CLAIMS

1. An Advanced Metering Infrastructure (AMI), comprising:

a plurality of remotely configurable gateways;

a plurality of devices coupled for communications with the plurality of remotely configurable gateways;

an Internet Protocol (IP) based communications network, wherein the plurality of remotely configurable gateways is coupled for IP-based communications with the network; and

at least one central facility server coupled for communications over the network, wherein the at least one central facility server is configured to determine an extent of a power or service outage by multicasting configuration information to the plurality of remotely configurable gateways to reconfigure selected of the plurality of remotely configurable gateways to report on more meters than originally configured to report upon.

2. The AMI of claim 1, wherein the configuration information assigns the selected remotely configurable gateways to report data from at least one specific meter.

3. The AMI of claim 1, wherein the configuration information assigns the selected remotely configurable gateways to report data from a specific type of meter.

4. The AMI of claim 1, wherein the configuration information assigns the selected remotely configurable gateways to report data from every meter each gateway hears.

5. The AMI of claim 1, wherein the configuration information configures the selected remotely configurable gateways to operate within a Polling-Based Network.

6. The AMI of claim 1, wherein the configuration information configures the selected remotely configurable gateways to operate within a Push-Based System.

7. The AMI of claim 1, wherein the configuration information configures each of the plurality of remotely configurable gateways into two or more multicast groups, each of the two or more multicast groups comprising:

a utility-type multicast group;

a geographic area based multicast group;

an internet service provider based multicast group; or

a service type multicast group based on residential vs. commercial service.

8. The AMI of claim 1, wherein the configuration information instructs the plurality of remotely configurable gateways to assist in determining the extent of the power or service outage at least in part by instructing the plurality of remotely configurable gateways to report data from all meters that each gateway from among the plurality of remotely configurable gateways can hear.

9. A method in a remotely configurable gateway for configuring the remotely configurable gateway to determine an extent of a power or service outage, the remotely configurable gateway coupled between one or more utility consumption measuring devices and a utility provider, the method comprising:

communicating with at least one utility consumption measuring device using Internet Protocol (IP) based communications;

communicating with the utility provider; and

receiving configuration information via multicast from the utility provider, wherein the configuration information configures the remotely configurable gateway to report on more meters than previously configured to report on.

10. The method of claim 9, wherein the configuration information configures the remotely configurable gateway to periodically push readings, alarms and/or tampers to the utility provider.

11. The method of claim 9, wherein the configuration information configures the remotely configurable gateway to return time-stamped information in response to polling by the utility provider.

12. The method of claim 9, wherein the configuration information configures the remotely configurable gateway to set filtering parameters, set schedules for operations and/or return radio performance statistics to the utility provider.

13. The method of claim 9, wherein the configuration information configures the remotely configurable gateway, previously configured to report data from a single meter, to report data from all meters heard by the remotely configurable gateway.

14. A method of determining an extent of a power or service outage by a computing device of a utility provider, the utility provider coupled with one or more utility consumption measuring

devices in an Internet Protocol (IP) based communications network via a plurality of remotely configurable gateways, the method comprising multicasting configuration information to the plurality of remotely configurable gateways to reconfigure selected of the plurality of remotely configurable gateways to report on more meters than previously configured to report on.

15. The method of claim 14, wherein the configuration information reconfigures the selected gateways to perform in a different manner.

16. The method of claim 14, wherein the configuration information assigns the selected gateways to report only meters it hears reliably with a signal strength over a threshold value.

17. The method of claim 14, wherein the configuration information configures the selected gateways to operate within a Polling-Based Network.

18. The method of claim 14, wherein the configuration information configures the selected gateways to operate within a Push-Based System.

19. The method of claim 14, wherein the configuration information configures each of the selected gateways, previously configured to report data from a single meter, to report data from all meters heard by the respective selected gateways.

20. The method of claim 14, wherein the configuration information assigns the selected gateways to report data from a specific type of meter.

WHAT IS CLAIMED IS:

1. An Advanced Metering Infrastructure (AMI), comprising:

at least one remotely configurable gateway;

at least one device coupled for communications with said at least one remotely configurable gateway;

an Internet Protocol (IP) based communications network; and

at least one central facility server coupled for communications over said network,

wherein said at least one remotely configurable gateway is coupled for IP-based communications with said network whereby configuration data may be multicast from said at least one central facility server to said at least one remotely configurable gateway.

2. An AMI as in claim 1, wherein said at least one remotely configurable gateway is coupled for wireless communications with said network.

3. An AMI as in claim 1, wherein said at least one remotely configurable gateway is coupled for wired communications with said network.

4. An AMI as in claim 1, wherein said at least one remotely configurable gateway is configured for communications with a plurality of consumption measuring devices.

5. An AMI as in claim 4, wherein said at least one remotely configurable gateway is configured for wireless communications with said plurality of consumption measuring devices.

6. An AMI as in claim 4, wherein said at least one remotely configurable gateway is configured for wired communications with said plurality of consumption measuring devices.

7. An AMI as in claim 1, wherein said at least one remotely configurable gateway is coupled for two-way IP-based communications with said network.

8. A method of configuring a gateway coupled between one or more utility consumption measuring devices and a utility provider, comprising:

coupling at least one utility consumption measuring device to a remotely configurable gateway for Internet Protocol (IP) based communications with an Internet Service Provide (ISP);

coupling a utility provider central facility server to the ISP via an Internet Protocol (IP) based communications network; and

multicasting configuration information from the utility provider central facility server to the gateway.

9. A method as in claim 8, wherein coupling between the utility consumption measuring device and gateway is conducted wirelessly.

10. A method as in claim 8, wherein coupling between the utility consumption measuring device and gateway is conducted by wired communication.

11. A method as in claim 8, further including coupling a plurality of utility consumption measuring devices to a gateway.

12. A method as in claim 11, wherein coupling a plurality of utility consumption measuring devices comprises coupling a plurality of like type utility consumption measuring devices.

13. A method as in claim 11, wherein coupling a plurality of utility consumption measuring devices comprises coupling a plurality of diverse type utility consumption measuring devices.

14. A method of configuring a gateway coupled between one or more utility consumption measuring devices and a utility provider by way of an Internet Protocol (IP) based communications network with an Internet Service Provide

(ISP), comprising, multicasting configuration information from the utility provider central facility server to the gateway.

15. A method as in claim 14, wherein the utility consumption measuring device and gateway are coupled wirelessly.

16. A method as in claim 14, wherein the utility consumption measuring device and gateway are coupled by wired communication.

17. A method as in claim 14, wherein the one or more utility consumption measuring devices comprises a plurality of like type utility consumption measuring devices.

18. A method as in claim 14, wherein the one or more utility consumption measuring devices comprises a plurality of diverse type utility consumption measuring devices.