Claims

1. A computer-implemented method of checking capabilities and availability of an exit node (108), executed by a supernode (106) within a service provider infrastructure (114), the method comprising:

accepting, by the supernode (106), a connection from the exit node (108), wherein the exit node registers with the supernode (106), and wherein the supernode (106) and the exit node (108) are part of the service provider infrastructure (114);

upon registering the exit node (108) with the supernode (106),

forming, by the supernode (106), a benchmark request according to benchmark test definitions, wherein the benchmark test definitions are described locally at the supernode (106);

sending, by the supernode (106), the benchmark request formed according to the benchmark test definition to the exit node (108), wherein the benchmark request comprises a request to reach a target (110) on a network (116);

accepting, by the supernode (106), from the exit node (108) a response to the benchmark request;

evaluating, by the supernode (106), the response to the benchmark request based on predefined conditions;

and, upon evaluating the response to the benchmark request, if the response fails to satisfy at least one of the predefined condition,

marking, by the supernode (106), the exit node as unavailable;

sending, by the supernode (106), information about the exit node (108) to a database (112), wherein the database (112) categorizes the exit nodes (108) based on at least one of the following categories: availability of the exit node (108), ability of the exit node (108) to reach the target (110), geo-location of the exit node (108);

wherein the benchmark request comprising the request to reach the target (110) can be changed dynamically to reach a different target according to results of analyzing a plurality of customer's requests by the Service Provider Infrastructure (114),

wherein the supernode (106) identifies whether the exit node (108) is suitable for proxying by evaluating the response to the benchmark request.

2. The method of claim 1, wherein the exit node executes the benchmark request by connecting to the target (110).

3. The method of claim 1, wherein the predefined conditions by which the supernode (106) evaluates the response to the benchmark request comprises at least one of the following conditions:

a) whether the response to the benchmark was received;
b) whether the exit node (108) is online;
c) whether the exit node (108) can reach the target (110);
d) whether the response was received within a predefined time period;

4. The method of claim 1, wherein a plurality of exit nodes (108) can register with the supernode (106) at the same time.

5. The method of claim 1, wherein a further benchmark request is sent to the exit node (108) when the exit node (108) fails to satisfy one or more predefined conditions.

6. The method of claim 1, wherein the exit node (108) is a residential proxy server.

7. The method of claim 1, wherein the benchmark test definitions comprise at least one of the following characteristics associated with the target (110): geo-location, network placement, country affiliation, and communication protocol type.

8. A system of checking capabilities and availability of exit nodes (108) comprising at least:

a service provider infrastructure (114), further comprising:

a front-end proxy server (104), configured to receive exit node metadata;

an exit node database (112), configured to gather information about exit nodes (108) and categorize the exit nodes (108) based on at least one of the following categories: availability of the exit node (108), ability of the exit node (108) to reach the target (110), geo-location of the exit node (108);

a supernode (106) configured to form benchmark requests according to benchmark test definitions, wherein the benchmark test definitions are described locally at the supernode (106);

wherein availability of the exit nodes (108) are determined by sending the benchmark requests to the exit node (108);

wherein the benchmark request comprises a request to reach a target (110) on a network (116) and,

wherein the benchmark request comprising the request to reach the target (110) can be changed dynamically to reach a different target according to results of analyzing a plurality of customer's requests by the Service Provider Infrastructure (114);

9. The system of claim 8, wherein the supernode (106) is configured to evaluate responses to the benchmark requests received from the exit nodes (108) based on predefined conditions.

10. The system of claim 9, wherein the predefined conditions by which the supernode (106) evaluates the response to the benchmark request comprises at least one of the following:

a) whether the response to the benchmark was received;
b) whether the exit node (108) is online;
c) whether the exit node (108) can reach the target (110);
d) whether the response was received within a predefined time period;

11. The system of claim 9, wherein responses to the benchmark requests are stored in the exit node database (112).

12. A non-transitory computer readable medium for checking availability of proxy servers comprising instructions which, when executed by a computing device within a service provider infrastructure (114), cause the corresponding computing device to:

accept, by a supernode (106), a connection from an exit node (108), wherein the wherein the exit node registers with the supernode (106), and wherein the supernode (106) and the exit node (108) are part of the service provider infrastructure (114);

upon registration of the exit node (108) with the supernode (106),

form, by the supernode (106), a benchmark request according to benchmark test definitions, wherein the benchmark test definitions are described locally at the supernode (106);

send, by the supernode (106), the benchmark request formed according to the benchmark test definition to the exit node (108), wherein the benchmark request comprises a request to reach a target (110) on a network (116);

accept, by the supernode (106), from the exit node (108) a response to the benchmark request;

evaluate, by the supernode (106), the response to the benchmark request based on predefined conditions;

and, upon evaluating the response to the benchmark request, if the response fails to satisfy at least one of the predefined conditions,

mark, by the supernode (106), the exit node as unavailable;

send, by the supernode (106), information about the exit node (108) to a database (112), wherein the database (112) categorizes the exit nodes (108) based on at least one of the following categories: availability of the exit node (108), ability of the exit node (108) to reach the target (110), geo-location of the exit node (108);

wherein the benchmark request comprising the request to reach the target (110) can be changed dynamically to reach a different target according to results of analyzing a plurality of customer's requests by the Service Provider Infrastructure (114);

wherein the evaluation of the response to the benchmark request identifies whether the exit node (108) is suitable for proxying.

13. The non-transitory computer readable medium of claim 12, wherein a plurality of exit nodes (108) can register with the supernode (106) at the same time.

14. The non-transitory computer readable medium of claim 12, wherein further benchmark request is sent to the exit node (108) when the exit node (108) fails to satisfy one or more predefined conditions.

15. The non-transitory computer readable medium of claim 12, wherein the exit node (108) is a residential proxy server.

16. The non-transitory computer readable medium of claim 12, wherein the benchmark test definitions comprise at least one of the following characteristics associated with the target (110): geo-location, network placement, country affiliation, and communication protocol type.