SharePoint – Consume Service Application from other farm

One of the feature updated in SharePoint 2010 is the way how to implement and consume shared service (SAA) from other SharePoint farm.

The first thing is to have one SharePoint farm installed and configured, with at least one SAA provisioned.

Be careful, all SAA are not eligible for remote use.

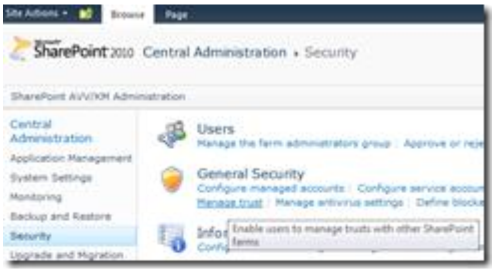
Next, you have to create a second SharePoint farm.

Allow SAA to be consume from other farm

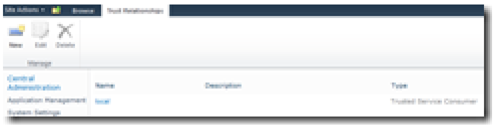
First thing is to configure a **trust relationship** between the two farms.

This is similar with AD Domains relationships.

To create a trust relationship, go to the **Security** page and click on the **Manage Trust** link.


Site Actions
Browse
Page
SharePoint 2010 Central Administration • Security
SharePoint AV/KM Administration
Central Administration
Application Management
System Settings
Monitoring
Backup and Restore
Security
Upgrade and Migration
Users
Manage the farm administrators group | Approve or reje
General Security
Configure managed accounts | Configure service accoun
Manage trust | Manage antivirus settings | Define blocke
Infor
Config

Enable users to manage trusts with other SharePoint farms



Name	Description	Type
local		Trusted Service Consumer

But, first before continuing you will have to manage SharePoint certificate; indeed, SharePoint trust relationships need certificate exchange.

To perform certificate exchange, open a local session on a SharePoint server and launch the **SharePoint PowerShell** with **administrative** elevation.

Export certificates from the consuming farm

- first certificate to 'generate' is the **root certificate**

```
$rootCert = (Get-SPCertificateAuthority).RootCertificate
```

```
$rootCert.Export("Cert") | Set-Content <replace with the destination path> -Encoding byte
```

- second certificate to ‘generate’ is the **Security Token Service** (STS) certificate

```
$stsCert = (Get-SPSecurityTokenServiceConfig).LocalLoginProvider.SigningCertificate
```

```
$stsCert.Export("Cert") | Set-Content <replace with the destination path> -Encoding byte
```

Export certificates from the publishing farm

- Export the root certificate

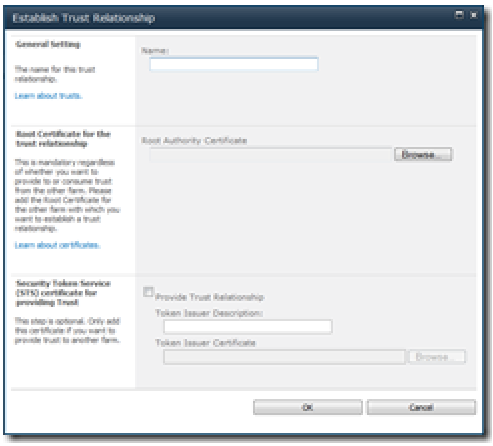
```
$rootCert = (Get-SPCertificateAuthority).RootCertificate
```

```
$rootCert.Export("Cert") | Set-Content <replace with the destination path> -Encoding byte
```

Copy all certificates generated on network share (this will be simpler when you will have to import them).

Once all required certificates have been exported, you can continue the Trust Relationship creation.

To add a trust with another farm, click on the **New** button.



Establish Trust Relationship

General Setting

The name for this trust relationship.

Learn about trusts.

Name:

Root Certificate for the trust relationship

This is mandatory regardless of whether you want to provide to or consume trust from the other farm. Please add the Root Certificate for the other farm with which you want to establish a trust relationship.

Learn about certificates.

