

White Paper ▶

Silverlight

Cross Domain Issue

Introduction

When Silverlight application consumes the service, you might have faced cross domain issues. I would like to brief the problem, cause and solution for the issue. I have created a WCF Service a separate project and tried to consume the service in Silverlight project

Problem

I have Referred the project using add service reference, and written the code to call the service methods asynchronously in Silverlight client. Able to build successfully but when I ran the application I got the following error on Debug.

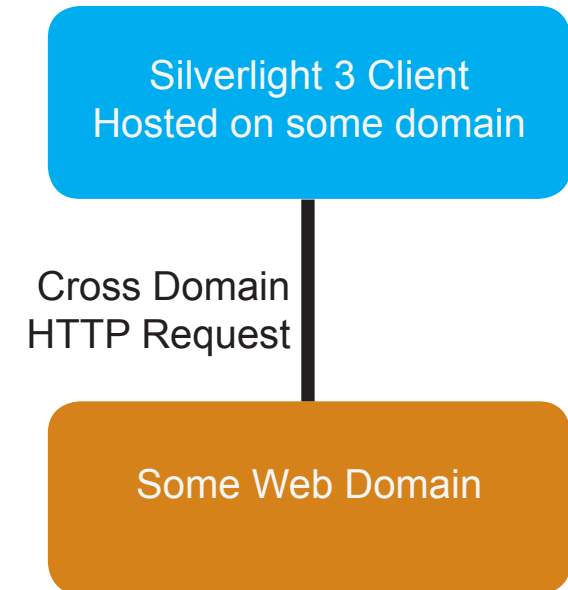
Error details

An error occurred while trying to make a request to URI 'http://localhost:56441/AuthModule.svc'. This could be due to attempting to access a service in a cross-domain way without a proper cross-domain policy in place, or a policy that is unsuitable for SOAP services. You may need to contact the owner of the service to publish a cross-domain policy file and to ensure it allows SOAP-related HTTP headers to be sent. Please see the inner exception for more detail.

Cause

When Silverlight Communicate with different domain apart from the hosted application, it should obey the cross domain policy. Since Silverlight application and WCF service are hosted in different domain or port number, Silverlight don't accept url from other domain due to its restrictions in Silverlight.

When an HTTP Web request is made across domains, Silverlight first requesting the cross-domain policy file from the remote Web server. Silverlight first looks for the clientaccesspolicy.xml file (the Silverlight cross-domain policy file), and if it is not found, it then looks for the crossdomain.xml file (the Flash cross-domain policy file). If neither file is found, the request fails and an error is thrown. If user wants to handle this error they can use DownloadStringCompleted event handler.



Solution

We need make the silverlight application to consume Service:
we have ClientAccessPolicy.xml and Crossdomain.xml in the root folder of the website

```
<?xml version="1.0" encoding="utf-8" ?>
- <access-policy>
- <cross-domain-access>
- <policy>
- <allow-from http-request-headers="*">
  <domain uri="*" />
</allow-from>
- <grant-to>
  <resource include-subpaths="true" path="/" />
</grant-to>
</policy>
</cross-domain-access>
</access-policy>
```

clientaccesspolicy.xml

If you want to allow access from only one other domain, such as <http://hexacorp.com>, replace the `<domain uri="*" />` line within the `<allow-from>` element of the `clientaccesspolicy.xml` file above with the line `<domain uri="http://hexacorp.com" />`.

To allow access to an HTTPS service from any Silverlight control hosted over HTTP application, you need to put the `<domain uri="http://*" />` element inside your `<allow-from>` element.

The valid values for the headers attribute are :

- a) The wildcard ("`*`") - which allows all headers that have not been blacklisted.
- b) A comma-separated list of allowed headers. These allowed headers can use a wildcard suffix, for example, "`X-CUSTOM-*`".

To enable the service for access over TCP sockets, add `<socket-resource port="56441" protocol="tcp" />` to the `<grant-to>` element, where the 56441 is the port value where the service is hosted.

```
<?xml version="1.0"?>
<!DOCTYPE cross-domain-policy SYSTEM "http://www.macromedia.com/xml/dtds/cross-domain-policy.dtd">
<cross-domain-policy>
  <allow-http-request-headers-from domain="*" headers="SOAPAction,Content-Type" />
</cross-domain-policy>
```

CrossDomainPolicy

Above two files should be placed under the root folder, to work under the cross domain. To make sure it works under the root folder, `http://localhost: 56441//CrossDomain.xml`. Now you can be able to consume service in cross domain without problem.

Reference

<http://msdn.microsoft.com/en-us/magazine/dd419660.aspx>

[http://msdn.microsoft.com/en-us/library/cc197955\(v=vs.95\).aspx](http://msdn.microsoft.com/en-us/library/cc197955(v=vs.95).aspx)

<http://blogs.msdn.com/b/silverlightws/archive/2008/03/30/some-tips-on-cross-domain-calls.aspx>

[http://msdn.microsoft.com/en-us/library/cc838225\(v=vs.95\).aspx](http://msdn.microsoft.com/en-us/library/cc838225(v=vs.95).aspx)

<http://blogs.msdn.com/b/fiddler/archive/2010/11/22/fiddler-and-silverlight-cross-zone-cross-domain-requests.aspx>

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