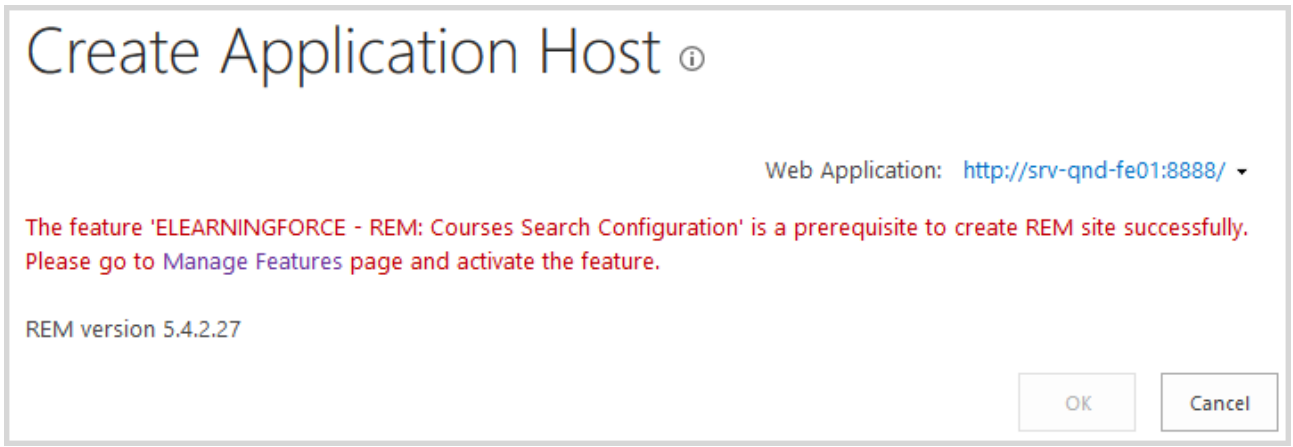
5.3 SharePoint REM Setup

5.3.1 Create REM Application Host

'ELEARNINGFORCE - REM: Courses Search Configuration' feature is a prerequisite for creating REM host site collection. It is a web application scoped feature that ensures (creates if not exist) needed crawled properties, managed metadata properties and term store group. The system attempts to activate it automatically during product installation.

NOTE:	At least one site collection must be available on the web application hosting SharePoint LMS in order for this feature to be activated successfully.
NOTE:	This feature is not activated in a multitenancy environment. Instead you need to install needed content in tenants using the following cmdlet: Provision-LMS365REMServicesContent -WebApplication $webApp -Subscriptions $subscriptionId

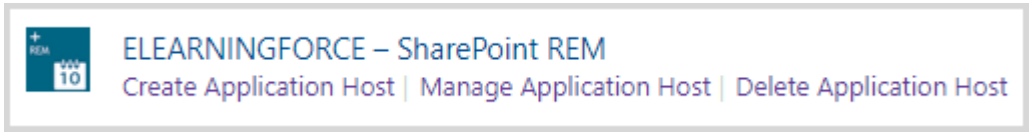
However, if any problems are met during activation of it you will see a warning when you go to **Central Administration > Application Management > Create Application Host** page:



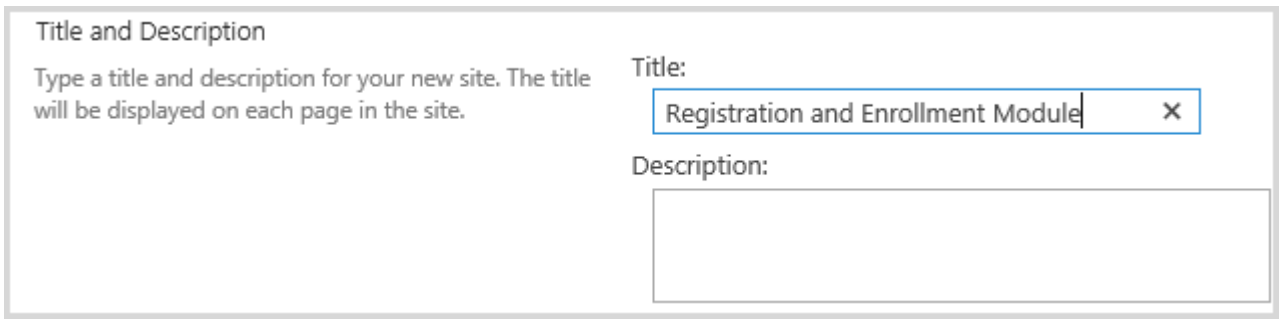
NOTE:	If you met problems with activating '**ELEARNINGFORCE – REM: Courses Search Configuration'** feature make sure the user who activates it has permissions to create a term store group in Managed Metadata Service, else you will get the unauthorized exception while activating the feature. To verify that go to **Central Administration>Application Management > Manage Service Applications>Manage Metadata Service> Term Store Administrators** and check that your user has admin rights here. During the feature activating user can also get exception like: *DefaultSiteCollectionTermStore is null please configure it before activating the feature.* It could be caused by reasons described here and here.

To create REM Site Collection, do the following:

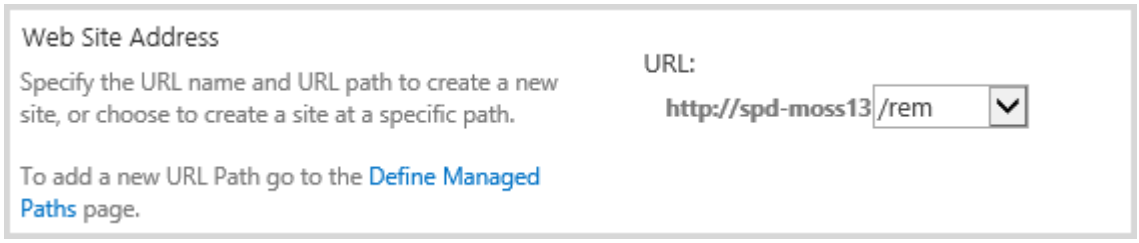
1. Go to **Central Administration > Application Management > Create Application Host**:



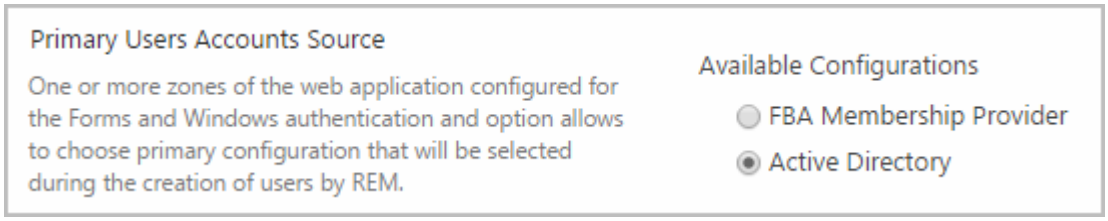
2. Complete the open form:
   - *Title and Description* – type the title and enter the short description:



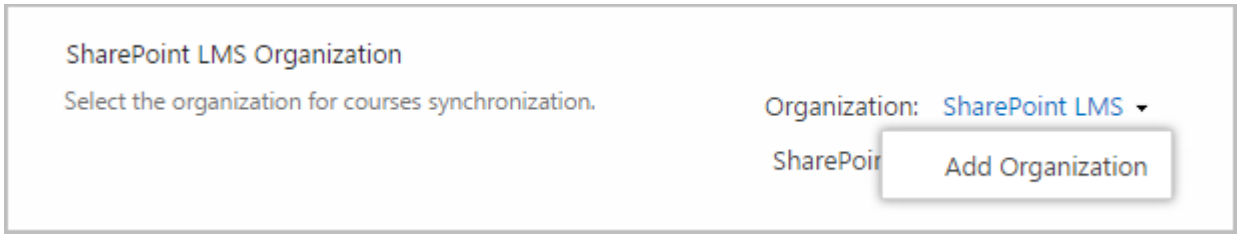
   - *Web Site Address* – type the unique site address:



   - *Primary Users Accounts Source* – select configuration for primary users accounts source: FBA Membership Provider or Active Directory:



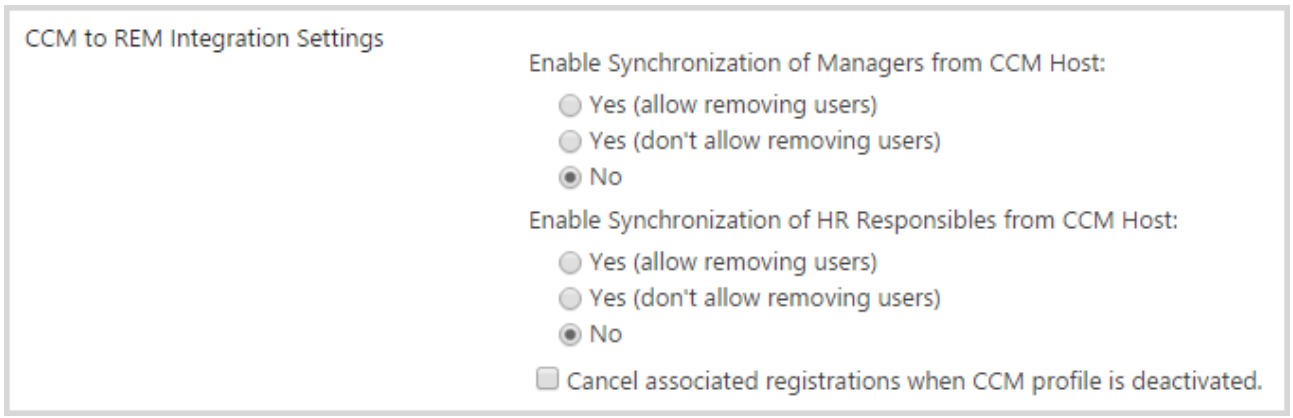
   - *SharePoint LMS Organization* – select an organization for courses synchronization with REM site collection:



   - In the **Organization** section, click **Add Organization**.
   - In the open dialog box, select an organization from the list, and then click **OK.**

- *SharePoint CCM Host* – select the CCM Host for synchronization with REM site collection:

– *CCM to REM Synchronization Settings* – select whether you want to synchronize people from 'Manager' and 'HR responsible' fields of CCM profiles to SharePoint groups 'Line Managers' and 'HR responsible' respectively:

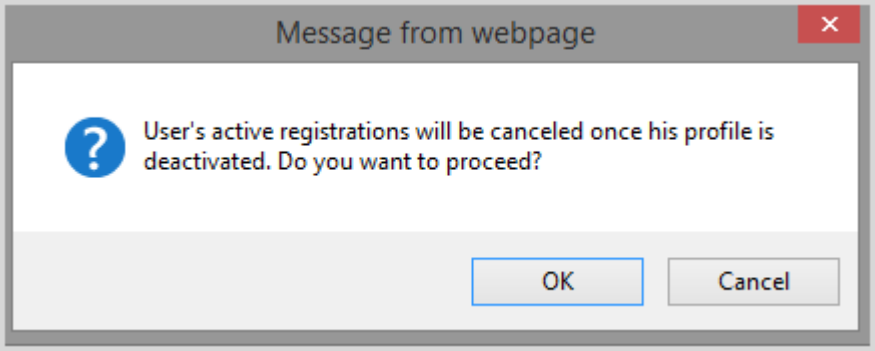


The synchronization is handled by 'ELEARNINGFORCE - REM: Managers synchronizer job' and scheduled to run hourly by default.

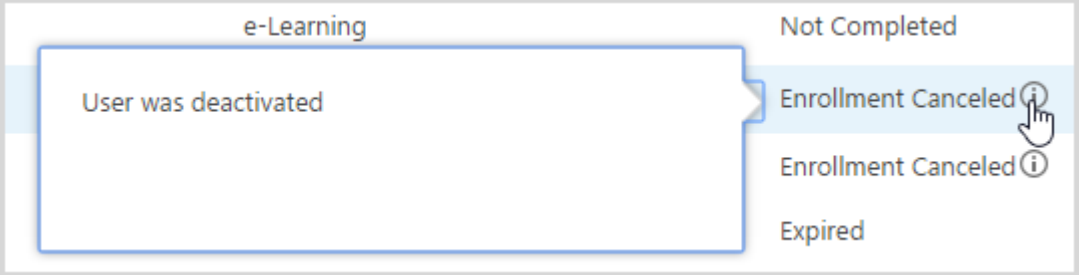
NOTE:	ELEARNINGFORCE – REM: Managers synchronizer job does not synchronize managers from Relationships list to REM Line Managers group. They are added to Dashboard Managers group and REM Line Managers group manually.
NOTE:	Managers and HR Responsibles with deactivated CCM profiles are not synchronized to REM SharePoint groups.

- *Cancel associated registrations when CCM profile is deactivated* – select the checkbox if you want to cancel associated active user's registrations (i.e. registrations with statuses 'Enrolled', 'Wait For Approval', 'Wait For Start', 'In Waiting List' for 'Material' course type and registration with statuses 'Enrolled', 'Wait For Approval', 'Wait For Start', 'In Waiting List', 'Course Completed' for other course types) when his CCM profile is deactivated;

NOTE:	Whilst deactivating user's CCM profile, you will see the following warning message:

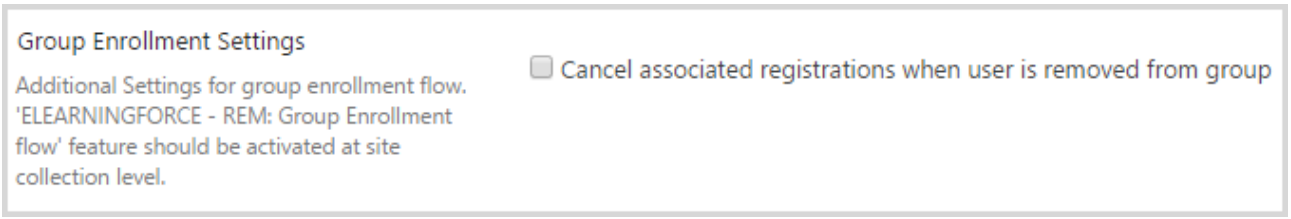


Click OK button to deactivate user's CCM profile and cancel his registrations. Now all active user's registrations will have 'Canceled' status and on the Dashboard's My Training Overview, a cancellation message will appear:



Remember that if you make user's CCM profile active again, his cancelled registrations will not change the status.

- *Group Enrollment Settings* – select the checkbox to cancel associated registrations when user is removed from group (user's active registrations (i.e. registrations with statuses 'Enrolled', 'Wait For Approval', 'Wait For Start', 'In Waiting List' for 'Material' course type and registration with statuses 'Enrolled', 'Wait For Approval', 'Wait For Start', 'In Waiting List', 'Course Completed' for other course types) that were created by Group Enrollments job will be canceled). Note that 'ELEARNINGFORCE – REM: Group Enrollment flow' feature must be first activated at the site collection level:

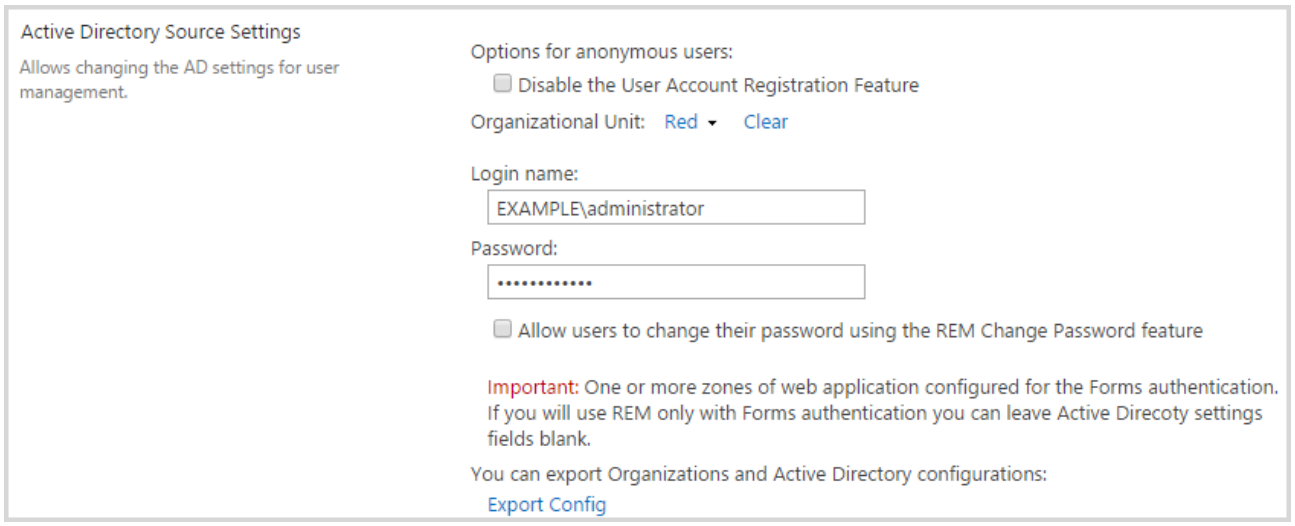


NOTE: When user that was removed from group and his registrations were canceled by Group Enrollments job is added back to the group, new registrations are created for him (after Group Enrollments timer job has run).

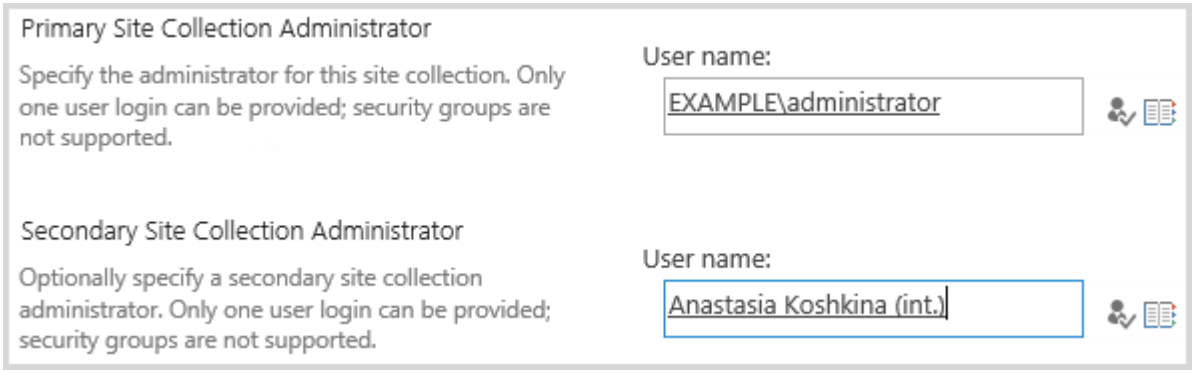
- *Active Directory Source Settings* – configure active directory for user's source; this configuration will be saved to the *web.config* file and used for creation of users in AD:

NOTE:	In FBA case default membership provider will be used for creation and storing new users.

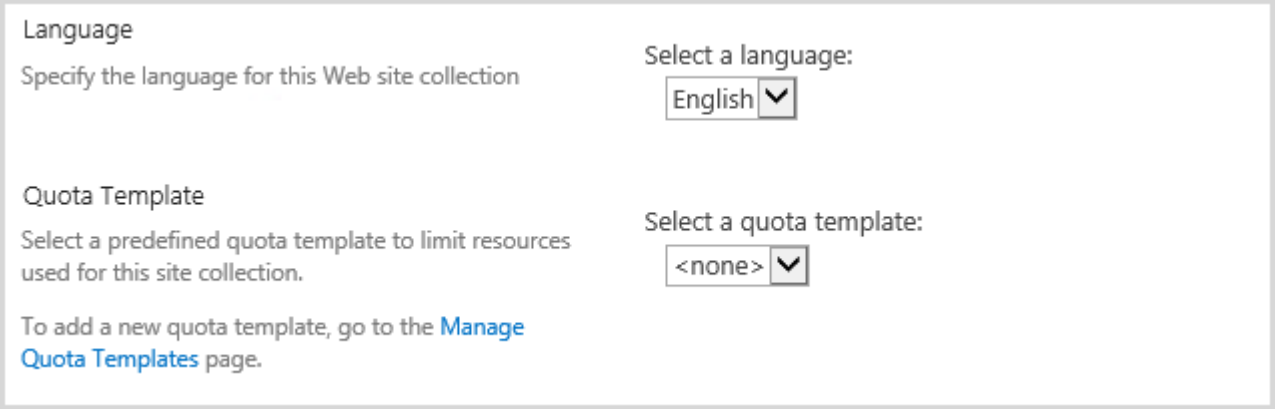
- *Disable the User Account Registration Feature* – select the checkbox to disable the fields below: if the check box is selected, ONLY the authorized users can enroll in courses. Clear the check box to allow anonymous users to enroll;
- *Organizational Unit* – select the Organization Unit that will contain new users created by REM;
- *Login name* – Enter full login name of the user who has an access to Organization Unit (should be in the following format: *domain\username*). Make sure that the specified user has rights to add, edit and delete users from current Organization Unit;
- *Password* – type in the password for the user and select the checkbox if you want to allow the user to change it:



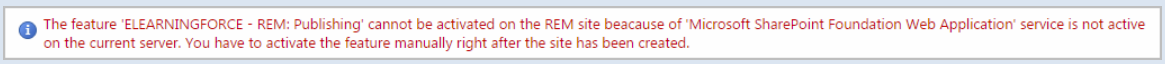
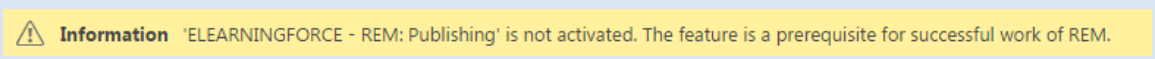
- *Import Config* – import Organizations and Active Directory configuration from the xml-file on your local computer.
- Specify the primary and secondary site collection administrators:



- *Language* – from the drop-down list select the language for your REM; the selection depends on the language packs installed:



3. Click **OK** to finish creating REM site collection. You will get the "*REM Site Collection Successfully Created*" message.

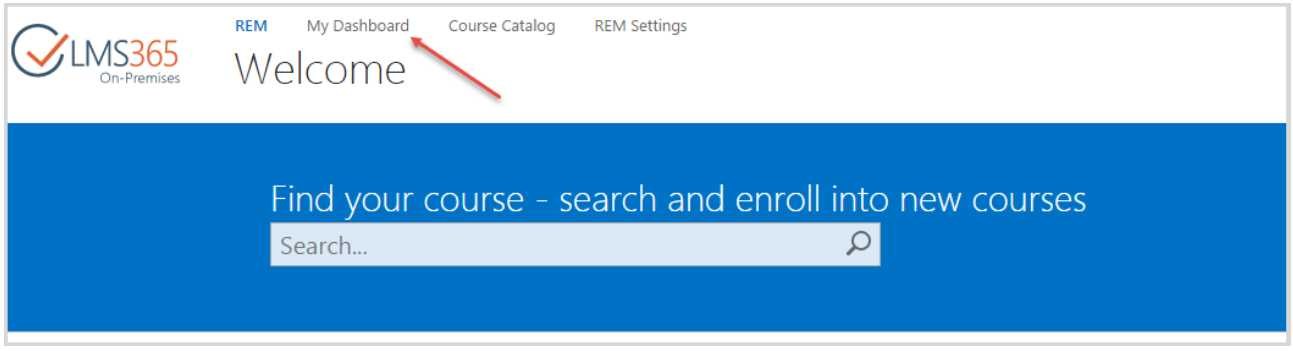
NOTE:	If you intend to use large AD groups on your REM host site e.g. for targeting curriculums, we highly recommend to enable AD groups cache by running the following PowerShell cmdlet: `Enable-LMS365ADCache http://REM_host_URL` This will configure settings for the "ELEARNINGFORCE - Common: AD Group Resolver" timer job. The job runs every hour. After it has finished running, REM & dashboard will resolve AD groups much faster because of using AD groups cache.
NOTE:	To be able to use the SharePoint date picker functionality, users should have access to the root site collection. Otherwise, users will receive the 'Access Denied' message when trying to use a date picker. Due to this reason it is recommended to add all users to the 'Root Site Visitors' group on the top-level site after REM Site Collection creation.
NOTE:	When Central Administration is hosted on a dedicated server **'ELEARNINGFORCE – REM: Publishing'** feature cannot be activated during creation of REM Application Host. In this case a warning is displayed that REM Publishing feature should be activated manually after site is created:  When you go to the REM host site collection you will see information message about that:  Go to Site Settings > Manage site collection features and activate 'ELEARNINGFORCE – REM: Publishing' feature.

5.3.1.1 My Dashboard

'My Dashboard' is a sub site created automatically in REM site collection, and controlled by the 'ELEARNINGFORCE – Dashboard: REM Integration' site collection feature:

NOTE:	Please remember that all changes (e.g changes made to the subsite navigation; custom pages and elements) will be reverted to default each time you reactivate ELEARNINGFORCE – Dashboard: REM Integration site collection feature.

Link to My Dashboard sub site is displayed in the global navigation:



My Dashboard functionality provides Learners, Teachers and Administrators with tools for quick overview and management of the learning process.
To enable Gamification functionality for Dashboard (re)activate the following features:

1. Site collection scoped feature 'Elearningforce – Dashboard: WebParts'. This feature adds 'Dashboard Web Parts' category with 'Gamification' web part to the web parts library:

2. Hidden feature 'Elearningforce – Dashboard: Pages'. It is activated using stsadm command `Enable-SPFeature -Identity 'Elearningforce_Dashboard_Pages' -url http://site URL`

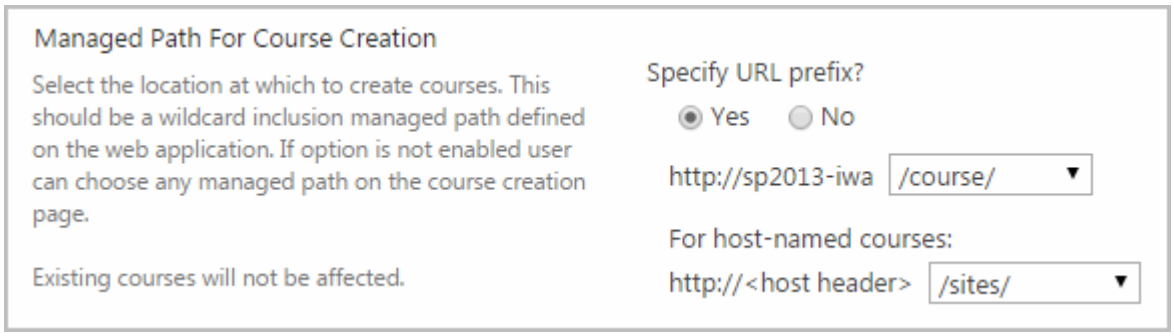
   This feature adds Gamification page with already configured web part to page library (path: 'SitePages/Dashboard/Gamification.aspx').

Information for gamification web part is taken from SQL database configured for the Reporting Center. To fill it with data for the first time wait until 'ELEARNINGFORCE - Reporting Center: Synchronization Job' runs or start it manually.

