

# WS-Fed

## WS-Federation

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# WS-Fed

WS-Federation (Web Services Federation) is an Identity Federation specification

WS-Federation defines mechanisms for allowing different security realms to broker information on identities, identity attributes and authentication. WS-Federation focuses on federated identity and trusting authentication tokens across different realms, privileged password management is concerned with the security, control, and audit of high-risk account passwords within an IT environment

WS-Fed will only be used with **Exchange** and a few other applications.

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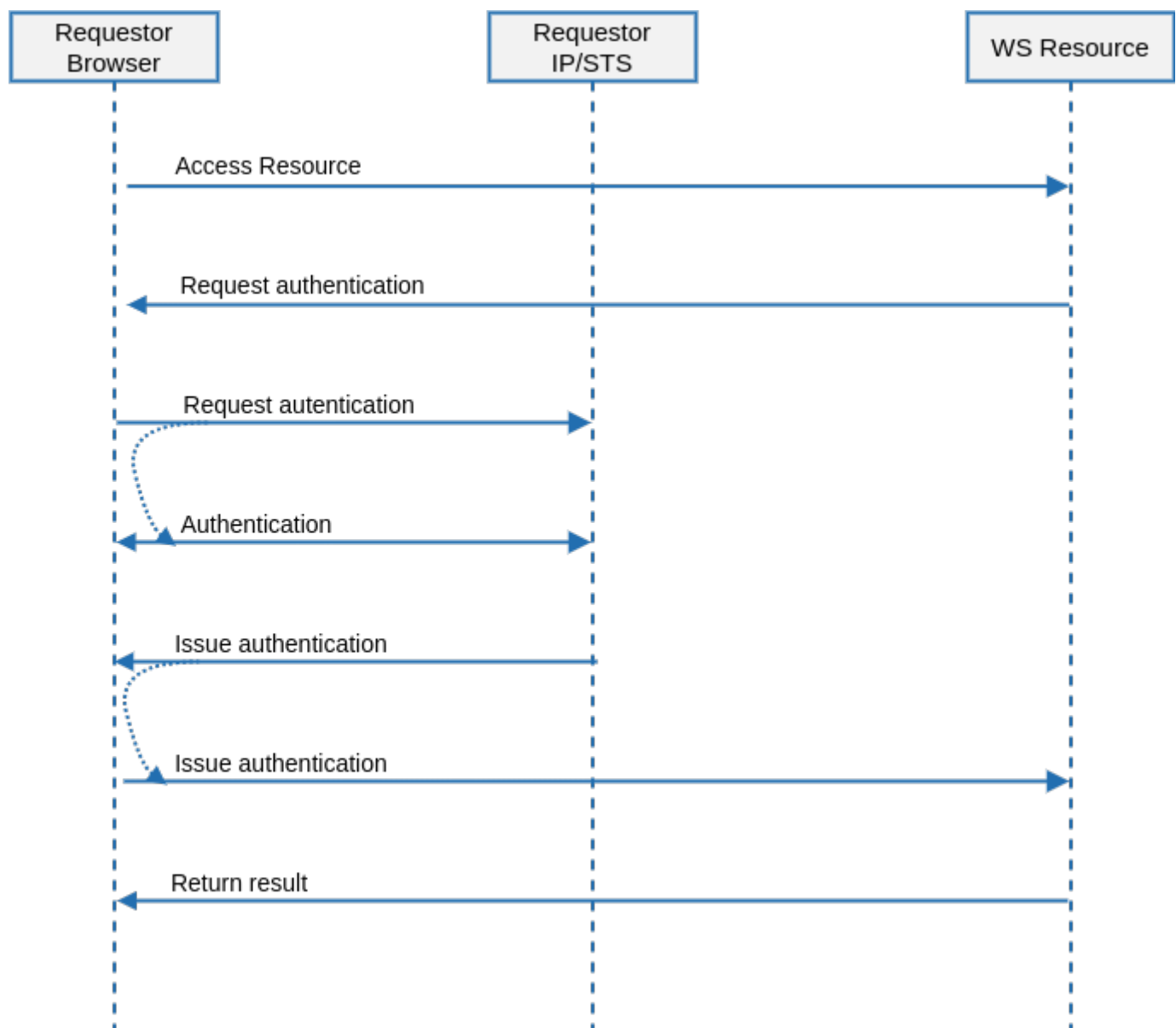
<https://en.wikipedia.org/wiki/WS-Federation>

# WS-Fed Architecture

## Introduction

WS-Federation (Web Services Federation) is an Identity Federation specification

## Sign-On



<http://docs.oasis-open.org/ws-fed/federation/v1.2/cd/ws-federation-1.2-spec-cd-01.html>