Root Authority Certificate

Security Token Service (STS) certificate for providing Trust

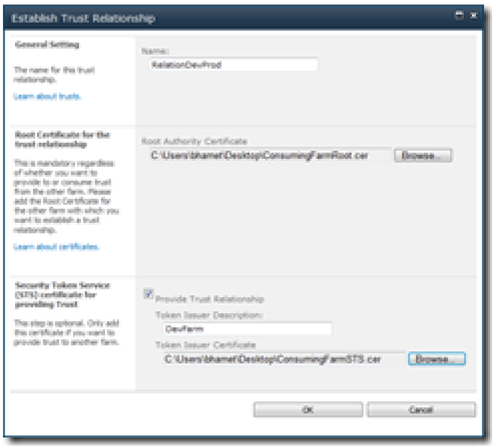
This step is optional. Only add this certificate if you want to provide trust to another farm.

□ Provide Trust Relationship

Token Issuer Description:

Token Issuer Certificate

Name your trust and import the **root certificate** from the other farm and optionally you add an STS certificate if you want to provide trust to other farm (which is my case here).



Establish Trust Relationship

General Setting

The name for this trust relationship.

Learn about trusts.

Name:
RelationDevProd

Root Certificate for the trust relationship

This is mandatory regardless of whether you want to provide to or consume trust from the other farm. Please add the Root Certificate for the other farm with which you want to establish a trust relationship.

Learn about certificates.

Root Authority Certificate
C:\Users\bhamel\Desktop\ConsumingFarmRoot.cer

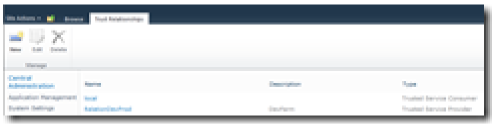
Security Token Service (STS) certificate for providing Trust

This step is optional. Only add this certificate if you want to provide trust to another farm.

☑ Provide Trust Relationship

Token Issuer Description:
DevFarm

Token Issuer Certificate
C:\Users\bhamel\Desktop\ConsumingFarmSTS.cer

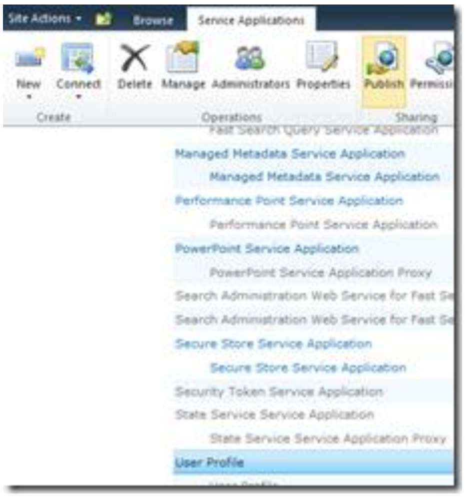


Name	Description	Type
local		Trusted Service Consumer
RelationDevProd	DevFarm	Trusted Service Provider

Once the relationship is created, you can continue the SAA publication.

Publish SAA

To publish a SAA (once a least one Trust Relationship has been created), go to the Service Applications management page on your Central Administration and select the SAA you want to publish (don’t click on the name but on the empty space just after) and then click on the **Publish** button.

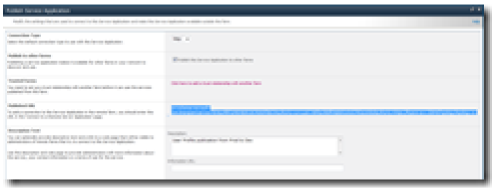


Fast Search Query Service Application
Managed Metadata Service Application
Managed Metadata Service Application
Performance Point Service Application
Performance Point Service Application
PowerPoint Service Application
PowerPoint Service Application Proxy
Search Administration Web Service for Fast Se
Search Administration Web Service for Fast Se
Secure Store Service Application
Secure Store Service Application
Security Token Service Application
State Service Service Application
State Service Service Application Proxy
User Profile
User Profile

Select the connection type (HTTP or HTTP) and **enable** the publication (Publish this Service Application to other farms).

Optionally, provide

Important copy the **Published URL** shown on the wizard, you will need it when you will connect your consuming farm.

