



Configuring IRDP

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The ICMP Router Discovery Protocol (IRDP) allows IPv4 hosts to locate routers that provide IPv4 connectivity to other (nonlocal) IP networks. For a complete description of the IPv4 addressing commands in this module, refer to the Cisco IOS IP Application Services Command Reference. To locate documentation of other commands that appear in this module, use the command reference master index, or search online.

This module explains the concepts related to IRDP and describes how to configure IRDP in a network.

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Finding Feature Information

Your software release may not support all the features documented in this module. For the latest feature information and caveats, see the release notes for your platform and software release. To find information about the features documented in this module, and to see a list of the releases in which each feature is supported, see the Feature Information Table at the end of this document.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to www.cisco.com/go/cfn. An account on Cisco.com is not required.

Information About IRDP

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IRDP Overview

ICMP Router Discovery Protocol (IRDP) allows hosts to locate routers that can be used as a gateway to reach IP-based devices on other networks. When the device running IRDP operates as a router, router



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discovery packets are generated. When the device running IRDP operates as a host, router discovery packets are received. The Cisco IRDP implementation fully conforms to the router discovery protocol outlined in RFC 1256 (<http://www.ietf.org/rfc/rfc1256.txt>).

How to Configure IRDP

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Configuring IRDP

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **interface** *type number*
4. **no shutdown**
5. **ip address** *ip-address mask*
6. **ip irdp**
7. **ip irdp multicast**
8. **ip irdp holdtime** *seconds*
9. **ip irdp maxadvertinterval** *seconds*
10. **ip irdp minadvertinterval** *seconds*
11. **ip irdp preference** *number*
12. **ip irdp address** *address number*
13. **end**

DETAILED STEPS

	Command or Action	Purpose
Step 1	enable Example: Router> enable	Enables privileged EXEC mode. <ul style="list-style-type: none"> • Enter your password if prompted.
Step 2	configure terminal Example: Router# configure terminal	Enters global configuration mode.

	Command or Action	Purpose
Step 3	interface <i>type number</i> Example: Router(config)# interface fastethernet 0/0	Specifies an interface and enters interface configuration mode.
Step 4	no shutdown Example: Router(config-if)# no shutdown	Activates (enables) the interface.
Step 5	ip address <i>ip-address mask</i> Example: Router(config-if)# ip address 172.16.16.1 255.255.240.0	Configures an IP address on the interface.
Step 6	ip irdp Example: Router(config-if)# ip irdp	Enables IRDP on the interface
Step 7	ip irdp multicast Example: Router(config-if)# ip irdp multicast	(Optional) Sends IRDP advertisements to the all-systems multicast address (224.0.0.1) on a specified interface.
Step 8	ip irdp holdtime <i>seconds</i> Example: Router(config-if)# ip irdp holdtime 120	(Optional) Sets the IRDP period for which advertisements are valid.
Step 9	ip irdp maxadvertinterval <i>seconds</i> Example: Router(config-if)# ip irdp maxadvertinterval 60	(Optional) Sets the IRDP maximum interval between advertisements.

Command or Action	Purpose
Step 10 <code>ip irdp minadvertinterval</code> <i>seconds</i> Example: Router(config-if)# ip irdp minadvertinterval 10	(Optional) Sets the IRDP minimum interval between advertisements.
Step 11 <code>ip irdp preference</code> <i>number</i> Example: Router(config-if)# ip irdp preference 900	(Optional) Sets the IRDP preference level of the device.
Step 12 <code>ip irdp address</code> <i>address number</i> Example: Router(config-if)# ip irdp address 192.168.10.2 90	(Optional) Specifies an IRDP address and preference to proxy-advertise.
Step 13 <code>end</code> Example: Router(config-if)# end	Exits the current configuration mode and returns to privileged EXEC mode.

Configuration Examples for IRDP

- [Example: Configuring IRDP, page 4](#)

Example: Configuring IRDP

The following example shows how to configure IRDP on a router:

```
Router(config)# interface fastethernet 0/1
Router(config-if)# no shutdown
Router(config-if)# ip address 172.16.10.1 255.255.255.0
Router(config-if)# ip irdp
Router(config-if)# ip irdp multicast
Router(config-if)# ip irdp holdtime 120
Router(config-if)# ip irdp maxadvertinterval 60
Router(config-if)# ip irdp minadvertinterval 10
Router(config-if)# ip irdp preference 900
Router(config-if)# ip irdp address 192.168.10.2 90
```

Additional References

Related Documents

Related Topic	Document Title
Cisco IOS commands	Cisco IOS Master Commands List, All Releases
IP application services commands	Cisco IOS IP Application Services Command Reference

Standards

Standard	Title
No new or modified standards are supported, and support for existing standards has not been modified	—

MIBs

MIB	MIBs Link
No new or modified MIBs are supported, and support for existing MIBs has not been modified	—

RFCs

RFC	Title
RFC 1256	ICMP Router Discovery Messages: http://www.ietf.org/rfc/rfc1256.txt

Technical Assistance

Description	Link
<p>The Cisco Support and Documentation website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies.</p> <p>To receive security and technical information about your products, you can subscribe to various services, such as the Product Alert Tool (accessed from Field Notices), the Cisco Technical Services Newsletter, and Really Simple Syndication (RSS) Feeds.</p> <p>Access to most tools on the Cisco Support and Documentation website requires a Cisco.com user ID and password.</p>	http://www.cisco.com/cisco/web/support/index.html

Feature Information for IRDP

The following table provides release information about the feature or features described in this module. This table lists only the software release that introduced support for a given feature in a given software release train. Unless noted otherwise, subsequent releases of that software release train also support that feature.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to www.cisco.com/go/cfn. An account on Cisco.com is not required.

Table 1 **Feature Information for IRDP**

Feature Name	Releases	Feature Information
ICMP Router Discovery Protocol	10.0 12.2(33)SRA	<p>The ICMP Router Discovery Protocol (IRDP) allows IPv4 hosts to locate routers that provide IPv4 connectivity to other (non-local) IP networks.</p> <p>The following command was introduced or modified: ip irdp.</p>

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