

Recent Enhancements in DB2 Server for VSE & VM and Beyond

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Topics

Section 1- Recent Enhancements to DB2 Server for VSE and VM

Section 2 - Enhancements under development for DB2 Server on VSE and VM

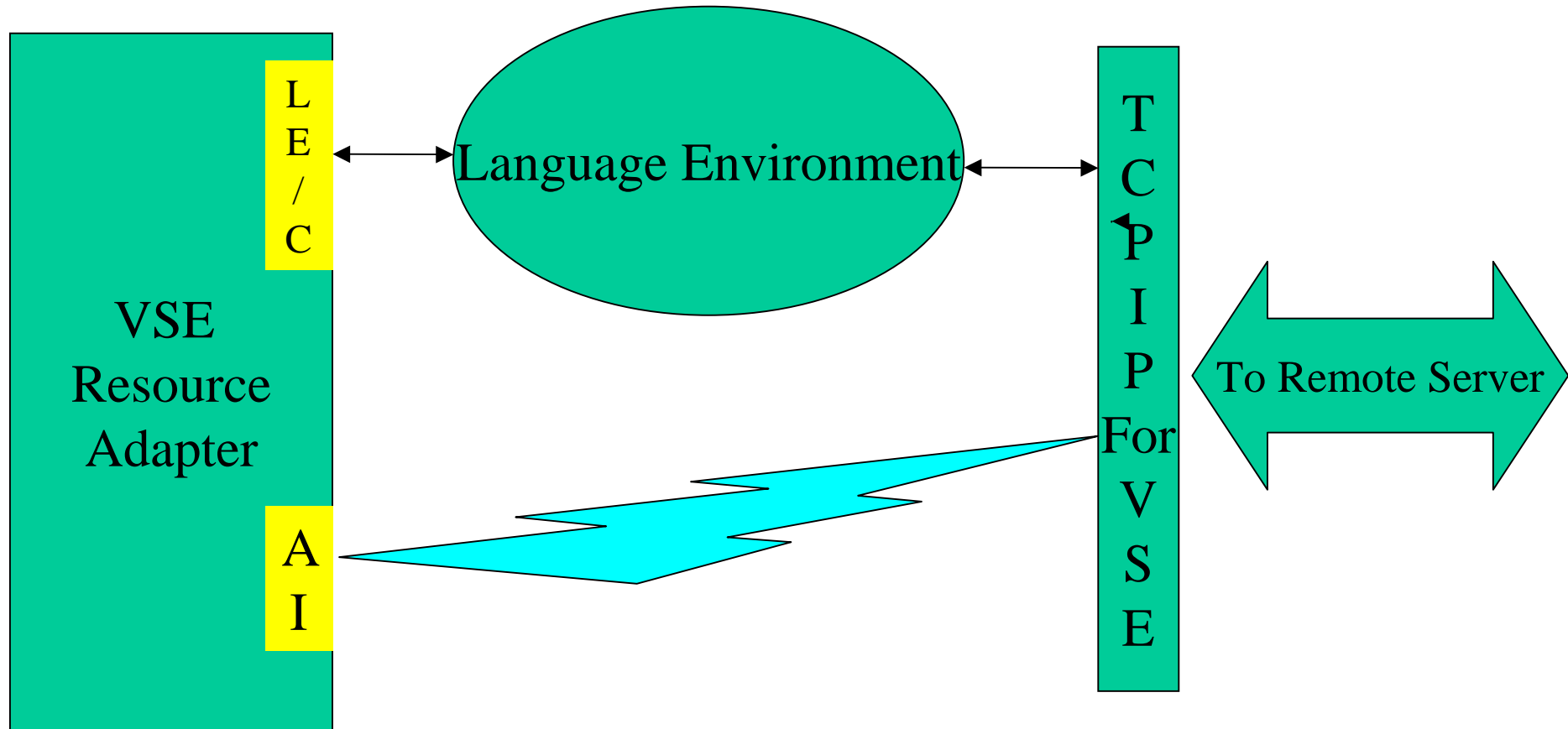
Section 3 - Future Plan for DB2 Server for VSE and VM