5.3.1.2 Setting Managed Path for Course Creation

It is possible to configure URL prefix for creation of new courses, so that all new courses will be created using the specified managed path. To set it go to **Central Administration** > **Application**

Management > **SharePoint LMS** > **Global Features** > **Managed Path for Course Creation** and enable the option selecting 'Yes' radio button. Then select from the dropdown lists prefixes to be assigned to all newly created courses:



5.3.2 Create a Host Named REM Site Collection

Host Named Site Collection is a feature of SharePoint that allows individual site collections to have their own top-level URL. To create a Host Named Site for SharePoint REM, go to REM4Configuration.xml and find the following section at the end of file:

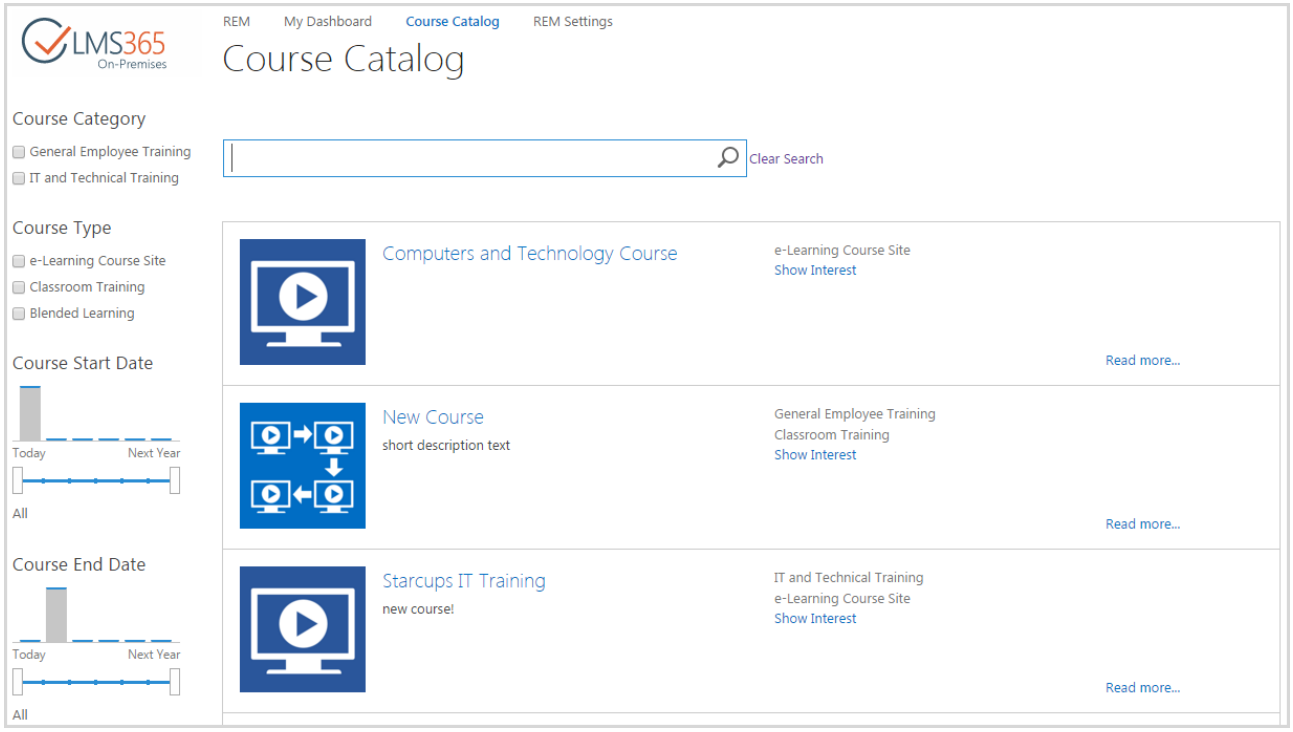
```
<Global>
  <EnableHostNamedSites>false</EnableHostNamedSites>
  <CustomHostNames>customer-one;customer-two</CustomHostNames>
</Global>
```

Set <*EnableHostNamedSites*> element value to **true** and add the configured supported hosts separated by semicolon to the<*CustomHostNames*> element.

This configuration allows you to create the SharePoint REM host named site collection through the Central Administration UI.

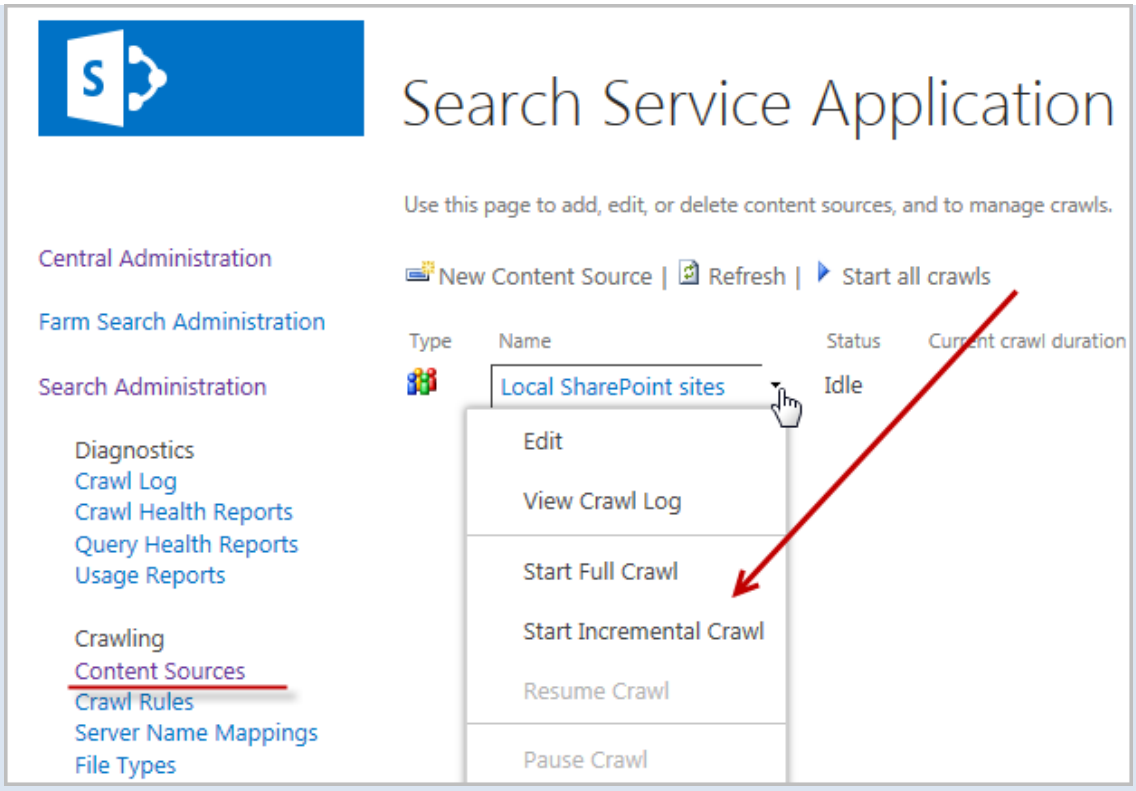
5.3.3 Course Catalog Search

Course catalog search is based on native SharePoint Search and Managed Metadata services, and is provided by the following features:



- **'ELEARNINGFORCE – REM: Courses Search Configuration'** web application scoped feature. The system attempts to activate the feature automatically during installation of the solution.

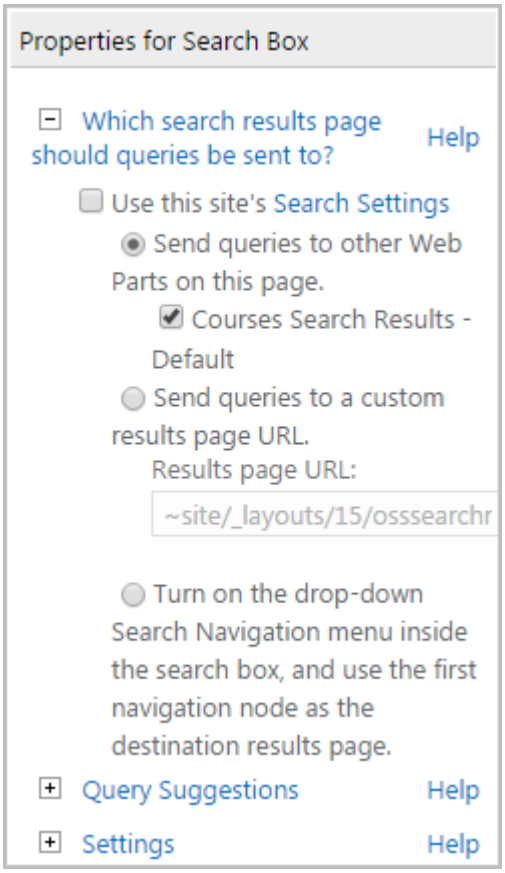
NOTE:	Text search in Course Catalog is possible for indexed content only. To index all content of the Course Catalog, you should start crawl process: for the first time after feature activation start **Full Crawl**, after making some changes (e.g. creating new Courses, Course Offerings) – **Incremental Crawl**. To do it, go to *Central Administration* > *Application Management* > *Manage service applications* > *Search service application*, select *Content Sources* in the left menu and select to start **Full** or **Incremental Crawl** for **Local SharePoint sites**:



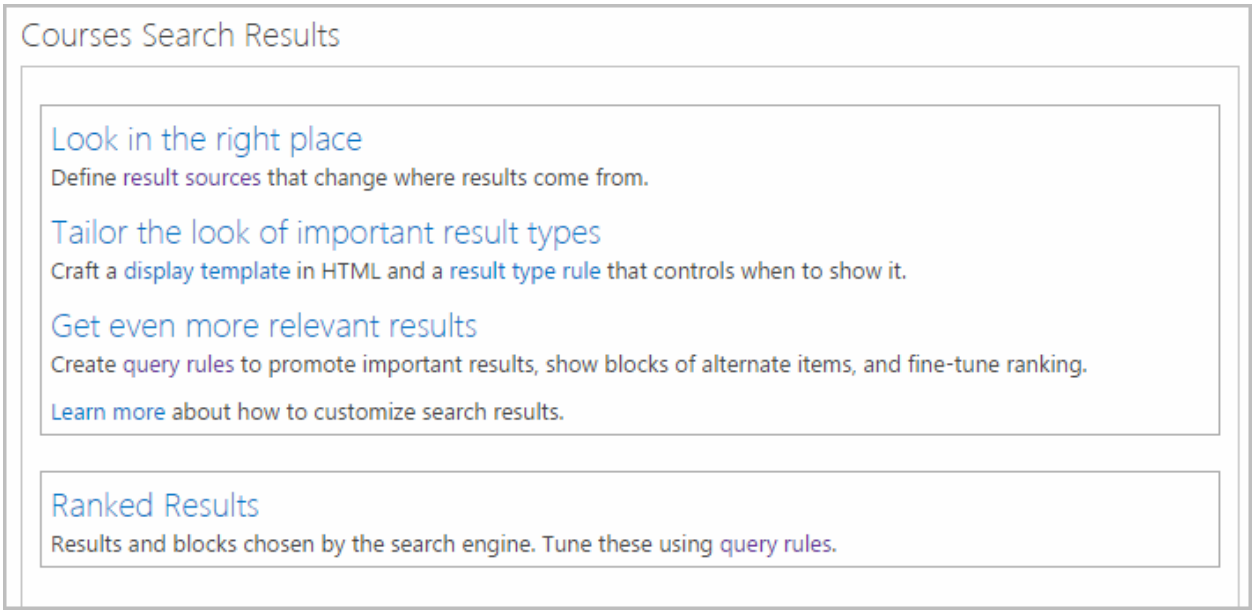
When the feature is activated the term store group '**ELEARNINGFORCE REM4'** is created in the managed metadata service connected to web application. The term store group contains default term sets **Course Categories, Course Types, Locations** & **Rooms** with samples.

- **ELEARNINGFORCE – REM: Courses Search** site collection scoped feature (**ELEARNINGFORCE – REM: Courses Search Configuration** web application feature is its prerequisite). The system attempts to activate the feature automatically during creation of REM host site collection. After feature is activated the following content is installed within the REM site collection:
    - REMCourses v2 result source (site collection scope)
      The result source is used by full text search and defines the search rules that allow search within the published active courses that allow direct enrollment with active course offerings. After feature activation Full Crawl need to be run to index the content of the REM sites.

    - CourseCatalogSearch.aspx page with the following web parts:
        - Search Box Web part is OOTB SharePoint web part that allows to input text query and redirects users to the search result page. Edit this web-part to configure properties for search box: search settings, query suggestions and settings:



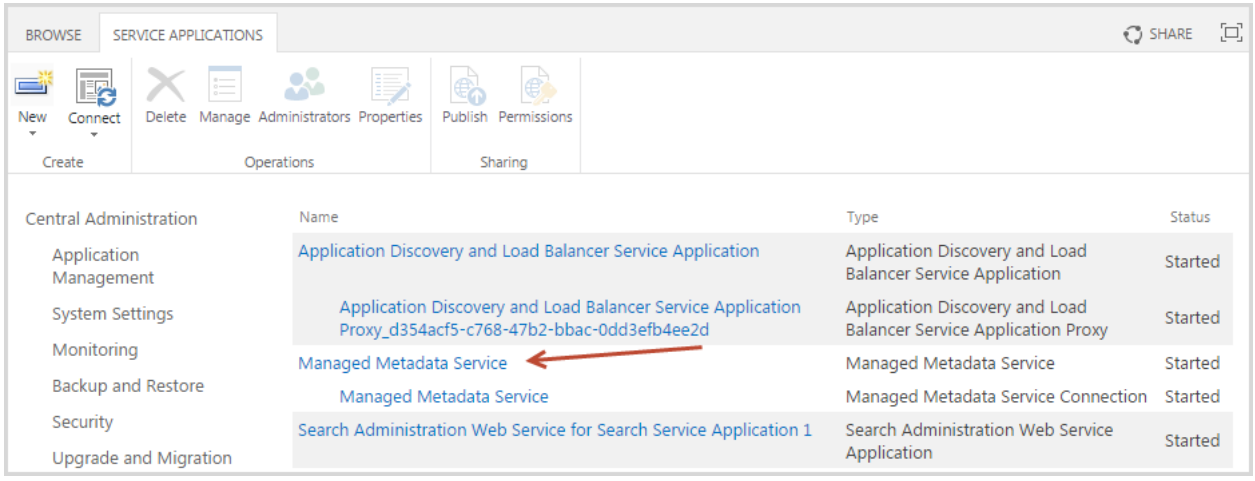
- Course Search Result Adapter Web part is a web part that transforms full text query from Search box to the query compatible with Courses List web part. Course Result Adapter web part allows configuring result sources, display templates, result type rules, query rules and setting display of ranked result and promoted result in the search results field:



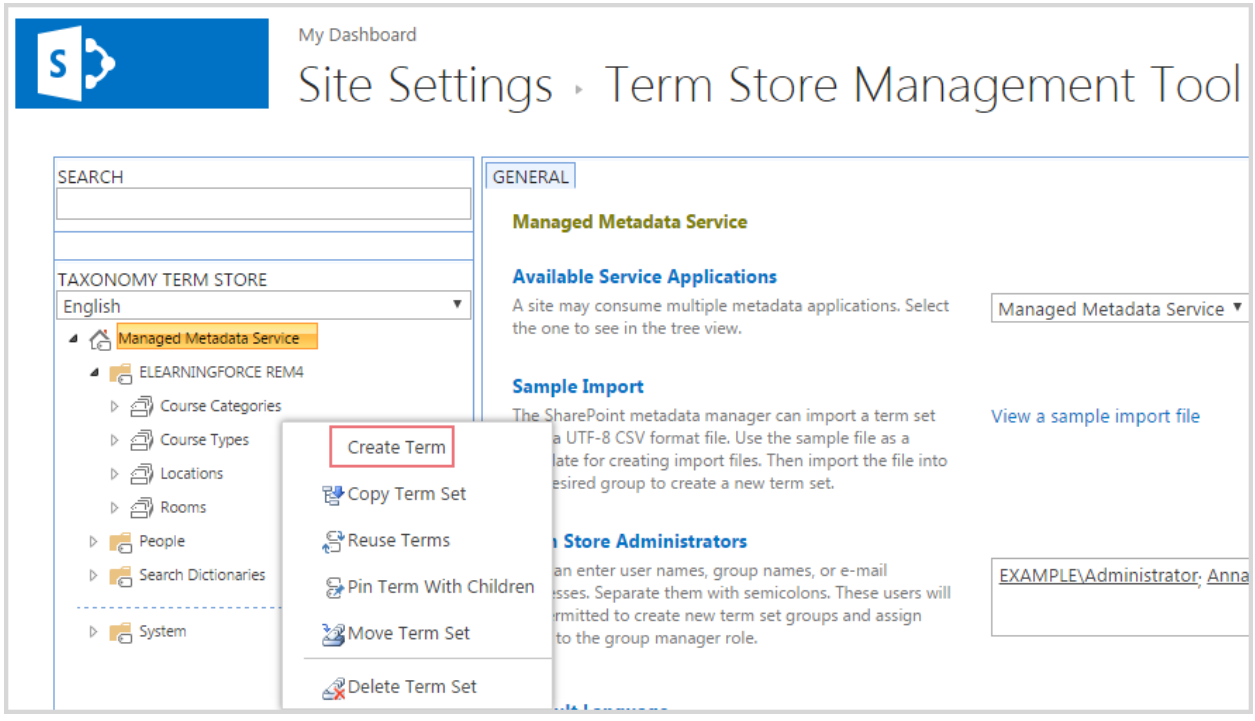
5.3.3.1 Add new category to ELEARNINGFORCE REM4 term store

To add a new Course Category, do the following:

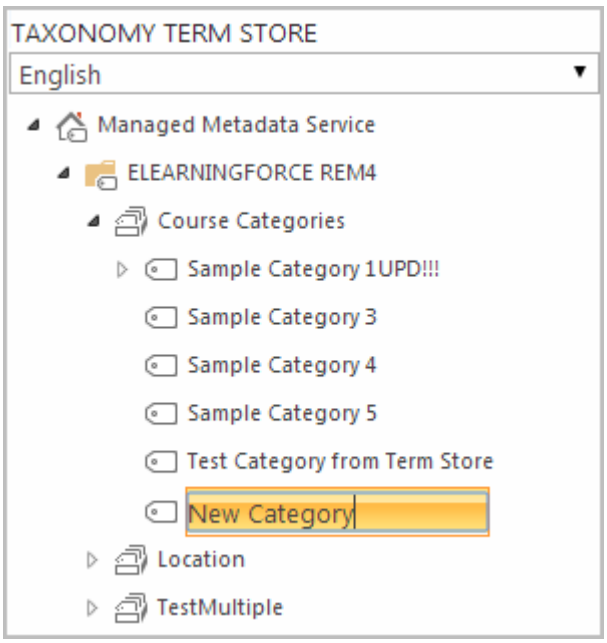
1. Go to **Central Administration** > **Application Management** > **Service Applications** > **Manage Service Applications** and select **Manage Metadata Service**:



2. In the opened Term Store Management Tool select **Managed Metadata Service** > **ELEARNINGFORCE REM4** > **Course Categories** > **Create Term:**



3. Enter Title for the new category:



The new category will be available in all REM sites within the farm.

NOTE:	The terms' default labels are created in English and it's up to customer to create labels on other languages.
NOTE:	After the **REM Courses Search** feature is activated, *Categories* list does not function: old categories are displayed for courses created earlier in the Category field, but cannot be assigned to new courses and are not available in the *Category Refinement Panel* in *Course Catalog Search*. In order to use categories created before the feature activation, create the same categories again using the **Term Store Management Tool**.

5.3.4 REM Publishing feature

This feature provides a set of pages stored in the Pages library. These pages provide enrollment flow for the end user, home page and navigation concept. The feature's functionality is based on OOTB SharePoint Server publishing capabilities such as dynamic page layouts, navigation, and target audience. The system attempts to activate this feature automatically during creation of REM host site collection.

REM Publishing is a site collection scope feature that activates several hidden features. The required activation dependencies are activated automatically:

- SharePoint Publishing Server Infrastructure
- SharePoint Publishing Server
- REM Courses Search

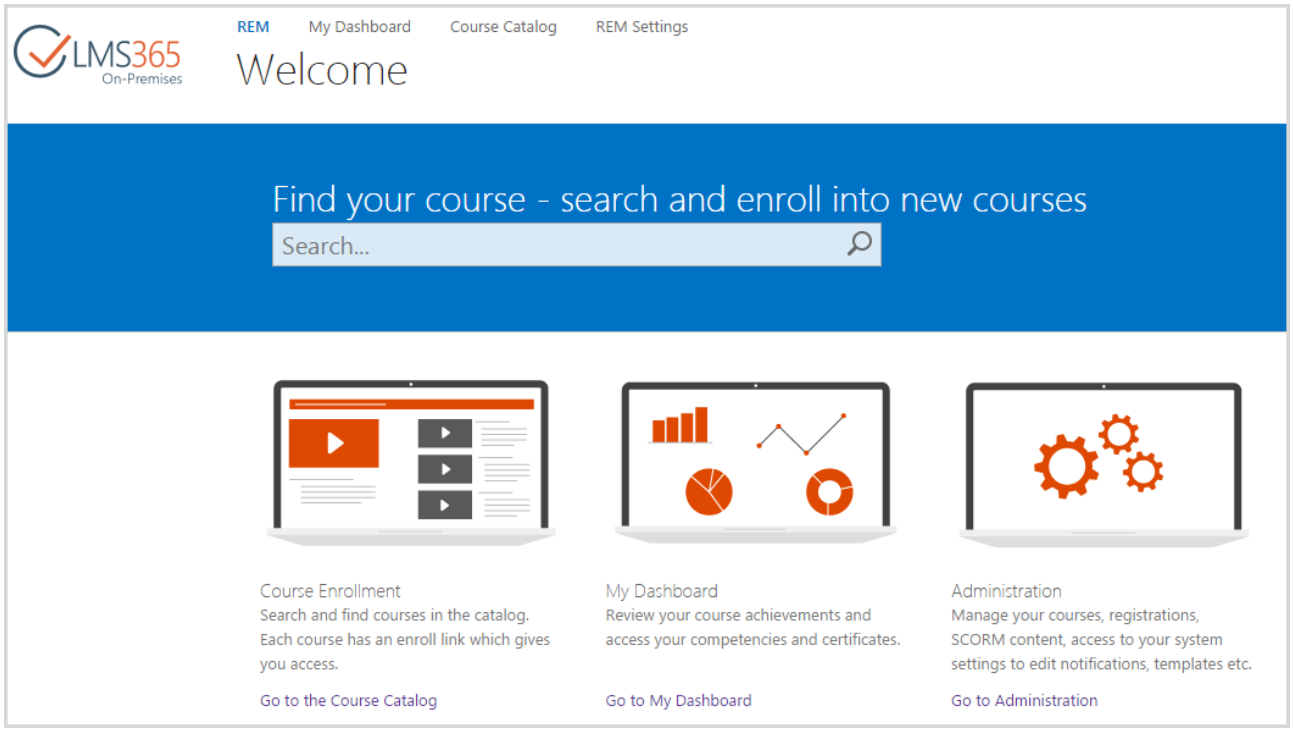
Hidden features that are activated with the feature REM Publishing:

1. Text Template Updater – see description below. The feature is hidden and not visible through the UI
2. REM Publishing Pages – this is site scoped feature that provides content described below. The feature is hidden and not visible through the UI.

The pages installed by the feature REM Publishing Pages are as follows,

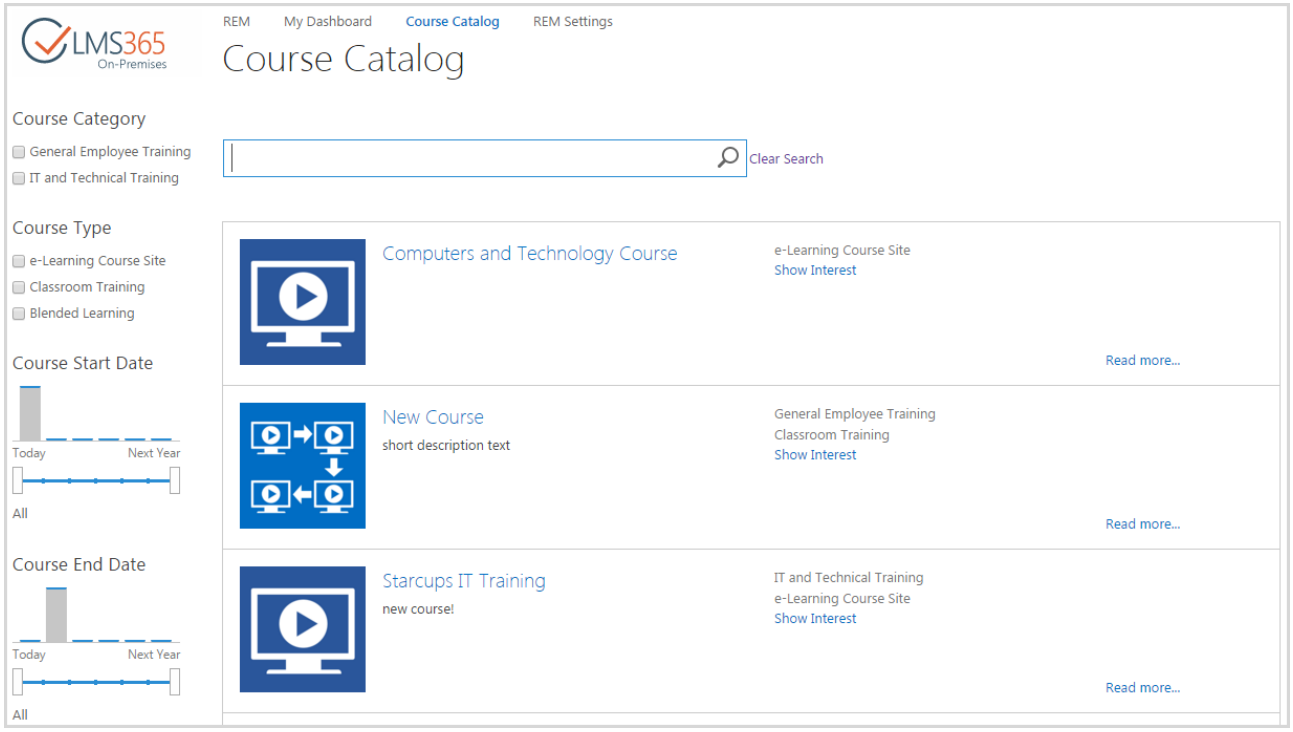
5.3.4.1 Welcome Page

Welcome.aspx is a home page for all type of users i.e. there is no redirection logic depending on users' permission (like in previous versions). From the page users can search courses using search field, navigate to the Course Catalog Search page, to the My Dashboard (if enabled) and to the REM Settings page (Administration page is displayed for administrator role only) using links or icons:



5.3.4.2 Course Catalog Search Page

CourseCatalogSearch.aspx allows users to search and view courses available for enrollment, apply various search filters and navigate to the course details page:



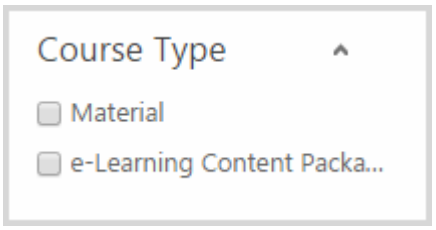
Once the content is crawled it's possible to search courses by the following shared fields:

- Course Title;
- Course Type;
- Course Category;
- Course Short & Long Description;
- Course Competency;
- Course Materials;
- Teachers.

