



**Sharepoint
Journey**
Become Awesome in SharePoint

Configure Enterprise Search in SharePoint

2013

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Introduction

There are many improvements related to enterprise search in SharePoint 2013. In this e-book, you will learn how to configure Enterprise Search in SharePoint 2013 to provide excellent new SharePoint search features available in the latest version of SharePoint in your SharePoint site.

You have to perform below steps to configure search in SharePoint 2013.

- Create manage accounts required for search
- Create search service application.
- Configure Search service application.
- Create Content Source - In this, we will see what is Continuous crawling.
- Create Search centre.
- New Improvements in Search.

I hope this guide helps you to achieve this.

Devendra Velegandla

About The Author

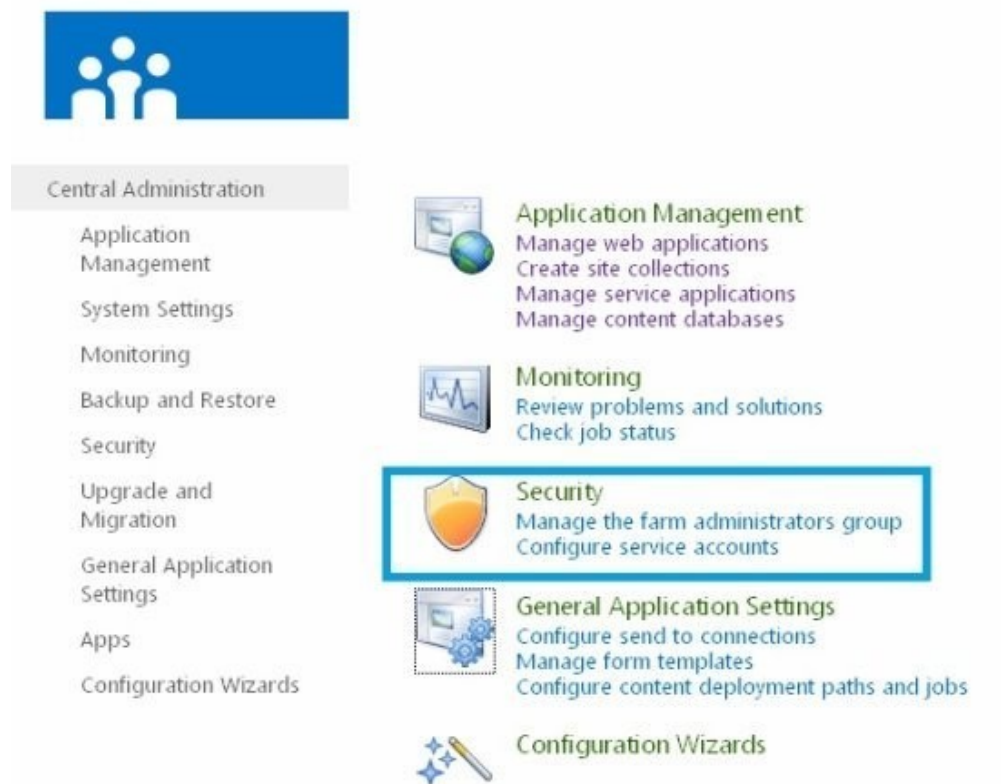


I am Devendra Velegandla, three time Microsoft MVP. I am a SharePoint/Office 365 lead developer having more than 9 years of experience working with Microsoft technologies. I loves sharing articles, videos and tutorial on SharePoint and office 365. I am a regular contributor in Microsoft MSDN/Technet forums and blogs at <http://www.sharepoint-journey.com/> and you can read more about me here <http://www.sharepoint-journey.com/about-me.html>.

Create managed accounts

Before creating and configuring the required search service application, we have to create the accounts, which we use for enterprise search. Here I have an account in AD called SP_search. Now I will add this account as managed account.

To do that go to central administration page and click on security.

