



# Server Health

Help Documentation

# Server Health

## Server Responses

### Result Codes

When a request is made to your server for a page on your website (for instance, when a visitor accesses your page in a browser or when spider crawls the page), your server returns a result code (also called an HTTP status code) in response to the request. This report item shows the most common codes returned by your server during the selected date range. Codes are grouped according to the list below:

- 200-level codes - Indicate a successful return of data. 2xx codes are good.
- 300-level codes - Indicate that the browser was redirected to another site resource. 3xx codes do not usually indicate a problem.
- 400-level codes - Indicate that a resource was either not found or was denied for some reason. If you get many 4xx codes, it may be worth investigating the cause.
- 500-level codes - Indicate that an error occurred while responding to the request. If you get many 5xx codes, it may be worth investigating the cause.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to [Understanding Report Items](#) .

For a definition of the terms listed on this page, please refer to the [Glossary](#) .

## **404 - Page Not Found**

This report displays a list of the files that a visitor attempted to access that no longer exist on the server, possibly because they were deleted, they were never created or the URL was misspelled. While some 404 errors are common due to user error, many 404 errors to a specific resource indicate a problem with your site. Using data mining to find the referrers to the 404 pages will yield useful information as to the cause.

Each row returned in this report can be further analyzed by SmarterStats. By moving your mouse over a row, a down arrow appears at the end of the row. The options available when clicking on this arrow include: [Data Mining](#), [Open URL](#), [Set Page Alias](#) and [View Details](#).

- [Data Mining](#) - Data mining allows site administrators and users to drill down into more detail about the item in the particular row. For example, viewing the referring URLs, bandwidth used, query strings and more.

- Open URL - Opens the item in a new window.
- Set Page Alias - Allows users to set a friendly name for sometimes complex URLs. For example, if a Page shows up as "/smartertools/products/smarterstats/pricing.aspx", users can instead attach the alias of "SmarterStats Pricing". That way, any report items that reference that page URL will display "SmarterStats Pricing" instead of the URL itself. This feature is especially useful when using dynamic pages, which can have cryptic or numerical variables such as ProductID=37.
- View Details - Displays a number of details about the specific item. For example, Traffic details, Performance results, any result codes returned (e.g., 404 errors) or any Site Tuning issues that are found.

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## 5xx - Server Errors

This report displays a list of the files that resulted in an internal server error when trying to process the request. These errors tend to be with the server itself, not with the request, and usually occur when there is a problem on your web server preventing the data from being returned (usually a scripting problem). While some 5xx errors occur due to server restarts, any 5xx error that occurs more than a few times should be investigated.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

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## Server Utilization

### Activity by Server IP

If your website is configured in a load-balanced or Web garden environment, this report displays server activity on a per server basis. Users and site administrators can use this information to determine if one server is being utilized more than others and/or to get an overall idea of the health of the environment.

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## Activity by Server Name

If your website is configured in a load-balanced or Web garden environment, this report displays server activity on a per server basis. Users and site administrators can use this information to determine if one server is being utilized more than others and/or to get an overall idea of the health of the environment.

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## Activity by Hostname

If your website has multiple host headers pointing to it, this report displays the activity by hostname. Users and site administrators can use this information to determine which host header is more popular.

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## Time Taken by Server IP

If your website is configured in a load-balanced or Web garden environment, this report displays server activity on a per server basis. Users and site administrators can use this information to determine if a specific server is slow to generate pages.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

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## Time Taken by Server Name

If your website is configured in a load-balanced or Web garden environment, this report displays server activity on a per server basis. Users and site administrators can use this information to determine if a specific server is slow to generate pages.

Note: This report can be added as a report item to a custom report. For more information on report items, refer to Understanding Report Items .

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## **Time Taken by Hostname**

If your website has multiple host headers pointing to it, this report displays the activity by each hostname. Users and site administrators can use this information to determine if a specific host header is slow to generate pages.

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## **Page Utilization**

### **Page Bandwidth In**

This report displays the incoming bandwidth for pages on the site. Website developers can use this report to identify the pages that will need the most optimization on incoming bandwidth. High utilization scores in this section are typically due to very large amounts of form data or viewstate, but can also be attributed to pages that allow file uploads. Note: If your site is based on ASP.Net, the pages in this page should be examined to see if viewstate can be reduced.

Regarding "Severity" - this is a calculated field that is based on the impact of the measured result (e.g., page load time) multiplied by the number of pages affected, then normalized across the entire result set. In general, Severity can be used as a way of making responsible decisions about the impact your site is having on the server and to avoid making unnecessary optimizations. For example, pages with high load times that are accessed infrequently may have lower severity than smaller pages that are hit much more often. In this case, there's no reason to optimize the higher load time page as it has less impact on the server.

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### **Page Bandwidth Out**

This report displays the outgoing bandwidth for pages on the site. Website developers can use this report to identify the pages that will need the most optimization on outgoing bandwidth.

Highly accessed pages that are smaller than others may have a higher score because of the number of hits. In this way, the report shows you the key pages that will have the most impact if optimized. For example, a page that is hit 10,000 times a day that is 500 bytes long causes much more load than a page that is hit 10 times that is 10,000 bytes long.

To optimize the page size, reduce the amount of HTML or content in the page or enable HTTP compression on the web server.

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## Page Time Taken

This report displays the average time taken for specific pages to load in the given timeframe. Website developers can use this report to identify the pages that need the most optimization with regards to page loading.

To optimize the time taken on the page, optimize the code to reduce database calls, improve the page flow to reduce the work the server has to do, or implement caching.

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## Document Bandwidth Out

This report displays the outgoing bandwidth for documents on the site. Website developers can use this report to identify files that could be compressed or reduced in size.

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## Download Bandwidth Out

This report displays the outgoing bandwidth for downloads on the site. Website developers can use this report to identify files that should be compressed for downloads.

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## Image Bandwidth Out

This report displays the outgoing bandwidth for images on the site. Website developers can use this report to identify images that could be compressed or reduced in size. IN addition, site owners can use this report to spot potential image "leechers" - those who steal images or link to images for use on their

own websites. Note: Many image optimization software products and services are available online. In general, these can greatly reduce the size of images without sacrificing image quality.

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Note: This report can be added as a report item to a custom report. For more information on report items, refer to [Understanding Report Items](#) .

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