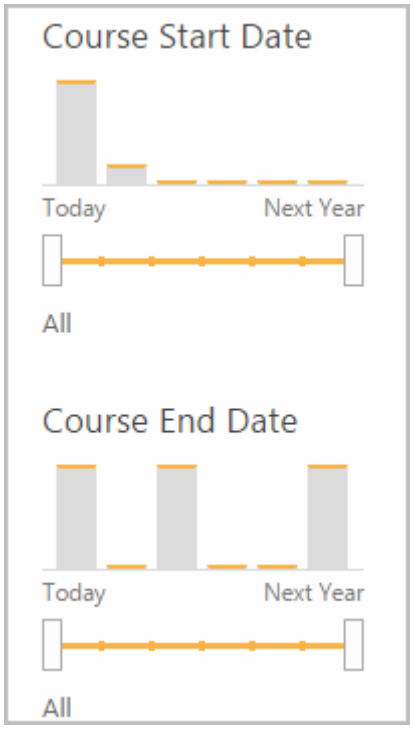
Default search filters that could be applied on this page:

- Course Category Refinement Panel shows links that by default apply filters by *Course Category* field from Courses list (it can be configured to any other list and any other managed metadata field from the list):

- Course Type Refinement Panel shows links that by default apply filters by *Course Type* field from Courses list (it can be configured to any other list and any other managed metadata field from the list):

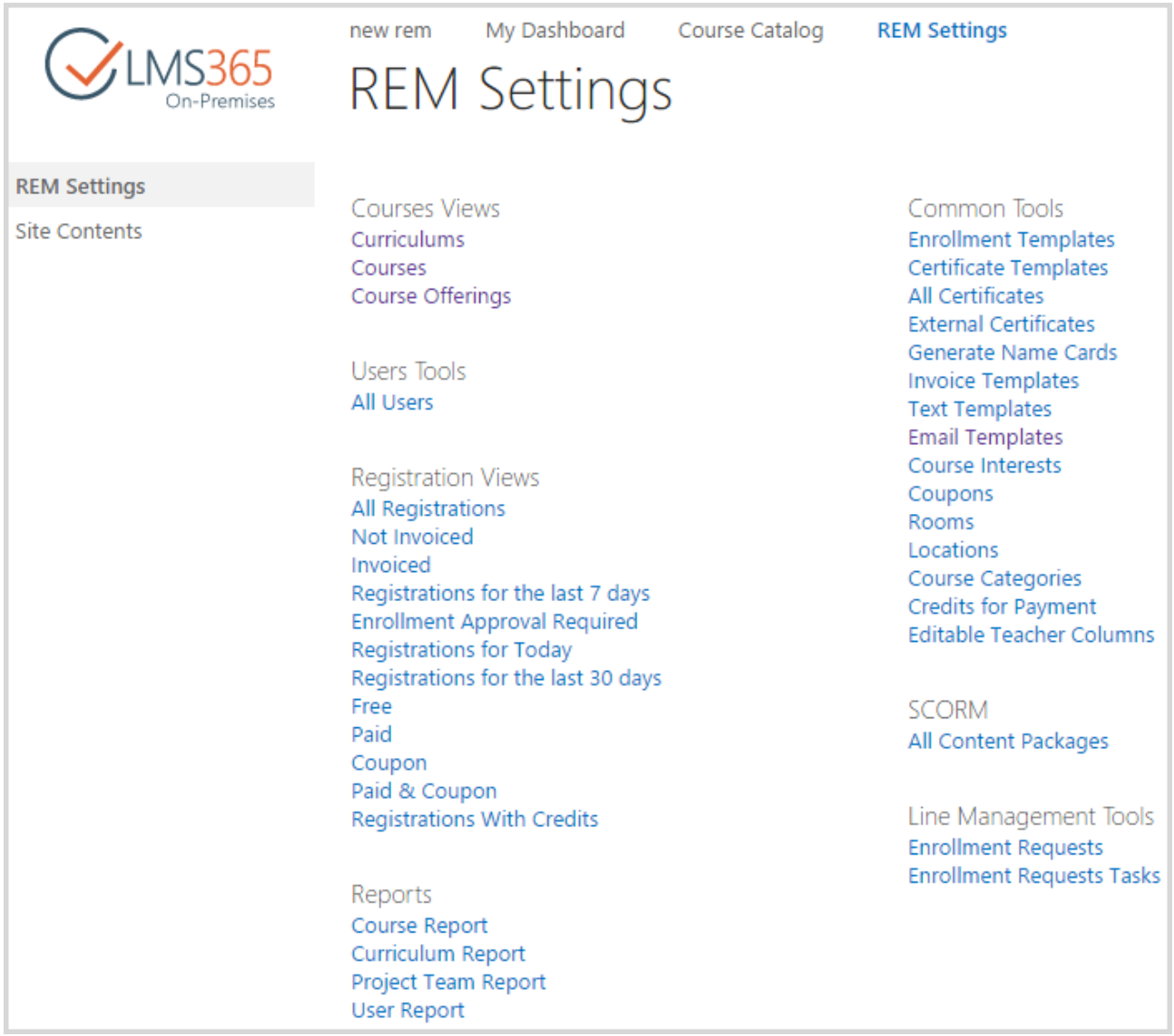


- Course Access Period filter allows applying filter by Course Offerings Access Start and End Dates:



5.3.4.3 REM Settings Page

REMSettings.aspx is a page that is intended for administration staff. The page has unique permissions and available for all REM groups except Learners and Visitors:



5.3.4.4 Course Details Pages

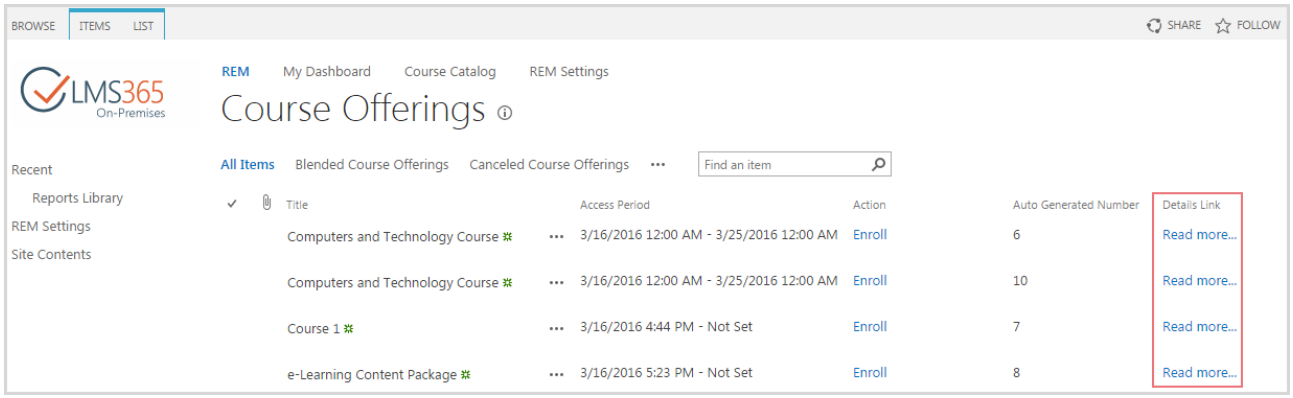
For each course the following pages are created:

- Course Details page - default landing page for displaying a course inside the Course Catalog containing an Enroll button and list of available course offerings;
- Course Offering Details page - landing page for the selected offering with public information;
- Registration Details page – landing page containing all available information about the enrolled course/offering enabling the Learner to access meeting information or the My Learning Web Part from this page.

These pages contain different web parts depending on course type.

5.3.4.5 Details Link Field

The Courses list and Course Offerings list contains several new fields that link to the Course Details and Course Offering Details page:



5.3.4.6 REM Update Text Templates

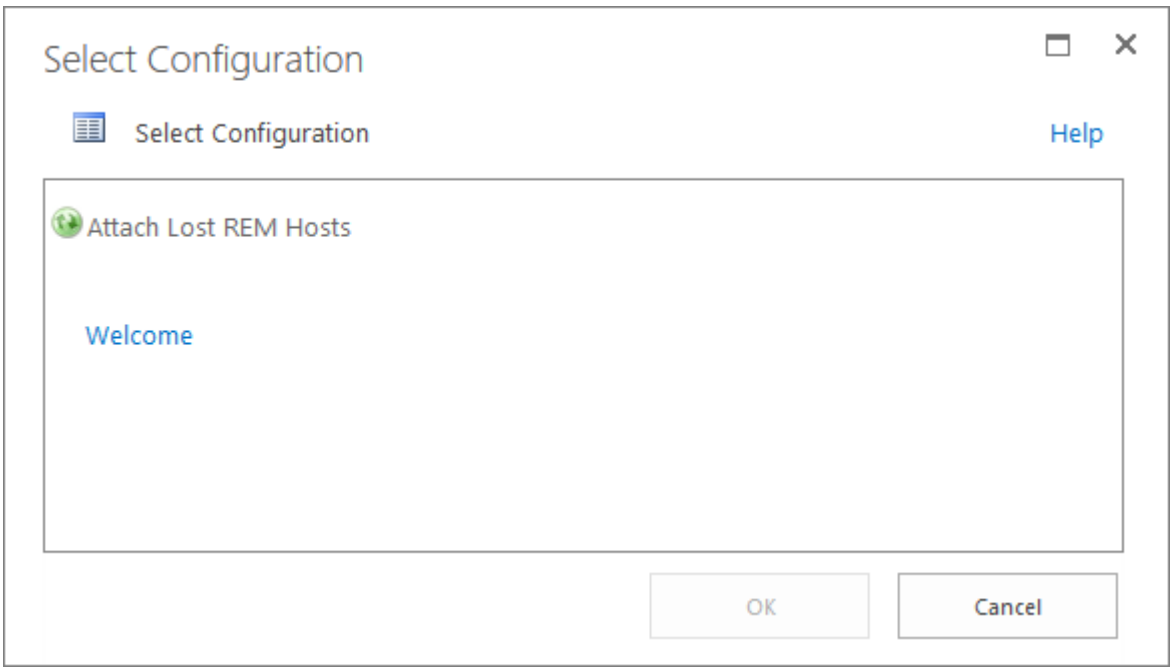
This is a hidden feature that is activated automatically with REM Publishing Pages. The feature creates new version of each text template from Lists/TextTemplates library. Every text template contains text according to template meaning and has the following web parts:

1) Course Details;
2) Course Offering Details;
3) Go To Course Catalog.

After the ELEARNINGFORCE – REM: Publishing feature is deactivated the first version of text templates will be restored.

5.3.5 Restore REM Host Configuration

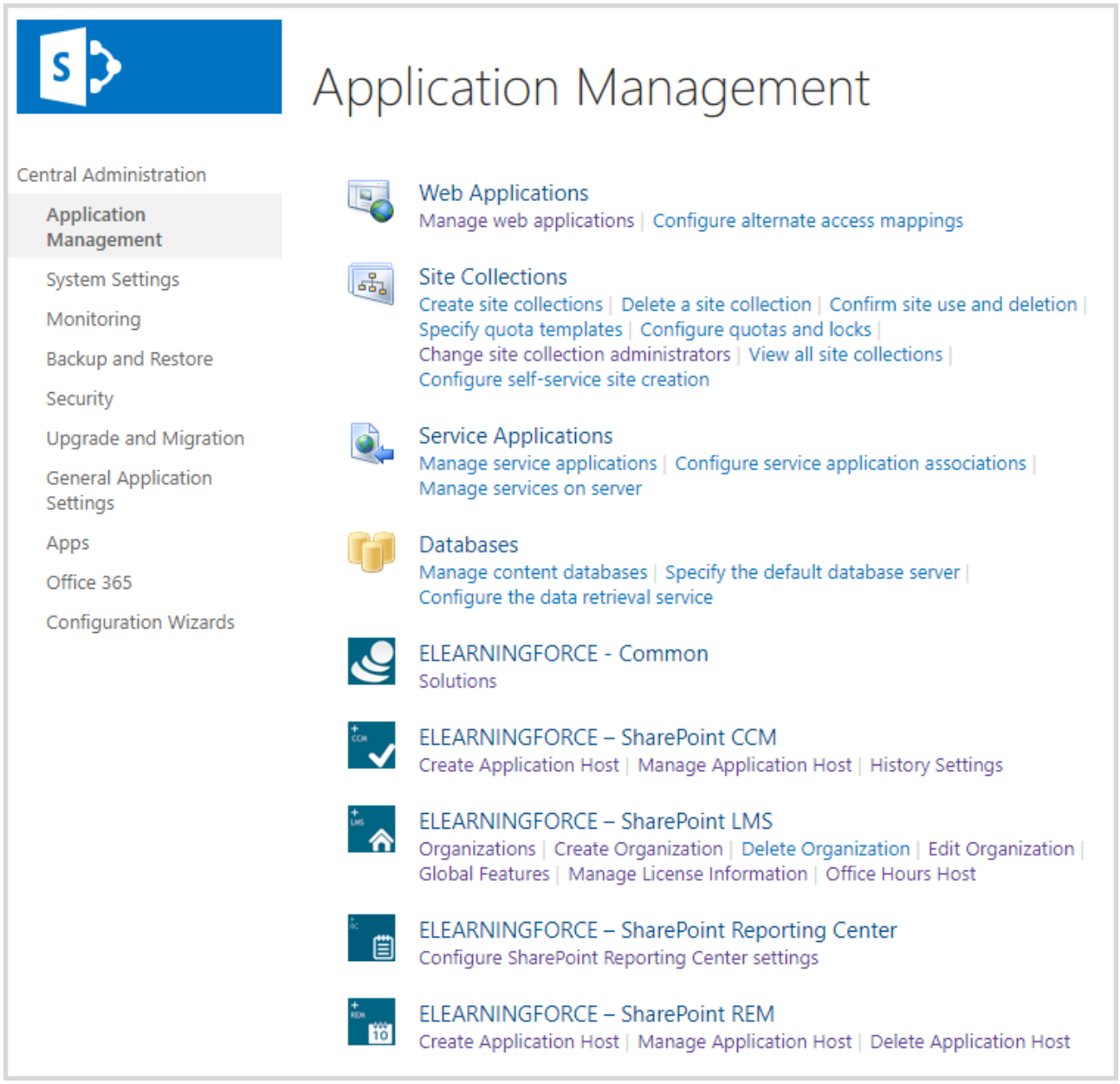
In certain cases you might need to restore REM host configuration. That is, for example, when you reattach content database that includes REM host site, or after you restored the backup of REM host site collection. To do that go to **Central Administration > Application Management > SharePoint REM > Manage Application Host** and click '**Attach Lost REM Hosts**' button on the host selection dialog:



5.4 Reporting Center Setup

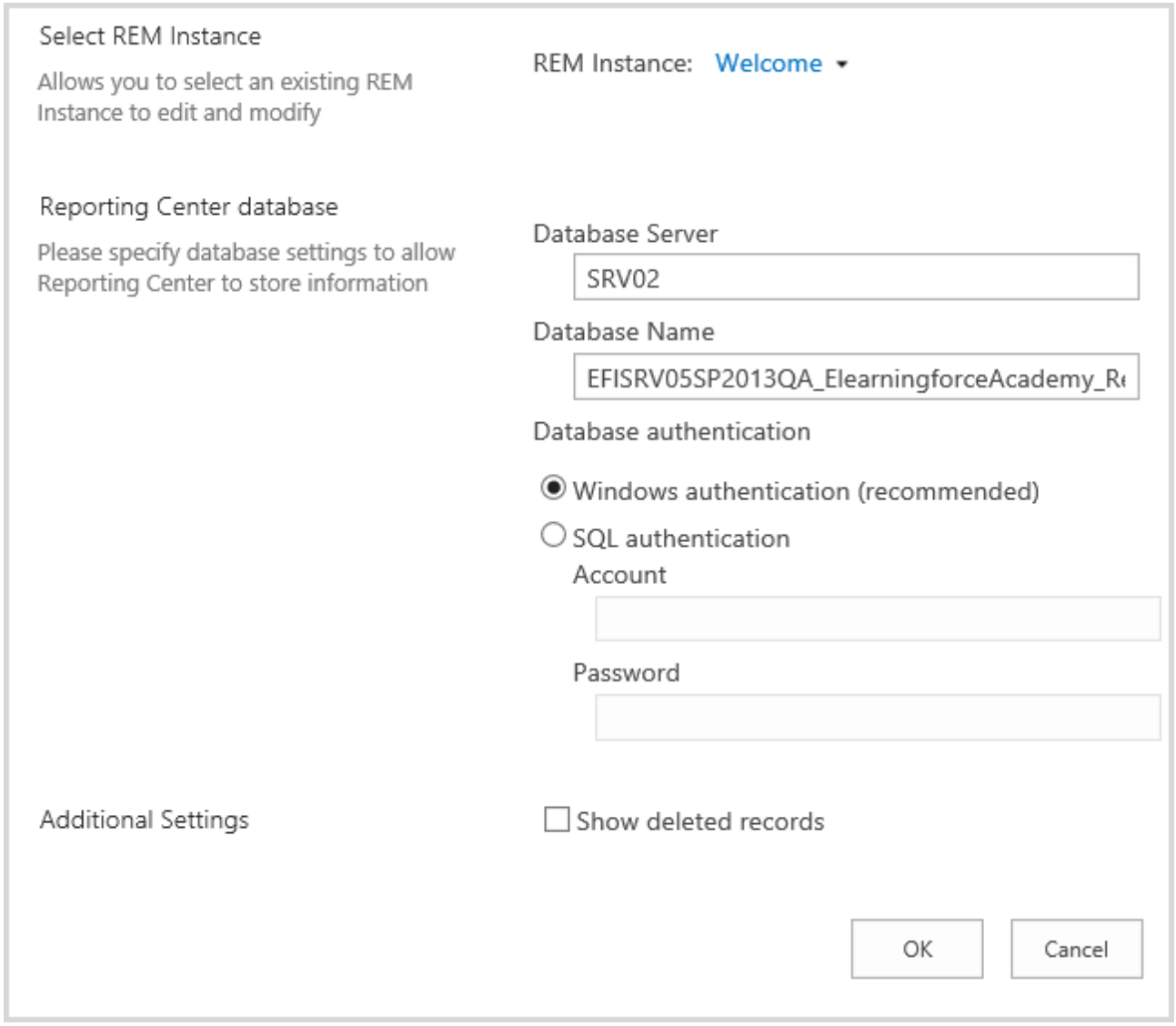
NOTE:	Web / Excel Reports require REM registrations and cannot be used for LMS Only implementations.

To configure SharePoint Reporting Center go to the **Central Administration > Application Management** page and click **'Configure SharePoint Reporting Center settings'** in the 'ELEARNINGFORCE – SharePoint Reporting Center' section:



NOTE:	Empty database for Reporting Center should be created manually. It is highly recommended to create a separate database per each REM host site, because data is not separated and not secured between web applications and sites inside the database. Reporting Center database should be located on the same server with content databases of the web application! Database owner permissions for this database should be granted to the SharePoint Services Timer Service account (this is required to ensure synchronization of data to database is performed successfully via timer job) & application pool account.

To specify database settings, go to **Central Administration > Application Management > Configure SharePoint Reporting Center settings > Select REM Instance** and indicate Database Server and Database names:



Information from the LMS system modules will be synchronized to the content database after 'ELEARNINGFORCE - Reporting Center: Synchronization Job' completes its work (it runs daily by default).

Additional Settings include the following option:

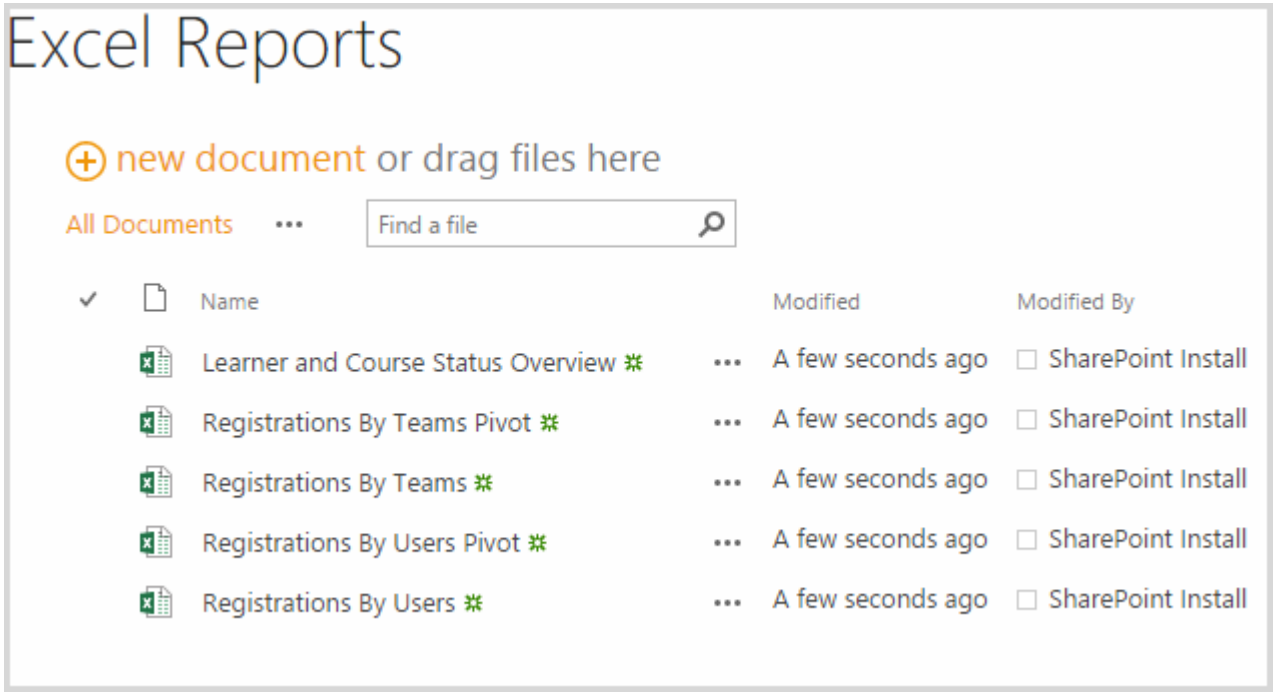
- *Show deleted records* – use this option to show both current information, and data from the past that has been deleted.

5.4.1 Create Web Reports Library

Web reports are controlled by the site feature 'ELEARNINGFORCE – Reporting Center: Web Reports' which creates the 'Report Links' library with a set of links to web reports. The feature is activated by default on dashboard site.

5.4.2 Create Excel Reports Library

Excel reports are controlled by the site feature 'ELEARNINGFORCE – Reporting Center: Excel Reports Library' which creates the 'Excel Reports' library with a set of predefined repots. We recommend you activate the feature on the dashboard site:

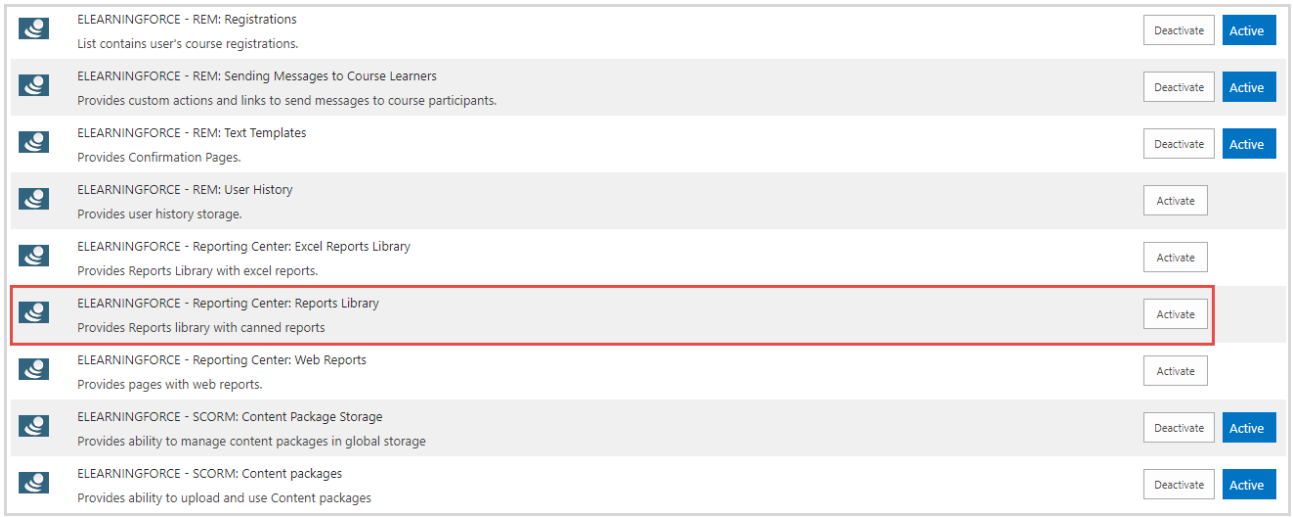


Manager – Employee relationships are taken from SharePoint CCM product to show information about your subordinates.

NOTE:	Connection works only in case user is logged to client machine and SharePoint from one domain. Different domains setup is not supported.

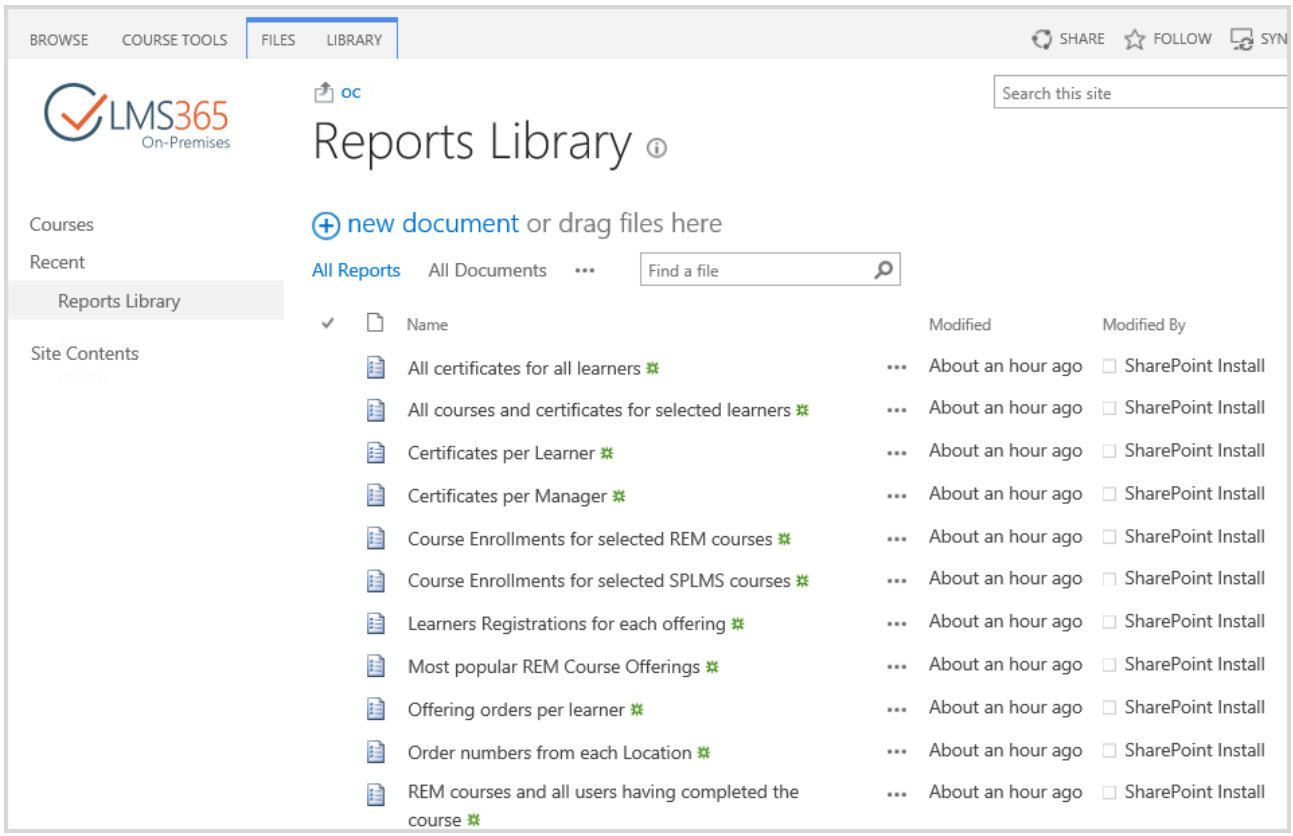
5.4.3 Create SQL Reports Library

On the web application where LMS Suite is deployed go to a site collection where you wish to store reports. We recommend that you create the reports library in the Dashboard sub site of the REM host site collection. Go to the Manage Site features page and activate feature "ELEARNINGFORCE - Reporting Center: Reports Library":

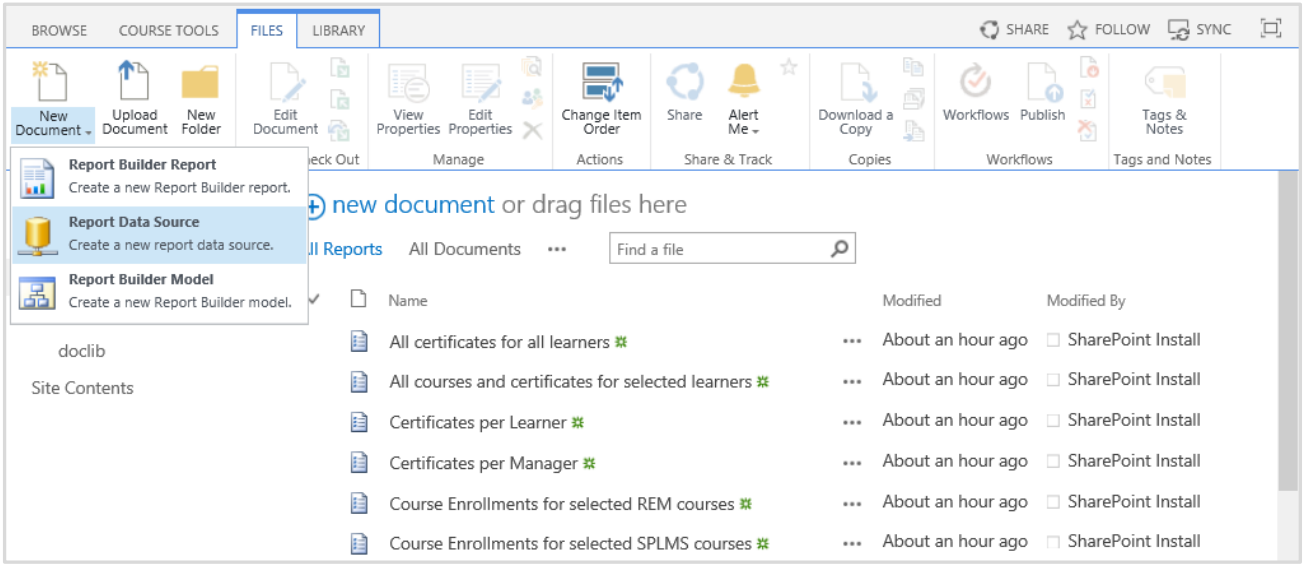


NOTE:	Site collection scope feature **'Report Server Integration Feature'** is a prerequisite and should be activated before that.

