# **Enabling Federated SSO to Service-Now using Oracle Identity Federation (OIF)**

In this integration Oracle Identify Federation (OIF) is the Identity Provider (IdP) and Service-Now is the Service Provider.

## Service-Now settings:

Obtain the OIF IdP meta. This can be downloaded from the OIF console, but you can also obtain the federation meta data at the following URL:

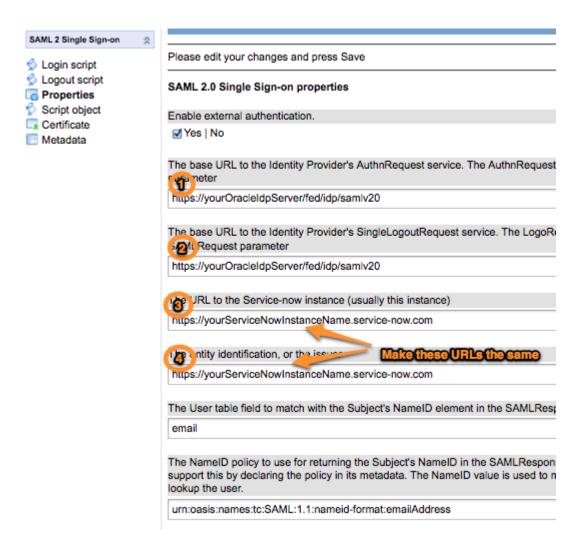
### http://yourserver.com/fed/idp/metadata

From the Oracle IDP Metadata, look for:

- 1) SingleSignOnService Binding="urn:oasis:names:tc:SAML:2.0:bindings:HTTP-Redirect". Take the "Location" attribute and use it for our AuthnRequest service url
- 2) SingleLogoutService Binding="urn:oasis:names:tc:SAML:2.0:bindings:HTTP-Redirect". Take the "Location" attribute and use it for our SingleLogoutRequest service url

Put the Locations attribute values into positions (1) and (2) in the SAML properties as seen in the screenshot below.

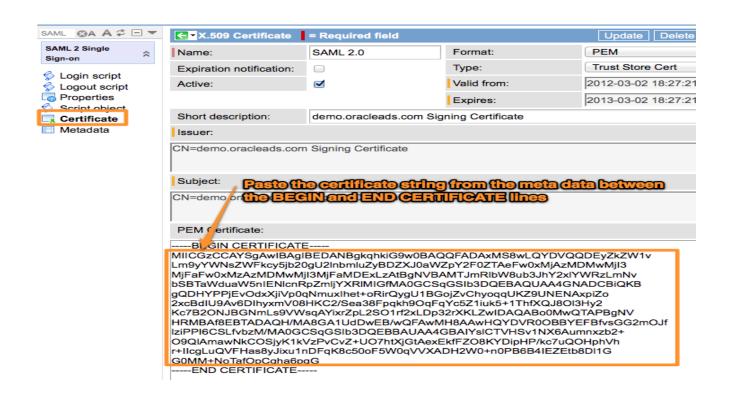
Change properties (3) and (4) (see the screen shot below) to be the ServiceNow instance URL that you are configuring. They will both need to be the same URL in this configuration. (Some instances have property (3) appended with "/navpage.do". Do not include that for this configuration).