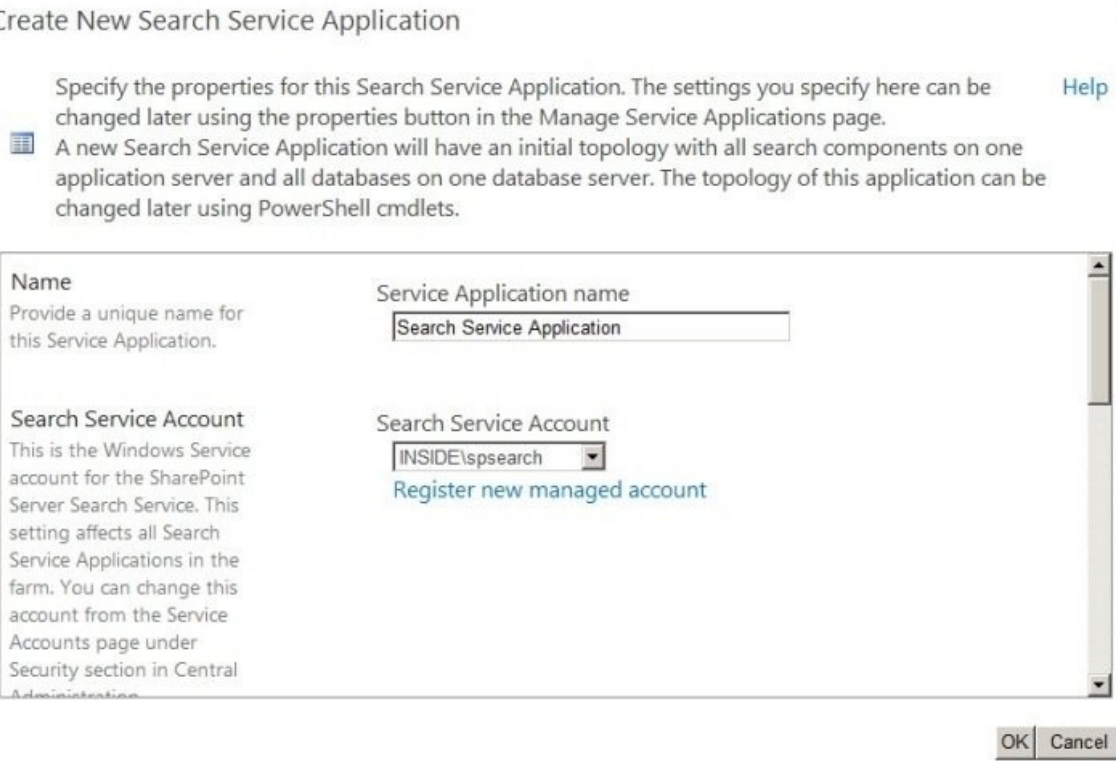


Click on Configure Managed accounts under general security. It will open below Figure: Registered Managed Account. Please enter the Username, Password. If you want to set the automatic password change click on the check box against the "Enable automatic password change", otherwise leave as it is and click ok. The account added to the list of managed accounts.

Create search service application

Click on "Manage Service Applications" under Application Management from central administration.

Click on search service application from new service application list.



The screenshot shows the 'Create New Search Service Application' dialog box. At the top, it says 'Create New Search Service Application' with a close button (X). Below this, there is a 'Help' link. The main text area contains two paragraphs: 'Specify the properties for this Search Service Application. The settings you specify here can be changed later using the properties button in the Manage Service Applications page.' and 'A new Search Service Application will have an initial topology with all search components on one application server and all databases on one database server. The topology of this application can be changed later using PowerShell cmdlets.' Below the text, there are two sections: 'Name' and 'Search Service Account'. The 'Name' section has a text box labeled 'Service Application name' with the value 'Search Service Application'. The 'Search Service Account' section has a dropdown menu labeled 'Search Service Account' with the value 'INSIDE\spsearch' and a link 'Register new managed account'. At the bottom right, there are 'OK' and 'Cancel' buttons.

Figure: Create Search service application

Scroll down a little bit from the "Create New Search Service Application" popup screen, then Select the create a new application pool and enter the application pool name as "SP-Search Admin Web Service" and

select the account as "spsearch". Please see the below Figure.

Create New Search Service Application [X]

Specify the properties for this Search Service Application. The settings you specify here can be changed later using the properties button in the Manage Service Applications page. [Help](#)

A new Search Service Application will have an initial topology with all search components on one application server and all databases on one database server. The topology of this application can be changed later using PowerShell cmdlets.