The feature creates a library with predefined reports at '~site/RCReports' URL. Go to the library to finish configuration:

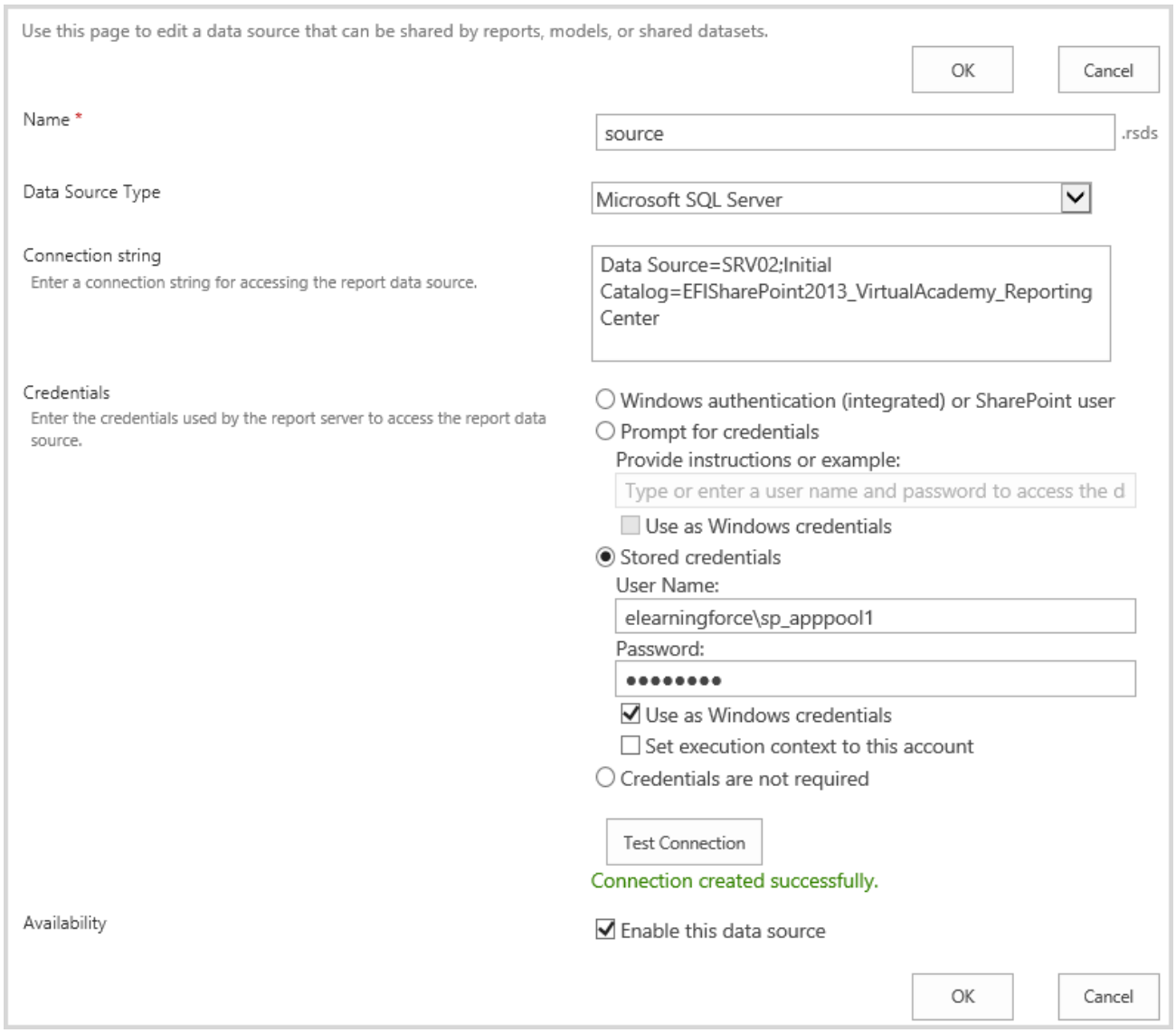


From the ribbon select **'Report Data Source'** under the 'New Document' action:



Configure the data source as follows,

- *Name* – for automatic deletion of old discontinued reports and proper work of existing reports the Data Source should be named 'source'
- *Data Source Type* – Microsoft SQL Server
- *Connection string* – specify the 'Data Source' parameter which is the SQL server name and 'Initial Catalog' parameter which is the name of the database created for Reporting Center e.g. "Data Source=SRV-DEMO;Initial Catalog=VirtualAcademy_ReportingCenter "
- *Credentials* - the solution was currently tested only for Stored Credentials setting so we recommend to use this option as shown below. It's enough to define user that has db_datareader permissions to Reporting Center database.
- Availability – check enable this data source:



Click 'Test Connection' button. When connection is checked successfully click OK. You should now be able to use predefined reports once data is synchronized from ELEARNINGFORCE solutions to new Reporting Center database. This is handled by **'ELEARNINGFORCE – Reporting Center: Sync**

Job' timer job which is scheduled to run daily by default. You might want to run it manually first time to load the data.

5.4.4 Recreate SQL Reporting Center Library

To recreate reporting center library on a site where you configured it before run the following command from the SharePoint 2013 Management Shell:

```
Recreate-LMS365RCLibrary -Identity http://site_URL
```

NOTE:	The command is available in Reporting Center v. 2.0.3.x and higher. Note that it will delete all existing reports, and recreate them from scratch.

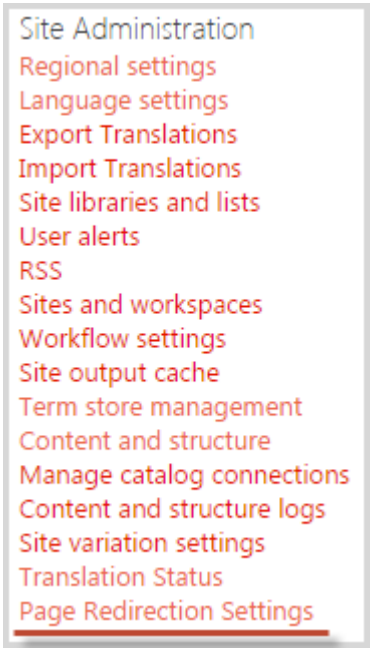
5.5 Page Redirection for Full MUI Support

If you plan for the multilingual user interface in SharePoint LMS Suite you need to consider that only user interface elements are shown in a user's preferred language by default. Content such as documents or list items are not translated in an alternate language.

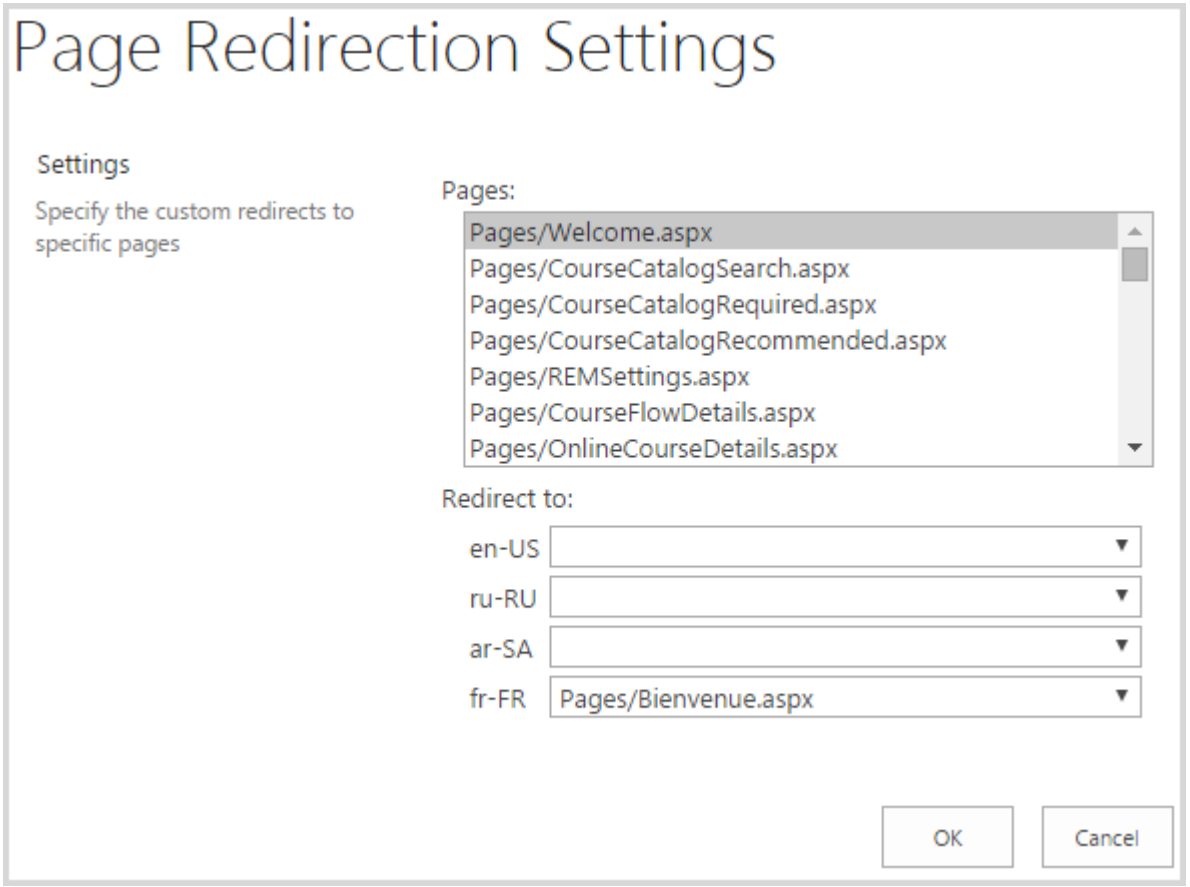
NOTE:	SharePoint LMS Suite support MUI except SharePoint CCM solution.

To help provide smooth user experience for MUI support of content pages we have created the Page Redirection feature. The feature enables custom redirect if a user goes to specific page. This will help to redirect users to content pages created in alternate languages. To activate the feature, go to Settings> Site Settings> Manage site features (Site Action section), and then activate 'ELEARNINGFORCE - Common: Page Redirection' feature:

After feature activation, Page Redirection Settings link will appear in Site Administration section of Site Settings:



On this page, you can connect pages to pages where users with preferred language will be redirected. You can select pages from the pages libraries of the site:



You will be able to choose redirection pages for those alternate languages that are checked in Language Settings.

In the above example, a user with French preferred language will now see the following Welcome page (created beforehand):

6 LMS SUITE UPGRADE

NOTE:	Before LMS Suite upgrade, we recommend you to run Check-REMIntegrity cmdlet to assure that there are no problems with the consistency of data in the REM site collection. If such problems exist, contact support before LMS Suite upgrade.
NOTE:	Before LMS Suite upgrade on Multitenancy environment, it is required to run script to update subscription feature pack (you can download UpdateFeaturePack here).

Warning! Support upgrade flows are as follows,

LMS Suite v.4.4 -> LMS Suite v.4.8
LMS Suite v.4.5.0 -> LMS Suite v.4.8
LMS Suite v.4.5.1 -> LMS Suite v.4.8
LMS Suite v.4.5.2 -> LMS Suite v.4.8
LMS Suite v.4.6 -> LMS Suite v.4.8

If you upgrade from an older LMS version we recommend to do a sequential upgrade: first, upgrade your version to LMS Suite v.4.5.2.38, and then to LMS Suite v.4.8.

The upgrade of LMS Suite involves uninstalling current version of LMS Suite and installing a new one,

1) Run *Elearningforce.SharePoint.LMS.Install.exe* and run the Uninstallation process . Wait for LMS Suite to be uninstalled;

2) Run the new version's installer executable Elearningforce.SharePoint.LMS.Install.exe to install newer version. Wait for LMS Suite to be installed.

    a. Run updater executable for each of the products from the new version's package (if you skipped this step when running the installer). This is used to update your existing content to new version.

NOTE:	Updater should be executed on the web-front end server where Workflow Timer Service is present.
NOTE:	Run each updater executable with the Web Application GUID parameter e.g.: Elearningforce.SharePoint.LMS.Updater.exe 67166932-30e0-4c52-aa26-c846a7e7f989 You can use following PowerShell command to know all your Web Application's GUIDs: Get-SPWebApplication | Select DisplayName, Id
NOTE:	REM Reports and CCM Reports are not supported anymore and any existing lists related to REM and CCM Reports feature are removed from all site collections (these are lists located at'~site/Lists/ReportsList', '~site/Lists/GeneratedReports', '~site/Lists/ReportTemplates' URLs).

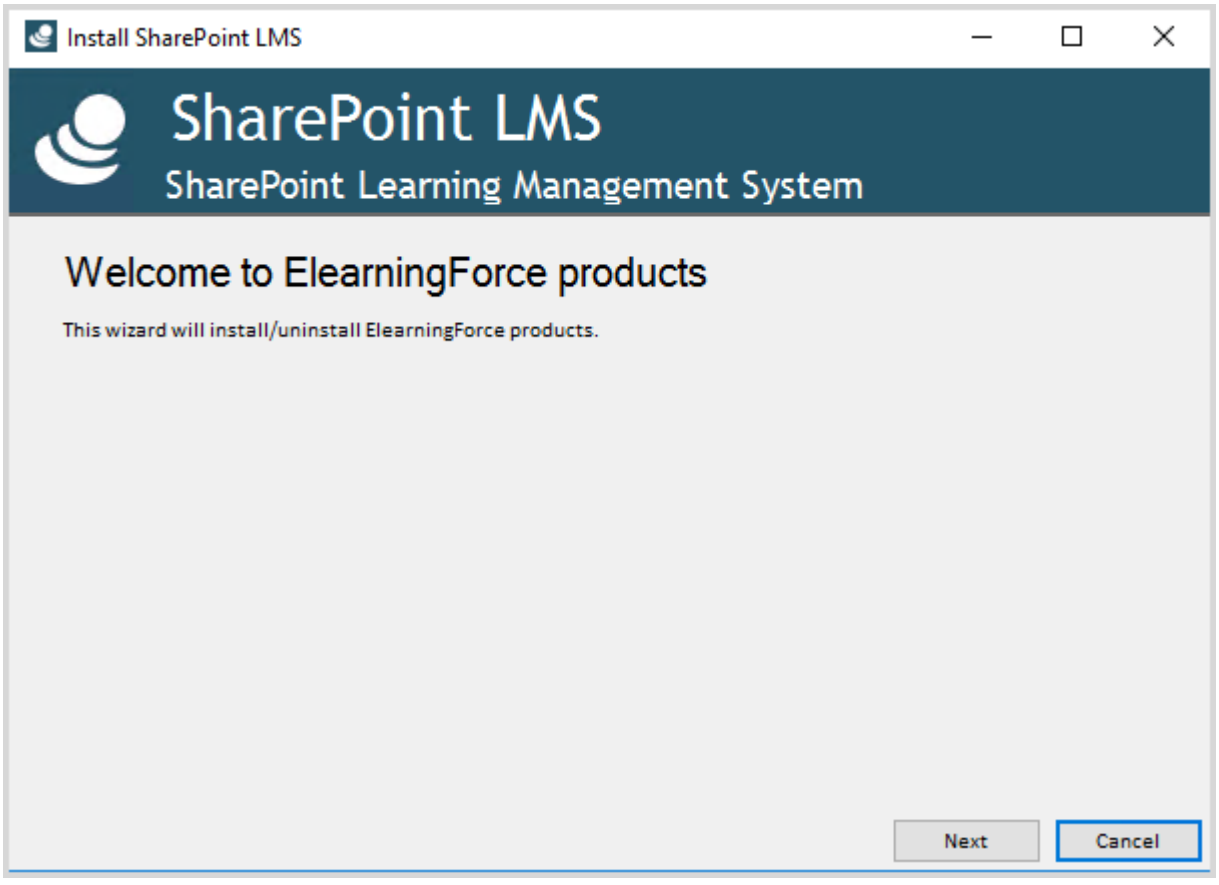
3) Upgrade to v. 4.8 requires a Full Crawl performed in search service to index REM content since search schema was changed.
4) Verify that sites are running successfully.

7 LMS SUITE UNISTALL

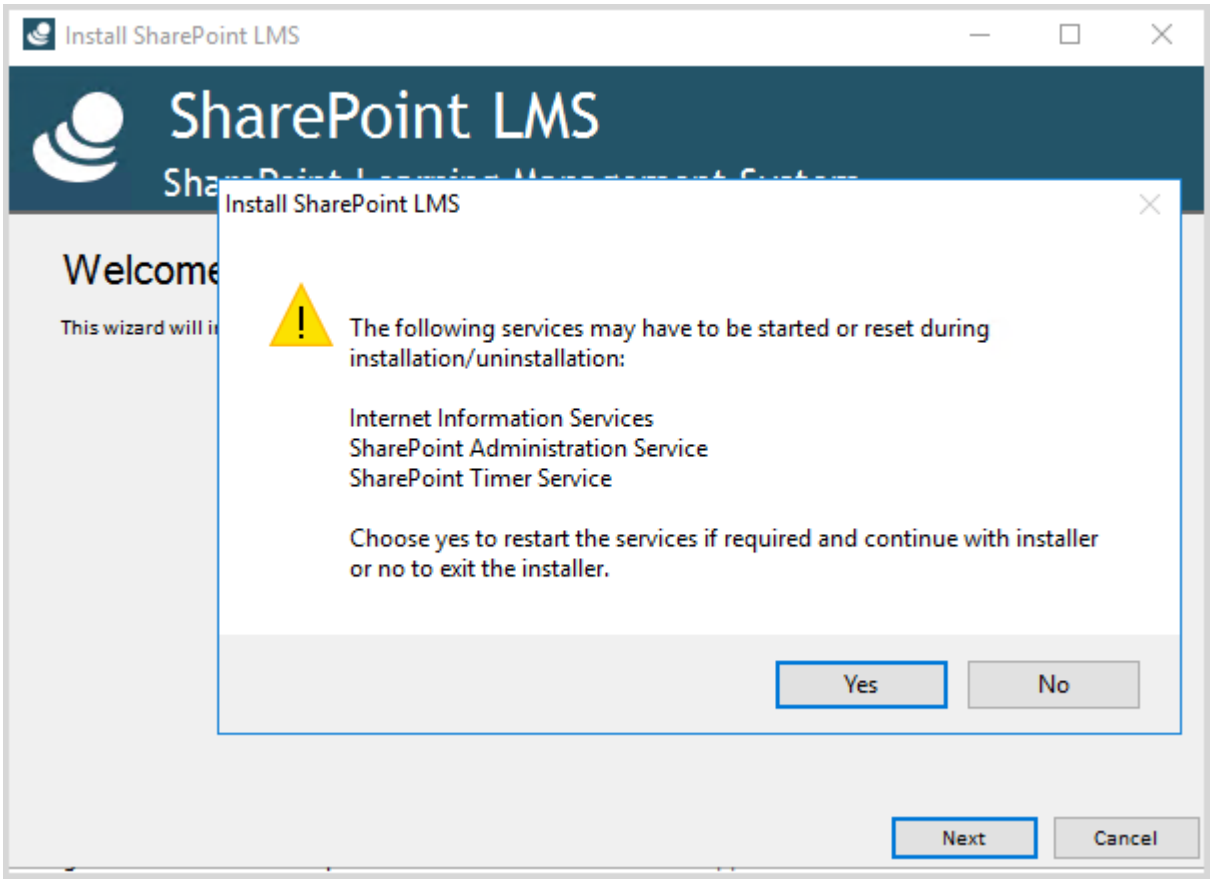
NOTE:	We recommend pausing the search service application in case you're using continuous crawl, and resuming it after the installation is done. To do that go to **Central Administration >Manage Service Applications > Search Service Application > Crawling > Pause/Resume** > use to pause or resume the search service application crawling and indexing.
NOTE:	Language packs will be automatically retracted and deleted with the solution uninstall.

To uninstall LMS Suite from your farm, do the following:

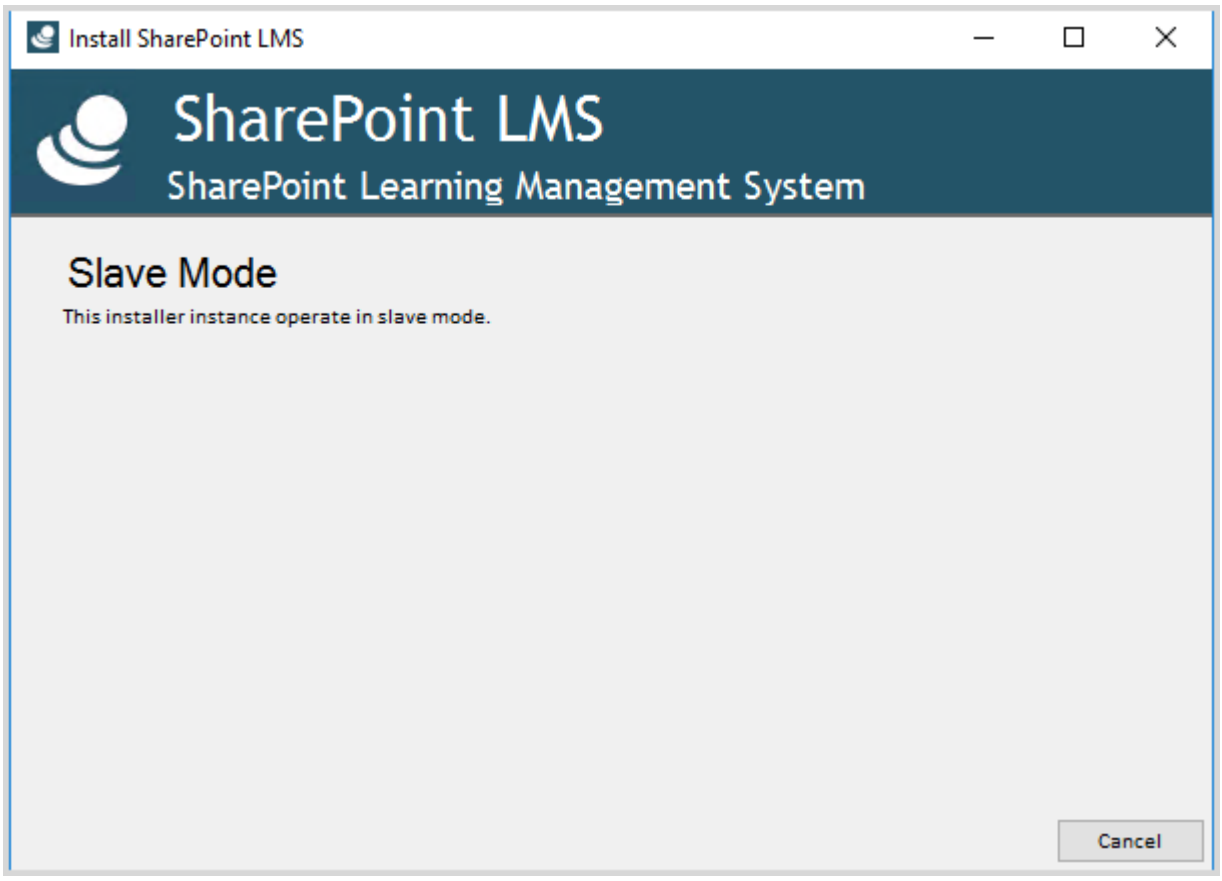
1) Copy the installation package on the farm servers and unpack it. Run *Elearningforce.SharePoint.LMS.Install.exe on* the server (on all WFE servers in case of multiple server farm). The Setup Initialization dialogue box will appear. Click **Next** to continue:



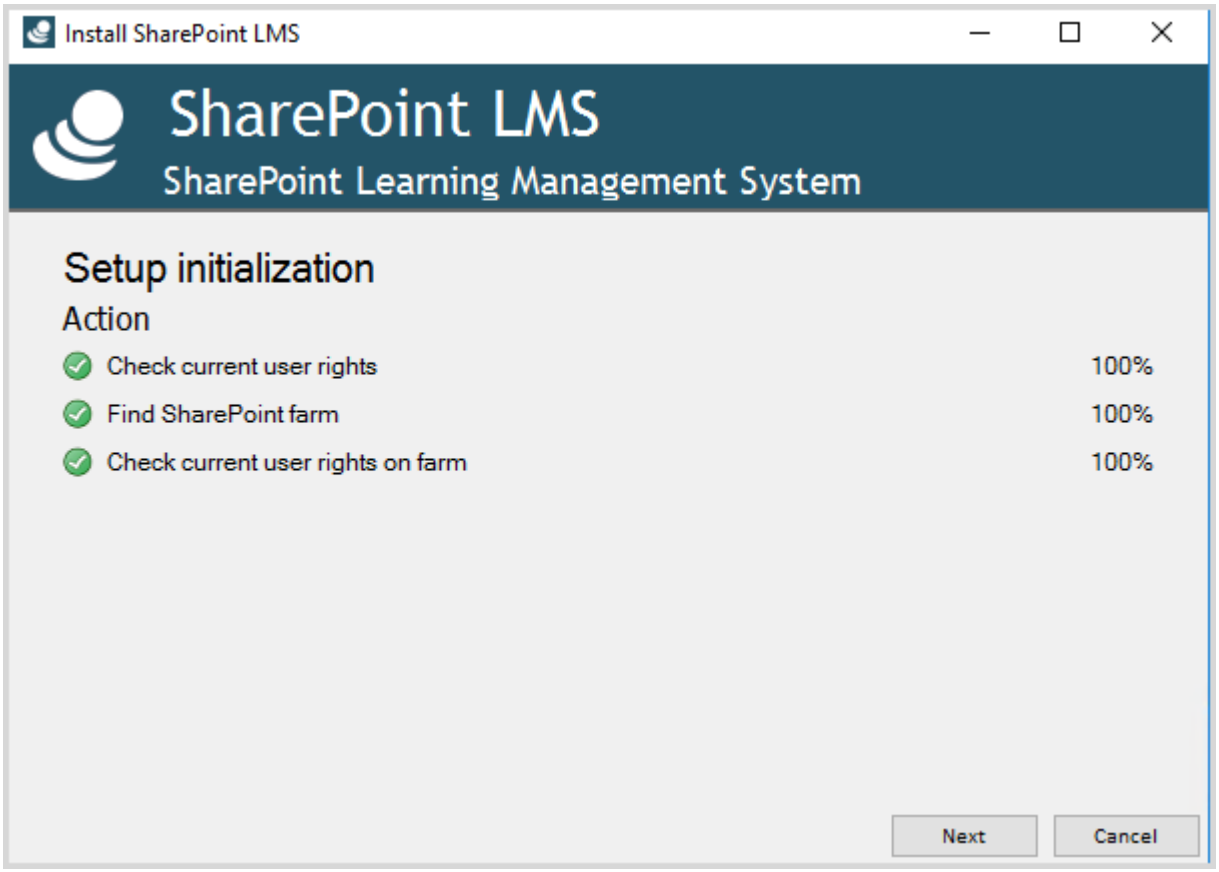
Confirm that services will be restarted or reset during the installation and click **Next** to proceed:



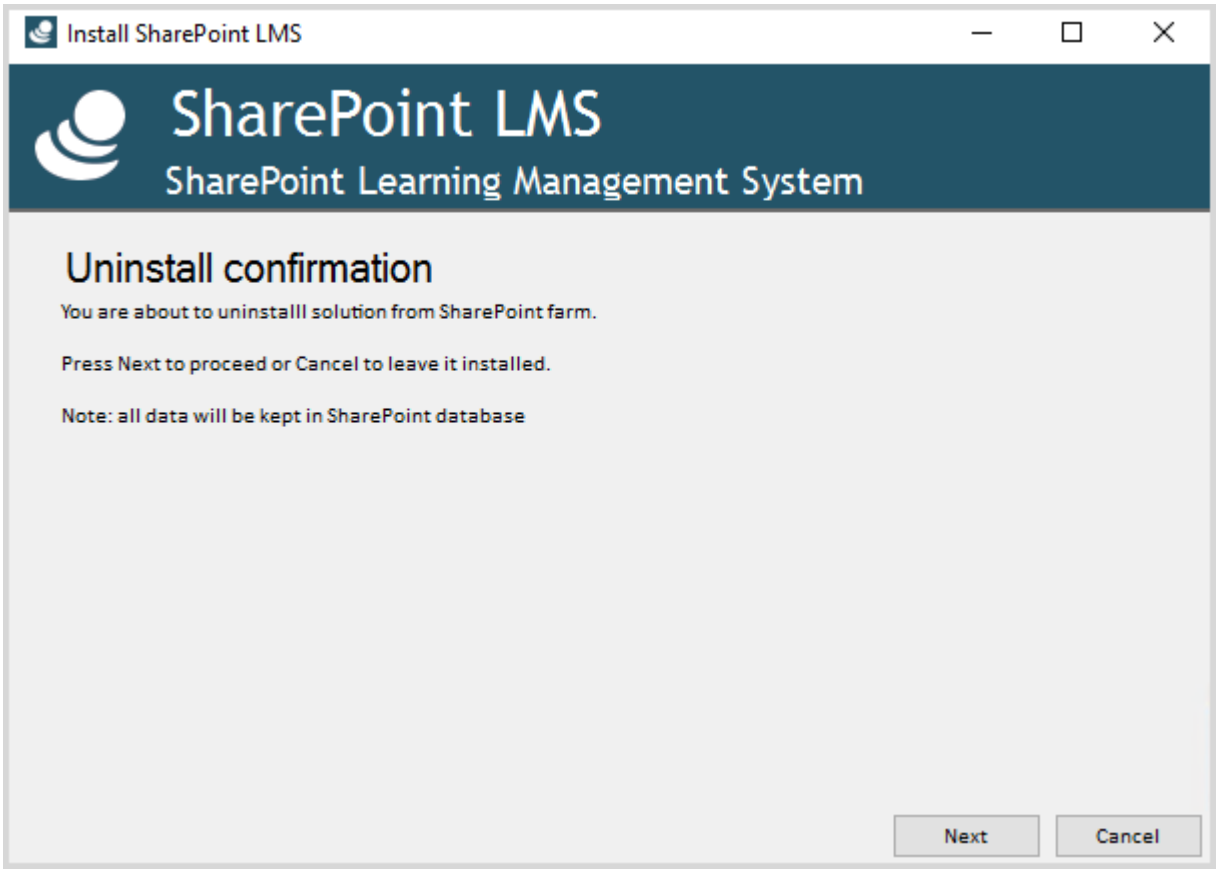
Make sure that the installer operates in *slave mode* on the additional servers:



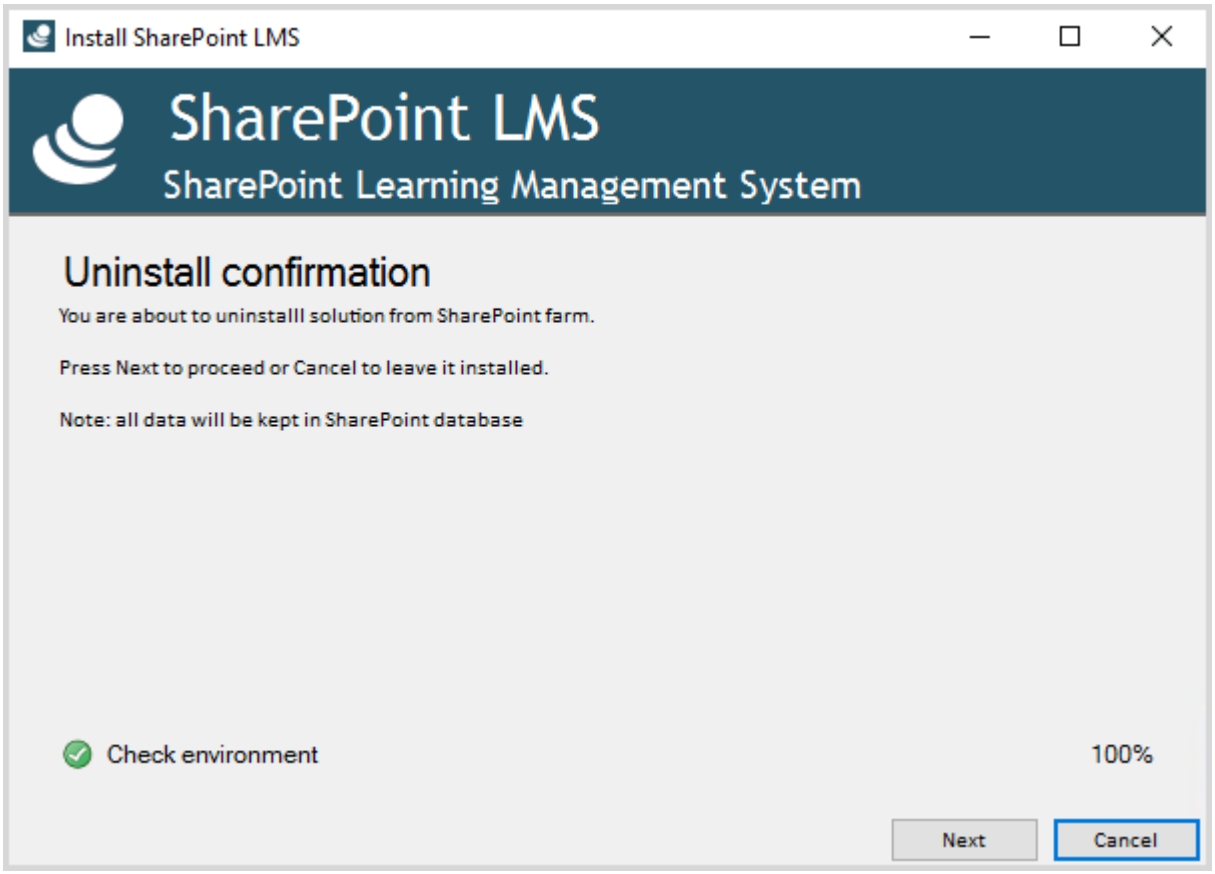
Once done the installer in Master mode will continue to checking if the account that runs the installer has enough permissions (mentioned in Chapter 2 "The Account Requirements"):



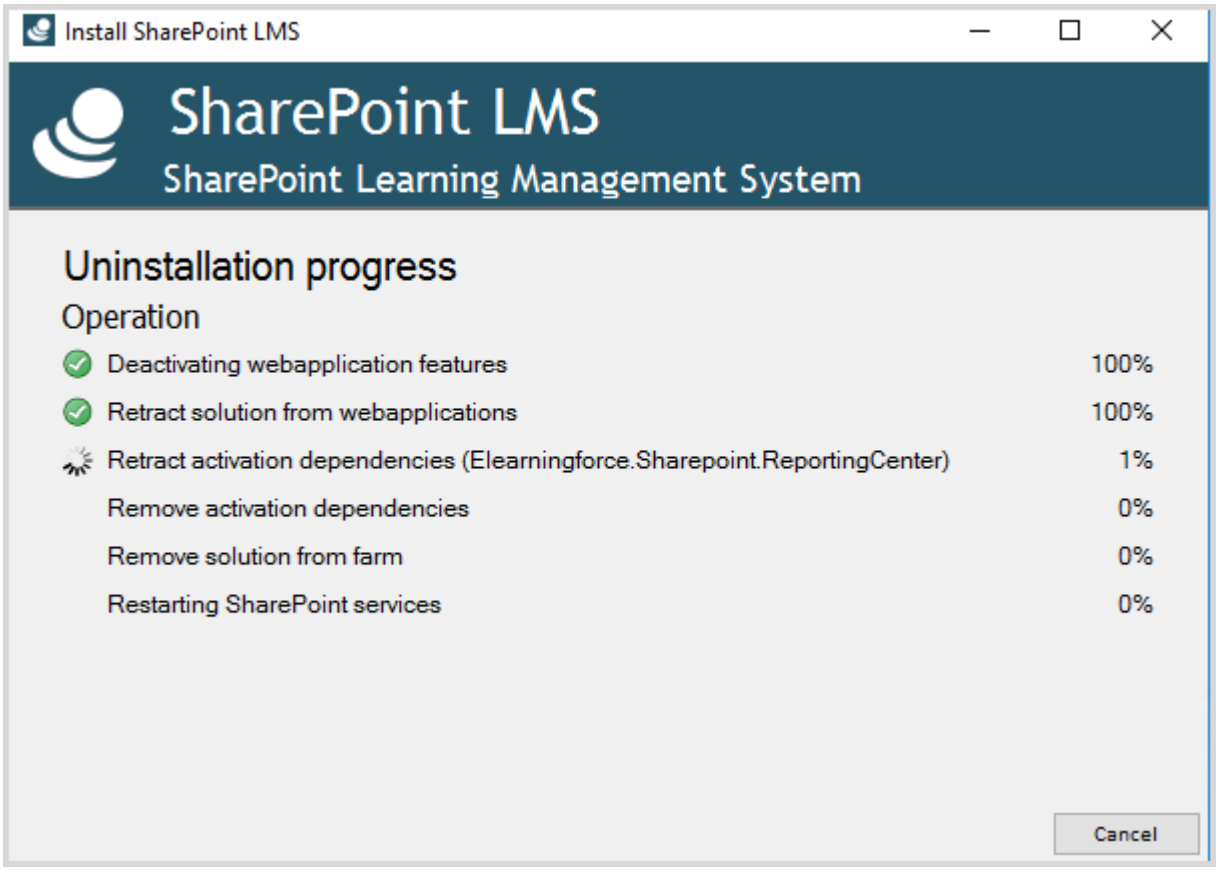
2) To confirm the Uninstall process, click **Next** in the **Uninstall Confirmation** dialogue box respectively:



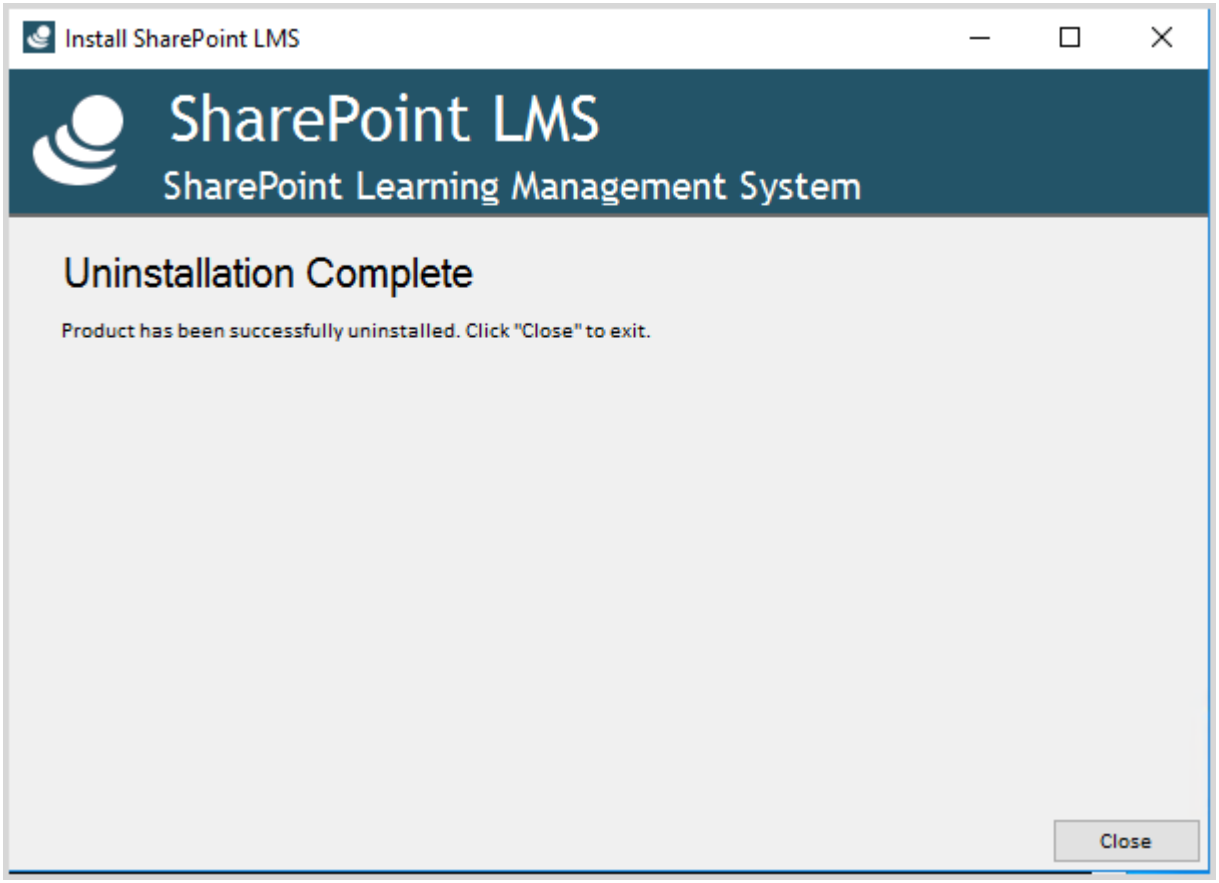
The installer will check the farm setup to determine whether retracting from the specified web application will be enough. Click **Next** to proceed:



3) Wait for the Uninstall process to progress and complete:



4) Click **Close** to finish the process in the corresponding dialogue box:



LMS Suite is now uninstalled from your SharePoint farm. If any issues were met during the uninstall process you will find the log file in the same folder together with the installation files (named Install.txt).

8 POWERSHELL CMDLETS

New-LMS365Organization

New-LMS365Organization cmdlet creates a new LMS365 organization site.

Required parameters:

- **URL** - specify URL that the new organization site collection will use;
- **Owner** - specify login name of the site owner in the form of DOMAIN\username;
- **Title** – specify title that the new organization site collection will use.

Optional parameters:

- **ParentOrganizationUrl** – specify URL of the parent organization for this organization;
- **Description** – specify the description for the new organization;
- **SecondaryOwner** - specify login name of the secondary site owner in the form of DOMAIN\username;
- **LCID** - specify the language ID for the new organization (this must be a valid language identifier);
- **Quota** – specify quota template for this organization (the template must exist in the system);
- **HostHeaderWebApplication** – specify this parameter if you used a host header for the new organization in the required URL parameter. HostHeaderWebApplication parameter must be either name, URL, GUID of the web application where new organization is created;
- **Subscription** – specify the ID of the site group where new organization will be created. You can check it by running a command 'Get-SPSiteSubscription';
- **Database** – specify name of the content database where new organization will be stored;
- **AssignmentCollection** - parameter that manages objects for the purpose of proper disposal. Use of objects, such as SPWeb or SPSite, can use large amounts of memory and use of these objects in Windows PowerShell scripts requires proper memory management. Using the SPAssignment object, you can assign objects to a variable and dispose of the objects after they are needed to free up memory.
  When SPWeb, SPSite, or SPSiteAdministration objects are used, the objects are automatically disposed of if an assignment collection or the Global parameter is not used.

If no value is specified for the optional parameter, it is left blank.

SYNTAX:

```
New-LMS365Organization -Url <string> -Title <string> -Owner <string> [-
ParentOrganizationUrl <string>] [-Readers <string[]>] [-Description
<string>] [-SecondaryOwner <string>] [-LCID <uint32>] [-Quota <string>]
[-HostHeaderWebApplication <SPWebApplicationPipeBind>] [-Subscription
<SPSiteSubscriptionPipeBind>] [-Database <SPContentDatabasePipeBind>] [-
AssignmentCollection <SPAssignmentCollection>]  [<CommonParameters>]
```

EXAMPLE:

```
New-LMS365Organization -Url http://starcups.sharepointlms.com -Title "My Campus" -Owner elearningforce\administrator -HostHeaderWebApplication http://vmefisrv
```

New-LMS365Course

New-LMS365Course cmdlet creates a new LMS365 course site.

Required parameters:

- **Organization** – specify URL of the organization site to which new course will belong;
- **URL** - specify URL that the new course site collection will use;
- **Owner** - specify login name of the site owner in the form of DOMAIN\username;
- **Title** – specify title that the new course site collection will use.

Optional parameters:

- **CourseTemplate** – specify the course template title;
- **Description** – specify the description for the new course;
- **SecondaryOwner** - specify login name of the secondary site owner in the form of DOMAIN\username;
- **LCID** - specify the language ID for the new course (this must be a valid language identifier);
- **Quota** – specify quota template for this course (the template must exist in the system);
- **HostHeaderWebApplication** – specify this parameter if you used a host header for the new course in the required URL parameter. HostHeaderWebApplication parameter must be either name, URL, GUID of the web application where new organization is created;
- **Subscription** – specify the ID of the site group where new course will be created. You can check it by running a command 'Get-SPSiteSubscription';
- **Database** – specify name of the content database where new course will be stored;
- **AssignmentCollection** - parameter that manages objects for the purpose of proper disposal. Use of objects, such as SPWeb or SPSite, can use large amounts of memory and use of these objects in Windows PowerShell scripts requires proper memory management. Using the SPAssignment object, you can assign objects to a variable and dispose of the objects after they are needed to free up memory.
  When SPWeb, SPSite, or SPSiteAdministration objects are used, the objects are automatically disposed of if an assignment collection or the Global parameter is not used.

If no value is specified for the optional parameter, it is left blank.

SYNTAX

```
New-LMS365Course -Organization <OrganizationPipeBind> -Url <string> -Title <string> -Owner <string> [-CourseTemplate <string>] [-Description <string>] [-SecondaryOwner <string>] [-LCID <uint32>] [-Quota <string>] [-HostHeaderWebApplication <SPWebApplicationPipeBind>] [-Subscription <SPSiteSubscriptionPipeBind>] [-Database <SPContentDatabasePipeBind>] [-AssignmentCollection <SPAssignmentCollection>][<CommonParameters>]
```

EXAMPLES

```
New-LMS365Course -Organization http://starcups.sharepointlms.com/lms -Url
http://starcups.sharepointlms.com/course/english01 -Title English01 -
Owner elearningforce\teacher -HostHeaderWebApplication http://vmefisrv
```

```
New-LMS365Course -Organization http://starcups.sharepointlms.com/lms -
CourseTemplate "e-learning templ" -Url http://
starcups.sharepointlms.com/course/english02 -Title "English Beginners" -
Owner elearningforce\teacher
```

Clone-LMS365Course

Clone-LMS365Course cmdlet allows cloning LMS365 course.

Required parameters:

- **Organization** – specify URL of the organization to which the cloned course will belong;
- **SourceCourse** – specify URL of the course that will be cloned;
- **Url** – specify URL that the cloned course will use;
- **Title** – specify title that the cloned course will use;
- **Owner** – specify login name of the site owner in the form DOMAIN\username.

Optional parameters:

- **Published** – specify if the course will be published or not;
- **Start Date** – specify the start date of the cloned course (if Published value is true);
- **End Date** – specify the end date of the cloned course (if Published value is true);
- **SecondaryOwner** - specify login name of the secondary site owner in the form of DOMAIN\username;
- **HostHeaderWebApplication** – specify this parameter if you used a host header for the new course in the required URL parameter. HostHeaderWebApplication parameter must be either name, URL, GUID of the web application where new organization is created;
- **Subscription** – specify the ID of the site group where new course will be created. You can check it by running a command 'Get-SPSiteSubscription';
- **Database** – specify name of the content database where new course will be stored;
- **Description** – specify the description for the cloned course;
- **Quota** - specify quota template for this course (the template must exist in the system).

SYNTAX:

```
Clone-LMS365Course -Organization <OrganizationPipeBind> -SourceCourse
<CoursePipeBind> -Url <string> -Title <string> -Owner <string> [-
Published <bool>] [-StartDate <datetime>] [-EndDate <datetime>] [-
Description <string>] [-SecondaryOwner <string>] [-LCID <uint32>] [-Quota
<string>] [-HostHeaderWebApplication <SPWebApplicationPipeBind>] [-
Subscription <SPSiteSubscriptionPipeBind>] [-Database
<SPContentDatabasePipeBind>] [-AssignmentCollection
<SPAssignmentCollection>]  [<CommonParameters>]
```

EXAMPLE:

```
Clone-LMS365Course -Organization http://starcups.sharepointlms.com/lms -
SourceCourse http://starcups.sharepointlms.com/course/english01 -
Url http://starcups.sharepointlms.com/course/english02 -Title English02 -
Owner elearningforce\teacher -Published $true
```

New-LMS365CCMSite

New-LMS365CCMSite cmdlet creates a new LMS365 CCM host site collection.

Required parameters:

- **URL** - specify URL that the new CCM host site collection will use;
- **Owner** - specify login name of the site owner in the form of DOMAIN\username;
- **Title** – specify title that the new CCM host site collection will use.

Optional parameters:

- **EnableUserProfileSync** – specify whether you want to enable user profile synchronization on new CCM host site;
- **UserProfileSyncType** – specify whether you want to synchronize profiles from SharePoint profile or AD on new CCM host site;
- **Description** – specify the description for the new course;
- **SecondaryOwner** - specify login name of the secondary site owner in the form of DOMAIN\username;
- **LCID** - specify the language ID for the new course (this must be a valid language identifier);
- **Quota** – specify quota template for this couse (the template must exist in the system);
- **HostHeaderWebApplication** – specify this parameter if you used a host header for the new course in the required URL parameter. HostHeaderWebApplication parameter must be either name, URL, GUID of the web application where new organization is created;
- **Subscription** – specify the ID of the site group where new course will be created. You can check it by running a command 'Get-SPSiteSubscription';
- **Database** – specify name of the content database where new course will be stored;
- **AssignmentCollection** - parameter that manages objects for the purpose of proper disposal. Use of objects, such as SPWeb or SPSite, can use large amounts of memory and use of these objects in Windows PowerShell scripts requires proper memory management. Using the SPAssignment object, you can assign objects to a variable and dispose of the objects after they are needed to free up memory.
  When SPWeb, SPSite, or SPSiteAdministration objects are used, the objects are automatically disposed of if an assignment collection or the Global parameter is not used.

If no value is specified for the optional parameter, it is left blank.

SYNTAX:

```
New-LMS365CCMSite -Url <string> -Title <string> -Owner <string> [-
```

```
EnableUserProfileSync <bool>] [-UserProfileSyncType <ConfigurationType>
{SPSync | ADSync}] [-Description <string>] [-SecondaryOwner <string>] [-
LCID <uint32>][-Quota <string>] [-HostHeaderWebApplication
<SPWebApplicationPipeBind>] [-Subscription <SPSiteSubscriptionPipeBind>]
[-Database <SPContentDatabasePipeBind>] [-AssignmentCollection
<SPAssignmentCollection>]  [<CommonParameters>]
```

EXAMPLE:

```
New-LMS365CCMSite -Url http://starcups.sharepointlms.com/ccm -Title "HR
Module" -Owner elearningforce\administrator -HostHeaderWebApplication
http://vmefisrv -EnableUserProfileSync True -UserProfileSyncType SPSync
```

New-LMS365REMSite

New-LMS365REMSite cmdlet creates a new LMS365 REM host site collection.

Required parameters:

- **CCMHostURL** – specify URL of CCM host site collection that will be connected to new REM host site collection;
- **LMSOrganizationUrls** – specify URL of LMS organization(s) that will be connected to new REM host site collection;
- **PrimaryUsersSource** – specify the type of primary users' source that new REM host site collection will use: select between 'ad' or 'fba'
- **URL** - specify URL that the new REM host site collection will use;
- **Owner** - specify login name of the site owner in the form of DOMAIN\username;
- **Title** – specify title that the new REM host site collection will use.

Optional parameters:

- **AllowToChangePassowrd** - parameter allows changing the password for users which enrolling in anonymous mode
- **DisableRegisterNewUsers** - Optional parameter that disables possibility to register new user on LMS365REM site collection
- **ManagersSyncOptions** - Optional parameter that enables Line manager synchronization on LMS365 REM site collection from associated LMS365 CCM Host
- **HrManagersSyncOptions** - Optional parameter that enables HR Responsible synchronization on LMS365 REM site collection from associated LMS365 CCM Host
- **ReportingCenterDatabase** -Optional parameter specifies the SQL Server database where the Reporting Center data will be stored.
- **ADUnit** - Sets an organization unit to which to scope user accounts.
- **ADPassword** - Sets user password which has access to ADUnit
- **EnableUserProfileSync** – specify whether you want to enable user profile synchronization on new CCM host site;
- **UserProfileSyncType** – specify whether you want to synchronize profiles from SharePoint profile or AD on new CCM host site;
- **Description** – specify the description for the new course;
- **SecondaryOwner** - specify login name of the secondary site owner in the form of DOMAIN\username;
- **LCID** - specify the language ID for the new course (this must be a valid language identifier);

- **Quota** – specify quota template for this couse (the template must exist in the system);
- **HostHeaderWebApplication** – specify this parameter if you used a host header for the new course in the required URL parameter. HostHeaderWebApplication parameter must be either name, URL, GUID of the web application where new organization is created;
- **Subscription** – specify the ID of the site group where new course will be created. You can check it by running a command 'Get-SPSiteSubscription';
- **Database** – specify name of the content database where new course will be stored;
- **AssignmentCollection** - parameter that manages objects for the purpose of proper disposal. Use of objects, such as SPWeb or SPSite, can use large amounts of memory and use of these objects in Windows PowerShell scripts requires proper memory management. Using the SPAssignment object, you can assign objects to a variable and dispose of the objects after they are needed to free up memory.
  When SPWeb, SPSite, or SPSiteAdministration objects are used, the objects are automatically disposed of if an assignment collection or the Global parameter is not used.

If no value is specified for the optional parameter, it is left blank.

