

#### **Explore Microsoft SharePoint 2013**

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#### **Abstract**

This book provides information about what's new in SharePoint 2013. The audiences for this book include application specialists, line-of-business application specialists, and IT administrators who want to know more about SharePoint 2013.

The content in this book is a copy of selected content in the <u>SharePoint 2013 technical library</u> as of the publication date. For the most current content, see the technical library on the web.



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#### **Getting help**

Every effort has been made to ensure the accuracy of this book. This content is also available online in the Office System TechNet Library, so if you run into problems you can check for updates at:

http://technet.microsoft.com/office

If you do not find your answer in our online content, you can send an email message to the Microsoft Office System and Servers content team at:

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If your question is about Microsoft Office products, and not about the content of this book, please search the Microsoft Help and Support Center or the Microsoft Knowledge Base at:

http://support.microsoft.com

### IT Professional Reviewer's Guide for SharePoint Server 2013

Published: September 4, 2012

**Summary:** Learn how new capabilities in SharePoint Server 2013 can help IT pros better manage cost, risk, and time.

This guide describes how SharePoint Server 2013 builds on the investments of previous SharePoint releases to help you do the following:

- Lower IT costs with a flexible and scalable collaboration platform.
- Better manage risk by safeguarding your business with secure and reliable capabilities.
- Increase productivity through cost-effective and efficient management.

Download this guide as a PDF document.

<u>SharePoint Server 2013 Preview IT Professional Reviewer's Guide</u> (http://go.microsoft.com/fwlink/p/?LinkId=263441)

#### See Also

SharePoint 2013 for IT pros

### What's new in authentication for SharePoint 2013

Published: July 16, 2012

**Summary:** SharePoint 2013 includes improvements in claims infrastructure and authentication features that enable new server-to-server and app authentication scenarios.

Applies to: SharePoint Server 2013 Enterprise | SharePoint Server 2013 Standard | SharePoint Foundation 2013

Authentication enhancements in SharePoint 2013 make the use of claims-based authentication easier and enable new scenarios and functionality for Exchange Server 2013, Lync Server 2013, and apps in the SharePoint Store or App Catalog. SharePoint 2013 introduces support for server-to-server authentication and app authentication by utilizing and extending the Open Authorization 2.0 (OAuth 2.0) web authorization protocol. OAuth is an industry standard protocol that provides temporary, redirection-based authorization. A user or a web application that acts on behalf of a user can request authorization to temporarily access specified network resources from a resource owner. For more information, see OAuth 2.0.

Support for OAuth in SharePoint 2013 allows users to grant apps in the SharePoint Store and App Catalog access to specified, protected user resources and data (including contact lists, documents, photographs, and videos) without requiring the app to obtain, store, or submit the user's credentials. OAuth allows app and services to act on behalf of users for limited access to SharePoint resources. For example, a user might approve permissions to an app to grant access to a specific folder of a document library. This enables an app, such as a third-party photo printing app, to access and copy the files in the specific folder upon user request, without having to use or verify the user's account credentials.

### User authentication and authorization in SharePoint 2013

User authentication in SharePoint 2013 is the process that verifies the identity of a user who requests access to a SharePoint web application. An authentication provider issues the authenticated user a security token that encapsulates a set of claims-based assertions about the user and is used to verify a set of permissions that are assigned to the user. User authorization in SharePoint 2013 is the process that determines the users who can perform defined operations on a specified resource within a SharePoint web application. SharePoint 2013 supports user authentication based on the following methods:

- Windows claims
- Security Assertion Markup Language (SAML)-based claims
- Forms-based authentication claims

These claims-based authentication methods are now the recommended authentication methods for SharePoint 2013.

The app authentication and server-to-server authentication features of SharePoint 2013 require claims-based authentication. Because of this, claims-based authentication is the default for new web applications in SharePoint 2013. When you create a web application in Central Administration, you can only specify authentication methods for claims-based authentication. Although Windows Classic mode authentication is still available in SharePoint 2013 and can be configured through Windows PowerShell, we recommend that you use claims-based authentication. Windows Classic mode authentication is deprecated in SharePoint 2013.

#### Improvements in claims infrastructure

SharePoint 2013 also includes the following improvements in claims authentication infrastructure:

- Easier migration from classic mode to Windows-based claims mode with the new Convert-SPWebApplication Windows PowerShell cmdlet
  - Migration can be run against each content database and each web application. This is in contrast to SharePoint 2010 Products, in which the migration was run against each web application. For more information, see Migrate from classic-mode to claims-based authentication.
- Login tokens are now cached in the new Distributed Cache Service SharePoint 2013 uses a new Distributed Cache Service to cache login tokens. In SharePoint 2010 Products, the login token is stored in the memory of each web front-end server. Each time a user accesses a specific web front-end server, it needs to authenticate. If you use network load balancers in front of your web front-ends, users need to authenticate for each web front-end server that is accessed behind the load balancer, causing possible multiple re-authentications. To avoid re-authentication and its delay, it is recommended to enable and configure load balancer affinity (also known as sticky sessions). By storing the login tokens in the Distributed Cache Service in SharePoint 2013, the configuration of affinity in your load balancing solution is no longer required. There are also scale-out benefits and less memory utilization in the web front-ends because of a dedicated cache service.
- More logging makes the troubleshooting of authentication issues easier
   SharePoint 2013 has much more logging to help you troubleshoot authentication issues. Examples of enhanced logging support are the following:
  - Separate categorized-claims related logs for each authentication mode
  - Information about adding and removing FedAuth cookies from the Distributed Cache Service
  - Information about the reason why a FedAuth cookie could not be used, such as a cookie expiration or a failure to decrypt
  - Information about where authentication requests are redirected
  - Information about the failures of user migration in a specific site collection

#### Server-to-server authentication

SharePoint 2013 extends OAuth to implement a server-to-server authentication protocol that can be used by services such as SharePoint 2013 to authenticate other services such as Exchange Server

2013 or Lync Server 2013 or services that are compliant with the server-to-server authentication protocol.

SharePoint 2013 has a dedicated local server-to-server security token service (STS) that provides server-to-server security tokens that contain user identity claims to enable cross-server authenticated access. These user identity claims are used by the other service to lookup the user against its own identity provider. A trust established between the local STS (the SharePoint 2013 server-to-server STS) and other server-to-server compliant services (the Exchange Server 2013 or Lync Server 2013 server-to-server STS) is the key functionality that makes server-to-server possible. For on-premises deployments, you configure the JavaScript Object Notation (JSON) metadata endpoint of the other server-to-server compliant service to establish this trust relationship. For online services, an instance of the Windows Azure Access Control Service (ACS) acts as a trust broker to enable cross-server communications among the three types of servers.

The new server-to-server STS in SharePoint 2013 issues access tokens for server-to-server authentication. In SharePoint 2013 (and also in SharePoint 2010 Products), trusted identity providers that are compliant with the WS-Federation protocol are supported. However, the new server-to-server STS in SharePoint 2013 performs only the functionality that enables temporary access tokens to access other services such as Exchange Server 2013 and Lync Server 2013. The server-to-server STS is not used for user authentication and is not listed on the user sign-in page, the Authentication Provider UI in Central Administration, or in the People Picker in SharePoint 2013 Products.

#### App authentication

SharePoint 2013 uses OAuth 2.0 to authorize requests by apps in the SharePoint Store and App Catalog to access SharePoint resources on behalf of a user. The user grants permission to apps in the SharePoint Store and App Catalog to access SharePoint resources on the user's behalf when they are installed. For example, a user installs an app from the SharePoint Store. A SharePoint site contains an embedded HTML inline frame (IFRAME) that the app renders and that requires the app to access a user list. When a Web browser displays the site, the app then calls back to the server running SharePoint 2013 to access the list on behalf of the user. After the app obtains the data from the list, it displays the contents of the IFRAME.

The app authentication process in SharePoint 2013 uses OAuth to verify a claim that an app makes and assert that the app can act on behalf of an authenticated user. In SharePoint 2013, an instance of the Windows Azure ACS acts as the app identity provider. You can also use app authentication without ACS. The authorization process verifies that an authenticated app has permission to perform a defined operation or to access a specified resource.

#### See Also

**Explore SharePoint 2013** 

<u>Authentication</u>

Configure authentication infrastructure

### What's new for Business Connectivity Services in SharePoint 2013

Published: July 16, 2012

**Summary:** Learn about the new features and capabilities of Business Connectivity Services (BCS) in SharePoint 2013, including OData, BDC models, and apps for SharePoint.

Applies to: SharePoint Foundation 2013 | SharePoint Server 2013

The SharePoint 2013 and the Office 2013 suites include Microsoft Business Connectivity Services. With Business Connectivity Services, you can use SharePoint 2013 and Office 2013 clients as an interface into data that doesn't live in SharePoint 2013 itself. It does this by making a connection to the data source, running a query, and returning the results. Business Connectivity Services returns the results to the user through an external list, or app for SharePoint, or Office 2013 where you can perform different operations against them, such as Create, Read, Update, Delete, and Query (CRUDQ). Business Connectivity Services can access external data sources through Open Data (OData), Windows Communication Foundation (WCF) endpoints, web services, cloud-based services, and .NET assemblies, or through custom connectors.

This article lists the new and enhanced capabilities of Business Connectivity Services in SharePoint 2013. If you are new to Business Connectivity Services, see <u>Business Connectivity Services Overview (SharePoint 2013)</u>. To learn more about changes and new features for developers that have been added to Business Connectivity Services (BCS) for SharePoint 2013, see <u>What's new in Business Connectivity Services in SharePoint 2013</u> in the MSDN Library

#### In this article:

- OData support
- Automatic generation of BDC models for OData data sources
- Event listener
- Support for apps for SharePoint
- External list enhancements
- Business Connectivity Services in SharePoint Online enhancements
- REST (CSOM) object model for Microsoft Business Connectivity Services for web and mobile app developers
- Business Connectivity Services Client Runtime supports side-by-side Office 2010 and Office 2013 installations
- OData Windows PowerShell cmdlets
- Additional resources

#### **OData support**

SharePoint 2013 introduces support for OData Business Data Connectivity (BDC) connections. This is in addition to data connections for WCF, SQL Server, and .NET assemblies. The Open Data Protocol (OData) is a web protocol that is used to query and update data. OData applies web technologies such as HTTP, Atom Publishing Protocol (AtomPub), and JavaScript Object Notation (JSON) to provide access to information from a variety of applications, services, and stores. For more information about OData, see <a href="Introducing OData: Data Access for the Web">Introducing OData: Data Access for the Web</a>, the cloud, mobile devices, and more in the MSDN Library. For years, SharePoint has been an OData provider, which means a SharePoint list can be consumed by using OData. In SharePoint 2013, you can now connect to an external data source by using OData. For examples of OData providers and for more information about OData support, see "Connecting to Open Data (OData) Data Sources" in <a href="What's new in Business Connectivity Services for developers">What's new in Business Connectivity Services for developers</a> in the MSDN Library. For more information on using OData in BCS in SharePoint 2013, see <a href="Using OData sources with Business Connectivity Services in SharePoint 2013">Using OData sources with Business Connectivity Services in SharePoint 2013</a> in the MSDN Library.

Business Connectivity Services supports Anonymous, Basic, Windows, and Custom authentication to OData services when it is used with the Secure Store Service. If you want to apply permissions at more discrete levels, use OData connections. OData connections provide an easier way to create BDC models that work for both SharePoint 2013 and Office 2013 client applications. In SharePoint 2013, you can connect external lists that are surfaced through OData to Office 2013 clients and you can work with the data when you are offline. When the Office 2013 client reconnects, it performs bidirectional synchronization with the OData source.

### Automatic generation of BDC models for OData data sources

Before SharePoint 2013 or SharePoint Online can be used as an interface to external data, they must understand what kind of data source it is, how to talk to it, and what kind of authentication the external system expects. These items — and also which tables to read, which items from those tables are of interest, and which operations to perform on them — are all described to Business Connectivity Services in a BDC model. In SharePoint 2013, you must use Visual Studio 2010 to create BDC models for OData data sources. To make the BDC model creation process smoother, Visual Studio 2010 will be able to connect to the OData endpoint through Business Connectivity Services and read the OData source. Visual Studio 2010 will then automatically generate the BDC model based on the available metadata. The BDC model can then be either imported into the Business Data Catalog as a farmscoped external content type, or be included in an app for SharePoint. Farm-scoped external content types can be used in external data lists, business data Web Parts, or business data in lists anywhere across the SharePoint farm.

The BDC model will not contain any filters because it is not possible to know what these would be beforehand. By default, Visual Studio 2010 will generate all the Business Connectivity Services operations for all the OData operations (Get, Put, Post, and Delete).

#### **Event listener**

SharePoint 2013 provides an event listener. The event listener includes an event subscriber on the SharePoint 2013 side. The subscriber receives notifications from the event publisher (on the external system side) on changes to the data and then initiates predefined actions when changes occur. This enables SharePoint users and custom code to receive notifications of events that occur in the external system. The users and custom code need to explicitly subscribe to events on entities for which they want to receive a notification. The external system can use any of the supported connections (OData, SQL, or WCF) for transactions with the external system. However, to support eventing, the external system must implement interfaces that allow users to subscribe to events and it must send the notifications back as ATOM feeds or JSON objects to the SharePoint 2013 endpoint.

#### Subscriptions enable event receivers on external lists

SharePoint 2013 supports a pull model for getting data from an external system and it introduces a subscription model. In this version, developers can create BDC models that subscribe to published events from an event publisher in the external system. The developers can target a particular entity in the external system, such as the Customer entity, and receive notifications about events that are published on that entity. This enables developers to write custom code for external lists that trigger SharePoint events when data is changed. SharePoint users can also subscribe to alerts on external lists that are associated with a BDC model in which a developer has defined a subscription. For example, you can create a custom event on an external list that sends an email message to an employee when a customer account is assigned to that employee in the external system. You can do this by subscribing to a particular event (or alert) on a particular view of an external list. Note that users can subscribe to an event the same way that they did in SharePoint Server 2010. For information about how to subscribe to an alert, see <a href="Create an alert or subscribe to an RSS Feed">Create an alert or subscribe to an RSS Feed</a> on Office.com. For more information, see "Receiving Events from External Systems" in <a href="What's new in Business Connectivity Services for developers">What's new in Business Connectivity Services for developers</a> in the MSDN Library.

#### Support for apps for SharePoint

SharePoint 2013 introduces apps for SharePoint. By using apps for SharePoint, you can add functionality to a SharePoint site by using the self-contained app for SharePoint. When installed, apps for SharePoint do not make any changes to the underlying code on the computer that is running SharePoint Server. Therefore, each app for SharePoint is isolated from the rest of the system. Because apps for SharePoint contain all the resources that they need to function, they are very safe to use and also can be uninstalled cleanly. This article focuses on Business Connectivity Services support for apps for SharePoint. Business Connectivity Services supports apps for SharePoint in two ways. First, BDC models can be scoped to apps for SharePoint. Second, connection information is defined and stored separately from the app-scoped BDC model in BDC connections.

### About SharePoint app-scoped external content types and connections

In SharePoint 2013, developers of apps for SharePoint can package BDC models in an app for SharePoint. The Business Connectivity Services runtime then creates external content types that are scoped to the app for SharePoint. This limits use of the external content type to the app for SharePoint.