Application Pool for Search Admin Web Service
Choose the Application Pool to use for this Service Application. This defines the account and credentials that will be used by this web service.
You can choose an existing application pool or create a new one.

☐ Use existing application pool
SecurityTokenServiceApplicationPool

☒ Create new application pool
Application pool name
SP-Search Admin Web Service

Select a security account for this application pool

☒ Predefined
Network Service

☒ Configurable
INSIDE\spsearch
[Register new managed account](#)

OK Cancel

Scroll down a little bit more from the popup screen, then Select the create a new application pool and enter the application pool name as "SP-Search Query and Site Settings Web" and select the security account as "spsearch".

Create New Search Service Application

×

Specify the properties for this Search Service Application. The settings you specify here can be changed later using the properties button in the Manage Service Applications page.

Help

A new Search Service Application will have an initial topology with all search components on one application server and all databases on one database server. The topology of this application can be changed later using PowerShell cmdlets.

Application Pool for Search Query and Site Settings Web Service

Choose the Application Pool to use for this Service Application. This defines the account and credentials that will be used by this web service.

You can choose an existing application pool or create a new one.

Use existing application pool

SecurityTokenServiceApplicationPool

Create new application pool

Application pool name

SP-Search Query and Site Settings Web

Select a security account for this application pool

Predefined

Network Service

Configurable

INSIDE\spsearch

Register new managed account

OK

Cancel

You have entered all the required values to create the search service application, hit the OK button.

It will show the below dialog box "Please wait while your changes processed for search service application".

Create New Search Service Application

×

Please wait while your changes are processed for Search Service Application.

It will the show the below screen as the final status of completion of creating the search service application. Please see the below Figure.

Manage Search Topology

[Help](#)

The Search Service Application Search Service Application was created successfully.

To verify it you can go and check under the "Manage Service Applications" section you will have newly created "Search Service Application."

SharePoint

BROWSE SERVICE APPLICATIONS

New Connect Delete Manage Administrators Properties Publish Permissions

Create Operations Sharing

	Name
Central Administration	
Application Management	Application Discovery and Load Balancer Service Application
	Application Discovery and Load Balancer Service Application Proxy_4dd02f9c-69e4-4161-b652-2e2fb29acba3
System Settings	Health and Usage Application
Monitoring	Health and Usage Application
Backup and Restore	Machine Translation Service Application
Security	Machine Translation Service Application
Upgrade and Migration	Search Administration Web Service for Search Service Application
General Application Settings	Search Service Application
	Search Service Application
Apps	Security Token Service Application
Configuration Wizards	

