

# Troubleshooting BGP

Document ID: 22166

**Interactive:** This document offers customized analysis of your Cisco device.

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## Introduction

This document provides troubleshooting information for common problems with Border Gateway Protocol (BGP). To see more information, or to go to the next flowchart, click the command boxes in red.

If you have the output of a **show ip bgp** , **show ip bgp neighbors** , **show ip bgp summary** , or **show tech-support** command from your Cisco device, you can use Output Interpreter (registered customers only) to display potential issues and fixes. To use Output Interpreter (registered customers only) , you must be a registered customer, be logged in, and have JavaScript enabled.

## Before You Begin

### Conventions

For more information on document conventions, see the Cisco Technical Tips Conventions.

### Prerequisites

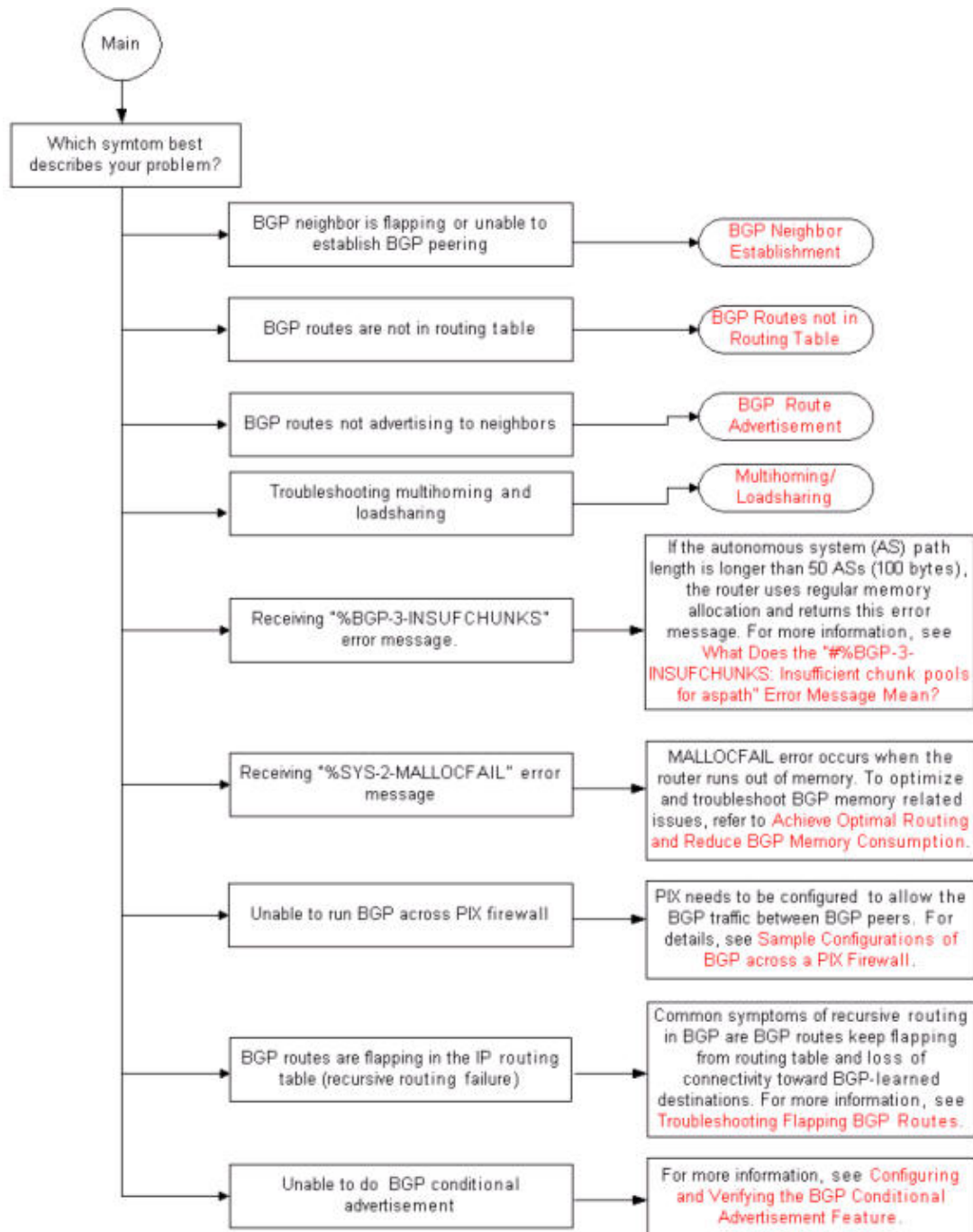
There are no specific prerequisites for this document.

