Mirjam's thoughts on SharePoint

SharePointChick's musings on SharePoint

MAY 06 10

Configuring claims and forms based authentication for use with an LDAP provider in SharePoint 2010

Today I worked on configuring forms based authentication for SharePoint 2010. Using forms based authentication automatically means using claims based authentication in Sharepoint 2010.
I tried using both an LDAP provider and a SQL provider. My initial goal was to get them both working in the same environment, but after a lot of hours of staring at XML in web.config files I gave up on that one. Instead I created separate environments for using LDAP and SQL providers. Because of this I will also write two separate blog posts. This one will explain how to set up forms based authentication while using an LDAP provider.
If you want to configure forms based authentication for use with a SQL provider check out my other post **here**.

Using an LDAP provider with forms based authentication means that users will use their Windows or AD account to log in. However, because forms based authentication will be used they don't get the usual popup, but they will use a sign-in page to log in.

These are the steps you will need to take to set it up:

Create a new web application

- Go to Central Administration
- Go to Application Management
- Click on Manage Web Applications
- Click New
- Select Claims Based Authentication
- Identity Providers
  * Check the Enable Windows Authentication box or you won't be able to crawl the site
  * Check the Enable ASP.NET Membership and Role Provider checkbox
  * In the Membership provider name edit box, type LdapMember
  * In the Role provider name edit box, type LdapRole

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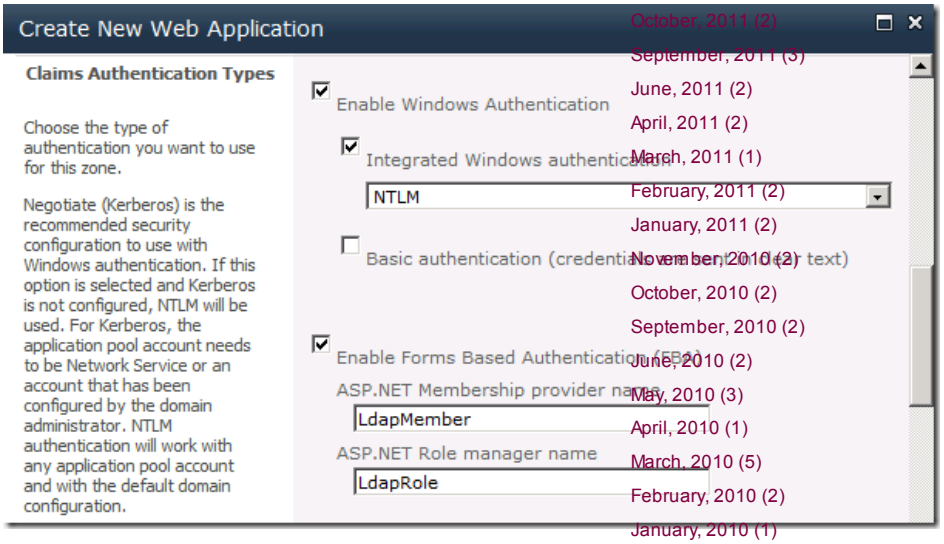

Create a new site collection

- Go to Central Administration
- Go to Application Management
- Click Create site collections
- Select the newly created web application
- Fill in a name and select a template

Adjust the web.config of the Central Administration site

- Open the Central Administration site's web.config file
- Find the <system.web> entry
- Paste the following XML directly below it

```
<membership>
   <providers>
      <add name="LdapMember"
         type="Microsoft.Office.Server.Security.Lda
 Microsoft.Office.Server, Version=14.0.0.0, Cultur
 PublicKeyToken=71e9bce111e9429c"
         server="dc.sharepoint.com"
         port="389"
         useSSL="false"
         userDNAttribute="distinguishedName"
         userNameAttribute="sAMAccountName"
         userContainer="OU=SPUsers,DC=sharepoint,D
         userObjectClass="person"
         userFilter="(ObjectClass=person)"
         scope="Subtree"
         otherRequiredUserAttributes="sn,givenname,
   </providers>
</membership>

<roleManager enabled="true" defaultProvider="AspNet
   <providers>
      <add name="LdapRole"
         type="Microsoft.Office.Server.Security.Lda
Microsoft.Office.Server, Version=14.0.0.0, Culture=
PublicKeyToken=71e9bce111e9429c"
         server="dc.sharepoint.com"
         port="389"
         useSSL="false"
         groupContainer="OU=SPUsers,DC=sharepoint,D
         groupNameAttribute="cn"
         groupNameAlternateSearchAttribute="samAcc
         groupMemberAttribute="member"
```

