CLAIMS

1. A network regulator connected to a plurality of client systems over a local network, wherein a router connected to the local network is configured to assign a first plurality of network addresses to the plurality of client systems, each of the first plurality of network addresses selected from a first range of addresses, wherein the network regulator comprises a hardware processor and a memory, the hardware processor configured to:

automatically reconfigure at least one of the router and the local network to prevent an assignment by the router of network addresses from the first range of addresses;

assign a second plurality of network addresses to the plurality of client systems, each of the second plurality of network addresses selected from a second range of addresses distinct from the first range of addresses;

in response to automatically reconfiguring the at least one of the router and the local network, intercept a request by a client system of the plurality of client systems to access a resource located outside the local network; and

in response to intercepting the request, transmit an indicator of the request to a remote security server for analysis, wherein the security server is configured to determine whether accessing the resource constitutes a computer security threat to the client system.

2. The network regulator of claim 1, wherein automatically reconfiguring the at least one of the router and the local network comprises incapacitating the router.

3. The network regulator of claim 1, wherein automatically reconfiguring the at least one of the router and the local network comprises employing the hardware processor to transmit a set of instructions to the router, the set of instructions configured so that executing the set of instructions by the router causes a disruption of a process or assigning network addresses to client systems.

4. The network regulator of claim 1, wherein automatically reconfiguring the at least one of the router and the local network comprises adjusting a set of configuration parameters of the router to cause a disruption of a process of assigning network addresses to client systems.

5. The network regulator of claim 4, wherein automatically reconfiguring the at least one of the router and the local network further comprises, in preparation for adjusting the set of configuration parameters:

causing the router to expose a configuration interface enabling an adjustment of the set of configuration parameters; and

automatically filling in a set of fields of the configuration interface.

6. The network regulator of claim 4, wherein automatically reconfiguring the at least one of the router and the local network further comprises, in preparation for adjusting the set of configuration parameters, receiving from a remote configuration server a set of user credentials for logging into a configuration interface of the router.

7. The network regulator of claim 1, wherein automatically reconfiguring the at least one of the router and the local network comprises:

automatically determining a device type of the router, wherein determining the device type comprises determining an item selected from a group consisting of a make of the router, a model of the router, and a version of a software executing on the router; and

configuring according to the device type of the router a sequence of actions executed by the network regulator in the course reconfiguring the at least one of the router and the local network.

8. The network regulator of claim 1, wherein automatically reconfiguring the at least one of the router and the local network comprises employing the hardware processor to impersonate a plurality of fictitious devices requesting to connect to the local network.

9. The network regulator of claim 1, wherein automatically reconfiguring the at least one of the router and the local network comprises employing the hardware processor to:

detect an address availability probe sent by an entity connected to the local network, the entity selected from a group consisting of the router and of the client system, the address availability probe sent to a target network address distinct from a current network address of the network regulator;

in response to detecting the address availability probe, transmit a response to the entity, the response indicating that the target network address is currently in use.

10. The network regulator of claim 1, wherein automatically reconfiguring the at least one of the router and the local network further comprises configuring the network regulator as a gateway to the local network.

11. The network regulator of claim 1, wherein transmitting the indicator of the request to the security server comprises re-routing the request to the security server.

12. The network regulator of claim 1, wherein the request comprises a hypertext transfer protocol (HTTP) request.

13. The network regulator of claim 1, wherein the hardware processor is further configured to perform the automatic reconfiguration of the at least one of the router and the local network in response to receiving from a remote configuration server a permission indicator indicating that an administrator of the local network agrees to the reconfiguration of the at least one of the router and the local network.

14. A security server comprising at least one hardware processor and a memory, the at least one hardware processor configured to:

receive from a network regulator connected to a remote network an indicator of a request by a client system connected to the remote network to access a resource located outside the remote network; and

in response to receiving the indicator of the request, determine whether accessing the resource constitutes a computer security threat to the client system,

wherein the network regulator is connected to a router over the remote network, the router configured to assign a first plurality of network addresses to a plurality of client systems including the client system, each of the first plurality of network addresses selected from a first range of addresses, wherein the network regulator is configured to:

automatically reconfigure at least one of the router and the local network, to prevent an assignment by the router of network addresses from the first range of addresses;

assign a second plurality of network addresses to the plurality of client systems, each of the second plurality of network addresses selected from a second range of addresses distinct from the first range of addresses;

in response to automatically reconfiguring the at least one of the router and the local network, intercept the request; and

in response to intercepting the request, transmit the indicator of the request to the security server.

