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## SNA•ps Release 2.0 & SNA•ps 5250 Question and Answer (7/93)

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TOPIC -----

This article contains questions and answers about SNA•ps Release version 2.0 and SNA•ps 5250.

DISCUSSION -----

Q: What is in SNA•ps Release 2.0?

A: The SNA•ps Release 2.0 is a release which contains a new product updated SNA•ps Gateway, SNA•ps Admin, SNA•ps Config and 3270 Manager. There is also an updated SNA•ps 3270 Application.

Q: What is new and different?

A: The new SNA•ps gateways are now sold on the basis of connected AppleTalk User clients, not the number of sessions as with the 1.1.1 release and earlier. The old session limits of 5 (personal gateway), 8, 32 and 64 have been replaced by:

- Personal Gateway (0 external clients), only internal connections in the same machine with coax, Token Ring or SDLC card.
- 10, 35 and 70 connected client limited gateways.

There is no limit to the number of sessions each gateway can support except RAM limitations on the MCP card (Token Ring or SDLC), or 5 sessions maximum for Coax card, or NCP limits in SNA.

The Personal gateway does project a Gateway name on the AppleTalk network but any remote client that tries to attach will be told with a dialog box that "no clients can attach at this time". Also, if a remote SNA•ps Admin tool tries to open a Personal gateway, it will not be allowed, since the Personal Gateway will not accept any SNA•ps Access clients (3270 Manager, SNA•ps Admin, SNA•ps 3270, SNA•ps 5250, SNA•ps 3287 or SNA•ps Print). The SNA•ps Admin tools will only control a Personal gateway if the tool is run in the same machine as the Personal gateway.

The SNA•ps Admin version 2.0 tools can "see" and manage all versions of the gateway (1.1, 1.1.1 and 2.0). However, the 1.1.1 or 1.1 versions of SNA•ps Admin tools can "see" but cannot manage any 2.0 gateway. 1.0 version gateways, can only be managed by 1.0 SNA•ps Admin tools.

Q: What was fixed?

A: The SNA•ps 2.0 gateways now remember the SNA•ps Preferences when a gateway (most often a Personal gateway) is used in a Duo Dock and a PowerBook Duo. The situation is the Duo is loaded with SNA•ps gateway code and configured as an active gateway. The Duo is then shutdown and ejected from the Dock and restarted. The Duo does not now have a "real" NuBus so the SNA•ps Preferences are kept (in 2.0 gateways) until a "real" NuBus returns. So, if the Duo is re-inserted in a Dock with the same kind of NuBus card in the same slot, the gateway preferences are recalled and gateways will automatically restart. This does not change the SNA•ps Preferences being cleared when a NuBus MCP card is removed from the bus and the Macintosh restarted. The SNA•ps Preferences only clear if the Macintosh has a "real" NuBus and the preferences match a slot which is empty, or filled with a different NuBus card.

Q: What was not fixed or added?

A: The performance issue with high speed SDLC links (19.2Kbps and above) has been tested but was not included in Gateway 2.0. Also the LU Security feature was not included in Gateway 2.0.

Q: What bugs have been discovered?

A: The only bug that has been discovered so far is with System 6.0.X Macintosh computers running DAL client 1.3.7 and the DALnet adapters for SNA•ps APPC. If the System 6.0.X computer tries to make an APPC connection through a 2.0 gateway running APPC to an AS/400, the DALSERVER program call has the AS/400 Library name stripped by the SNA•ps 2.0 gateway. The DAL connection fails with a -4105 error "Open Gateway Connection Failed". The result is that DAL clients on a 6.0.4 system cannot access DAL for the AS/400 through 2.0 gateways. This is a very repeatable problem. DAL 1.3.7 in System 6.0.X computers work just fine to APPC VTAM and all 3270 connections. DAL 1.3.7 in System 7.0 computers work properly everywhere.