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June, 2009 (6)
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April, 2009 (2)
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```
            userNameAttribute="sAMAccountName"
            dnAttribute="distinguishedName"
            groupFilter="(ObjectClass=group)"
            userFilter="(ObjectClass=person)"
            scope="Subtree" />
    </providers>
</roleManager>
```

- In the above XML the server tag is the server name of the domain controller. The user and group containers are the containers in AD where the users and groups you want to use for authentication reside. If you don't know what the path to your container is, but you do have access to AD you can find out what the container is.
  - Go to the domain controller
  - Open Active Directory Users and Computers
  - Select a user or a group in the container
  - Right click and select All Tasks => Resultant Set Of Policy (Planning)
  - Click the browse button next to Container and select the container
  - This will give you the path to the container
- Double check whether the <membership> and <rolemanager> entries only exist ones. Delete any double entries.
- Paste the following XML below the <PeoplePickerWildcards> entry

```
<clear />
<add key="AspNetSqlMembershipProvider" value="%" />
<add key="LdapMember" value="*"/>
<add key="LdapRole" value="*"/>
```

Adjust the web.config of the Security Token Service (STS) virtual directory

NB: you will need to make the changes to the Security Token Service virtual directory on each server hosting either Central Administration or the claims based web application

- Open the Security Token Service (STS) virtual directory's web.config file
- Find the </system.net> entry
- Add a <system.web> entry directly below it
- Paste the following XML directly below the <system.web> entry

```
<membership>
   <providers>
      <add name="LdapMember"
         type="Microsoft.Office.Server.Security.Lda
 Microsoft.Office.Server, Version=14.0.0.0, Culture
PublicKeyToken=71e9bce111e9429c"
         server="dc.sharepoint.com"
         port="389"
         useSSL="false"
         userDNAttribute="distinguishedName"
         userNameAttribute="sAMAccountName"
         userContainer="OU=SPUsers,DC=sharepoint,DC
         userObjectClass="person"
         userFilter="(ObjectClass=person)"
         scope="Subtree"
```

Apps

Real world SharePoint

Ali Mazaheri
Andrew Connell
Bill Baer
Bob Fox
Chris Gideon
Edwin Vriethoff
Maurice Prather
Russ Houberg
Spence Harbar
Tajeshwar Singh
Vesa Juvonen

```
            otherRequiredUserAttributes="sn,givenname,
      </providers>
   </membership>

   <roleManager enabled="true">
      <providers>
         <add name="LdapRole"
            type="Microsoft.Office.Server.Security.Lda
    Microsoft.Office.Server, Version=14.0.0.0, Culture
   PublicKeyToken=71e9bce111e9429c"
            server="dc.sharepoint.com"
            port="389"
            useSSL="false"
            groupContainer="OU=SPUsers,DC=sharepoint,
            groupNameAttribute="cn"
            groupNameAlternateSearchAttribute="samAcc
            groupMemberAttribute="member"
            userNameAttribute="sAMAccountName"
            dnAttribute="distinguishedName"
            groupFilter="(ObjectClass=group)"
            userFilter="(ObjectClass=person)"
            scope="Subtree" />
      </providers>
   </roleManager>
```

- Add a </system.web> entry directly below it

Adjust the web.config of the claims based web application

- Open the claims based web application's web.config file
- Locate the <membership> entry
- Paste the following XML directly below the <Providers> entry

```
<add name="LdapMember"
   type="Microsoft.Office.Server.Security.LdapMembe
Microsoft.Office.Server, Version=14.0.0.0, Culture=
 PublicKeyToken=71e9bce111e9429c"
   server="dc.sharepoint.com"
   port="389"
   useSSL="false"
   userDNAttribute="distinguishedName"
   userNameAttribute="sAMAccountName"
   userContainer="OU=SPUsers,DC=sharepoint,DC=com"
   userObjectClass="person"
   userFilter="(ObjectClass=person)"
   scope="Subtree"
   otherRequiredUserAttributes="sn,givenname,cn" />
```

- Locate the <roleManager> entry
- Paste the following XML directly below the <Providers> entry

