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On this page

About SAML-tracer

Test SAML app implementation with SAML-tracer

This guide explains how to test a SAML app implementation with the SAML-tracer browser add-on.

Learning outcomes

- Install and use SAML-tracer.
- Create SAML requests for SP- and IdP-initiated flows and inspect them in SAML-tracer.

What you need

A SAML app to test. See [Prepare a SAML integration](#).

About SAML-tracer

After you complete the SAML configuration, you can test your implementation using SAML-tracer. SAML-tracer is an add-on in Firefox and useful when troubleshooting SAML for Service Provider-initiated flows (SP-initiated) or Identity Provider-initiated flows (IdP-initiated). When you start an

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After you install SAML-tracer, open it by clicking its icon or select **Extensions > SAML-tracer** on your browser bar.

Similar tools exist for other browsers, such as [SAML DevTools](#) and [SAML Chrome Panel](#) for Chrome. The following examples use SAML-tracer.

SP-initiated flow

To create a SAML request for an SP-initiated flow and inspect the request and response in SAML-tracer:

1. Open SAML-tracer and then access your app, which takes you to the Okta sign-in page if you aren't already logged in.
2. Look at the SAML-tracer window and see the SAML request sent from your app to Okta. Okta returns a SAML response.

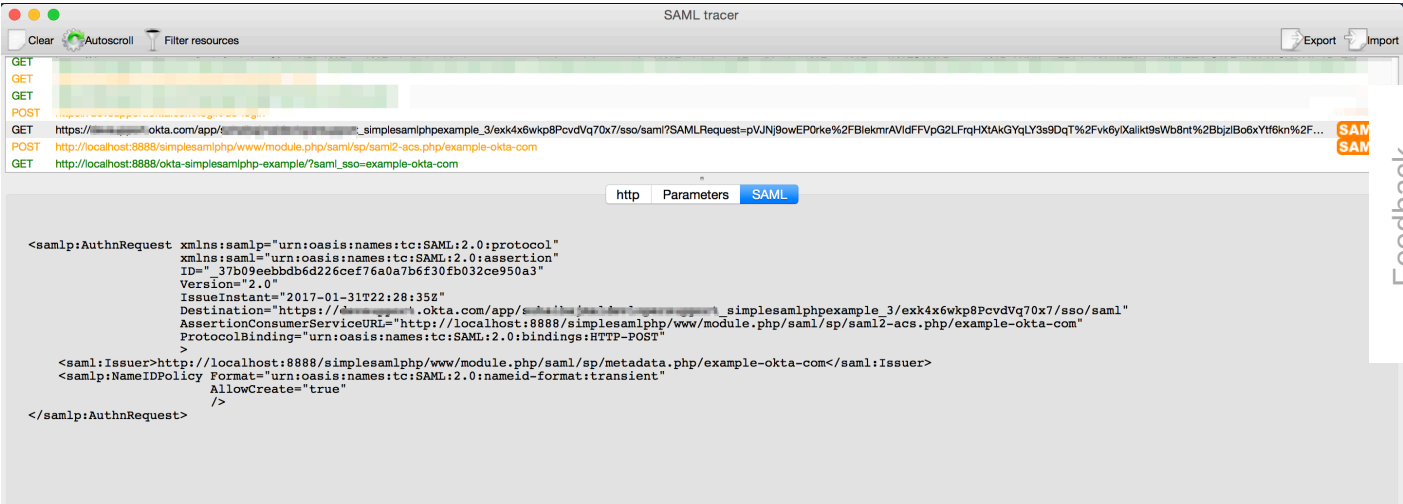


Figure 1: SP-initiated Request in SAML-tracer

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Figure 2: SP-initiated Response in SAML-tracer

IdP-initiated flow

To create a SAML request for an IdP-initiated flow and inspect it in SAML-tracer:

1. Assign the SAML app to a user.
2. Go to the dashboard of that user and click the app icon.
3. The app opens in a new browser and if successful, sends a SAML response.

You can also start an IdP flow by selecting the App Embed link in a browser (**SAML App > General > App Embed Link**).

