



Classifying Routing Protocols

Routing protocols can be classified into different groups according to their characteristics. Specifically, routing protocols can be classified by:

Characteristic	Description
Purpose	Interior Gateway Protocol (IGP) or Exterior Gateway Protocol (EGP)
Operation	Distance vector protocol, link-state protocol, or path-vector protocol
Behavior	Classful (legacy) or classless protocol

IPv4 routing protocols are classified as:

Protocol	Description
RIPv1 (legacy)	IGP, distance vector, classful protocol
IGRPv1 (legacy)	IGP, distance vector, classful protocol developed by Cisco (deprecated from 12.2 IOS and later)
RIPv2	IGP, distance vector, classless protocol
EIGRP	IGP, distance vector, classless protocol developed by Cisco
OSPF	IGP, link-state, classless protocol
IS-IS	IGP, link-state, classless protocol
BGP	EGP, path-vector, classless protocol

Recommended Readings

- Routing Protocols Companion Guide, published 24 Feb 2014, by Cisco Networking Academy
- Cisco CCNA Routing and Switching ICND 200-101: Official Cert Guide

Recommended Internet Sites

- IPv4 Reports: <https://web.archive.org/web/20160801115455/http://bgp.potaroo.net/index-ale.html>
- Graphical Representation of AS Connectivity for AS Analysis:
<https://web.archive.org/web/20160801115544/https://www.robtex.com/as/as2.html>
- Exploring Autonomous System Numbers:
<https://web.archive.org/web/20160801115656/http://www.cisco.com/c/en/us/about/press/internet-protocol-journal/back-issues/table-contents-12/autonomous-system-numbers.html>



ROUTERS, FIREWALLS, AND THE INTERNET

- Internet Route Configuration:
https://web.archive.org/web/20160801115951/http://www.cisco.com/c/en/us/td/docs/ios/sw_upgrades/interlink/r2_0/custom/cgroute.html
- Cisco IOS Router Commands:
http://webcache.googleusercontent.com/search?q=cache:cvqZI5vlducJ:tomax7.com/mcse/cisco_commands.htm+&cd=1&hl=en&ct=clnk&gl=us
- Cisco ASA and Cloud Web Security:
https://web.archive.org/web/20170602144026/http://www.cisco.com/c/en/us/products/collateral/security/adaptive-security-appliance-asa-software/whitepaper_C11-715169.html
- Distance Vector and Link-State Routing Protocols:
https://web.archive.org/web/20160801121542/https://www.informit.com/library/content.aspx?b=CCNP_Studies_Routing&seqNum=22
- RFC 4271 - A Border Gateway Protocol 4 (BGP-4):
<https://web.archive.org/web/20160801121649/https://tools.ietf.org/html/rfc4271>
- Types of Routing Protocols:
<https://web.archive.org/web/20160801121733/http://www.ciscopress.com/articles/article.asp?p=2180210&seqNum=7>

Please contact the Course Coordinators if you are unable to access any of the Recommended Internet Sites.