



How-to:

Serve a No-Nodes

In Pool Error page on

Enterprise Traffic Manager

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Synopsis:

This document details how to configure the jetNEXUS Traffic Manager to serve a properly formatted error page when there are no available nodes to handle the request, this involves uploading files to the TM, creating and adding rules and then making those rules active on the Virtual Server.

Contents:

- Access the Traffic Manager.
- Upload the error page.
- Create and add rules.
- Add the rule to a Virtual server.
- Configure the Error File.
- Test the error page.

Access the Traffic Manager.

Open up a new web browser and enter the IP address of your Traffic Manager with the port number: 9090.

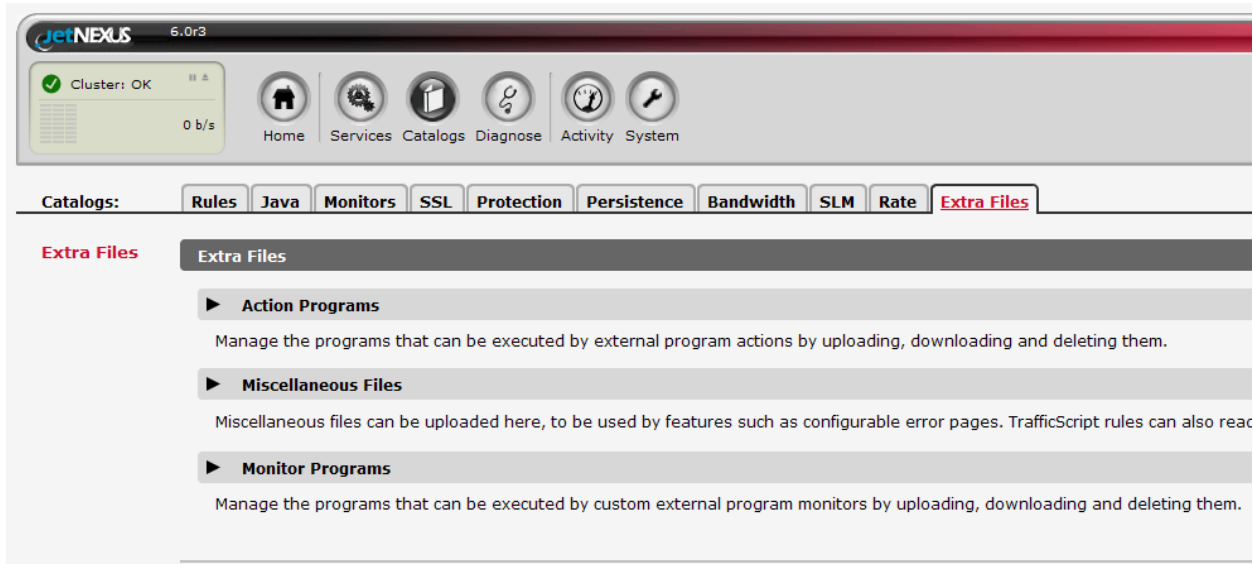
The default username and password are 'admin' and 'jetnexus' respectively.



The screenshot shows the login interface for the Zeus Administration Server. At the top left, the JetNEXUS logo and version number 6.0r3 are displayed. The page title is "Zeus Administration Server". Below the title, it states "Software: Zeus Traffic Manager 6.0r3" and "Use of this software is subject to this End User License Agreement." A prominent message reads "Login to quando.jetnexus.local". Below this, a prompt asks the user to "Enter a username and password to access the administration server." There are two input fields: "Username:" and "Password:". A "Login" button is positioned below the password field.

Uploading the error page.