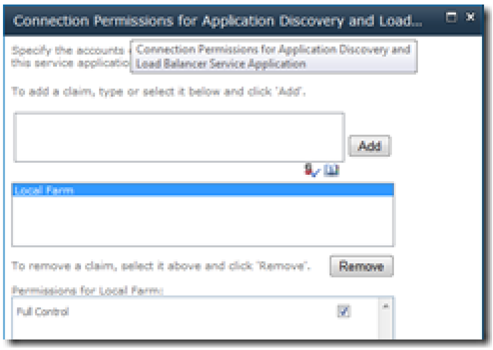


Once validated, no information are shown. To check if a SAA is published, you have to redo previous steps and off course the settings 'Publish this Service Application to other farms' is enabled.

Next step to be performed is to allow the remote farm to connect to the **Application Discovery and Load Balancer Service Application**. This step has to be done when you publish for the first time a SAA and each time a new farm has to consume your published SAA.

Set permission to Application Discovery and Load Balancer Service Application

By default, **only the local farm** is allowed to connect to this service.



Connection Permissions for Application Discovery and Load...

Specify the accounts this service applicatio

Connection Permissions for Application Discovery and Load Balancer Service Application

To add a claim, type or select it below and click 'Add'.

Local Farm

To remove a claim, select it above and click 'Remove'.

Permissions for Local Farm:

Full Control ☑

Connect to a SharePoint server from the **consuming** farm and open a SharePoint PowerShell command windows, type the following commands:

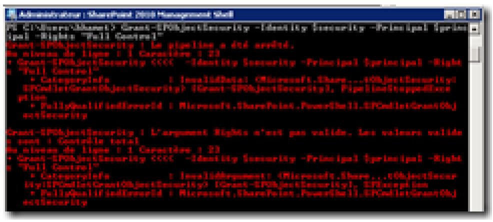
- Get-SPFarm | Select Id

Then do the same on a SharePoint server fro the **publishing** farm and execute the following commands:

- $security=Get-SPTopologyServiceApplication | Get-SPServiceApplicationSecurity
- $claimprovider=(Get-SPClaimProvider System).ClaimProvider
- $principal=New-SPClaimsPrincipal -ClaimType "http://schemas.microsoft.com/sharepoint/2009/08/claims/farmid" -ClaimProvider $claimprovider -ClaimValue <replace with the ID gained from the consuming farm>

- Grant-SPObjectSecurity -Identity $security -Principal $principal -Rights "Full Control" – **be careful** with language pack: you may have the error **"Grant-SPObjectSecurity : Le pipeline a été arrêté. (…)**

  Grant-SPObjectSecurity : L'argument Rights n'est pas valide. Les valeurs valides sont : Contrôle total", in this case change Full Control with the value shown in the message



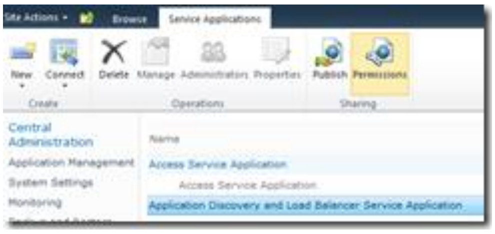
```
PS C:\Users\Xhamet> Grant-SPObjectSecurity -Identity $security -Principal $princ
ipal -Rights "Full Control"
Grant-SPObjectSecurity : Le pipeline a été arrêté.
Au niveau de ligne : 1 Caractère : 23
+ Grant-SPObjectSecurity <<<<  -Identity $security -Principal $principal -Right
s "Full Control"
    + CategoryInfo          : InvalidData: (Microsoft.Share...tObjectSecurity:
   SPCmdletGrantObjectSecurity) [Grant-SPObjectSecurity], PipelineStoppedExce
  ption
    + FullyQualifiedErrorId : Microsoft.SharePoint.PowerShell.SPCmdletGrantObj
   ectSecurity

Grant-SPObjectSecurity : L'argument Rights n'est pas valide. Les valeurs valide
s sont : Contrôle total
Au niveau de ligne : 1 Caractère : 23
+ Grant-SPObjectSecurity <<<<  -Identity $security -Principal $principal -Right
s "Full Control"
    + CategoryInfo          : InvalidArgument: (Microsoft.Share...tObjectSecur
   ity:SPCmdletGrantObjectSecurity) [Grant-SPObjectSecurity], SPException
    + FullyQualifiedErrorId : Microsoft.SharePoint.PowerShell.SPCmdletGrantObj
   ectSecurity
```

- Get-SPTopologyServiceApplication | Set-SPServiceApplicationSecurity -ObjectSecurity $security

To finalize, open the Central Administration for the **publishing** farm and go to the Service Applications management page.

