

AppleTalk Protocol - Cisco Implementation

Multi-layered protocol providing internetwork routing, transaction and data stream service, naming service comprehensive file and print sharing

AppleTalk Filing Protocol (AFP) - Allows a workstation on an AppleTalk network to access files on AppleShare file servers. Not commonly used because the native file system commands allow users to access an AFP server, such as AppleShare, from a workstation.

Zone Information Protocol (ZIP) - Are logical divisions of AppleTalk resources. ZIP *maps zone names* to network addresses. ZIP is the process by which AppleTalk routers create their Zone Information Table (ZIT) which contains the zone names associated with a network number.

AppleTalk Session Protocol (ASP) - Sets up and maintains sessions between a workstation and a server. ASP is an asymmetrical protocol in which one side of the dialog, the workstation client of ASP, initiates the session and sends commands to the other side of the dialog. ADSP is more commonly used than ASP when a session protocol is required.

AppleTalk Data Stream Protocol (ADSP) - A *connection-oriented* protocol that supports sessions over which applications and processes that are socket clients can exchange full-duplex streams of data across an AppleTalk internet. ADSP is a symmetrical protocol.

AppleTalk Transaction Protocol (ATP) - A transaction protocol that allows one socket client to transmit a request that some action be performed to another socket client that carries out the action and transmits a response reporting the outcome. ATP provides reliable delivery of data by retransmitting any data packets that are lost and ensuring that the data packets are delivered in the correct sequence.

AppleTalk Address Resolution Protocol (AARP) - Maps AppleTalk addresses to hardware addresses. In addition, handles the dynamic assignment of node addresses.

Datagram Delivery Protocol (DDR) - Provides unique addressing of all nodes on the AppleTalk internet and is responsible for *connectionless* delivery of datagrams between nodes.

Name Binding Protocol (NBP) - Provides name-to-address resolution that is similar to DNS. The Macintosh uses a mechanism called the Chooser for selecting network resources on the network.

Routing Table Maintenance Protocol (RTMP) - Sends updates every 10 seconds, refreshes routing table after 20 seconds.

when a router port receives a **RTMP** containing a network number currently not in its routing table, it adds the new network number to its routing table. Once the router has added the new network number to its routing table, it must now acquire the zones associated with this network number. To do this, the router sends a ZIP request to the router port that has the new network number. The ZIP request contains the network number and the name of the zone. The router receiving the query looks in its own ZIT and sends back a response containing the ZIT entry with the requested network number. Once the router has received the response, it adds the zone information to its own ZIT.

Cisco configuration commands

```
>appletalk routing [eigrp router-id] (Optional use)
(Enable AppleTalk routing - global configuration mode)
>appletalk event-logging
>int e 0
>ip address 172.16.1.102 255.255.255.0
>appletalk protocol eigrp
>no appletalk protocol rtmp
>appletalk cable-range [cable-range]
(Assign a cable range to a port)
>appletalk zone [zone-name] [network-number]
(Assign a zone name to a network number)
255.255.255.0
```

COPYRIGHT
©ITcharts.com

AppleTalk (Type x'809b') DDR

Hop Count (Routers)	Length
6 bits	

Hop Count from