Connection properties can be specified in two ways, either in the BDC model that is contained in the app for SharePoint or in a Business Connectivity Services connection settings object that is created and stored in the Secure Store. Otherwise, if you connect to a data source that requires authentication, the connection must be defined separately in the Business Connectivity Services layer by a developer. Also, an OData connection must be used to connect the app for SharePoint to the external data source. By defining the connections separately from the BDC models that are packaged within the app for SharePoint, administrators can more easily manage connections to external systems. A Business Connectivity Services connection settings object is a combination of the following:

- A name for the connection.
- The endpoint URL of the data source.
- A declaration of the credential type and authentication method that will be used to authenticate with
  the endpoint URL of the data source. You must use a credential type and authentication method
  that is supported by the external data source. For example, you can declare that the connection will
  use the credentials of the user that is logged in or a different set. Certificate details can be included
  also.

When an administrator installs an app for SharePoint that needs to access a data feed through Business Connectivity Services, the app for SharePoint must use a BDC connection. During installation, the administrator must grant permission to the app for SharePoint to use the appropriate BDC connection. Note that external content types created from an app-scoped BDC model are scoped to only the app for SharePoint that contains the model. However, multiple apps for SharePoint — each of which contains an app-scoped BDC model — can all point to the same Business Connectivity Services connection settings object. In this way, connection settings can be reused across different apps for SharePoint. For more information about what's new for developers forapp-scoped external content types and how to create a connection, see "App-Scoped External Content Types" in What's new in Business Connectivity Services for developers in the MSDN Library. For a developer overview of apps for SharePoint, see App-scoped external content types in SharePoint 2013

#### **External list enhancements**

SharePoint 2013 includes enhancements to external lists that bring them to functional parity with other SharePoint lists.

#### Performance improvements in external lists

SharePoint 2013 introduces a number of improvements for external lists. These improvements reduce the load on the database servers in the SharePoint farm and increase the speed of list rendering. Performance is enhanced by having the external system do paging, filtering, and sorting of the external list data before it is sent to SharePoint.

#### Limiting records returned by the external system

When a limit filter is defined for a BDC model, users can specify the number of records in the list that they want displayed per page.

#### **Data source filtering**

Users can use a drop-down list on a column in an external list to filter queries. Developers can prepare Collaborative Application Markup Language (CAML) queries or calls to the SPList object model to filter a list. In SharePoint 2013, if a data source filter is defined in the BDC model, the filtering occurs on the external system before it is passed to SharePoint.

#### Sorting external lists

In SharePoint 2013, the user's request to sort an external list is sent to the external system. The external system sorts the data, and then sends it to the external list. To do this, the solution developer adds a sort filter to the BDC model for each column in the external list that the developer wants users to be able to sort. Sorting is applied on the entire dataset in the external system, instead of just the first set of data retrieved. The result is an accurately sorted list that is displayed to the user. For more information about paging, filtering, and sorting external lists, see "Enhanced Filtering, Sorting and paging for external lists" in What's new in Business Connectivity Services for developers in the MSDN Library.

#### **Export external lists to Excel**

In SharePoint 2013, you can export an external list to Excel 2010 or to Excel 2013. This works much like exporting SharePoint native lists to Excel in SharePoint Server 2010. However, there are some differences in how you control what gets exported and how you work with the exported data. By default, exporting external lists is enabled. However, an administrator can disable this.

When you export an external list to Excel, you basically get the list as it is displayed in the browser. You get only the data that is present in the selected view and the rows and columns in Excel will have the same sorting and filtering applied as the external list. The column names in the exported data will have the same language settings as the external list and the exported data is subject to any filters that are on the external system.

The process of exporting data creates a one-way (external list to Excel) link between the external list and the Excel version of the list. The Excel version can be refreshed at any time to reflect the current state of the source external list. This means that any changes users might have made to the Excel version are overwritten. Changes that are made in the Excel version are never pushed back up to the source external list.

### **Business Connectivity Services in SharePoint Online** enhancements

All Office 365 for enterprises subscriptions include SharePoint Online. This version of SharePoint Online introduces Business Connectivity Services to the Office 365 users. By using this version, you will be able to bring external data into SharePoint Online from cloud-based data sources and from data sources that are behind your company's firewall in a hybrid scenario. Microsoft Business Connectivity Services can consume data sources that are exposed as WCF services, SQL Azure data services, OData endpoints, and web services.

#### REST (CSOM) object model for Microsoft Business Connectivity Services for web and mobile app developers

In SharePoint 2013, Business Connectivity Services exposes the Representational State Transfer (REST) APIs for web and mobile app developers to use. These APIs provide a standard interface to the developers.

# **Business Connectivity Services Client Runtime supports side-by-side Office 2010 and Office 2013 installations**

Business Connectivity Services Client Runtime now supports side-by-side installation of Office 2010 and Office 2013 on the same client computer. For example, if Outlook 2010 and Lync 2013 are installed on the same client computer, by default both versions of Business Connectivity Services Client Runtime are also installed. This new feature enables Office 2010 and Office 2013 to continue to work without causing conflicts or failures when Microsoft Business Connectivity Services Client Runtime is used.

#### **OData Windows PowerShell cmdlets**

SharePoint 2013 includes the following six new Windows PowerShell cmdlets specifically for OData.

- Get-SPODataConnectionSetting Reads a Business Connectivity Services connection of a BDC service application and returns the Business Connectivity Services connection object.
- **Get-SPODataConnectionSettingMetadata** Returns Business Connectivity Services connection metadata properties.
- New-SPODataConnectionSetting Creates a new Business Data Connectivity connection.
- Remove-SPODataConnectionSetting Deletes the Business Connectivity Services connection object together with its metadata object.
- **Set-SPODataConnectionSetting** Can be used to edit the properties of an existing Business Connectivity Services connection.
- **Set-SPODataConnectionSettingMetadata** Can be used to edit metadata properties of an existing Business Connectivity Services connection.

#### **Additional resources**

For developer-focused information about what's new in Business Connectivity Services, see <u>What's</u> new in Business Connectivity Services for developers in the MSDN Library.

#### See Also

Business Connectivity Services Overview (SharePoint 2013)

### What's new in eDiscovery in SharePoint Server 2013

Published: July 16, 2012

**Summary:** Get a quick introduction to eDiscovery and in-place hold capabilities in SharePoint Server 2013.

Applies to: SharePoint Server 2013

The eDiscovery functionality in SharePoint Server 2013 provides improved ways to help you protect your business. SharePoint Server 2013 includes the following:

- A site collection from which you can perform eDiscovery queries across multiple SharePoint farms and Exchange servers and preserve the items that are discovered.
- In-place preservation of Exchange mailboxes and SharePoint sites including SharePoint list items and SharePoint pages — while still allowing users to work with site content.
- Support for searching and exporting content from file shares.
- The ability to export discovered content from Exchange Server 2013 and SharePoint Server 2013. The following sections describe the new functionality:
- SharePoint eDiscovery Center
- SharePoint in-place holds
- SharePoint eDiscovery export
- Enterprise-wide eDiscovery

#### **SharePoint eDiscovery Center**

SharePoint Server 2013 introduces a new site for managing discovery cases and holds. The *eDiscovery Center* site template creates a portal through which you can access discovery cases to conduct searches, place content on hold, and export content. For each case, you create a new site that uses the *eDiscovery Case* site template. Each case is a collaboration site that includes a document library which you can use to store documents related to the management of the case. In addition, you can associate the following things with each case:

- Sources: Exchange mailboxes, SharePoint sites, or file shares from which content can be discovered.
- **eDiscovery sets:** Combinations of sources, filters, and whether to preserve content. eDiscovery sets are used to identify and preserve content.
- Queries: The search criteria, such as author, date range, and free-text terms, and the scope of the search. Queries are used to identify content to export.
- **Exports:** A list of all of the exports that were produced that relate to the case.

When there is a new need for discovery — for example, a legal case or an audit — a user who has appropriate permissions can create a new case, create eDiscovery sets to identify the specific material to be located, and then preserve the sites and mailboxes in which content was discovered. The user can then create queries to further refine the content that is relevant, preview the content, and export the content. When the case is closed, all of the holds associated with the case are released.

#### **SharePoint in-place holds**

In SharePoint Server 2013, content that is put on hold is preserved, but users can still change it. The state of the content at the time of preservation is recorded. If a user changes the content or even deletes it, the original, preserved version is still available. Regular users see the current version of the content; compliance officers who have permissions to use the eDiscovery features of SharePoint Server 2013 can access the original, preserved version.

In-place holds in SharePoint Server 2013 offer improvements to the hold functionality in earlier versions of SharePoint Server. Improvements include the following:

- Documents, list items, pages, and Exchange Server 2013 mailboxes can be preserved.
- Preservation is done at the level of a site. Preserving a site preserves the contents of the site.
- Users can continue to work with content that is preserved. The content remains in the same location, and users can edit, delete, and add new content.
- A user who has permissions to perform eDiscovery can access the original version of preserved content.
- You do not have to preserve a whole site or mailbox. You can specify a query filter to define the scope of preservation, and preserve only the content that matches the query filter.

#### **SharePoint eDiscovery export**

In SharePoint Server 2013, you can export the results of an eDiscovery search for later import into a review tool. You can export all of the content that is associated with an eDiscovery case. This includes the following:

- **Documents:** Documents are exported from file shares. Documents and their versions are exported from SharePoint Server 2013.
- Lists: If a list item was included in the eDiscovery query results, the complete list is exported as a comma-separated values (.csv) file.
- Pages: SharePoint pages, such as wiki pages or blogs, are exported as MIME HTML (.mht) files.
- **Exchange objects:** Items in an Exchange Server 2013 mailbox, such as tasks, calendar entries, contacts, email messages, and attachments, are exported as a .pst file.

An XML manifest that complies with the Electronic Discovery Reference Model (EDRM) specification provides an overview of the exported information.

#### **Enterprise-wide eDiscovery**

In SharePoint Server 2013, you can centrally manage eDiscovery across multiple SharePoint farms, Exchange servers, and file shares. From one eDiscovery Center, you can do the following:

- Create a case, define a query, and then search SharePoint Server 2013, Exchange Server 2013, and file shares throughout the enterprise for content that matches the query.
- Export all of the content that was identified.
- Preserve items in place in SharePoint Server 2013 or Exchange Server 2013.
- Track statistics related to the case.

To implement eDiscovery across the enterprise, you configure SharePoint Server 2013 Search to crawl all file shares and websites that contain discoverable content, and configure the central Search service application to include results from Exchange Server 2013. Any content from SharePoint Server 2013, Exchange Server 2013, or a file share or website that is indexed by Search or by Exchange Server 2013 can be discovered from the eDiscovery Center.

#### See Also

Overview of eDiscovery and In-Place Holds (SharePoint 2013)

Plan for eDiscovery

### What's new for mobile devices in SharePoint 2013

Published: July 16, 2012

**Summary:** Learn about the new mobile features available in SharePoint 2013, including the mobile browser experience, device channels, and location.

Applies to: SharePoint Foundation 2013 | SharePoint Server 2013

SharePoint Server 2013 offers new, optimized viewing experiences across different mobile platforms. Additionally, several new features were added to help improve both worker productivity and usability on the device. This functionality includes the following:

- Optimized mobile browser experience For smartphone mobile devices SharePoint Server 2013 provides a lightweight, contemporary view browsing experience for users to navigate and access document libraries, lists, wikis, and Web Parts.
- <u>Device channels</u> You can render a single published SharePoint site in multiple designs to accommodate different device targets.
- Push notifications A push notification service on a SharePoint site can be enabled to send device updates such as a tile or toast notification to a Windows Phone device.
- <u>Location</u> SharePoint Server 2013 supports a new geolocation field type that can be used for mobile application development.
- <u>Business intelligence content</u> Certain devices are now able to view business intelligence content such as PerformancePoint Web Parts, Excel Services reports, and SQL Reporting Services reports.
- Office Web Apps You can view Word, Excel, and PowerPoint documents in mobile browsers with additional functionality in SharePoint Server 2013.

#### Optimized mobile browser experience

SharePoint Server 2013 offers improvements to the mobile browser experience with the introduction of a new contemporary view. Depending on the mobile browser, users have one of the following browsing options:

- Contemporary view This view offers an optimized mobile browser experience to users and renders in HTML5. This view is available to Mobile Internet Explorer version 9.0 or later versions for Windows Phone 7.5, Safari version 4.0 or later versions for iPhone iOS 5.0, and the Android browser for Android 4.0 or later versions.
- Classic view This view renders in HTML format, or similar markup languages (CHTML, WML, and so on), and provides backward compatibility for mobile browsers that cannot render in the new contemporary view. The classic experience in SharePoint 2013 is identical to the mobile browser experience of SharePoint Server 2010.

• **Full screen UI** There is also the ability to have a full desktop view of a SharePoint site on a smartphone device.



The classic and contemporary views are only rendered for smartphone mobile browsers. For more information about these browsing experiences, see <a href="Mobile Devices Overview (SharePoint 2013">Mobile Devices Overview (SharePoint 2013)</a>.

#### **Device channels**

Browsing the web on a mobile device is now so common that it is essential that a SharePoint site should be optimized for readability and ease of use on smartphones and other mobile devices such as tablets.

Previous versions of SharePoint Server included a single default mobile view that was auto-generated based on the existing site, and that default mobile view was not easily customizable. Now, with mobile channels in SharePoint Server 2013, you can render a single publishing site in multiple ways by using different designs that target different devices. You create a single site and author the content in it a single time. Then, that site and content can be mapped to use different master pages, page layouts, and style sheets for a specific device or group of devices.

#### **Push notifications**

SharePoint Server 2013 supports applications on mobile devices (such as smartphones, tablets, and so on) that should receive notifications from a SharePoint site. Notifications can include events that occur in the site, such as when a user adds an item to a list or updates an item. For mobile devices to receive these notifications, device applications must register with a SharePoint site. Once the device is registered, you can write event handler code to interact with Microsoft Push Notification Service or notification services of other mobile device platforms. Notifications are sent from the server where the application is hosted to the registered mobile device application.

#### Location

SharePoint Server 2013 introduces a new geolocation field type that can be used in a list. For example, you can now make lists "location-aware" and display latitude and longitude coordinates through Bing Maps. An entry is typically seen as a pushpin on the map view. Although there are several ways to use this geolocation field, one key scenario is for mobile application development. Users can track or log location-specific data while they work remotely from the corporate office. Alternatively, the application can help them locate points of interest when it performs offsite functions.

#### **Business intelligence content**

SharePoint Server 2013 enables a user to view certain kinds of dashboard content. This includes PerformancePoint reports and scorecards, and Excel Services reports in iOS 5.0 Safari browsers on iPad devices.

#### Office Web Apps

In SharePoint Server 2010, Office Web Apps Server provides browser-based companions for Word, Excel, and PowerPoint. When Office Web Apps Server is installed on SharePoint Server 2010, Office Mobile Web Apps is also installed on the server. Office Mobile Web Apps enables users to open documents in the mobile web application by using a mobile browser. With SharePoint Server 2013, Office Web Apps Server is no longer a companion product installed on a computer that is running SharePoint Server. Instead, Office Web Apps Server is a new stand-alone server product that still provides mobile browser-based viewers for these applications. These viewers called Word Mobile Viewer, Excel Mobile Viewer, and PowerPoint Mobile Viewer are optimized to render documents for phones. When integrated with SharePoint Server 2013, a user can enjoy enhanced viewing experiences when interacting with documents on the phone.

#### See Also

Mobile Devices Overview (SharePoint 2013)

## What's new in records management and compliance in SharePoint Server 2013

Published: July 16, 2012

Summary: Learn about the new site-based retention feature in SharePoint Server 2013.

Applies to: SharePoint Server 2013

The records management and compliance features in SharePoint Server 2013 provide improved ways to help you protect your business. The records archive and in-place record retention from earlier versions of SharePoint Server are still supported. SharePoint Server 2013 adds retention policies that are applied at the level of a site.

#### Site-based retention

Compliance features of SharePoint Server 2013 have been extended to sites. You can create and manage retention policies in SharePoint Server 2013, and the policies will apply to SharePoint sites and any Exchange Server 2013 team mailboxes that are associated with the sites.

