WHAT IS CLAIMED IS:

1. A method of managing bandwidth, comprising:

receiving user-selected connection parameters associated with a subscriber device;

associating, using a computer processor, a network identifier of the subscriber device with a group bandwidth policy, based on the user-selected connection parameters;

storing, in computer-readable storage media, parameters associated with the group bandwidth policy, in association with the network identifier of the subscriber device;

receiving, at a gateway device, network communication data from the subscriber device; and

limiting, at the gateway device, bandwidth available to the network communication data, based on the stored parameters associated with the group bandwidth policy.

2. The method of Claim 1, wherein the network identifier comprises a MAC address of the subscriber device.

3. The method of Claim 1, wherein the parameters associated with the group bandwidth policy comprise a group bandwidth policy identifier, an uplink bandwidth, and a downlink bandwidth.

4. The method of Claim 1, further comprising:

associating a second network identifier of a second subscriber device with the group bandwidth policy; and

limiting bandwidth available to the subscriber device and the second subscriber device based on the stored parameters associated with the group bandwidth policy.

5. The method of Claim 1, wherein the user-selected connection parameters are received at a portal page server.

6. A network system configured to manage bandwidth of subscribers with multiple subscriber devices connected to the network system, the system comprising:

a gateway device configured to connect a plurality of subscriber devices to an external network, the gateway device comprising a computer processor and one or more network ports; and

an Authentication, Authorization and Accounting (AAA) server storing data relating to a group bandwidth policy associated with a subset of the subscriber devices;

wherein the gateway device is configured, upon receiving a communication request from a subscriber device, to transmit a request for authentication information to the AAA server, the request comprising a network identifier associated with the subscriber device;

wherein the AAA server is configured to determine, in response to the request for authentication information, that the subscriber device is associated with the group bandwidth policy, based at least in part on the network identifier associated with the subscriber device; the AAA server further configured to transmit, to the gateway device, an authentication response comprising the data relating to the group bandwidth policy; and

wherein the gateway device is further configured to limit the bandwidth available to the subscriber device based upon the data relating to the group bandwidth policy, and further based upon the bandwidth being used by other subscriber devices associated with the group bandwidth policy.

7. The network system of Claim 6, wherein the gateway device and AAA server are housed within a single device.

8. The network system of Claim 6, wherein the gateway device and AAA server are separate devices.

9. The network system of Claim 6, further comprising a portal page server configured to complete an enrollment procedure with the subscriber device, wherein the AAA server is configured to determine that the subscriber device is associated with the group bandwidth policy based at least in part on data stored by the portal page server in response to the enrollment procedure.

10. The network system of Claim 6, wherein the request for authentication information comprises a RADIUS or Diameter protocol request, and wherein the authentication response comprises a RADIUS or Diameter protocol response.

11. The network system of Claim 6, wherein the gateway device is further configured to limit the bandwidth available to the subscriber device by queuing and/or dropping one or more packets received from the subscriber device.

12. A method of associating a group of network enabled computing devices with a network access subscription, the method comprising:

associating a device network identifier for each of a plurality of network devices with a single network access subscription;

allocating a subset of available bandwidth with the single network access subscription;

providing network access to the plurality of network devices, wherein the plurality of network devices share the allocated subset of available bandwidth.

13. The method of Claim 12, wherein the device network identifier comprises a MAC address.

14. The method of Claim 12, wherein the subset of available bandwidth comprises a subset of available uplink bandwidth and a subset of available downlink bandwidth.

15. The method of Claim 12, wherein the method is performed at a network system comprising a gateway device, wherein the plurality of devices are connected to the network system, and wherein the plurality of network devices share the allocated subset of available bandwidth by the gateway device delaying and/or dropping transmission of data packets received from the plurality of network devices.

16. The method of Claim 12, wherein associating a network device identifier for each of a plurality of network devices with a single network access subscription comprises storing, in computer-readable storage, the network device identifier for each of the plurality of network devices, in association with an identifier of the single network access subscription.

17. A network system which associates a plurality of devices with a single network subscription, the network system comprising:

one or more device side interfaces for communicating with a plurality of user devices;

one or more network side interfaces for communicating with a wide area network; and

one or more processors configured to associate at least two of the plurality of user devices with a single network subscription, the network subscription providing a subset of available bandwidth to be shared by the at least two of the plurality of user devices.

18. The network system of Claim 17, further comprising a portal page server configured to receive data from at least one of the plurality of user devices, wherein the portal page server is configured to cause the one or more processors to associate the at least one of the plurality of user devices with the single network subscription based on the received data.

19. The network system of Claim 17, wherein the one or more processors are further configured to limit the bandwidth of data transmitted or received at the one or more device side interfaces from the at least two of the plurality of user devices, based at least in part on an indication of a user-selected bandwidth level associated with the single network subscription.

20. The network system of Claim 17, wherein the one or more processors are further configured to dissociate a user device from the single network subscription in response to a determination that the user device has disconnected.

