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MacTCP: More Than One IP Gateway and AppleTalk Zones (11/93)

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TOPIC -----

Is there any reason why a network administrator couldn't have more than one IP gateway in a given AppleTalk zone? Are the existence of AppleTalk zones even an issue? I want to serve more than the 64 dynamic IP addresses my gateway allows to Macintosh clients on the network segment. I propose to do this by establishing two gateways each serving 64 addresses from different ranges. What is the limitation of MacTCP on a given zone for Dynamic addressing? Is there any? If so, does it differ by version of MacTCP?

DISCUSSION -----

There is a limit of 1 DDP/IP gateway per zone. All versions of MacTCP have the same limit, it's not really a limitation of MacTCP as much as it is of the DDP/IP gateway. It's fairly involved but the bottom line is that the DDP/IP gateway specification is not clearly defined and currently offers no way to arbitrate requests from multiple gateways located in the same zone.

There are answers however, you could use a DDP/IP gateway that offers more than 64 addresses such as a ciscorouter. The cisco imposes no limits on the number of addresses you can configure other than those imposed by the amount of physical RAM you have to accommodate the table. The other solution for gateways with limited addresses would be to configure multiple zones on the same cable (ddpip1, ddpip2, ddpip3, etc.) and place one gateway in each zone. You could arbitrate which users used which gateways or you could just tell them to use one of the gateways in any of the ddpip zones. If one gateway was unable to give the Macintosh an address the user could simply choose the next zone until they were able to get an IP address.

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