# WS-Fed Example

## Steps

### Attribute definition

First of all, will be mandatory to create two new attributes

- User principal name
- AD SID

sofid						
Search						
	Name	ShortName	Oid	OpenID name	Radius ...	Value
	Filter	Filter	Filter	Filter	Filter	Filter
<input type="checkbox"/>	Full name	Fullname	urn:oid:2.16.840.1.113730.3.1.241	full_name		
<input type="checkbox"/>	Given Name	GivenName	urn:oid:2.5.4.42	given_name		
<input type="checkbox"/>	Organizational unit	OU	urn:oid:2.5.4.11	ou		
<input type="checkbox"/>	Phone	TelephoneNumber	urn:oid:2.5.4.20	phone		
<input type="checkbox"/>	Role & group membership	memberOf	urn:oid:1.3.6.1.4.1.5923.1.5.1.1	meber_of		
<input type="checkbox"/>	Session ID	SessionId	urn:oid:1.3.6.1.4.1.22896.3.1.1	session_id		
<input type="checkbox"/>	Session key	SessionKey	urn:oid:1.3.6.1.4.1.22896.3.1.2			
<input type="checkbox"/>	Surname	Surname	urn:oid:2.5.4.4	family_name		
<input type="checkbox"/>	Birth Date	custom:birthDate	urn:oid:1.3.6.1.4.1.22896.3.1.1515	birthDate		attributes{"birthDate"}
<input type="checkbox"/>	Cliente	custom:Cliente	urn:oid:1.3.6.1.4.1.22896.3.1.1552	Cliente		attributes{"Cliente"}
<input type="checkbox"/>	Language	custom:language	urn:oid:1.3.6.1.4.1.22896.3.1.1518	language		attributes{"language"}
<input type="checkbox"/>	Manager	custom:manager	urn:oid:1.3.6.1.4.1.22896.3.1.1554	manager		attributes{"manager"}
<input type="checkbox"/>	oficina	custom:oficina	urn:oid:1.3.6.1.4.1.22896.3.1.1551	oficina		attributes{"oficina"}
<input type="checkbox"/>	Picture	custom:picture	urn:oid:1.3.6.1.4.1.22896.3.1.1516	picture		attributes{"picture"}
<input type="checkbox"/>	Internal id	custom:rid	urn:oid:1.3.6.1.4.1.22896.3.1.1553	rid		attributes{"rid"}
<input checked="" type="checkbox"/>	AD SID	custom:sid	http://schemas.microsoft.com/ws/2008/06/identity/claims#primariesid	sid		attributes{"sid"}
<input type="checkbox"/>	SSH Public key	custom:ssh_key	urn:oid:1.3.6.1.4.1.22896.3.1.1517	ssh_key		attributes{"ssh_key"}
<input checked="" type="checkbox"/>	User principal name	custom:upn	http://schemas.xmlsoap.org/ws/2005/05/identity/claims#upn	upn		attributes{"upn"}

Displayed rows: 23

Bear in mind, that those attributes have to be retrieved from the appropriate system:

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[Main Menu](#) > [Administration](#) > [Configuration](#) > [Integration engine](#) > [Agents](#) 1 / 5 ▶

[Basics](#) [Integration flows](#) [Attribute mapping](#) [Load triggers](#) [Massive actions](#) [Account metadata](#)

ActiveDirectory - ActiveDirectory

System objects

user

based on user

Properties

System attribute		Direction	Soffid attribute		+
objectClass		←	"user"		—
givenName		↔	firstName		—
cn		→	fullName		—
sn		↔	lastName		—
relativeBaseDn		←	"cn=Users"		—
department		↔	primaryGroup		—
sAMAccountName		→	userName		—
mail		↔	emailAddress		—
userPrincipalName		→	attributes{"upn"}		—
objectSid		→	attributes{"sid"}		—

Test

Triggers

And those attributes have to be defined in the object metadata:

soffid

Search

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Main Menu > Administration > Configuration > Global Settings > Metadata < 9 / 12 >

Object type : com.soffid.iam.api.User  
Description : Builtin user object  
Use textual index : Yes III

	Code	Label	Data type	Built-in type
	Filter	Filter	Filter	Filter
<input type="checkbox"/>	createdByUser	Created by	User	Yes
<input type="checkbox"/>	createdDate	Created on	Date and time	Yes
<input type="checkbox"/>	modifiedByUser	Modified by	User	Yes
<input type="checkbox"/>	modifiedDate	Modified last on	Date and time	Yes
<input type="checkbox"/>	birthDate	Birth Date	Date	No
<input type="checkbox"/>	picture	Picture	Photo	No
<input type="checkbox"/>	ssh_key	SSH Public key	String	No
<input type="checkbox"/>	language	Language	String	No
<input type="checkbox"/>	oficina	oficina	Custom object	No
<input type="checkbox"/>	Cliente	Cliente	Custom object	No
<input type="checkbox"/>	rid	Internal id	Number	No
<input type="checkbox"/>	manager	Manager	User	No
<input type="checkbox"/>	sid	AD SID	String	No
<input type="checkbox"/>	upn	User principal name	String	No

