DAL for MVS/VTAM: DB2 Interface

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TOPIC --

Configuration:
- DAL 1.3 with MVS/VTAM via 3270 with SNA•ps 1.1
- Client is DAL 1.3.5, using DataPivot 1.7.2 to test with.

We were able to test DAL and the DB2 interface, and these were our
observations:

1) DB2D wouldn't shut down while the user was signed on to DAL, even
   though there was no open thread to DB2. Once DALSERVE was shut down
   or the test user logged off from DAL, the DB2 region completed
   the shutdown request.

2) DAL would shut down with the user signed on.

3) It appears that the same DALSERVE STC will access all DB2 regions.
   It may be necessary to shut down DAL in order to shut down any of
   the DB2 regions; procedures for operations will be complicated at
   best.

Questions:

1) Should we run one DALSERVE which will allow access to all DB2 regions,
   or is it possible to run multiple DALSERVEs, one for each DB2 region?

2) If we can run multiple DALSERVEs, can the user access more than one
   DALSERVE simultaneously from the Macintosh?

3) In our testing, we were unable to shut down DB2 until the DALSERVE was
   shut down or all users were logged off from DALSERVE. OMEGAMON for
   DB2 showed no open threads, and we have no reason for the delay. Can
   you provide any insight into this puzzle?

DISCUSSION ---

Responses to your observations:

1) This problem hasn't been reported previously. We will investigate it.

2) The SHUTDOWN command is designed to be immediate. There is a warning to
   this effect in Chapter 4 of the "Installation and Operation Guide."

3) We assume by "region" you mean the DB2 subsystems. Yes, DAL can access
   any subsystem on the host. Note that you must perform specific Plan
   Binds and GRANTs for each subsystem. Access to a DB2 subsystem is a
   function of the Bind and the inclusion of the DB2 DSNLOAD library in the
   server execution JCL. Subsystems not included should not be effected.
   DAL being able to access multiple subsystems doesn't automatically imply
   data access in each subsystem.

Answers to your questions:

1) It's possible to run multiple DAL servers; it's also possible to run one
   server for all subsystems. This is a customer decision. If you want
   multiple servers, see the Tech Note on "DAL VTAM Tuning" included in the
   DAL.RUN>JCL library on the server installation tape. It explains the
   steps and strategies for installing and running multiple servers.

2) In theory, if an application is intelligent enough to make multiple
   calls to DAL -- that is, the hosts.cl1 file (DAL Preferences under
   System 7) AND the resources are available (multiple LUs would be
   necessary in the case of IBM connections) -- then this should be
   possible. Each connection to a DB2 subsystem required a separate
   network connection and is an independent session. One session cannot
   access multiple DB2 subsystems (DAL's "database" converion). It's a
   more complicated scenario, both programmatically and administratively.
   We aren't familiar with DataPivot, and can't comment on its ability to
   perform.

3) As mentioned, we don't understand why this would happen if all
   threads were closed.

As a comment, performance in version 1.3.5 of the server is greatly
improved. These improvements include thread and memory handling, blocking
for APPC, and so on.
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