```
<add name="LdapRole"
   type="Microsoft.Office.Server.Security.LdapRole
Microsoft.Office.Server, Version=14.0.0.0, Culture=
PublicKeyToken=71e9bce111e9429c"
   server="dc.sharepoint.com"
   port="389"
   useSSL="false"
   groupContainer="OU=SPUsers,DC=sharepoint,DC=com"
   groupNameAttribute="cn"
```

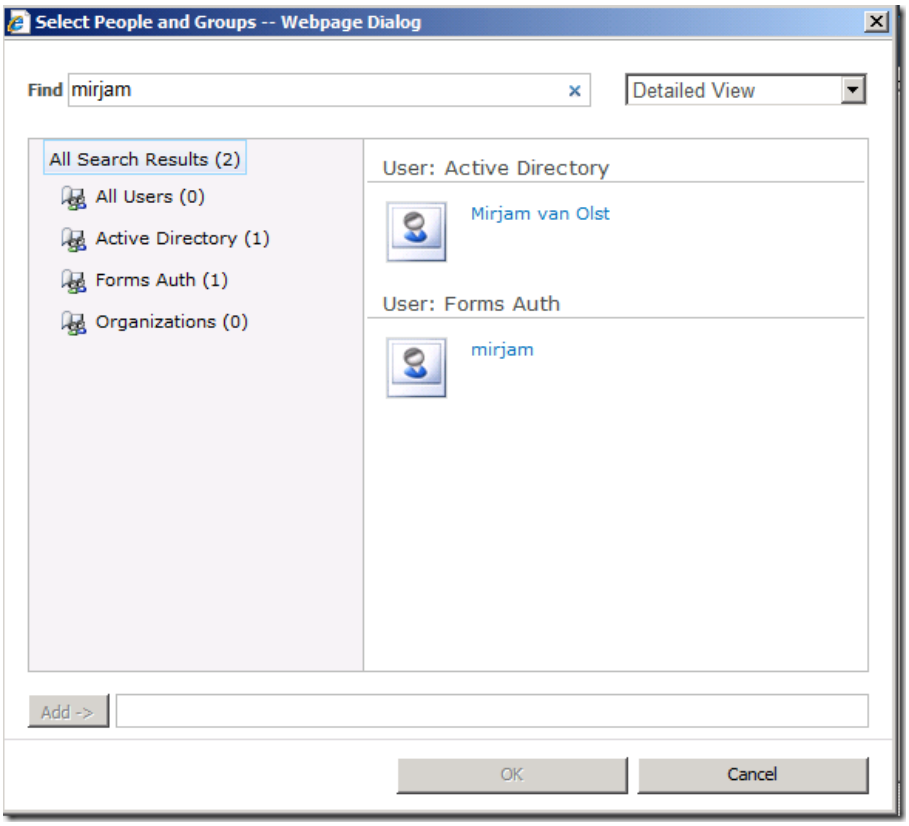
```
groupNameAlternateSearchAttribute="samAccountNam
groupMemberAttribute="member"
userNameAttribute="sAMAccountName"
dnAttribute="distinguishedName"
groupFilter="(ObjectClass=group)"
userFilter="(ObjectClass=person)"
scope="Subtree" />
```

- Paste the following XML below the PeoplePickerWildcards entry

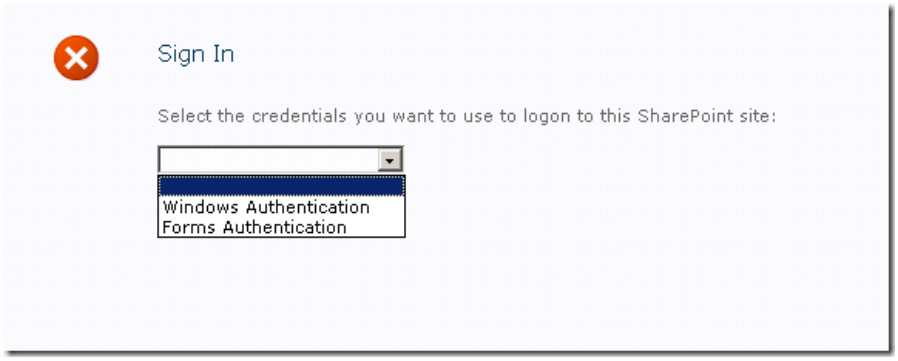
```
<clear />
<add key="AspNetSqlMembershipProvider" value="%" />
<add key="LdapMember" value="*"/>
<add key="LdapRole" value="*"/>
```

Add a user policy to the web application

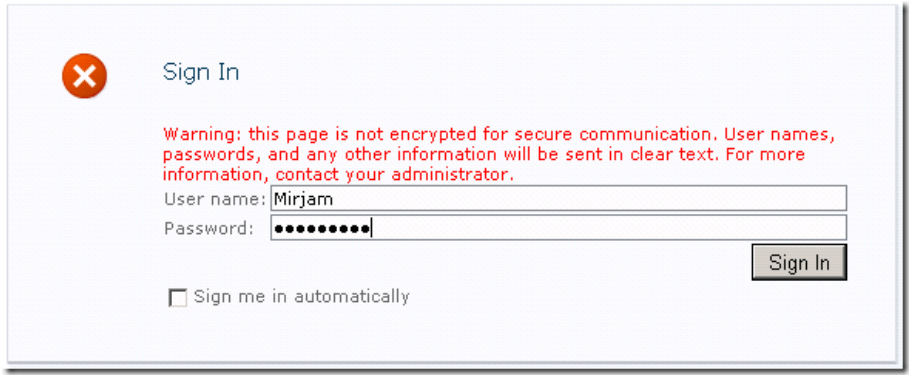
- Go to Central Administration
- Go to Application Management
- Click on Manage Web Applications
- Select the claims based web application
- Click on User Policy
- Click on the Add Users link
- Click the Next button.
- Click the Address Book icon.
- Type in the NT login name or account name and click the search button. If it's working correctly you should see at least two entries for the account – one that is for the user's Active Directory account, and one that is for that same account but which was found using the LDAP provider.
- Select the account in the User section and click the Add button
- Click the OK button
- Check the Full Control checkbox, then click the Finish button



You can now browse to the web application and log in using forms based authentication.



Select Forms Authentication in the dropdown



And fill in the appropriate user name and password.

I used the following blog posts to get things working, so I would like to

thank Steve, Ali and TechNet :-):

http://blogs.technet.com/speschka/archive/2009/11/05/configuring-forms-based-authentication-in-sharepoint-2010.aspx
http://blogs.msdn.com/alimaz/archive/2009/10/30/configuring-fba-in-sharepoint-server-2010-beta-2.aspx
http://technet.microsoft.com/en-us/library/ee806890(office.14).aspx

From → SharePoint 2010 dotnetmag Authentication

Comments -

seva naik Bhukya

Hi. Thanks for a nice article. I have followed the same steps explained above for configuring forms authentication. Everything was working fine. But, my site stopped working suddenly while logging in to the site. I'm getting the error message as "The remote server returned an error: (500) Internal Server Error.". And also i didn't do any configuration changes.

Any help in this greatly appreciated.

mirjam

Hi,

The error you are getting is the friendly HTTP error and doesn't actually tell you what's wrong.
Try turning off the friendly HTTP errors, so you can see the actual message. Also check the SharePoint logs at c:\program files\common files\microsoft shared\web server extensions\14\logs and the event logs of the server(s) running SharePoint.

This should at least give you an idea of what's happening.

Seva

Hi Mirjam,
Thanks for your reply and I appriciate your valueble time.

We are not able to see the error details using ULS Viewer tool.

And also we are getting "System.IO.InvalidData Exception was thrown." error while running SharePoint Configuration Wizard.

Regards
Seva

Kamlesh

Hi Mirjam,

We are discussing this on TechNet Forums here too:

social.technet.microsoft.com/.../c4c4d2c3-a55b-...

The user is facing problems with Beta version. By the way, did you use Beta or RTM bits for your above post?

mirjam

Hi,

This post was written for the RTM version and not the beta version of SharePoint 2010.

velmurugans

Thank you!!! A Good Post to configure Authentication in 2010

Martin

