DB2 Server for VSE&VM

Connectivity Options

Agenda

- Overview
- Implementation
- Setting Up the Application Requester
- Setting Up the Application Server
- Setting Up TCP/IP Support
- Setting Up CICS Online DRDA Requester Support
- Common Errors and Remedies

Overview

- What are the DB2/VSE&VM connectivity options?
  - SNA or TCP/IP
- DB2 Server for VSE&VM as an Application Server
  - DRDA 1 Remote Unit of Work Support
    - With SNA on VM and VSE (Version 3.5.0)
    - With TCP/IP on VM (Version 6.1.0)
    - With TCP/IP on VSE (Version 7.1.0)
  - DRDA 2 Distributed Unit of Work Support
    - With SNA on VM and VSE (Version 5.1.0)
    - Not available with TCP/IP
  - Stored Procedures Support on VSE and VM (Version 6.1.0)
- DB2 Server for VSE&VM as an Application Requester
  - DRDA 1 Remote Unit of Work Support
    - With SNA on VM (Version 3.5.0 and higher)
    - With SNA on VSE for CICS Online (Version 6.1.0)
    - With TCP/IP on VM (Version 6.1.0)
    - With TCP/IP on VSE Batch and CICS Online (Version 7.1.0)

Implementation

- SNA Network Connection
  - In VM, set up AVS/VTAM Gateway
    - APPC=YES,SYNCLVL=CONFIRM or SYNCPT
  - In VSE, set up VTAM APPL and start CICS with that APPLID
    - APPC=NO
    - Must define connections, sessions, and an AXE transaction in CICS
- VM and VSE Server Setup
  - DRDA code must be enabled by doing optional post installation steps.
  - In VM, specify PROTOCOL=AUTO to enable DRDA 1
  - In VSE, specify RMTUSERS=n to enable DRDA 1
  - In VM and VSE, specify SYNCPOINT=Y to enable to DRDA 2
- VM Requester Setup
  - DRDA code must be enabled by doing optional post installation steps.
  - Update COMDIR with LU names and user id information
  - Run SQLINIT PROTOCOL(AUTO or DRDA)

VSE & VM Server Configuration for TCP/IP

- Enable Access to TCP/IP Server
- Choose a unique port number to identify the server
- Start the server
  - Specify TCPPORT=n server initialization parameter
  - In VM, update ETC SERVICES file in TCP/IP client disk
  - In VSE, update DBNAME directory

DB2/VM Server Configuration for TCP/IP

- Create ARICTCP MODULE
  - Done in VM SES/E
  - Must exist on the database production disk, usually 195 Q
- Create new CEEPIPI MODULE
  - Very important for requester side
  - See Appendix E of the DB2/VM Program Directory
- LINK and ACCESS TCP/IP client disk
- Choose a unique port number
- Update ETC SERVICES file
  - If ETC SERVICES is updated with server RESID and TCP/IP port number, then server startup can be automatic
- Start the DB2/VM server
  - Specify TCPPORT if ETC SERVICES was not updated or to override ETC SERVICES file

DB2/VSE Server Configuration for TCP/IP

- Add TCP/IP and LE/VSE Libraries to search path
  - TCP/IP product library **must** be searched ahead of the LE/VSE library
    - If TCP/IP is from Connectivity Systems, service pack SERV130L and IBM APAR PQ26600 must be applied
  - // OPTION SYSPARM='xx' should be added to the database server startup JCL. xx should match the ID=xx specified when starting the TCP/IP for VSE server. The default is 00.
- Choose a unique port number
- Update the DBNAME directory LOCAL entry with the port number
- Start the DB2/VSE server
  - Specify TCPPORT parameter if the DBNAME directory was not updated or to override the DBNAME directory
  - Specify RMTUSERS parameter

DB2/VM Requester Configuration for TCP/IP

- Create ARICTCP MODULE
- Create new CEEPIPI MODULE
- LINK and ACCESS TCP/IP client disk
- Determine target server IP address and port number
- Update COMDIR file
- Start the DB2/VM requester

