Services in SharePoint 2010 Products

Farm 1

Application pool

Service A

Service B

Application pool

Web application

IIS Web site—"SharePoint Web Services"

Service C

Service D

Service E

Web application

This diagram illustrates two different groupings of service

applications: the default group and a custom group.

Service F

Custom group

Application pool

Web application

Updated services infrastructure

In Microsoft® SharePoint® Server 2010, services are no longer contained within a Shared Services Provider (SSP). Instead, the infrastructure for hosting services moves into **SharePoint® Foundation 2010 and the** configuration of service offerings is much more flexible. Individual services can be configured independently and third-party companies can add services to the platform.

More granular configuration of services

- You can deploy only the services that are needed to a farm. Services that are deployed are called
- service applications Web applications can be configured to use only the services that are needed, rather than the entire set of services that are deployed. See the screen shot,
- 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
- You can share services across multiple Web applications within the same farm.



You can choose the service applications for a Web application when you create the Web application. You can also modify the services that are associated with a Web application later.

Sharing services across farms

- Some services can be shared 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 regional locations.
- 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, 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.

For more information about sharing services across farms, see the model Cross-farm services in SharePoint Products and Technologies.

Logical architecture

- All service applications in a farm are deployed to the same IIS Web site.
- Service applications can be deployed 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 B below).

Service groups

- By default, all service applications are included in the default group, unless you change this setting for a service application when it is created. 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
- Custom groups are not reusable across multiple Web applications. Each time you select "custom" when creating a Web application, you are selecting services only for the Web application you are

Deploying services

You deploy service applications within a farm by one of the following methods:

- Selecting services while running the Initial Configuration Wizard.
- Adding services one by one on the Manage Service

Applications page in the Central Administration site.

Using Windows PowerShell.

Web applications • When you create a service application, a

Connecting service applications to

- connection for the service application is created at the same time. A connection is a virtual entity that connects Web applications to service applications.
- In Windows PowerShell these connections are called proxies. The term "proxy" also appears at the end of the type description for connections on the Manage Service Applications page in Central Administration.
- Connections for services in the local farm are not created by the administrator, but these appear along with the list of service applications in Central Administration.
- Some connections 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 which of the connections is connected to the primary service application which hosts the corporate taxonomy.

Services administration

- Services are managed directly in Central Administration rather than on a separate administration site.
- Services can be monitored and managed remotely.
- Services can be managed and scripted by Windows PowerShell.
- Remote farms do not need direct permissions to the parent farm's configuration or services databases.

licrosoft SharePoint oundation Subscriptio ettings Service are deployed in partitioned mode. Windows PowerShell

View, edit, and interact with Microsoft® Access® 2010

Access line-of-business (LOB) data systems.

publishing across site collections.

multiple applications or services.

SharePoint Server components.

diagrams in a Web browser.

Provides Web Service interfaces.

User Profile

Business Data | Secure Store | Search

Web application—My Sites

http://my/personal/<user>

http://my

Viewing and interact with Excel files in a browser.

Access managed taxonomy hierarchies, keywords and

social tagging infrastructure as well as Content Type

Crawls content, produces index partitions, and serves

rovides temporary storage of user session data for

the ability to view various usage and health reports.

Viewing and refresh of published Microsoft® Visio®

Adds support for My Sites, Profiles pages, Social

Performs automated bulk document conversions.

Tracks subscription IDs and settings for services that

Tagging and other social computing features.

Collects farm wide usage and health data and provides

Provides single sign-on authentication to access

Provides the capabilities of PerformancePoint Services. Cache

Services

Service applications

anaged Metadata Servic

rformancePoint

cure Store Service

ser Profile

Web Analytics

IIS Web Site—"SharePoint Web Services"

Managed

Metadata

Application pool

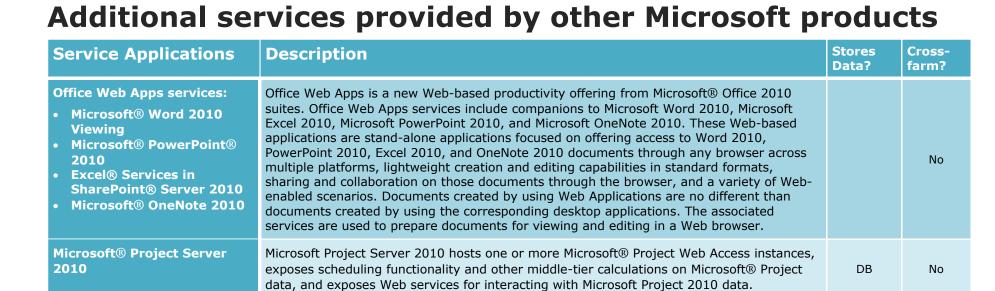
Services

http://companyweb

Application pool

Web application—Company Web

Application



Application pool

Services

Application pool

Web application—Finance Web

Application

Access

Custom group

http://finance

Services

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.