CLAIMS

1. A method of managing bandwidth, comprising:

receiving user-selected connection parameters associated with a first subscriber device;

associating, using a computer processor, a first network identifier of the first subscriber device with a group bandwidth policy, based on the user-selected connection parameters;

associating, using a computer processor, a second network identifier of a second subscriber device with the same group bandwidth policy associated with the first subscriber device based in part on the user-selected connection parameters;

storing, in computer-readable storage media, parameters associated with the group bandwidth policy, in association with said network identifiers of the first and second subscriber devices;

receiving, at a gateway device, first network communication data from the first subscriber device;

receiving, at a gateway device, second network communication data from the second subscriber device; and

limiting, at the gateway device, bandwidth available to the second network communication data, based on the stored parameters associated with the group bandwidth policy and a bandwidth used by the first subscriber device.

2. The method of Claim 1, wherein the first network identifier comprises a first MAC address of the first subscriber device and the second network identifier comprises a second MAC address of the second subscriber device.

3. The method of Claim 1, wherein the parameters associated with the group bandwidth policy comprise a group bandwidth policy identifier, an uplink bandwidth, and a downlink bandwidth.

4. The method of Claim 1, wherein the user-selected connection parameters are received at a portal page server.

5. A network system configured to manage bandwidth of subscribers with multiple subscriber devices connected to the network system, the system comprising:

a gateway device configured to connect a plurality of subscriber devices including a first subscriber device to an external network, the gateway device comprising a computer processor and one or more network ports; and

an Authentication, Authorization and Accounting (AAA) server storing data relating to a group bandwidth policy associated with a subset of the subscriber devices including the first subscriber device;

wherein the gateway device is configured, upon receiving a communication request from a second subscriber device, to transmit a request for authentication information to the AAA server, the request comprising a network identifier associated with the second subscriber device;

wherein the AAA server is configured to determine, in response to the request for authentication information, that the second subscriber device is associated with the group bandwidth policy associated with the subset of the subscriber devices including the first subscriber device, based at least in part on the network identifier associated with the second subscriber device;

the AAA server further configured to transmit, to the gateway device, an authentication response comprising the data relating to the group bandwidth policy; and

wherein the gateway device is further configured to limit the bandwidth available to the second subscriber device based upon the data relating to the group bandwidth policy, and further based upon the bandwidth being used by other subscriber devices associated with the group bandwidth policy.

6. The network system of Claim 5, wherein the gateway device and AAA server are housed within a single device.

7. The network system of Claim 5, wherein the gateway device and AAA server are separate devices.

8. The network system of Claim 5, further comprising a portal page server configured to complete an enrollment procedure with the second subscriber device, wherein the AAA server is configured to determine that the second subscriber device is associated with the group bandwidth policy based at least in part on data stored by the portal page server in response to the enrollment procedure.

9. The network system of Claim 5, wherein the request for authentication information comprises a RADIUS or Diameter protocol request, and wherein the authentication response comprises a RADIUS or Diameter protocol response.

10. The network system of Claim 5, wherein the gateway device is further configured to limit the bandwidth available to the second subscriber device by queuing and/or dropping one or more packets received from the second subscriber device.

11. A method of associating a group of network enabled computing devices with a network access subscription, the method comprising:

associating a device network identifier for each of a plurality of network devices including a first network device with a single network access subscription;

allocating a subset of available bandwidth with the single network access subscription;

providing network access to the plurality of network devices, wherein the plurality of network devices share the allocated subset of available bandwidth

receiving one or more packets from a second network device;

determining whether the second network device is associated with the first network device based on received one or more packets from the second network device;

associating a device network identifier of the second network device with the single network access subscription based on said determination; and

limiting bandwidth available to the second network device based on the bandwidth used by the first subscriber device.

12. The method of Claim 11, wherein the device network identifier comprises a MAC address.

13. The method of Claim 11, wherein the subset of available bandwidth comprises a subset of available uplink bandwidth and a subset of available downlink bandwidth.

14. The method of Claim 11, wherein the method is performed at a network system comprising a gateway device, wherein the plurality of devices are connected to the network system, and wherein the plurality of network devices share the allocated subset of available bandwidth by the gateway device delaying and/or dropping transmission of data packets received from the plurality of network devices.

15. The method of Claim 11, wherein associating a network device identifier for each of a plurality of network devices with a single network access subscription comprises storing, in computer-readable storage, the network device identifier for each of the plurality of network devices, in association with an identifier of the single network access subscription.

16. A network system which associates a plurality of devices with a single network subscription, the network system comprising:

one or more device side interfaces for communicating with a plurality of user devices;

one or more network side interfaces for communicating with a wide area network; and

one or more processors configured to:

associate at least two of the plurality of user devices with a single network subscription, the network subscription providing a subset of available bandwidth to be shared by the at least two of the plurality of user devices;

receive one or more packets from a third network device; and

associate the third network device with the single network subscription based in part on a characteristic of the third network device shared with said two of the plurality of user device.

17. The network system of Claim 16, further comprising a portal page server configured to receive data from at least one of the plurality of user devices, wherein the portal page server is configured to cause the one or more processors to associate the at least one of the plurality of user devices with the single network subscription based on the received data.

18. The network system of Claim 16, wherein the one or more processors are further configured to limit the bandwidth of data transmitted or received at the one or more device side interfaces from the at least two of the plurality of user devices, based at least in part on an indication of a user-selected bandwidth level associated with the single network subscription.

19. The network system of Claim 16, wherein the one or more processors are further configured to dissociate a user device from the single network subscription in response to a determination that the user device has disconnected.