Compliance officers create policies, which define the following:

- The retention policy for the whole site and the team mailbox, if one is associated with the site.
- What causes a project to be closed.
- When a project should expire.

When a project begins, the project owner creates a SharePoint site and an Exchange Server 2013 team mailbox. The project owner selects the appropriate policy template and invites team members to join the project. As the team adds documents to the site, sends email messages, and creates other artifacts such as lists, these items automatically receive the correct retention policies. When the work is completed, the project owner closes the project, which removes the project's folders from the team members' user interface in Outlook 2013. After a certain time, as specified by the policy, the project expires, and the artifacts associated with the project are deleted.

#### See Also

Site policy overview (SharePoint 2013)

#### What's new in business intelligence in SharePoint Server 2013

Published: July 16, 2012

**Summary:** Microsoft provides comprehensive BI tools that integrate across Office applications and other Microsoft technologies. These tools enable analysis, reporting, dashboards, and visualizations.

Applies to: SharePoint Server 2013 Enterprise

Business intelligence (BI) in SharePoint 2013 provides comprehensive BI tools that integrate across Microsoft Office applications and other Microsoft technologies. These BI tools are: Excel 2013, Excel Services in SharePoint 2013, PerformancePoint Services in SharePoint Services in SharePoint 2013, and Microsoft SQL Server.

#### **Excel BI**

Excel BI provides the capabilities to analyze and visually explore data of any size, and to integrate and show interactive solutions. In SharePoint Server 2013, Excel BI offers certain new features to support business intelligence applications.

These include the following:

- In-Memory BI Engine (IMBI): The In Memory multidimensional data analysis engine (IMBI), also known as the Vertipaq engine, allows for almost instant analysis of millions of rows and is a fully integrated feature in the Excel client.
- Power View Add-in for Excel: Power View ("Crescent") enables users to visualize and interact
  with modeled data by using highly interactive visualizations, animations and smart querying.. Users
  can present and share insights with others through rich storyboard presentation capabilities.
   PowerView is powered by the BI Semantic Model and the VertiPaq engine.
- Decoupled PivotChart and PivotTable reports: Users can now create PivotChart reports without
  having to include a PivotTable report on the same page.

#### **Excel Services**

Excel Services enables people to view and interact with Excel workbooks that have been published to SharePoint sites. Users are able to explore data and conduct analysis in a browser window just as they would by using the Excel client. For more information about Excel Services in Microsoft SharePoint Server 2010, see Excel Services overview (SharePoint Server 2010) on Microsoft TechNet.In SharePoint Server 2013, Excel Services offers certain new features to support business intelligence applications. These include the following:

 Data exploration improvements: People can more easily explore data and conduct analysis in Excel Services reports that use SQL Server Analysis Services data or PowerPivot data models. For example, users can point to a value in a PivotChart or PivotTable report and see suggested ways to view additional information. Users can also use commands such as Drill Down To to conduct analysis. Users can also apply the Drill Down command by using a single mouse click.

- Field list and field well support: Excel Services enables people to easily view and change which
  items are displayed in rows, columns, values, and filters in PivotChart reports and PivotTable
  reports that have been published to Excel Services.
- Calculated measures and members: Excel Services supports calculated measures and calculated members that are created in Excel.
- Enhanced timeline controls: Excel Services supports timeline controls that render and behave as they do in the Excel client.
- Application BI Servers: Administrators can specify SQL Server Analysis Services servers to support more advanced analytic capabilities in Excel Services.
- Business Intelligence Center update: The Business Intelligence Center site template has been streamlined. It not only has a new look, it is easier to use.

#### **PerformancePoint Services**

PerformancePoint Services enables users to create interactive dashboards that display key performance indicators (KPIs) and data visualizations in the form of scorecards, reports, and filters. For more information about PerformancePoint Services in SharePoint Server 2010, see PerformancePoint Services overview (SharePoint Server 2010) on Microsoft TechNet.In SharePoint Server 2013, PerformancePoint Services offers certain new features to support business intelligence applications. These include the following:

- Dashboard Migration: Users will be able to copy entire dashboards and dependencies, including
  the .aspx file, to other users, servers, or site collections. This feature also allows the ability to
  migrate single items to other environments and migrate content by using Windows PowerShell
  commands.
- **Filter Enhancements & Filter Search:** The UI has been enhanced to allow users to easily view and manage filters including giving users the ability to search for items within filters without having to navigate through the tree.
- **BI Center Update:** The new BI Center is cleaner, and easier to use with folders and libraries configured for easy use.
- Support for Analysis Services Effective User: This new feature eliminates the need for Kerberos
  delegation when per-user authentication is used for Analysis Services data sources. By supporting
  Analysis Services Effective User feature, authorization checks will be based on the user specified
  by the EffectiveUserName property instead of using the currently authenticated user.
- **PerformancePoint Support on iPad:** PerformancePoint dashboards can now be viewed and interacted with on iPad devices using the Safari web browser.

#### **Visio Services**

Visio Services is a service application that lets users share and view Microsoft Visio Drawing (\*.vsdx) and Visio 2010 Web drawing (\*.vdw) files. The service also enables data-connected Visio Drawing (\*.vsdx) and Visio 2010 Web drawing (\*.vdw) files.to be refreshed and updated from various data sources.

- **Maximum Cache Size:** A new service parameter, it is located on the Central Admininstration Visio Graphics Service Application Global Settings page. The default value is 5120 MB.
- Health Analyzer rules: New corresponding Health Analyzer rules have been added to reflect the new Maximum Cache Size parameter.
- Updated Windows PowerShell cmdlets, Set-SPVisioPerformance: This cmdlet has been updated to include the new Maximum Cache Size parameter.
- **Commenting on drawings supported:** Users can add meaningful comments to a Visio Drawing (\*.vsdx) collaboratively on the web via Visio Services in full page rendering mode.

### What's new in social computing in SharePoint Server 2013

Published: July 16, 2012

**Summary:** Learn about new features and functionality for social computing, such as My Sites, feeds, Community Sites, and Community Portals.

Applies to: SharePoint Server 2013

The social computing and collaboration features in SharePoint Server 2013 offer an improved administration and user experience, in addition to new functionality for enterprise users to share and collaborate with others in their organization.

The introduction of Community Sites offers a forum experience to categorize discussions around subject areas, and connect users who have knowledge or seek knowledge about subject areas. Improvements to My Sites offer a more intuitive workflow for users to develop their personal profiles, store content, and keep up-to-date with activities of interest.

#### Video: Social computing overview with Bill Baer

(http://www.microsoft.com/resources/technet/en-us/office/media/video/video.html?cid=stc&from=mscomSTC&VideoID=094dc5b0-6402-43aa-9927-18770357ab5d)



#### In this article:

- Communities
- My Sites

#### **Communities**

In SharePoint Server 2010 and SharePoint Foundation 2010, you could add a Discussion list to sites to facilitate discussions among members of the site. SharePoint Server 2013 and SharePoint Foundation 2013 continue to provide this Discussion list, but also expand on the discussion concept by introducing two new site templates named *Community Site* and *Community Portal*.

Community Sites offer a forum experience to categorize and cultivate discussions with a broad group of people across organizations in a company. Community Sites promote open communication and information exchange by fostering discussions among users who share their expertise and use expertise of others who have knowledge in specific areas of interest.

With Community Sites, you organize discussions in categories. Visitors can view the discussions and become members if they want to contribute to those discussions. Moderators manage the community

by setting rules, reviewing and addressing inappropriate posts, marking interesting content as featured discussions, and so on. Moderators can also assign gifted badges to specific members to visually indicate that the member is recognized as a specific kind of contributor in the Community Site, such as an expert or a moderator. Each Community Site contains information about member and content reputation, which members earn when they actively post in discussions, and when their content is liked, replied to, or marked as a best answer.

You can deploy Community Sites or use community features in the following ways:

- By deploying a stand-alone community With a stand-alone community, you can create the
  Community Site at either a site collection or a site level. For example, you might create a
  community in a divisional portal if you want to facilitate discussions among members of the division
  and use the community categories to keep things organized.
- By activating community features You can activate community features on any site, which
  provides the core Community Site pages, moderation, membership, and reputation functionality
  within the existing site without creating a separate Community Site. This option is useful when you
  already have a site, such as a team site, where you want to include community functionality, such
  as earning reputations, without having to direct users to a separate site.

Additionally, when you have multiple Community Sites that you want to display to users in your enterprise, you can deploy the Community Portal. The Community Portal is a search-driven page that surfaces SharePoint site collections and sites in the SharePoint farm that use the Community Site template. Users can visit the Community Portal to discover popular communities and to search for communities that they might want to join. The Community Portal relies on enterprise search for security trimming, and displays only Community Sites for which a user has at least read permissions.

For more information about communities, see <u>Communities overview (SharePoint 2013)</u>, <u>Plan for Communities (SharePoint 2013)</u>, and Setup and configure Communities (SharePoint 2013).

#### My Sites

In SharePoint Server 2010, My Sites provided a central place for users to store personal and shared documents, in addition to promoting their user information and expertise, tagging content, and communicating with others by using the Note Board. Through people search, users were able to connect with one another and benefit from expertise of others in their organization.

In SharePoint Server 2013, My Sites continue to provide the benefits from the previous release. However, the user interface is completely redesigned and modernized to give users an inviting and intuitive experience. A key change to the user interface includes a simplified and unified navigation experience for your own and others' My Sites. Additionally, My Sites contain the new Microblog and Newsfeeds features. These features allow users to engage in short, public conversations, and keep upto-date on activities from content and people in which they are interested.

This section discusses improvements and new functionality to the following areas of My Sites:

- My Site document libraries
- Microblogging and feeds
- Deployment and configuration

Central Administration changes

#### My Site document libraries

In SharePoint Server 2010, each My Site contained two document libraries: personal and shared. Items stored in the personal document library were restricted to the My Site owner, and items in the shared document library were shared with everyone.

In SharePoint Server 2013, My Sites include several improvements to saving, synchronization, sharing, and moving of content. These improvements make My Sites a more robust solution for users to store and work with files in the SharePoint environment.

#### Saving and synchronizing content

When deployed, a user's My Site document library is the default save location for files saved from Office 2013 client applications. A discovery service identifies the user's My Site URL and offers it as the default location in addition to other locations available for saving files. This promotes the workflow of storing files in the user's My Site document library where items can be managed, governed, shared, and moved. This helps reduce the amount of content that is stored in other systems, such as in email or on personal drives.



In test environments where users have more than one My Site, the discovery service is unable to determine the default My Site location to use for saving files.

Users have the option to synchronize their My Site document library content with a local drive to enable offline access to documents. This option encourages the use of the My Site document library for storage instead of the users' local drives because it offers flexibility for users to work with documents in both online and offline scenarios.

#### **Sharing content**

SharePoint Server 2013 introduces the concept of sharing for all document libraries. This concept is leveraged by the My Site document library to ease the process of collaborating with other users on content. Sharing is based on the same permissions infrastructure as SharePoint Server 2010, but simplifies and improves the user experience. By using this simplified experience, users can specify permissions for a specific document without having to understand the inheritance model.

By default, all content that is stored in a user's My Site document library is restricted to the user, and other users cannot see content unless it is shared with them. If the user wants others to collaborate on a piece of content in that library, the user can share the content with specific users or groups, and select the permission those users or groups have to the content.

Even though the sharing process is available to all document libraries in SharePoint Server 2013, My Sites include a sharing hint, which displays all the users and the permissions for a specific piece of content. This makes it easier for users to see at a glance what they are sharing and with whom.

#### Microblogging and feeds

In SharePoint Server 2013, the Newsfeed page in the My Site continues to provide an aggregated view of activities from content and people the user is following. However, the feed is improved with new microblogging functionality that enables users to do the following:

- Participate in conversations by posting comments and replies.
- Post pictures and links.
- Use tags (starting with the # symbol) to define keywords that users can follow and search for.
- Use mentions (starting with the @ symbol) to tag users in posts and replies.
- Indicate agreement with comments and replies by clicking Like.
- Follow people, documents, sites, and tags to customize their feed.

In SharePoint Server 2013, a new in-memory cache known as the Distributed Cache (which uses AppFabric for Windows Server) maintains the Newsfeed. AppFabric is installed and configured as part of the SharePoint Server 2013 prerequisites. For more information about SharePoint Server 2013 prerequisites, see <a href="Prepare for installation">Prepare for installation (SharePoint 2013)</a>.

This feeds infrastructure better supports the read and write operations generated by users' activities and participation in microblogging. The feeds API is extensible, which enables scenarios where activities can be added to the newsfeed or consumed by other applications programmatically. For example, you might develop a new application for users to check in to locations, such as a building, and broadcast their check-ins to their feed by using the feeds API.

In SharePoint Server 2013, each My Site requires a document library for microblogging and feeds. This document library contains a microblogging list that maintains all of a user's posts instead of maintaining them in the My Site Host site collection as in SharePoint Server 2010. This means that activities are persisted indefinitely and no longer limited to 14 days as in SharePoint Server 2010. The Newsfeed page displays the aggregated view of recent activities that are maintained in the cache, whereas the user's profile page displays all activities maintained in the user's microblogging list.

#### **Deployment and configuration**

The planning, deployment, and configuration steps for My Sites are much the same as in SharePoint Server 2010. For more information, see <u>Plan for social computing and collaboration (SharePoint 2013)</u> and <u>User Profile Service administration (SharePoint 2013)</u>.

This section describes the considerations for upgrading My Sites from SharePoint Server 2010, and new and updated settings for My Sites in SharePoint Server 2013.

#### Upgrade considerations

If you upgrade from SharePoint Server 2010 to SharePoint Server 2013, there are special considerations for My Sites. Make sure that you upgrade the My Site Host site collection before you allow users to upgrade their individual My Sites in SharePoint Server 2013. This ensures that the server software and database changes are complete so that users can start the upgrade of their individual My Sites successfully. Upgrade of a specific My Site occurs the first time that a user opens an individual My Site. An upgrade request is queued until the My Site upgrade is completed. While the upgrade request

is in the queue, users can continue to use their My Sites though the sites will appear as they did in SharePoint Server 2010 until the upgrade is completed. Following upgrade, users see the new user interface the next time that they visit their My Site.

#### **Central Administration changes**

SharePoint Server 2013 includes several changes to the User Profile service application settings in Central Administration to support new My Sites functionality.

#### Configure permissions for personal and social features

The Manage User Permissions page contains new and updated settings for the User Profile service application. You can select one or more of the following permissions for users and groups that you want to grant permission to personal and social features:

- Create Personal Site (required for personal storage, newsfeed, and followed content) This
  permission enables users to create personal sites to store their documents, newsfeed, and followed
  content.
- Follow People and Edit Profile This permission enables users to follow people from their My Site
  and to edit their personal profile.
- Use Tags and Notes This permission enables users to use the Tags and Notes feature from SharePoint Server 2010. The Tags and Notes feature is provided primarily for upgrade purposes so that users can continue to access the tags and notes they created in the previous version of SharePoint Server. However, you might also use this permission to enable users to leave notes on documents in SharePoint Server 2013.

#### Configure microblogging and following settings

Central Administration contains new settings for User Profile service application administrators to configure microblogging and following activities:

- Enable microblogging e-mail notifications On the Setup My Sites page, under E-mail
   Notifications, select Enable newsfeed email notifications if you want users to receive email notifications that relate to their microblogging activities.
- Manage Following page On the User Profile service application administration page, under My Site Settings, click Manage Following. From the Manage Following page, you can configure limits for the number of people, documents, and sites that users can follow from their My Site.