Hi SharePointCheck,

it allready is the second time I try to make that claims-based authentication work for my SharePoint, but once again it doesn't want to make me happy :-(

At first I found some error messages related to the declared identity providers in the web.config files. I was able to fix them.

I am using AD LDS to provide a user store and I assume it is not configured as it should be. I build up the AD LDS as it is written on this page:

www.bloggersbase.com/.../ad-lds-sharepoint-form...

My current problem is, that it just doesn't find the users I declared in AD LDS when I search for them via people picker on 'Site Permissions' page.

I really made everything like you have written here. I am almost falling into despair :-(

Pleeeeeaaaaaase help.

Thanks in advance
Martin

Martin

Sorry for the typo...SharePointChick :-)

Tmcnulty

Mirjam,
Great Post!! Took the mystery out 2010 FBA. One question on the AD containers. What if my AD organization has users in multiple containers? Can I just add the locations to the config files?

All the best

TMc

mirjam

Hi TMc,

I'm afraid all users have to be in the same OU. You could of course add the top level OU to the config files, but I can imagine that includes more OUs than you're interested in.

Mirjam

Jag

Hi Mirjam,
Very nice article. I have been working on this for last 4 days and have finally got atleast the people picker working. I am able to see the Ldap members in the people picker and I have given them access to the site. I keep getting Access denied message. It does authenticate the user but denies access.

A user shows up twice in the people picker. Does SharePoint treat them as two separate users even though they are the same users.

Can you give your valuable insight please

Jag

Pingback/TrackBack

The following is more of a general internet security point, although it's still one to be very mindful of. Make sure that your e- mail address on record for the domain has a secure password that is hard (if not near impossible) to guess. It may seem relatively innocent, although having a weak e- mail address password could be a disaster if someone guesses it- they could then try moving your domain to another registrar and you wouldn't get any of the notification e- mails since your account has been compromised. ...

mirjam

Hi Jag,

If you use the same account for Windows authentication and claims based authentication SharePoint will see that one account as two different users. So if you grant the Windows user access and not the claims based one, you should indeed get an access denied message.

Hope that helps.

Mirjam

Lew Grant

Can anyone confirm this works with SharePoint 2010 FOUNDATION?

When I do all this I get 500 error and logs point out that Microsoft.Office.Server can't be found. This is the DLL we are referencing in our type attribute and since that DLL is part of MOSS/SharePoint 2010 and not part of WSS/SharePoint 2010 FOUNDATION then how do you use an LDAP provider with SharePoint 2010 FOUNDATION server?

mirjam

Hi Lew,

You can do claims based authentication and FBA using the SQL provider with SharePoint Foundation, but you can't use the LDAP provider. As you stated yourself the LDAP provider is part of SharePoint Server. If you want to use LDAP using SharePoint Foundation you will need to write your own LDAP provider.

Mirjam

Jagdish

Hi Mirjam,
Thanks for the reply. We have created the SP site and have also configured the alternate access mapping for the site. We plan to have two URL. One for the external users who authenticate using FBA - SQL server and the second one for internal users using LDAP-AD. Incase of SQL server - FBA, I grant access to groups - SQL membership and it works great. But in case of LDAP, my people picker does pick up the people but not the AD security groups.