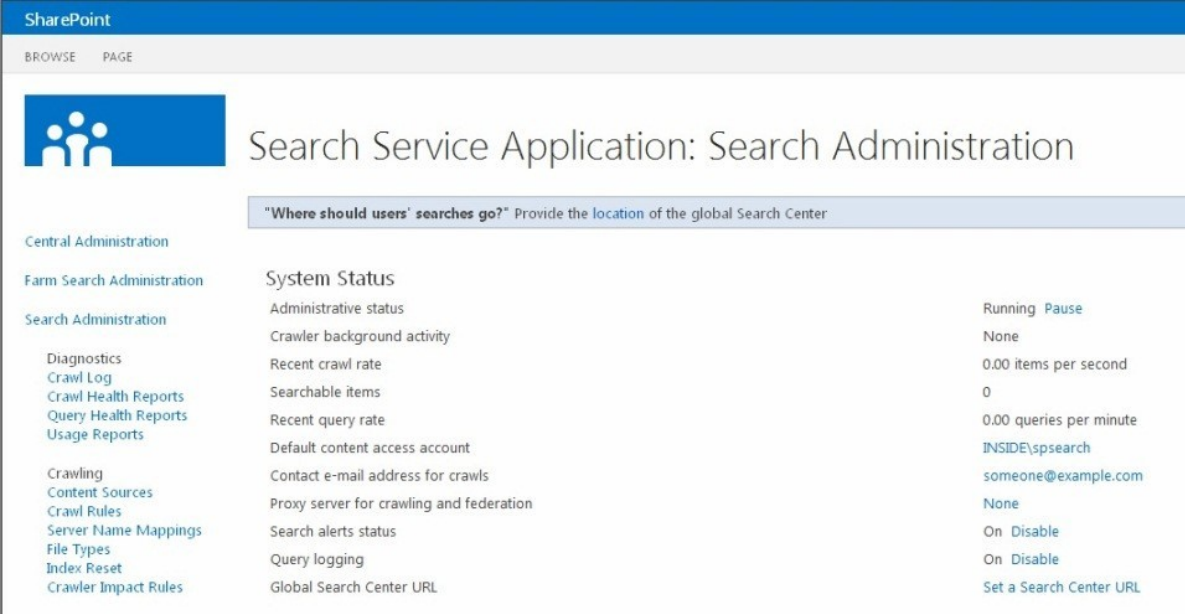
Configure search service application

Click on Search Service Application from the above figure to see the administration page details of the search.

It will display the below figures.


By selecting various parameters under system status of search administration, you can configure search.

You can observe that the "default Content access account" here is "SPSearch." Please see the below screen.



SharePoint

BROWSE PAGE

 Search Service Application: Search Administration

"Where should users' searches go?" Provide the location of the global Search Center

Central Administration	System Status	
Farm Search Administration	Administrative status	Running Pause
Search Administration	Crawler background activity	None
Diagnostics	Recent crawl rate	0.00 items per second
Crawl Log	Searchable items	0
Crawl Health Reports	Recent query rate	0.00 queries per minute
Query Health Reports	Default content access account	INSIDE\spsearch
Usage Reports	Contact e-mail address for crawls	someone@example.com
Crawling	Proxy server for crawling and federation	None
Content Sources	Search alerts status	On Disable
Crawl Rules	Query logging	On Disable
Server Name Mappings	Global Search Center URL	Set a Search Center URL
File Types		
Index Reset		
Crawler Impact Rules		

The second half of the search administration and the main one is Search Application Topology. Please see the below screen there are four databases created by the creation of Search service application.

- Administration database
- Analytics Reporting Database
- Crawl Database
- Link Database

In SharePoint 2013 Analytics services also included in the search. As I said before there are lots of changes in Search in 2013; we will cover each one of them.

[Queries and Results](#)
[Authoritative Pages](#)
[Result Sources](#)
[Query Rules](#)
[Query Client Types](#)
[Search Schema](#)
[Query Suggestions](#)
[Search Dictionaries](#)
[Search Result Removal](#)

Search Application Topology

Server Name	Admin	Crawler	Content Processing	Analytics Processing	Query Processing	Index Partition
██████████	✓	✓	✓	✓	✓	0

Database Server Name	Database Type	Database Name
██████████	Administration Database	Search_Service_Application_DB_f9cae00dee6146579e739455634eccc0
██████████	Analytics Reporting Database	Search_Service_Application_AnalyticsReportingStoreDB_a34d6cb739504ff386cbd1b63c5b06c5
██████████	Crawl Database	Search_Service_Application_CrawlStoreDB_b9b7f78cea454d109a7976eda2e43781
██████████	Link Database	Search_Service_Application_LinksStoreDB_179cb6187a3f4bac882f6b2dd46b3260

Create Content Source

We have created search service application successfully.

Now it's time to create a content source to get the desired content show to the user.



Go to search central administration and click on content sources under Crawling section.

Search Service Application

Use this page to add, edit, or delete content sources, and to manage crawls:

 New Content Source |  Refresh |  Start all crawls

Type	Name	Status	Curr
	Local SharePoint sites	Idle	

From the Figure: Content Sources, you can observe that by default it will create Local SharePoint sites content sources, but in the real world we will create an individual content source for each web application. So let's create a content source.

To create it click on "New Content Source" from the Figure: Content Sources.

Enter the details shown in the below figures for

Name: SharePoint-Journey

Select the type of content to crawled: SharePoint sites

Type Start address below: <http://sharepoint-journey.com>

Name: *

SharePoint-Journey

Select the type of content to be crawled:

☒ SharePoint Sites
☐ Web Sites
☐ File Shares
☐ Exchange Public Folders
☐ Line of Business Data
☐ Custom Repository