Section 1- Recent Enhancements to DB2 Server for VSE and VM

- DRDA Communication Performance Enhancements
- Multirow Insert Feature
- Connection Pooling Feature

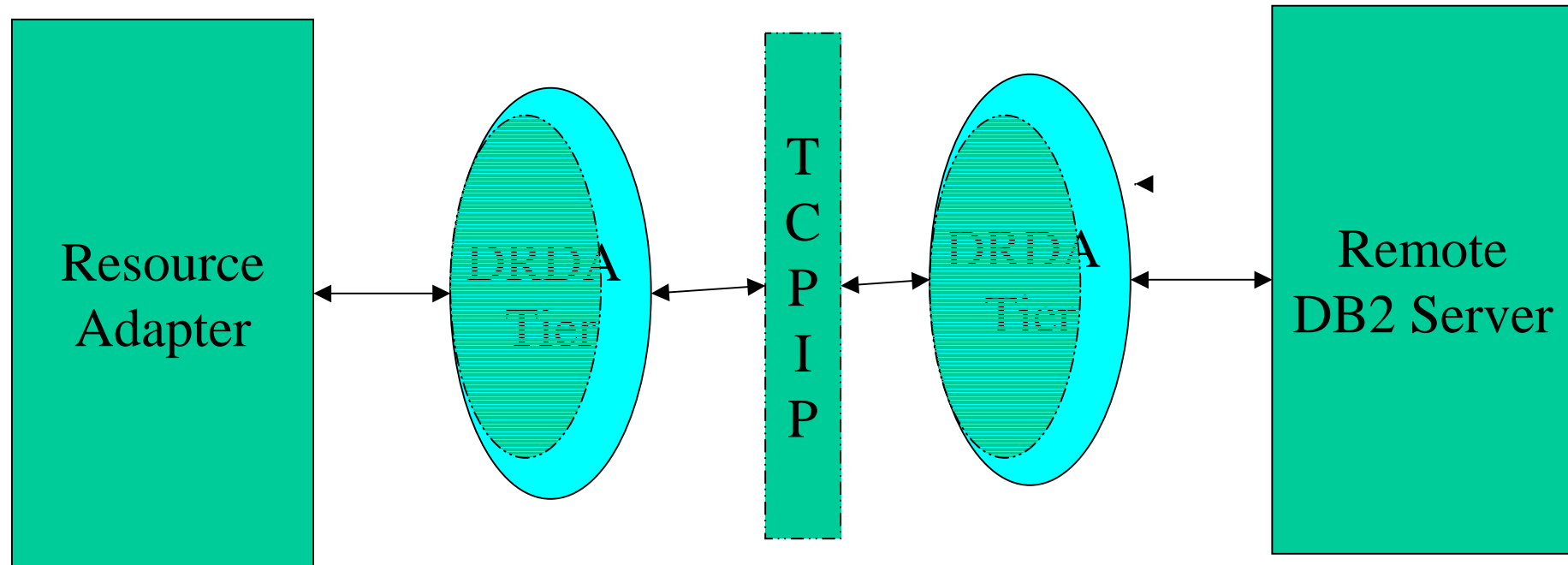
DRDA Communication Performance Enhancements