Sample COMDIR Entries for TCP/IP

```
:nick.TCPVM1   :service.SQLMACGM
          :host.TORVMLB6
          :security.PGM
          :userid.USERID
          :password.PASSWORD
          :dbname.SQLMACGM

:nick.TCPVM2   :service.6100
          :host.9.21.31.109
          :security.SAME
          :userid.USERID
          :dbname.SQLMACGM

:nick.TCPVM3   :service.SQLMACGM
          :host.9.21.31.109
          :security.PGM
          :userid.USERID
          :password.PASSWORD
          :dbname.SQLMACGM

:nick.TCPVM4   :service.6100
          :host.TORVMLB6
          :security.PGM
          :userid.USERID
          :password.PASSWORD
          :dbname.SQLMACGM
```

SQLMACGM must be resolved to a port number before being used.

For userid only verification, set security to same and do not list a password. The target server must be set up to accept already verified requesters.

TORVMLB6 must be resolved to an IP address before being used.

CICS Setup for DB2/VSE Online Requester

- Define & Create CCSIDs-related Phases
- Define & Create SQLGLOB File
- Update the DBNAME Directory
- For SNA connections
  - Create CICS Definitions for Remote Connection
    - Connection Definition must match SYSID
    - Session Definition
- For TCP/IP connections
  - ARICTCP program must be defined to CICS
- Enable Online Resource Adapter for Remote Access
- Bind ISQL to remote server
- Common Communication Errors

Define & Create CCSIDs-Related Phases

- Define each CCSIDs-Related phase to CICS
  - *DEFINE PROGRAM(ARISCCSD) LANGUAGE(ASSEMBLER)*
  - *DEFINE PROGRAM(ARISSTRD) LANGUAGE(ASSEMBLER)*
  - *DEFINE PROGRAM(ARISSCRD) LANGUAGE(ASSEMBLER)*
- ARISCNVD '*userid/password/databasename*' parameter

SQLGLOB File

- VM:
  - SQLGLOB DEFAULTS (GLOBAL)
  - LASTING GLOBALV (USER)
- VSE:
  - SQLGLOB FILE (GLOBAL and USER
  - One global SQLGLOB record
  - Zero or more local SQLGLOB records

SQLGLOB Parameters

- QryBlksize specifies the block size used to return rows of data when DRDA blocking is used to perform fetches.
- CHARNAME specifies the character set name, which determines the CCSID values for CCSIDSBCS, CCSIDMIXED and CCSIDGRAPHIC to be used by the DRDA Online Resource Adapter, and determines how ISQL and the preprocessors fold characters from lowercase to uppercase.
- DBCS specifies whether DBCS character handling of SO/SI pairs is done by ISQL and the preprocessors or not.

SQLGLOB Parameters

- SYNCPOINT specifies how commits or rollbacks are to be coordinated by the CICS/VSE Syncpoint Manager.
- TRACERA specifies the parts of the DRDA Online Resource Adapter that are to be traced and the level of trace.
- TRACEDRRM specifies the parts of the DRRM component that are to be traced and the level of trace.
- TRACECONV specifies that the Data Conversion component is to be traced and the level of trace.
- COMMPROT (Version 7.1.0) specifies the communications protocol that a CICS transaction will use for DRDA if both SNA and TCP/IP information is defined for the remote database in the DBNAME directory.

