CLAIMS

1. A method for providing a scrubbing service from a network, the method comprising:

receiving, from an orchestrator of the network and at one of a plurality of scrubbing devices of a scrubbing environment, a scrubbing profile associated with a device of a telecommunications network through a first routing protocol announcement session, the scrubbing profile comprising an Internet Protocol (IP) address associated with the device;

in response to receiving the scrubbing profile, announcing, by the one scrubbing device via a border Gateway Protocol, BGP, announcement session, the IP address associated with the device;

determining, by the orchestrator, that each of a plurality of denial of service attacks is occurring on the device and whether each said determined attack is larger than a threshold value associated with the one scrubbing device:

in response to each said determination that an attack is occurring while a said one scrubbing device is instructed to perform said announcing and that the attack is larger than the threshold value associated with that one scrubbing device;

transmitting by the orchestrator, to another of the plurality of scrubbing devices of the scrubbing environment , the scrubbing profile for the device of the telecommunications network;

instructing, by the orchestrator, the one scrubbing device that is instructed to perform the announcing to cease announcing the IP address associated with the device; and

announcing, by the another scrubbing device, the scrubbing profile transmitted by the orchestrator, the announcement through a second routing protocol announcement session,

wherein the another scrubbing device comprises a larger input bandwidth than the one scrubbing device instructed to cease announcing.

2. The method of claim 1 wherein each said routing protocol announcement session comprises a Border Gateway Protocol (BGP) announcement session within the telecommunications network.

3. The method of any one of claims 1 or 2, further comprising:

obtaining by the orchestrator, from a database, the scrubbing profile, retaining some aspects of the scrubbing profile, and providing other aspects of the scrubbing profile to the one scrubbing device.

4. The method of any one of claims 1 to 3, wherein the scrubbing environment further comprises a scrubbing controller, the scrubbing controller providing scrubbing instructions to the plurality of scrubbing devices to provide traffic scrubbing services to a customer of the telecommunications network.

5. An orchestrator device of a scrubbing environment of a telecommunications network, the orchestrator device comprising:

at least one first communication port configured to receive routing information through a first routing protocol announcement, the routing information comprising at least one Internet Protocol (IP) address associated with a device of the telecommunications network; and

at least one second communication port configured to receive routing information through a second routing protocol announcement in response to a detected denial of service attack on the device,;

a processing device configured to control the orchestrator device to perform the operations of:

transmit, to one of a plurality of scrubbing devices of the scrubbing environment, scrubbing profile associated with the device through the first routing protocol announcement session, the scrubbing profile comprising an Internet Protocol (IP) address associated with the device;

determine, that each of a plurality of denial of service attacks is occurring on the device and if each said determined attack is larger than a threshold value associated with the one scrubbing device; and

in response to each said determination that an attack is occurring while a said one scrubbing device is instructed to perform said announcing and that the attack is larger than a threshold value associated with that one scrubbing device:

transmit, to another of the plurality of scrubbing devices of the scrubbing environment, the scrubbing profile for the device of the telecommunications network via the second communication port; and

instruct the one scrubbing device that is instructed to perform the announcing to cease announcing the IP address associated with the device;

wherein each another scrubbing device comprises a larger input bandwidth than the one scrubbing device.

6. The orchestrator of claim 5 wherein each said routing protocol announcement session comprises a Border Gateway Protocol (BGP) announcement session within the telecommunications network.

7. The orchestrator of claim 5 or 6, wherein the scrubbing environment comprises a scrubbing controller and a plurality of scrubbing servers, the scrubbing controller providing scrubbing instructions to the plurality of scrubbing servers to provide the traffic scrubbing services to the customer of the telecommunications network.