SYNTAX:

```
New-LMS365REMSite -CCMHostUrl <string> -LMSOrganizationUrls <string[]> -
PrimaryUsersSource <string> {ad | fba} -Url <string> -Title <string> -
Owner <string> [-AllowToChangePassowrd <bool>] [-DisableRegisterNewUsers
<bool>] [-ManagersSyncOptions <CcmSyncOptions> {SyncRemoveUsers |
SyncKeepUsers | DoNotSync}] [-HrManagersSyncOptions <CcmSyncOptions>
{SyncRemoveUsers | SyncKeepUsers | DoNotSync}] [-ReportingCenterDatabase
<string>] [-ADUnit <string>] [-ADUserName <string>] [-ADPassword
<securestring>] [-Description <string>] [-SecondaryOwner <string>] [-LCID
<uint32>] [-Quota <string>] [-HostHeaderWebApplication
<SPWebApplicationPipeBind>] [-Subscription <SPSiteSubscriptionPipeBind>]
[-Database <SPContentDatabasePipeBind>] [-AssignmentCollection
<SPAssignmentCollection>]  [<CommonParameters>]
```

EXAMPLE:

```
New-LMS365REMSite -CCMHostUrl http://virtualacademy.sharepointlms.com/ccm
-LMSOrganizationUrls http://virtualacademy.sharepointlms.com/lms -
PrimaryUsersSource ad -Url http://virtualacademy.sharepointlms.com/rem -
Owner elearningforce\administrator -Title Welcome
```

New-LMS365REMCourse

New-LMS365REMCourse cmdlet creates a new REM course.

Required parameters:

- **Identity** – specify URL of the REM host site to which new course will belong;
- **Title** – specify title that a new REM course will use;
- **CourseType** – specify course type of a new REM course;
- **CourseCategory** – specify course category for a new REM course.

Optional parameters:

- **ShortDescription** – specify short description of the course;
- **LongDescription** – specify long description of the course;
- **StartDate** – specify date and time the course begins;
- **EndDate** – specify date and time the course finishes;
- **Published** – specify if the course will be published or not;
- **CreateDefaultCourseOffering** – specify whether you want to create default course offering automatically or not;
- **HideFromCourseCatalog** – specify whether you want the course to be displayed in the Course Catalog or not;
- **CertificateTemplateUrl** – specify URL of the certificate template;
- **CourseDuration** – specify the course duration period;
- **CourseImageUrl** – specify URL of the course image;
- **AdministratorComments** – specify comments related to site administration field;
- **CourseOtherInfo** – specify other important information related to the course;
- **QualifiedTeachers** – specify users that will be set as course teachers;
- **RequiredForGroups** – specify the AD or SP groups, users of which will be required to complete the course;
- **RecommendedForGroups** – specify the AD or SP groups, users of which will be recommended to complete the course;
- **TrainingPoints** – set the amount of training points awarded for passing the course;
- **CCMCompetencies** – specify a CCM competency that will automatically be granted for passing the course;
- **CertificateExpirationMode** – set certificate expiration mode (Never/Days After Completion/Expiration Date);
  - **CertificateExpirationDaysAfterCompletion** – specify the number of days, after which the certificate for the course becomes expired;
  - **CertificateExpirationDate** – set the date on which the certificate for the course becomes expired;
- **CertificateExpirationEmailRecipients** – specify the recipients, which will receive certificate expiration email notification (None/Site Collection Administrators/Learner/Teachers/Local Administrators/Line Managers/Staff Managers/LMS Administrators/HR Responsibles/All);
  - **CertificateExpirationEmailUsers** – specify separate users who will receive the email notification;
  - **CertificateExpirationEmailDaysBeforeExpiration** – specify the number of days before certificate expiration when user is notified about it;
  - **CertificateExpirationAutoRevokeCompetencies** – specify whether you want automatically revoke associated competencies when certificate expires.

SYNTAX

```
New-LMS365REMCourse [-Identity] <REMSitePipeBind> -Title <string> -
CourseType <CourseType> {Online | OfflineClassroom | OnlineClassroom |
CourseFlow | Webinar | ContentPackage | Material | External} -
CourseCategory <string> [-ShortDescription <string>] [-LongDescription
<string>] [-StartDate <datetime>] [-EndDate <datetime>] [-Published
<bool>] [-CreateDefaultCourseOffering <bool>] [-HideFromCourseCatalog
<bool>] [-ShowLinkToCourseSite <bool>] [-CertificateTemplateUrl <string>]
[-CourseDuration <string>] [-CourseImageUrl <string>] [-
```

```
AdministratorComments <string>] [-CourseOtherInfo <string>] [-
QualifiedTeachers <string[]>] [-LMSCourse <CoursePipeBind>] [-
RequiredForGroups <string[]>] [-RecommendedForGroups <string[]>] [-
TrainingPoints <int>] [-CCMCompetencies <string[]>] [-
CertificateExpirationMode <CertificatesExpirationMode> {Never |
DaysAfterCompletion | ExpirationDate}] [-
CertificateExpirationDaysAfterCompletion <int>] [-
CertificateExpirationDate <datetime>] [-
CertificateExpirationEmailRecepients <EmailRecipientType[]> {None |
SiteCollectionAdmins | Learner | Teachers | LocalAdministrators |
LineManagers | StaffManagers | LMSAdministrators | HRResponsible | All}]
[-CertificateExpirationEmailUsers <string[]>] [-
CertificateExpirationEmailDaysBeforeExpiration <string>] [-
CertificateExpirationAutoRevokeCompetencies <bool>] [-LMSCourseTemplate
<string>] [-LMSCourseUrl <string>] [-ContentPackageFilePath<string>] [-
ExistingContentPackageTitle <string>] [-AssignmentCollection
<SPAssignmentCollection>]  [<CommonParameters>]
```

EXAMPLE

```
New-LMS365REMCourse -Identity http://virtualacademy.sharepointlms.com/rem
-Title “Business and Management” -CourseType OnlineClassroom -
CourseCategory "Sales and Marketing" -ShortDescription "General
information" -LongDescription "Marketing is a crucial function in any
business or organization, and is increasingly important in the modern
globalized economy." -StartDate 10.10.2016 -EndDate 11.11.2016 -Published
$true -CreateDefaultCourseOffering $false -HideFromCourseCatalog $true -
CertificateTemplateUrl http://virtualacademy.sharepointlms.com/rem
/CertificateTemplates/template.jpg -CourseDuration 1d5h -CourseImageUrl
http://sp2016/sites/rem/PublishingImages/e-learning.png -TrainingPoints
100 -RequiredForGroups elearningforce\bn_g -RecommendedForGroups
elearningforce\bn_g -QualifiedTeachers elearningforce\teacher1 -
AdministratorComments “This is a very important information” -
CourseOtherInfo “Contact your LMS Administrator for more information.” -
ShowLinkToCourseSite $true -CCMCompetencies "c1-Average" -
CertificateExpirationMode DaysAfterCompletion -
CertificateExpirationDaysAfterCompletion 55 -
CertificateExpirationAutoRevokeCompetencies $true -
CertificateExpirationEmailDaysBeforeExpiration 10 -
CertificateExpirationEmailRecepients LMSAdministrators -
CertificateExpirationEmailUsers elearningforce\learner1
```

NOTE:

1. e-Learning course site course:

```
New-LMS365REMCourse -Identity
http://virtualacademy.sharepointlms.com/rem -Title “Business and
Management” -CourseType Online -CourseCategory "Sales and
Marketing" -ShortDescription "General information" -
LongDescription "Marketing is a crucial function in any business
or organization, and is increasingly important in the modern
globalized economy." -StartDate 10.10.2016 -EndDate 11.11.2016 -
```

```
Published $true -CreateDefaultCourseOffering $false -
HideFromCourseCatalog $true -CertificateTemplateUrl
http://virtualacademy.sharepointlms.com/rem
/CertificateTemplates/template.jpg -CourseDuration 1d5h -
CourseImageUrl http://sp2016/sites/rem/PublishingImages/e-
learning.png -TrainingPoints 100 -RequiredForGroups
elearningforce\bn_g -RecommendedForGroups elearningforce \bn_g -
QualifiedTeachers elearningforce\teacher1 -AdministratorComments
"This is a very important information" -CourseOtherInfo "Contact
your LMS Administrator for more information." -
ShowLinkToCourseSite $true -CCMCompetencies "c1-Average" -
CertificateExpirationMode DaysAfterCompletion -
CertificateExpirationDaysAfterCompletion 55 -
CertificateExpirationAutoRevokeCompetencies $true -
CertificateExpirationEmailDaysBeforeExpiration 10 -
CertificateExpirationEmailRecepients LMSAdministrators -
CertificateExpirationEmailUsers elearningforce\l1 -LMSCourse
http://sp2016/sites/asfd234
```

2. e-Learning course site course from template:

```
New-LMS365REMCourse -Identity
http://virtualacademy.sharepointlms.com/rem -Title "Business and
Management" -CourseType Online -CourseCategory "Sales and
Marketing" -ShortDescription "General information" -
LongDescription "Marketing is a crucial function in any business
or organization, and is increasingly important in the modern
globalized economy." -StartDate 10.10.2016 -EndDate 11.11.2016 -
Published $true -CreateDefaultCourseOffering $false -
HideFromCourseCatalog $true -CertificateTemplateUrl
http://virtualacademy.sharepointlms.com/rem
/CertificateTemplates/template.jpg -CourseDuration 1d5h -
CourseImageUrl http://sp2016/sites/rem/PublishingImages/e-
learning.png -TrainingPoints 100 -RequiredForGroups
elearningforce\bn_g -RecommendedForGroups elearningforce\bn_g -
QualifiedTeachers elearningforce\teacher1 -AdministratorComments
"This is a very important information" -CourseOtherInfo "Contact
your LMS Administrator for more information." -
ShowLinkToCourseSite $true -CCMCompetencies "c1-Average" -
CertificateExpirationMode DaysAfterCompletion -
CertificateExpirationDaysAfterCompletion 55 -
CertificateExpirationAutoRevokeCompetencies $true -
CertificateExpirationEmailDaysBeforeExpiration 10 -
CertificateExpirationEmailRecepients LMSAdministrators -
CertificateExpirationEmailUsers elearningforce\l1 -
LMSCourseTemplate pub1 -LMSCourseUrl http://localhost/sites/p1
```

3. e-Learning Content Package course from file:

```
New-LMS365REMCourse -Identity
http://virtualacademy.sharepointlms.com/rem -Title "Business and
```

```
Management” -CourseType ContentPackage -CourseCategory "Sales and
Marketing" -ShortDescription "General information" -
LongDescription "Marketing is a crucial function in any business
or organization, and is increasingly important in the modern
globalized economy." -StartDate 10.10.2016 -EndDate 11.11.2016 -
Published $true -CreateDefaultCourseOffering $false -
HideFromCourseCatalog $true -CertificateTemplateUrl
http://virtualacademy.sharepointlms.com/rem
/CertificateTemplates/template.jpg -CourseDuration 1d5h -
CourseImageUrl http://sp2016/sites/rem/PublishingImages/e-
learning.png -TrainingPoints 100 -RequiredForGroups
elearningforce\bn_g -RecommendedForGroups elearningforce\bn_g -
QualifiedTeachers elearningforce\teacher1 -AdministratorComments
“This is a very important information” -CourseOtherInfo “Contact
your LMS Administrator for more information.” -
ShowLinkToCourseSite $true -CCMCompetencies "c1-Average" -
CertificateExpirationMode DaysAfterCompletion -
CertificateExpirationDaysAfterCompletion 55 -
CertificateExpirationAutoRevokeCompetencies $true -
CertificateExpirationEmailDaysBeforeExpiration 10 -
CertificateExpirationEmailRecepients LMSAdministrators -
CertificateExpirationEmailUsers elearningforce\l1 -
ContentPackageFilePath "C:\0101 PO Cagliano - Organizzazione
definizione e prospettive_AGGIORNAMENTO_STORY.zip"
```

4. e-Learning Content Package course from existing SCORM list:

```
New-LMS365REMCourse -Identity
http://virtualacademy.sharepointlms.com/rem -Title “Business and
Management” -CourseType ContentPackage -CourseCategory "Sales and
Marketing" -ShortDescription "General information" -
LongDescription "Marketing is a crucial function in any business
or organization, and is increasingly important in the modern
globalized economy." -StartDate 10.10.2016 -EndDate 11.11.2016 -
Published $true -CreateDefaultCourseOffering $false -
HideFromCourseCatalog $false -CertificateTemplateUrl
http://virtualacademy.sharepointlms.com/rem
/CertificateTemplates/template.jpg -CourseDuration 1d5h -
CourseImageUrl http://sp2016/sites/rem/PublishingImages/e-
learning.png -TrainingPoints 100 -RequiredForGroups
elearningforce\bn_g -RecommendedForGroups elearningforce\bn_g -
QualifiedTeachers elearningforce\teacher1 -AdministratorComments
“This is a very important information” -CourseOtherInfo “Contact
your LMS Administrator for more information.” -
ShowLinkToCourseSite $true -CCMCompetencies "c1-Average" -
CertificateExpirationMode DaysAfterCompletion -
CertificateExpirationDaysAfterCompletion 55 -
CertificateExpirationAutoRevokeCompetencies $true -
CertificateExpirationEmailDaysBeforeExpiration 10 -
CertificateExpirationEmailRecepients LMSAdministrators -
CertificateExpirationEmailUsers elearningforce\l1 -
```

```
ExistingContentPackageTitle "0101 PO Cagliano - Organizzazione definizione e prospettive_AGGIORNAMENTO_STORY"
```

New-LMS365REMCourseOffering

New-LMS365REMCourseOffering cmdlet creates a new REM Course Offering.

Required parameters:

- **Identity** – specify URL of the REM host site to which new course offering will belong;
- **CourseID** – specify ID of the course for which course offering will be created;
- **EnrollmentTemplateID** – specify ID of the enrollment template;
- **AccessStartDate** – specify course offering access start date.

Optional parameters:

- **AccessEndDate** – specify course offering access end date;
- **RegistrationPeriodType** – specify the registration period type (DayInterval/DateRange/NoLimit);
- **RegistrationPeriodStartDate** – specify the start date of the registration period when user can enroll in the course;
- **RegistrationPeriodEndDate** – specify the end date of the registration period when user can enroll in the course;
- **Teachers** – specify the name of the teachers for this course;
- **Location** – specify the course location;
- **Room** – specify the name of the room where the course will be held;
- **TimeZone** – specify the course area time zone;
- **MinimumNumberOfLearners** – specify the minimal number of learners for the course to be started;
- **MaximumNumberOfLearners** – specify the maximal number of learners that can be enrolled in the course;
- **AutoRecertification** – specify whether you want to enable auto recertification or not;
  - **DaysPriorToCertificateExpiration** – set number of days before certificate expiration on which user will be auto enrolled in the course offering;
- **Status** – set course offering status (Active/Canceled/Closed/Ended/In Planning);
- **GroupsToEnroll** – specify AD or SP groups for forced enrollment in this Course offering;
- **RequiredForGroups** – specify the AD or SP groups for which this course offering will be visible and required (for all users belonging to the specified groups);
- **RecommendedForGroups** – specify the AD or SP groups for which this course offering will be visible;
- **ESignature** – specify the type of e-signature confirmation (SimpleCheckbox/Authorization);
- **LearnerGroup** – specify the user group for the course offering;
- **MeetingInvitation** – specify the text of invitation that users will receive to join the meeting (for Webinar Offerings).

SYNTAX

```
New-LMS365REMCourseOffering [-Identity] <REMSitePipeBind> [-CourseId]
<int>  [-EnrollmentTemplateId] <int> [-AccessStartDate] <datetime> [-
AccessEndDate <datetime>] [-RegistrationPeriodType <PeriodType>
{DayInterval | DateRange | NoLimit}] [-RegistrationPeriodStartDate
<datetime>] [-RegistrationPeriodEndDate <datetime>] [-Teachers
<string[]>] [-Location <string>] [-Room <string>] [-TimeZone <string>] [-
MinimumNumberOfLearners <int>] [-MaximumNumberOfLearners <int>] [-
AutoRecertification <bool>] [-DaysPriorToCertificateExpiration <int>] [-
Status <CourseOfferingStatus> {Active | Canceled | Closed | Ended |
InPlanning}] [-GroupsToEnroll <string[]>] [-RequiredForGroups <string[]>]
[-RecommendedForGroups <string[]>] [-ESignature <ESignature>
{SimpleCheckbox | Authorization}] [-LearnerGroup <string>] [-
MeetingInvitation <string>] [-AssignmentCollection
<SPAssignmentCollection>]  [<CommonParameters>]
```

EXAMPLE

```
New-LMS365REMCourseOffering -Identity
http://virtualacademy.sharepointlms.com/rem -CourseId 5 -
EnrollmentTemplateId 1 -AccessStartDate 10.10.2016 -AccessEndDate
10.10.2017 -RegistrationPeriodType DateRange -RegistrationPeriodStartDate
10.10.2016 -RegistrationPeriodEndDate 10.10.2017 -Teachers
elearningforce\teacher1 -Location "Bel-Air, Beverly Hills, CA" -Room
"Room C (35)" -TimeZone "(UTC+02:00) Jerusalem" -MinimumNumberOfLearners
1 -MaximumNumberOfLearners 10 -AutoRecertification $true -
DaysPriorToCertificateExpiration 10 -Status InPlanning -GroupsToEnroll
elearningforce\bn_g -RequiredForGroups elearningforce\bn_g -
RecommendedForGroups elearningforce\bn_g -LearnerGroup NewGroup6
```

Get-LMS365Organization

Get-LMS365Organization cmdlet returns either a single organization that matches the Identity parameter, or all the organizations that match web application or subscription parameters.

- **Identity** – specify URL or GUID of the LMS organization to return;

OR

- **WebApplication** – specify URL, GUID, or name of the web application from which to list sites;
- **Subscription** – optional parameter to specify the ID of the site group from which to list sites. You can check it by running a command 'Get-SPSiteSubscription';

SYNTAX

```
Get-LMS365Organization [-AssignmentCollection <SPAssignmentCollection>]
[<CommonParameters>]
```

```
Get-LMS365Organization [-Identity] <OrganizationPipeBind> [-
AssignmentCollection <SPAssignmentCollection>] [<CommonParameters>]

Get-LMS365Organization -WebApplication <SPWebApplicationPipeBind> [-
Subscription <SPSiteSubscriptionPipeBind>] [-AssignmentCollection
<SPAssignmentCollection>]  [<CommonParameters>]
```

EXAMPLE

```
Get-LMS365Organization -Identity
http://virtualacademy.sharepointlms.com/lms
```

Get-LMS365Course

Get-LMS365Course cmdlet returns either a single course that matches the Identity parameter, or all the courses that match web application or subscription parameters.

- **Identity** – specify URL or GUID of the LMS organization to return;

OR

- **WebApplication** – specify URL, GUID, or name of the web application from which to list sites
- **Subscription** – optional parameter to specify the ID of the site group from which to list sites. You can check it by running a command 'Get-SPSiteSubscription';

SYNTAX

```
Get-LMS365Course [-Identity] <CoursePipeBind> [-AssignmentCollection
<SPAssignmentCollection>]  [<CommonParameters>]

Get-LMS365Course -WebApplication <SPWebApplicationPipeBind> [-
Subscription <SPSiteSubscriptionPipeBind>] [-AssignmentCollection
<SPAssignmentCollection>]  [<CommonParameters>]
```

EXAMPLE

```
Get-LMS365Course -Identity
http://virtualacademy.sharepointlms.com/course/english
```

Get-LMS365CCMSite

Get-LMS365CCMSite cmdlet returns either a single CCM host that matches the Identity parameter, or all the hosts that match web application or subscription parameters.

- **Identity** – specify URL or GUID of the LMS organization to return;

OR

- **WebApplication** – specify URL, GUID, or name of the web application from which to list sites
- **Subscription** – optional parameter to specify the ID of the site group from which to list sites. You can check it by running a command 'Get-SPSiteSubscription';

SYNTAX

```
Get-LMS365CCMSite [-Identity] <CCMHostPipeBind> [-AssignmentCollection
<SPAssignmentCollection>]  [<CommonParameters>]

Get-LMS365CCMSite -WebApplication <SPWebApplicationPipeBind> [-
Subscription <SPSiteSubscriptionPipeBind>] [-AssignmentCollection
<SPAssignmentCollection>]  [<CommonParameters>]
```

EXAMPLE

```
Get-LMS365CCMSite -Identity http://virtualacademy.sharepointlms.com/ccm
```

Get-LMS365REMSite

Get-LMS365REMSite cmdlet returns either a single REM host that matches the Identity parameter, or all the hosts that match web application or subscription parameters.

- **Identity** – specify URL or GUID of the LMS organization to return;

OR

- **WebApplication** – specify URL, GUID, or name of the web application from which to list sites
- **Subscription** – optional parameter to specify the ID of the site group from which to list sites. You can check it by running a command 'Get-SPSiteSubscription';

SYNTAX

```
Get-LMS365REMSite [-Identity] <REMSitePipeBind> [-AssignmentCollection
<SPAssignmentCollection>]  [<CommonParameters>]

Get-LMS365REMSite -WebApplication <SPWebApplicationPipeBind> [-
Subscription <SPSiteSubscriptionPipeBind>] [-AssignmentCollection
<SPAssignmentCollection>]  [<CommonParameters>]
```

EXAMPLE

```
Get-LMS365REMSite -Identity http://virtualacademy.sharepointlms.com
```

Get-LMS365Configuration

Get-LMS365Configuration cmdlet returns all the organizations and courses that match web application or subscription parameters.

Required parameter:

- **WebApplication** – specify URL, GUID, or name of the web application from which to list sites;

Optional parameter:

- **Subscription** – optional parameter to specify the ID of the site group from which to list sites. You can check it by running a command 'Get-SPSiteSubscription';

SYNTAX

```
Get-LMS365Configuration -WebApplication <SPWebApplicationPipeBind> [-
Subscription <SPSiteSubscriptionPipeBind>] [-AssignmentCollection
<SPAssignmentCollection>] [<CommonParameters>]
```

EXAMPLE

```
Get-LMS365Configuration -WebApplication
http://virtualacademy.sharepointlms.com
```

Set-LMS365Configuration

Set-LMS365Configuration cmdlet allows changing the following global LMS settings: Managed Path for Course Creation; Hide Course Delete Option; Global Options; Hide Site Contents for Learners; Hide 'Navigate Up' menu in breadcrumbs; Reports options.

Required parameter:

- **Web Application** – specify URL, GUID, or name of the web application.

Optional parameters:

- **CourseUrlPrefix** – specify the URL path;
- **HostNamedCourseUrlPrefix** – specify the URL for the organization;
- **HideCourseDeleteOption** – specify whether you want to hide this option on the Organization level or not;
- **GlobalOptions** – specify menus to be shown in the Course Tools menu;
- **ReportOptions** – specify whether all courses will be available for generating reports (including unpublished)/whether course teachers can generate reports for their own managed courses only.

SYNTAX

```
Set-LMS365Configuration [-WebApplication] <SPWebApplicationPipeBind> [-
Subscription <SPSiteSubscriptionPipeBind>] [-CourseUrlPrefix <string>] [-
HostNamedCourseUrlPrefix <string>] [-HideCourseDeleteOption <bool>] [-
HideCourseDeleteOptionAllowOverride <bool>] [-GlobalOptions
<CourseOption> {Empty | Announcements | Documents | LearningPaths | Links
| Quizzes | DropBox | HomeWork | Attendance | Forum | Chat | Conference |
Gradebook | BuiltInOptions | Mailbox | Users | CourseFlow | Help |
Tracking | TeacherOptions | Calendar | SubWebOptions | Scorms |
ExportOptions | ContentExportOptions | Plagiarism | Reports |
TeacherOnlyOptions | CourseWizard | Podcasts | Lrms | WikiPages |
SeatingChart | Staff | Roster | LearnerOptions | CourseMenuOptions |
AllLearnerOptions | CourseOptions | GlobalOptions | AllTeacherOptions |
QuestionPool | Survey | AllowCustomPermissionsOptions | Any}] [-
GlobalOptionsAllowOverride <CourseOption> {Empty | Announcements |
Documents | LearningPaths | Links | Quizzes | DropBox | HomeWork |
Attendance | Forum | Chat | Conference | Gradebook | BuiltInOptions |
Mailbox | Users | CourseFlow | Help | Tracking | TeacherOptions |
Calendar | SubWebOptions | Scorms | ExportOptions | ContentExportOptions
| Plagiarism | Reports | TeacherOnlyOptions |CourseWizard | Podcasts |
Lrms | WikiPages | SeatingChart | Staff | Roster | LearnerOptions |
```

```
CourseMenuOptions | AllLearnerOptions | CourseOptions | GlobalOptions |
AllTeacherOptions | QuestionPool | Survey | AllowCustomPermissionsOptions
| Any}] [-HideSiteContents <bool>] [-HideSiteContentsAllowOverride
<bool>] [-HideNavigateUp <bool>] [-ReportOptions <ReportsOptions> {Empty
| ShowAllCourses | ShowOnlyManagedCourses | All}] [-ReportOptionsAllow
Override <ReportsOptions> {Empty | ShowAllCourses |
ShowOnlyManagedCourses| All}] [-AssignmentCollection
<SPAssignmentCollection>]  [<CommonParameters>]
```

EXAMPLE

```
Set-LMS365Configuration -
WebApplication http://starcups.sharepointlms.com -CourseUrlPrefix
"/course/" -HostNamedCourseUrlPrefix "/course/" -HideCourseDeleteOption
$true -HideCourseDeleteOptionAllowOverride $true -GlobalOptions
"Documents, LearningPaths, DropBox, Conference, Users, CourseFlow,
Tracking, SubWebOptions, ExportOptions, Reports, CourseWizard, WikiPages,
SeatingChart, Staff, LearnerOptions" -GlobalOptionsAllowOverride
"Documents, LearningPaths, DropBox, Conference, Users, CourseFlow,
Tracking, SubWebOptions, ExportOptions, Reports, CourseWizard, WikiPages,
SeatingChart, Staff, LearnerOptions" -HideSiteContents $true -
HideSiteContentsAllowOverride $false -HideNavigateUp $false -
ReportOptions All -ReportOptionsAllowOverride All
```

Set-LMS365CCMConfiguration

Set-LMS365CCMConfiguration cmdlet allows setting profiles synchronization settings for the existing CCM.

Required parameter:

- **Identity** – specify URL of CCM host site.

Optional parameters:

- **EnableUserProfileSync** – specify whether you want to enable user profile synchronization on the CCM host site;
- **UserProfileSyncType** – specify whether you want to synchronize profiles from SharePoint profile or AD on the CCM host site.

SYNTAX

```
Set-LMS365CCMConfiguration [-Identity] <CCMHostPipeBind> [-
EnableUserProfileSync <bool>] [-UserProfileSyncType <ConfigurationType>
{SPSync | ADSync}] [-CreatedIn <string>] [-UpdatedTo <string>] [-
AssignmentCollection <SPAssignmentCollection>] [<CommonParameters>]
```

EXAMPLE

```
Set-LMS365CCMConfiguration http://starcups.sharepointlms.com/ccm -
EnableUserProfileSync $true -UserProfileSyncType ADSync
```

Set-LMS365REMConfiguration

Set-LMS365REMConfiguration cmdlet allows setting SharePoint LMS Organization and SharePoint CCM host for the existing REM instance; configuring CCM to REM synchronization settings; configuring Active Directory Source Settings; configuring Reporting Center Database.

Required parameter:

- **Identity** – specify URL of REM host site;
- **PrimaryUsersSource** – specify the type of primary users' source that new REM host site collection will use: select between 'ad' or 'fba'.

