

WHAT IS CLAIMED IS:

1. A method comprising:
receiving, by a first node of a mesh network, a first unicast message from a second node, wherein the first node has one or more child nodes that are neighbor nodes to the first node;
determining, by the first node, that a destination address of the first unicast message is a forced forward address that is not specific to a node; and
in response to determining that the destination address is a forced forward address, forwarding, by the first node, the first unicast message to the one or more child nodes by transmitting respective second unicast messages to the one or more child nodes.
2. The method of claim 1, wherein the method further comprises retrieving identifiers associated with the one or more child nodes from a neighborhood table prior to forwarding the first unicast message.
3. The method of claim 1, wherein determining that the destination address is a forced forward address comprises determining that the destination address includes a distinct sequence of address bits associated with forced forward addresses.
4. The method of claim 1, wherein determining that the destination address is a forced forward address comprises determining that the destination address is within an address range designated for forced forward addresses.
5. The method of claim 1, wherein the second node is a parent node to the first node.
6. The method of claim 1, wherein the first unicast message comprises information related to one or more of a firmware update to be processed by nodes in the mesh network, configuration data for devices associated with the nodes, information regarding

a lost connection, a request for connectivity status of devices associated with the nodes, a request for a group identification of devices associated with the nodes, or operational settings for devices associated with the nodes.

7. The method of claim 1, further comprising:
receiving, by the first node, a third unicast message from the second node;
determining, by the first node, that a destination address of the third unicast message is not a forced forward address; and
in response to determining that the destination address is not a forced forward address, performing, by the first node, an action associated with a message type of the third unicast message.
8. The method of claim 1, further comprising:
determining, by the first node, that the first node is a member of a group identified within a group address field of the forced forward address; and
in response to determining that the first node is a member of the group identified within the group address field of the forced forward address, extracting and processing, by the first node, a payload included in the first unicast message.
9. The method of claim 1, further comprising:
determining, by the first node, that the first node is not a member of a group identified within a group address field of the forced forward address; and
in response to determining that the first node is not a member of the group identified within the group address field of the forced forward address, ignoring a payload included in the first unicast message.
10. One or more non-transitory computer-readable media storing instructions which, when executed by one or more processors of a first node device of a mesh network, cause the one or more processors to perform operations comprising:
receiving a first message from a second node device via a first unicast service;

extracting a destination address from a header of the first message;
determining that the destination address is a forced forward address that is not specific to a node; and
in response to determining that the destination address is a forced forward address, transmitting respective copies of the first message to one or more child node devices that are neighbors of the first node device using respective second unicast services.

11. The one or more non-transitory computer-readable media of claim 10, wherein the second node device receives the first message from an access point of the mesh network or a root node device of the mesh network.

12. The one or more non-transitory computer-readable media of claim 10, wherein transmitting the respective copies of the first message to the one or more child node devices comprises:

waiting for a unicast listening window to open for a third node device of the one or more child node devices; and

in response to determining that a unicast listening window is open for the third node device, transmitting a respective copy of the first message to the third node device during the unicast listening window.

13. The one or more non-transitory computer-readable media of claim 10, wherein the operations further comprise:

reporting to the second node device that respective confirmations were received from the one or more child node devices that the one or more child node devices received the respective copies of the first message.

14. The one or more non-transitory computer-readable media of claim 10, wherein the destination address comprises a Media Access Control (MAC) address.

15. The one or more non-transitory computer-readable media of claim 10, wherein the operations further comprise:
- generating a second message comprising a destination address that is a forced forward address; and
 - transmitting the second message to the one or more child node devices that are neighbors of the first node device using the respective second unicast services.
16. The one or more non-transitory computer-readable media of claim 15, wherein the operations further comprise:
- in response to losing a connection with the second node device, generating the second message.
17. A networking device in a mesh network, comprising:
- one or more processors; and
 - a memory storing executable instructions that, when executed by the one or more processors, cause the one or more processors to:
 - receive a message from a parent networking device via a first unicast channel;
 - determining that a destination address extracted from a header of the message is within an address range designated for forced forward addresses that are not specific to a node; and
 - in response to determining that the destination address is within the address range designated for forced forward addresses, forwarding copies of the message to one or more neighboring child networking devices using respective second unicast channels.
18. The networking device of claim 17, wherein the parent networking device receives the message from an access point of the mesh network.

19. The networking device of claim 17, wherein the networking device is a smart meter device or a sensor device.

20. The networking device of claim 17, wherein the message comprises information related to one or more of a firmware download, configuration data, information regarding a lost connection, a request for connectivity status, a request for a group identification, or operational settings.