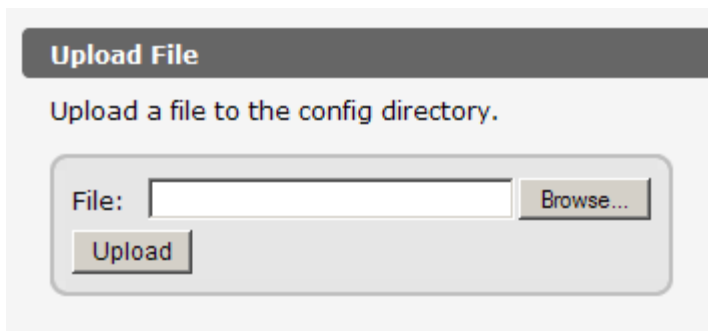
The upload page can be found under the ‘Catalogs’ button. The tab marked ‘Extra Files’



Click on



Use the Upload File utility to find and upload your maintenance page and any images or items that are used on the error page.



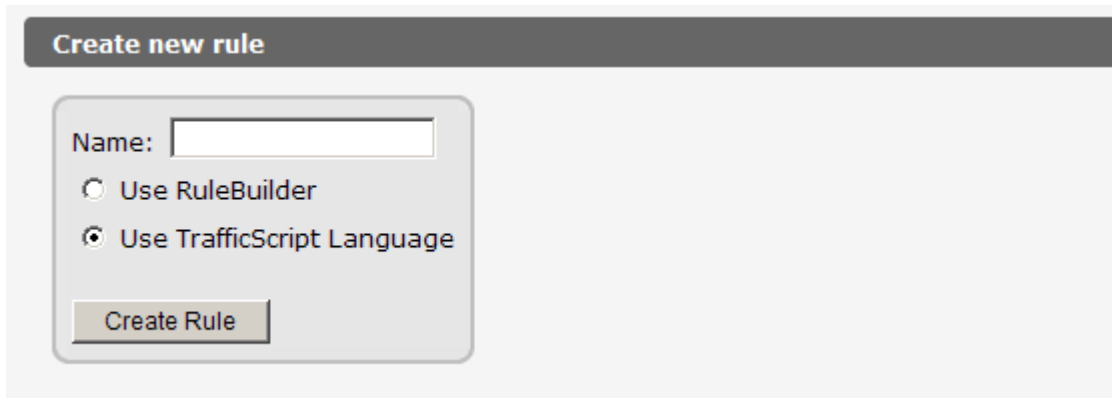
Create and add rules.

The purpose of the rule is to work out the MIME type of the file from its extension, and allows the file to be served from the 'extra' directory.

To create a rule, navigate to the 'Rule' tab which can be found on the 'Catalogs' page:



Under the 'Create new rule' heading

The screenshot shows the 'Create new rule' form. It has a text input field for 'Name:'. Below it are two radio buttons: 'Use RuleBuilder' (unselected) and 'Use TrafficScript Language' (selected). At the bottom of the form is a 'Create Rule' button.

Enter a name we will use "No_Nodes" and check the radio button next to 'Use TrafficScript Language' and click 'Create Rule'.

The script is:

```
# Only process requests that begin '/.extra/'

$url = http.getPath();

if( ! string.regexmatch( $url, "^\\\.extra/(.*)$" ) ) {

    break;

} else {

    $file = $1;

}

# If the file does not exist, stop

if( ! resource.exists( $file ) ) break;

# Work out the MIME type of the file from its extension

$mime = "text/plain";

if( string.regexmatch( $file, ".*\.[^.]+" ) ) {

    $ext = $1;

    if ( $ext == "html" ) $mime = "text/html";

    else if( $ext == "jpg" ) $mime = "image/jpeg";

    else if( $ext == "png" ) $mime = "image/png";

    else if( $ext == "gif" ) $mime = "image/gif";

    else if( $ext == "js" ) $mime = "application/x-javascript";

    else if( $ext == "css" ) $mime = "text/css";

}

# Serve the file from the conf/extra directory

$content = resource.get( $file );

http.sendResponse( "200 OK", $mime, $content, "" );
```

Copy the above into the Rule Field

Name: ▶ TrafficScript Reference

Notes:

Rule:

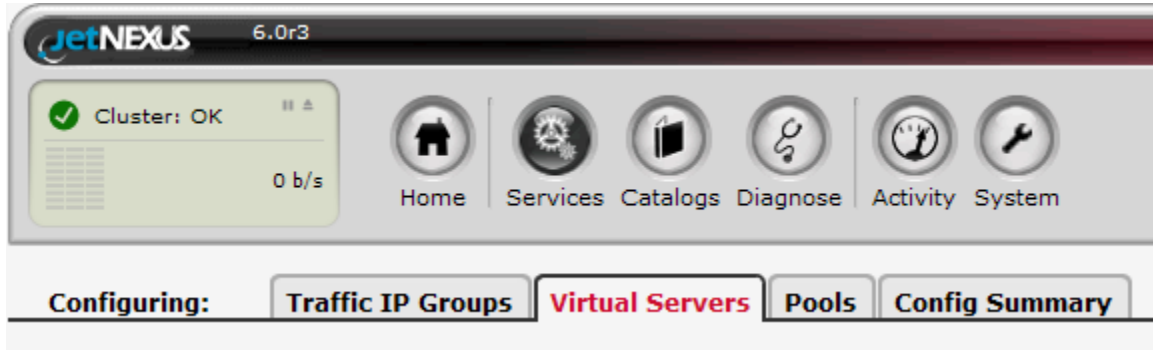
```
1 # Only process requests that begin '/.extra/'
2 $url = http.getPath();
3 if( ! string.regexmatch( $url, "^\\/\\.extra/(.*)$" ) ) {
4     break;
5 } else {
6     $file = $1;
7 }
8
9 # If the file does not exist, stop
10 if( ! resource.exists( $file ) ) break;
11
12 # Work out the MIME type of the file from its extension
13 $mime = "text/plain";
14 if( string.regexmatch( $file, ".*\\.([^.]+)$" ) ) {
15     $ext = $1;
16     if ( $ext == "html" ) $mime = "text/html";
17     else if( $ext == "jpg" ) $mime = "image/jpeg";
18     else if( $ext == "png" ) $mime = "image/png";
19     else if( $ext == "gif" ) $mime = "image/gif";
20 }
```

Click update

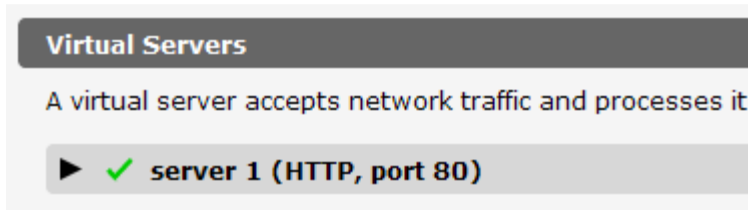
The rule is now ready to be assigned to a virtual server.

Add the rule to a Virtual Server.

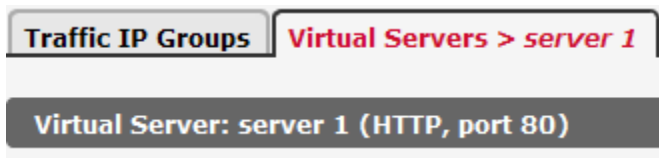
To make the rule active, first navigate to the Virtual Server by clicking



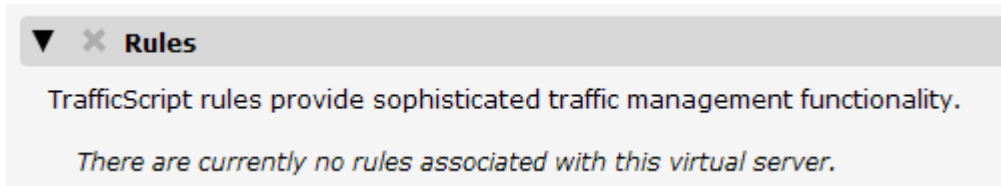
Click on the Virtual Server you wish to wish to configure rule for.



