



# Tech Info Library

## AppleTalk Internet Redesign (10/93)

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TOPIC -----

I have an internet redesign issue. I'm concerned about my strategy to update the router definitions in my network.

Is it possible for the router/zone updating process to propagate bad zone information after it is changed? If I update a zone list on a router is the old table kept in other routers and forwarded as a part of normal updating therefore maintaining this bad zone information? What exactly prevents this from happening if anything?

What phenomenon on the network would cause ZIP storms between routers?

If I am changing my Internet wide zone lists what strategy should I follow in updating the routers? Do I need to isolate each while I change it and prevent it communication with others until they are all updated? If this isn't possible do I have other choices?

Is it possible for normal RTMP updating between routers to propagate bad network number entries that keep "updating around the network" when they no longer describe a valid network entry? This assumes a router is redefined to have a different network number setup for the ports that it seeds.

There is also a problem with zone names and zones appearing/disappearing in the chooser.

I have a 6000 node network with hundreds of subnets. I want to change my network zone tables from one that reflects a physical layout to a logical one, but I'm concerned about how to implement a ZIP change on a subnet when routers may be propagating bad zip information behind the changes for old entries.

DISCUSSION -----

The Zone Information Protocol (ZIP) does not support dynamic network changes. The prescribed method of updating a zone list is to temporarily isolate the changing network from the internet, shut down all routers directly connected to the changing network, and change the zone list in each of the seed routers. Inside AppleTalk recommends the routers remain down for approximately 10 minutes to allow the old zone list to age out of

all the other routers in the internet before being started again. If this procedure is not followed, it is possible for old zone information to be propagated after a change is made (depending on the complexity of the change, this could cause ZIP storms between routers).

Inside AppleTalk alludes to a "future network management protocol" that would provide the capability of changing the zone list of a network while that network is active as a part of the internet. Unfortunately, such a protocol hasn't been developed yet, so the aforementioned procedure is the only way to properly implement a network change.

The Routing Table Maintenance Protocol (RTMP) would only be temporarily impacted by a network change. The old network table entries would time out and get deleted as the routers on the internet no longer heard from the "old network" (Inside AppleTalk indicates this should take approximately 60 seconds).

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