SQLGLOB Defaults

- QryBlksize 8K
- CHARNAME International
- DBCS No
- SYNCPOINT 1
- TRACERA 00
- TRACEDRRM 0000
- TRACECONV 0
- COMMPROT S

SQLGLOB Valid Parameter Values

- QryBlksize 1K - 32K (multiples of 1K)
- CHARNAME In SYSTEM.SYSCCSIDS table
- DBCS No or Yes
- SYNCPOINT 1 or 2
- TRACERA 00 - 22 (0,1,2)
- TRACEDRRM 0000 - 2222 (0,1,2)
- TRACECONV 0 - 2 (0,1,2)
- COMMPROT S or T

SYNCPOINT

syncpoint 1	*syncpoint 2*
one-phase commit	two-phase commit
no syncpoint manager	syncpoint manager to coordinate two phase commits
unprotected conversation	protected conversation

Initializing SQLGLOB File

- **Define** and Initialize the SQLGLOB File
  - ARIS618D IBM-supplied job control program to define the (Batch) SQLGLOB VSAM file. This job must be run when you are preparing to install DB2 Server for VSE 6.1.
  - FCT Definition (Online)
  - ARISGDEF IBM-supplied job control program to initialize the SQLGLOB file with the IBM-supplied global SQLGLOB default values. This job must be run right after you have defined the SQLGLOB VSAM file in ARIS618D.

Updating the SQLGLOB Parameters

- DSQG CICS/VSE transaction which updates a subset of the global SQLGLOB parameters. This must be defined as a secured transaction, so that it cannot be initiated by any user on the CICS system.
- DSQU CICS/VSE transaction which updates the local SQLGLOB parameters for the CICS signed-on user ID.
- DSQD CICS/VSE transaction which deletes a CICS signed-on user ID's SQLGLOB record.
- DSQQ CICS/VSE transaction which displays the global or local SQLGLOB parameters.
- In version 7.1.0, a batch job, ARISBGUD.Z, is also available to update and query the SQLGLOB file.

DBNAME Directory (New Fields)

- SYSID Character field of up to 4 characters. (A-Z, 0-9, $, @, #) This field is **mandatory** for remote servers. This field specifies the remote system to which an APPC session is to be allocated. The name identifies an entry (defined as an APPC **connection)** in the CICS terminal control table.
- REMTPN Alphanumeric or Hexadecimal field of up to 32 bytes that is used ONLY in a DRDA connection. This field is **mandatory** for remote servers. This field specifies the name of the remote application. That is, the name of the **transaction program** that is to be run on the remote host.

DBNAME Directory

Description	Column Number (Version 5.1.0 and 3.5.0)	Column Number (Version 6.1.0)
Comment	1 - 1	1 - 1
TPN	2 - 5	2 - 5
APPLID	10 - 17	7 - 14
SYSDEFAULT	21 - 21	16 - 16
DBNAME	22 - 39	17 - 34
PDEFAULT	44 - 45	36 - 37
PRIVILEGE	50 - 50	39 - 39
SYSID		41 - 44
REMTPN		46 - 77

DBNAME Directory for Version 7.1.0

- DBNAME directory changed from 80 column fixed record to assembler macros.
  - Easier to understand for the user.
  - Easier to update and build.
  - Easier for DB2/VSE to change without forcing customer to manual changes.
- VSE REXX EXEC provided to define the directory entries.
- Added database alias feature
- Added TCP/IP connection information
- VSE REXX EXEC provide to migrate your existing DBNAME directory to the new format.

DBNAME Directory for Version 7.1.0

- Directory entries are defined by TYPE
- Each TYPE must have a database name and a database alias defined.
- Other parameters are specific to the TYPE.
- TYPE=LOCAL defines a local DB2/VSE server.
  - Must contain DBNAME and ALIAS entries.
  - Must contain APPLID entry which will be used by the DB2/VSE server.
  - May contain TCPPORT entry to define which port the DB2/VSE server will use to listen for incoming TCP/IP connections.
  - May contain SYSDEF entry to define a system default.
  - May contain PARTDEF entry to define a partition default.