#### Configure policies for privacy and people

Central Administration contains new policy settings for the User Profile service application and My Sites. These settings appear on the Manage Policies page of the User Profile service application. There are two new sections that display privacy and people settings. You can select a specific policy to change whether the policy is enabled, the default privacy setting for users, and whether users can override the setting from their own profiles. In SharePoint Server 2013, the Default Privacy Setting for policies contains only two settings: **Only Me** and **Everyone**. The additional settings from SharePoint

Server 2010 of My Manager, My Team, and My Colleagues are removed. Setting a policy to Only Me sets the default behavior for feed events to off, whereas setting it to Everyone turns it on. If you allow users to override the setting, they can choose whether to change the default behavior on their individual profiles.

The following are new settings under Privacy Settings:

- Following a Document or Site on My Site
- Tagging an Item on My Site
- Workplace anniversary on My Site
- Following a Tag on My Site
- Updating "Ask Me About" on My Site
- Rating an Item on My Site
- Following a Person on My Site
- Posting on a Note Board on My Site
- Job Title Change on My Site
- Posting a new blog post on My Site
- Birthday Celebration on My Site

The following are updated settings under People Settings:

- People on My Site
- Auto-follow people from team
- People Recommendations



These People Settings existed in SharePoint Server 2010 under the My Colleagues section, but they are renamed in SharePoint Server 2013 because the concept of colleagues is now changed to people. Additionally, the People on My Site setting now defines the default privacy setting for all people a user follows, instead of individual privacy settings. This means that when you set the privacy setting to Everyone, everyone who accesses a user's profile can see the people whom that user follows.



My Sites are private by default. There is a privacy setting named **Make My Sites Public** that an administrator can use to make all users' My Sites public by default. The Make My Sites Public setting is located in the User Profile service application under **Setup My Sites**. Even if an administrator configures any of these policy settings, these policy settings are overridden if the Make My Sites Public setting is selected.

#### See Also

Communities overview (SharePoint 2013)

Plan for Communities (SharePoint 2013)

Setup and configure Communities (SharePoint 2013)

Plan for My Sites (SharePoint 2013)

Set up My Sites (SharePoint 2013)

Microblogging overview (SharePoint 2013)

Plan for feeds and the Distributed Cache service (SharePoint 2013)

## What's new in web content management for SharePoint 2013 publishing sites

Published: July 16, 2012

**Summary:** Learn about web content management features for building Internet, intranet, and extranet SharePoint publishing sites.

Applies to: SharePoint Server 2013

SharePoint Server 2013 includes new and improved features for web content management that simplify how you design publishing sites and enhance the authoring and publishing processes of your organization. SharePoint Server 2013 also has new features that use the power of search to surface dynamic web content on publishing sites.

#### Content authoring improvements

Content authors have a better experience in SharePoint Server 2013. Content authors can now copy content from Word, paste it directly into a Rich Text Editor Web Part, Content Editor Web Part, or an HTML field control on a page, and have the resulting semantically correct HTML markup display in the styles that were defined by the site designer. Site owners and designers can now customize the global and current navigation menus by dragging and dropping menu items directly on the page.

SharePoint Server 2013 adds many new features for videos and using videos on pages. A new video content type is added, and the video upload process is improved for content authors. Thumbnail preview images are created automatically when a video is uploaded to an asset library, and content authors can choose a frame from the video and use that as the thumbnail preview image. For automatic thumbnail creation to work, the Desktop Experience feature must be installed on the front-end web server that hosts SharePoint Server 2013. For information about the Desktop Experience feature, see Desktop Experience Overview.

In SharePoint Server 2013, content authors can insert an iframe element into an HTML field on a page. This lets content authors embed dynamic content from other sites, such as videos or map directions. By default, certain trusted external domains are already approved for use in iframes. Site collection administrators can customize the field security settings by changing the default trusted external domains. They can also allow content authors to insert iframes for any external domain, or prevent them from inserting iframes on any page. To change the field security settings for a site collection, click **HTML Field Security** on the Site Settings page.

Finally, SharePoint Server 2013 supports *image renditions*. Image renditions let you display different sized versions of an image on different pages. When you create an image rendition, you specify the width and height for all images that use that image rendition. For example, if the site has a news article page layout that contains an image field, you can create an image rendition named Article\_image to display the full-sized image in the article page. A second image rendition named Thumbnail\_small can be used to display a smaller version of the image associated with a particular article when the image is displayed in a Web Part that lists all recent news articles on the site home page. To use image

renditions, you first define the image rendition sizes. Next, you generate the default image preview by uploading an image, which you can adjust if it is necessary. Finally, you add the image to a page and specify which image rendition to use on that page.

By default, the image preview that is displayed for an image rendition is generated from the center of the image. You can adjust the image preview for individual images by selecting and resizing the portion of the image that you want to use as the image preview. For example, if a photo contains a person's face but the default image preview does not show the whole face, you can change the selected image area so that the whole face is displayed.

Image renditions let you have large source images on the site and also have places on the site where pages only use smaller versions. This reduces the size of the file that is downloaded to the client, which improves site performance. Image renditions also let you have multiple versions of the same image that are cropped differently without having to upload multiple images. This reduces the storage space that is required for images. Finally, image renditions are useful in mobile scenarios, where different versions of images can be displayed based on the device that is used.

## Important:

Before you can use image renditions, you must enable the BLOB cache. For information about how to enable the BLOB cache, see "Configuring BLOB cache settings" in <a href="Configure cache">Configure cache</a> settings for a Web application (SharePoint Server 2010).

To use image renditions, click **Image Renditions** on the Site Settings page. You define an image rendition by specifying a name, such as Thumbnail\_small, and the width and height in pixels for that image rendition. You can create as many image renditions as you want for your site design. To use an image rendition for a specific image on a page, you add an image to a page as you typically would. When you add an image to a page, the Edit Image Properties page displays a list of image renditions that you can apply. The image is then displayed on the page using the dimensions specified in the selected image rendition.

You can also use image renditions on a page by specifying a value in the **RenditionID** property for an image field control on a page layout, or by using a URL that has the **RenditionID** parameter to point directly to the version of the image that you want to use. The rendition ID is displayed on the Image Renditions settings page for a site collection or site. After you create an image rendition, you can provide a list of available rendition IDs to content authors so they always know what value to use for the **RenditionID** in field controls or as a parameter in a URL. For example, if the image rendition named Thumbnail\_small has **RenditionID** 2, you can give that information to content authors so that they always use **RenditionID** 2 anywhere they want to insert a small thumbnail of an image.

You can also use the following alternative methods to specify the **RenditionID**:

- To specify the RenditionID property in the image field control, enter the numeric ID that
  corresponds to the rendition that you want to use when an image is inserted into that field control
  during page editing.
- To specify the **RenditionID** parameter in the URL, add "?RenditionId=n" to the image URL, where n is the RenditionID. For example, the URL http://contoso.com/Images/myimage.jpg?RenditionId=2 will load the image rendition with ID 2 for the image file myimage.jpg.

## Variations for multilingual sites

In SharePoint Server 2013, the variations feature is used exclusively for multilingual sites. The variations feature makes content available to specific audiences on different sites by copying content from a source variation site to one or more target variation sites, and tracking relationships between source and target content. Users who visit the site are redirected to the appropriate variation site based on the language setting of their web browser.

SharePoint Server 2013 now has an integrated translation service that lets content authors select content for export for human translation or specify content for machine translation. Translated content can also be used across multiple site collections by using cross-site publishing. For information about cross-site publishing, see <a href="Cross-site publishing">Cross-site publishing</a>, see <a href="Cross-site publishing">Cross-site publishing</a> later in this article.

By using SharePoint Server 2013, content authors can nominate lists on source variation sites to be propagated to target variation sites. List items such as documents, images, or announcements propagate independently from pages. For example, if you have a page that links to a document, and you change only the document, the document will be propagated to the target variation site without the user having to republish the page that references the document.

In SharePoint Server 2013, additional changes were made to the variations feature to improve performance, such as enabling bulk export of pages. Logging functionality is updated to improve the usefulness of error messages, and logs can now be exported to Excel.



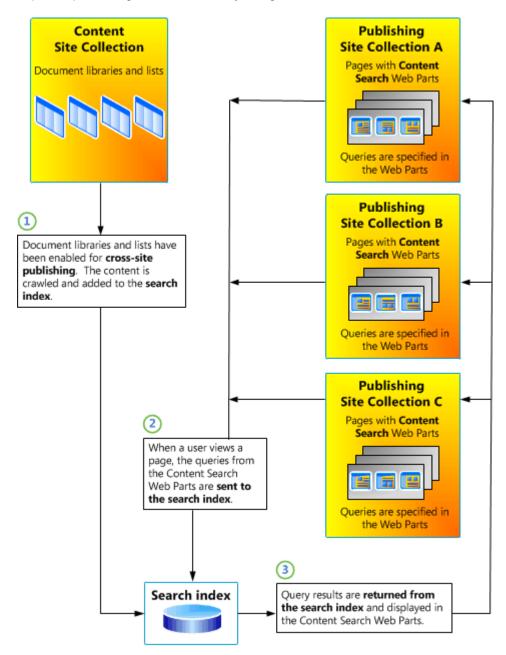
In SharePoint Server 2010, you could use variations to make content available to audiences based on language, country and region, mobile device, or corporate branding needs. In SharePoint Server 2013, you use cross-site publishing to make content available to users in a single language, or if you want to brand the same content with different corporate branding requirements. If you want to make content available to users on multiple mobile devices, use mobile channels and device-specific targeting. For information about cross-site publishing, see <a href="Cross-site publishing">Cross-site publishing</a> later in this article. For information about how to design mobile channels, see <a href="What's new with branding sites in SharePoint Server 2013">What's new with branding sites in SharePoint Server 2013</a> (http://go.microsoft.com/fwlink/p/?LinkId=255056).

## Cross-site publishing

Cross-site publishing lets you store and maintain content in one or more authoring site collections, and display this content in one or more publishing site collections. When you change the content in an authoring site collection, those changes are displayed on all site collections that are reusing this content.

Cross-site publishing uses search technology to retrieve content. On a site collection where the Cross-Site Collection Publishing feature is enabled, libraries and lists have to be enabled as catalogs before the content can be reused in other site collections. For more information, see <a href="Catalog-enabled libraries">Catalog-enabled libraries</a> and lists. The content of the library or list catalogs must be crawled and added to the search index. The content can then be displayed in a publishing site collection by using one or more Content Search Web Parts. For more information, see <a href="Content Search Web Part">Content Search Web Part</a>. The following illustration shows how

content is stored in libraries and lists in an authoring site collection, and then reused across three separate publishing site collections by using Content Search Web Parts.



## Catalog-enabled libraries and lists

SharePoint Server 2013 has added the ability to designate any library or list as a catalog. After the Cross-Site Collection Publishing feature is enabled for a site collection, you can designate any library or list within that site collection as a catalog so that content can be reused on publishing site collections.

You can use catalog-enabled libraries or lists for scenarios such as an article library, knowledge base library, or product catalog. For example, in an Internet business scenario where a company is selling electronic products such as TVs and radios, the company can use one or more lists that are enabled as catalogs to share product information such as brand, color, and size as it applies to each product. By using cross-site publishing, this information can then be displayed in one or more publishing site collections.

Another example is an intranet scenario, where all knowledge base articles created in an organization can be written and stored in one or more libraries that are enabled as catalogs in a content site collection. By using cross-site publishing, different combinations of these knowledge base articles can be displayed on one or more publishing site collections — for example, based on how relevant the articles are for the different departments in the organization.

SharePoint Server 2013 includes a new publishing site collection template, the Product Catalog Site Collection, designed to author, store and maintain data that is used in a catalog scenario. By default, the Cross-Site Collection Publishing feature is automatically enabled in the Product Catalog Site Collection. However, you must still configure the catalog settings to share content with other site collections, just as you would with any other library or list.

When you connect a library or list that is enabled as a catalog to a publishing site collection, a *result source* is automatically created for this library or list. A result source narrows the scope from which the search results can be retrieved. That is, the result source created for a library or list is limited to content within this library or list. For example, you can use the automatically generated result source to limit a query in a Content Search Web Part. You can also copy a result source or change it to specify an even narrower search result scope.

## Managed navigation

Managed navigation lets you define and maintain the navigation on a site by using term sets. Managed navigation supplements the existing SharePoint navigation that is based on site structure. You create the managed navigation structure by adding terms to term sets in the Term Store Management tool. You can copy the navigation term set and translate it into the same languages that are used for variations labels. For more information about terms and term sets, see <a href="Managed metadata overview">Managed metadata overview</a> (SharePoint Server 2010).

You can combine portions of term sets from different site collections to create the navigation of a website. This can be valuable in an Internet business scenario in which you have a catalog of products. This is because you can use one term set for the navigation within product pages, and another term set for the navigation within non-product pages. Together, these term sets form the navigation for the whole site. For example:

- In an authoring site collection, you create a term set for the navigation of the product pages. A term
  within this term set typically represents a product category for example, Audio, Cameras, or
  Computers.
- In the publishing site collection, you create a term set for the navigation of the non-product catalog pages. A term within this term set usually represents pages — for example, Home, About, or Careers.

• By using cross-site publishing to display content from the authoring site collection in the publishing site collection, you can combine the terms from the two site collections to create the complete website navigation — in this example, Home, Audio, Cameras, Computers, About, and Careers.

## **Category pages**

Category pages are page layouts that are used for displaying structured content such as catalog data. You can use category pages when you want to aggregate content that meets certain criteria or parameters. For example, in an intranet scenario, all company events are maintained in a list that is shared as a catalog. You want the information about each event to appear in the same manner — for example, with a title in bold, followed by information about when and where the event occurs. To avoid having to create one page for each event, you can create some category pages that can be used to display all events in the same manner.

Category pages are closely tied to managed navigation. This is because you can associate a category page with a specific term within the term set that is used for managed navigation. For example, in the company events scenario that was described earlier, you can have a term set in which the different departments are used for managed navigation. You can use two separate category page templates to display the different events. Category page 1 can be used to display all events related to the Marketing department, and Category page 2 can be used to display all events related to the Human Resources department.

## **Friendly URLs**

By using managed navigation and category pages, the URLs of category pages can be built from the terms that you have specified in the term set, such as Computers or Marketing. For individual catalog items, you can specify that the URL consists of additional properties from the library or list that is shared as a catalog. This lets you create more meaningful, user-friendly URLs, instead of having URLs that consist of strings that do not make sense to users. In SharePoint Server 2010, the URLs for publishing sites included the name of the Pages library — for example, http://www.contoso.com/Pages/Computers.aspx#/ID=453&Source=http%3A%2F1010101. In SharePoint Server 2013, you can create URLs that are more user-friendly — for example http://www.contoso.com/Computers/model101.

### **Content Search Web Part**

SharePoint Server 2013 has added a new Content Search Web Part that displays content that was crawled and added to the search index. To display content in the Content Search Web Part, you specify a query in the Web Part. This query is automatically issued, and it returns results from the search index when users browse to a page that contains the Content Search Web Part. The Content Search Web Part is especially powerful when it is used in combination with managed navigation and category pages. For example, in an Internet business scenario where a product catalog is displayed, a term within the term set specified for managed navigation is associated with a specific category page, as described earlier in <a href="Category pages">Category pages</a>. You can specify that a query in a Content Search Web Part on a category page use the current navigation category as part of the query. For example, when users browse to a category, such as Computers, a query is issued from the Content Search Web Part to return all items

from the search index that are specified as Computers. Similarly, when users browse to the category Audio, the same Content Search Web Part on the same category page will display items in the search index that are specified as Audio.

