What is claimed is:

1. A method, comprising:

receiving, from a provider configuration system of a network and at a domain name system (DNS) firewall system, a request to instantiate the DNS firewall system for an Internet circuit, wherein the request comprises customer information and an assigned Internet protocol (IP) address space for the Internet circuit;

automatically extracting the customer information and the assigned IP address space from the request;

automatically storing tenant data for the customer at the DNS firewall system, wherein the tenant data comprises at least the assigned IP address space;

receiving, by the DNS firewall system, a first DNS request from the assigned IP address space;

processing, by the DNS firewall system, the first DNS request, wherein the processing comprises:

determining that the first DNS request includes a first domain that is in a first category;

determining whether the first category is permitted for the customer;

when the first category is permitted for the customer, causing the first DNS request to be resolved to a first IP address associated with the first domain; and

when the first category is not permitted for the customer, causing the first DNS request to be rejected.

2. The method of claim 1, further comprising reporting, by the DNS firewall system, filtering information to a threat intelligence system.

3. The method of claim 2, wherein the filtering information comprises information regarding any domains that the customer has included on at least one of an access-allowed list or an access-denied list.

4. The method of claim 2 or 3, further comprising receiving, from the threat intelligence system, a list of known malicious domains, wherein the first category comprises the list of known malicious domains and wherein the DNS firewall system automatically prohibits the first category from being permitted for the customer.

5. The method of any preceding claim, further comprising:

receiving, by the DNS firewall system, a second DNS request from the assigned IP address space, determining based on the tenant data whether the customer is currently subscribed to the DNS firewall system for the Internet circuit;

when the customer is currently subscribed to the DNS firewall system for the Internet circuit, processing, by the DNS firewall system, the second DNS request; and

when the customer is not currently subscribed to the DNS firewall system for the Internet circuit, discarding the second DNS request.

6. The method of any preceding claim, further comprising:

receiving, by the DNS firewall system, a second DNS request from the assigned IP address space;

determining, by the DNS firewall system, that the customer is not currently subscribed to the DNS firewall system for the Internet circuit; and

forwarding, by the DNS firewall system, the second DNS request to a separate DNS system.

7. The method of any preceding claim, further comprising:

receiving, by the DNS firewall system, a second DNS request from the assigned IP address space, determining based on the tenant data whether the customer is currently subscribed to the DNS firewall system for the Internet circuit;

when the customer is currently subscribed to the DNS firewall system for the Internet circuit, processing, by the DNS firewall system, the second DNS request; and

when the customer is not currently subscribed to the DNS firewall system for the Internet circuit, forwarding the second DNS request to a separate DNS system.

8. The method of claim 6 or 7, wherein the separate DNS system is associated with a second IP address, the method further comprising, when the customer is not currently subscribed to the DNS firewall system for the Internet circuit, sending a notification to the customer to instruct the customer to change an IP address at customer premises equipment to the second IP address.

9. The method of any one of claims 5 to 8, further comprising, when the customer is not currently subscribed to the DNS firewall system for the Internet circuit, forwarding the second DNS request to a separate DNS system only if the second DNS request is received during a predefined period since the customer was last subscribed to the DNS firewall system and, otherwise, discarding the second DNS request.

10. A system, comprising:

at least one processor; and

memory, operatively connected to the at least one processor and storing instructions that, when executed by the at least one processor, cause the system to perform a method, the method comprising:

receiving, at a provider configuration system of a network, a request from a customer to provision an Internet circuit and to provision a domain name system (DNS) firewall system for the Internet circuit, wherein the request includes customer information;

assigning an Internet Protocol (IP) address space to the Internet circuit;

causing the Internet circuit to be provisioned using the customer information and the assigned IP address space;

automatically, based on receiving the request to provision the DNS firewall system for the Internet circuit, causing tenant data for the customer to be stored at the DNS firewall system, wherein the tenant data comprises at least the assigned IP address space; and

causing DNS requests received from the assigned IP address space to be processed by the DNS firewall system.

11. The system of claim 10, wherein the DNS firewall system advertises at least a first IP address on the network, wherein the method further comprises:

automatically, based on receiving the request to provision the DNS firewall system for the Internet circuit, causing customer premises equipment to be programmed to direct the DNS requests to the first IP address.

12. The system of claim 11, wherein automatically causing customer premises equipment to be programmed to direct the DNS requests to the first IP address comprises remotely configuring the customer premises equipment.

13. The system of claim 12, wherein remotely configuring the customer premises equipment is performed in response to receiving notification that the customer premises equipment has been installed at the customer and comprises at least one of:

automatically sending instructions to configure the customer premises equipment; or

automatically sending an executable script to configure the customer premises equipment, wherein the executable script is specific to the customer premises equipment.

14. The system of any one of claims 11 to 13, wherein the assigned IP address space comprises at least a first IP address and a second IP address, and wherein the method further comprises:

assigning the first IP address to an edge router and the second IP address to the customer premises equipment.

15. The system of any one of claims 10 to 14, wherein the method further comprises at least one of:

providing, by the provider configuration system, programmatic access to an ordering system via an application programming interface (API) by exposing the API to permit programmatic ordering of the Internet circuit, providing the user information, and requesting that the DNS firewall system be provisioned for the Internet circuit; or

causing, by the provider configuration system, a user interface to be presented, wherein the user interface provides user selectable options for the customer to order the Internet circuit, provide the user information, and to request that the DNS firewall system be provisioned for the Internet circuit.

16. A method comprising:

receiving, at a provider configuration system of a network, a request from a customer to provision an Internet circuit and to provision a domain name system (DNS) firewall system for the Internet circuit, wherein the request includes customer information;

assigning an Internet protocol (IP) address space to the Internet circuit;

causing the Internet circuit to be provisioned using the customer information and the assigned IP address space;

automatically, based on receiving the request to provision the DNS firewall system for the Internet circuit, causing tenant data for the customer to be stored at the DNS firewall system, wherein the tenant data comprises at least the assigned IP address space; and

causing DNS requests received from the assigned IP address space to be processed by the DNS firewall system.

17. The method of claim 16, wherein the DNS firewall system advertises at least a first IP address on the network, further comprising:

automatically, based on receiving the request to provision the DNS firewall system for the Internet circuit, causing customer premises equipment to be programmed to direct the DNS requests to the first IP address.

18. The method of claim 17, wherein automatically causing customer premises equipment to be programmed to direct the DNS requests to the first IP address comprises remotely configuring the customer premises equipment.

19. The method of claim 18, wherein remotely configuring the customer premises equipment is performed in response to receiving notification that the customer premises equipment has been installed at the customer.

20. The method of any one of claims 16 to 19, further comprising at least one of:

providing, by the provider configuration system, programmatic access to an ordering system via an application programming interface (API) by exposing the API to permit programmatic ordering of the Internet circuit, providing the user information, and requesting that the DNS firewall system be provisioned for the Internet circuit; or

causing, by the provider configuration system, a user interface to be presented, wherein the user interface provides user selectable options for the customer to order the Internet circuit, provide the user information, and to request that the DNS firewall system be provisioned for the Internet circuit.