Select the **Application Discovery and Load Balancer Service Application** and click on the **Permissions** button.

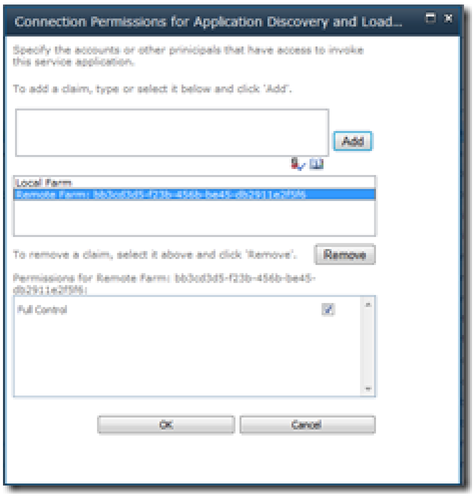


Access Service Application

Access Service Application

Application Discovery and Load Balancer Service Application

The ID for your **consuming** farm should be displayed with the Full Control rights.



Connection Permissions for Application Discovery and Load...

Specify the accounts or other principals that have access to invoke this service application.

To add a claim, type or select it below and click 'Add'.

Local Farm

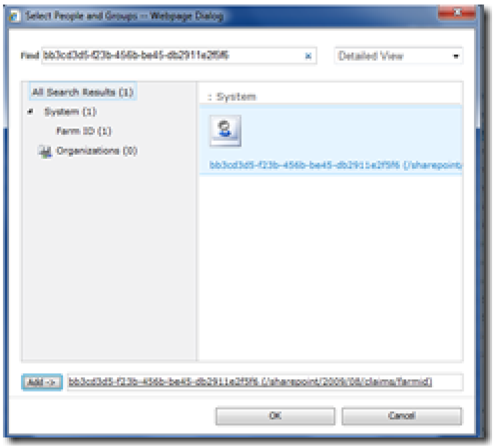
Remote Farm: bb3cd3d5-f23b-456b-be45-db2911e2f5f6

To remove a claim, select it above and click 'Remove'.

Permissions for Remote Farm: bb3cd3d5-f23b-456b-be45-db2911e2f5f6:

Full Control ☑

If not, click on the **Address book** button, type the ID and add it.



Find bb3cd3d5-f23b-456b-be45-db2911e2f5f6

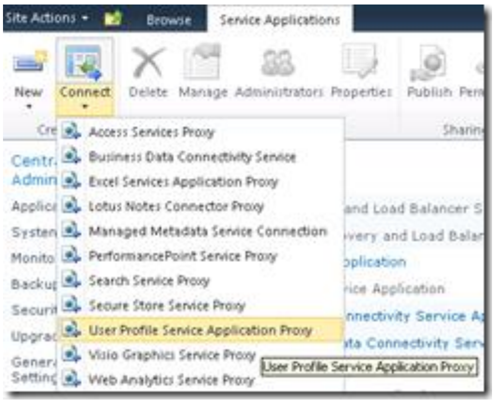
bb3cd3d5-f23b-456b-be45-db2911e2f5f6 (/sharepoint

bb3cd3d5-f23b-456b-be45-db2911e2f5f6 (/sharepoint/2009/08/claims/farmid)

Consume the published SAA

Connect to the Central Administration for the consuming farm and go to the Service Applications management page.

Click on the **Connect** button and select the SAA you want to consume.


