

URL Normalization

<https://campus.barracuda.com/doc/93193830/>

Barracuda WAF-as-a-Service normalizes all traffic before applying any security policy string matches. For HTTP data, this requires decoding Unicode, UTF, or Hex to base text, to prevent disguised attacks using encoding formats for which string matches are not effective.

The default setting for URL Normalization provides protection for systems using standard character sets without encoding. [The Default Character set parameter specifies the character set encoding type for incoming requests. UTF-8 is the default.]

In some cases, multiple character set encoding is needed. For example, a Japanese language site might need both Shift-JIS and EUC-JP encoding. To add character set encoding, set the Detect Response Charset parameter to **On**. All response headers will be searched for a META tag specifying the character set encoding type and any supported types will be added dynamically.

Double encoding is the re-encoding of the encoded data. For example, the UTF-8 escape for the backslash character is %5C, which is a combination of three characters (% , 5, and C). Double encoding is the re-encoding either one or all three characters by using their corresponding UTF-8 escapes as %25, %35, and %63.

Only change these settings if your server is using encoding or a non-standard character set.

If you must change the encoding type, refer to the following list of character set decoding types.

English only: ASCII (7-bit), ISO-8859-1 (8-bit)

Unicode: UTF-8

Chinese: GBK, GB2312, HZ, BIG-FIVE, EUC-TW, ISO-2022-CN

Japanese: Shift-JIS, EUC-JP, ISO-2022-JP

Korean: EUC-KR, JOHAB, ISO-2022-KR

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