Type start addresses below (one per line): *

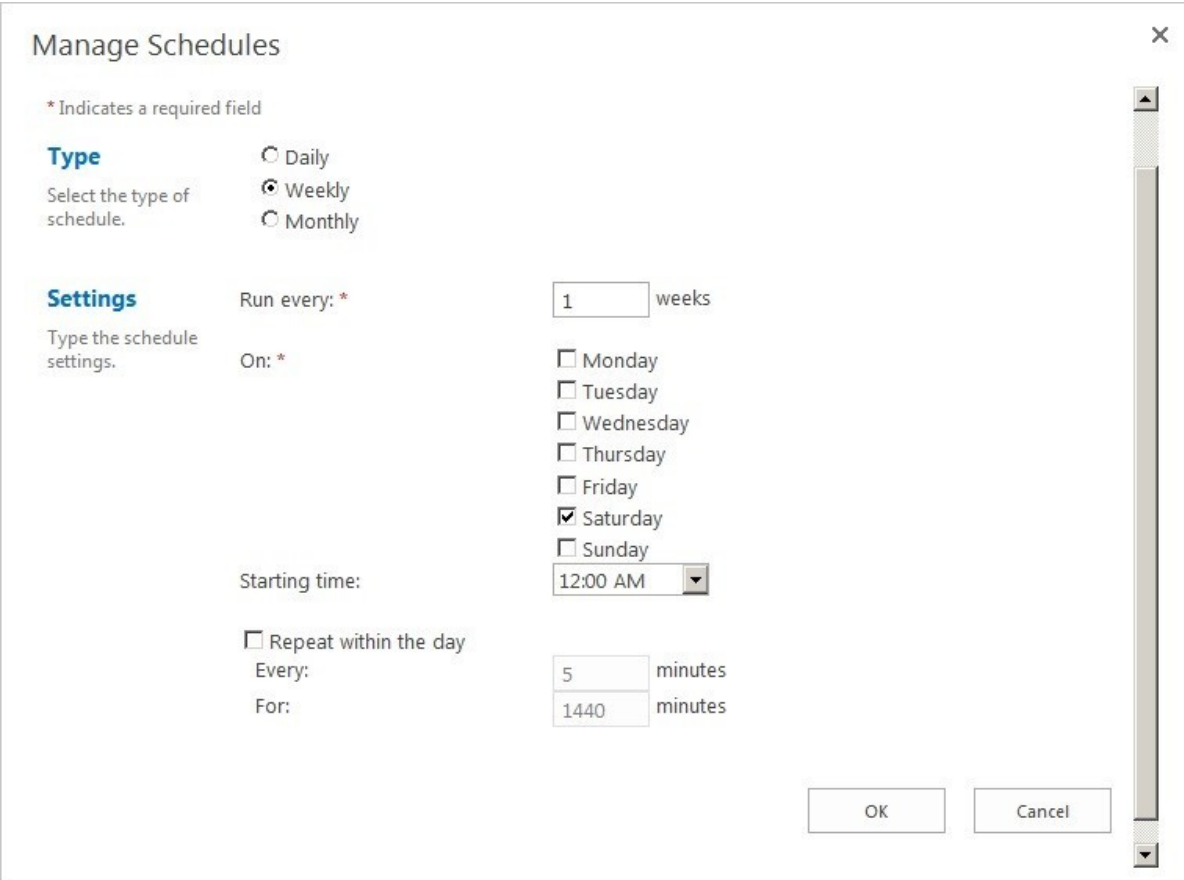
http://sharepoint-journey.com

Leave the remaining setting by default shown in the below Figure.

Crawl schedules

Leave Enable Continuous Crawl. Create Incremental Crawl and Full Crawl based on your requirement.

Please see the below Figures: Full Crawl schedule and Incremental Crawl schedules.



The screenshot shows a 'Manage Schedules' dialog box with the following configuration:

- Type:** Radio buttons for Daily, Weekly (selected), and Monthly.
- Settings:**
 - Run every:** 1 weeks
 - On:** Checkboxes for days of the week: Monday, Tuesday, Wednesday, Thursday, Friday, Saturday (checked), and Sunday.
 - Starting time:** 12:00 AM (selected from a dropdown menu).
 - Repeat within the day:** A checkbox that is currently unchecked.
 - Every:** 5 minutes
 - For:** 1440 minutes

At the bottom right, there are 'OK' and 'Cancel' buttons.

Figure: Full Crawl schedule-Once in a week i.e. on Saturday at 12:00 AM.