On the configuring page for the virtual server

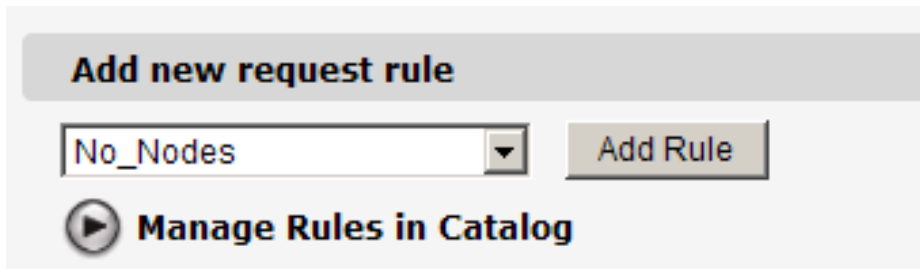


Click on the rules heading

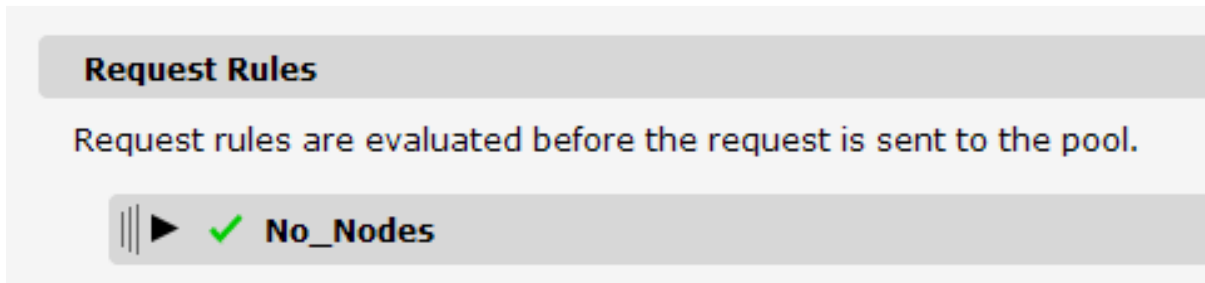


Then click on  on the right hand side.

Under the heading *'Add new request rule'* select the rule created (here called *'No_Nodes'*) and click *'Add Rule'*

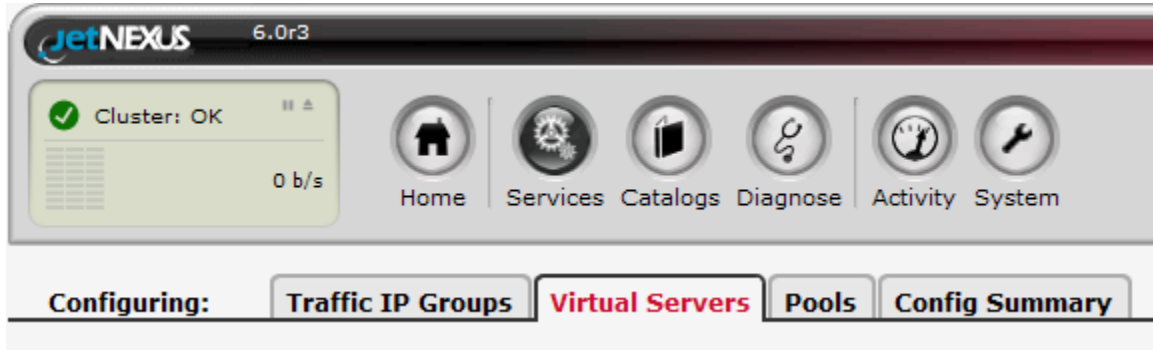


Under the heading *'Add new request rule'* select the rule created as above and click *'Add Rule'*, it is important that this rule is the very first in the list.

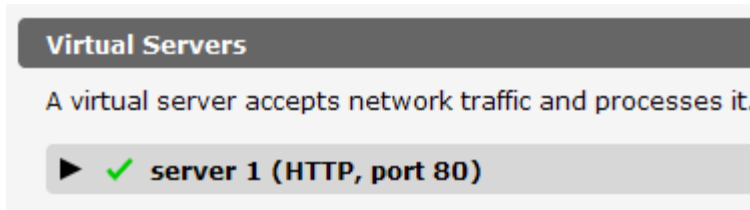


Configure the Error File.