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```
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  <ds:CanonicalizationMethod Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#" />  
  <ds:SignatureMethod Algorithm="http://www.w3.org/2001/04/xmldsig-more#rsa-sha256" />  
  <ds:Reference URI="#id30299111008586631971306486">  
    <ds:Transforms>  
      <ds:Transform Algorithm="http://www.w3.org/2000/09/xmldsig-enveloped-signature" />  
      <ds:Transform Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#">  
        <c:InclusiveNamespaces xmlns:c="http://www.w3.org/2001/10/xml-exc-c14n#" PrefixList="xs" />  
      </ds:Transform>  
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    <ds:DigestMethod Algorithm="http://www.w3.org/2001/04/xmenc#sha256" />  
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  </ds:Reference>  
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```

Figure 3: IdP-initiated Response in SAML-tracer

When you receive a SAML request and response successfully from Okta, it indicates that your configuration is successfully working with Okta.

As you can see from the examples, the app can read attributes passed from Okta after a user signs in.

Example SAML request

```
<saml:AuthnRequest xmlns:saml="urn:oasis:names:tc:SAML:2.0:protocol"
  xmlns:saml="urn:oasis:names:tc:SAML:2.0:assertion"
  ID="_2b16caecb21804d0271c7b45734978a31b122c0b9a"
  Version="2.0"
  IssueInstant="2017-02-02T03:12:56Z"
  Destination="https://orgname.okta.com/app/app_name/exk4x6wko7Pcvv"
  AssertionConsumerServiceURL="http://localhost:8888/simplesamlphp/"
  ProtocolBinding="urn:oasis:names:tc:SAML:2.0:bindings:HTTP-POST"
>
<saml:Issuer>http://localhost:8888/simplesamlphp/www/module.php/saml/sp/metadata.php
<saml:NameIDPolicy Format="urn:oasis:names:tc:SAML:2.0:nameid-format:transient"
  AllowCreate="true"
/>
</saml:AuthnRequest>
```

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<saml2p:Response xmlns:saml2p="urn:oasis:names:tc:SAML:2.0:protocol"
  Destination="http://localhost:8888/simplesamlphp/www/module.php/saml/s
  ID="id304067580046365441472203853"
  InResponseTo="_2b16caecb21804d0271c7b45734978a31b122c0b9a"
  IssueInstant="2017-02-02T03:13:05.114Z"
  Version="2.0"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
>
<saml2:Issuer xmlns:saml2="urn:oasis:names:tc:SAML:2.0:assertion"
  Format="urn:oasis:names:tc:SAML:2.0:nameid-format:entity"
  >http://www.orgname.okta.com</saml2:Issuer>
<ds:Signature xmlns:ds="http://www.w3.org/2000/09/xmldsig#">
  <ds:SignedInfo>
    <ds:CanonicalizationMethod Algorithm="http://www.w3.org/2001/10/xml-exc-c14
    <ds:SignatureMethod Algorithm="http://www.w3.org/2001/04/xmldsig-more#rsa-s
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            PrefixList="xs"
          />
        </ds:Transform>
      </ds:Transforms>
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    </ds:Reference>
  </ds:SignedInfo>
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```

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```

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</ds:Signature>
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  >
  <saml2:Issuer Format="urn:oasis:names:tc:SAML:2.0:nameid-format:entity"
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    >http://www.orgname.okta.com</saml2:Issuer>
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```

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<ds:X509Data>

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</ds:X509Data>

</ds:KeyInfo>

</ds:Signature>

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<saml2:SubjectConfirmation Method="urn:oasis:names:tc:SAML:2.0:cm:bearer"

<saml2:SubjectConfirmationData InResponseTo="_2b16caecb21804d0271c7b4
 NotOnOrAfter="2017-02-02T03:18:05.114Z"
 Recipient="http://localhost:8888/simples
 />

</saml2:SubjectConfirmation>

</saml2:Subject>

<saml2:Conditions NotBefore="2017-02-02T03:08:05.114Z"

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```

        SessionIndex="_2b16caecb21804d0271c7b45734978a31b122c0b9a
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      <saml2:AuthnContextClassRef>urn:oasis:names:tc:SAML:2.0:ac:classes:Pass
    </saml2:AuthnContext>
  </saml2:AuthnStatement>
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      NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-format:ur
    >
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        xmlns:xsi="http://www.w3.org/2001/XMLSchema-insta
        xsi:type="xs:string"
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      NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-format:ur
    >
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        xsi:type="xs:string"
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    >
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        xsi:type="xs:string"
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    </saml2:Attribute>
  </saml2:AttributeStatement>
</saml2:Assertion>
</saml2:Response>

```

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- [SAML FAQ](#)
- [Prepare a SAML integration](#)

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