DBNAME Directory for Version 7.1.0

- TYPE=REMOTE defines a remote database server.
  - Must contain DBNAME and ALIAS entries.
  - May contain TCPPORT entry to define which port the target database server is listening on for incoming TCP/IP connections.
  - May contain IPADDR entry to define the IP address of the target database server.
  - May contain TCPHOST entry to define the host name of the target database server.
  - May contain SYSID entry to define CICS connections definition to use.
  - May contain REMTPN entry to define remote transaction program name.
  - May contain SYSDEF entry to define a system default.
  - May contain PARTDEF entry to define a partition default.

DBNAME Directory for Version 7.1.0

- TYPE=LOCALAXE defines the information used by the AXE transaction for DRDA requesters accessing a DB2/VSE server via SNA.
  - Must contain DBNAME and ALIAS entries.
  - Must contain TPN entry that corresponds to the CICS transaction that runs the ARICAXED program.
  - Must contain APPLID entry that corresponds to the DB2/VSE server.
  - May contain PRIV entry to identify a privileged connection.
- TYPE=HOSTVM defines a VM guest sharing connection.
  - Must contain DBNAME and ALIAS entries.
  - Must contain RESID entry that corresponds to the RESID of the DB2/VM server.
  - May contain SYSDEF entry to define a system default.
  - May contain PARTDEF entry to define a partition default.

DBNAME Directory for Version 7.1.0 Example

```
TYPE=LOCAL
DBNAME=VSEDB1
ALIAS=VSEDB1
APPLID=SYSARI00
TCPPORT=8000
SYSDEF=Y
```

DBNAME Directory for Version 7.1.0 Example

```
TYPE=REMOTE
DBNAME=DB2MVS
ALIAS=DB2MVS_SNA
SYSID=MVSC
REMTPM=07F6C4C2
SYSDEF=N
*
TYPE=REMOTE
DBNAME=SAMPLE
ALIAS=DB2NT_TCP
TCPPORT=50000
IPADDR=9.9.9.9
SYSDEF=N
```

DBNAME Directory for Version 7.1.0 Example

```
TYPE=LOCALAXE
DBNAME=VSEDB1
APPLID=SYSARI00
TPN=AXE1
*
TYPE=HOSTVM
DBNAME=SQLDS
ALIAS=GUEST
RESID=SQLDS
```

DBNAME DIRECTORY

- **INSTALLATION** and **MIGRATION**
- **UPDATE CURRENT DBNAME DIRECTORY**
- **DO NOT FORGET!!!**

Enable Online Resource Adapter for Remote Access

- Install DRDA code
  - ARIS615D IBM-supplied job control program to install the DRDA Online Resource Adapter code, ARI0OLRM & ARI0RTRM. This support is activated the next time CICS is recycled.
- Generate CCSIDs-related phases
  - ARISCNVD IBM-supplied job control program to generate the following CCSIDs-related phases, ARISCCSD, ARISSCRD, ARISSTRD.
- Specify SYSID and REMTPN in DBNAME Directory for SNA connections
- Specify TCPPORT and IPADDR in DBNAME Directory for TCP/IP connections (Version 7.1.0)
- CIRB ,,,,,*SAMPLE* or CIRA ,,,*SAMPLE*

```
ARI0467I RMCV for remote server SAMPLE established.
RMCV at 0070F388.
```

CIRR and CIRT

- QUICK mode is NOT supported for a remote server
- ***CIRR ,QUICK,SAMPLE***
  - ARI0468I DISABLE changed from QUICK to NORMAL for remote server SAMPLE.

Binding Packages to Remoter Server

- Since there is no DRDA Batch Requester, how do you PREP your application on the remote server?
- New option on the VSE Preps **BIND**
  - Run the prep in batch with the new **BIND** option
  - A bind file is created without connecting to any database
- New CICS transaction, **CBND**, reads the bind file and performs the prep, creating the package on the remote server
- To use ISQL against a remote server, the ISQL package must be bound on the remote server.
  - Create the ISQL bind file
    - ARISIQBD is an IBM-supplied job control program to store the 80-byte ISQL bind file in the "DB2.BIND.MASTER" file.
  - CBND the ISQL bind file to the remote server

Common Problems

- Application Server problems
- Application Requester problems

Application Server Problems

- When starting the application server, the following error is received

```
DMSSTT002E File TCPIP DATA * not found
```

- The TCP/IP client disk is not accessed. Typically this is the TCPMAINT 592 disk.
  - The TCPIP DATA file resides on the TCP/IP client disk
- If the name of the TCP/IP service machine is TCPIP, processing may continue, but other errors will occur later.

