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AppleTalk Internet Router 1.0 & 2.0: ADEV Files Question

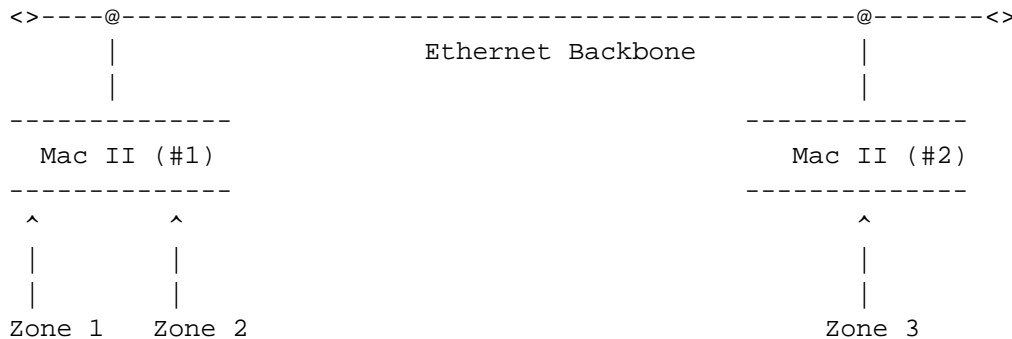
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TOPIC -----

After installing the AppleTalk Internet Router, the following problem occurred and was solved.

Situation

There are three separate LocalTalk-type networks, each going into a Star Controller (that is, three Star Controllers) -- Zone 1, Zone 2, and Zone 3. There is also an Ethernet backbone. Two Macintosh IIs are acting as routers between Zone 1 and Zone 2 and the Ethernet backbone and Zone 3 and the Ethernet backbone.



- Macintosh II 5MB (#1)
- System Software Version 6.0.3
 - EtherTalk 2.0
 - AppleTalk Internet Router
 - AppleShare 2.0.1
 - AppleShare Print Server

- Macintosh II 1MB (#2)
- System Software Version 6.0.3
 - EtherTalk 2.0
 - AppleTalk Internet Router
 - AppleShare Print Server

Problem

When configuring the router in the router setup for Macintosh II (#1), four ports appear: 1 Ethernet port, 1 LocalTalk modem port, and 2 LocalTalk built-in ports.

The appearance of this extra "LocalTalk built-in" port is impossible and doesn't make sense but, for some odd reason, continues to happen no matter how many times I restarted or tried to deactivate the port. The router actually runs in this configuration, but doesn't work properly.

Zone 1 is attached to the built-in port. However, whenever Zone 1 is chosen in the "Chooser" (after the router came on-line), none of the network services available in Zone 1 appear. Also, people in Zone 1 can't see any part of the network--including their zone (Zone 1). If I shut off the routers, everyone can see their respective zones including the Zone 1 people. Therefore, I know there is integrity in the physical media.

Solution

Since the router setup on the Macintosh II (#2) was normal (that is, two total LocalTalk ports (modem/built-in) and one EtherTalk port), I assumed that there had to be something wrong with Macintosh II (#1). The only thing I was doing different on Macintosh II (#1) was running the AppleShare File Server.

After examining the System Folders for both Macintosh IIs (#1 and #2), I found two CDEVs that were installed by the AppleTalk Internet Router. "LocalTalk (Built-In)" and "LocalTalk (Modem)". Since I had two "LocalTalk (Built-In)" ports for my router setup on Macintosh II (#1), I decided to throw out the "LocalTalk (Built-In)" CDEV system document in the System Folder for Macintosh II (#1) and left it in Macintosh II (#2).

To my surprise, when I got into my router setup for Macintosh II (#1), everything was normal with one "LocalTalk (Built-In)", one "LocalTalk (Modem)", and one EtherTalk port. When I restarted both routers, the whole network started up, and everyone could see everything in the network -- including Zone 1.

Questions

- 1) Why did this happen, and why did the solution work?
- 2) Why do you need a CDEV for "LocalTalk (Built-In)"? I thought that code was an integral part of the system (ROM or on some other chip).
- 3) If "LocalTalk (Built-In)" is not an integral part of the system, why haven't I ever seen a "LocalTalk (Built-In)" CDEV in the System Folder?
- 4) Does AppleShare File Server install some of its own resources that may cause conflicts with the AppleTalk Internet Router "LocalTalk (Built-In)" CDEV? This would explain why the Macintosh II (#2) didn't

have any problems with the "LocalTalk (Built-In)" CDEV installed while Macintosh II (#1) did have problems.

DISCUSSION -----

1) The AppleTalk Internet Router 1.0 beta software (AppleTalk Phase 1 only) installs the files:

- Modem LocalTalk
- Printer LocalTalk

in the System Folder.

The AppleTalk Internet Router 2.0 installs the files:

- LocalTalk (Modem)
- LocalTalk (Printer)

in the System Folder. These four files are ADEVs, not CDEVs.

If the AppleTalk Internet Router 2.0 software was installed on a machine that had the AppleTalk Internet Router 1.0 beta software installed, you would have the "Printer LocalTalk" file from the AppleTalk Internet Router 1.0 beta software and the "LocalTalk (Modem)" and "LocalTalk (Printer)" files from the AppleTalk Internet Router 2.0 software in the System Folder.

The AppleTalk Internet Router 2.0 installer script removes the "Modem LocalTalk" file from the System Folder, but does not remove the "Printer LocalTalk" file. This is why the router setup window shows the two LocalTalk printer ports and the LocalTalk modem port.

The router did not work properly because both LocalTalk Printer port drivers were telling the printer port different things, which, in turn, caused the network problems. When you removed the "LocalTalk (Printer)" file, the AppleTalk Internet Router 2.0 software had only one driver talking to the printer port, and the problems stopped.

It is important to note that the "LocalTalk (Modem)" and "LocalTalk (Printer)" files from the AppleTalk Internet Router 2.0 software should be in the System Folder, and the "Printer LocalTalk" file from the AppleTalk Internet Router 1.0 beta software should be removed.

2 and 3) The AppleTalk Internet Router requires special LocalTalk drivers and uses RAM-based drivers instead of the ROM-based drivers. This is why you have not seen these files before.

4) The AppleShare File Server and AppleShare Print Server software does not conflict with the AppleTalk Internet Router software.

(NOTE: Apple Tech Comm recommends that the Macintosh II (#2) router have 2MB RAM installed, since it is running the AppleShare Print Server software in conjunction with the AppleTalk Internet Router.)

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