Optional parameters:

- **Organizations** – specify URL(s) of the organization(s) for courses synchronization;
- **CCMHost** – specify URL of the CCM Host for synchronization with REM site collection;
- **DisableRegisterNewUsers** – select whether you want to give access to the courses for anonymous users or not;
  - **AllowToChangePassword** – select whether you want to allow users to change their passwords or not;
  - **ActiveDirectoryUnit** – specify LDAP connection string;
  - **UserName** – specify full login name of the user who has an access to the Active Directory Unit (should be in the following format: domain\username);
  - **Password** – specify the password for the user;
- **ManagersSyncOptions** – select whether you want to synchronize people from 'Manager' field of CCM Profiles to SharePoint 'Line Managers' group (SyncRemoveUsers/SyncKeepUsers/DoNotSync);
- **HrManagersSyncOptions** – select whether you want to synchronize people from 'HR Responsible' field of CCM Profiles to SharePoint 'HR Responsible' group (SyncRemoveUsers/SyncKeepUsers/DoNotSync);
- **CancelRegistrationsOfDisabledUsers** – specify whether you want to cancel associated active user's registrations when his CCM profile is deactivated;
- **EnableCancelationInGroupEnrollment** – specify whether you want to cancel associated registrations when user is removed from group.

SYNTAX

```
Set-LMS365REMConfiguration [-Identity] <REMSitePipeBind> [-Organizations
<OrganizationPipeBind[]>] [-CCMHost <CCMHostPipeBind>] [-ConnectionString
<string>] [-PrimaryUsersSource <string>] [-DisableRegisterNewUsers
<bool>] [-AllowToChangePassowrd <bool>] [-ActiveDirectoryUnit <string>]
[-Password <string>] [-UserName <string>] [-ManagersSyncOptions
```

```
<CcmSyncOptions> {SyncRemoveUsers | SyncKeepUsers | DoNotSync}] [-
HrManagersSyncOptions <CcmSyncOptions> {SyncRemoveUsers | SyncKeepUsers |
DoNotSync}] [-CancelRegistrationsOfDisabledUsers <bool>] [-
EnableCancelationInGroupEnrollment <bool>] [-UpdatedTo <string>] [-
AssignmentCollection <SPAssignmentCollection>]  [<CommonParameters>]
```

EXAMPLE

```
Set-LMS365REMConfiguration http://virtualacademy.sharepointlms.com/rem  -
Organizations ("http://virtualacademy.sharepointlms.com/lms",
"http://virtualacademy.sharepointlms.com/lms1") -CCMHost
http://virtualacademy.sharepointlms.com/ccm -DisableRegisterNewUsers
$false -UserName elearningforce\administrator -Password mypassword -
AllowToChangePassowrd $false -ActiveDirectoryUnit "LDAP://srvdc-
01.example.local/OU=rea_users,DC=example,DC=local" -ConnectionString
"Data Source=sp2016;Initial Catalog=rr77;Integrated Security=True" -
CancelRegistrationsOfDisabledUsers $true -
EnableCancelationInGroupEnrollment $false -UpdatedTo 5.5.0.0
```

Set-LMS365TrackingDatabase

Set-LMS365TrackingDatabase cmdlet allows to set LMS tracking database either for web application or specific subscription.

Required parameter:

- **WebApplication** – specify URL, GUID, or name of the web application that will be used;
- **ConnectionString** – specify the 'Data Source' parameter which is the SQL server name and 'Initial Catalog' parameter which is the name of the database created for LMS tracking;

Optional parameter:

- **Subscription** – optional parameter to specify the ID of the site group where database will be set. You can check it by running a command 'Get-SPSiteSubscription';

SYNTAX

```
Set-LMS365TrackingDatabase [-WebApplication] <SPWebApplicationPipeBind>
[-ConnectionString] <string> [-Subscription <SPSiteSubscriptionPipeBind>]
[-AssignmentCollection <SPAssignmentCollection>]  [<CommonParameters>]
```

EXAMPLE

```
Set-LMS365TrackingDatabase -WebApplication
http://virtualacademy.sharepointlms.com "Data Source=SRV02;Initial
Catalog=Academy_SharePointLMS_Tracking;Integrated Security=True"
```

Get-LMS365CCMHistorySettings

Get-LMS365CCMHistorySettings cmdlet returns history settings which are set for specified CCM host site collection.

- **SiteId** – GUID of CCM host site for which history settings will be returned.

SYNTAX

```
Get-LMS365CCMHistorySettings -SiteId <guid> [-AssignmentCollection
<SPAssignmentCollection>]  [<CommonParameters>]
```

EXAMPLE

```
Get-LMS365Configuration -SiteId f8887420-9b4e-4701-a4e6-9f0580f43004s
```

Set-LMS365CCMHistorySettings

Set-LMS365CCMHistorySettings allows setting history settings for existing CCM host site. You can either use command to only specify the database or enable schedule for archiving database.

Required parameters:

- **ConnectionString** – specify the 'Data Source' parameter which is the SQL server name and 'Initial Catalog' parameter which is the name of the database created for Reporting Center;
- **SiteId** - GUID of CCM host site for which history settings will be returned.
- **NewDatabaseNamePattern** – specify pattern for archived databases, they will be created with current Date as a suffix e.g. '****_2014-10-03'
- **PhysicalPath** – specify path where archived databases will be stored. Equal folders in all Farm Database servers (or only one folder if there is only one Database server) should be created. You should set write permissions to this folder for the account under which OWSTimer runs.
- **Schedule** – set the schedule to the timer job (e.g. $sched.BeginHour = $now.Hour $sched.EndHour = $now.Hour).

SYNTAX

```
Set-LMS365CCMHistorySettings -ConnectionString <string> -
NewDatabaseNamePattern <string> -PhysicalPath <string> -Schedule
<SPSchedule> [-AssignmentCollection <SPAssignmentCollection>]
[<CommonParameters>]
```

```
Set-LMS365CCMHistorySettings -ConnectionString <string> -SiteId <guid> [-
AssignmentCollection <SPAssignmentCollection>]  [<CommonParameters>]
```

EXAMPLE

```
Set-LMS365CCMHistorySettings -SiteId 2c1a02c7-ba98-4923-94b2-cad2371e35b4
-ConnectionString "Data Source=SRV02;Initial
Catalog=”EFISRV05SP2013QA_ElearningforceAcademy_CCM_Tracking"
```

Restore-LMS365Hierarchy

Restore-LMS365Hierarchy cmdlet re-connects LMS courses to organization they belong.

- **Identity** – specify URL, GUID, or name of the web application where courses will be searched and restored;

SYNTAX:

```
Restore-LMS365Hierarchy [-Identity] <SPWebApplicationPipeBind> [-
AssignmentCollection <SPAssignmentCollection>]  [<CommonParameters>]
```

EXAMPLE

```
Restore-LMS365Hierarchy -Identity http://virtualacademy.sharepointlms.com
```

Attach-LMS365CCMLostSites

Attach-LMS365CCMLostSites cmdlet helps to restore configuration of CCM site collections in order that they can be managed in Central Administration. This might be necessary when you move content across farms or web applications.

- **WebApplication** – specify URL, GUID, or name of the web application where CCM site collections will be searched;

SYNTAX

```
Attach-LMS365CCMLostSites -WebApplication <SPWebApplicationPipeBind> [-
AssignmentCollection <SPAssignmentCollection>]  [<CommonParameters>]
```

EXAMPLE

```
Attach-LMS365CCMLostSites -WebApplication
http://virtualacademy.sharepointlms.com
```

Attach-LMS365REMLostSites

Attach-LMS365REMLostSites cmdlet helps to restore configuration of REM site collections in order that they can be managed in Central Administration. This might be necessary when you move content across farms or web applications.

- **WebApplication** – specify URL, GUID, or name of the web application where REM site collections will be searched;

SYNTAX

```
Attach-LMS365REMLostSites [-WebApplication] <SPWebApplicationPipeBind> [-
AssignmentCollection <SPAssignmentCollection>]  [<CommonParameters>]
```

EXAMPLE

```
Attach-LMS365REMLostSites -WebApplication
http://virtualacademy.sharepointlms.com
```

Provision-LMS365REMServicesContent

Provision-LMS365REMServicesContent cmdlets creates the term store group 'ELEARNINGFORCE REM4' in the managed metadata service connected to web application/subscription. The term store group contains default term sets Course Categories, Course Types, Locations & Rooms with samples. This operation is usually handled by activating the web application scoped feature, but it's not activated by default in multitenancy environment, and should be done manually for a subscription.

- **WebApplication** – specify URL, GUID, or name of the web application where term store group will be created;
- **Subscription** – specify the ID of the site group where term store group will be created. You can check it by running a command 'Get-SPSiteSubscription'.

SYNTAX

```
Provision-LMS365REMServicesContent [-WebApplication
<SPWebApplicationPipeBind>] [-Subscriptions
<SPSiteSubscriptionPipeBind[]>] [-AssignmentCollection
<SPAssignmentCollection>]  [<CommonParameters>]
```

EXAMPLE

```
Provision-LMS365REMServicesContent -WebApplication http://testmt -
Subscription f8887420-9b4e-4701-a4e6-9f0580f43004
```

Check-REMIntegrity

Check-REMIntegrity cmdlet helps to check the consistency of data in a specified REM site collection. It checks whether each registration has offering, course, offering indexed id, course indexed id, and whether each course offering has course, enrollment template.

- **Identity** – specify URL of REM site collection that will be checked.

SYNTAX

```
Check-REMIntegrity [-Identity] <REMSitePipeBind> [-AssignmentCollection
<SPAssignmentCollection>]  [<CommonParameters>]
```

EXAMPLE

```
Check-REMIntegrity -Identity http://virtualacademy.sharepointlms.com
```

NOTE:	Check-REMIntegrity cmdlet checks if registration has a folder. For example, if registration is in a root folder, you will see the following error: **There are registrations in root folder. Move them to user folders.**

Renew-LMS365REMPublishingPages

Renew-LMS365REMPublishingPages cmdlet allows to recreate all or specific page in a specified REM site collection.

- **Identity** – specify URL of REM site collection that will be used;
- **PageName** – specify name of the page that you want to recreate. If you don't specify this parameter all REM publishing pages will be recreated.

SYNTAX

```
Renew-LMS365REMPublishingPages [-Identity] <REMSitePipeBind> [[-PageName] <string> [-AssignmentCollection <SPAssignmentCollection>] [<CommonParameters>]
```

EXAMPLE

```
Renew-LMS365REMPublishingPages -Identity http://virtualacademy.sharepointlms.com -PageName Welcome.aspx
```

Set-REMCourseOfferingsAccessEndDateOption

Set-REMCourseOfferingsAccessEndDateOption cmdlet helps to specifiy whether access period end date should be taken from course duration.

- **Identity** – specify URL of REM site collection that will be used;
- **AccessEndDateFromDuration** – specify $True or $False.

SYNTAX

```
Set-REMCourseOfferingsAccessEndDateOption [-Identity] <REMSitePipeBind> -AccessEndDateFromDuration <Boolean> [<CommonParameters>]
```

EXAMPLE

```
Set-REMCourseOfferingsAccessEndDateOption -Identity http://virtualacademy.sharepointlms.com -AccessEndDateFromDuration $True
```

Import-REMExternalCertificates

Import-REMExternalCertificates cmdlet helps to upload large number of external certificates from .xlsx file or .zip archive into REM.

Required parameters:

- **Identity** – specify URL of REM site collection where certificates will be imported;
- **Path** – specify path to .xlsx file or .zip archive that contains data about certificates that should be imported. Fields that must be included in the imported .xlsx file: User Name, Course Name, Issued Date, Company, Expiration Date, CEUs, Competency Levels, Certificate Image or Certificate Template, Automatic Revocation; .zip archive must include .xlsx file with all necessary information and certificate image. In the Certificate Image field specify corresponding image name from folder inside an archive (relative path defined in .xlsx); use a default certificate template if other is

not specified OR a full URL.

Optional parameters:

- **BatchSize** – specify the batch size (the default batch size is 100).

SYNTAX

```
Import-REMExternalCertificates [-Identity] <REMSitePipeBind> -Path
<string> [-BatchSize <int>] [-AssignmentCollection
<SPAssignmentCollection>]  [<CommonParameters>]
```

EXAMPLE

```
Import-REMExternalCertificates -Identity
http://virtualacademy.sharepointlms.com -Path c:\certificates.xlsx
```

Get-LMS365REMDefaultCertificateTemplate

Get-LMS365REMDefaultCertificateTemplate cmdlet helps to find out what certificate template is used for each type of course by default.

- **Identity** – specify URL of REM site collection that will be checked;
- **CourseType** – specify the type of course for which you want to find out default certificate template.

SYNTAX

```
Get-LMS365REMDefaultCertificateTemplate [-Identity] <REMSitePipeBind> -
CourseType <CourseType> {Online | OfflineClassroom | OnlineClassroom |
CourseFlow |Webinar | ContentPackage | Material | External} [-
AssignmentCollection <SPAssignmentCollection>] [<CommonParameters>]
```

EXAMPLE

```
Get-LMS365REMDefaultCertificateTemplate -Identity
http://virtualacademy.sharepointlms.com -CourseType Material
/lms/CertificateTemplates/REM_DefaultTemplate.png
```

Set-LMS365REMDefaultCertificateTemplate

Set-LMS365REMDefaultCertificateTemplate cmdlet helps to set a default certificate template for each type of REM course in a specified REM site collection.

- **Identity** – specify URL of REM site collection that will be used;
- **CourseType** – specify the type of course for which you want to set default certificate template;
- **CertificateTemplateUrl** – specify URL to certificate template image that will be set for specified course type in given REM site collection.

SYNTAX

```
Set-LMS365REMDefaultCertificateTemplate [-Identity] <REMSitePipeBind> -
CourseType <CourseType> {Online | OfflineClassroom | OnlineClassroom |
CourseFlow | Webinar | ContentPackage | Material | External} -
CertificateTemplateUrl <string> [-AssignmentCollection
<SPAssignmentCollection>]  [<CommonParameters>]
```

EXAMPLE

```
Set-LMS365REMDefaultCertificateTemplate -Identity
http://virtualacademy.sharepointlms.com -CourseType Material -
CertificateTemplateUrl
http://virtualacademy.sharepointlms.com/lms/CertificateTemplates/REM_Defa
ultTemplate.png
```

Set-LMS365REMDefaultCourseTemplate

Set-LMS365REMDefaultCourseTemplate cmdlet allows setting default course template to be used when creating e-Learning Course Site and Blended Learning courses.

Required parameter:

- **Identity** – specify URL of REM site collection that will be used;

Optional parameters:

- **TemplateName** – specify the name of the course template that will be set as default;
- **CourseType** – specify course type of a REM course;
- **Organization** – specify URL of the organization to which course template belongs.

SYNTAX

```
Set-LMS365REMDefaultCourseTemplate [-Identity] <REMSitePipeBind> [-
TemplateName <string>] [-CourseType <CourseType> {Online |
OfflineClassroom | OnlineClassroom | CourseFlow | Webinar |
ContentPackage | Material | External}][-Organization
<OrganizationPipeBind>] [-AssignmentCollection <SPAssignmentCollection>]
[<CommonParameters>]
```

EXAMPLE

```
Set-LMS365REMDefaultCourseTemplate
http://virtualacademy.sharepointlms.com/rem -TemplateName "Software
Course" -CourseType Online -Organization
http://virtualacademy.sharepointlms.com/lms
```

NOTE:	1. Set course template for e-Learning Course Site and Blended Learning courses: `Set-LMS365REMDefaultCourseTemplate http://virtualacademy.sharepointlms.com/rem -TemplateName "Hardware Course"`

2. Set blank template for e-Learning Course Site courses:

```
Set-LMS365REMDefaultCourseTemplate
http://virtualacademy.sharepointlms.com/rem -CourseType Online
```

3. Set blank template for e-Learning Course Site and Blended Learning courses:

```
Set-LMS365REMDefaultCourseTemplate
http://virtualacademy.sharepointlms.com/rem
```

Add-LMS365REMSharedField

Add-LMS365REMSharedField cmdlet adds custom shared fields.

- **Identity** – specify URL of REM site collection where shared fields will be added;
- **FieldName** – specify field internal name.

SYNTAX

```
Add-LMS365REMSharedField [-Identity] <REMSitePipeBind> -FieldName
<string> [-AssignmentCollection] <SPAssignmentCollection>]
[<CommonParameters>]
```

EXAMPLE

```
Add-LMS365REMSharedField http://virtualacademy.sharepointlms.com -
FieldName Topic
```

Check-REMCourseSharedFields

Check-REMCourseSharedFields cmdlet helps to understand why search result page does not show needed courses or does not show data that should be displayed. REM courses search works correctly if values of the Shared Fields from courses list are duplicated to course offerings list. The output of the command shows the difference between courses and offerings lists i.e. items where shared fields values are not the same. If the command does not return any result it means search is working properly.

- **Identity** – specify URL of REM site collection where shared fields will be checked;

SYNTAX

```
Check-REMCourseSharedFields [-Identity] <REMSitePipeBind> [[-CourseId]
<int>] [-AssignmentCollection <SPAssignmentCollection>]
[<CommonParameters>]
```

EXAMPLE

```
Check-REMCourseSharedFields -Identity
http://virtualacademy.sharepointlms.com
```

Fix-LMS365RCLibrary

Fix-LMS365RCLibrary cmdlet fixes settings of an existing reports library on a specified site.

- **Identity** – specify URL of the site where SQL reports will be fixed;

SYNTAX

```
Fix-LMS365RCLibrary [-Identity] <SPWebPipeBind> [-AssignmentCollection
<SPAssignmentCollection>]  [<CommonParameters>]
```

EXAMPLE

```
Fix-LMS365RCLibrary -Identity http://virtualacademy.sharepointlms.com
```

Recreate-LMS365RCLibrary

Recreate-LMS365RCLibrary cmdlet removes existing SQL reports on a specified site, and recreates them from scratch in the reporting center reports library.

- **Identity** – specify URL of the site where SQL reports will be recreated;

SYNTAX

```
Recreate-LMS365RCLibrary [-Identity] <SPWebPipeBind> [-
AssignmentCollection <SPAssignmentCollection>] [<CommonParameters>]
```

EXAMPLE

```
Recreate-LMS365RCLibrary -Identity
http://virtualacademy.sharepointlms.com
```

Enable-LMS365ADCache

Enable-LMS365ADCache cmdlet enables using AD group cache for their fast resolving. This cmdlet correlates to the "ELEARNINGFORCE - Common: AD Group Resolver" timer job. You might want to enable it for your REM and/or CCM host sites if you are planning to use large AD groups there.

SYNTAX

```
Enable-LMS365ADCache  [[-Identity]  <SPSitePipeBind>]  [-WebApplication
<SPWebApplicationPipeBind>]  [-AdditionalADGroups  <string[]>]  [-
ClearAdditionalADGroups <bool>] [-AssignmentCollection
<SPAssignmentCollection>][<CommonParameters>]
```

Required parameters:

- **Identity** – specify the Host Site URL;

Optional parameters:

- **WebApplication** – specify URL, GUID, or name of the web application to which host site belongs;
- **AdditionalADGroups** – specify AD group names (e.g. specified in 'Groups to Enroll' field and not added to the site). To clear the list of additional groups, specify $True;

- **AssignmentCollection** – parameter that manages objects for the purpose of proper disposal. Use of objects, such as SPWeb or SPSite, can use large amounts of memory and use of these objects in Windows PowerShell scripts requires proper memory management. Using the SPAssignment object, you can assign objects to a variable and dispose of the objects after they are needed to free up memory. When SPWeb, SPSite, or SPSiteAdministration objects are used, the objects are automatically disposed of if an assignment collection or the Global parameter is not used.

EXAMPLE

```
Enable-LMS365ADCache –Identity http://virtualacademy.sharepointlms.com
/sites/rem –WebApplication “SharePoint - 80” –AdditionalADGroups
example\300Members -ClearAdditionalADGroups $true
```

Disable-LMS365ADCache

Disable-LMS365ADCache cmdlet disables using AD group cache.

SYNTAX

```
Disable-LMS365ADCache [[-Identity] <SPSitePipeBind>] [-WebApplication
<SPWebApplicationPipeBind>][-AssignmentCollection
<SPAssignmentCollection>] [<CommonParameters>]
```

Required parameters:

- **Identity** – specify the Host Site URL;

Optional parameters:

- **WebApplication** – specify URL, GUID, or name of the web application to which host site belongs;
- **AssignmentCollection** – parameter that manages objects for the purpose of proper disposal. Use of objects, such as SPWeb or SPSite, can use large amounts of memory and use of these objects in Windows PowerShell scripts requires proper memory management. Using the SPAssignment object, you can assign objects to a variable and dispose of the objects after they are needed to free up memory. When SPWeb, SPSite, or SPSiteAdministration objects are used, the objects are automatically disposed of if an assignment collection or the Global parameter is not used.

EXAMPLE

```
Disable-LMS365ADCache –Identity http://virtualacademy.sharepointlms.com
/sites/rem –WebApplication “SharePoint - 80”
```

Get-LMS365ADCache

Get-LMS365ADCache cmdlet helps to find sites that are using AD group cache.

SYNTAX

```
Get-LMS365ADCache [-WebApplication] <SPWebApplicationPipeBind> [-AssignmentCollection <SPAssignmentCollection>] [<CommonParameters>]
```

Required parameter:

- **WebApplication** – specify URL, GUID, or name of the web application from which to list sites;

Optional parameter:

- **AssignmentCollection** – parameter that manages objects for the purpose of proper disposal. Use of objects, such as SPWeb or SPSite, can use large amounts of memory and use of these objects in Windows PowerShell scripts requires proper memory management. Using the SPAssignment object, you can assign objects to a variable and dispose of the objects after they are needed to free up memory.
  When SPWeb, SPSite, or SPSiteAdministration objects are used, the objects are automatically disposed of if an assignment collection or the Global parameter is not used.

EXAMPLE

```
Get-LMS365ADCache –WebApplication “SharePoint - 80”
```

Delete-LMS365User

Delete-LMS365User cmdlet purges (permanently deletes) all user’s data from LMS and databases.

SYNTAX

```
Delete-LMS365User -WebApplication <SPWebApplicationPipeBind> -Login <string> [-RemoveFromSharePoint] [-RemoveFromTracking] [-RemoveFromHistory] [-RemoveFromReporting] [-AssignmentCollection <SPAssignmentCollection>] [<CommonParameters>]
```

Required parameters:

- **WebApplication** – specify URL, GUID, or name of the web application from which you want to purge user’s data;
- **Login** – specify login name of the user you want to purge.

Optional parameter:

- **RemoveFromSharePoint** – specify this parameter to purge user from SharePoint Lists and Groups;

- **RemoveFromTracking** – specify this parameter to purge user's data from LMS Tracking and Usage Database;
- **RemoveFromHistory** – specify this parameter to purge user's data from CCM History Database;
- **RemoveFromReporting** – specify this parameter to purge user's data from Reporting Center Database;

Please be advised that one of these parameters should be specified to purge user's data.

- **AssignmentCollection** – parameter that manages objects for the purpose of proper disposal. Use of objects, such as SPWeb or SPSite, can use large amounts of memory management. Using the SPAssignment object, you can assign objects to a variable and dispose of the objects after they are needed to free up memory. When SPWeb, SPSite, or SPSiteAdministration objects are used, the objects are automatically disposed of if an assignment collection or the Global parameter is not used.

EXAMPLE

Delete-LMS365User - WebApplication http://srv-fe01-sp2013 –Login example\l1 - RemoveFromHistory

Export-LMS365LicenseUsers

Export-LMS365LicenseUsers cmdlet allows exporting a list of users that are counted in the LMS license.

SYNTAX

```
Export-LMS365LicenseUsers -WebApplication <SPWebApplicationPipeBind> -Path <string> [-AssignmentCollection <SPAssignmentCollection>] [<CommonParameters>]
```

Required parameters:

- **WebApplication** – specify URL, GUID, or name of the web application from which you want export data;
- **Path** – specify a path where file will be saved. File extension can be specified either as .xlsx or .csv.

Optional parameter:

- **AssignmentCollection** – parameter that manages objects for the purpose of proper disposal. Use of objects, such as SPWeb or SPSite, can use large amounts of memory management. Using the SPAssignment object, you can assign objects to a variable and dispose of the objects after they are needed to free up memory.
  When SPWeb, SPSite, or SPSiteAdministration objects are used, the objects are automatically disposed of if an assignment collection or the Global parameter is not used.

EXAMPLE

```
Export-LMS365LicenseUsers -WebApplication "http://srv-fe01-sp2013" -Path "C:\license.xlsx"
```

Move-LMS365Course

Move-LMS365Course cmdlet allows moving LMS course from one organization to another.

SYNTAX

```
Move-LMS365Course -NewOrganization <OrganizationPipeBind> -Course <CoursePipeBind> [-AssignmentCollection <SPAssignmentCollection>] [<CommonParameters>]
```

Required parameters:

- **NewOrganization** – specify URL of the organization to which you want to move the course;
- **Course** – specify URL of the course you want to move.

Optional parameter:

- **AssignmentCollection** – parameter that manages objects for the purpose of proper disposal. Use of objects, such as SPWeb or SPSite, can use large amounts of memory management. Using the SPAssignment object, you can assign objects to a variable and dispose of the objects after they are needed to free up memory.
  When SPWeb, SPSite, or SPSiteAdministration objects are used, the objects are automatically disposed of if an assignment collection or the Global parameter is not used.

EXAMPLE

```
Move-LMS365Course -Course "http://srv-fe01-sp2013/sites/lmscourse" -NewOrganization "http://srv-fe01-sp2013/sites/sharepointorg"
```

Attach-LMS365Course

Attach-LMS365Course allows attaching restored course to the organization.

SYNTAX

```
Attach-LMS365Course -Organization <SPSitePipeBind> -Course <SPSitePipeBind> [-AssignmentCollection <SPAssignmentCollection>] [<CommonParameters>]
```

Required parameters:

- **Organization** – specify URL of the organization to which you want to attach the course;
- **Course** – specify URL of the course you want to attach.

Optional parameter:

- **AssignmentCollection** – parameter that manages objects for the purpose of proper disposal. Use of objects, such as SPWeb or SPSite, can use large amounts of memory management. Using the SPAssignment object, you can assign objects to a variable and dispose of the objects after they are needed to free up memory.
  When SPWeb, SPSite, or SPSiteAdministration objects are used, the objects are automatically disposed of if an assignment collection or the Global parameter is not used.

EXAMPLE

```
Attach-LMS365Course -Course "http://srv-fe01-sp2013/sites/lmscourse" -
Organization "http://srv-fe01-sp2013/sites/sharepointorg"
```

Sync-LMS365CCMProfiles

Sync-LMS365CCMProfiles cmdlet allows synchronizing CCM Profiles (both with AD or SP Profiles).

SYNTAX

```
Sync-LMS365CCMProfiles [-Identity] <CCMHostPipeBind> [-TrackChangesFrom
<datetime>] [-AssignmentCollection <SPAssignmentCollection>]
[<CommonParameters>]
```

Required parameter:

- **Identity** – specify URL of CCM host site.

Optional parameters:

- **TrackChangesFrom** – specify date and time starting from which the system should track changes of SP profiles and synchronize them with CCM Profiles. Time should be specified as local server time (not UTC). For AD synchronization this parameter has no sense;
- **AssignmentCollection** – parameter that manages objects for the purpose of proper disposal. Use of objects, such as SPWeb or SPSite, can use large amounts of memory management. Using the SPAssignment object, you can assign objects to a variable and dispose of the objects after they are needed to free up memory. When SPWeb, SPSite, or SPSiteAdministration objects are used, the objects are automatically disposed of if an assignment collection or the Global parameter is not used.

EXAMPLE

```
$syncFrom = New-Object DateTime 2017, 6, 16, 10, 50, 0

Sync-LMS365CCMProfiles -Identity
http://virtualacademy.sharepointlms.com/sites/ccm -TrackChangesFrom
$syncFrom
```

Reset-LMS365CCMProfileSyncDate

Reset-LMS365CCMProfileSyncDate cmdlet allows clearing synchronization stamp in CCM profiles, and it allows forcing update profiles during the next synchronization. It can be useful in the following cases:

1. profiles are synchronized, and no changes in source have been made;
2. sync config xml file has been modified (some new fields were added to synchronization);
3. synchronizer will see there are no changes in CCM profiles and no changes in AD/SP profiles – subsequently, it will not synchronize new added fields. As a result, you should reset synchronization date to force update CCM profiles.