Site Actions
Browse
Service Applications
New
Connect
Delete
Manage
Administrators
Properties
Publish
Perm
Cre
Sharin
Centr
Admin
Applic
Systen
Monito
Backu
Securi
Upgrac
Genera
Setting
Access Services Proxy
Business Data Connectivity Service
Excel Services Application Proxy
Lotus Notes Connector Proxy
Managed Metadata Service Connection
PerformancePoint Service Proxy
Search Service Proxy
Secure Store Service Proxy
User Profile Service Application Proxy
Visio Graphics Service Proxy
Web Analytics Service Proxy
User Profile Service Application Proxy
and Load Balancer S
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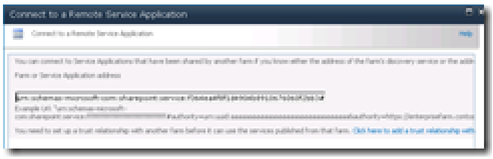
Copy the URL you copied earlier when you allowed the SAA to be consumed by other farm.


Connect to a Remote Service Application
Connect to a Remote Service Application
Help

You can connect to Service Applications that have been shared by another farm if you know either the address of the farm's discovery service or the addr

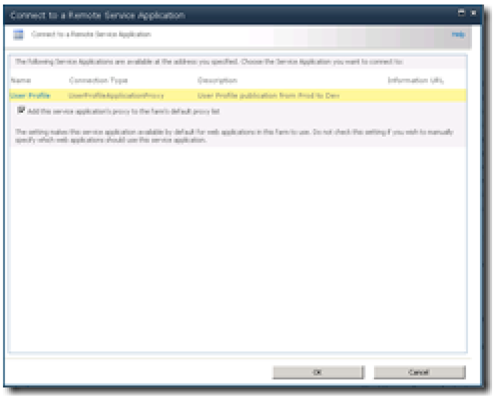
Farm or Service Application address

urn:schemas-microsoft-com:sharepoint:service:[illegible]

Example URL "urn:schemas-microsoft-com:sharepoint:service:[illegible]#authority=urn:uuid:[illegible]&authority=https://[illegible]

You need to set up a trust relationship with another farm before it can use the services published from that farm. Click here to add a trust relationship with

Select the service application you want to consume, and when ask provide a name. **Only** published Service Applications are list here.

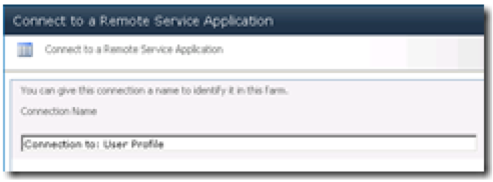

Connect to a Remote Service Application
Connect to a Remote Service Application
Help
OK
Cancel

The following Service Applications are available at the address you specified. Choose the Service Application you want to connect to:

Name	Connection Type	Description	Information URL
User Profile	UserProfileApplicationProxy	User Profile publication from Prod to Dev	

☑ Add the service application's proxy to the farm's default proxy list

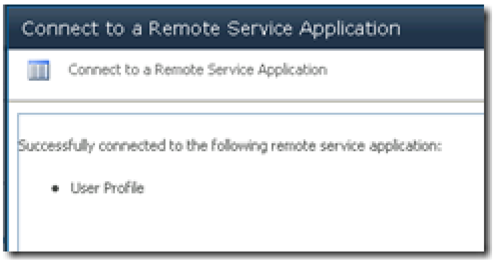
The setting makes this service application available by default for web applications in this farm to use. Do not check this setting if you wish to manually specify which web applications should use this service application.


Connect to a Remote Service Application
Connect to a Remote Service Application

You can give this connection a name to identify it in this farm.

Connection Name

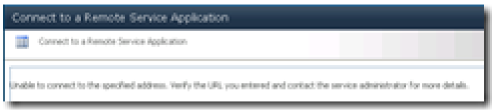
Connection to: User Profile


Connect to a Remote Service Application
Connect to a Remote Service Application

Successfully connected to the following remote service application:

- User Profile

If you have the error: **Unable to connect to the specified address. Verify the URL you entered and contact the service administrator for more details.** Check if you have set the permission on **Application Discovery and Load Balancer Service Application**.


Connect to a Remote Service Application
Connect to a Remote Service Application

Unable to connect to the specified address. Verify the URL you entered and contact the service administrator for more details.