## Refiners and faceted navigation

Refiners are based on managed properties from the search index. Managed properties represent the specifications of the items in the catalog-enabled library or list — for example, Author, Date, Color, or Product Category. In a catalog scenario, you can add a Refinement Panel Web Part to a category page so that users can narrow the content as they browse through different pages. For example, in an Internet business scenario in which a catalog of mobile telephones is displayed, the managed property Color is set as a refiner. When a user views all mobile telephones in the catalog, all available colors are displayed in the Refinement Panel Web Part. When a user clicks a specific color, such as Gray, only mobile telephones with the color Gray are displayed. Similarly, in the scenario in which company events are displayed, the managed property Date is set as a refiner. In the Refinement Panel Web Part, users can see for which dates events are scheduled. When they click a particular date, they refine the results so that only events scheduled to occur on that date appear.

By using *faceted navigation*, you can configure different refiners for different terms in a term set. For example, in an Internet business scenario in which a product catalog is displayed, you can set the managed property Screen size as refiner for the term Computer, and the managed property Megapixels as refiner for the term Cameras. The faceted navigation guides users to content that is relevant for each specific category, and makes it easier and faster to browse through catalog content.

## **Analytics and recommendations**

The new Analytics Processing Component in SharePoint Server 2013 runs different analytics jobs to analyze content in the search index and user actions that were performed on a site to identify items that users perceive as more relevant than others.

The new functionality for displaying content recommendations based on usage patterns uses the information from the analyses. By including recommendations on a page, you can guide users to other content that may be relevant for them. For example, you can guide users to popular items in a category or let them know that users who viewed this item also viewed another item.

The search recommendations framework works in the following way:

- User actions produce usage events. When users interact with a SharePoint Server 2013
  website for example, when they click a link, press a button, or view a document their actions
  are stored as usage events.
- Usage events are counted and analyzed. The recommendations algorithm in the Analytics
  Processing Component counts and analyzes the usage events.
- Information is added to the index.

After processing in the Analytics Processing Component, the information is added to the search index and the Reporting database.

You can use search recommendations to do the following:

- Add Recommended Items and Popular Items Web Parts to a site. In SharePoint Server 2013, you can display recommendations on a site by adding one or more Recommended Items Web Parts. You can configure the Web Part to display recommendations for the document or item that a user is viewing. For example, these recommendations can be displayed under the heading Users who viewed this document also viewed.
  - You can use the Popular Items Web Part to display the most popular items that satisfy a set of criteria. For example, these recommendations can be displayed under the heading *Most popular items in this category*.
- **Get insights through reports.** Information about usage events is displayed in Excel reports. You can use the reports to view user statistics to understand the traffic pattern on a website.
- Act on insights. Based on the information in the reports, you can make decisions about how to fine-tune the website.
- Monitor changes. The reports are updated based on the changes that are made, and you can
  monitor the effect of the changes.

## **Branding**

New features for publishing sites in SharePoint Server 2013 minimize the special SharePoint knowledge that is required to successfully design and brand a SharePoint site. To brand a SharePoint site, designers just create a site design as they typically would, by implementing HTML, CSS, and JavaScript. Designers can create these files by using their design tool of choice, whether that is Adobe Dreamweaver, Microsoft Expression Web, or some other HTML editor. You don't have to use SharePoint Designer or Visual Studio 2013 to brand a SharePoint site. For information about how to brand sites in SharePoint Server 2013, see <a href="What's new with SharePoint 2013 site development">What's new with SharePoint 2013 site development</a> (http://go.microsoft.com/fwlink/p/?LinkId=255056).

## **Device-specific targeting**

SharePoint Server 2013 supports targeting different devices such as smartphones, tablets, and set-top boxes. Designers can create channels that allow a single publishing site to be rendered in multiple ways by using different designs that target different devices. For information about how to design channels, see <a href="https://go.microsoft.com/fwlink/p/?LinkId=255056">What's new with SharePoint 2013 site development</a> (http://go.microsoft.com/fwlink/p/?LinkId=255056). For information about additional optimizations for mobile support in SharePoint Server 2013, see <a href="https://www.what's new for mobile devices in SharePoint 2013">What's new for mobile devices in SharePoint 2013</a>.

## What's new in workflow in SharePoint Server 2013

Published: July 16, 2012

Summary: Learn about the new components and concepts in SharePoint Server 2013 workflow.

Applies to: SharePoint Server 2013

SharePoint Server 2013 brings a major advancement to workflow: enterprise features such as fully declarative authoring, REST and Service Bus messaging, elastic scalability, and managed service reliability.

SharePoint Server 2013 can use a new workflow service built on the Windows Workflow Foundation components of the .NET Framework 4.5. This new service is called Workflow Manager and it is designed to play a central role in the enterprise. Processes are central to any organization and workflow is the orchestrator of processes.

#### In this article:

- Two SharePoint workflow platforms
- SharePoint Designer enhancements
- Workflow Manager capabilities
- Windows PowerShell cmdlets that manage workflow

## Two SharePoint workflow platforms

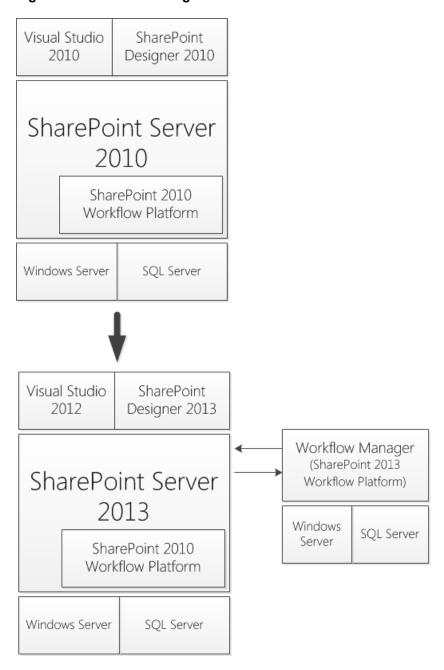
The SharePoint 2010 Workflow platform has been carried forward to SharePoint Server 2013. All of your workflows that were built by using SharePoint Server 2010 will continue to work in SharePoint Server 2013.

In SharePoint Server 2010 the workflow engine installed automatically with the product. This continues to be the case with the SharePoint 2010 Workflow platform in SharePoint Server 2013. If you simply install SharePoint Server 2013 and do not install and configure Workflow Manager then you will have a nearly identical experience with building workflows as you did in SharePoint Server 2010.

The SharePoint 2013 Workflow platform only becomes available to you, and your tools, after you download and install the new Workflow Manager service and configure it to communicate with your SharePoint Server 2013 farm. For a detailed guide on this process, see <a href="How to: Set up and configure">How to: Set up and configure</a> SharePoint 2013 workflows.

The figure illustrates the concept.

Figure: Architectural changes in SharePoint Workflow

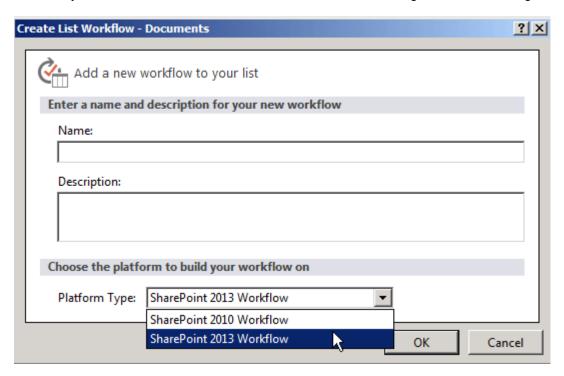


## **SharePoint Designer enhancements**

SharePoint Designer 2013 includes new functionality designed specifically for Workflow Manager. In SharePoint Designer 2013 this new platform is known as the SharePoint 2013 Workflow platform. These new features include:

- A visual workflow development experience that uses a Visio 2013 add-in
- A new action that enables no-code web service calls from within a workflow
- New actions for creating a task and starting a task process
- New coordination actions that let you start a workflow built on the SharePoint 2010 Workflow platform from a workflow built on the SharePoint 2013 Workflow platform
- A new Dictionary type
- New workflow building blocks such as Stage, Loop, and App Step

When you create a workflow in SharePoint Designer 2013, you have the option of choosing the platform on which you wish to build a workflow in the workflow creation dialog as shown in the figure.



## Workflow Manager capabilities

Workflow Manager brings a new class of workflow to SharePoint Server 2013. Workflows built by using Workflow Manager can take advantage of several new capabilities. These include enterprise features such as:

- High Density and Multi-Tenancy
- Elastic Scale
- Activity / Workflow Artifact Management
- Tracking and Monitoring
- Instance Management
- Fully Declarative Authoring
- REST and Service Bus Messaging

Managed Service Reliability

To learn more about Workflow Manager, see Workflow Manager on MSDN.

## Windows PowerShell cmdlets that manage workflow

As a SharePoint Server 2013 workflow administrator you should be familiar with Windows PowerShell. After you have installed the Workflow Manager service you will need to configure it to communicate with your SharePoint Server 2013 farm. This pairing is accomplished by using Windows PowerShell cmdlets. Windows PowerShell is used exclusively when you manage and monitor Workflow Manager.

#### See Also

Getting started with SharePoint Server 2013 workflow

Workflow development in SharePoint Designer 2013 and Visio 2013

Workflow Manager

## What's new in search in SharePoint Server 2013

Published: September 25, 2012

**Summary:** Learn about new search capabilities in SharePoint Server 2013, including ways to configure and monitor the system and improve search results.

Applies to: SharePoint Server 2013

In this article:

- Search user interface improvements
- Relevance improvements
- Changes in crawling
- Discovering structure and entities in unstructured content
- More flexible search schema
- Search health reports
- New search architecture

## Search user interface improvements

Without having to open each search result, users can quickly identify useful results in ways such as the following:

- Users can rest the pointer over a search result to preview the document content in the *hover panel* to the right of the result.
- Users can quickly distinguish search results based on their type. For example, Microsoft Office
  documents display the application icon in front of the title of the search result. Newsfeed
  conversation results display the number of replies and the number of likes to the right. Site results
  list the top links that users often click on the site. People in results show the picture and the Lync
  availability status to the left.
- By default, certain types of related results are displayed in groups called *result blocks*. A result block contains a small subset of results that are related in a particular way. For example, results that are PowerPoint documents appear in a result block when the word "presentation" is one of the search terms. Administrators and site owners can also create result blocks to group other results. Like individual search results, you can promote result blocks or rank them with other results.

Search helps users quickly return to important sites and documents by remembering what they have previously searched and clicked. The results of previously searched and clicked items are displayed as query suggestions at the top of the results page.

In addition to the default manner in which search results are differentiated, site collection administrators and site owners can create and use *result types* to customize how results are displayed for important documents. A result type is a rule that identifies a type of result and a way to display it.

Site collection administrators and site owners can use display templates to customize the appearance of search results by using an HTML editor, and they can customize the behavior of search results by using JavaScript. They can specify display templates that determine how result types appear.

## **Relevance improvements**

A search result, suggestion, or recommendation is more relevant when it better satisfies the intent of the person who issues the query. SharePoint Server 2013 improves relevance in areas such as freshness of search results, linguistics, and document parsing. It also improves relevance in the following areas:

- New ranking models
- Analysis of content and user interaction
- Query rules
- Result sources

#### New ranking models

SharePoint Server 2013 provides new ranking models for people search, intranet sites, and Internet sites. A ranking model determines recall (which items are displayed in the search results) and rank (the order in which search results are displayed).

#### Analysis of content and user interaction

The search system determines the relevance of search results in part by how content is connected, how often an item appears in search results, and which search results people click. The search system also determines which items users most commonly click in SharePoint. The new analytics component in SharePoint Server 2013 tracks and analyzes this information and uses it to continuously improve relevance.

Based on analytics information, site collection administrators and site owners can customize the user experience by adding Web Parts to display recommendations and popular items, or to display *deep links*, which link directly to sub-sections of a main page that are frequently visited.

The search service also uses analytics to compute data for search usage reports. Administrators can get these reports in a timely manner, even on large deployments.

## **Query rules**

Without any custom code, Search service administrators, site collection administrators, and site owners can help searches respond to the intent of users by creating *query rules*. In a query rule, you specify conditions and correlated actions. When a query meets the conditions in a query rule, the search system performs the specified actions to improve the relevance of the search results. For example, you might specify a condition that checks whether the query matches a term in a SharePoint term set, or another condition that checks whether the query is frequently performed on a particular search vertical in your search system, such as Videos.

A guery rule can specify the following types of actions:

- Add Promoted Results (formerly called Best Bets) that appear above ranked results. For example,
  for the query "sick leave," a query rule could specify a particular Promoted Result, such as a link to
  a site that has a statement of company policy regarding time off work. These items were previously
  referred to as Best Bets in SharePoint 2010.
- Add one or more result blocks. For example, for a query that contains "Fabrikam sales report," a
  query rule might use a taxonomy dictionary to recognize Fabrikam as a customer, and then display
  a result block with pertinent results about Fabrikam from a customer relationship management
  (CRM) system.
- Change ranked results, such as by modifying their relevance. For example, for a query that contains "download toolbox," a query rule could recognize the word "download" as an **action term** and boost results from a particular download site on your intranet.

#### Result sources

In SharePoint Server 2010, scopes and federated locations provided ways to limit searches to a certain set of content or subset of search results. In SharePoint Server 2013, *result sources* replace scopes and federated locations.

You create and use a result source to specify a location from which to get search results and to specify a protocol for getting those results. In SharePoint Server 2010, you specified a location and a protocol by creating a federated location. In SharePoint Server 2010, you could specify the protocol as local SharePoint index, FAST Search Server 2010 for SharePoint index, or OpenSearch. In SharePoint Server 2013, you can specify the *Source Type* as local SharePoint index, remote SharePoint index, OpenSearch, or Microsoft Exchange Server index. If you specify remote SharePoint index as the Source Type, you do not have to supply any custom code to handle authentication, unlike in SharePoint Server 2010.

In a result source, you can also restrict queries to a subset of content by using a *query transform*. For example, the pre-defined "Local Video Results" result source uses a query transform to return only video results from the local SharePoint index. In SharePoint Server 2010, you configured this kind of query restriction by using search scopes.

On a search results page, you can expose results for queries on a particular result source in several ways, such as in a result block or in a dedicated Web Part.

In SharePoint Server 2010, only a Search service application administrator was able to create and configure federated locations. In SharePoint Server 2013, site collection administrators, site owners, and site designers can also create and configure result sources to meet their specific requirements.

## Changes in crawling

SharePoint Server 2013 includes many changes and improvements related to crawling content.

#### Continuous crawl

In SharePoint Server 2013, you can configure crawl schedules for SharePoint content sources so that crawls are performed continuously. Setting this option eliminates the need to schedule incremental crawls and automatically starts crawls as necessary to keep the search index fresh. Administrators should still configure full crawls as necessary. For more information, see <a href="Manage continuous crawls in SharePoint 2013">Manage continuous crawls in SharePoint 2013</a>.

#### Host distribution rules removed

In SharePoint Server 2010, host distribution rules are used to associate a host with a specific crawl database. Because of changes in the search system architecture, SharePoint Server 2013 does not use host distribution rules. Instead, Search service application administrators can determine whether the crawl database should be rebalanced by monitoring the **Databases** view in the crawl log.

#### Removing items from the search index

In SharePoint Server 2010, Search service application administrators could remove items from the search index by using **Search Result Removal**. In SharePoint Server 2013, you can remove items from the search index only by using the crawl logs.

## Discovering structure and entities in unstructured content

You can configure the crawler to look for "entities" in unstructured content, such as in the body text or the title of a document. These entities can be words or phrases, such as product names. To specify which entities to look for in the content, you can create and deploy your own dictionaries. For companies, you can use the pre-populated company extraction dictionary that SharePoint Server 2013 provides.

You can store these entities in your search index as separate managed properties and use those properties later — for example, in search refiners.