Manage Schedules×

* Indicates a required field

Type

Select the type of schedule.

☒ Daily

☐ Weekly

☐ Monthly

Settings

Type the schedule settings.

Run every: *

1

days

Starting time:

12:00 AM

▼

☒ Repeat within the day

Every:

300

minutes

For:

1440

minutes

OK

Cancel

Figure: Incremental Crawl schedule -For every 5 hours.

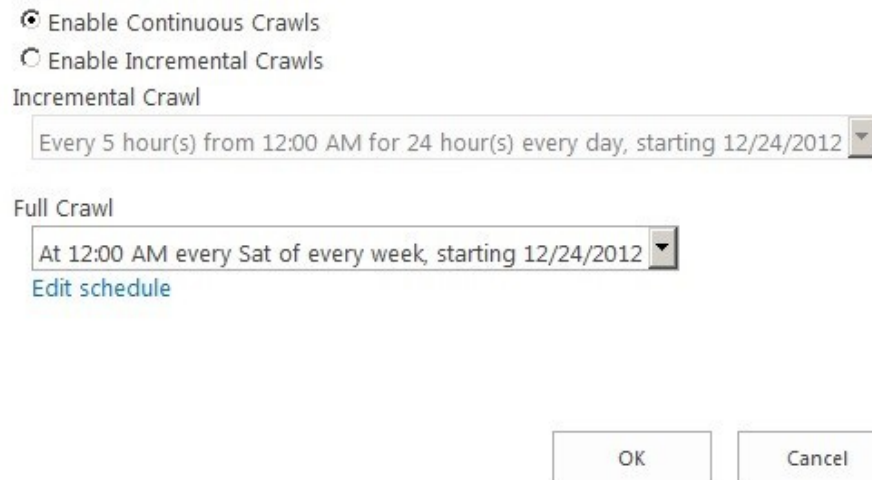
After configuring both schedules click ok. New content source "SharePoint-Journey" will get added to a list of content sources. For the first time if you add a content source by default Full crawl it get initiated automatically.

Enable Continuous Crawls

One of the new features that got added to search in SharePoint 2013 is a continuous crawl. In the previous versions of SharePoint whenever users upload the content they have to wait till the next incremental to complete to see the contents in search, but now it's no more an issue. Once the contents get uploaded into SharePoint details will get displayed as early as possible with this setting.

If you observe the below Figure: Enable Continuous Crawl, while creating the content source the incremental crawl will get disabled. It says that you don't require the incremental crawl because it has been set to "Enable Continuous Crawl."

But to enable it you should have enough Infrastructure in place so that performance will get affected.



The screenshot shows a dialog box for configuring search settings. At the top, there are two radio buttons: 'Enable Continuous Crawls' (which is selected) and 'Enable Incremental Crawls'. Below these, there are two sections: 'Incremental Crawl' and 'Full Crawl'. The 'Incremental Crawl' section has a text box containing the text 'Every 5 hour(s) from 12:00 AM for 24 hour(s) every day, starting 12/24/2012' and a dropdown arrow. The 'Full Crawl' section has a text box containing the text 'At 12:00 AM every Sat of every week, starting 12/24/2012' and a dropdown arrow. Below the 'Full Crawl' section, there is a link that says 'Edit schedule'. At the bottom right of the dialog box, there are two buttons: 'OK' and 'Cancel'.