### Components Used

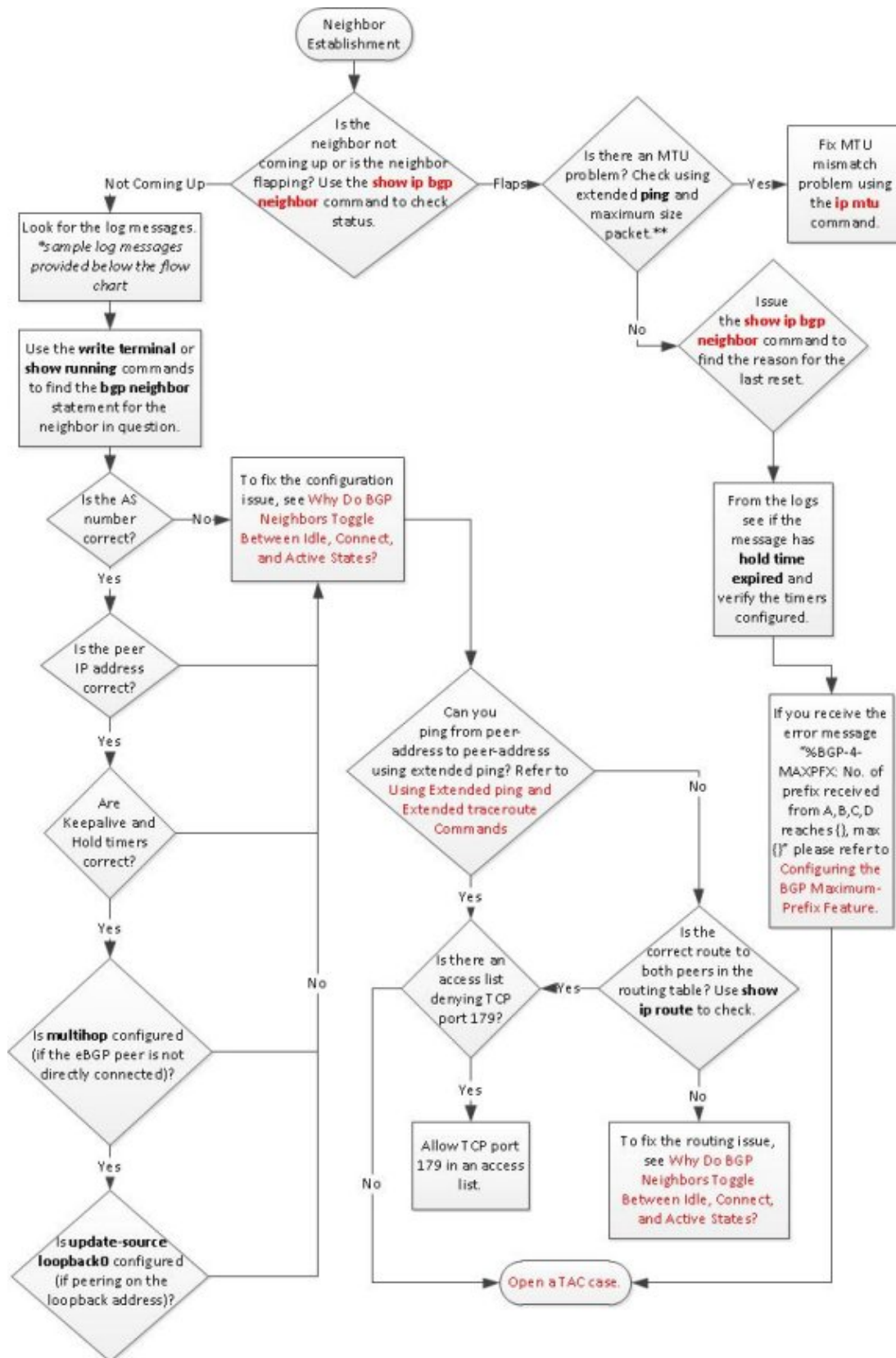
This document is not restricted to specific software and hardware versions.

