

CLAIMS

What is claimed is:

1. A system comprising:
 - a Network Management System (NMS) headend system configured to manage a network;
 - a utility meter comprising a radio and configured to measure consumption of a resource and to:
 - join the network;
 - obtain an Internet Protocol (IP) address of the NMS headend system;
 - transmit a network registration request to the NMS headend system using the IP address of the NMS headend system;
 - receive from the NMS headend system network-related settings of the network;
 - obtain an IP address of a second headend system configured to provide a service over the network;
 - receive from the second headend system configuration settings for using the service of the second headend system; and
 - configure the radio with the network-related settings and the configuration settings.
2. The system of clam 1, further comprising a gateway configured to relay communications from the utility meter to each of the NMS headend system and the second headend system.
3. The system of clam 2, further comprising an Advanced Metering Infrastructure (AMI) headend system, wherein the gateway is a collector configured to:
 - collect from the utility meter consumption data describing consumption of the resource; and
 - transmit the consumption data to the AMI headend system.
4. The system of clam 2, wherein the gateway notifies the utility meter of the IP address of the second headend system.

5. The system of claim 2, wherein the gateway is a Dynamic Host Configuration Protocol version 6 (DHCPv6) relay.
6. The system of claim 5, wherein the utility meter is a DHCPv6 client.
7. The system of claim 1, wherein the second headend system is at least one of an Advanced Metering Infrastructure (AMI) headend system, an Outage Management System (OMS) headend system, a Distribution Automation (DA) headend system, or an Edge Application Management System (EAMS) headend system.
8. The system of claim 1, wherein:
 - the NMS headend system informs the second headend system of the registration request from the utility meter;
 - the second headend system transmits the configuration settings to the NMS headend system; and
 - the NMS headend system transmits the second configuration settings to the utility meter.
9. The system of claim 1, wherein the utility meter transmits a second registration request to the second headend system using the IP address of the second headend system, and wherein the second headend system transmits the configuration settings to the utility meter responsive to the second registration request.
10. The system of claim 1, wherein the utility meter communicates with the NMS headend system using a first communication protocol and communicates with the second headend system using a second communication protocol.
11. The system of claim 10, wherein the second communication protocol uses at least one of a different network or a different radio band than does the first communication protocol.
12. The system of claim 10, wherein the NMS headend system informs the utility meter of the second communication protocol of the second headend system.
13. A method performed by a utility meter that measures consumption of a resource, the method comprising:

joining a network;

transmitting a registration request to a Network Management System (NMS) headend system of the network, wherein the NMS headend system informs a second headend system of the registration request;

receiving from the NMS headend system network-related settings related to the network and configuration data related to the second headend system, wherein the configuration data indicates an Internet Protocol (IP) address of the second headend system and indicates how to use a service of the second headend system; and

configuring a radio of the utility meter according to the network-related settings and according to the configuration data of the second headend system;

wherein the utility meter is configured to communicate with the second headend system using the IP address of the second headend system to use a service of the second headend system.

14. The method of claim 13, further comprising:

receiving an IP address of the NMS headend system from a gateway, wherein the gateway relays communications for the utility meter;

wherein the gateway is a collector of consumption data from two or more utility meters, and wherein the consumption data describes consumption of the resource measured by the two or more utility meters.

15. The method of claim 13, further comprising communicating with the NMS headend system using a first communication protocol and communicating with the second headend system using a second communication protocol.

16. The method of claim 15, wherein the configuration data received from the NMS headend system indicates the second communication protocol for use with the second headend system.

17. A method performed by a utility meter, the method comprising:

joining a network;

transmitting a first registration request to a Network Management System (NMS) headend system of the network;

receiving from the NMS headend system network-related settings related to the network, responsive to the first registration request;

obtaining an Internet Protocol (IP) address of a second headend system that provides a service over the network;

transmitting a second registration request to the IP address of the second headend system;

receiving configuration data from the second headend system, wherein the configuration data indicates how to use the service of the second headend system, responsive to the second registration request; and

configuring a radio of the utility meter according to the network-related settings and according to the configuration data of the second headend system.

18. The method of claim 17, wherein obtaining the IP address of the second headend system comprises receiving the IP address from the NMS headend system.

19. The method of claim 17, wherein obtaining the IP address of the second headend system comprises receiving the IP address from a gateway configured to relay messages for the utility meter.

20. The method of claim 17, wherein transmitting the first registration request to the NMS headend system comprises using a first communication protocol associated with the NMS, and wherein transmitting the second registration request to the second headend system comprises using a second communication protocol associated with the second headend system.