CLAIMS

What is claimed:

1. A computer-implemented method for dynamically configuring a utilization threshold of a proxy provider, the method comprising:

running a smart proxy rotator (SPR) on a computing device connected to a network;

obtaining a proxy from the SPR, according to currently valid SPR operational settings, by a Web Scraper to use for a request for content;

establishing, by the Web Scraper, an encrypted connection to a target server through the proxy;

requesting and obtaining the content designated within the request, through the encrypted connection, by the Web Scraper;

providing, by the Web Scraper, performance and availability information of the proxy to the SPR;

calculating, at the SPR, a weight for the proxy provider; and

dynamically configuring utilization threshold of the proxy provider based on the calculation.

2. The method of claim 1, wherein the Web Scraper accumulates the performance and availability information from a plurality of proxies before providing the information to the SPR.

3. The method of claim 1, wherein proxy providers' weights are calculated by the SPR based on the evaluation of performance and availability data from at least one proxy belonging to the provider.

~~4. The method of claim 1 further comprising dynamically configuring utilization threshold of the proxy provider based on the weight calculations.~~

~~5~~4. The method of claim 1, wherein the SPR periodically calculates and configures the proxy provider weight according to the proxy performance and availability information submitted by the Web Scraper at any configured period of time.

~~6~~5. The method of claim 1, wherein the SPR stops using a ~~maximized~~ proxy provider, at least for a period of time, when at least one of ~~the configured~~ maximum threshold<u>s set for the proxy provider</u> is reached.

~~7~~6. The method of claim 1, wherein the performance and availability information collected include, but are not limited to: proxy id, proxy status, proxy response time, and a size of data obtained through the proxy.

~~8~~7. The method of claim 1, wherein SPR operational settings, such as proxy provider settings, utilization thresholds, error thresholds and proxy lists, are loaded into a database on disk, a flat file on disk, a database in memory, or other storage media.

~~9~~8. The method of claim 1, wherein the SPR can be placed within a client's network, proxy service provider's network, or a party providing proxy rotation services.

~~10~~9. A non-transitory computer readable medium comprising:

a computer program for dynamically configuring a utilization threshold of a proxy provider comprising instructions which, when executed by a computer device, causes ~~the computing~~ <u>a computer</u> device to:

provide a Web Scraper with a proxy from a proxy provider list;

accumulate performance and availability information about the proxy provided by the Web Scraper after the proxy has been used to obtain content from a target, wherein the content is unreadable to a Smart Proxy Rotator (SPR) due to network transport payer or application layer encryption;

calculate and configure utilization thresholds of a plurality of proxy providers by evaluating proxy performance and availability information received from the Web Scraper.

~~11~~10. The non-transitory computer readable medium of claim ~~10~~9, wherein the proxy provider's utilization threshold is periodically reconfigured according to the performance and availability information provided by the Web Scraper.

~~12~~11. The non-transitory computer readable medium of claim ~~10~~9, wherein proxy providers' weights are periodically calculated and configured according to the proxy performance and availability information submitted by the Web Scraper at any configured period of time.

~~13~~12. The non-transitory computer readable medium of claim ~~10~~9, wherein usage of the proxy provider is placed on hold, at least for a period of time, when at least one configured maximum threshold is reached.

~~14~~13. The non-transitory computer readable medium of claim ~~10~~9, wherein the performance and availability information collected include, but are not limited to: proxy id, proxy status, proxy response time, and a size of data obtained through the proxy.

~~15~~14. The non-transitory computer readable medium of claim ~~10~~9, wherein operational settings, such as proxy provider settings, utilization thresholds, error thresholds and proxy lists, are loaded into a database on disk, a flat file on disk, a database in memory, or other storage media.

~~16~~15. The non-transitory computer readable medium of claim ~~10~~9, wherein ~~the computing~~ computer device executing the program can be placed within a client's network, proxy service provider's network, or any other network.

~~17~~16. A system comprising:

a Smart Proxy Rotator (SPR) operable to provide a plurality of proxies over a network; and

a Web Scraper operable to obtain a first proxy of the plurality of proxies from the SPR according to currently valid SPR operational settings, to establish an encrypted connection with the target server through the first proxy, to request content from a target server, to

receive the content designated within the request through the encrypted connection, and to provide performance and availability information of the first proxy to the SPR,

wherein the SPR is operable to calculate a weight for the proxy provider of the first proxy based on first proxy performance statistics analysis, and to dynamically configure utilization threshold of the proxy provider based on the weight calculated.

~~18~~17. The system of claim ~~17~~16, wherein proxy providers' weights are calculated by the SPR based on the evaluation of performance and availability data from at least one proxy belonging to the provider.

~~19~~18. The system of claim ~~17~~16, wherein the SPR periodically, at any configured period of time, calculates and configures proxy providers' weights according to the proxy performance and availability information submitted by the Web Scraper.

~~20~~19. The system of claim ~~17~~16, wherein the SPR stops using a ~~maximized~~ proxy provider, at least for a period of time, when at least one of ~~the configured~~ maximum threshold<u>s set for the proxy provider</u> is reached.