I would like to grant access to AD security group using LDAP -FBA instead of granting access to individual users. This would make the site management much easier in future.

Is this doable or am I missing something.

Jag

Jag

I could config seeing the AD-Security groups in Ldap -FBA. I did the following modifications in the web.config
<add name="LdapMember"
type="Microsoft.Office.Server.Security.LdapMembershipProvider, Microsoft.Office.Server, Version=14.0.0.0, Culture=neutral, PublicKeyToken=71e9bce111e9429c"
server="smdi.com"
port="389"
useSSL="false"
userDNAttribute="distinguishedName"
userNameAttribute="sAMAccountName"
userContainer="DC=Company,DC=COM"
userObjectClass="person"
userFilter="(|(ObjectCategory=group)(ObjectClass=person))"
scope="Subtree"
otherRequiredUserAttributes="sn,givenname,cn" />
</providers>

The main change is "userFilter="(|(ObjectCategory=group)(ObjectClass=person))""

But a user in that AD group cannot access SP site. I get a message - Access denied .

Jag

Dhani

I followed the same steps but getting error file not found

mirjam

Hi Jag,

There was a problem with the default provider in SharePoint 2007 for LDAP and authenticating users using AD groups. Your story makes me think that this problem might still exist in SharePoint 2010..

Dan

Mirjam: AWESOME post.

Have you found a way so that, after configuring FBA, the WELCOME CONTROL (in the upper-right corner of the page) shows a friendly name rather than something like:
0#.f|LdapMember|Dan ?

mirjam

Hi Dan,

Thank you!

The easiest way to fix the name is by creating a user profile for the user. You can create the profile manually or by using custom code. Filling in a proper name in the profile will (after it's synced to the site collection of course) fix the name in the welcome control.
I didn't test this myself, but I think that if you do a normal user profile sync instead of creating the user profile manually that SharePoint won't recognize that the synced account is the same account as the claims user account.

Mirjam

Nick

I have tried following the directions here, but I am having a lot of issues. I have tried all of these guides:

technet.microsoft.com/.../ee806890.aspx#section2

jaminquimby.com/.../294-sharepoint-2010-and-lda...

And a third one. I changed the server name to domaincontrollername.domainname.com and set up the OUs accordingly.

I used to get the 500 error, but now I get the generic sharepoint error.

Central administration tells me my secure token service isn't running, and my event logs say:
An exception occurred when trying to issue security token: Could not connect to localhost:32843/.../actas. TCP error code 10061: No connection could be made because the target machine actively refused it 127.0.0.1:32843. .

I have been all over the internet, and have several threads on the MSDN forums, which are rarely any help. Does anyone here have any suggestions?

john

excelent info, keep it coming

Nick

I finally got my membership and role providers to work. I can see the users when I go to add users under central administration, so I know my configuration is correct in that regard. However, I still can't

authenticate. Central Administration says the security token service is not available, and when I look at my event logs, this seems to be the case. I have tried recycling the application pool, and have been all over the internet. It's looking like I am going to have to call microsoft, and I am really not looking forward to that. Has anyone had any luck with this?

robert

excelent post, keep it coming

talyvan

Excellent Post!, it helped me in no time to get a proof of concept ready for the client.