From the Oracle IDP Metadata, look for the X509Certificate under the <md:KeyDescriptor use="signing"> section.

```
<md:EntityDescriptor ID="id-RnFY8rvc-e9i6SMiFlgLNKqJF4A-" cacheDuration="P0Y0M30DT0H0M0.0S" entityl
 - <md:IDPSSODescriptor WantAuthnRequestsSigned="false" protocolSupportEnumeration="urn:oasis:names:tc:
     - <md:KeyDescriptor v se="signing">
           - <dsig:KeyInfo>
                - <dsig:X509Data>
                     - <dsig:X509Certificate>
                              MIICGzCCAYSgAwIBAgIBEDANBgkqhkiG9w0BAQQFADAxMS8wLQYDVQQDEyZkZW1v Lm9y1
                             MjFaFw0xMzAzMDMwMjI3MjFaMDExLzAtBgNVBAMTJmRlbW8ub3JhY2xlYWRzLmNv bSBTaW
                              gQDHYPPjEvOdxXjiVp0qNmuxIhet+oRirQygU1BGojZvChyoqqUKZ9UNENAxpiZo 2xcBdIU9Av6DI
                             Kc7B2ONJBGNmLs9VWsqAYixrZpL2SO1rf2xLDp32rXKLZwIDAQABo0MwQTAPBgNV\ HRMBAf8ac228C1rf2xLDp32rXKLZwIDAQABo0MwQTAPBgNV\ HRMBAf8ac228C1rf2xLDp32rXKLZwIDAQABo0MwQTAPBgNV\ HRMBAf8ac28C1rf2xLDp32rXKLZwIDAQABo0MwQTAPBgNV\ HRMBAf8ac28C1rf2xLDp32rXKLZwIDAQABb00MwQTAPBgNV\ HRMBAf8ac28C1rf2xLDp32rXLDp32rXLDp32rXLDp32rXLDp32rXLDp32rXLDp32rXLDp32rXLDp32rXLDp32rXLDp32rXLDp32rXLDp32rXLDp32rXLDp32rXLDp32rXLDp32rXLDp32rXLDp32rXLDp32rXLDp32rXLDp32rXLDp32rXL
                             /wQFAwMH8AAwHQYDVR0OBBYEFBfvsGG2mOJf lziPPI6CSLfvbzM/MA0GCSqGSlb3DQEBBAU
                             O9QlAmawNkCOSjyK1kVzPvCvZ+UO7htXjGtAexEkfFZO8KYDipHP/kc7uQOHphVh r+IIcgLuQVFI
                             G0MM+NoTafOpCgha6pgG
                         </dsig:X509Certificate>
                     - <dsig:X509IssuerSerial>
                              <dsig:X509IssuerName>CN=demo.oracleads.com Signing Certificate</dsig:X509IssuerName>
                              <dsig:X509SerialNumber>16</dsig:X509SerialNumber>
                         </dsig:X509IssuerSerial>
                         <a href="cdsig:X509SubjectName"><dsig:X509SubjectName</a>>CN=demo.oracleads.com Signing Certificate</a>/dsig:X509SubjectName>
                    </dsig:X509Data>
               </dsig:KeyInfo>
          </md:KeyDescriptor>
     - <md:KeyDescriptor use="encryption">
           - <dsig:KeyInfo>
                - <dsig:X509Data>
                     - <dsig:X509Certificate>
                             MIICITCCAYqgAwIBAgIBIDANBgkqhkiG9w0BAQQFADA0MTIwMAYDVQQDEylkZW1v Lm9yYV
```

Copy that string and place it between the -----BEGIN CERTIFICATE----- and ----END CERTIFICATE----- strings in the SAML 2.0 Certificate in your ServiceNow Instance as seen below:



Once this configuration is set up, click on the "Metadata" link and copy the metadata to a text editor. Add the following section to your meta data between the <SPSSODescriptor> element and the <SingleLogoutService> element:

```
<KeyDescriptor use="signing" xmlns:md="urn:oasis:names:tc:SAML:2.0:metadata">
  <ds:KeyInfo xmlns:ds="http://www.w3.org/2000/09/xmldsig#">
   <ds:KeyName>*.service-now.com</ds:KeyName>
   <ds:X509Data xmlns:ds="http://www.w3.org/2000/09/xmldsig#">
    <ds:X509Certificate xmlns:ds="http://www.w3.org/2000/09/xmldsig#">
MIID6TCCAtGgAwIBAgIQaWG5DFrv6VYEv/tPlqZYbDANBgkqhkiG9w0BAQUFADA8
MQswCQYDVQQGEwJVUzEVMBMGA1UEChMMVGhhd3RlLCBJbmMuMRYwFAYDVQQDEw1U
aGF3dGUgU1NMIENBMB4XDTExMDcwNDAwMDAwMFoXDTEzMTAwMjIzNTk1OVowgYEx
CzAJBgNVBAYTAIVTMRMwEQYDVQQIEwpDYWxpZm9ybmlhMRIwEAYDVQQHFAITYW4g
RGIIZ28xGDAWBgNVBAoUD1NlcnZpY2Utbm93LmNvbTETMBEGA1UECxQKT3BlcmF0
aW9uczEaMBgGA1UEAxQRKi5zZXJ2aWNILW5vdy5jb20wggEiMA0GCSqGSIb3DQEB
AQUAA4IBDwAwggEKAoIBAQDACla2WcmR3wo3wxJZw/LJJJ9T5hMHmtCD+7Fgnfqy
+cnTeJ0QK7TbjVkkIR6VoDqurZ/vmul0d8RlqaAhdvErEf7zHd5Iv55IIpZVBmr0
iZ7nC0nHi8Zpu+GNxBptAQSmTldB/aiImb8VHItQTcq3qQM+mBGi+WqR31cPugDF
I2+03f+V5xob0nkE3y00I9dqCpjzrRNrIIZUMJGy4pkpXZDzNWyjPN/Bg7FIRjyo
XyLYHMI1ChOlkzq7yFrEgsI0qOo7j5jYX7DZOIAmX2TTvatYCoWqm1C3QrwRHUvI
2bSLdS+iEQp/fkue336btB1N8+VP5Q/Ri9KvHdJCiN1LAgMBAAGjgaAwgZ0wDAYD
VR0TAQH/BAIwADA6BgNVHR8EMzAxMC+gLaArhilodHRwOi8vc3ZyLW92LWNybC50
a GF3 dGUuY29 tL1 RoYX d0ZU9WLmNybDAdBgNVHSUEFjAUBggrBgEFBQcDAQYIKwYB\\
BQUHAwIwMgYIKwYBBQUHAQEEJjAkMCIGCCsGAQUFBzABhhZodHRwOi8vb2NzcC50
aGF3dGUuY29tMA0GCSqGSIb3DQEBBQUAA4IBAQB9zifSRfQLsQIbFcfrBg9E1R0o\\
Nx5sco6WHQ3f8v4RrGO4ZAMGnqDlsAjEG88LzQfeVkqcAmsTWxCyCHW0iGWvUbfN\\
cAHvLdr9VlLmUnz3wg69VgnW+fwppPAyD1L1ZEafESw5eoivkjcQ5DIedjjKwYiI
FjkLngEOORkBhKmyGLlV7nXWG0VmJkDt5xHH5i3rVq1G8sEV743kSLtK/Dugn7Hf
HSYbiyDpHv8EJmFBYtFFYIPUyKOPowaTu2zj9qJz83X5oLulBd6eLZfaAgsjZ/Rb
1MTfRzgI2mur/IiTx9KL7Ymg+NJm7y7/wb1Fy438OwBANG6VrJUJqjxyYR/a
</ds:X509Certificate>
   </ds:X509Data>
  </ds:KeyInfo>
 </KeyDescriptor>
```

Your resulting Metadata will look like:

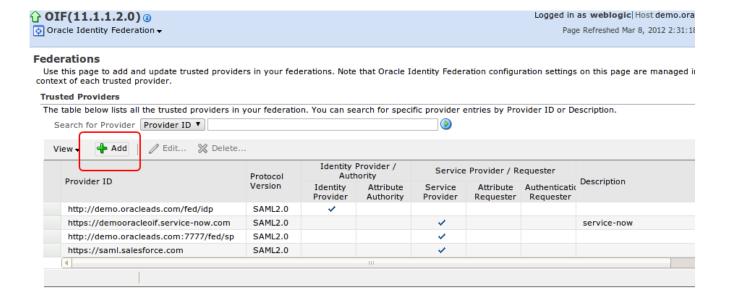
```
<EntityDescriptor xmlns="urn:oasis:names:tc:SAML:2.0:metadata" entityID="https://yourServiceN
<SPSSODescriptor AuthoRequestsSigned="false" WantAssertionsSigned="false" protocolSupports.</p>
  <KeyDescriptor use="signing" xmlns:md="urn:oasis:names:tc:SAML:2.0:metadata">
   <ds:KeyInfo xmlns:ds="http://www.w3.org/2000/09/xmldsig#">
    <ds:KeyName>*.service-now.com</ds:KeyName>
<ds:X509Data xmlns:ds="http://www.w3.org/2000/09/xmldsig#">
      <ds:X509Certificate xmlns:ds="http://www.w3.org/2000/09/xmldsig#">
MIID6TCCAtGqAwlBAqlQaWG5DFrv6VYEV/tPlqZYbDANBqkqhkiG9w0BAQUFADA8
MQswCQYDVQQGEwJVUzEVMBMGA1UEChMMVGhhd3RILCBJbmMuMRYwFAYDVQQL Ew1
aGF3dGUgU1NMIENBMB4XDTExMDcwNDAwMDAwMFoXDTEzMTAwMjlzNTk1OVowgYE
CzAJBgNVBAYTAIVTMRMwEQYDVQQIEwpDYWxpZm9ybmlhMRIwEAYDVQQHFAITY
RGIIZ28xGDAWBgNVBAoUD1NlcnZpY2Utbm93LmNvbTÉTMBEGA1UECxQKT3BlcmF0
aW9uczEaMBgGA1UEAxQRKi5zZXJ2aWNILW5vdy5jb20wggEiMA0GCSqGSlb3DQEB
AQUAA4IBDwAwggEKAoIBAQDACIa2WcmR3wo3wxJZw/LJJJJ9T5hMHmtCD+7Fgnfqy
+cnTeJ0QK7TbjVkklR6VoDqurZ/vmul0d8RlqaAhdvErEf7zHd5lv55llpZVBmr0
iZ7nC0nHi8Zpu+GNxBptAQSmTldB/ailmb8VHltQTcq3qQM+mBGi+WqR31cPugDF
I2+03f+V5xob0nkE3y00l9dqCpjzrRNrllZUMJGy4pkpXZDzNWyjPN/Bg7FlRjyo
XyLYHMI1ChOlkzq7yFrEgsI0qOo7j5jYX7DZOIAmX2TTvatYCoWqm1C3QrwRHUvI
2bSLdS+iEQp/fkue336btB1N8+VP5Q/Ri9KvHdJCiN1LAgMBAAGjgaAwgZ0wDAYD
VR0TAQH/BAIwADA6BgNVHR8EMzAxMC+gLaArhilodHRwOi8vc3ZyLW92LWNybC50
aGF3dGUuY29tL1RoYXd0ZU9WLmNybDAdBgNVHSUEFjAUBggrBgEFBQcDAQYIKwYBBQUHAwlwMgYlKwYBBQUHAQEEJjAkMClGCCsGAQUFBzABhhZodHRwOi8vb2NzcC50
aGF3dGUuY29tMA0GCSqGSlb3DQEBBQUAA4lBAQB9zifSRfQLsQlbFcfrBq9E1R0o
Nx5sco6WHQ3f8v4RrGO4ZAMGnqDlsAjEG88LzQfeVkqcAmsTWxCyCHW0iGWvUbfN
cAHvLdr9VILmUnz3wg69VgnW+fwppPAyD1L1ZEafESw5eoivkjcQ5DledjjKwYil
FjkLngEOORkBhKmyGLIV7nXWG0VmJkDt5xHH5i3rVq1G8sEV743kSLtK/Dugn7Hf
HSYbiyDpHv8EJmFBYtFFYIPUyKOPowaTu2zj9qJz83X5oLulBd6eLZfaAgsjZ/Rb
1MTfRzgi2mur/liTx9KL7Ymg+NJm7y7/wb1Fy438OwBANG6VrJUJqjxyYR/a
</ds:X509Certificate>
    </ds:X509Data>
   </ds:KeyInfo>
  </KevDescriptor>
  <SingleLogoutService Binding="urn:oas":names:tc:SAML:2.0:bindings:HTTP-Redirect" Locatic</p>
  <NameIDFormat</p>
<NameIDFormat</p>
<NameIDFormat</p>

<
  <AssertionConsumerService isDefault="true" index="0" Binding="urn:oasis:names:tc:SAML:2.0</p>
 </SPSSODescriptor>
</EntityDescriptor>
```

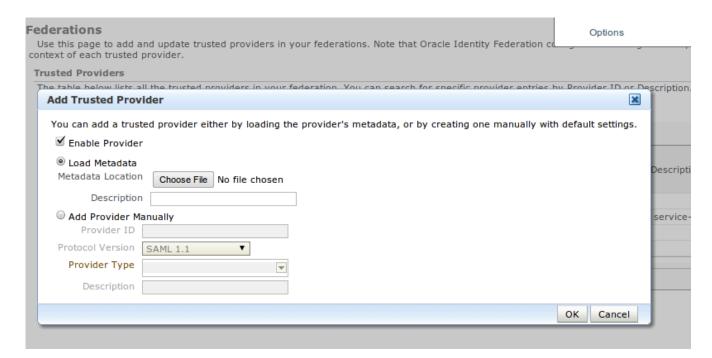
Save the meta data as a file and use it in the following steps for the OIF Server.