To improve search relevance, the document parsing functionality in the content processing component analyzes both the structure and content of documents. Document parsers extract useful metadata and remove redundant information. For example, parsers extract headings and subheadings from Word documents, and titles, dates, and authors from slides in PowerPoint presentations. For HTML content, redundant generic information such as menus, headers, and footers are classified as such and removed from document summaries in the search results.

## More flexible search schema

By defining crawled properties, managed properties, and the mappings between them, the search schema determines how the properties of crawled content are saved to the search index. Crawled properties and how these are mapped to managed properties define how to transform crawled content into managed properties. The search index stores the contents of the managed properties. The attributes of the managed properties determine the search index structure.

SharePoint Server 2013 introduces new attributes that you can apply to managed properties, such as sortable and refinable. The sortable attribute reduces the time that is required to return large search result sets by sorting results before they are returned. The refinable attribute enables you to create a refiner based on a particular managed property.

In SharePoint Server 2013, you can have multiple search schemas. The main search schema is defined at the Search service application level. Site collection administrators can create customized search schemas for different site collections.

For more information, see Manage the search schema in SharePoint 2013.

## Search health reports

SharePoint Server 2013 provides many query health reports and crawl health reports. In SharePoint Server 2010 and FAST Search Server 2010 for SharePoint, similar reports were called Search Administration Reports. For more information, see <u>View search diagnostics in SharePoint Server 2013</u>.

### New search architecture

SharePoint Server 2013 introduces a new search architecture that includes significant changes and additions to the search components and databases. For examples and more information, see the Search technical diagrams in Technical diagrams for SharePoint 2013.

## **Changes from SharePoint 2010 to SharePoint 2013**

Updated: October 16, 2012

Summary: Learn about the features and functionality that are deprecated in SharePoint 2013.

Applies to: SharePoint Foundation 2013 | SharePoint Server 2013

This article describes the features in SharePoint 2010 Products that have been deprecated or removed from SharePoint 2013. Deprecated features are included in SharePoint 2013 for compatibility with previous product versions. These features will be removed in the next major release of SharePoint Products.

## Important:

The information in this article applies to both SharePoint Foundation 2013 and SharePoint Server 2013

#### In this article:

- Features deprecated in SharePoint 2013
- SharePoint Foundation 2010 deprecated search features
- SharePoint Server 2010 deprecated search features
- FAST Search Server 2010 for SharePoint deprecated features

## Features deprecated in SharePoint 2013

The following features and functionality have been deprecated or changed in SharePoint 2013.

## Visual upgrade

**Description:** The visual upgrade feature in SharePoint Server 2010 is not available in SharePoint 2013. For the upgrade from Office SharePoint Server 2007 to SharePoint Server 2010, you could choose to use the visual upgrade feature to give site collection owners and site owners the opportunity to preserve the previous user interface temporarily while still upgrading the infrastructure and databases, site collections, and features to the latest version. This allowed site collection owners and site owners to update customizations to work in the new user interface. Once the database and site collection upgrade was complete, the user had the option to upgrade the user interface on a more granular level of the website (SPWeb object).

**Reason for change:** The visual upgrade feature is replaced with deferred site collection upgrade. The site collection upgrade process is not reversible. The deferred site collection upgrade is a more comprehensive upgrade process than visual upgrade.

Visual upgrade preserved only the old master pages, CSS files, and HTML files. Deferred site collection upgrade preserves much more, including SPFeature functionality. To achieve the deferred site

collection upgrade, major changes in the architecture were required, including the removal of visual upgrade.

With deferred site collection upgrade, you can continue to use the UI from the previous version (SharePoint Server 2010) more seamlessly than is possible with visual upgrade. The master page, CSS, JScript, and SPFeatures will remain in SharePoint Server 2010 mode. One key difference is that the granularity of upgrading the user interface is per site collection (SPSite) instead of site (SPWeb). Users can still preview their site in the new SharePoint 2013 user interface before committing. However, this is accomplished by creating and upgrading a temporary copy of their site collection instead of a preview in the existing instance of the site collection. The reason for previewing a copy of the site collection is because of the complexity of what occurs during site collection upgrade. Once a site collection is upgraded, it cannot be rolled back. Therefore, performing a preview would not be possible except in a copy of the site collection.

**Migration path:** Site collection administrators who are using visual upgrade to continue to use SharePoint Server 2007 must move to the SharePoint Server 2010 user interface before upgrading to SharePoint 2013. After the content database is upgraded, users can use deferred site collection upgrade to continue to use the SharePoint Server 2010 experience for their site collections. Site collection administrators can be notified by their farm administrator when a site collection is ready for upgrade and the site collection administrators can then choose to either perform the upgrade of their site collection or optionally first preview the new functionality in a temporary copy of their site collection.

Any SharePoint user interface might have dependencies on visual upgrade. The main dependency was getting the user interface version and then outputting the correct user interface (new or legacy). The visual upgrade API feature is updated so that the user interface version is remapped to the new **site collection compatibility level** property. This returns the same information about which version the site uses as before. Therefore, dependent code does not need to change.

### **Document Workspace site template**

**Description:** When you create a site in SharePoint 2013, the Document Workspace site template is not available.

**Reason for change:** The scenario of collaborating on a document is now provided by the Team Site site template. The Document Workspace site template was removed from SharePoint 2013 to simplify the list of templates that are available when a user creates a new site collection.

**Migration path:** Existing sites that were created by using the Document Workspace site template will continue to operate in SharePoint 2013. The Document Workspace site template will be removed completely from the next major release of SharePoint and sites that were created by using the Document Workspace site template will not be supported.

### Personalization Site site template

**Description:** When you create a site in SharePoint 2013, the Personalization Site site template is not available.

**Reason for change:** The Personalization Site site template was not a widely used site template. The Personalization Site site template was removed from SharePoint 2013 to simplify the list of templates that are available when a user creates a new site collection.

**Migration path:** Existing sites that were created by using the Personalization Site site template will continue to operate in SharePoint 2013. The Personalization Site site template will be removed completely from the next major release of SharePoint and sites that were created by using the Personalization Site site template will not be supported.

#### Meeting Workspace site templates

**Description:** When you create a site in SharePoint 2013, all five of the Meeting Workspace site templates are not available. This includes the Basic Meeting Workspace, Blank Meeting Workspace, Decision Meeting Workspace, Social Meeting Workspace, and Multipage Meeting Workspace.

**Reason for change:** SharePoint 2013 and Office 2013 provide other features that support meetings and collaboration. For example, you can use Lync to conduct live meetings, OneNote to take notes during meetings, and a SharePoint team site or My Site to store shared meeting notes.

**Migration path:** Existing sites that were created by using the Meeting Workspace site templates will continue to operate in SharePoint 2013. The Meeting Workspace site templates will be removed completely from the next major release of SharePoint and sites that were created by using the Meeting Workspace site templates will not be supported.

#### Group Work site template and Group Work solution

**Description:** When you create a site in SharePoint 2013, the Group Work site template is not available. This Group Work site template provides a groupware solution that teams can use to create, organize, and share information. The Group Work site template includes the Group Calendar, Circulation, Phone-Call Memo, document library, and other basic lists. The Group Work site template and the Group Work solution are discontinued and not available in SharePoint 2013.

**Reason for change:** The Group Work site template was not a widely used site template. The Group Work site template was removed from SharePoint 2013 to simplify the list of templates that are available when a user creates a new site collection.

**Migration path:** Existing sites that were created by using the Group Work site template will continue to operate in SharePoint 2013. The Group Work site template will be removed completely from the next major release of SharePoint and sites that were created by using the Group Work site template will not be supported.

## Visio Process Repository site template

**Description:** When you create a site in SharePoint 2013, the Visio Process Repository site template will continue to be available. However, the Visio Process Repository site template will be removed in the next major release of SharePoint.

**Reason for change:** The Visio Process Repository site template is not a widely used site template. The Visio Process Repository site template was removed from SharePoint 2013 to simplify the list of templates that are available when a user creates a new site collection.

**Migration path:** Not required. The Visio Process Repository site template is available in SharePoint 2013.

#### Unghosting and customizing CSS files

**Description:** The following methods are included in SharePoint 2013, but will be removed from the next major release of SharePoint:

- Microsoft.SharePoint.SoapServer.Webs.CustomizeCss
- Microsoft.SharePoint.SoapServer.Webs.RevertCss

The Webs.CustomizeCss method applies style sheet customization to a particular file.

The **Webs.RevertCss** method reverts style sheet customization of a file to the default style sheet.

These two methods are stored in Webs.asmx.cs and are defined in Webswsdl.asps.

Reason for change: The methods are outdated and are no longer needed.

Migration path: None.

#### **Imaging Web service**

**Description:** The Imaging Web service provides functionality for creating and managing picture libraries. The Imaging Web service will be removed from the next major release of SharePoint. The Imaging Web service is included and supported in SharePoint 2013.

**Reason for change:** The Imaging Web service is not widely used. The only client application for the Imaging Web service, Office Picture Manager, is no longer included with SharePoint 2013. The Imaging Web service is being removed to reduce security vulnerabilities and to simplify the number of ways to connect to SharePoint 2013.

**Migration path:** All the functionality of the Imaging Web service is available through the client-side object model (CSOM). The CSOM provides client-side applications with access to a subset of the SharePoint Foundation server object model, including core objects such as site collections, sites, lists, and list items. Also, Web Distributed Authoring and Versioning (WebDAV) provides clients with key functionality of the Imaging Web service (for example, upload, download, and rename).

## Excel Services — Can't edit workbooks in the browser that have external data connections

**Description:** Workbooks with external data connections that use Windows authentication cannot be refreshed in the browser. Instead, you are prompted to open the workbook in the Excel client program. Workbooks that have database or Windows credentials stored either in the Secure Store Service or in the connection string can still be edited in the browser. This change applies only when Excel Web App

in Office Web Apps Server is used to view workbooks, not when Excel Services in SharePoint Server 2013 is used.

Reason for change: This is a design limitation in SharePoint 2013.

**Migration path:** You can still refresh these workbooks in the Excel client program. Additionally, a service application administrator can configure that workbooks are viewed in SharePoint 2013 instead of Office Web Apps Server.

#### Web Analytics in SharePoint Server 2010

**Description:** Web Analytics in SharePoint Server 2010 has been discontinued and is not available in SharePoint 2013. Analytics processing for SharePoint 2013 is now a component of the Search service.

**Reason for change:** A new analytics system was required for SharePoint 2013 that included improvements in scalability and performance, and that had an infrastructure that encompasses SharePoint Online. The Analytics Processing Component in SharePoint 2013 runs analytics jobs to analyze content in the search index and user actions that are performed on SharePoint sites.

SharePoint 2013 still logs every click in SharePoint sites and still provides a count of hits for every document. User data is made anonymous early in the logging process and the Analytics Processing Component is scalable to the service.

This analytics data is used in SharePoint 2013 to provide new item-to-item recommendation features, to show view counts that are embedded in SharePoint 2013 and Search Server user interface, to provide a report of the top items in a site and list, and to influence the relevancy algorithm of search.

What happens to Web Analytics after upgrade: The Web Analytics Service is not upgraded to the Analytics Processing Component in SharePoint 2013. When you upgrade to SharePoint 2013, the databases that contain the data from Web Analytics in SharePoint Server 2010 are not removed. These databases are not used by or maintained by the Analytics Processing Component in SharePoint 2013. This means that documents on sites in SharePoint Server 2010 that are upgraded will show a hit count of 0.

When you upgrade to SharePoint 2013, do not attach and upgrade the databases that contain the data from Web Analytics in SharePoint Server 2010. We recommend that you turn off Web Analytics in the SharePoint Server 2010 environment before you copy the content databases that you want to upgrade to SharePoint 2013.

Reports from Web Analytics for the top items in a site are carried forward. Reports that show browser traffic, top users of a site, and referring URL are not carried forward and are not used by the Analytics Processing Component in SharePoint 2013.

Administrative reports for the quota usage of site collections in the farm are not available in SharePoint 2013.

SharePoint 2013 does not support the Web Analytics Web Part. After a farm is upgraded to SharePoint 2013, all instances of a Web Analytics Web Part will not function. The page that includes the Analytics Web Part will render and a message appears that informs the user that the Web Part is no longer supported.

**Migration path:** None. Data collection for Analytics Processing in SharePoint 2013 starts immediately for sites, including SharePoint Server 2010 sites.

## Excel Services — Can't edit workbooks in the browser that have external data connections

**Description:** Workbooks with external data connections that use Windows authentication cannot be refreshed in the browser. Instead, you are prompted to open the workbook in the Excel client program. Workbooks that have database or Windows credentials stored either in the Secure Store Service or in the connection string can still be edited in the browser. This change applies only when Excel Web App in Office Web Apps Server is used to view workbooks, not when Excel Services in SharePoint Server 2013 is used.

**Reason for change:** This is a design limitation in SharePoint 2013.

**Migration path:** You can still refresh these workbooks in the Excel client program. Additionally, a service application administrator can configure that workbooks are viewed in SharePoint 2013 instead of Office Web Apps Server.

## **Organization Profiles**

**Description:** The Organization Profiles feature is deprecated in SharePoint Server 2013. Organization Profiles contain detailed information about an organization such as teams, divisions, and other information that describes the organization's hierarchy.

**Reason for change:** SharePoint features related to identities continue to evolve around the core concepts of users and groups, and SharePoint will not be investing further in OrgID.

**Migration path:** Existing solutions based on Organization Profiles will continue to operate in SharePoint 2013. The Organization Profiles feature will be removed completely from the next major release of SharePoint, and solutions created by using Organization Profiles will not be supported.

## **SharePoint Foundation 2010 deprecated search features**

The following functionality has changed in SharePoint Foundation search.

## Search capabilities

**Description**: The search capabilities of SharePoint Foundation 2013 have changed, and are now based on the same search implementation as SharePoint Server. This provides many improvements, but also means that the search configuration is very different.

**Reason for change**: Alignment of basic capabilities between SharePoint Server and SharePoint Foundation.

Migration path: No migration of search settings is supported.

## **SharePoint Server 2010 deprecated search features**

The following section provides details about the deprecated search features in SharePoint Server.

#### Modifying the search topology using a web-based interface

**Description**: SharePoint 2013 uses the web-based interface to show the current status of the topology. You change the topology by using Windows PowerShell. SharePoint Server 2010 also included a web-based option for changing the topology.

**Reason for change**: The core search architecture of SharePoint 2013 has a more complex and flexible topology that can be changed more efficiently by using Windows PowerShell.

Migration path: Use Windows PowerShell to modify the search topology.

#### Diacritic sensitivity element in the thesaurus

**Description**: In SharePoint Server 2010, thesaurus files contain a <diacritics\_sensitive> element. This element determines whether diacritical marks such as accents should be ignored or applied by the search system when expanding a query with terms from the thesaurus. By default, the <diacritics\_sensitive> element is set to zero to ignore diacritical marks.

In SharePoint 2013, the <diacritics\_sensitive> element is not available. Instead, diacritical marks are always respected when matching query terms with terms in the thesaurus.

Diacritic variants are not automatically matched with query terms. Therefore, fewer query terms might be expanded by synonyms. For example, the thesaurus entry <munchen> is not matched with the query term <munchen>.

**Reason for change**: The feature has limited usage. The same behavior as in SharePoint Server 2010 can be achieved by adding diacritic variants in the thesaurus.

**Migration path**: Update the thesaurus dictionaries that are tagged as diacritic insensitive. To update thesaurus dictionaries, add diacritic variations of the relevant terms.

## Replacement mode within the thesaurus

**Description**: The thesaurus replacement mode is deprecated in SharePoint 2013.

In SharePoint Server 2010, you can classify entries in the thesaurus as expansions that are added to the query in addition to the original term. Likewise, you can classify entries as replacements of the original term in a query.

