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VM DAL Server and Non-IBM TCP/IP Connection (4/93)

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TOPIC -----

I'm working on a project to hook a number of Macintosh computers to an IBM mainframe SQL/DS data base under VM using DAL over TCP/IP. The challenge is the TCP/IP package on the IBM hosts is NOT from IBM but from a company called Fibronics, K2000 KNET TCP/VM.

I have an evaluation copy of the DAL server for VM, and installed it on the host, but the network connection does not work. Installation and verification have been completed successfully at the host side. Now, any virtual machine can select data from SQL using IDAL at the host side. Should these files be copied to any service VM or KNET virtual machine? (KNET/VM is Fibronics software similar to TCP/IP VM). I have no idea if KNET has the necessary socket interface for SQL connection. Would it be necessary to copy DAL Server files to TCP/IP VM, if we would have IBM's TCP/IP software and related hardware?

Here is additional information on the environment:

Host: IBM 3081
OS: VM/SP Release 5, HPO level 50 service level 520
CMS release 5
Database: SQL/DS version 2, release 2

Host: IBM ES 9000/320
OS: VM/ESA release 1.1, service level 0102
CMS level 8, service level 101
Database: VSE/SP CICS (MRPII)

Network configuration:

2 Ethernet
2 LocalTalk (connected to Ethernet via FASTPATH)

Mainframe connection:

FIBRONIC K2000 KNET TCP/VM
K2000 controller (Ethernet-IBM) channel attached.

KNET TCP/VM 3.1 is running in KNET VM to manage TCP/IP communication and provide TELNET and FTP services to Macintosh and PC over Ethernet which

are using TELNET &FTP

Common protocol:
TCP/IP

DISCUSSION -----

In answer to your questions:

- The only TCP/IP connection supported by DAL for VM is the "IBM TCP/IP Version 2 for VM" product. (Program Number 5735-FAL) See page 2 of the VM Install Guide, "System Requirements" for required products.
- The DAL product need only be installed on a disk which is accessible to all the users. It does not need to be copied to the TCP/IP Virtual Machine.
- The VM host file would need to be updated to contain the IP addresses of Macintoshes which will be allowed to access the DAL Server via the TCP/IP connection. These addresses will be verified by the REXEC Daemon before the DAL TCP/IP connection is allowed.

Since the IBM product is a requirement for TCP/IP access to the DAL VM Server, we're afraid that you will have to purchase that product to use TCP/IP to access the server. The other 3270 connections (SNA•ps, MacMainFrame, Netway, and so on) would be supported without any additional host requirements.

By the way, there is a difference between VM/SP and VM/ESA systems as related to SQL/DS. VM/SP supports the "connect to database" feature of SQL/DS. VM/XA and VM/ESA do not.

Therefore, for DAL installations in VM/ESA sites, the access module (CL1DBI01) may need to be changed to comment out the "connect to database" commands. Whether this is required is a function of your SQL/DS environment, some sites can prep and assemble the module without having to comment out the commands.

This constraint of the VM/ESA operating system means that the DAL 'Open Database' command needs to reference a special database name that tells DAL not to attempt to issue a "connect to database" SQL command ('@sql'), rather than the actual database name.

This special database name (@sql) should be the only one listed in the Environment File in the SSID= field. Sites with VM/ESA have only a single database name available under SQL/DS, but that name cannot be listed in the Environment File or DAL will attempt to use it in a "connect to database" command, which will fail.

The format of the DAL 'Open Database' command is:

```
open database '@sql';
```

Rather than:

```
open database 'database name';
```

Which would be used in a VM/SP environment.

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