15. The security server of claim 14, wherein the at least one hardware processor is further configured to:

in response to determining whether accessing the resource constitutes a computer security threat to the client system, when accessing the resource does not constitute the security threat, allow the client system access to the resource; and

in response to determining whether accessing the resource constitutes a computer security threat to the client system, when accessing the resource does constitute the security threat, prevent the client system from accessing the resource.

16. The security server of claim 14, wherein the at least one hardware processor is further configured, in response to determining whether accessing the resource constitutes the computer security threat, when accessing the resource does constitute the security threat, transmit a security notification to the network regulator.

17. The security server of claim 14, wherein reconfiguring the at least one of the router and the local network comprises incapacitating the router.

18. The security server of claim 14, wherein reconfiguring the at least one of the router and the local network comprises employing the network regulator to transmit a set of instructions to the router, the set of instructions configured so that executing the set of instructions by the router causes a disruption of a process of assigning network addresses to client systems.

19. The security server of claim 14, wherein reconfiguring the at least one of the router and the local network comprises employing the network regulator to adjust a set of configuration parameters of the router to cause a disruption of a process of assigning network addresses to client system.

20. The security server of claim 19, wherein reconfiguring the at least one of the router and the local network further comprises, in preparation for adjusting the set of configuration parameters:

causing the router to expose a configuration interface enabling an adjustment of the set of configuration parameters; and

employing the network regulator to automatically fill in a set of fields of the configuration interface.

21. The security server of claim 19, wherein reconfiguring the at least one of the router and the local network further comprises, in preparation for adjusting the set of configuration parameters, employing the network regulator to receive from a remote configuration server a set of user credentials for logging into a configuration interface of the router.

22. The security server of claim 14, wherein taking over the network service comprises:

employing the network regulator to automatically determine a device type of the router, wherein determining the device type comprises determining an item selected from a group consisting of a make of the router, a model of the router, and a version of a software executing on the router; and

employing the network regulator to configure, according to the device type of the router, a sequence of actions executed by the network regulator in the course of reconfiguring the at least one of the router and the local network.

23. The security server of claim 14, wherein reconfiguring the at least one of the router and the local network comprises employing the network regulator to impersonate a plurality of fictitious devices requesting to connect to the remote network.

24. The security server of claim 14, wherein reconfiguring the at least one of the router and the local network comprises employing the hardware processor to:

detect an address availability probe sent by an entity connected to the remote network, the entity selected from a group consisting of the router and of the client system, the address availability probe sent to a target network address distinct from a current network address of the network regulator;

in response to detecting the address availability probe, transmit a response to the entity, the response indicating that the target network address is currently in use.

25. The security server of claim 14, wherein reconfiguring the at least one of the router and the local network comprises configuring the network regulator as a gateway to the remote network.

26. The security server of claim 15, wherein the network regulator is configured to re-route the request to the security server.

27. The security server of claim 14, wherein the request comprises a hypertext transfer protocol (HTTP) request.

28. The security server of claim 14, wherein the network regulator is further configured to perform the automatic reconfiguration of the at least one of the router and the local network in response to receiving from a remote configuration server a permission indicator indicating that an administrator of the remote network agrees to the reconfiguration of the at least one of the router and the local network.

29. A non-transitory computer readable medium storing instructions which, when executed by at least one hardware processor of a network regulator, cause the network regulator to perform a set of

actions, wherein the network regulator is connected to a plurality of client systems over a local network, wherein a router connected to the local network is configured to assign a first plurality of network addresses to the plurality of client systems, each of the first plurality of network addresses selected from a first range of addresses, and wherein the set of actions comprises:

automatically reconfigure at least one of the router and the local network, to prevent an assignment by the router of network addresses from the first range of addresses;

assign a second plurality of network addresses to the plurality of client systems, each of the second plurality of network addresses selected from a second range of addresses distinct from the first range of addresses;

in response to automatically reconfiguring the at least one of the router and the local network, intercept a request by a client system of the plurality of client systems to access a resource located outside the local network; and

in response to intercepting the request, transmit an indicator of the request to a remote security server for analysis, wherein the security server is configured to determine whether accessing the resource constitutes a computer security threat to the client system.

30. The network regulator of claim 1, wherein the hardware processor is further configured, in preparation for reconfiguring the at least one of the router and the local network, to:

transmit an address request to the router, the address request configured to cause the router to assign a network address to the network regulator, and

determine according to a content of a response to the address request a sequence of actions executed by the network regulator in the course of taking over the network service.