☒ Enable Continuous Crawls
☐ Enable Incremental Crawls

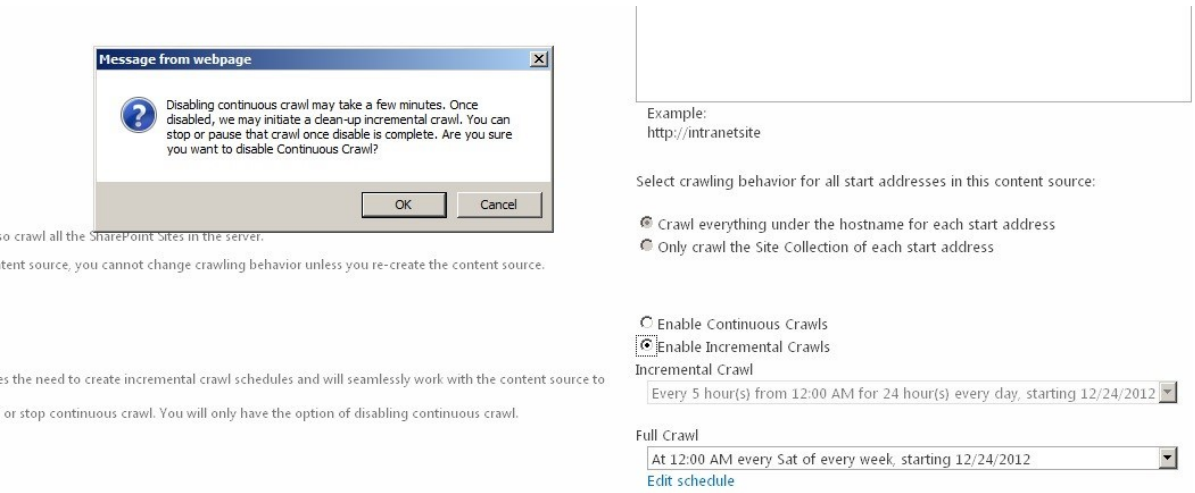
Incremental Crawl
Every 5 hour(s) from 12:00 AM for 24 hour(s) every day, starting 12/24/2012 ▼

Full Crawl
At 12:00 AM every Sat of every week, starting 12/24/2012 ▼
[Edit schedule](#)

OK Cancel

One more thing to note here is if you set continuous crawl while creating the content source for the first time it will show the crawl status as continuous crawl by default.

Please see the below Figure.



Now we have created content source and have seen what is the purpose of the Continuous crawl.

The next step is creating the search center where users will search the content that required for them.

Create search center

Basic search center:

To create the basic search center go to create site collections from the central administration screen under Application Management.

The screenshot displays the 'Create New Web Application' page in SharePoint. It is divided into several sections for configuring a new site collection:

- Web Application:** Includes instructions to select a web application or create a new one. The 'Web Application:' field is set to `http://sp2013.learning.com/`.
- Title and Description:** Fields for 'Title' and 'Description', both containing the text 'Basic Search Center'.
- Web Site Address:** Instructions to specify the URL name and path. The 'URL:' field shows `http://sp2013.learning.com/sites/basicsearchcenter`, with a dropdown menu set to '/sites/'.
- Template Selection:** A section for choosing an experience version and a template. The '2013' version is selected. Under the 'Enterprise' template category, the 'Basic Search Center' template is highlighted.

Figure: Basic Search Center

While creating the site collection, Please select "Basic Search Center" from the Enterprise. Click ok.

It will create a Basic search center.

Enterprise search center

To Create Enterprise Search Center, please use the same approach as a basic search center but we have to select "Enterprise Search Center" site template.

The screenshot displays the 'Create New Site' wizard in SharePoint. It is divided into several sections for configuring a new site:

- Web Application:** Includes instructions to select a web application or create a new one. The 'Web Application' dropdown is set to `http://sp2013.learning.com/`.
- Title and Description:** Fields for 'Title' and 'Description' are both filled with 'Enterprise Search Center'.
- Web Site Address:** Includes instructions on specifying the URL name and path. The 'URL' field is set to `http://sp2013.learning.com/sites/searchcenter`.
- Template Selection:** Shows the 'Select experience version' as '2013' and 'Select a template' with tabs for 'Collaboration', 'Meetings', 'Enterprise', 'Publishing', and 'Custom'. The 'Enterprise' tab is active, and the 'Enterprise Search Center' template is selected and highlighted.