Couple of gotchas though.. when updating the web.config for the Security Token Service virtual directory, make sure you select the correct web.config file, is not straight specified the location, usually is under [...\14\WebServices\SecurityToken]

Make sure your RESTful (just type http://<your site>/_vti_bin/ListData.svc, you'll either get an error or see something) services are working, if not a patch is needed.

Other than that PERFECT!

Joby

I am not able to find the ADLDS users for add user policy, I have followed all the steps you provided.

Wim Hill

Hi Mirjam,

First of all great post, unfortunatly after following it step by step I don't see any accounts provided by LDAP, I only see my NT Login name (Authentication with that account through the form works fine) Any ideas what could be the cause of not seeing the LDAP accounts?

Damien

I have this working for FBA users but when I limit a People Picker field to only pick from a SharePoint Group containing my FBA users then the search for users in people picker does not work. Any idea why this would be the case?

Steve

Have you had any problems with the search engine and access denied?

I have a claims setup and I cannot get my search access user any permissions…for some reason.

Venkat

Hi,
I had initially set FBA using ASPNETDB users. I had created a custom login page. Now the LDAP users are not able to login. Only the FBA users are getting logged in.
Any suggestions on this.

Klpp

Will your configurations switch the entire farm over to forms authentication or only for the web application. I want wanting to do form auth but only for one web application. Thoughts?

mirjam

Hi Kipp,

This will only switch a single web application over to forms based authentication, not the entire farm.

Mirjam

geo

Hi,

I followed step by step your article but i have the following error when i want to authenticate my user:

Message:
Unexpected exception occurred, please contact administrator to resolve this issue.

trace:
[FaultException`1: Unexpected exception occurred, please contact administrator to resolve this issue.]
Microsoft.IdentityModel.Protocols.WSTrust.WSTrustChannel.ReadResponse(Message response) +1161013
Microsoft.IdentityModel.Protocols.WSTrust.WSTrustChannel.Issue(RequestSecurityToken rst, RequestSecurityTokenResponse& rstr) +73
Microsoft.IdentityModel.Protocols.WSTrust.WSTrustChannel.Issue(RequestSecurityToken rst) +36

Microsoft.SharePoint.SPSecurityContext.SecurityTokenForContext(Uri context, Boolean bearerToken, SecurityToken onBehalfOf, SecurityToken actAs, SecurityToken delegateTo) +26062081
Microsoft.SharePoint.SPSecurityContext.SecurityTokenForFormsAuthentication(Uri context, String membershipProviderName, String roleProviderName, String username, String password) +26061068
Microsoft.SharePoint.IdentityModel.Pages.FormsSignInPage.GetSecurityToken(Login formsSignInControl) +188
Microsoft.SharePoint.IdentityModel.Pages.FormsSignInPage.AuthenticateEventHandler(Object sender, AuthenticateEventArgs formAuthenticateEvent) +123
System.Web.UI.WebControls.Login.AttemptLogin() +152
System.Web.UI.WebControls.Login.OnBubbleEvent(Object source, EventArgs e) +124
System.Web.UI.Control.RaiseBubbleEvent(Object source, EventArgs args) +70
System.Web.UI.Page.RaisePostBackEvent(IPostBackEventHandler sourceControl, String eventArgument) +29
System.Web.UI.Page.ProcessRequestMain(Boolean includeStagesBeforeAsyncPoint, Boolean includeStagesAfterAsyncPoint) +2981

Just more info:
I can get my users with the user picker for example when i create my collection site, to assign the administrator of my collection, so ldapprovider works fine.
Next, when i edit a wrong password, the login page informs me of a wrong password. So the autentication works fine to.

any idea?

Geo

Kai

Hi Mirjam

great Post.