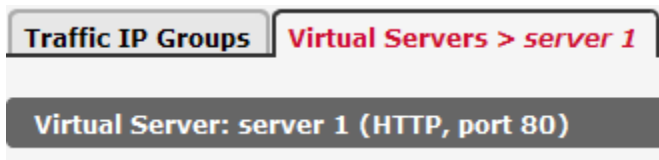
First navigate to the Virtual Server by clicking



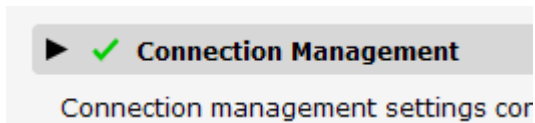
Click on the Virtual Server you wish to wish to have the error message.



On the configuring page for the virtual server



Click on Connection Management



Click on Connection Error Settings

▼ Connection Error Settings

How the virtual server manages connection errors.

Should the virtual server log failures occurring on connections to clients.
log!client_connection_failures: Yes No

Should the virtual server log failures occurring on connections to nodes.
log!server_connection_failures: Yes No

The error message to be sent to the client when your traffic manager detects an internal or backend error
error_file:

At the bottom of the Connection Error Settings, there is a drop down box marked **'error_file:'**, it is in this box that you specify the page to be served if all nodes go offline. In this example the page is called **'default_maint_page.htm'**

How long should the pool wait for a connection to a node to be established before trying another node?
max_connect_time: seconds

How long should the pool wait for a response from the node before either discarding the request or trying another node (retryable requests only).
max_reply_time: seconds

The message to be sent back to the client when no nodes are available, and no failpool is configured. The message is taken from the contents of the error_file; files can be uploaded via the 'Extra Files' catalog page. The error_file should be larger than 512 bytes otherwise Internet Explorer may ignore the contents of the file.
error_file:

Test the error page.

To test the error page, simply drain the node in your active pool and if you see the error page, then you know that it is functioning.

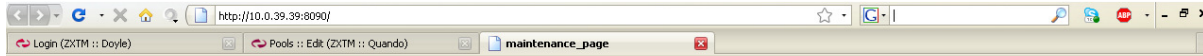
To drain your server from the pool, navigate to the Pools page click the checkboxes marked **‘Draining’**, when you click update, there will be an error highlighted in red which warns that *‘Draining all nodes in a pool stops any new traffic being received.’* To override this, check the box marked *‘Check this box to override the warnings given and submit changes’* and click submit once more.

The screenshot shows the 'Pools > web it works' configuration page. At the top, there are tabs for 'Traffic IP Groups', 'Virtual Servers', 'Pools > web it works', and 'Config Summary'. Below the tabs, the pool name 'Pool: web it works (HTTP, 2 nodes)' is displayed. A section for 'Virtual servers that use this pool:' shows 'server 1' with a gear icon. To the right, it says 'Pools that use this pool as their failure pool: none'. The 'Last Modified' date is '5 May 2010 15:35'. A 'Basic Settings' section is expanded, showing a description: 'The basic settings specify the nodes that the pool is balancing traffic to.' Below this is a form with a 'Name' field containing 'web it works'. A table lists nodes with their IP addresses, states, and delete checkboxes:

Node	State	Delete
10.0.2.31:80	Draining	<input type="checkbox"/>
10.0.2.32:80	Active	<input type="checkbox"/>

Below the table are fields for 'Add Node:', 'Failure pool:' (set to 'None'), and a 'Notes:' text area. An 'Update' button is at the bottom left of the form.

Now, if you try to access the page being served through the TM, you should get the page which was specified in Step 5. In our example, this looks like:



I hope you have found this How-to informative, but if you need any clarification or further information, please do not hesitate to get in contact with jetNEXUS support@jetnexus.com.