In SharePoint 2013, thesaurus replacements are no longer supported. All entries in the thesaurus are expansions, and the original term is not removed from the query. The original query term is always evaluated when you search the index. You cannot remove synonyms or words from the index.

**Reason for change**: The feature has limited usage, and may also have unwanted side-effects for relevance.

Migration path: No equivalent feature.

#### Search Query web service

**Description**: The Search Query web service is deprecated in SharePoint 2013.

In SharePoint Server 2010, the Search Query web service exposes the SharePoint Enterprise Search capabilities to client applications. This enables you to access search results from client and web applications outside the context of a SharePoint site.

**Reason for change**: The Search Query web service is deprecated because the client object model (CSOM) and a new REST-based web service are available for developing Office-wide extensibility scenarios. The CSOM exposes the same functionality as the Search Query web service, and a larger set of functionality for stand-alone client applications.

**Migration path**: Change custom search solutions to use the CSOM or REST-based web service instead of using the Search Query web service.

#### Search RSS and search from Windows

**Description**: The search RSS feature is deprecated in SharePoint 2013. The functionality for performing enterprise searches from Windows 7 depends on search RSS and this element has also been deprecated in SharePoint 2013.

The RSS link no longer appears on the results page. This link is replaced by the Search Alerts link.

Before upgrading site collections to SharePoint 2013, you can continue to use RSS in the SharePoint 2010 version of the Search Center. However, after you upgrade the Search Center to SharePoint 2013, the RSS is no longer available. In SharePoint 2013, you can create custom RSS feeds that use the client object model (CSOM), which targets the needs of your particular application and the RSS readers.

**Reason for change**: Most RSS readers that are available do not support claims authentication. In SharePoint 2013, claims authentication is the default authentication model. By using claims authentication, RSS readers work while the authentication cookie is cached. However, after the cookie expires, RSS readers cannot refresh their authentication, and so they stop working.

**Migration path**: After migrating a site to SharePoint 2013, you can create search-based alerts to be notified of changes to search results. You can also create a custom RSS feed in SharePoint document libraries, by using the UX extensibility platform.

#### Custom word breaker dictionaries

**Description**: The format of the custom word breaker dictionaries has changed in SharePoint 2013. In SharePoint 2013, you can only create one language-independent dictionary. In SharePoint Server 2010, you can create language-specific custom dictionaries (one dictionary for each language) to edit

the word breaker behavior of enterprise search. The word breaker behavior for East Asian (CJK) languages has not changed in SharePoint 2013.

In SharePoint 2013, custom word breaker dictionaries from earlier versions of SharePoint Server are not supported.

**Reason for change**: The search processing framework for SharePoint 2013 is new, and the way the word breakers operate has changed.

**Migration path**: You must combine existing custom dictionaries into one language-independent dictionary.

#### Configuration of stemming in the registry

**Description**: The configuration of stemming in the registry is no longer supported in SharePoint 2013. Modifying stemming entries in the registry has no effect during search. In SharePoint Server 2010, you can turn stemming on or off, or you can replace it with a third-party stemmer by changing the registry. In SharePoint 2013, you cannot use a third-party stemmer.

Reason for change: This feature has limited feature usage.

**Migration path**: There is no migration path available for custom stemmers. You can enable or disable stemming in the Search Result Web Part.

#### SharePoint Search SQL syntax

**Description**: In SharePoint Server 2010, you could construct complex search queries by using SQL syntax.

Search in SharePoint 2013 supports FAST Query Language (FQL) syntax and Keyword Query Language (KQL) syntax for custom search solutions. You cannot use SQL syntax in custom search solutions.

Custom search solutions that use SQL syntax with the Query object model and the Query web service that were created in earlier versions of SharePoint Serverdo not work when you upgrade them to SharePoint 2013. If you submit queries by using these applications, you will receive an error.

**Reason for change**: The core search architecture has changed in SharePoint 2013, and the SQL syntax is no longer supported.

**Migration path**: Change current search solutions to use either the KQL syntax or FQL syntax for queries.

#### Shallow search refiners

**Description**: SharePoint Server Search in Office 2010 supported shallow search refiners. FAST Search Server 2010 for SharePoint supports shallow refiners and deep refiners. InSharePoint 2013, only deep search refiners are supported.

We recommend that you use deep search refiners to refine searches. In SharePoint 2013, deep refiners are an improvement to the existing FAST Search Server 2010 for SharePoint functionality. For example, the resource usage for each refiner is improved in SharePoint 2013.

In SharePoint 2013, you can view refiners as you did in the earlier version of the product. However, the refiners are now computed differently. They are created based on index structures that are aggregated across the full result set.

**Reason for change**: The shallow search refiners are replaced with an improved implementation of deep search refiners.

Migration path: No specific migration steps are necessary.

## FAST Search Server 2010 for SharePoint deprecated features

The following section provides details about the deprecated features in FAST Search Server 2010 for SharePoint.

#### FAST Search database connector

Description: The FAST Search database connector is not supported in SharePoint 2013.

**Reason for change**: The connector framework for SharePoint 2013 is combined with the BCS framework and the Business Data Catalog connectors.

**Migration path**: Replace the FAST Search database connector with the Business Data Catalog-based indexing connectors in the BCS framework.

#### FAST Search Lotus Notes connector

Description: The FAST Search Lotus Notes connector is not supported in SharePoint 2013.

The Lotus Notes indexing connector (BCS framework) provides similar functionality as the FAST Search Lotus Notes connector. The FAST Search Lotus Notes connector supports the Lotus Notes security model. This includes Lotus Notes roles, and lets you crawl Lotus Notes databases as attachments.

**Reason for change**: The connector framework for SharePoint 2013 is combined with the BCS framework and the Business Data Catalog connectors.

**Migration path**: Replace the FAST Search Lotus Notes connector with the Lotus Notes indexing connector, or with a third-party connector.

#### FAST Search web crawler

Description: The FAST Search web crawler is not supported in SharePoint 2013.

The SharePoint 2013 crawler provides similar functionality to the FAST Search web crawler.

**Reason for change**: The crawler capabilities are merged into one crawler implementation for consistency and ease of use.

**Migration path**: Use the standard SharePoint 2013 crawler. The following table explains the differences between the FAST Search web crawler and the SharePoint 2013 Preview crawler, and provides details about migration.

Feature	FAST Search web crawler	SharePoint 2013 crawler	Migration path
Refeed documents	You can refeed documents that you have previously downloaded to the index without having to recrawl them.	You can perform a full recrawl with similar functionality, but with slightly decreased performance of feeds.	None.
Extract dynamically generated links and content from Java	You can extract dynamically generated links and content from JavaScript.	No longer supported.	None.
Language-focused crawls	You can extract dynamically generated links and content from JavaScript. You can perform crawls focused on language.	No longer supported.	None.
	You can focus a crawl on a certain language, by only following links from and storing content for documents that match specific languages.		
	This feature is intended for large scale crawls that target specific languages but that do not limit the crawl to a top level domain.		
Modify URIs	You can modify the URIs before crawling them.  Such a modification of the URI enables you to remove certain features of	You can apply prefix-type URI rewriting with the "Server name remapping" feature in Search Admin. This allows you to perform the most relevant	None.

Feature	FAST Search web crawler	SharePoint 2013 crawler	Migration path
	the URI, such as dynamic components, and to rename host names.	modifications of the URI.	

#### Find similar results

**Description**: The Find similar results feature is not available in SharePoint 2013. The Find similar results feature is supported in FAST Search Server 2010 for SharePoint to search for results that resemble results that you have already retrieved.

**Reason for change**: The Find similar results feature is available only within the query integration interfaces, and it does not consistently provide good results in many scenarios.

Migration path: There is no migration path available.

### FAST Query Language (FQL) deprecated features

**Description**: The FQL features are aligned with the features of the SharePoint Keyword Query Language (KQL) syntax

The following table describes the FAST Query Language (FQL) features that are deprecated in SharePoint 2013.

FQL operator or feature	Changed behavior in SharePoint 2013
ANY operator	This operator has the same effect as the OR operator.
RANK operator	This operator is accepted but does not affect result ranking.
XRANK operator	This operator has a new and more flexible syntax.
	The old syntax is deprecated.
	The boost parameter is mapped to the new cb parameter. The boostall parameter is ignored.
STRING operator	The N parameter is accepted but ignored.
	The MINEXPANSION/MAXEXPANSION parameters are not supported.
	The ANNOTATION_CLASS parameter is not supported.
	For the MODE parameter, the following arguments are deprecated, and have the following behavior:

FQL operator or feature	Changed behavior in SharePoint 2013	
	ANY: Equal to the or mode.	
	NEAR/ONEAR: Equal to the AND mode.	
	SIMPLEALL/SIMPLEANY: The query string argument is evaluated according to the KQL query syntax.	
Implicit typing of numeric data types	The FQL parser is not search schema-aware, and some implicit numeric data typing is no longer supported.	

**Reason for change**: To simplify the query syntax, some redundant syntax features were removed from SharePoint 2013.

**Migration path**: The following table describes what to replace the deprecated FQL operators or features with.

Replace this FQL operator or feature	With
ANY operator	words operator
RANK operator	XRANK operator
XRANK operator	New syntax
STRING operator	For proximity operations, use the NEAR/ONEAR operators. For mapping of end-user query text, use the KQL mode.
Numeric data types	Type numeric data explicitly. Use either the int/float/decimal operators, or consistently use decimal/float syntax (with decimals always included) in the query.

## **URL Query syntax**

**Description**: In FAST Search Server 2010 for SharePoint, the URL-related managed properties (such as site, or path) are tokenized as a text string, and you can query any subpart of the URL. This includes STARTS-WITH, ENDS-WITH, PHRASE and proximity queries on URL properties. Special characters such as "/", "\_" and "-"are handled as word delimiters.

In SharePoint 2013, the entire URL is tokenized as one word. This includes special characters such as "/", " $_{-}$ " and "-". You can query these managed properties by:

- Searching for the full string for the site or path.
- Searching for the leading part of the site or path.

 Omitting the protocol part (http, https), and omitting the leading part of the domain address in the query expression, for the site managed property.

**Reason for change**: The implementation in SharePoint 2013 is aligned with SharePoint Server 2010 search. The FAST Search Server 2010 for SharePoint implementation has a very high query performance cost, especially when you search for the full URL or a leading subset of the URL.

**Migration path**: The following table provides details on how to change FAST Search Server 2010 for SharePoint query expressions to match the SharePoint 2013 URL query syntax.

To match	Then
The complete URL string	Search for the exact string. Special characters in the URL must match. Do not use the PHRASE operator.
The leading part of the URL	Do not use the wildcard character.
Any part of the URL	<ul> <li>Map the relevant crawled property to an additional managed property of type text.</li> <li>Use this managed property as a property filter in your query.</li> </ul>

### Specific search scope filters

**Description**: In SharePoint 2013, search scopes are automatically converted to result sources.

In FAST Search Server 2010 for SharePoint, you can specify additional filtering conditions for search scopes, as described in the following table:

Filter(s)	Description
FQL scope	These filters may contain FQL syntax. In SharePoint 2013, you can use migrated FAST
Alternative full-text index for the query	This filter provides a non-default full-text index for the full-text part of the queries.  In SharePoint 2013, you can use migrated FAST Search scope filters that contain an alternative full-text index. However, you cannot change or convert these filters to result sources.

**Reason for change**: The search scope functionality was replaced by a more powerful functionality for result sources.

**Migration path**: You must convert FQL scope filters to corresponding result sources. You can use an alternative full-text index in the query syntax.

#### **Anti-phrasing**

**Description**: The search anti-phrasing feature in FAST Search Server 2010 for SharePoint is not supported in SharePoint 2013.

Anti-phrasing removes phrases that do not have to be indexed from queries, such as "who is", "what is", or "how do I". These anti-phrases are listed in a static dictionary that the user cannot edit.

In SharePoint 2013, such phrases are not removed from the query. Instead, all query terms are evaluated when you search the index.

**Reason for change**: The FAST Search Server 2010 for SharePoint feature has limited usage due to the limited number of customization options.

Migration path: None.

#### Offensive content filtering

Description: The filtering of offensive content in search is deprecated in SharePoint 2013.

In FAST Search Server 2010 for SharePoint, you can choose to filter offensive content. Offensive content filtering is not enabled by default.

In SharePoint 2013, you can no longer block documents that contain potentially offensive content from being indexed.

**Reason for change**: The feature has limited usage.

Migration path: None.

### Substring search

**Description**: The substring search feature was removed in SharePoint 2013.

In FAST Search Server 2010 for SharePoint, substring search (N-gram indexing) can be used in addition to the statistical tokenizer in East Asian languages. Substring search can be useful for cases in which the normal tokenization is ambiguous, such as for product names and other concepts that are not part of the statistical tokenizer.

**Reason for change**: The feature has limited usage, and has very extensive hard disk requirements for the index.

Migration path: None.

#### Person names and location extractions

**Description**: In SharePoint 2013, you cannot extract person names and locations from documents by using predefined extractors.

In SharePoint 2013, you can create custom extractors to extract person names and locations. The difference between the predefined extractors in FAST Search Server2010 for SharePoint, and custom extractors in SharePoint 2013, is that custom extractors are only based on dictionary entries, whereas the predefined extractors also use extraction rules.

**Reason for change**: This feature has limited usage and usually requires extensive customization. In most cases, we recommend that you use customer-specific dictionaries.

Migration path: Use custom extractors for person names and locations.

#### **Number of custom entity extractors**

**Description**: In SharePoint 2013, the number of custom entity extractors that you can define is limited to 12.

In FAST Search Server 2010 for SharePoint Service Pack 1 (SP1), you can define an unlimited number of custom extractors. You can use custom entity extractors to populate refiners on the search result page.

There are 12 predefined custom entity extractors in SharePoint 2013:

- Five whole-word case-insensitive extractors
- Five word-part case-insensitive extractors
- One whole-word case-sensitive extractor
- One word-part case-sensitive extractor

**Reason for change**: By using a predefined set of custom entity extractors, the content processing architecture is more simple and easier to use.

Migration path: Use the predefined set of custom entity extractors.

### Supported document formats

**Description**: SharePoint 2013 no longer supports rarely used and older document formats that are supported in FAST Search Server 2010 for SharePoint by enabling the Advanced Filter Pack. Both the ULS logs and the crawl log indicate the items that were not crawled.

In SharePoint 2013, the set of supported formats that are enabled by default is extended, and the quality of document parsing for these formats has improved.

Reason for change: The file formats for indexing are older formats and are no longer supported.

**Migration path**: You can work with partners to create IFilter-based versions of the file formats that can no longer be indexed.

#### Content processing extensibility

**Description**: The FAST Search Server 2010 for SharePoint content processing extensibility feature has changed in SharePoint 2013. Content processing prepares an item from a content source for indexing and searching. The FAST Search Server 2010 for SharePoint content processing extensibility feature uses a sandbox where your custom code runs. See <a href="http://msdn.microsoft.com/library/ff795801.aspx">http://msdn.microsoft.com/library/ff795801.aspx</a> on MSDN, FAST Search, for more information.

SharePoint 2013 provides a new web service interface for content processing extensibility.

The new implementation of this feature has the following improvements:

- The web service callout provides more flexibility about where the custom code runs than it does with the sandbox callout.
- You can define triggers for the web service callout to optimize performance.
- Content processing is performed on managed properties instead of on crawled properties. This
  makes it simpler to manage the items that are changed.

**Reason for change**: The content processing architecture of search has changed to improve performance and flexibility.

**Migration path**: To integrate with the new SharePoint content processing component, you must change the code. The custom content processing code must be packaged as a web service.

