IP Directed Broadcast

Note To achieve simplification and consistency, the Cisco SD-WAN solution has been rebranded as Cisco Catalyst SD-WAN. In addition, from Cisco IOS XE SD-WAN Release 17.12.1a and Cisco Catalyst SD-WAN Release 20.12.1, the following component changes are applicable: **Cisco vManage** to **Cisco Catalyst SD-WAN Manager**, **Cisco vAnalytics** to **Cisco Catalyst SD-WAN Analytics**, **Cisco vBond** to **Cisco Catalyst SD-WAN Validator**, **Cisco vSmart** to **Cisco Catalyst SD-WAN Controller**, and **Cisco Controllers** to **Cisco Catalyst SD-WAN Control Components**. See the latest Release Notes for a comprehensive list of all the component brand name changes. While we transition to the new names, some inconsistencies might be present in the documentation set because of a phased approach to the user interface updates of the software product.

An IP directed broadcast is an IP packet whose destination address is a valid broadcast address for some IP subnet but which originates from a node that is not itself part of that destination subnet.

A device that is not directly connected to its destination subnet forwards an IP directed broadcast in the same way it would forward unicast IP packets destined to a host on that subnet. When a directed broadcast packet reaches a device that is directly connected to its destination subnet, that packet is broadcast on the destination subnet. The destination address in the IP header of the packet is rewritten to the configured IP broadcast address for the subnet, and the packet is sent as a link-layer broadcast.

If directed broadcast is enabled for an interface, incoming IP packets whose addresses identify them as directed broadcasts intended for the subnet to which that interface is attached are broadcast on that subnet.

Note The access control list (ACL) option for directed broadcast is not supported in Cisco SD-WAN Manager.

To enable the translation of a directed broadcast to physical broadcasts, use the ip directed-broadcast command. To disable this function, use the no form of this command. By default, ip directed-broadcast is disabled and all IP directed broadcasts are dropped.

ip directed-broadcast and **no ip directed-broadcast**

Example

This example shows how to enable forwarding of IP directed broadcasts on Ethernet interface 2/1:

```
device# configure-transaction
device(config)# interface ethernet 2/1
device(config-if)# ip address 10.114.114.1 255.255.255.0
```

```
device(config-if)# ip directed-broadcast
device(config-if)# end
```