

show appletalk remap

To display domain remapping information, use the **show appletalk remap** EXEC command.

```
show appletalk remap [domain domain-number [{in | out} [{to | from} domain-network]]
```

Syntax Description	domain domain-number	(Optional) Number of an AppleTalk domain about which to display remapping information. It can be a decimal integer from 1 through 1,000,000.
	in	(Optional) Displays remapping information about inbound packets, that is, on packets entering the local segment of the domain.
	out	(Optional) Displays remapping information about outbound packets, that is on packets exiting from the local segment of the domain.
	to	(Optional) Displays information about the network number or cable range to which an address has been remapped.
	from	(Optional) Displays information about the original network number or cable range.
	domain-network	(Optional) Number of an AppleTalk network.

Command Modes EXEC

Command History	Release	Modification
	10.3	This command was introduced.

Usage Guidelines If you omit all options, keywords, and arguments, the **show appletalk remap** command displays all remapping information about all domains.

Examples The following is sample output from the **show appletalk remap** command:

```
Router# show appletalk remap

AppleTalk Remapping Table :
-----

Domain 1 : Domain 1 State : Active
-----

Direction : IN

Domain Net (Cable)      Remapped to      Status
3      - 3             100 - 100       Good

Direction : OUT

Domain Net (Cable)      Remapped to      Status
1      - 1             200 - 200       Good
```

```

Domain 2 : Domain 2   State : Active
-----

Direction : IN

Domain Net (Cable)      Remapped to      Status

Direction : OUT

Domain Net (Cable)      Remapped to      Status
2      - 2              400 - 400        Good
100    - 100           401 - 401        Good

```

The following is sample output from the **show appletalk remap** command when you specify a domain number:

```

Router# show appletalk remap domain 1

AppleTalk Remapping Table :
-----

Domain 1 : Domain 1   State : Active
-----

Direction : IN

Domain Net (Cable)      Remapped to      Status
3      - 3              100 - 100        Good

Direction : OUT

Domain Net (Cable)      Remapped to      Status
1      - 1              201 - 201        Good

```

The following is sample output from the **show appletalk remap** command to display inbound remappings for AppleTalk network 100:

```

Router# show appletalk remap domain 1 in from 100

AppleTalk Remapping Table :
-----

For the Remap 100 the Domain net is 3

```

[Table 22](#) describes the fields shown in the display.

Table 22 show appletalk remap Field Descriptions

Field	Description
Domain	Number of the AppleTalk IP domain.
State	State of the domain. It can be either Active or Nonactive.
Direction	Indicates whether the mapping is an inbound one (for packets entering the local domain segment) or an outbound one (for packets leaving the local domain segment).
Domain Net (Cable)	Network number or cable range that is being remapped.

Table 22 *show appletalk remap Field Descriptions (continued)*

Field	Description
Remapped to	Number or range of numbers to which a network number or cable range has been remapped.
Status	<p>It can be one of the following values:</p> <ul style="list-style-type: none"> • Unassigned—The network number or cable range was just remapped. • Unzipped—The remapped network number or cable range is trying to acquire a zone list. This state is possible for inbound remapped network numbers only. • Suspect—The Cisco IOS software suspects that it already has this entry in the routing table, and it is performing loop detection for this entry. This state is possible for inbound remappings only. • Good—The remapped entry has a complete zone list and, for inbound remappings only, it is in the main routing table. • Bad—The remapping entry is about to be deleted from the remapping table.

Related Commands

Command	Description
appletalk domain remap-range	Remaps ranges of AppleTalk network numbers or cable ranges between two segments of a domain.

show appletalk route

To display all entries or specified entries in the AppleTalk routing table, use the **show appletalk route EXEC** command.

show appletalk route [*network* | *type number*]

Syntax Description		
<i>network</i>	(Optional)	Displays the routing table entry for the specified network.
<i>type number</i>	(Optional)	Displays the routing table entries for networks that can be reached via the specified interface type and number.

Command Modes EXEC

Command History	Release	Modification
	10.0	This command was introduced.
	12.2(13)T	The E - EIGRP field was removed from command output.

Usage Guidelines If you omit the arguments, this command displays all entries in the routing table.

Examples The following is sample output from the **show appletalk route** command for a nonextended AppleTalk network:

```
Router# show appletalk route

Codes: R - RTMP derived, C - connected, A - AURP
P - proxy, S - static
5 routes in internet
C Net 258 directly connected, 1431 uses, Ethernet0, zone Twilight
R Net 6 [1/G] via 258.179, 8 sec, 0 uses, Ethernet0, zone The O
C Net 11 directly connected, 472 uses, Ethernet1, zone No Parking
R Net 2154 [1/G] via 258.179, 8 sec, 6892 uses, Ethernet0, zone LocalTalk
S Net 1111 via 258.144, 0 uses, Ethernet0, no zone set
[hops/state] state can be one of G:Good, S:Suspect, B:Bad
```

The following is sample output from the **show appletalk route** command for an extended AppleTalk network:

```
Router# show appletalk route

Codes: R - RTMP derived, C - connected, A - AURP
P - proxy, S - static
5 routes in internet
E Net 10000 -10000 [1/G] via 300.199, 275 sec, Ethernet2, zone France
R Net 890 [2/G] via 4.129, 1 sec, Ethernet0, zone release lab
R Net 901 [2/G] via 4.129, 1 sec, Ethernet0, zone Dave's House
C Net 999-999 directly connected, Serial3, zone Magnolia Estates
R Net 2003 [4/G] via 80.129, 6 sec, Ethernet4, zone Bldg-13
```

The following is sample output from the **show appletalk route** command when AppleTalk load balancing is enabled. The output displayed shows additional equal-cost path entries.

```
Router# show appletalk route

Codes: R - RTMP derived, C - connected, A - AURP
       P - proxy, S - static
759 routes in internet. Up to 4 parallel paths allowed.

The first zone listed for each entry is its default (primary) zone.

R Net 20-20 [2/G] via 60.172, 1 sec, Ethernet1/2,
                 via 1010.68 1 sec, Ethernet1/3,
                 via 70.199, 2 sec, Ethernet1/5, zone zone20
R Net 32-32 [9/G] via 60172, 2 sec, Ethernet1/2
                 via 1010.68, 2 sec, Ethernet1/3,
                 via 70.199, 2 sec, Ethernet1/5,
                 Zone: "Executive Briefing Center"
R Net 43-43 [7/G] via 60.172, 2 sec, Ethernet1/2,
                 via 1010.68, 2 sec, Ethernet1/3,
                 via 70.199, 2 sec, Ethernet1/5, zone ISDN Tunnel
R Net 57-57 [6/G] via 60.172, 2 sec, Ethernet1/2,
                 via 1010.68, 2 sec, Ethernet1/3,
                 via 70.199, 2 sec, Ethernet1/5, zone zone-home-bumi
```

[Table 23](#) describes the fields shown in the two displays, as well as some fields not shown but that may also be displayed. Depending on the configuration of the **appletalk lookup-type** and **appletalk name-lookup-interval** global configuration commands, a node name may appear in this display instead of a node address.

Table 23 show appletalk route Field Descriptions

Field	Description
Codes:	Codes defining how the route was learned.
R - RTMP derived	Route learned from an RTMP update.
C - Connected	Directly connected network.
A - AURP	Route learned from an AURP update.
S - Static	Statically defined route.
P - Proxy	Proxy route. Proxy routes are included in outgoing RTMP updates as if they were directly connected routes (although they are not really directly connected), since they are not associated with any interface. Whenever an NBQ BrRq for the zone in question is generated by anyone anywhere in the internetwork, an NBP FwdReq is directed to any router connected to the proxy route. The Phase 2 router (which is the only router directly connected) converts the FwdReq to LkUps, which are understood by Phase 1 routers, and sends them to every network in the zone.
routes	Number of routes in the table.
Net	Network to which the route goes.
Net 999-999	Cable range to which the route goes.
directly connected	Indicates that the network is directly connected to the router.

Table 23 *show appletalk route Field Descriptions (continued)*

Field	Description
uses	Fair estimate of the number of times a route gets used. It actually indicates the number of times the route has been selected for use prior to operations such as access list filtering.
Ethernet	Possible interface through which updates to the remote network will be sent.
zone	Name of zone of which the destination network is a member.
[1/G]	<p>Number of hops to this network, followed by the state of the link to that network. The state can be one of the following letters:</p> <ul style="list-style-type: none"> • G—Link is good. • S—Link is suspect. • B—Link is bad. <p>The state is determined from the routing updates that occur at 10-second intervals. A separate and nonsynchronized event occurs at 20-second intervals, checking and flushing the ratings for particular routes that have not been updated. For each 20-second period that passes with no new routing information, a rating changes from G to S and then from S to B. After 1 minute with no updates, that route is flushed. Every time the Cisco IOS software receives a useful update, the status of the route in question is reset to G. Useful updates are those advertising a route that is as good or better than the one currently in the table.</p> <p>When an AppleTalk route is poisoned by another router, its metric gets changed to poisoned (that is, 31 hops). The software then will age this route normally during a holddown period, during which the route will still be visible in the routing table.</p>
via 258.179	Address of a router that is the next hop to the remote network.
via gatekeeper	Node name of a router that is the next hop to the remote network.
sec	Number of seconds that have elapsed since an RMTP update about this network was last received.

The following is sample output from the **show appletalk route** command when you specify a network number:

```
Router# show appletalk route 69
```

```
Codes: R - RTMP derived, C - connected, A - AURP
P - proxy, S - static
```

The first zone listed for each entry is its default (primary) zone.

```
R Net 69-69 [2/G] via gatekeeper, 0 sec, Ethernet0, zone Empty Guf
Route installed 125:20:21, updated 0 secs ago
```

```

Next hop: gatekeeper, 2 hops away
Zone list provided by gatekeeper
Route has been updated since last RTMP was sent
Valid zones: "Empty Guf"

```

Table 24 describes the fields shown in the display.

Table 24 *show appletalk route Field Descriptions—Specified Network*

Field	Description
Codes:	Codes defining how the route was learned.
R - RTMP derived	Route learned from an RTMP update.
C - Connected	Directly connected network.
A - AURP derived	Route learned from an AURP update.
P - Proxy	Proxy route.
S - Static	Static route.
routes in internet	Number of routes in the Apple Talk internet.
Net	Cable range to which the route goes. This is the number of the network you specified on the show appletalk route command line.
[2/G]	<p>Number of hops to this network, followed by the state of the link to that network. The state can be one of the following letters:</p> <ul style="list-style-type: none"> • G—Link is good. • S—Link is suspect. • B—Link is bad. <p>The state is determined from the routing updates that occur at 10-second intervals. A separate and nonsynchronized event occurs at 20-second intervals, checking and flushing the ratings for particular routes that have not been updated. For each 20-second period that passes with no new routing information, a rating changes from G to S and then from S to B. After 1 minute with no updates, that route is flushed. Every time the Cisco IOS software receives a useful update, the status of the route in question is reset to G. Useful updates are those advertising a route that is as good or better than the one currently in the table.</p> <p>When an AppleTalk route is poisoned by another router, its metric gets changed to poisoned (that is, 31 hops). The software then will age this route normally during a holddown period, during which the route will still be visible in the routing table.</p>
via gatekeeper	Address or node name of a router that is the next hop to the remote network.
0 sec	Number of seconds that have elapsed since an RMTP update about this network was last received.

Table 24 show appletalk route Field Descriptions—Specified Network (continued)

Field	Description
Ethernet0	Possible interface through which updates to the remote network will be sent.
zone Empty Guf	Name of zone of which the destination network is a member.
Route installed 125:20:21	Length of time (in hours, minutes, and seconds) since this route was first learned about.
updated 0 secs ago	Time (in seconds) since the software received an update for this route.
Next hop: gatekeeper	Address or node name of the router that is one hop away.
2 hops away	Number of hops to the network specified in the show appletalk route command line.
Zone list provided by gatekeeper	Address or node name of the router that provided the zone list included with the RTMP update.
Route has been updated since last RTMP was sent	Indicates whether the software has received a routing update from a neighboring router since the last time the software sent an RTMP update for this route.
Valid zones: "Empty Guf"	Zone names that are valid for this network.

Related Commands

Command	Description
appletalk lookup-type	Specifies which NBP service types are retained in the name cache.
appletalk maximum-paths	Defines the maximum number of equal-cost paths the router should use when balancing the traffic load.
appletalk name-lookup-interval	Sets the interval between service pollings by the router on its AppleTalk interfaces.
appletalk proxy-nbp	Assigns a proxy network number for each zone in which there is a router that supports only nonextended AppleTalk.
clear appletalk route	Deletes entries from the routing table.

show appletalk sockets

To display all information or specified information about process-level operation in the sockets of an AppleTalk interface, use the **show appletalk sockets** privileged EXEC command.

show appletalk sockets [*socket-number*]

Syntax Description	<i>socket-number</i>	(Optional) Displays information about the specified socket number.
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Command Modes	Privileged EXEC
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Command History	Release	Modification
	10.0	This command was introduced.

Usage Guidelines	If no socket number is specified, this command displays information about all sockets.
-------------------------	--

Examples	The following is sample output from the show appletalk sockets command when you do not specify a socket number:
-----------------	--

```
Router# show appletalk sockets
```

Socket	Name	Owner	Waiting/Processed	
1	RTMP	AT RTMP	0	148766
2	NIS	AT NBP	0	15642
4	AEP	AT Maintenance	0	0
6	ZIP	AT ZIP	0	13619
8	SNMP	AT SNMP	0	0
253	PingServ	AT Maintenance	0	0

The following is sample output from the **show appletalk sockets** command when you do specify a socket number:

```
Router# show appletalk sockets 6
```

6	ZIP	AT ZIP	0	13619
---	-----	--------	---	-------

Table 25 describes the fields shown in these displays.

Table 25 *show appletalk sockets Field Descriptions*

Field	Description
Socket	Socket number.
Name	Name of the socket.
Owner	Process that is managing communication with this socket.
Waiting/Processed	Number of packets waiting to be processed by the socket, and number of packets that have been processed by the socket since it was established.

show appletalk static

To display information about the statically defined routes, including floating static routes, use the **show appletalk static** EXEC command.

show appletalk static

Syntax Description This command has no arguments or keywords.

Command Modes EXEC

Command History	Release	Modification
	10.0	This command was introduced.

Examples The following is sample output from the **show appletalk static** command:

```
Router# show appletalk static

      AppleTalk   Static   Entries
-----
Network   NextIR   Zone   Status
100-109   1.10    Zone100  A
200       1.10    Zone200  A
300-309   1.10    Zone300  A(Floating)
```

[Table 26](#) describes the fields shown in the display.

Table 26 *show appletalk static Field Descriptions*

Field	Description
Network	For an extended AppleTalk network, the network range. For a nonextended AppleTalk network, the network number.
NextIR	The next internetwork router.
Zone	The AppleTalk zone name.
Status	The status of the route, which can be one of the following: <ul style="list-style-type: none"> • A—The static route is active. • A(Floating)—The floating static route is active. • N/A—The static route is not active. • N/A(Floating)—The floating static route is not active.

Related Commands

Command	Description
appletalk static cable-range	Defines a static route or a floating static route on an extended network.
appletalk static network	Defines a static route or a floating static route on a nonextended network.
show appletalk neighbors	Displays information about the AppleTalk routers that are directly connected to any of the networks to which this router is directly connected.
show appletalk route	Displays all entries or specified entries in the AppleTalk routing table.

show appletalk traffic

To display statistics about AppleTalk traffic, including MacIP traffic, use the **show appletalk traffic EXEC** command.

show appletalk traffic

Syntax Description This command has no arguments or keywords.

Command Modes EXEC

Command History	Release	Modification
	10.0	This command was introduced.
	12.2(13)T	The EIGRP section was removed from command output.

Usage Guidelines For MacIP traffic, an IP alias is established for each MacIP client and for the IP address of the MacIP server if it does not match an existing IP interface address. To display the client aliases, use the **show ip aliases** command.

Examples The following is sample output from the **show appletalk traffic** command:

```
Router# show appletalk traffic

AppleTalk statistics:
  Rcvd:  357471 total, 0 checksum errors, 264 bad hop count
        321006 local destination, 0 access denied
        0 for MacIP, 0 bad MacIP, 0 no client
        13510 port disabled, 2437 no listener
        0 ignored, 0 martians
  Bcast: 191881 received, 270406 sent
  Sent:  550293 generated, 66495 forwarded, 1840 fast forwarded, 0 loopback
        0 forwarded from MacIP, 0 MacIP failures
        436 encapsulation failed, 0 no route, 0 no source
  DDP:   387265 long, 0 short, 0 macip, 0 bad size
  NBP:   302779 received, 0 invalid, 0 proxies
        57875 replies sent, 59947 forwards, 418674 lookups, 432 failures
  RTMP:  108454 received, 0 requests, 0 invalid, 40189 ignored
        90170 sent, 0 replies
  AURP:  0 Open Requests, 0 Router Downs
        0 Routing Information sent, 0 Routing Information received
        0 Zone Information sent, 0 Zone Information received
        0 Get Zone Nets sent, 0 Get Zone Nets received
        0 Get Domain Zone List sent, 0 Get Domain Zone List received

AppleTalk statistics:
  0 bad sequence
  ATP:   0 received
  ZIP:   13619 received, 33633 sent, 32 netinfo
  Echo:  0 received, 0 discarded, 0 illegal
        0 generated, 0 replies sent
  Responder: 0 received, 0 illegal, 0 unknown
```

```

0 replies sent, 0 failures
AARP: 85 requests, 149 replies, 100 probes
      84 martians, 0 bad encapsulation, 0 unknown
      278 sent, 0 failures, 29 delays, 315 drops
Lost: 0 no buffers
Unknown: 0 packets
Discarded: 130475 wrong encapsulation, 0 bad SNAP discriminator

```

Table 27 describes the fields shown in the display.

Table 27 *show appletalk traffic Field Descriptions*

Field	Description
Rcvd:	This section describes the packets received.
357741 total	Total number of packets received.
0 checksum errors	Number of packets that were discarded because their DDP checksum was incorrect. The DDP checksum is verified for packets that are directed to the router. It is not verified for forwarded packets.
264 bad hop count	Number of packets discarded because they had traveled too many hops.
321006 local destination	Number of packets addressed to the local router.
0 access denied	Number of packets discarded because they were denied by an access list.
0 for MacIP	Number of AppleTalk packets the Cisco IOS software received that were encapsulated within an IP packet.
0 bad MacIP	Number of bad MacIP packets the software received and discarded. These packets may have been malformed or may not have included a destination address.
0 no client	Number of packets discarded because they were directed to a nonexistent MacIP client.
13510 port disabled	Number of packets discarded because routing was disabled for that port (extended AppleTalk only). This is the result of a configuration error or a packet's being received while the software is in verification/discovery mode.
2437 no listener	Number of packets discarded because they were directed to a socket that had no services associated with it.
0 ignored	Number of routing update packets ignored because they were from a misconfigured neighbor or because routing was disabled.
0 martians	Number of packets discarded because they contained bogus information in the DDP header. What distinguishes this error from the others is that the data in the header is never valid as opposed to not being valid at a given point in time.
Bcast:	Number of broadcast packets sent and received.
191881 received	Number of broadcast packets received.
270406 sent	Number of broadcast packets sent.
Sent:	Number of packets transmitted.

Table 27 show appletalk traffic Field Descriptions (continued)

Field	Description
550293 generated	Number of packets generated.
66495 forwarded	Number of packets forwarded using routes derived from process switching.
1840 fast forwarded	Number of packets sent using routes from the fast-switching cache.
0 loopback	Number of packets that were broadcast out an interface on the router for which the device simulated reception of the packet because the interface does not support sending a broadcast packet to itself. The count is cumulative for all interfaces on the device.
0 forwarded from MacIP	Number of IP packets forwarded that were encapsulated within an AppleTalk DDP packet.
0 MacIP failures	Number of MacIP packets sent that were corrupted during the MacIP encapsulation process.
436 encapsulation failed	Number of packets the router could not send because encapsulation failed. This can happen because encapsulation of the DDP packet failed or because AARP address resolution failed.
0 no route	Number of packets the router could not send because it knew of no route to the destination.
0 no source	Number of packets the router sent when it did not know its own address. This should happen only if something is seriously wrong with the router or network configuration.
DDP:	This section describes DDP packets seen.
387265 long	Number of DDP long packets.
0 short	Number of DDP short packets.
0 macip	Number of IP packets encapsulated in an AppleTalk DDP packet that the router sent.
0 bad size	Number of packets whose physical packet length and claimed length differed.
NBP:	This section describes NBP packets.
302779 received	Total number of NBP packets received.
0 invalid	Number of invalid NBP packets received. Causes include invalid op code and invalid packet type.
0 proxies	Number of NBP proxy lookup requests received by the router when it was configured for NBP proxy transition usage.
57875 replies sent	Number of NBP replies sent.
59947 forwards	Number of NBP forward requests received or sent.
418674 lookups	Number of NBP lookups received.
432 failures	Generic counter that increments any time the NBP process experiences a problem.

Table 27 *show appletalk traffic Field Descriptions (continued)*

Field	Description
RTMP:	This section describes RTMP packets.
108454 received	Total number of RTMP packets received.
0 requests	Number of RTMP requests received.
0 invalid	Number of invalid RTMP packets received. Causes include invalid op code and invalid packet type.
40189 ignored	Number of RTMP packets ignored. One reason for this is that the interface is still in discovery mode and is not yet initialized.
90170 sent	Number of RTMP packets sent.
0 replies	Number of RTMP replies sent.
ATP:	This section describes ATP packets.
0 received	Number of ATP packets the router received.
ZIP:	This section describes ZIP packets.
13619 received	Number of ZIP packets the router received.
33633 sent	Number of ZIP packets the router sent.
32 netinfo	Number of packets that requested port configuration via ZIP GetNetInfo requests. These are commonly used during node startup and are occasionally used by some AppleTalk network management software packages.
Echo:	This section describes AEP packets.
0 received	Number of AEP packets the router received.
0 discarded	Number of AEP packets the router discarded.
0 illegal	Number of illegal AEP packets the router received.
0 generated	Number of AEP packets the router generated.
0 replies sent	Number of AEP replies the router sent.
Responder:	This section describes Responder Request packets.
0 received	Number of Responder Request packets the router received.
0 illegal	Number of illegal Responder Request packets the router received.
0 unknown	Number of Responder Request packets the router received that it did not recognize.
0 replies sent	Number of Responder Request replies the router sent.
0 failures	Number of Responder Request replies the router could not send.
AARP:	This section describes AARP packets.
85 requests	Number of AARP requests the router received.
149 replies	Number of AARP replies the router received.
100 probes	Number of AARP probe packets the router received.

Table 27 show appletalk traffic Field Descriptions (continued)

Field	Description
84 martians	Number of AARP packets the router did not recognize. If you start seeing an inordinate number of martians on an interface, check whether a bridge has been inserted into the network. When a bridge is starting up, it floods the network with AARP packets.
0 bad encapsulation	Number of AARP packets received that had an unrecognizable encapsulation.
0 unknown	Number of AARP packets the router did not recognize.
278 sent	Number of AARP packets the router sent.
0 failures	Number of AARP packets the router could not send.
29 delays	Number of AppleTalk packets delayed while waiting for the results of an AARP request.
315 drops	Number of AppleTalk packets dropped because an AARP request failed.
Lost: 0 no buffers	Number of packets lost because of lack of buffer space.
Unknown: 0 packets	Number of packets whose protocol could not be determined.
Discarded:	This section describes the number of packets that were discarded.
130475 wrong encapsulation	Number of packets discarded because they had the wrong encapsulation. That is, nonextended AppleTalk packets were on an extended AppleTalk network, or vice versa.
0 bad SNAP discrimination	Number of packets discarded because they had the wrong SNAP discriminator. This occurs when another AppleTalk device has implemented an obsolete or incorrect packet format.
AURP:	This section describes AppleTalk Update Routing Protocol packets.
0 open requests	Total number of open requests.
0 router downs	Number of router down packets received.
0 routing information sent	Number of routing information packets sent.
0 routing information received	Number of routing information packets received.
0 zone information sent	Number of ZIP packets sent.
0 zone information received	Number of ZIP packets received.
0 get zone nets sent	Number of get zone network packets sent requesting zone information.
0 get zone nets received	Number of get zone network packets received requesting zone information.
0 get domain zone list sent	Number of get domain zone list packets sent requesting domain zone list information.

Table 27 *show appletalk traffic Field Descriptions (continued)*

Field	Description
0 get domain zone list received	Number of get domain zone list packets received requesting domain zone list information.
0 bad sequence	Number of AURP packets received out of sequence.

Related Commands

Command	Description
clear appletalk traffic	Resets AppleTalk traffic counters.
show appletalk macip-traffic	Displays statistics about MacIP traffic through the router.
show ip aliases	Displays the IP addresses mapped to TCP ports (aliases) and SLIP addresses, which are treated similarly to aliases.

show appletalk zone

To display all entries or specified entries in the zone information table, use the **show appletalk zone** EXEC command.

show appletalk zone [*zone-name*]

Syntax Description	<i>zone-name</i>	(Optional) Displays the entry for the specified zone.
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Command Modes	EXEC
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Command History	Release	Modification
	10.0	This command was introduced.

Usage Guidelines

If no zone name is specified, the command displays all entries in the zone information table.

You can use this command on extended and nonextended networks.

A zone name can be associated with multiple network addresses or cable ranges, or both. There is not a one-to-one correspondence between a zone name and a LAN; a zone name may correspond to one or more networks (LANs or network interfaces). This means that a zone name will effectively replace multiple network addresses in zone filtering. This is reflected in the output of the **show appletalk zone** command. For example, the zone named *Mt. View 1* in the following example is associated with two network numbers and four cable ranges.

Examples

The following is sample output from the **show appletalk zone** command:

```
Router# show appletalk zone

Name                Network(s)
Engineering          3 29-29 4042-4042
customer eng        19-19
CISCO IP             4140-4140
Dave's House        3876 3924 5007
Narrow Beam         4013-4013 4023-4023 4037-4037 4038-4038
Low End SW Lab      6160 4172-4172 9555-9555 4160-4160
Tir'n na'Og         199-199
Mt. View 1          7010-7010 7122 7142 7020-7020 7040-7040 7060-7060
Mt. View 2          7152 7050-7050
UDP                 1112-12
Empty Guf           69-69
Light               80
europe              2010 3010 3034 5004
Bldg-13             4032 5026 61669 3012 3025 3032 5025 5027
Bldg-17             3004 3024 5002 5006
```

The following is sample output from the **show appletalk zone** command when you specify a zone name:

```
Router# show appletalk zone CISCO IP
```

```

AppleTalk Zone Information for CISCO IP:
  Valid for nets: 4140-4140
  Not associated with any interface.
  Not associated with any access list.

```

Table 28 describes the fields shown in the display.

Table 28 *show appletalk zone Field Descriptions—Specific Zone Name*

Field	Description
AppleTalk Zone Information for CISCO IP:	Name of the zone.
Valid for nets: 4140-4140	Cable range(s) or network numbers assigned to this zone.
Not associated with any interface.	Interfaces that have been assigned to this zone.
Not associated with any access list.	Access lists that have been defined for this zone.

Related Commands

Command	Description
appletalk zone	Sets the zone name for the connected AppleTalk network.

test appletalk

To enter the test mode, use the **test appletalk** command in privileged EXEC mode.

```
test appletalk
```

Syntax Description This command has no arguments or keywords.

Command Modes Privileged EXEC

Command History	Release	Modification
	11.1	This command was introduced.

Usage Guidelines Use the **test appletalk** command to enter test mode. From test mode you can test the Name Binding Protocol (NBP) protocol.

The following display shows how to enter Appletalk test mode:

```
Router# test appletalk
Router(ataalk test)#
```

Type **?** to display the following list of test options:

```
Router(ataalk test)# ?
end      Exit AppleTalk test mode
nbp     AppleTalk NBP test commands
```

Use the **test appletalk** command with the **nbp** options to test and to perform informational lookups of NBP-registered entities. Use the NBP options when you find that AppleTalk zones are listed in the Chooser, but services in these zones are unavailable.

Type **nbp ?** to learn what NBP test commands you can use:

```
Router(ataalk test)# nbp ?
nbp confirm:      send out an NBP confirm packet to the specified entity
nbp lookup:       lookup an NVE. prompt for name, type and zone
nbp parameters:   display/change lookup parms (ntimes, ncecs, interval)
nbp poll:         for every zone, lookup all devices, using default
?:               print command list
end:             exit nbptest
```

The following list summarizes the **nbp** test commands you can use:

- **nbp confirm**—Sends out an NBP confirm packet to the specified entity.
- **nbp lookup**—Searches for NBP entities in a specific zone.
- **nbp parameters**—Sets the parameters used in subsequent lookup and pool tests.
- **nbp poll**—Searches for all devices in all zones.
- **?**—Displays the list of **nbp** tests.
- **end**—Exit from the **nbp** test commands.

The remainder of this section shows and explains the syntax and output of the various NBP test commands.

When running any of the NBP tests, you specify a nonprinting character by entering a three-character string that is the hexadecimal equivalent of the character. For example, type `:c5` to specify the test appletalk truncation wildcard.

This is the syntax of the **nbp confirm** command:

```
nbp confirm appletalk-address [:skt] object:type@zone
```

The syntax description is as follows:

<i>appletalk-address</i>	AppleTalk network address in the form <i>network.node</i> . The argument <i>network</i> is the 16-bit network number in the range 1 to 65,279. The argument <i>node</i> is the 8-bit node number in the range 0 to 254. Both numbers are decimal.
<i>:skt</i>	(Optional) Name of socket.
<i>object:type</i>	Name of device and the type of service. The colon (:) between <i>object</i> and <i>type</i> is required.
<i>@zone</i>	Name of the AppleTalk zone where the entity <i>object:type</i> resides.

Examples

The following is sample output from the **nbp confirm** command. In this example, the test sends a confirm packet to the entity *ciscoRouter* in zone *Engineering*.

```
Router(ataalk test)# nbp confirm 24279.173 my-mac:AFPServer@Engineering
confirmed my-mac:AFPServer@Engineering at 24279n,173a,250s
```

This is the syntax of the **nbp lookup** command:

```
nbp lookup object:type@zone
```

The syntax description is as follows:

<i>object:type</i>	Name of device and the type of service. The colon (:) between <i>object</i> and <i>type</i> is required.
<i>@zone</i>	Name of the AppleTalk zone where the entity <i>object:type</i> resides.

The following is sample output from the **nbp lookup** command:

```
Router(ataalk test)# nbp lookup =:macintosh:c5@engineering
(100n,50a,253s)[1]: 'userA:Macintosh IICx@engineering'
(100n,16a,251s)[1]: 'userB:Macintosh II@engineering'
(200n,24a,253s)[1]: 'userC:Macintosh IICI@engineering'
(200n,36a,251s)[1]: 'userD:Macintosh II@engineering'
(300n,21a,252s)[1]: 'userE:Macintosh SE/30@engineering'
test appletalk lookup request timed out
Processed 6 replies, 7 events
```

Table 29 describes the fields shown in the display.

Table 29 *nbp lookup Field Descriptions*

Field	Description
(100n,50a,253s) [1]	AppleTalk DDP address of the registered entity, in the format network, node address, and socket number. The number in brackets is either the current value of the field (if this is the first time you have invoked nbptest) or the value the field had the last time you invoked nbptest .
'userA:Macintosh IICx@engineering'	NBP enumerator:NBP entity string of the registered entity.
test appletalk lookup request timed out	Indicates whether replies were heard within the timeout interval.
Processed 6 replies, 7 events	Number of NBP replies received.

This is the syntax of the **nbp parameters** command:

nbp parameters *retransmissions replies interval*

The syntax description is as follows:

<i>retransmissions</i>	Maximum number of lookup retransmissions. This is a number from 1 to 5. The default value is 5.
<i>replies</i>	Maximum number of replies to accept for each lookup. This is a number from 1 to 500. The default is 1.
<i>interval</i>	Interval, in seconds, between each retry. This value is from 1 to 60 seconds. The default is 5 seconds.

The following is sample output of the **nbp parameters** command. In this example, the maximum number of retransmission is 1, the maximum number of replies is 100, and there are 10 seconds between each retry.

```
Router(ataalk test)# nbp parameters 1 100 10
```

The **nbp poll** command has no keywords or arguments. The following is sample output from the **nbp poll** command:

```
Router(ataalk test)# nbp poll

poll: sent 2 lookups
(100n,82a,252s) [1]: 'userA:Macintosh IICi@Zone one'
(200n,75a,254s) [1]: 'userB:Macintosh IICx@Zone two'
test appletalk polling completed.
Processed 2 replies, 2 events
```

Table 30 describes the fields shown in the display.

Table 30 *nbp poll Field Descriptions*

Field	Description
poll	Number of lookups the command sent.
(100n,82,252s) [1]	AppleTalk DDP address of the registered entity, in the format network, node address, and socket number. The number in brackets is either the current value of the field (if this is the first time you have invoked nbptest) or the value the field had the last time you invoked nbptest .
'userA:Macintosh IIci@Zone one'	NBP enumerator:NBP entity string of the registered entity.
test appletalk polling completed.	Indicates that the polling completed successfully.
Processed 2 replies, 2 events	Number of NBP replies received.

The following example enables the **appletalk nbp polling** command, which does not use any keywords or arguments:

```
Router (atalk test)# nbp poll
```

Related Commands

Command	Description
test flash	Tests Flash memory on MCI and envm Flash EPROM interfaces.
test interfaces	Tests the system interfaces on the modular router.
test memory	Performs a test of Multibus memory (including nonvolatile memory) on the modular router.