SYNTAX

```
Reset-LMS365CCMProfileSyncDate [-Identity] <CCMHostPipeBind> [-
AssignmentCollection <SPAssignmentCollection>] [<CommonParameters>]
```

Required parameter:

- **Identity** – specify URL of CCM host site.

Optional parameter:

- **AssignmentCollection** – parameter that manages objects for the purpose of proper disposal. Use of objects, such as SPWeb or SPSite, can use large amounts of memory management. Using the SPAssignment object, you can assign objects to a variable and dispose of the objects after they are needed to free up memory. When SPWeb, SPSite, or SPSiteAdministration objects are used, the objects are automatically disposed of if an assignment collection or the Global parameter is not used.

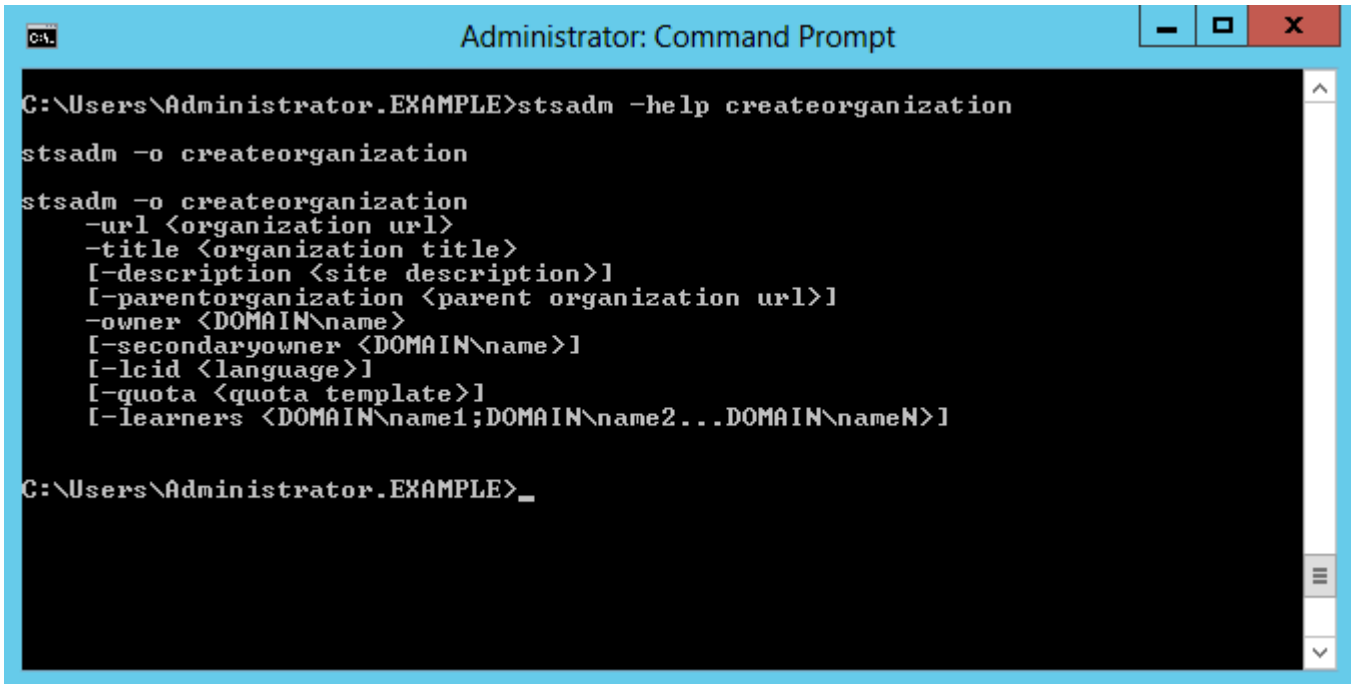
EXAMPLE

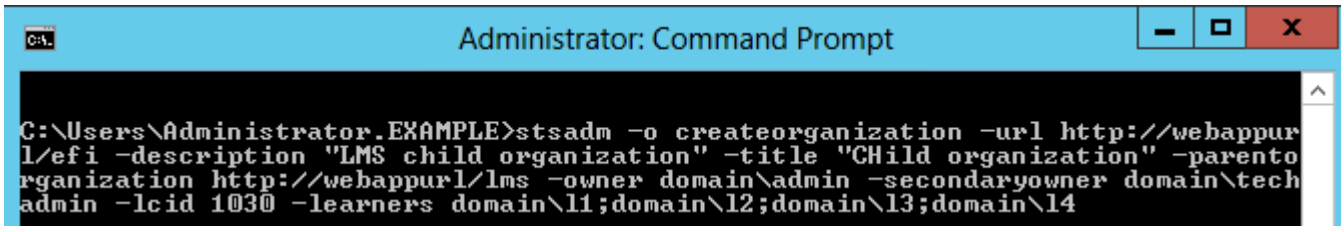
```
Sync-LMS365CCMProfiles –Identity
http://virtualacademy.sharepointlms.com/sites/ccm
```

9 STSADM COMMANDS

NOTE:	The below mentioned console commands are just an alternative to same actions you can perform via user interface. STSADM commands are handier for batch operations when you need to create a large number of course site etc. To automate the course creation process, you can combine these commands in one or more MS-DOS BATCH (*.*bat*) files.

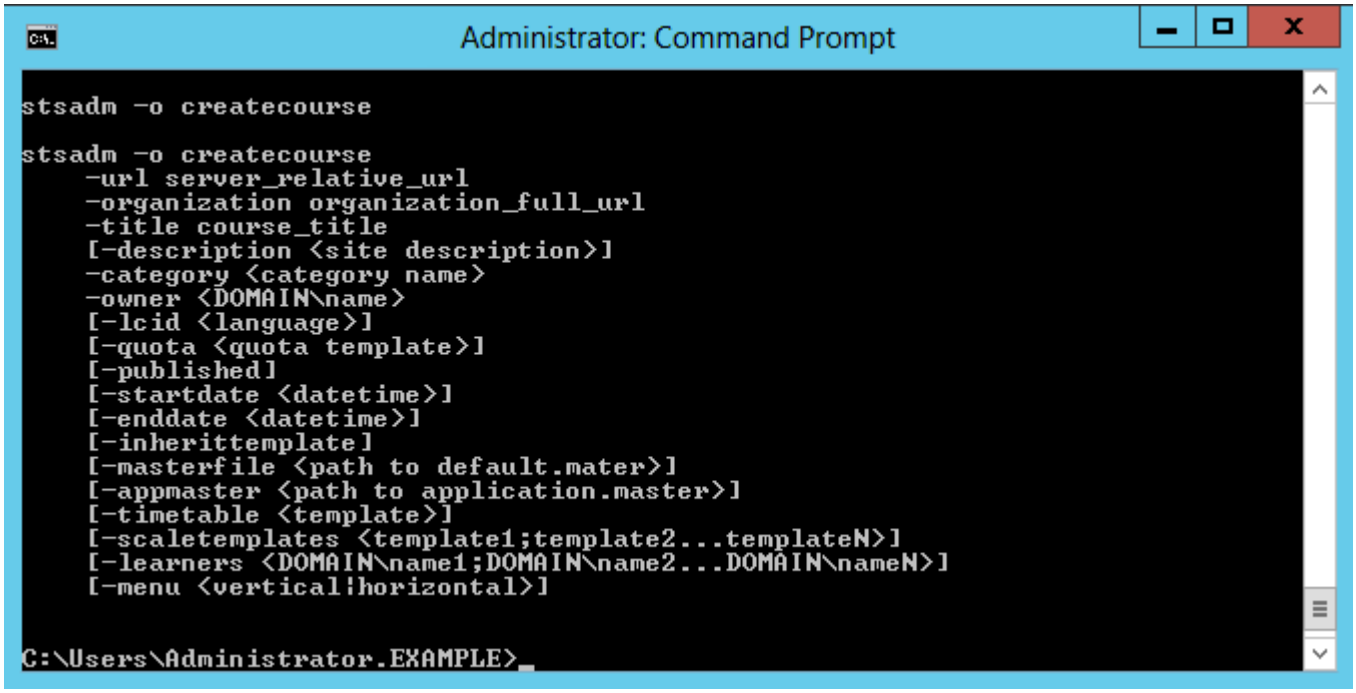
LMS Organization creation example:

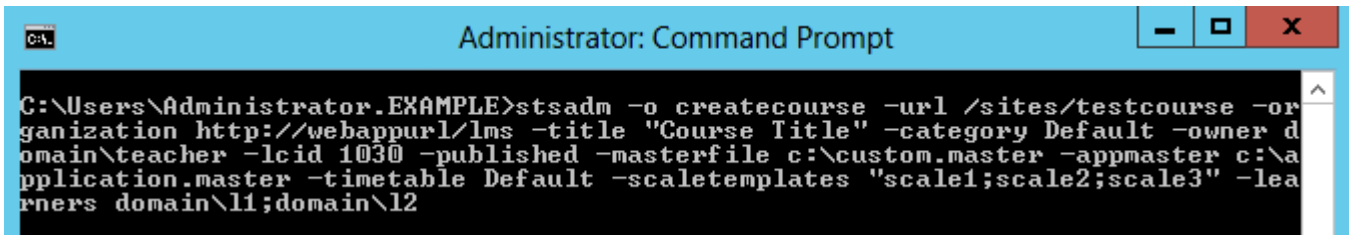




NOTE:	The parameters in square brackets are optional. Specified learners will be added to an organization with the **Read** type access rights.

LMS Course creation example:



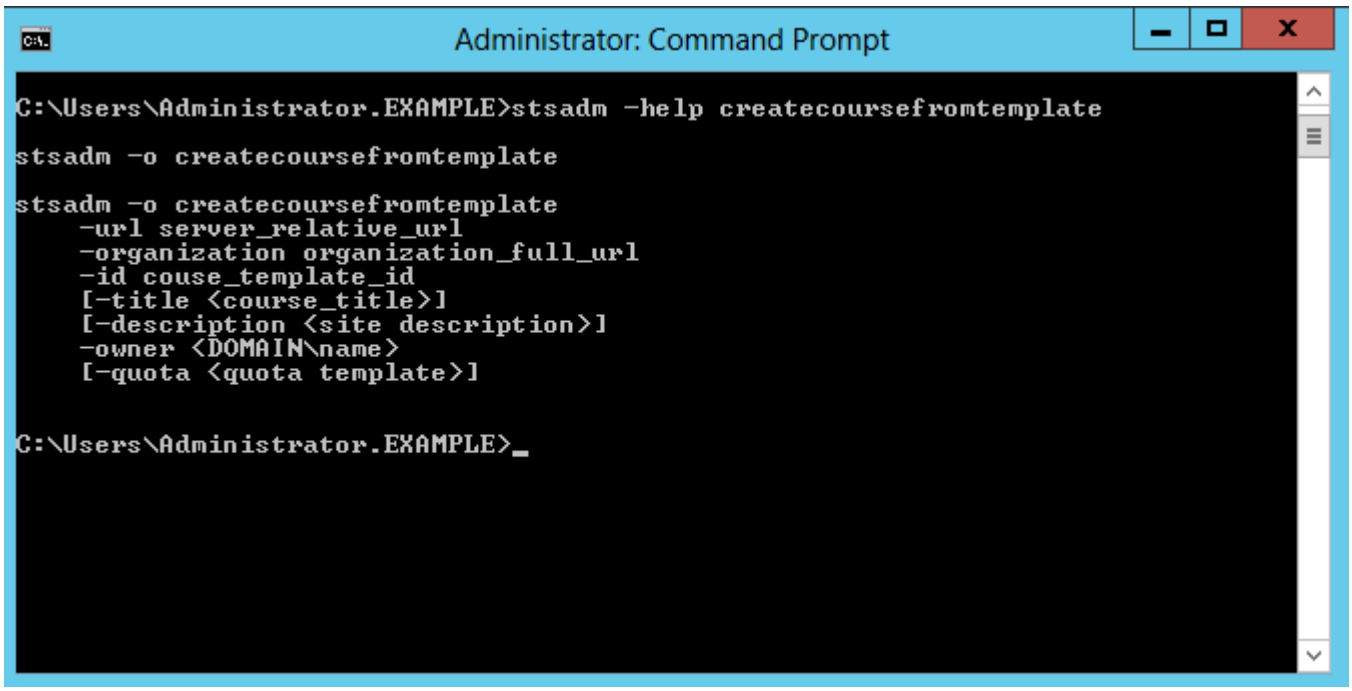


Example:

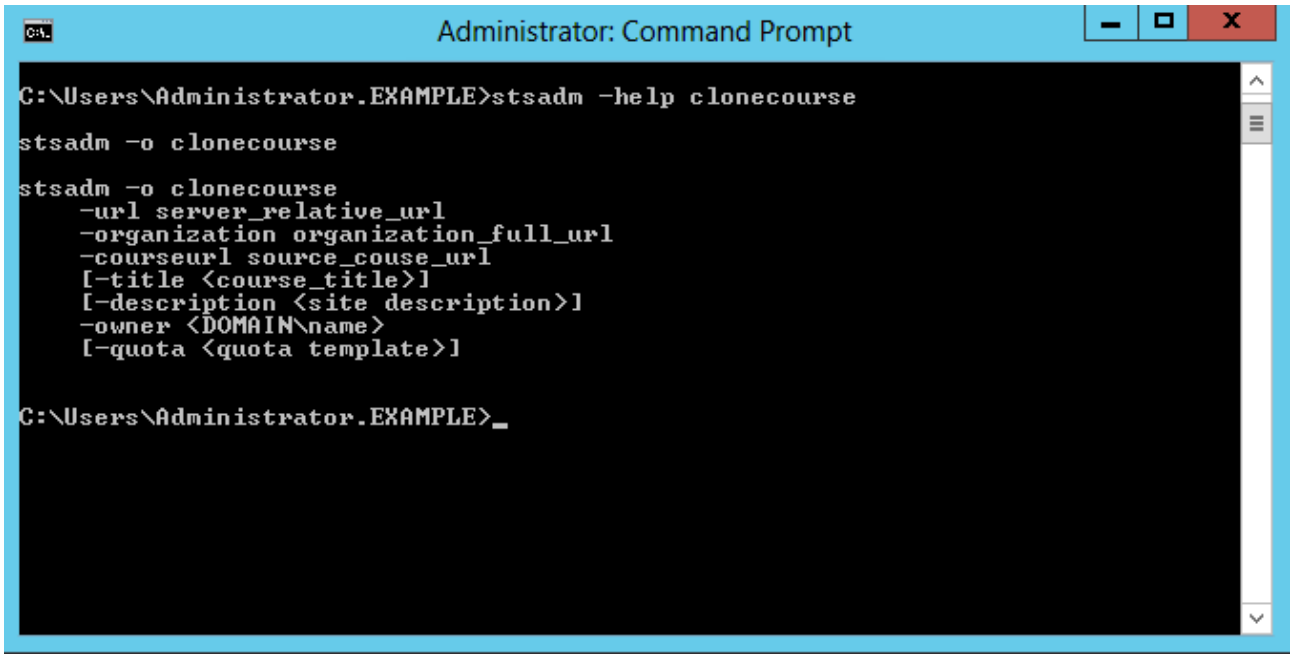
- create a danish (1030) course
- "*Course Title*" with server relative URL/sites/testcourse in the organization with URL "*http://webappurl/lms*"
- under category "Default"
- teacher "*domain\teacher*"
- Created course published and design layout files replaced by *c:\custom.master* and *c:\application.master* files
- Attendance timetable reused "Default" from Organization
- Added 3 scale sets "scale1", "*scale2*", and "*scale3*" from Organization
- Added course learners l1 and l2

NOTE:	In web applications with FBA copy *Web.config* file from web application directory to *stsadm* directory and rename it to *stsadm.exe.config*.

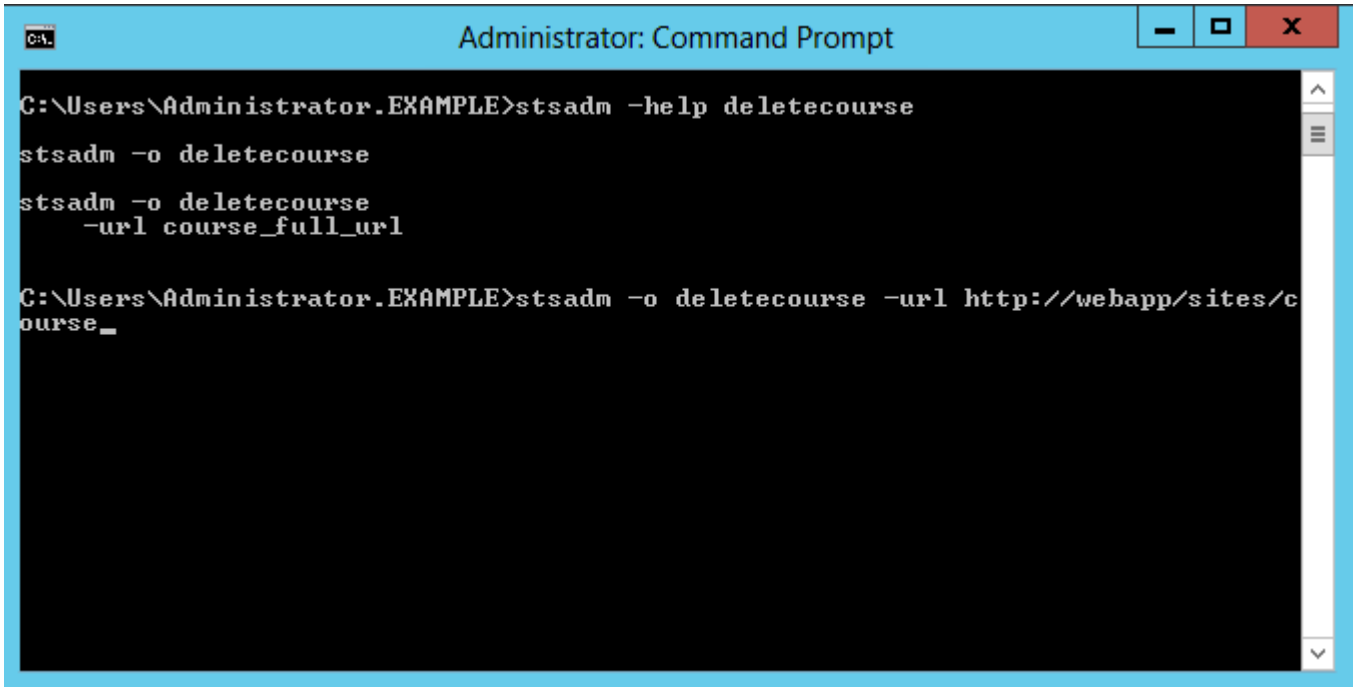
LMS Course creation from template example:



Cloning LMS course site:

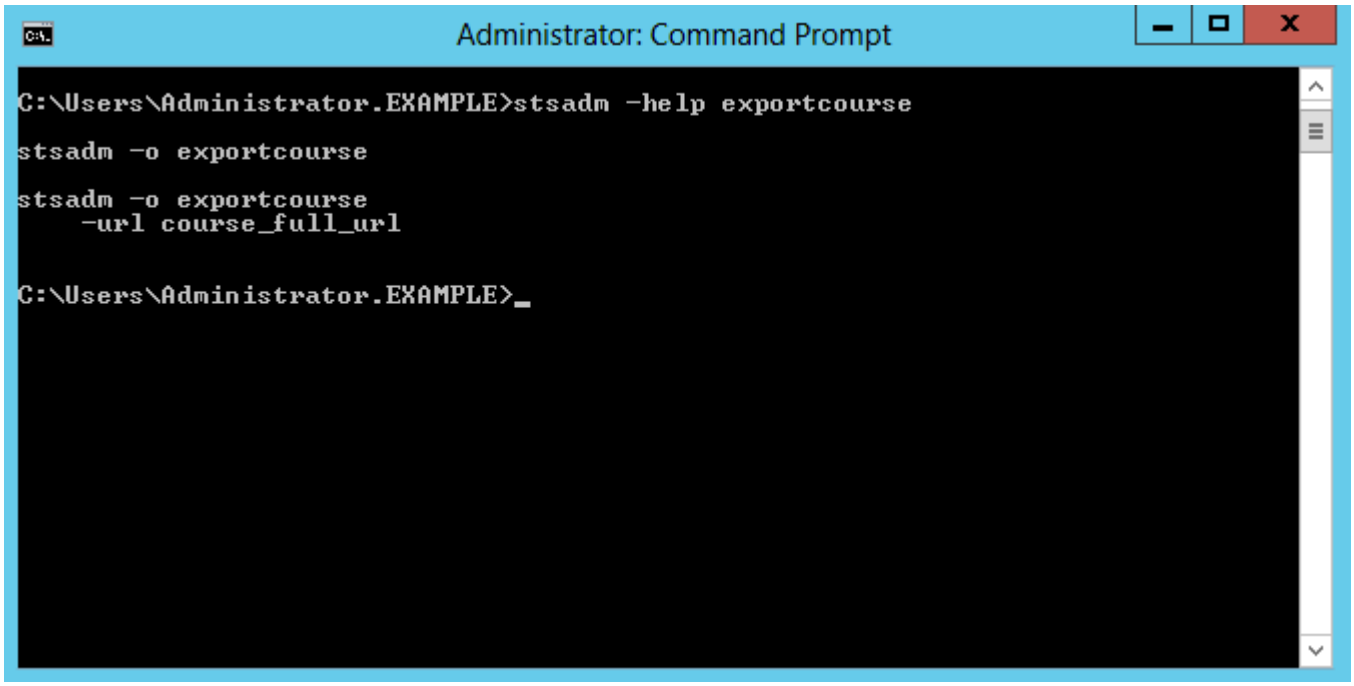


LMS Course deletion example:

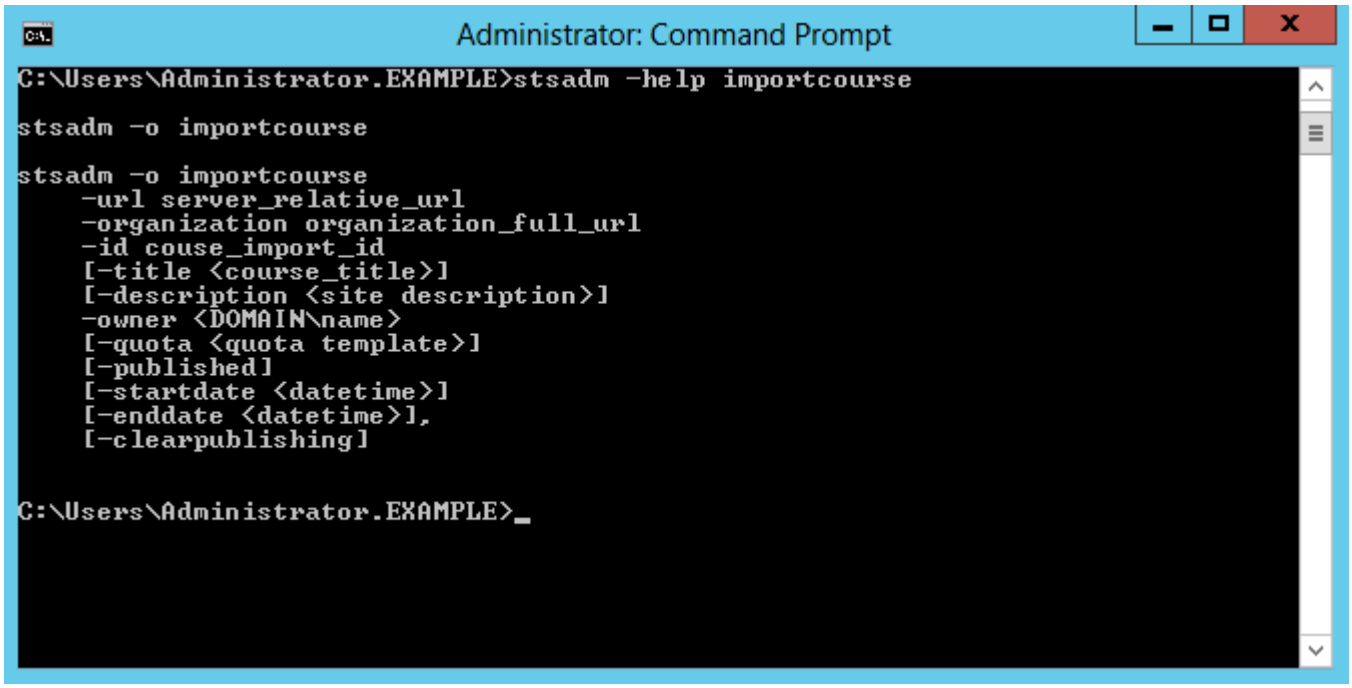


This example will delete the course with URL "*http://webapp/sites/course*"

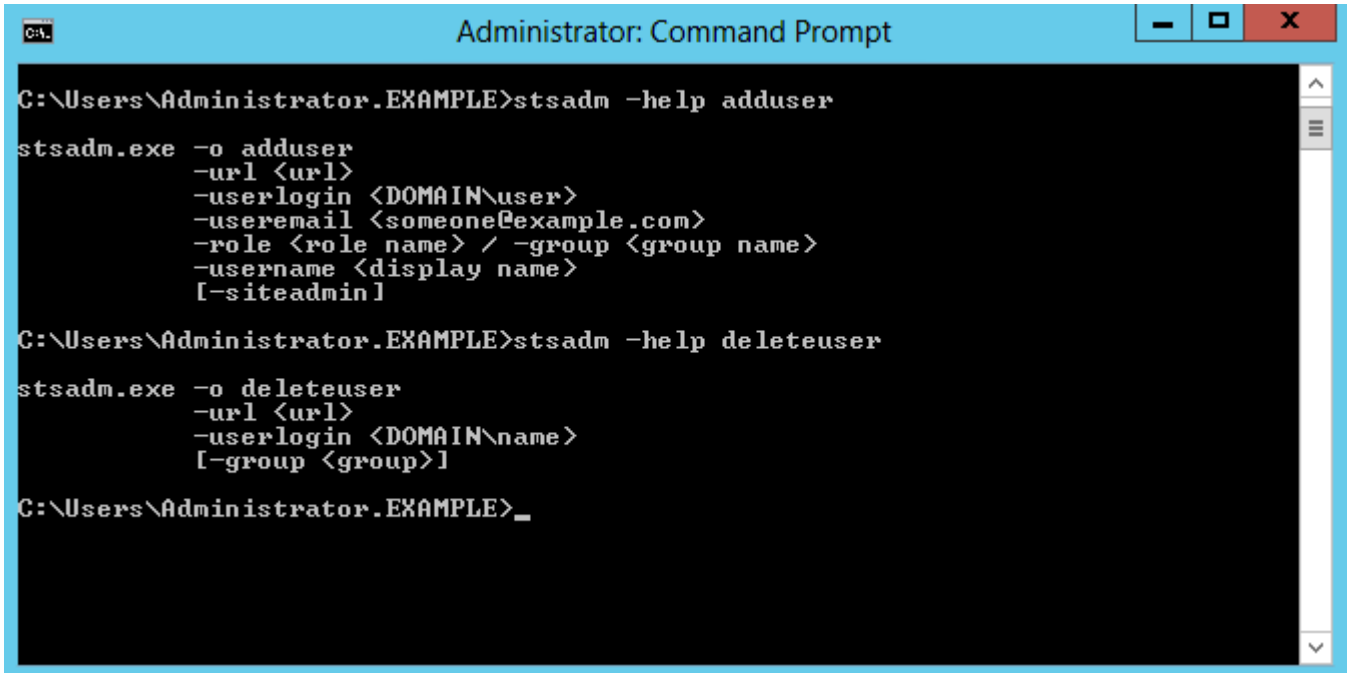
Exporting LMS course:



Importing LMS course:



NOTE:	To find out id of the course export file you'll need to go into organization's site > site settings > Export/Import list, modify the default view of the list to show the id column of the items, and check the id of the export item you need.

LMS Course users:

To add/delete users to/from a course using STSADM command, perform the following operations: