Services in SharePoint 2013 Preview

Farm 1

Application pool

Web application

IIS Web site—"SharePoint Web Services"

_____,

Web application

This diagram illustrates two different groupings of service

applications: the default group and a custom group.

Custom group

Application pool

Web application



SERVICES INFRASTRUCTURE

In Microsoft® SharePoint® 2013 Preview, the service architecture model provides a framework in which you deploy and manage services across a farm or across multiple farms. A service application represents a deployed instance of a service that you can configure and manage centrally and that many web applications can consume. You can configure individual services independently and third-party companies can add services to the platform.

Granular configuration of services

- You can deploy only the services that a farm needs. Deployed services are called **service** applications.
- You can configure web applications to use only the services that are needed instead of the entire set of deployed services. See the screen

You can deploy multiple instances of the same

service in a farm and assign unique names to

the resulting service applications (see Farms B

- and C below). You can share services across multiple web applications within the same farm.
- Configure Service Application Associations Edit the following group of connections: default Access Services 2010 Access Services 2010 We Access Services Access Services Web Ser App Management Service App Management Service Business Data Connectivity Service Business Data Connectiv Excel Services Applicatio Excel Services Application Machine Translation Sen Machine Translation Service Managed Metadata Serv Managed Metadata Service ▼ PerformancePoint Service Application PerformancePoint Servic PowerPoint Conversion Service Application PowerPoint Conversion S Search Service Application Search Service Application Secure Store Service Secure Store Service App State Service Proxy State Service Usage and Health data collection Usage and Health Data (User Profile Service Appl User Profile Service Application

You can choose the service applications for a web

application when you create the web application. You can

Facilities

Search Service Application

also modify the services that are associated with a web

✓ Visio Graphics Service

application later.

Word Automation Services

Sharing services across farms

- You can share some services across server farms. Other services can be shared only within a single server farm. Services that support sharing across farms can be run in a central farm and consumed from other farms in the environment.
- Each web application can be configured to use services from different farms. For example, you can share the User Profile Service across web applications in several server farms while using some services, such as the Business Data Connectivity service, locally.
- In large environments, computing-intensive services can be run in a central farm to minimize administration overhead and to scale out easily and efficiently as requirements grow.
- Remote farms do not need direct permissions to the parent farm's configuration or services

For more information about how to share services

across farms, see the model Cross-farm services in

SharePoint Products. Logical architecture

Visio Graphics Service Ap

Word Automation Service

- All service applications in a farm are deployed to the same IIS Web site.
- You can deploy service applications to different application pools to achieve process isolation. However, farm performance is optimized if services are contained within one application pool.
- To achieve physical isolation of services, create separate instances of service applications and place them in different application pools (see Farm

Service groups (proxy groups)

- A service group, also known as proxy group, is a group of service applications that are selected for use by a web application.
- By default, all service applications are included in the default group, unless you change this setting for a service application when you create it. You can add and remove service applications from the default group at any time.
- When you create a web application, you can select the default group, or you can create a custom group of services. You create a custom group of services by selecting only the service applications that you want the web application to use.
- Custom groups are not reusable across multiple web applications. Each time that you select "custom" when you create a web application, you are selecting services only for the web application that you are creating.

Deploying services

- You deploy service applications within a farm by one of the following
- Select services while running the Initial Configuration Wizard. Add services one by one on the Manage Service Applications
- page in the Central Administration site. Use Windows PowerShell.
- For more information, see the following table.

Connecting service applications to web applications (proxies)

- When you create a service application, a *proxy* for the service application is created at the same time. A proxy is a virtual
- entity that connects web applications to service applications. Proxies are listed on the Manage Service Applications page in Central Administration.
- Proxies are automatically created if you use Central Administration or the Initial Configuration Wizard to create service applications. If you use Windows PowerShell to create

must be created by using Windows PowerShell.

Some proxies might include settings that can be modified. For example, if a web application is connected to multiple instances of the Managed Metadata service, you must indicate the proxies that are connected to the primary service application which hosts the corporate taxonomy.

service applications, proxies are not automatically created and

Services administration

- Services are managed directly in Central Administration
- Services can be monitored and managed remotely. Services can be managed and scripted by
- Windows PowerShell.

Options for deploying service applications

Deploying service applications by using the Initial Configuration Wizard	Deploying service applications manually or by using Windows PowerShell		
All service applications are deployed to the same application pool.	You can deploy service applications to dedicated application pools desired.		
The same account is used for all services. You can edit service accounts later.	You can apply different service accounts to service applications.		
Database names are automatically generated, including GUIDs that are long and difficult to remember.	You can assign database names and implement a naming convention.		
Default settings are applied to service applications. You can change these later.	You can implement custom settings when the service application is deployed.		
The corresponding services on the Services on Server page are started by the Wizard.	You must ensure that the corresponding services on the Services on Server page are started on the desired computers in the farm.		
	All service applications are deployed to the same application pool. The same account is used for all services. You can edit service accounts later. Database names are automatically generated, including GUIDs that are long and difficult to remember. Default settings are applied to service applications. You can change these later. The corresponding services on the Services on Server page are started		

SERVICES

			Stores data?	Cross- farm?	SharePoint Foundation 2013 Preview	SharePoint Server 2013 Preview Standard	SharePoint Server 2013 Preview Enterprise
N	Access Services	Allows creation of new Access service applications using the Access 2013 Preview client. View, edit, and interact with Access Services databases in a browser.	App DBs				✓
	Access Services 2010	Allows continued maintenance of SharePoint 2010 Access service applications by using Access 2010 clients and Access 2013 Preview clients. Does not allow users to create new applications.	Content DBs				✓
N	App Management Service	Allows you to install apps from the Internal App Catalog or the Public SharePoint Store.	DB		✓	✓	✓
	Business Data Connectivity	Access line-of-business data systems.	DB	✓	✓	✓	✓
	Excel Services	Viewing and interact with Excel files in a browser.	Cache				✓
W,	Machine Translation Service	Performs automated machine translation.	DB	✓		✓	✓
	Managed Metadata Service	Access managed taxonomy hierarchies, keywords, and social tagging infrastructure as well as Content Type publishing across site collections.	DB	✓		✓	✓
	PerformancePoint	Provides the capabilities of PerformancePoint Services.	Cache				✓
	PowerPoint Conversion	Converts PowerPoint presentations to various formats.				✓	✓
	Search	Crawl and index content and serve search queries.	DB	✓		✓	✓
	Secure Store Service	Provides single sign-on authentication to access multiple applications or services.	DB	✓		✓	✓
	State Service	Provides temporary storage of user session data for SharePoint Server components.	DB			✓	✓
	Usage and Health Data Collection	Collects farm wide usage and health data and provides the ability to view various usage and health reports.	DB		✓	✓	✓
	User Profile	Adds support for My Stes, Profiles pages, Social Tagging, and other social computing features.	DB	✓		✓	√
	Visio Graphics Service	Viewing and refresh of published Microsoft® Visio® diagrams in a Web browser.	Blob cache				✓
	Word Automation Services	Performs automated bulk document conversions.	DB			✓	✓
W	Work Management	Provides task aggregation across work management systems, including Microsoft SharePoint Products, Microsoft Exchange Server, and Microsoft Project Server.				✓	✓
	Microsoft SharePoint Foundation Subscription Settings Service	Tracks subscription IDs and settings for services that are deployed in partitioned mode. Windows PowerShell only.	DB		√	√	✓

* Office Web App Services is a separate server product and is no longer provided as a service application.

ARCHITECTURE EXAMPLES

SINGLE-FARM, SINGLE SERVICE GROUP

Description The default group of services is used for all web applications in a farm.

 All sites have access to all of the service applications that are deployed in the farm.

Advantages Simplest architecture.

- All services are available to all web applications.
- Most efficient use of farm resources All services are managed centrally.

Disadvantages Does not allow isolation of service data

 Individual departments or groups cannot manage service applications on their own

Recommendations

This is the recommended configuration for most companies, at least initially. This configuration works well for hosting a large number of sites for a single company on the same farm.

Use this configuration if:

- You want to optimize the resources that are required to run services within a farm.
- You are sharing content and profile data across sites that otherwise require process isolation, for performance or security reasons.

Search Service Application

Farm A IIS Web Site—"SharePoint Web Services" **Application Pool** Default group **Application Pool** Application Pool Web Application—Published Intranet Content Web Application—My Sites Web Application—Community Sites Web Application—Team Sites http://communities http://my http://Fabrikam http://my/personal/<user>

SINGLE-FARM, MULTIPLE SERVICE GROUPS

 Targeted service applications are deployed for dedicated use by one or more groups within an organization. For example, in Farm B (right), an additional instance of Excel Services Application is deployed for the Finance group (bottom-right web application). Access

Services is also deployed for this group.

- One or more web applications use a custom group of services. A SharePoint administrator selects the service applications to include in a custom group. In **Farm B**, the custom group includes the two dedicated service applications and most of the services that are deployed to the farm
- You can create more than one custom group. In **Farm C** (below), dedicated service applications for the Business Data Connectivity and the Managed Metadata services are deployed to the farm for use by the HR department. The result is a second custom group (in addition to the dedicated services
- and group that are created for the Finance group). In some cases, a dedicated group of services is configured to narrow the list of services that a web application uses. For example, you can configure a partner collaboration site to consume a subset of the
- services that the farm offers. Farm B achieves process isolation for services that are deployed for the Finance group by placing these services in a dedicated application pool. **Farm C**, below, uses one application pool for all services, and consequently optimizes the deployment of services for performance instead.

Recommendations This configuration works well for companies that have

- divisions or teams which require dedicated services or isolated service data, or for sites that are set up with a narrower scope, such as partner collaboration. Multiple groups of services allow teams and sites to consume services that are offered enterprise-wide, such as User Profile and Search services. At the same time, multiple groups of services isolate the use of targeted
- services for security or performance reasons Services commonly deployed for dedicated use by an individual team or department include the
- a targeted group or to isolate sensitive data. **Managed Metadata** — To enable a team or department to manage its own taxonomy, hierarchies, keywords, and so on. Because SharePoint Server 2013 Preview combines the results of multiple instances of the Managed
- an organization. **Business Data Connectivity** — Individual teams or departments can integrate with their own line-of-business data systems and isolate data from the rest of the organization.

Farm B IIS Web Site—"SharePoint Web Services" Application Pool Default group **Custom group Application Pool Application Pool** Web Application—Finance Web Web Application—Published Intranet Content Web Application—My Sites http://finance http://my http://Fabrikam http://my/personal/<user>

Advantages

- Accommodates multiple organizational goals on the same farm.
- Service data can be isolated. Allows individual teams or departments to
- manage the services that are dedicated for their groups.
- Sites can be configured to use a subset of

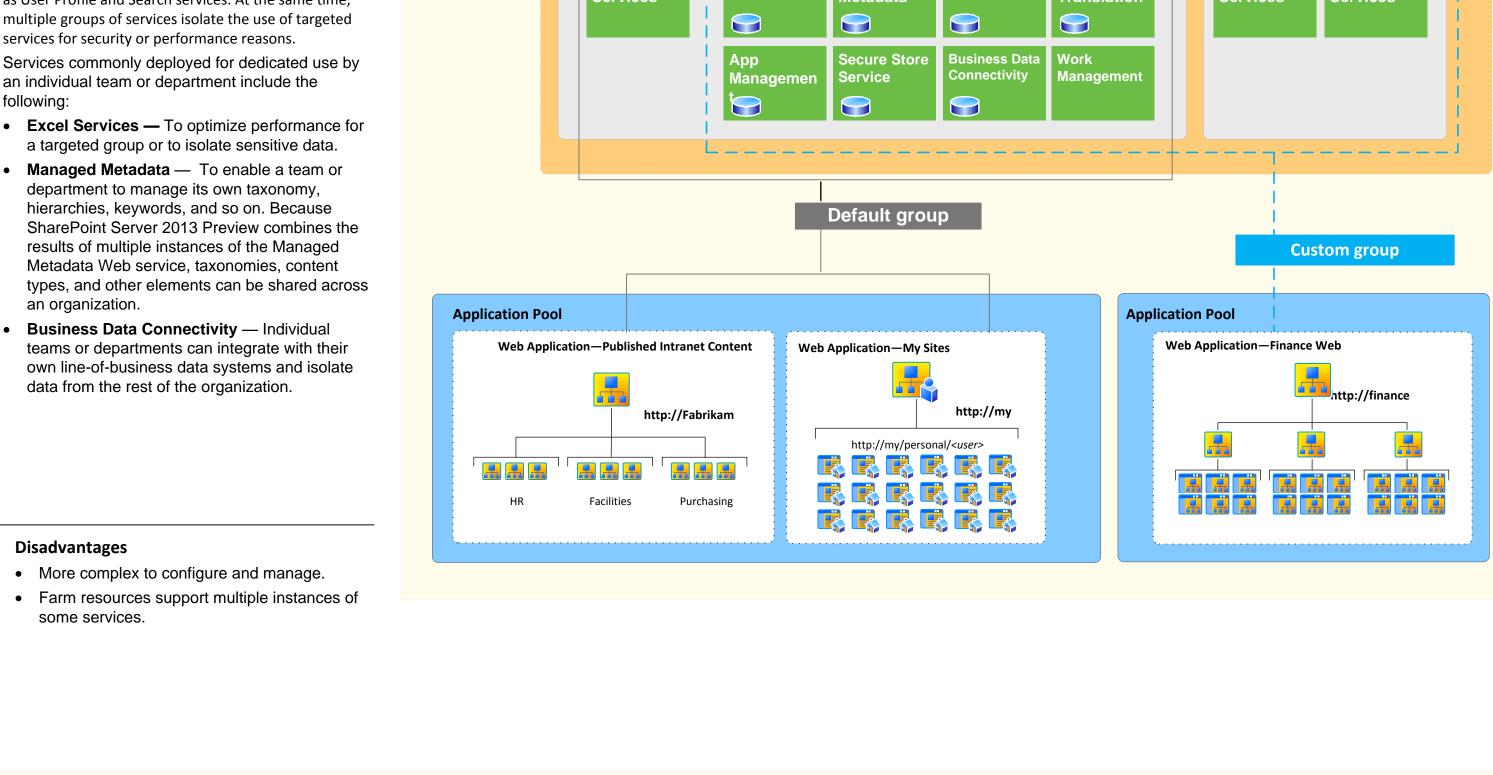
Disadvantages

- Farm resources support multiple instances of
- some services.

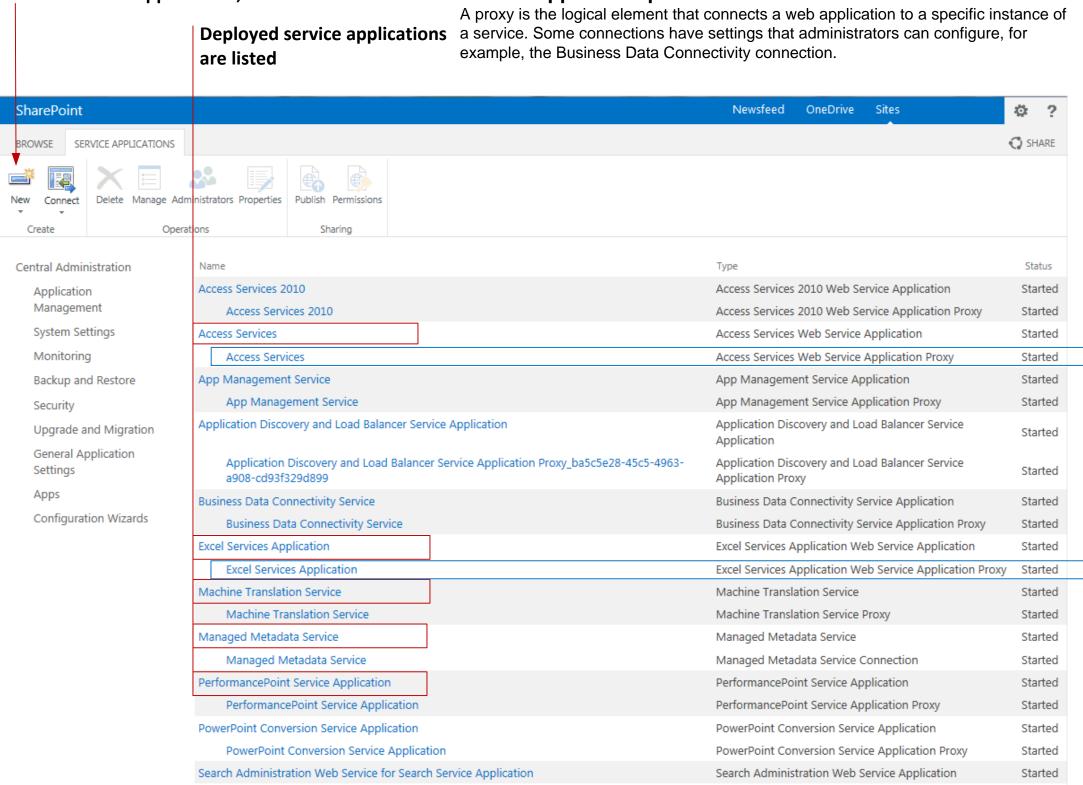
Connecting to multiple instances of the

Managed Metadata Service

- A grouping of services can include multiple instances of the Managed Metadata Service. For example, in the illustration (right), both of the custom groups include two instances of the Managed Metadata Service.
- In this scenario, the sites within the web applications display taxonomy, social tagging, and other features provided by this service from both of instances of the services.
- If there are multiple instances of this service. one of the instances must be designated as the primary service which hosts the corporate taxonomy. All other instances of this service are then secondary instances which provide additional data to the primary data.
- Unlike other cross-farm services, Web Parts by default include data from multiple instances of the Managed Metadata Service.



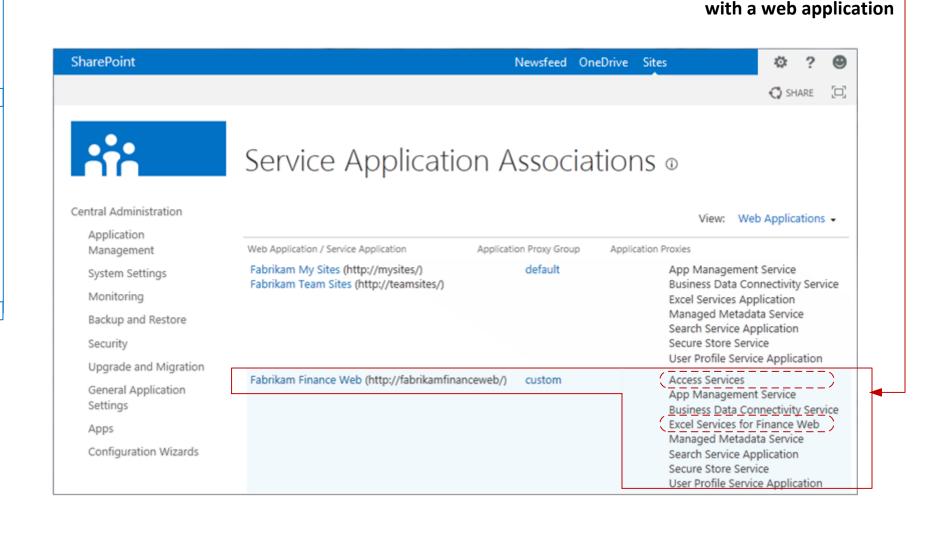
Manage Service Applications page To add service applications, click New Service application proxies are also listed

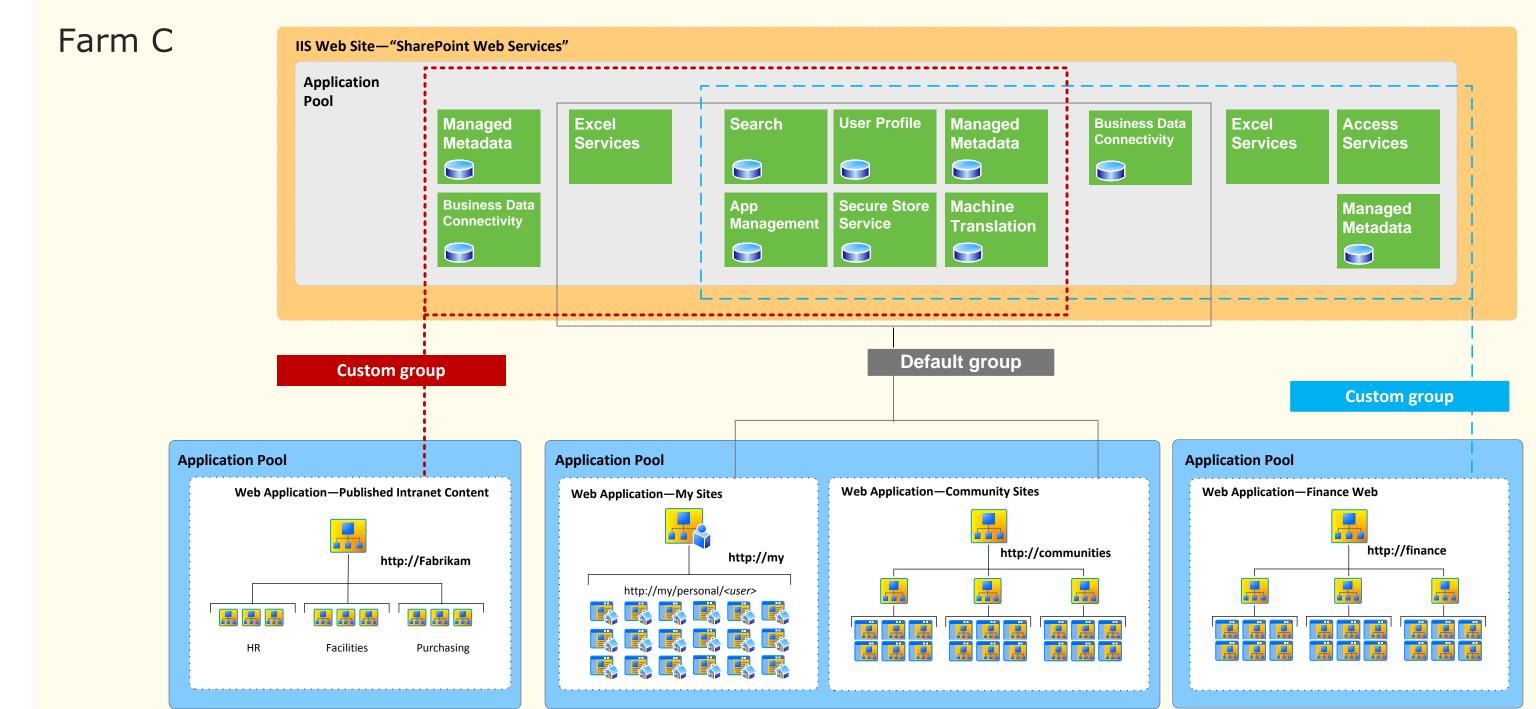


Service Application Associations

The grouping of services for a web application is configured when you first create a web application. Use this page in Central Administration to edit the associations. On this page:

- Click a web application to edit the services within the group or to select the default group of service applications. Click an application proxy group to edit the services that are associated with the group The Application Proxy Group assignment is either the default group or a custom group. Custom service groups are
- not reusable across multiple web applications. When you select "custom", you create a new set of associations for





View which services are associated