The information presented in this document was created from devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If you are working in a live network, ensure that you understand the potential impact of any command before using it.

# Main Troubleshooting Flowchart



## Troubleshooting BGP Neighbor Establishment



**Note:** \*Sample log messages to be checked when neighbor is not coming up:

```

BGP_SESSION-5-ADJCHANGE: neighbor[ip address] IPv4 Unicast topology base removed
from session Peer closed the session
BGP_SESSION-5-ADJCHANGE: neighbor[ip address] IPv4 Unicast topology base removed
from session Unknown path error
  
```

**Note:** \*\*Example of ping with packet size and enable does not fragment bit in IP header:

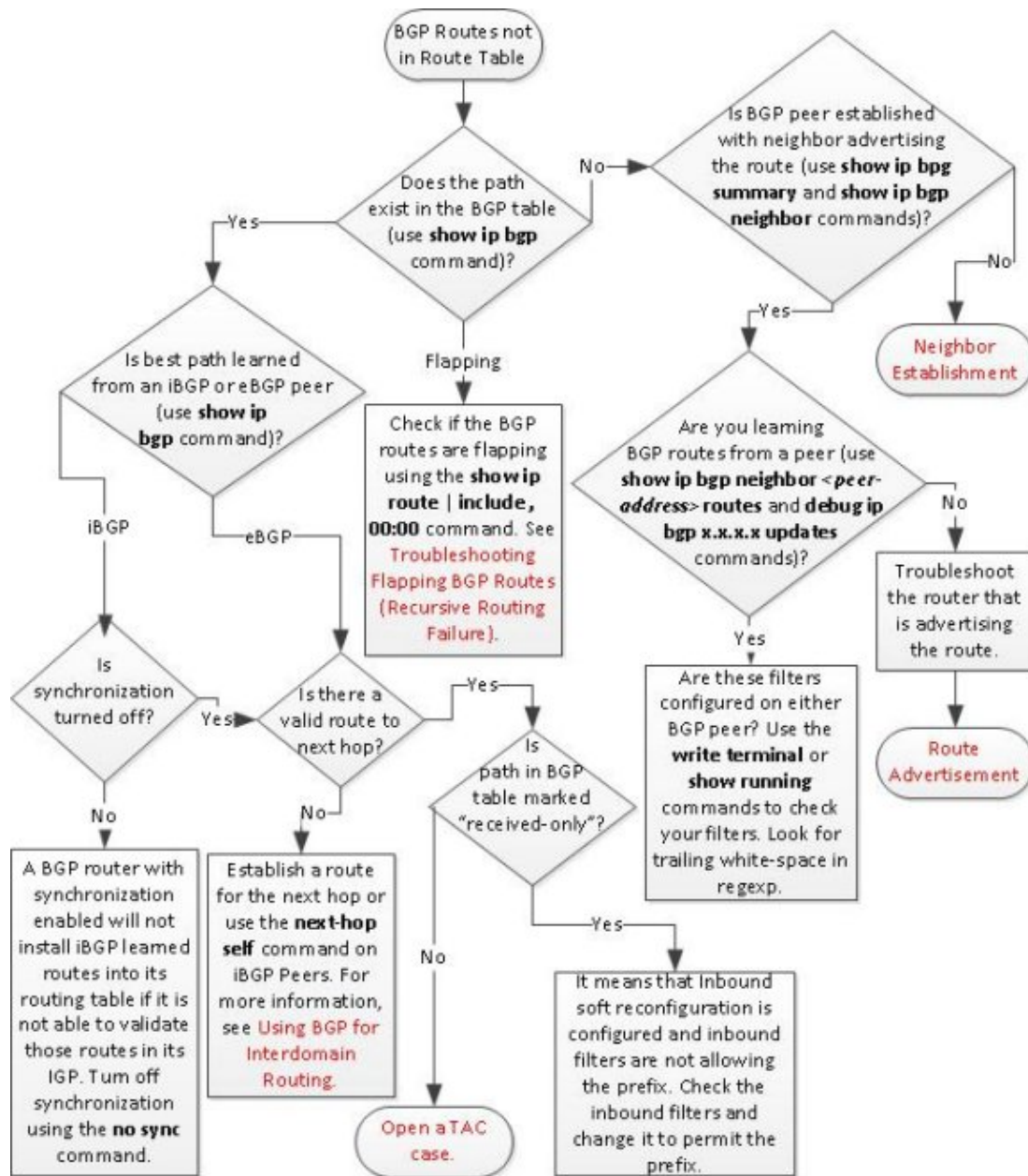
```
Router#ping 10.10.10.2 size 1400 df-bit

Type escape sequence to abort.
Sending 5, 1400-byte ICMP Echos to 10.10.10.2, timeout is 2 seconds:
Packet sent with the DF bit set
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/37/84 ms
```

**Note:** \*\*Also, check the duplex settings of the interface.

**Note:** If the reset has occurred due to interface flapping, disable the eBGP's fast failover by issuing the *no bgp fast-external-falover* command. By default, BGP resets the neighborhood if the link used in order to reach the neighbor goes down. Disable this feature under BGP Configuration in order to keep BGP stable and prevent the interface from flapping.

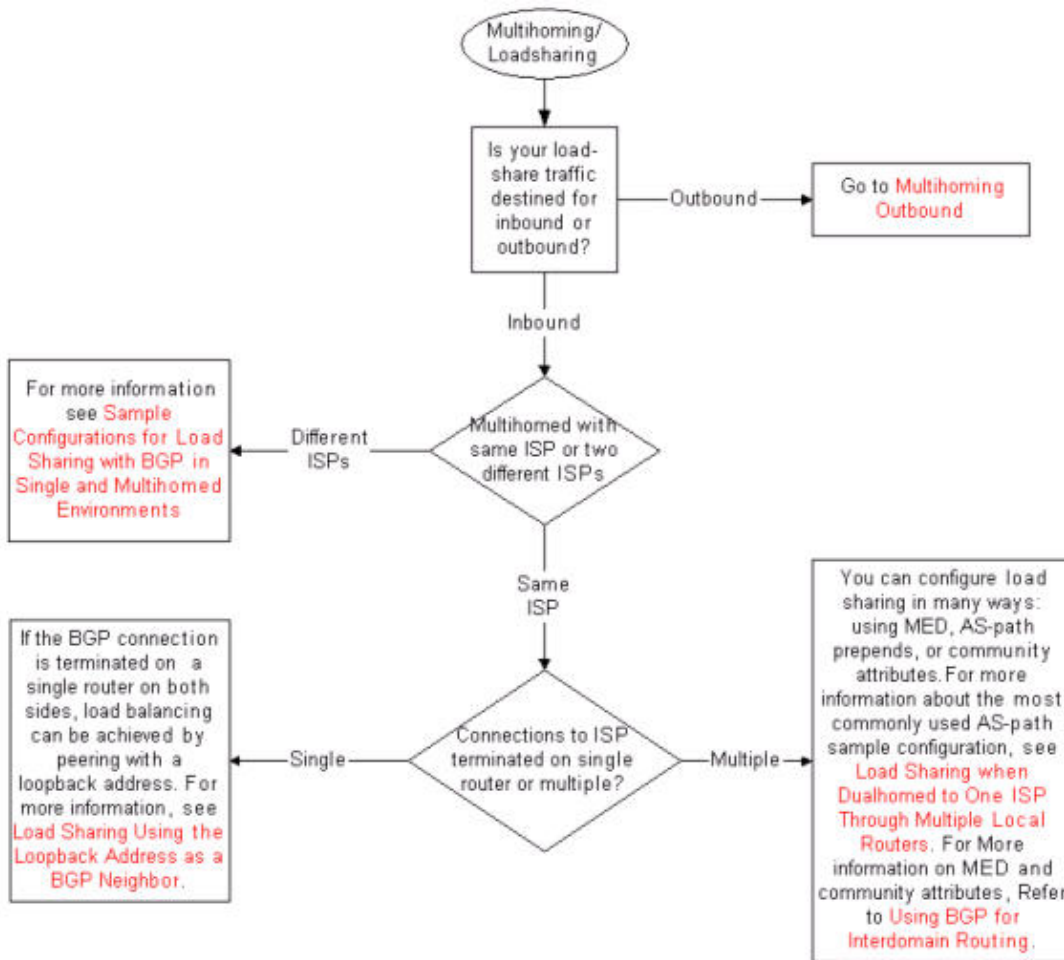
## Troubleshooting Routes Missing from the Routing Table



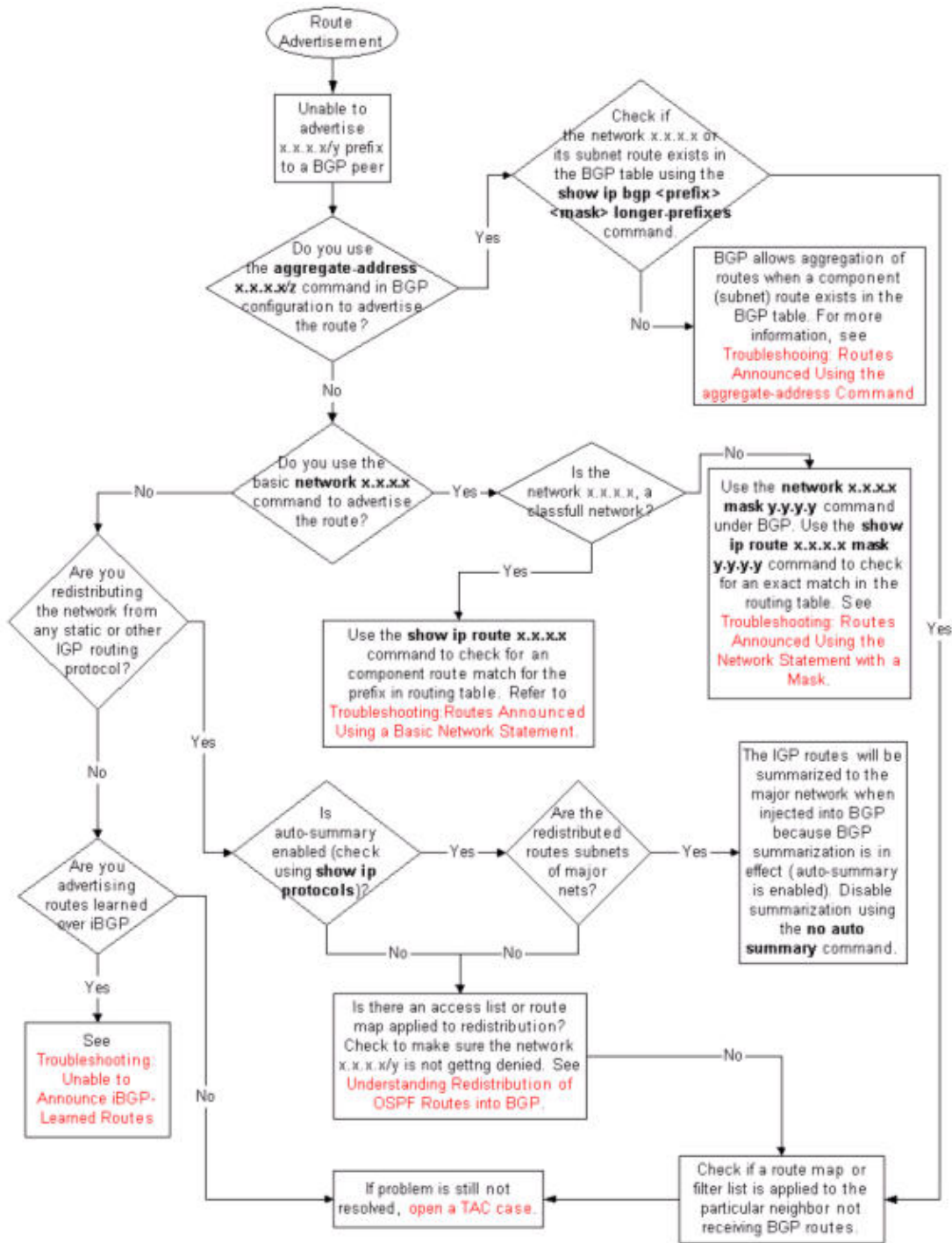
**Note:** If the BGP routes are not in the routing table, verify if the network statement under the BGP configuration is correct.

**Note:** In the `debug ip bgp x.x.x.x updates` command, `x.x.x.x` is the neighbor to which the route should be advertised.

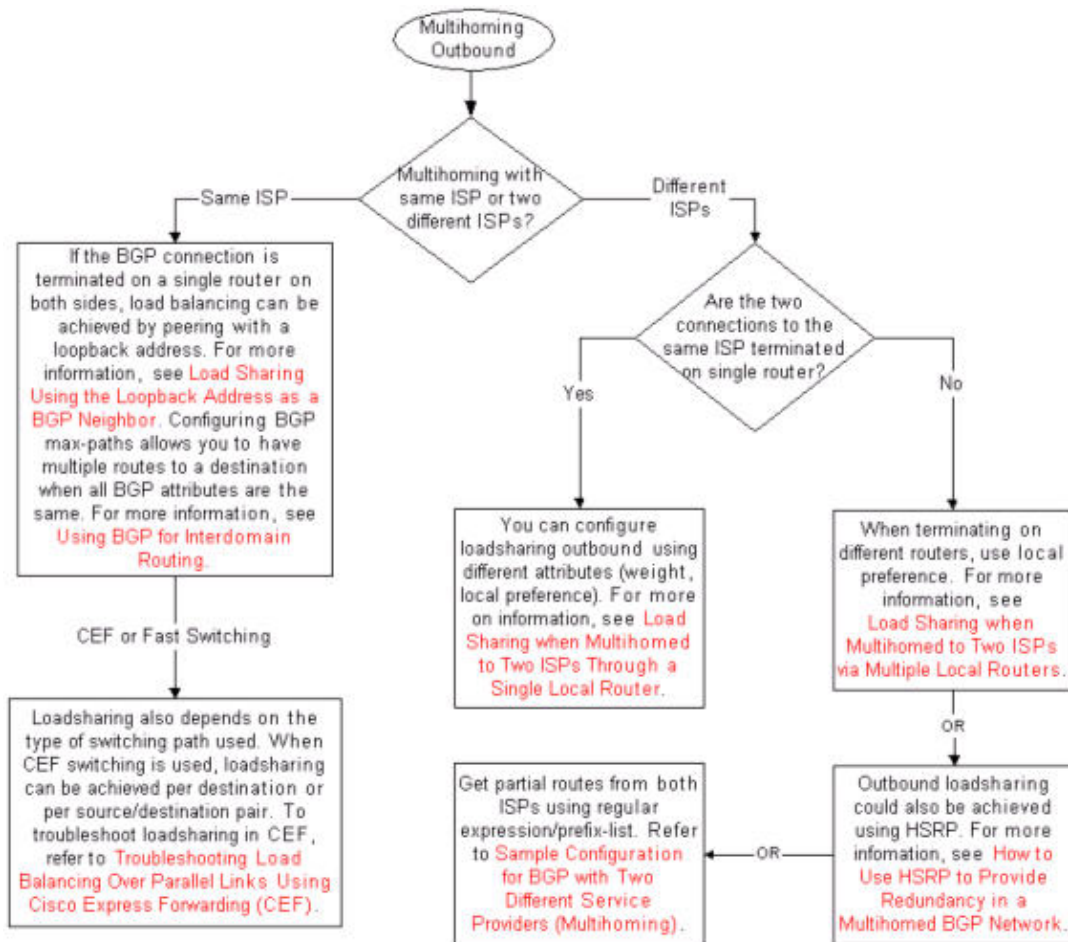
## Troubleshooting Multihoming Inbound



## Troubleshooting BGP Route Advertisement



## Troubleshooting Multihoming Outbound



## Related Information

- [BGP Support Page](#)
- [Technical Support & Documentation – Cisco Systems](#)

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Updated: Feb 03, 2012

Document ID: 22166