

# Configure a MultiHop Radio to be Mobile

## Overview

The MultiHop radios can be configured to be mobile and join multiple wireless networks. A MultiHop radio defined to be mobile is allowed to join a different network after it loses synchronization with its parent radio.

The wireless addressing scheme defines the wireless network a user wants to create and is formed by two fields: the Binding Code Address and the Network Address.

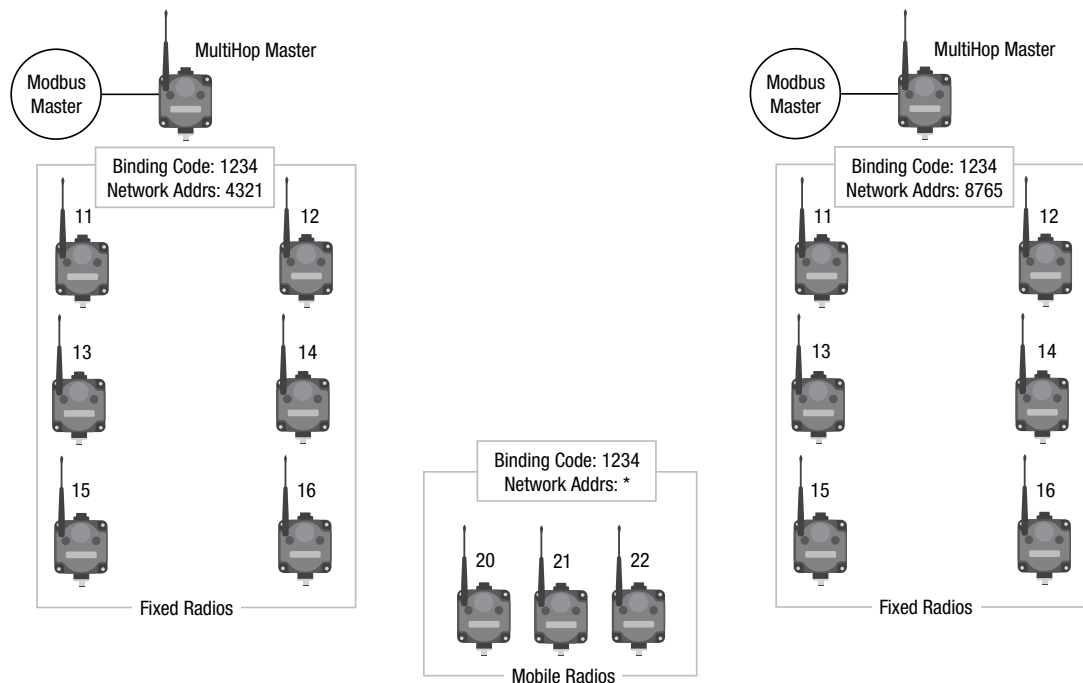
- The Binding Code Address is stored in the MultiHop radio master and defines the wireless network. To create mobile radios, the binding code must be the same for each wireless network. (Use the Network address to separate wireless networks.)
- The Network Address provides additional wireless addressing that enables a radio to roam from network to network. The Network address is used in conjunction with the Binding Code to create fixed radios or allow mobile radios. Mobile radios will connect to any wireless network using the same Binding Code address.

Mobile MultiHop radios can attach to any wireless network defined with same binding code. All MultiHop radios connect to only one wireless network at a time. For a MultiHop radio to move to another network it must first go out of sync with its current network and then reform with the new network. When multiple wireless networks are available, a radio attaches to a network based on weighted decisions for signal strength and fewest hops to a master radio.

## Configure the MultiHop Radio to Join Multiple Networks

To configure a MultiHop radio to be mobile and join multiple networks, follow these steps.

The Modbus Slave ID is the only address used by the Modbus master/host to individually access a MultiHop radio. Every radio in a wireless network must have a unique Slave ID, including the mobile radios.



1. Set all wireless networks that may contain a roaming radio to use the same Binding Code Address. Use the radio's menu system to set the Binding Code Address manually at the MultiHop radio master for each wireless network.
2. For all MultiHop radio slaves or repeaters that are fixed to a specific wireless network, write a one (1) to register 46304 (the factory default is 0).  
The Network Address is automatically generated for each network's radios.
3. For the radios intended to be mobile, do not change the contents of register 46304.  
The factory default value of zero (0) sets the radio to ignore the Network Address.
4. Go through the binding process for each radio.