Application Server Problems

- When starting the application server, the following error is received

```
ARI4103I TCP/IP service BIND failed. Return code =
48
ARI4102I Unable to initialize TCP/IP service.
```

- Return code 48 for BIND is EADDRINUSE, address already in use.
- BIND is performed to prepare the newly acquired socket before issuing the LISTEN command, so that it can accept connect requests.
- There are a couple of reasons this error could occur.
  - The port number is already in use by another server on the system.
  - The port number was not cleaned up properly after a previous problem.

Application Server Problems

- When starting the application server, the following error is received

```
ARI4103I TCP/IP service GETSERVBYNAME failed. Return
code = 67
ARI4102I Unable to initialize TCP/IP service.
```

- Return code 67 is EPROCLIM, too many processes.
- GETSERVBYNAME is the first TCP/IP function we attempt if we are trying to initialize by using the ETC SERVICES file to determine the port number. This means we are starting 1 process and there is only 1 process so far. If 1 process is too many, then TCP/IP support is not available. Up to now we have only established a C run time environment, but no TCP/IP environment.
- The first thing to check is that the TCP/IP client disk is accessed. Typically this is the TCPMAINT 592 disk. Without the TCP/IP client disk, no TCP/IP functions are supported.

Application Server Problems

- When starting the application server, the following error is received

```
ARI4103I TCP/IP service GETHOSTBYADDR failed. Return
code = 67
ARI4102I Unable to initialize TCP/IP service.
```

- Return code 67 is EPROCLIM, too many processes.
- GETHOSTBYADDR is the first TCP/IP function we attempt if we are trying to initialize by using the TCPPORT initialization parameter to specify the port number. This means we are starting 1 process and there is only 1 process so far. If 1 process is too many, then TCP/IP support is not available. Up to now we have only established a C run time environment, but no TCP/IP environment.
- The first thing to check is that the TCP/IP client disk is accessed. Typically this is the TCPMAINT 592 disk. Without the TCP/IP client disk, no TCP/IP functions are supported.

Application Requester Problems

- Application requester errors are reported in the SQLCA.
- For TCP/IP errors, the SQLERRD1 will contain the TCP/IP function error code.
- The SQLERRM will contain the name of the TCP/IP function that failed.
- The SQLERRM may contain other tokens that relate to the function being performed.
- The SQLERRP field contains the name of the module reporting the error.
- Since TCP/IP errors can occur for many different SQLCODES, it is important that all of the SQLCA fields are obtained.

Application Requester Problems

- The following SQLCA is received on the first SQL statement

```
SQLCODE: -934
SQLERRM: TORVMLB6"GETHOSTBYNAME
SQLERRP: ARIRCONC
SQLERRD(1): 67  SQLERRD(2):  2 SQLERRD(3):  0
SQLERRD(4):  0  SQLERRD(5):  0 SQLERRD(6):  0
SQLWARN0: S SQLWARN1:   SQLWARN2:   SQLWARN3:
SQLWARN4:   SQLWARN5:   SQLWARN6: S SQLWARN7:
SQLWARN8:   SQLWARN9:   SQLWARNA:
SQLSTATE: 58021
```

- SQLERRD1 is EPROCLIM, too many processes.
- GETHOSTBYNAME is the first TCP/IP function we attempt if we must resolve a host name in the COMDIR to an IP address.
- The first thing to check is that the TCP/IP client disk is accessed. Typically this is the TCPMAINT 592 disk. Without the TCP/IP client disk, no TCP/IP functions are supported.