# Oracle Identity Federation

Navigate to -> Administration -> Federation



#### Click on the + Add button



Load the meta data file that you downloaded for the Service-Now service provider.

This will create Relying Party Provider for OIF. Select the newly created provider and click on the "Edit" button to manually edit the provider settings:

#### **Federations** Use this page to add and update trusted providers in your federations. Note that Oracle Identity Federation configuration settings on this page are manithe context of each trusted provider. Trusted Providers The table below lists all the trusted providers in your federation. You can search for specific provider entries by Provider ID or Description. Search for Provider Provider ID ▼ / Edit.. 🕂 Add 💥 Delete... View **→** Identity Provider / Service Provider / Requester Protocol Authority Authenticatic Description Provider ID Version Identity Attribute Service Attribute Provider Authority Provider Requester Requester SAML2.0 http://demo.oracleads.com/fed/idp SAML2.0 https://demooracleoif.service-now.com service-now http://demo.oracleads.com:7777/fed/sp SAML2.0 SAML2.0 https://saml.salesforce.com Rows Selected 1

On the "Oracle Identity Federation Settings Tab" make sure you have the following settings:

Under "Attribute Mappings and Filters" check "Email Address" and "Transient One Time Identifier"

Provider Types Service Provider
☑ Enable Provider
All the configuration changes will be saved automatically after clicking the 'Apply' button in the top-right corner of the page effective until you check the 'Enable Provider' check-box above and click 'Apply' button.
O Load Metadata
Update Provider Manually
Provider Types 🔲 Identity Provider 🗀 Attribute Authority 🗹 Service Provider 🗀 Attribute Requester 🗀 Authentic
Description service-now
Trusted Provider Settings Oracle Identity Federation Settings
Partner Alias
Enable HTTP Basic Authentication  HTTP Basic Authentication Username
HTTP Basic Authentication Password
Confirm HTTP Basic Authentication Password
Attribute Mappings and Filters Edit
Enable Attributes in Single Sign-On (SSO) SSO assertions with the selected subject NameID formats will include the configured attributes.
X509 Subject Name Email Address Windows Domain Qualified Name
☐ Kerberos Principal Name ☐ Persistent Identifier ☑ Transient/One-Time Identifier
Unspecified Custom None
- Comical Cattings

Under "Assertion Settings" enable "Send Signed Assertion"

Assertion Settings
Assertion Validity (sec) 300
Reauthenticate After (sec) 3600
Force User Consent
Federation Creation User Consent URL
Default NameID Format Transient/One-Time Identifier
Send Encrypted NameIDs
Send Encrypted Attributes
Send Encrypted Assertions
Search base DN dc=oracleads,dc=com
Send Signed Assertion 🗸

Under "Protocol Settings" enable "Include Signing Certificate in XML Signatures"

Under "Messages to Send/Require Signed" enable "Send Signed" for Request – HTTP Redirect

Messages to Send/Require Signed		
Message	Send Signed	Require Signed
Request - SOAP	*•✓	*□□
Response - HTTP Redirect	*•✓	*□□
Response - HTTP POST	*•✓	*□□
Response - SOAP	*□▼	*□□
Request - HTTP POST	*•▼	*□□
Response with Assertion - SOAP	<b>₩</b> □□	n/a
Request - HTTP Redirect	<b>₩</b> ✓	<b>•</b>

# Testing the integration

For SSO the user is linked by their email address. The user must exist in the OIF datastore and must have a corresponding account on Service-now.com.

To initiate SSO go to your service-now domain. It it configured to use SP initiated SSO. You should see that you are re-directed to OIF for authentication. Once authenticated you will be redirected back again to Service-Now were you will be logged in.