



Customizing Response Pages

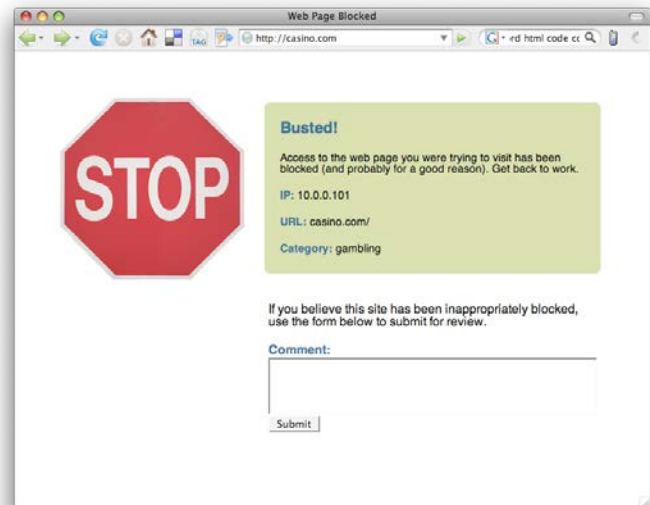
Tech Note

Updated for PAN-OS 5.0

Overview

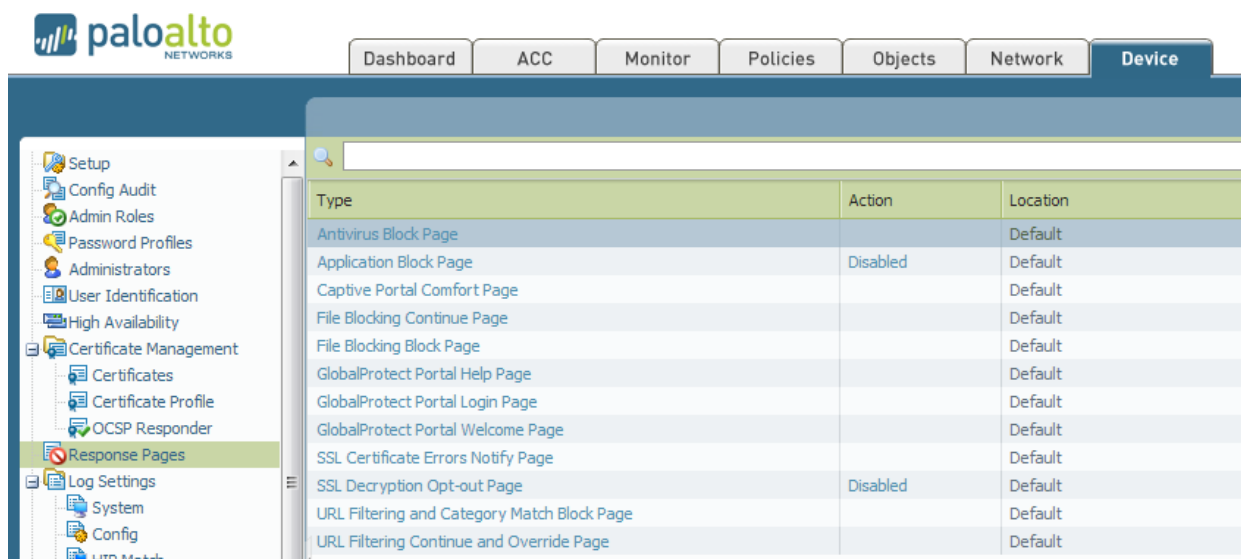
Each enterprise has different requirements regarding what to display to end users who attempt to browse websites that are blocked according to company policy, whether it is because the sites are blocked by the URL Filtering policy or a threat has been detected. With PAN-OS, admins can load a customized page for various block response pages to notify end users of the policy violation.

While PAN-OS provides default pages for blocking actions, this document provides information and examples for customizing the response pages, such as the example to the right.



Features

- The Palo Alto Networks Administrator's Guide contains basic information regarding block pages. In addition, HTML code for the default block pages is included in the Appendix.
- Response pages can be imported or exported from the web interface or the CLI.
- Block pages are only relevant to user browsers. Application response pages only appear when the application is browser-based.
- The following screenshot shows the different pages that are available for customization.



