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SNA•ps Gateway Auto-Reconnect With AS/400 (9/93)

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TOPIC -----

Several customers are complaining about the following problem.

They have SNA•ps 5250 GC systems connected to the AS/400 through a SNA•ps Gateway (all three versions 1.1, 1.1.1, and 2.0) on Token Ring. In SNA•ps admin the available sessions are visible and everything works fine. Overnight (or on weekends) the AS/400 is shut down. The following morning, the sessions are no longer visible in SNA•ps admin. In order to start a terminal session the gateway has to be stopped and restarted again.

Is this a known problem? Is there a workaround?

DISCUSSION -----

In the early testing of SNA•ps 5250 with the 2.0 or 1.1.1 gateways, it was reported that after the AS/400 was Powered down and IPLed, the sessions did not recover to a running SNA•ps gateway. There were some ugly workarounds like using SNA•ps Admin and stopping and starting the gateway like your customer is doing. That was viewed as unacceptable. We researched the problem and discovered it only happened if the Macintosh Mode "owns" all the available sessions (like 35 sessions, with 35 Contention Winners and 35 prebounds), and the AS/400 Mode "owns" none of the sessions (0 locally controlled and 0 Pre-established). This is the commonly desired SNA•ps config for SNA•ps gateway since the SNA•ps 5250 requires Contention winner sessions to operate. If the SNA•ps gateway is initially started, the APPC verbs flow to determine number of sessions (CNOS) and the sessions are all started and owned by the SNA•ps gateway. If the AS/400 goes away (like an IPL) and if it is configured to activate the Controller at IPL, connection will be made to the SNA•ps gateway BUT the AS/400 does not "own" any sessions, so it does not send any CNOS verbs. The started SNA•ps gateway will not send any CNOS verbs either because it thinks the maximum number of sessions have already been negotiated and nothing further is required. If the SNA•ps Gateway is restarted (with SNA•ps Admin) then the CNOS verbs flow and everything recovers.

In the final version of the SNA•ps 5250 Application, code was added so that

if SNA•ps 5250 tried to connect to a SNA•ps gateway with a Mode for contention winners but no active sessions, it would issue a CNOS verb to the gateway to attempt a recovery. This works just fine in the situation you are describing. Just connect SNA•ps 5250 to the gateway and the first user that connects will result in the re-negotiation of the number of sessions, and all the sessions will reappear in the SNA•ps Admin window.

Another issue was that none of our SNA•ps Token Ring gateways to my AS/400 ever exhibited this problem after we IPLed or Powered Down. What we had done is always configure one session "owned" by the AS/400 and the remainder "owned" by SNA•ps. So the modes for SNA•ps would be set to 35 maximum sessions, 34 contention winners, 34 prebounds, and for the AS/400 35 maximum sessions, 1 Locally controlled and 1 Pre-established. When the AS/400 starts up it has to send a CNOS verb to re-negotiate sessions which triggers the SNA•ps gateway to do so as well and again everything recovers just fine and SNA•ps Admin shows session numbers. The only drawback is SNA•ps 5250 cannot use the Contention Loser session (DAL or XCOM can), however it is easy to increase sessions with AS/400 parallel session modes. Copyright 1993, Apple Computer, Inc.

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