It works for me perfectly with the forms based authentication. I can add a user from "forms auth". but If I'm searching for particular AD groups, the peoplepicker does only return groups from Active Directory and the "froms auth" is empty. So unfortunately as you stated above these are two different accounts for SharePoint.

But I do not want to add users to SharePoint, I would like to have only groups there. Any Guess what is wrong?

Regards

Kai

Anj

Hi,
I have followed all the steps as mentioned but I am not able to see the Form Auth users in the userpolicy step.
Could you please help.

Regards,
Anji

Anj

in continuation to my previous comment.
I also donot get the results from the active directory. I get it from Organisations!
Any clues? please help

Tyler

I have tried this multiple times now, but the people picker never gives me any results for FBA. I'm not getting any error message, and I am able to log in via a windows account just fine.

Tyler

I figured out my issue. The following entries in my web.config files:

userContainer="OU=SPUsers,DC=sharepoint,DC=com"

needed to be

userContainer="CN=SPUsers,DC=sharepoint,DC=com"

Prezz

Mirjam,

Wonderful post, but as many others are having the same issue I was curious if you knew of a fix for CBA to work with AD LDS. I can get the person to come up in People Picker and get logged into the site but getting an error after logging in so the Authentication is working, but an error with the Security Token Service. Have you had any success with connecting an AD LDS via this format?

Tina

Thank you so much!!.. you helped me figure out the last setting I was missing. I was receiving the 500 Error others have mentioned above. I found I had a typo in the Central Admin web.config. Once I fixed that

it worked. I have spent hours trying to get this working, none of the examples I found included adding the defaultProvider value you specify in the central admin web.config. Wish I located this page earlier.

Suresh Padaga

I followed the same steps... but after login i am getting below error: please help
The server was unable to process the request due to an internal error. For more information about the error, either turn on IncludeExceptionDetailInFaults (either from ServiceBehaviorAttribute or from the <serviceDebug> configuration behavior) on the server in order to send the exception information back to the client, or turn on tracing as per the Microsoft .NET Framework 3.0 SDK documentation and inspect the server trace logs.

Glenn

Hi very helpfulArticle,

One question can this web.config be adjusted so the PeoplePicker for the Claims FBA will return results based on a first or last name search not just the samaccount name?

mirjam

Hi Glen,

I must admit that I don't know, but if you have already set it up you should be able to test it yourself by adjusting the web.config.
I hope you succeed, let me know if you do!

Mirjam

Ofer

I was able to use this instructions with OpenLDAP only partly. I was able to find a user in the Forms auth part, but I was not able to login. Don't know if this helps but here is the configuration of the user in OpenLDAP:
cn mps1
dialupAccess true
gecos mps1
gidNumber 500
givenName mps
homeDirectory /home/guests/mps1
loginShell /bin/bash
mail mps1@imsa.edu<mailto:mps1@imsa.edu>
mailRoutingAddress
mps1@staffmail.imsa.edu<mailto:mps1@staffmail.imsa.edu>
objectClass radiusprofile

objectClass imsaPerson
objectClass mailRecipient
objectClass top
objectClass person
objectClass organizationalPerson
objectClass inetOrgPerson
objectClass shadowAccount
objectClass posixAccount
organizationalStatus Sharepoint Consultant
shadowInactive 0
shadowLastChange 15139
shadowMax 180
shadowMin 1
shadowWarning 14
sn 1
uid mps1
uidNumber 2029
userPassword

Thanks for any help

Comments have been closed on this topic.

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