Add service applications by clicking New

This is the recommended configuration for most

- You want to optimize the resources required to
- You are sharing content and profile data

 Does not allow isolation of service data. Individual departments or groups cannot manage service applications on their own

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:

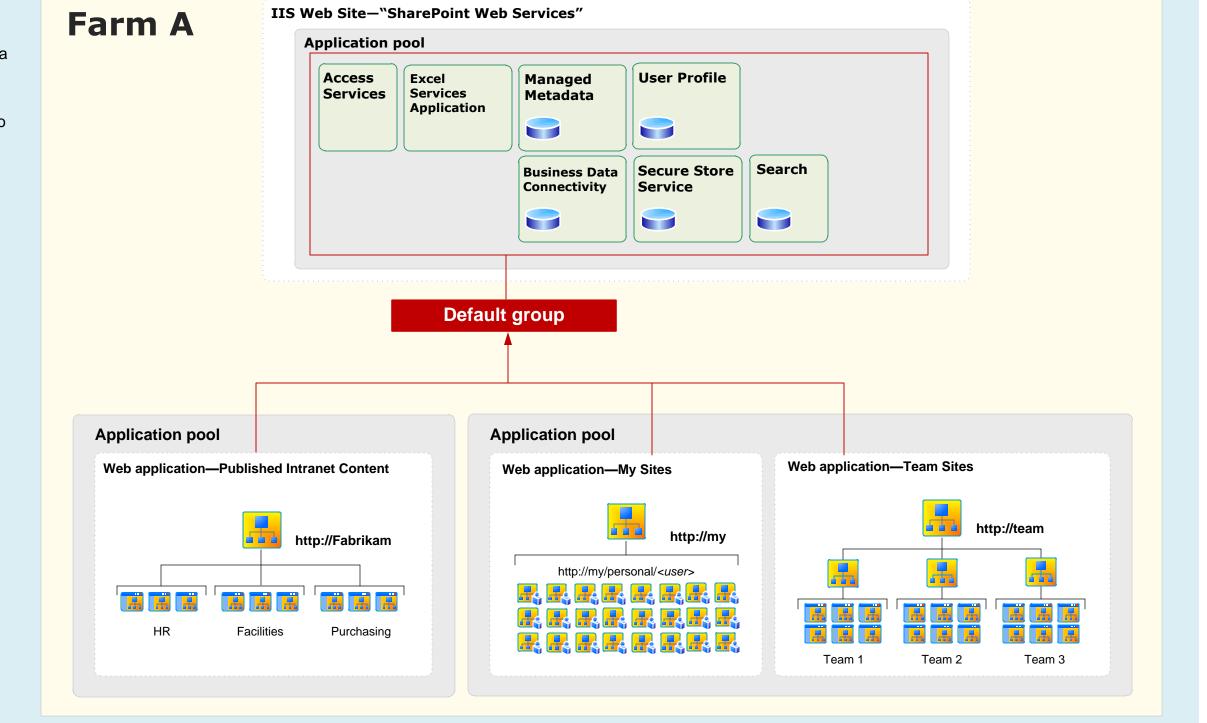
run services within a farm.

isolation, for performance or security reasons

Service application connections are also listed

across sites that otherwise require process

Disadvantages



Single-farm, multiple service groups

This configuration works well for companies with

divisions or teams that require dedicated services

Configuring multiple groups of services allows

offered enterprise-wide, such as profile and search

services, while at the same time isolating the use of

Services commonly deployed for dedicated use by

performance for a targeted group or to isolate

Managed Metadata — To allow a team or

hierarchies, keywords, and so on. SharePoint

Server 2010 combines the results of multiple

service, and so taxonomies, content types, and

instances of the Managed Metadata Web

other elements can be shared across an

Business Data Connectivity — Individual

teams or departments can integrate with their

data isolated from the rest of the organization.

own line of business data systems and keep the

teams and sites to consume services that are

targeted services for security or performance

Excel Services Application — To optimize

an individual team or department include:

with a narrower scope, such as partner

or isolated service data, or for sites that are set up

Recommendations

sensitive data.

Description

 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 are created using a custom group of services. The SharePoint administrator selects the service applications that are included in the custom group. In **Farm B**, the custom group includes the two dedicated service applications as well as most of the services that are deployed to the farm.

 More than one custom group can be created. 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, resulting in a second custom group (in addition to the dedicated services and group that are created for the Finance group).

configured to narrow the list of services that are used by a Web application. For example, a partner collaboration site can be configured to consume a sub-set of the services that are offered by the farm. • Farm B achieves process isolation for services that

In some cases, a dedicated group of services is

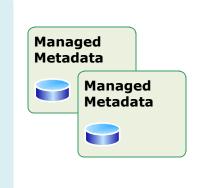
are deployed for the Finance group by placing these services in a dedicated application pool. **Farm C**, below, uses one application pool for all services, and consequently optimizes the deployment of services for performance instead.

- 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

More complex to configure and manage.

some services.