Figure: Enterprise Search Center

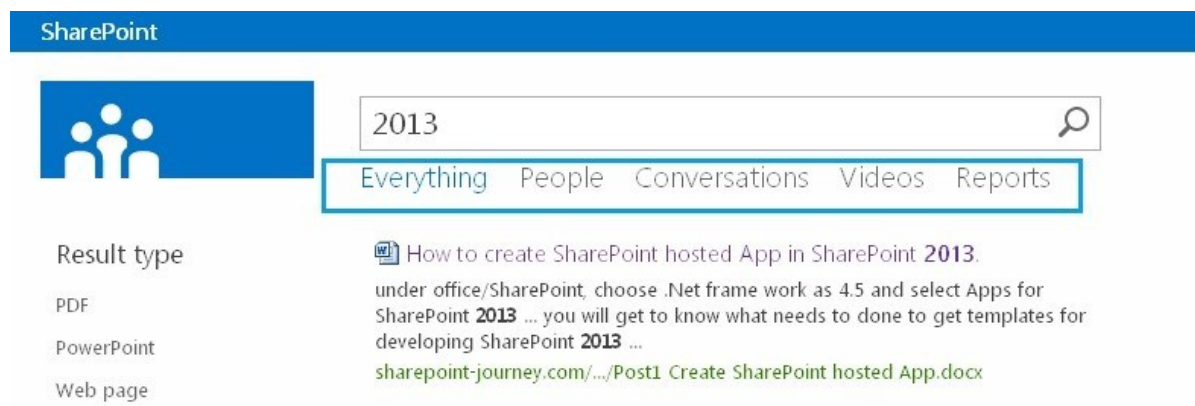
New improvements in search results page

You have everything ready for search lets start searching. Open the Enterprise Search center site collection.

New Improvements in Search results page are:

See the below Figure where you have different options to search.

- Everything
- People
- Conversations
- Videos
- Reports



Below one is a basic search site; these options will be available in enterprise search as well.

You can observe that under Result Type:1 you can search based on document type like PDF, web page, word, etc.

Next one is on Author:2 who created the document.

The third one is on Modified Date 3: where you can change the search results based on a date can be changed using the slider.

The options for the slider are one year ago, one month ago, one week ago.

First Site EDIT LINKS

Search

create

Result type 1

PDF
Web page
Word

Author 2

System Account
devendra.velegandla
Bjorn Furuknap
Jo Molnar
Enter a name...
SHOW FEWER

Modified date 3

One Year Ago Today
All One Year Ago

Create site collections
In this post we will check what new sitecollections in SharePoint 2013 is ... 15 folders are present , so we can **create** both types SharePoint 2010 and SharePoint 2013 ... [sharepoint-journey.com/My documents,Create site collections.docx](#)

How to create SharePoint hosted App in SharePoint 2013.
In this Article we will walkthrough on how to **create** SharePoint hosted App ... Before that why Apps has been introduced in SharePoint 2013 ... Step 1: Open Visual studio **create** New Project ... [sharepoint-journey.com/.../Post1 Create SharePoint hosted App.docx](#)

First Site - My documents

Create site collections 12/24/2012 11:33 AM System Account ... Post1 **Create** SharePoint hosted App 12/24/2012 11:38 AM System Account ... [sharepoint-journey.com/My documents/Forms/AllItems.aspx](#)

sp2013-upgrade-process
packs, and then run the SharePoint Products Configuration Wizard to **create** the new farm ... You must also **create** proxies for the upgraded service applications and add the new service ... [sharepoint-journey.com/My documents/sp2013-upgrade-process.pdf](#)

Whats_New_for_SharePoint_2010_Developers
UNDERSTANDING SHAREPOINT JOURNAL ... I dedicate this issue to my ... If you wanted to **create** your own custom views in a list definition, for

Once you select the document from the search results, small popup opens where you can see

- Document name
- Document type
- Last modified
- Contributor

There are three more options to Open, send via email and View library to see the details of the library where the document or item stored.

First Site [EDIT LINKS](#)

Search

create

Create site collections
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sp2013-upgrade-process
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First Site - My documents
Web Page
Last modified
Monday, December 24, 2012
Contributors include
System Account
[OPEN](#) [VIEW LIBRARY](#) [SEND](#)

No more PDF Ifilters:

You don't need to install the PDF IFilter and make a lot of settings search PDF documents in SharePoint 2013.

That will take care by SharePoint 2013 now; Please see above Figure, where I have uploaded a PDF document, and it displayed for users without doing any configuration or settings.

Conclusion:

We have created the Search service application, created the accounts required to create it and we have seen how search administration page looks and what are the new changes in Search topology. Then we created the Content source while creating it we have seen a new option called "Enable Continuous crawl," then we created the Search centre and what are the new changes in search results page.

Hope this document is useful to start the basic search configuration for your farm environment.

Enjoy the SharePoint search features provided in SharePoint 2013.



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