Application Requester Problems

- The following SQLCA is received on the first SQL statement

```
SQLCODE: -934
SQLERRM: TORVMLGM"GETHOSTBYNAME
SQLERRP: ARIRCONC
SQLERRD(1):  2  SQLERRD(2):  2 SQLERRD(3):  0
SQLERRD(4):  0  SQLERRD(5):  0 SQLERRD(6):  0
SQLWARN0: S SQLWARN1:   SQLWARN2:   SQLWARN3:
SQLWARN4:   SQLWARN5:   SQLWARN6: S SQLWARN7:
SQLWARN8:   SQLWARN9:   SQLWARNA:
SQLSTATE: 58021
```

- SQLERRD1 is ENOENT, no such entity.
- GETHOSTBYNAME is trying to resolve the host name 'TORVMLGM' to an IP address but it is not found.
- The host identified in the SQLERRM field is unknown.
  - Usually this is a typing mistake in the COMDIR or the wrong COMDIR entry is being used.

Application Requester Problems

- The following SQLCA is received on the first SQL statement

```
SQLCODE: -934
SQLERRM: SQLMACGM         "GETSERVBYNAME
SQLERRP: ARIRCONC
SQLERRD(1): 67  SQLERRD(2):  4 SQLERRD(3):  0
SQLERRD(4):  0  SQLERRD(5):  0 SQLERRD(6):  0
SQLWARN0: S SQLWARN1:   SQLWARN2:   SQLWARN3:
SQLWARN4:   SQLWARN5:   SQLWARN6: S SQLWARN7:
SQLWARN8:   SQLWARN9:   SQLWARNA:
SQLSTATE: 58021
```

- SQLERRD1 is EPROCLIM, too many processes.
- GETSERVBYNAME is the first TCP/IP function we attempt if we must resolve a service name in the COMDIR to a port number.
- The first thing to check is that the TCP/IP client disk is accessed. Typically this is the TCPMAINT 592 disk. Without the TCP/IP client disk, no TCP/IP functions are supported.

Application Requester Problems

- The following SQLCA is received on the first SQL statement

```
SQLCODE: -934
SQLERRM: SQLMACH          "GETSERVBYNAME
SQLERRP: ARIRCONC
SQLERRD(1):  2  SQLERRD(2):  4 SQLERRD(3):  0
SQLERRD(4):  0  SQLERRD(5):  0 SQLERRD(6):  0
SQLWARN0: S SQLWARN1:   SQLWARN2:   SQLWARN3:
SQLWARN4:   SQLWARN5:   SQLWARN6: S SQLWARN7:
SQLWARN8:   SQLWARN9:   SQLWARNA:
SQLSTATE: 58021
```

- SQLERRD1 is ENOENT, no such entity.
- GETSERVBYNAME is called to search the ETC SERVICES file for the service, SQLMACH, and it was not found.
- This could be a problem with the COMDIR.
  - The COMDIR may be set up incorrectly or the wrong COMDIR is loaded.
- This could be a problem with the ETC SERVICES file.
  - The update to the ETC SERVICES file was incorrect
  - An invalid ETC SERVICES file may exist on a local disk.

Application Requester Problems

- The following SQLCA is received on the first SQL statement

```
SQLCODE: -933
SQLERRM: SQLMACGM          "002"TCP/IP"
"--------"-"--"----"--"--------
SQLERRP: ARIRCONC
SQLERRD(1): 61  SQLERRD(2):  0 SQLERRD(3):  0
SQLERRD(4):  0  SQLERRD(5):  0 SQLERRD(6):  0
SQLWARN0: S SQLWARN1:   SQLWARN2:   SQLWARN3:
SQLWARN4:   SQLWARN5:   SQLWARN6: S SQLWARN7:
SQLWARN8:   SQLWARN9:   SQLWARNA:
SQLSTATE: 40003
```

- SQLERRD1 is ECONNREFUSED, connection refused.
- The request code, 002, is a TCP/IP CONNECT request
- The target application server is not listening for TCP/IP connections
- The application server may be down or it may not be set up to accept TCP/IP connections.

