ABS Tech Note: DAL01 VTAM Tuning (4/93)

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TOPIC ---

The following information can be used to help you obtain the best results for the DAL server for MVS/VTAM, Version 1.3.5.

DISCUSSION ---

Calculating Storage Requirements (Region Size)

The DAL server for MVS/VTAM requires 892K of storage with no sessions connected. Each concurrent session requires a minimum of 260K when no work is being performed by the client. To calculate the region size to support the desired number of concurrent sessions for your environment, use the above figures and add twenty five percent for overhead. Example: ten concurrent sessions will require a region size (REGION= on job step) of 4365K. See below on the maximum number of sessions connected to a single server.

31-Bit Addressing and Maximum Number of Sessions

The DAL server for MVS/VTAM does not currently support 31-bit addressing. This means that the server cannot operate in a region size larger than 16M (i.e., “above the line”). Do not code a value greater than 16M on the “REGION=” parameter for the job step. Using the storage estimation procedure given above, the theoretical maximum number of sessions simultaneously connected to the server in a 16M region is 45. However, large queries will significantly reduce response time; it is better to limit the number of concurrent users to under 25, even for large region sizes. In addition, attempts to login more than several sessions simultaneously will require large amounts of memory for a short period of time; to avoid problems, it is best to ‘stagger’ the logins.

Multiple DAL server for MVS/VTAM on the Same CPU

More than one DAL server for MVS/VTAM can be run at the same time on a single CPU (given the limits of your environment). Using more than one server will allow for a greater number of concurrent sessions. If multiple servers are used, the client scripts (hosts.cl1 prior to System 7.0 and DAL Preferences under System 7.0) must reference the appropriate APPLID(s). To accomplish this, each server must have a unique VTAM APPLID assigned to it.

You will not need to perform a complete installation for each APPLID (and its associated server) as the LOADLIB, AUTOEXEC, and Environment files may be shared between multiple servers. Refer to the “Data Access Language server for MVS/VTAM Installation and Operation Guide”, as well as to the appropriate IBM publications, for more information on VTAM APPLIDs and server files. Refer to the “Data Access Language server for the Macintosh Installation and User’s Guide” for more information on the hosts.cl1 (DAL Preferences) file.

Security

The DAL server for MVS/VTAM must be an authorized task on the host system in order to implement security (password) verification. Authorization procedures are explained in the “Data Access Language for MVS/VTAM Installation and Operation Guide” as well as the appropriate IBM publications. Use of third-party programs to bypass the normal authorization procedure (i.e., reference to the load module in a SYS1.PARMLIB member) is not supported by Apple, and results may be unpredictable.

Use of DB2 Threads

The DAL server for MVS/VTAM reuses the available threads within the host DB2 subsystem. Each concurrent session requires one thread, which is released upon completion of the database transaction (e.g., SELECT, COMMIT). The number of available DB2 threads is specified during installation of the DB2 subsystem. It is important to note that the Server uses ‘BATCH’ threads, as opposed to ‘FOREGROUND’ threads; verify that the number of batch threads will be sufficient to support the maximum number of concurrent users. Refer to the appropriate IBM publications for more information.

Keywords: <None>

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