Connecting to multiple instances of the **Managed Metadata Service**

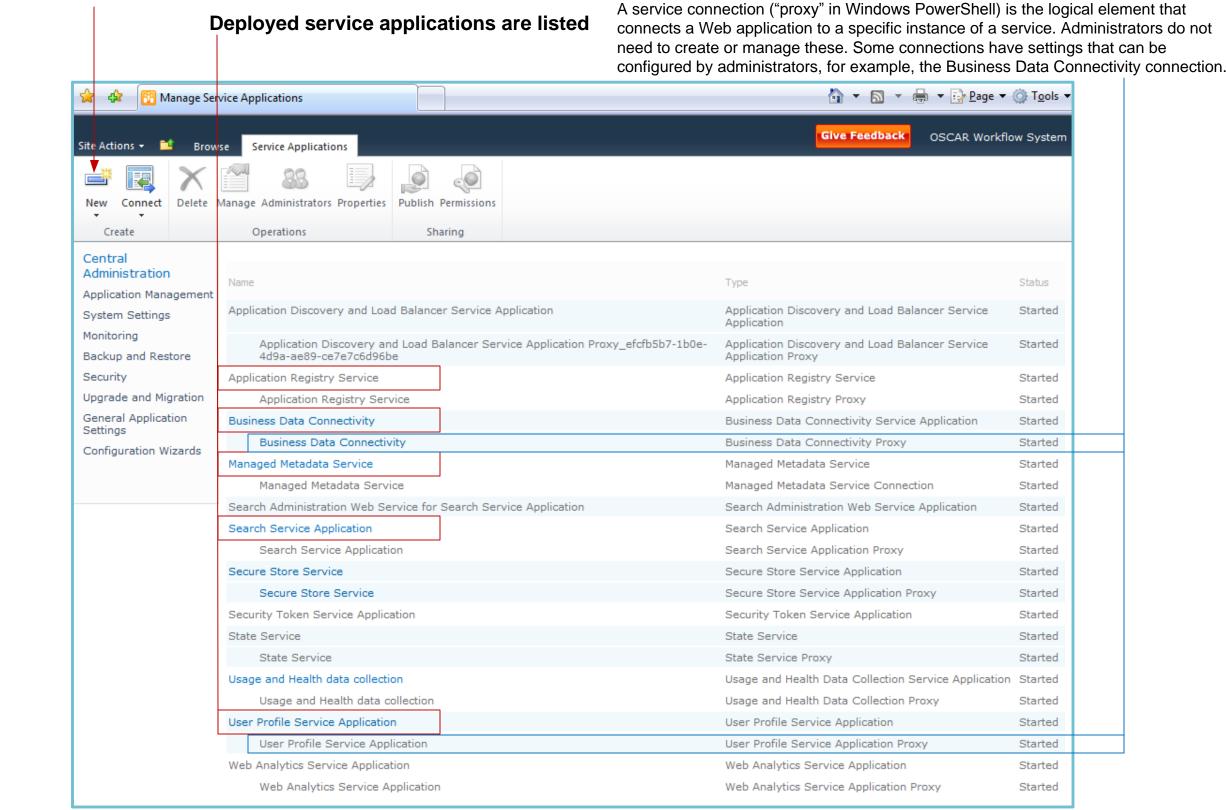
 A grouping of services can include multiple instances of the Managed Metadata service. For example, in the illustration (right), both of the custom groups include two instances of the Managed Metadata service.

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, providing 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.

Farm resources support multiple instances of Farm C IIS Web Site—"SharePoint Web Services" **Application** Managed Metadata Services Services Metadata Services Application Application **Business Data** Secure Store | Search **Business Data** Connectivity Custom group Default group Custom group **Application pool Application pool Application pool** Web application—HRWeb Web application—Finance Web Web application—Company Web Web application—My Sites http://finance http://companywel http://mv/personal/<user> Division 3

Manage Service Applications page



Service Application Associations

Manage the association of services to Web applications

Fabrikam My Sites (http://mysites)

associations for the Web application.

Upgrade and Migratio

Configuration Wizards

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

• Click a service group (proxy group) to edit the services associated with the group. The service group assignment is either the default group or a custom group. Custom service groups are

not re-usable across multiple Web applications. If you select "custom", you are creating a new set of

View which services are

Enterprise Metadata Web Service A

Fabrikam Secure Store Service

Fabrikam Search Query_Proxy

Enterprise Metadata Service

Fabrikam BDC

FabrikamSearchServiceApplication

associated with a Web application Service Application Associations Welcome PKM Labnet Account 🔻 Site Actions Central Administration ▶ Service Application Associations This page controls the web application to proxy group associations. Proxy Group Proxies/Applications Web Application SharePoint - 80 (http://CentralAdminSite) Fabrikam Search Ouery Proxy FabrikamSearchServiceApplication System Settings Fabrikam Finance Web (http://FabrikamFinanceWeb) custom Fabrikam_Finance_Access Service Monitoring Fabrikam Finance ExcelServices Secure Store Service Backup and Restore Fabrikam Search Query Proxy FabrikamSearchSer Fabrikam BDC