Another problem seems to be related to confusion in the SNA•ps gateway client user counting when a DAL connection is made to a host resource which is fully in use. For example, suppose a 3270 gateway has 6 display sessions and 4 printer sessions configured on a 10 user gateway. Also assume that all 6 display sessions are in use with SNA•ps 3270 sessions and no printer sessions are in use. If a DAL attachment is attempted to the 3270 session pool, the report to the DAL client application has been "no clients available at this time" when in fact clients can still attach to the gateway for printer sessions. This is not unexpected but occasionally, the 2.0 gateway remains confused and continues to report "no clients can attach at this time" even to resources which are available (like to printer sessions). This does not

consistently happen but when it does the Gateway Macintosh computer must be restarted. Stopping and starting the gateway with SNA•ps Admin will not result in a recovery from this problem.

This second problem applies to DAL in 6.0.x and 7.0 computers and with 3270 and APPC sessions. It is not solidly repeatable. It looks like a problem with DAL client or DALnet adapters and SNA•ps Access 2.0. The only way to get this to happen is to have DAL try to access an out of session resource (3270 or parallel sessions in APPC) when there is space for a client at the 2.0 gateway. A workaround is to be sure there are more 3270 and/or APPC sessions than the number of client user limits for the gateway 2.0.

Q: What is the SNA•ps 3270 1.1.2 in the 2.0 gateway package?

A: SNA•ps 1.1.1 has a "divide by zero" bug which seems to occur if the user selected "any screen size" (Model 2-5 is fine) in the connection dialog and the host LOGMODE presented an unusual combination (for example, primary screen Mod-3 and alternate screen Mod-4). A parsing error by the SNA•ps 1.1.1 code resulted in the divided by zero bug. This was the only thing fixed in SNA•ps 3270 1.1.2. A code patcher for SNA•ps 3270 1.1.1 should be available in mid-July 1993.

The workaround for this bug in SNA•ps 3270 1.1.1, is to select a specific model terminal (like 2) and then the LOGMODE with either match and BIND or not match and UNBIND. No "divide by zero" will result.

Q: What is SNA•ps 5250?

A: The SNA•ps 5250 product is an AS/400 only terminal emulator, which uses the Display Station Passthru features of the AS/400 to provide 5250 terminal emulation. It uses the parallel session services of a SNA•ps 2.0 (1.1.1 or 1.1) APPC gateway, which can be attached directly to an AS/400 over Token Ring, SDLC, or as a downstream PU on the Token Ring gateway feature of an IBM 5494 mid-range remote controller (SDLC). SNA•ps gateways are LEN nodes, and can be used in APPN networks, common in AS/400 environments.

SNA•ps 5250 is a fully featured workstation emulation similar to that offered by PC Support to DOS and Windows users. It does not use PC Support to make connections to the AS/400. The only major feature which is missing in SNA•ps 5250 is File Transfer. There are no major reported bugs on SNA•ps 5250 version 1.0

Q: What is SNA•ps Print?

A: SNA•ps Print is a multi-purpose printer emulation for both 3270 and 5250 printers. The 3270 mode is similar to SNA•ps 3287 and uses the 3270 API. SNA•ps Print corrected many bugs in SNA•ps 3287 especially all LU1 (SCS) tabbing problems with LaserWriters and ImageWriters. There is now support for defining Characters per Inch across the page.

5250 printers are supported to the AS/400 only as Printer Station

Passthru devices over a SNA•ps APPC gateway. Only the 3812 printer is supported. The actual printer name on the Passthru controller must be inserted in the SNA•ps 5250 Control Panel or the SNA•ps Print client will not connect properly. SNA•ps Print for 5250 uses the Apple 3270 API.

There are two major reported bugs in SNA•ps Print. One is a problem with Lines per Inch not working at all in the Custom Format Set-up. The choices are six or eight and SNA•ps Print ignores either setting and prints seven Lines per Inch. This should be fixed in the next maintenance release in the Fall of 1993. The other bug has to do with ImageWriters and properly spacing Characters per Inch. This appears to be an ImageWriter driver bug and the only thing to do as a workaround is to "trick" the driver and give it a smaller CPI and let the print driver expand the line to the desired size. We have experimented and a CPI of 9.2 set in SNA•ps Print results in a CPI of 10 on the printed page.

There is no problem with CPI and LaserWriter printers.

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