The screenshot shows the Palo Alto Networks management interface. The top navigation bar includes 'Dashboard', 'ACC', 'Monitor', 'Policies', 'Objects', 'Network', and 'Device'. The left sidebar contains a tree view with categories like 'Setup', 'Config Audit', 'Admin Roles', 'Password Profiles', 'Administrators', 'User Identification', 'High Availability', 'Certificate Management', 'Log Settings', 'System', 'Config', and 'HTTP Match'. The 'Response Pages' category is selected and highlighted. The main content area displays a table with the following data:

Type	Action	Location
Antivirus Block Page		Default
Application Block Page	Disabled	Default
Captive Portal Comfort Page		Default
File Blocking Continue Page		Default
File Blocking Block Page		Default
GlobalProtect Portal Help Page		Default
GlobalProtect Portal Login Page		Default
GlobalProtect Portal Welcome Page		Default
SSL Certificate Errors Notify Page		Default
SSL Decryption Opt-out Page	Disabled	Default
URL Filtering and Category Match Block Page		Default
URL Filtering Continue and Override Page		Default

As described in the table below, the system provides variables to be used within response pages for substitution at the time of the block event. Some variables, like `<user/>`, can be used with all response pages. Others, like `<pan_form/>`, can only be used with certain block page types.

PAN-OS HTML Variable	Description
<code><appname/></code>	Application type of the blocked request
<code><category/></code>	URL filtering category of the blocked request
<code><certname/></code>	The name of the certificate used for SSL decryption. Other cert variables include: <code><issuer/></code> , <code><status/></code> , <code><reason/></code> , <code><badcert/></code>
<code><cookie/></code>	Used in a file blocking continue page and will save a cookie and reload the page to download the file when continue is clicked.
<code><fname/></code>	filename
<code><pan_form/></code>	Applicable HTML code for page type function - differs depending on the custom response page is used. URL Filtering Continue and Override Page returns a continue button. Captive Portal Comfort Page returns a user login.
<code><rulename/></code>	The name of the policy/rule that triggered the event.
<code><threatname/></code>	The name of the threat that triggered the event.
<code><url/></code>	<ul style="list-style-type: none"> Requested URL Destination IP address for SSL Decryption

<user/>	Username (if available) or IP address of the user
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In the case of `<pan_form/>`, it can only be used with the Captive Portal Comfort Page and the URL Filtering Continue and Override Page.

Here is a sample of how some variables would be represented in HTML code for URL Filtering:

```
<p><b>IP:</b> <user/> </p>
<p><b>URL:</b> <url/> </p>
<p><b>Category:</b> <category/> </p>
```

When rendered in the browser due to a block event, this snippet will fill in the appropriate values:

block pagesIP: 10.0.0.101
URL: casino.com/
Category: gambling

Additionally, you can create a response page to show a different message depending on a variable. In the following code, a different message is shown depending on the URL category. If the URL category is games, Message 1 would be displayed, if the category as travel, Message 2 would be displayed.

```
var cat = "<category/>";
switch(cat)
{
  case 'games':
    document.getElementById("warningText").innerHTML = "Message 1";
    break;
  case 'travel':
    document.getElementById("warningText").innerHTML = "Message 2";
    break;
  case 'kids':
    document.getElementById("warningText").innerHTML = "Message 3";
    break;
}
```

The following table lists the default variables for each Response Page.

Page Type	Active?	Variables Used by default	Other available variables	Activated when...
Antivirus Block Page	always active	N/A	Optional: <fname/> <user/> <rulename/>	A virus or spyware was detected and blocked

Page Type	Active?	Variables Used by default	Other available variables	Activated when...
Application Block Page	disabled by default	<user/> <appname/>	Optional: <rulename/>	Application access not allowed by policy and blocked
Captive Portal Comfort Page	always active	<pan_form/>	<user/>	User not part of the Active Directory domain and presented with an web page for login
File Blocking Continue Page	always active	<fname/> <cookie/>	Optional: <user/> <rulename/> <threatname/>	Page for user to confirm that downloading should continue. This option is available only if continue functionality is enabled in the security profile.
File Blocking Block Page	always active	<fname/>	Optional: <user/> <rulename/>	A file type not allowed by policy was blocked
GlobalProtect Portal Help Page	always active	N/A	N/A	Custom help page for GlobalProtect users (accessible from the portal)
GlobalProtect Portal Login Page	always active	<pan_form/>	N/A	Page for users who attempt to access the GlobalProtect portal.
GlobalProtect Portal Welcome Page	always active	N/A	N/A	Welcome page for users who attempt to log in to the GlobalProtect portal.

Page Type	Active?	Variables Used by default	Other available variables	Activated when...
SSL Certificate Errors Notify Page	always active	<url/> <category/> <user/> <certname/> <issuer/> <status/> <reason/> <badcert/>	<user>	Notification that an SSL certificate has been revoked.
SSL Decryption Opt-out Page	disabled by default	<url/> <category/>	Optional: <user/>	Session will be SSL-inspected
URL Filtering and Category Match Block Page	always active	<url/> <category/> <user/> <pan_form/>	Optional: <rulename/>	Blocked by URL Filtering policy.
URL Filtering Continue and Override Page	always active	<user/> <url/> <category/> <pan_form/>	N/A	Blocked by URL Filtering policy, but with the option for users to continue to original page if they believe the block was in error

Customized Example

Adding Images, Sounds, Stylesheets, and Links

Only a single HTML page can be loaded into each virtual system for each type of block page. However, other resources like images, sounds, and stylesheets can be loaded from other servers at time the response page is displayed in the browser. All references must include a fully qualified URL.