Application Requester Problems

- The following SQLCA is received on the first SQL statement

```
SQLCODE: -933
SQLERRM: SQLMACGM          "005"TCP/IP"
"--------"-"--"----"--"--------
SQLERRP: ARIRSNDC
SQLERRD(1): 54  SQLERRD(2):  0 SQLERRD(3):  0
SQLERRD(4):  0  SQLERRD(5):  0 SQLERRD(6):  0
SQLWARN0: S SQLWARN1:   SQLWARN2:   SQLWARN3:
SQLWARN4:   SQLWARN5:   SQLWARN6: S SQLWARN7:
SQLWARN8:   SQLWARN9:   SQLWARNA:
SQLSTATE: 40003
```

- SQLERRD1 is ECONNRESET, connection reset by peer.
- The request code, 005, is a TCP/IP RECEIVE request
- The application requester was waiting to receive data when the TCP/IP connection was severed.
- The server may have gone down or there was a network problem.

Common Communication Errors

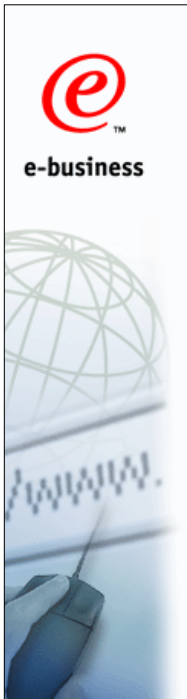
- SQLCODE -30080
- RETCODE
- CDBERRCD

Communication Error Example (RETCODE)

- X'010800000000'
  - Cause: Session is not acquired.
  - Action: CEMT SET CONN(xxxx) INS ACQ
- X'010C00000000'
  - Cause: SYSID column does not match any connection defined to CICS.
  - Action: CEDA DEFINE CONNECTION

Communication Error Example (CDBERRCD)

- X'080F6051'
  - Cause: CICS logon user ID failed to pass the remote system's security check
  - Action: Grant CICS logon user ID access authority to remote system.
- X'084C0000'
  - Cause: REMTPN specified in DBNAME Directory is defined as a TPN on the target system, but the database manager configuration file is not updated with the TPN.
  - Action: Update the DBM CFG file with the TPN.
- X'10086021'
  - Cause: Remote AS is not up.
  - Action: Start the remote AS.



Communication Error Example (CDBERRCD)

- X'A0000100'
  - Cause: Conversation has been prematurely terminated. Possible reasons are:
    - Conversation Security Support is OFF, on the target system.
    - REMTPN specified in the DBNAME Directory is not defined as a TPN on the target system.
  - Action:
    - Set Conversation Security Support On, on the target system.
    - Define the REMTPN as a transaction program on the Communications Server of the remote system.

DRDA Transactions

- Must be started by a signed-on CICS user. DRDA does not support conversation security NONE.
- No support for user cancel exit.
- CONNECT *userid* IDENTIFIED BY *useridpw*

Hints and Tips

- Binding DB2 UDB (Windows NT, OS/2, AIX) Utilities
  - GRANT SELECT ON *table* TO NULLID WITH GRANT OPTION
    - system.syscatalog
    - system.syscolumns
    - system.sysindexes
    - system.systabauth
    - system.syskeycols
    - system.syssynonyms
    - system.syskeys
    - system.syscolauth

Where to find more information

- DB2/VSE&VM Version 6.1.0 Skills Transfer Presentations
  - http://www.software.ibm.com/data/db2/vse-vm/t3.htm
- Connectivity Supplement
  - http://www.software.ibm.com/data/db2/udb/library.html
    - Part of the DB2 Product and Service Technical Library under Connectivity and DB2 Connect
    - DB2 Server for VSE&VM books are also here in Acrobat Reader format