Displayed rows: 34

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Undo

Apply changes

# Attribute sharing policies

Define the proper attribute policy

soffid

Search

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Main Menu > Administration > Configuration > Web SSO > Attribute sharing policies < 3 / 5 >

Policy : OWA  
Condition Attribute requester (regex) 'Attribute requester (regex) 'https://gbr.owa.demo.soffid.net/.\*' '  
Attributes

	Attribute	Action	Condition
	Filter	Filter	Filter
<input type="checkbox"/>	AD SID	Allow	ANY
<input type="checkbox"/>	User principal name	Allow	ANY

Displayed rows: 2

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Undo

Apply changes

# Service Provider

soffid

Search

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### Identification

Type : WS-Federation
Identifier : https://xxx.owa.demo.soffid.net/owa/
Name : owa - ws-fed

### WS-Federation

Response URL : https://xxx.owa.demo.soffid.net/owa/
Response URL

### Login rules

Allow impersonations : Target application URL
UID Script : Script to compute the user name to pass to the target application
Ask for consent : No
Roles required to login : Roles required to login
System where an enabled account is required :

Undo Apply changes

# Configure Exchange

Finally, you must configure the Exchange.

- 1.- Upload the SAML certificate to the certificate repository
- 2.- Search for the thumbprint of the certificate:

```
Set-Location Cert: \LocalMachine\Root; Get-ChildItem | Sort-Object Subject
```

Administrator: Windows PowerShell

```

PS Cert:\LocalMachine\Root> Set-Location Cert:\LocalMachine\Root; Get-ChildItem | Sort-Object Subject

PSParentPath: Microsoft.PowerShell.Security\Certificate::LocalMachine\Root

Thumbprint                               Subject
-----
7F88CD7223F3C813018600461A18860051385047 CN=Microsoft Authenticode(tm) Root Authority, O=MSFT, C=US
06F1AA330B927                               2 CN=Microsoft ECC Product Root Certificate Authority 2018, O=Microsoft Corporation, L=Redmond, S=W...
31F9FC8BA3805                               4 CN=Microsoft ECC TS Root Certificate Authority 2018, O=Microsoft Corporation, L=Redmond, S=Washin...
A43489159A520                               9 CN=Microsoft Root Authority, OU=Microsoft Corporation, OU=Copyright (c) 1997 Microsoft Corp.
3B1EFD3A66EA2                               5 CN=Microsoft Root Certificate Authority 2010, O=Microsoft Corporation, L=Redmond, S=Washington, C=US
8F43288AD272F                               E CN=Microsoft Root Certificate Authority 2011, O=Microsoft Corporation, L=Redmond, S=Washington, C=US
CDD4EEAE6000A                               2 CN=Microsoft Root Certificate Authority, DC=microsoft, DC=com
92B46C76E1305                               5 CN=Symantec Enterprise Mobile Root for Microsoft, O=Symantec Corporation, C=US
8E36A4562FB2E                               6 CN=Thawte Timestamping CA, OU=Thawte Certification, O=Thawte, L=Durbanville, S=Western Cape, C=ZA
18F7C1FCC3090                               5 OU="NO LIABILITY ACCEPTED, (c)97 VeriSign, Inc.", OU=VeriSign Time Stamping Service Root, OU="Ver...
4F65566336DB6                               4 OU=Class 3 Public Primary Certification Authority, O="VeriSign, Inc.", C=US
742C3192E607E                               2 OU=Class 3 Public Primary Certification Authority, O="VeriSign, Inc.", C=US
245C97DF7514E                               5 OU=Copyright (c) 1997 Microsoft Corp., OU=Microsoft Time Stamping Service Root, OU=Microsoft Corp...

PS Cert:\LocalMachine\Root>

```

- 3.- From the Exchange Management Shell, run:

```

Set-OrganizationConfig -AdfsIssuer https://gbr.idp.demo.soffid.net/profile/wsfed `
- AdfsAudienceUris
"https://gbr.owa.demo.soffid.net/owa/", "https://gbr.owa.demo.soffid.net/ecp/" `
- AdfsSignCertificateThumbprint "XXXXXXXXXXXXXXXXXX"

```



```
Set-OWAVirtualDirectory -Identity "OWA (Default Web Site)" -AdfsAuthentication $true `
  -BasicAuthentication $false -DigestAuthentication $false -FormsAuthentication $false `
  -WindowsAuthentication $false
```

```
Set-ECPVirtualDirectory -Identity "ECP (Default Web Site)" -AdfsAuthentication $true `
  -BasicAuthentication $false -DigestAuthentication $false -FormsAuthentication $false `
  -WindowsAuthentication $false
```

```
net stop was /y
```

```
net start w3svc
```

The server must be up to date. Otherwise WS-Fed will reject the response