To export a block pages, so you can modify it, navigate to **Device > Response Pages** and click on the desired block page, such as Antivirus Block Page. Click **Predefined** and then click **Export**. The file will now be in your download folder. Rename the file, modify it, and then click **Import** and browse to the new file and import it. Once the new file is imported and you commit your configuration, the system will use the custom file. You can only have one custom file at a time, if no custom file exists, the predefined file is used.

Add an Image: ``

Add a Sound: `<embed src="http://simplythebest.net/sounds/WAV/WAV_files/movie_WAV_files/do_not_go.wav" volume="100" hidden="true" autostart="true">`

Add Styles: `<link href="http://example.com/style.css" rel="stylesheet" type="text/css" />`

Add Links: `View Corporate Policy`

Providing Links to Trouble-Ticketing Systems

If a web-based trouble-ticketing system is available, a form can be constructed that will initiate the creation of a trouble ticket, pre-populated with the user, category, and URL information:

```
<form method="post" action="http://example.com/tticket.cgi">
  <p>If you believe this site has been inappropriately blocked, use the
  form below to submit for review.</p>
  <p><b>Comment: </b><br>
  <textarea cols="50" rows="4" name="comments"></textarea><br>
  <input type="hidden" name="url" value="<url/>">
  <input type="hidden" name="user" value="<user/>">
  <input type="hidden" name="category" value="<category/>">
  <input type="submit" value="Submit"></p>
</form>
```

The details of how this link needs to be constructed are highly dependent on the system being used. This is a fictitious example.

Appendix A: Full HTML Code

```
<html>
<head>
  <title>Web Page Blocked</title>
  <style>
    body{background:#fff;font-family:Helvetica,Tahoma,sans-serif;
      font-size:14px;padding:40;}
    div#content{ margin:15px;background:#CFDD9C;
      font-family:Helvetica,Tahoma,Arial,sans-serif;font-size:14px;}
    h1{font-size:20px;font-weight:bold;color:#196390;margin: 20px;}
    b{font-weight:bold;color:#196390;}
    p{margin:20px;}
    b.rtop, b.rbottom{display:block; background: #fff;}
    b.rtop b, b.rbottom b{display: block; height: 1px; overflow: hidden;
      background: #CFDD9C;}
    b.r1{margin: 0 5px}
    b.r2{margin: 0 3px}
    b.r3{margin: 0 2px}
    b.r4{margin: 0 1px; height: 2px}
  </style>
</head>
<body bgcolor="#e7e8e9">
  <embed src="http://simplythebest.net/sounds/WAV/WAV_files/movie_WAV_files/do_not_go.wav"
    volume="100" hidden="true" autostart="true">
  <table>
    <tr><td></td>
    <td>
      <div id="content">
        <b class="rtop"><b class="r1"></b><b class="r2"></b>
          <b class="r3"></b><b class="r4"></b></b>
        <h1>Busted!</h1>
        <p>Access to the web page you were trying to visit has been blocked
          (and probably for a good reason). Get back to work.</p>
        <p><b>IP:</b> <user/> </p>
        <p><b>URL:</b> <url/> </p>
        <p><b>Category:</b> <category/> </p>
        <b class="rbottom"><b class="r4"></b><b class="r3"></b>
          <b class="r2"></b><b class="r1"></b></b>
      </div>
    </td></tr>
    <tr><td></td><td>
      <form method="post" action="http://example.com/tticket.cgi">
        <p>If you believe this site has been inappropriately blocked, use the
          form below to submit for review.</p>
        <p><b>Comment: </b><br>
          <textarea cols="50" rows="4" name="comments"></textarea><br>
          <input type="hidden" name="url" value="<url/>">
          <input type="hidden" name="user" value="<user/>">
          <input type="hidden" name="category" value="<category/>">
          <input type="submit" value="Submit"></p>
      </form>
    </td></tr>
  </table>
</body>
</html>
```

Revision History

Date	Revision	Comment
February 14, 2014	D	Removed the line item for a custom block page for Anti-spyware. In PAN-OS 3.1, the Anti-spyware block page was combined with the Antivirus block page. If a user system attempts to download spyware, the Antivirus block page will appear and the threat log will show the type “spyware”.