#### Custom XML item processing

**Description**: FAST Search Server 2010 for SharePoint includes a custom XML item processing feature as part of the content processing pipeline. Custom XML item processing is not supported in SharePoint 2013.

**Reason for change**: In SharePoint 2013, the content processing architecture has changed. Custom XML item processing was removed and we recommend that you implement a mapping functionality outside SharePoint.

**Migration path**: Custom XML item processing can be performed outside the content processing pipeline, for example by mapping XML content to a SharePoint list, or to a database table.

### Adding a test item to the index

**Description**: DocPush is a test and diagnostic command-line tool that submits test documents to the FAST Search Server 2010 for SharePoint index. A similar command-line tool is not available in SharePoint 2013.

**Reason for change**: The administration and diagnostics of feeding and crawling has changed in SharePoint 2013.

**Migration path**: None. You can create test documents or test lists in SharePoint to test crawling and feeding. To remove items from the search index or to verify that there are any errors on an item, you can use the crawl log. See <u>View search diagnostics in SharePoint Server 2013</u> for more information.

To remove items from the search results, use the Search Result Removal feature in Queries and Results. See <u>Delete items from the search index or from search results in SharePoint 2013</u>.

### See Also

**Explore SharePoint 2013 Preview** 

## Overview of identity management in SharePoint 2013

Published: October 16, 2012

**Summary:** Learn how SharePoint 2013 supports authentication, authorization, and the storage, synchronization, and display of entities and their attributes.

Applies to: SharePoint Server 2013 Enterprise | SharePoint Server 2013 Standard | SharePoint Foundation 2013

Identity management in SharePoint 2013 is the combination of the following parts:

- The set of identifiers for entities, their storage location, the creation of trust relationships among identity stores, and the display of identifier information.
   Users, computers, or services are examples of entities.
- The methods, typically provided by a form of credential exchange that is protected with cryptography, that use identifiers to authenticate access to a resource.
- The methods, typically specified by a set of permissions that are assigned to identifiers, that specify
  and enforce the authorization of access to a resource.

## Elements of an identity management system

A typical identity management system consists of the following elements:

- Entities
- Stores for accounts and attributes
- Authentication methods
- Authorization methods
- Storage, synchronization, and display of entity attributes

The following sections describe these elements and how SharePoint 2013 supports them.

#### **Entities**

Within an identity management system, an entity represents a physical or logical object that requires access to a resource. Entities on a network that uses Active Directory Domain Services (AD DS) include users, computers, and services. Each entity has an identity that can correspond to an account in a directory, such as AD DS. Accounts can consist of a set of attributes that describe the entity, such as name, group membership, email address, and so on.

For identity management in SharePoint 2013, entities are users, groups, services, computers, and apps.

#### Stores for accounts and attributes

A store that contains accounts and attributes provides a location for entity accounts and their attributes. Networks that use AD DS store accounts and attributes in AD DS. The store that contains accounts and attributes can do the following:

- Validate account credentials during authentication.
- Provide account attributes to the entity that requests authentication so that those attributes can be used for authorization.

SharePoint 2013 can use the forms-based or Security Assertion Markup Language (SAML) user authentication methods for AD DS or additional stores. SharePoint 2013 does not include a store for accounts and attributes.

Identity federation is the process that links multiple stores of accounts and attributes through trust relationships so that authentication and authorization for access to resources can occur seamlessly across those stores. Forefront Identity Manager 2010 R2 enables you to manage identity life cycle and role management across heterogeneous identity platforms.

#### Methods of authentication

An authentication method is a specific set of messages that computers send to each other to perform authentication. A message validates an identity of an entity. The result of the authentication process is a security token, which typically contains cryptographic proof that a store of accounts and attributes has validated the identity. The security token can also contain entity attributes, such as the list of security groups to which the entity belongs.

For AD DS, the authentication method is typically either NTLM or the Kerberos protocol. For example, when a user logs on to a domain-joined computer, it collects the security credentials from the user and uses the Kerberos protocol to validate those credentials with an AD DS domain controller. The user's computer receives a Kerberos ticket to use when the user accesses resources. The Kerberos ticket contains cryptographic proof that AD DS has validated the credentials and a list of groups to which the user belongs.

## Claims-based identity and authentication

Although Kerberos and NTLM work well for AD DS-based networks, they do not extend easily to multiple stores of accounts and attributes from third-party vendors or to identity management systems in the cloud.

For claims-based identity, a user obtains a security token that a trusted security token service (STS) has digitally signed and that contains a set of claims. Each claim represents a specific item of data about the user such as his or her name, group memberships, and role on the network. Claims-based identity enables applications to rely on the security token for proof of authentication and the set of claims for authorization or other processing. Claims-based identity typically enables a user to perform an authentication to obtain the security token and submit that token to applications. The claims-aware application verifies the digital signature of the security token and uses the claims to implement authorization and other application-specific functions.

Claims-based identity and authentication in Windows is built on Windows Identity Foundation (WIF), which is a set of .NET Framework classes that is used to implement claims-based identity. Claims-based authentication relies on standards such as WS-Federation, WS-Trust, and protocols such as SAML.

A simplified claims-based identity implementation contains the following components:

- A claims-aware client application An application that can obtain a security token from an STS
  and submit security tokens for authentication and authorization. An example of a claims-aware
  client application is a web browser, such as Internet Explorer.
- An STS A server or service that creates security tokens for claims-aware client applications. The STS that is in SharePoint 2013 provides its own security tokens to requesting claims-aware client applications, and it can also use Active Directory Federation Services (AD FS) 2.0 as an external STS.
- A relying party A computer or application that relies on an STS for tokens. The relying party
  redirects claims-aware client applications to the STS to obtain a suitable security token. SharePoint
  2013 can act as a relying party to an external STS. An example is a SharePoint web application
  that is configured to use AD FS as its STS.
- A claims-aware server application An application that requires a security token for authentication
  and authorization. An example is a SharePoint 2013 web application that uses claims-based
  authentication (the default).

SharePoint 2013 supports claims-based identity and authentication for the following entities:

- Users The validation of a user's identity against a store of accounts and attributes that contains the
  user's credentials and can verify that the user submitted them correctly. User authentication occurs
  when a user attempts to access a SharePoint resource. For more information, see <a href="Plan for user">Plan for user</a>
  authentication methods in SharePoint 2013.
- Apps The validation of the identity a remote app for SharePoint and the authorization of the app and an associated user to request a secured SharePoint resource. App authentication occurs when an external component of a SharePoint Store app or an App Catalog app, such as a web server that is located on the intranet or the Internet, attempts to access a secured SharePoint resource.
   For more information, see Plan for app authentication in SharePoint 2013.
- Servers The validation of a server's request for resources that is based on a trust between the STS of the server that runs SharePoint 2013 and the STS of another server that supports the OAuth server-to-server protocol. Based on this trust relationship, a requesting server can access secured resources on the server that is running SharePoint 2013 on behalf of a specified user account, subject to server and user permissions. For more information, see <u>Plan for server-to-server authentication in SharePoint 2013</u>.

#### Methods of authorization

After authentication succeeds, an application must determine whether the entity is authorized to access the requested resource. To perform this analysis, the application compares the identity information about the entity—such as the user name and the groups for which it is a member—in the security token

(for claims-based identity) or Kerberos ticket to the list of default or configured permissions for the resource being accessed.

Permissions are settings that specify an entity (such as a user or group name) and what that entity is allowed or not allowed to do (such as read, edit, or delete files in a shared folder). To obtain access to the resources, the configured permissions must permit the type of access that the entity requests.

SharePoint 2013 provides permissions for users to access web applications and their resources, server permissions for server-to-server resource requests, and app permissions for app resource requests.

For more information about how to plan for permissions in SharePoint 2013, see <u>Permissions planning</u> for sites and content and Plan app permissions management.

#### Methods to store, synchronize, and display entity attributes

To configure permissions, the identity management system must obtain the list of entities from a storage location and display them for you. If that storage location is not the original store of accounts and attributes, the entity information must be synchronized with that store and replicated to other computers.

In SharePoint 2013, the facility that displays entity information for permissions configuration is People Picker and the service that collects, synchronizes, and replicates local entity information is the User Profile application service.

For more information, see <u>People Picker and claims providers overview</u> and <u>User Profile service</u> <u>application overview</u>.

#### See Also

Plan for user authentication methods in SharePoint 2013

Plan for app authentication in SharePoint 2013

Plan for server-to-server authentication in SharePoint 2013

Permissions planning for sites and content

Plan app permissions management

People Picker and claims providers overview

User Profile service application overview

## Test lab guides for SharePoint Server 2013

Updated: October 2, 2012

**Summary:** Find the set of Test Lab Guides (TLGs) for SharePoint Server 2013 to gain valuable hands-on experience before planning and deployment.

Applies to: SharePoint Server 2013

The following articles on TechNet and related resources provide information about TLGs for SharePoint Server 2013.

## TechNet articles about TLGs for SharePoint Server 2013

The following articles about the set of TLGs for SharePoint Server 2013 are available to view online. Writers update articles on a continuing basis as new information becomes available and as users provide feedback.

Content	Description
Test Lab Guide: Configure SharePoint Server 2013 in a Three-Tier Farm	Describes the steps to configure a 3-tier farm (web front-end, application, and database tiers) using SharePoint Server 2013.
Test Lab Guide: Demonstrate Intranet Collaboration for SharePoint Server 2013	Describes the steps to configure and demonstrate intranet collaboration features in the SharePoint Server 2013 3-tier farm test lab.
Test Lab Guide: Demonstrate Social Features for SharePoint Server 2013	Describes the steps to configure and demonstrate the new social features in SharePoint Server 2013 (My Sites, Newsfeeds, Community Sites, and Team Site feeds) in the SharePoint Server 2013 3-tier farm test lab.
Test Lab Guide: Demonstrate SAML-based Claims Authentication with SharePoint	Describes the steps to configure and demonstrate Security Assertion Markup Language (SAML)-based claims using

Content	Description
Server 2013	Active Directory Federation Services (AD FS) 2.0 in the SharePoint Server 2013 3-tier farm test lab.
Test Lab Guide: Demonstrate forms-based claims authentication for SharePoint Server 2013	Describes the steps to configure and demonstrate forms-based authentication in the SharePoint Server 2013 3-tier farm test lab.

## **Additional resources about TLGs**

The following resources about TLGs are available.

	Content	Description
Afterwealt* TechNet	Test Lab Guides     (http://microsoft.com/testlabguides)     SharePoint Server 2013 Test     Lab     Installation and deployment for SharePoint 2013 IT pros Resource Center	<ul> <li>Visit the central Test Lab         Guides portal in the         TechNet Wiki for a         description of TLG content         and links to all the         published TLGs.</li> <li>Visit this portal page in the         TechNet Wiki for all of the         TLG content for SharePoint         Server 2013.</li> <li>Visit the Resource Center         to access videos,         community sites,         documentation, and more.</li> </ul>
Blogs	Microsoft Test lab Guides	Visit this blog for the latest information about TLG content published across Microsoft.

## Test Lab Guide: Configure SharePoint Server 2013 in a Three-Tier Farm

Updated: October 2, 2012

**Summary:** Learn how to install and configure SharePoint Server 2013 on multiple servers with Microsoft SQL Server 2012 using the computers in the Base Configuration test lab.

Applies to: SharePoint Server 2013

This document is the <u>Test Lab Guide</u> version of the procedures that are described in <u>Multiple servers</u> for a three-tier farm.

This document contains instructions for the following:

- 1. Configuring the Base Configuration test lab.
- 2. Installing and configuring a new server named SQL1.
- 3. Installing SQL Server 2012 on the SQL1 server.
- 4. Installing SharePoint Server 2013 on the APP1 server.
- 5. Installing and configuring a new server named WFE1.
- 6. Installing SharePoint Server 2013 on WFE1.
- 7. Demonstrating the facilities of the default Contoso team site on WFE1.

## Download the test lab guide

Test Lab Guide: Configure SharePoint Server 2013 Preview in a Three-Tier Farm

#### See Also

Multiple servers for a three-tier farm

## Test Lab Guide: Demonstrate Intranet Collaboration for SharePoint Server 2013

Updated: October 2, 2012

**Summary:** Learn how to configure and demonstrate the intranet collaboration features of SharePoint Server 2013 based on the Test Lab Guide: Configure SharePoint Server 2013 in a Three-Tier Farm.

Applies to: SharePoint Server 2013

This document is the <u>Test Lab Guide</u> version of the configuration described in the **Corporate Portal** with **Host-Named Sites** design sample, which can be found in <u>Technical diagrams</u>.

This document contains instructions for the following:

- 1. Setting up the SharePoint Server 2013 three-tier farm test lab.
- 2. Configuring the intranet collaboration features on APP1.
- 3. Demonstrating the intranet collaboration features on APP1.

## Download the test lab guide

Test Lab Guide: Demonstrate Intranet Collaboration with SharePoint Server 2013 Preview

#### See Also

**Technical diagrams** 

## Test Lab Guide: Demonstrate Social Features for SharePoint Server 2013

Published: September 18, 2012

**Summary:** Learn how to configure and demonstrate the new social features of SharePoint Server 2013 based on the <u>Test Lab Guide: Configure SharePoint Server 2013 in a Three-Tier Farm.</u>

Applies to: SharePoint Server 2013

This document is the <u>Test Lab Guide</u> version of the procedures described in <u>Configure social</u> computing features.

This document contains instructions for the following:

- 1. Setting up the SharePoint Server 2013 three-tier farm test lab.
- 2. Create a My Site site collection and configure settings.
- 3. Configure Following settings.
- 4. Configure community sites.
- 5. Configure site feeds.
- 6. Demonstrate social features.

## Download the test lab guide

Test Lab Guide: Demonstrate Social Features for SharePoint Server 2013 Preview

#### See Also

Configure social computing features

# Test Lab Guide: Demonstrate SAML-based Claims Authentication with SharePoint Server 2013

Updated: October 2, 2012

**Summary:** Learn how to configure and demonstrate Security Assertion Markup Language (SAML)-based claims authentication with Active Directory Federation Services (AD FS) 2.0 and SharePoint Server 2013 based on the Test Lab Guide: Configure SharePoint Server 2013 in a Three-Tier Farm.

Applies to: SharePoint Server 2013

This document is the <u>Test Lab Guide</u> version of the configuration described in <u>Configure SAML-based</u> claims authentication with AD FS.

This document contains instructions for the following:

- 1. Setting up the SharePoint Server 2013 three-tier farm test lab.
- 2. Configuring AD FS 2.0.
- 3. Configuring SAML-based claims authentication.
- 4. Demonstrating SAML-based claims authentication.

## Download the test lab guide

<u>Test Lab Guide: Demonstrate SAML-based Claims Authentication with SharePoint Server 2013</u> Preview

#### See Also

Configure SAML-based claims authentication with AD FS

# Test Lab Guide: Demonstrate forms-based claims authentication for SharePoint Server 2013

Published: September 18, 2012

**Summary:** Learn how to configure and demonstrate form-based authentication for SharePoint Server 2013 based on the <u>Test Lab Guide: Configure SharePoint Server 2013 in a Three-Tier Farm.</u>

Applies to: SharePoint Server 2013

This document is the <u>Test Lab Guide</u> version of the configuration described in <u>Configure forms-based</u> <u>authentication for a claims-based web application</u>.

This document contains instructions for the following:

- 1. Setting up the SharePoint Server 2013 three-tier farm test lab.
- 2. Configuring forms-based authentication.
- 3. Demonstrating forms-based authentication.

## Download the test lab guide

Test Lab Guide: Demonstrate Forms-based Authentication with SharePoint Server 2013

#### See Also

Configure forms-based authentication for a claims-based web application