Enhanced communication via TCPIP CSI Assembler Interface



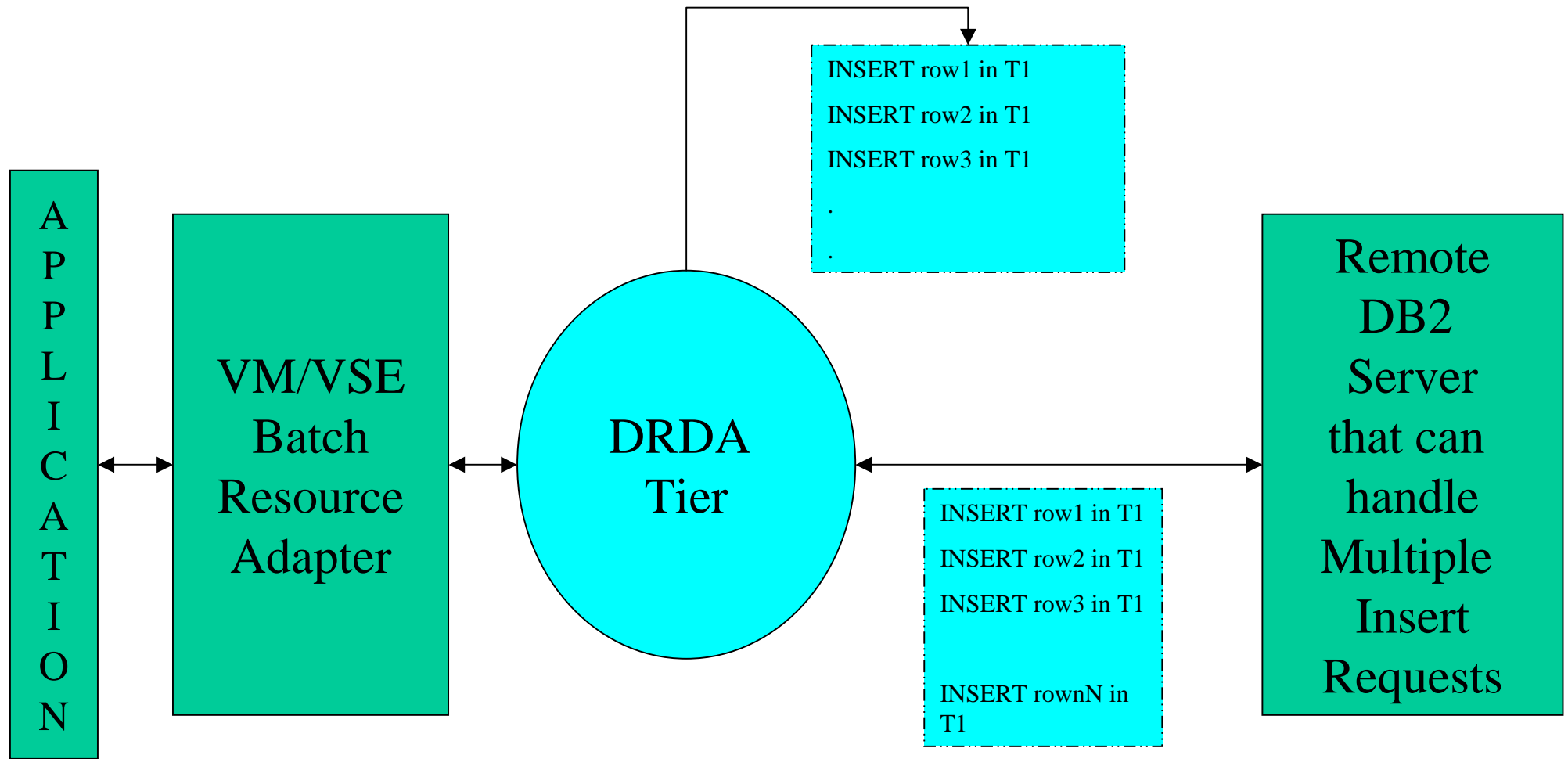
DRDA Communication Performance Enhancements (contd..)

Code Path Length Reduction



- Tests under controlled environments showed 10 % performance improvement

Multirow Insert or Buffered Insert over DRDA



Multirow Insert or Buffered Insert over DRDA

Benefits of this feature:



- DBSU DATALOAD performance improved **10 times !!**
- Similar Performance for Batch Applications with Homogenous INSERTs
- PUT calls like INSERTs calls also can reap the benefit of this feature

Multirow Insert or Buffered Insert over DRDA

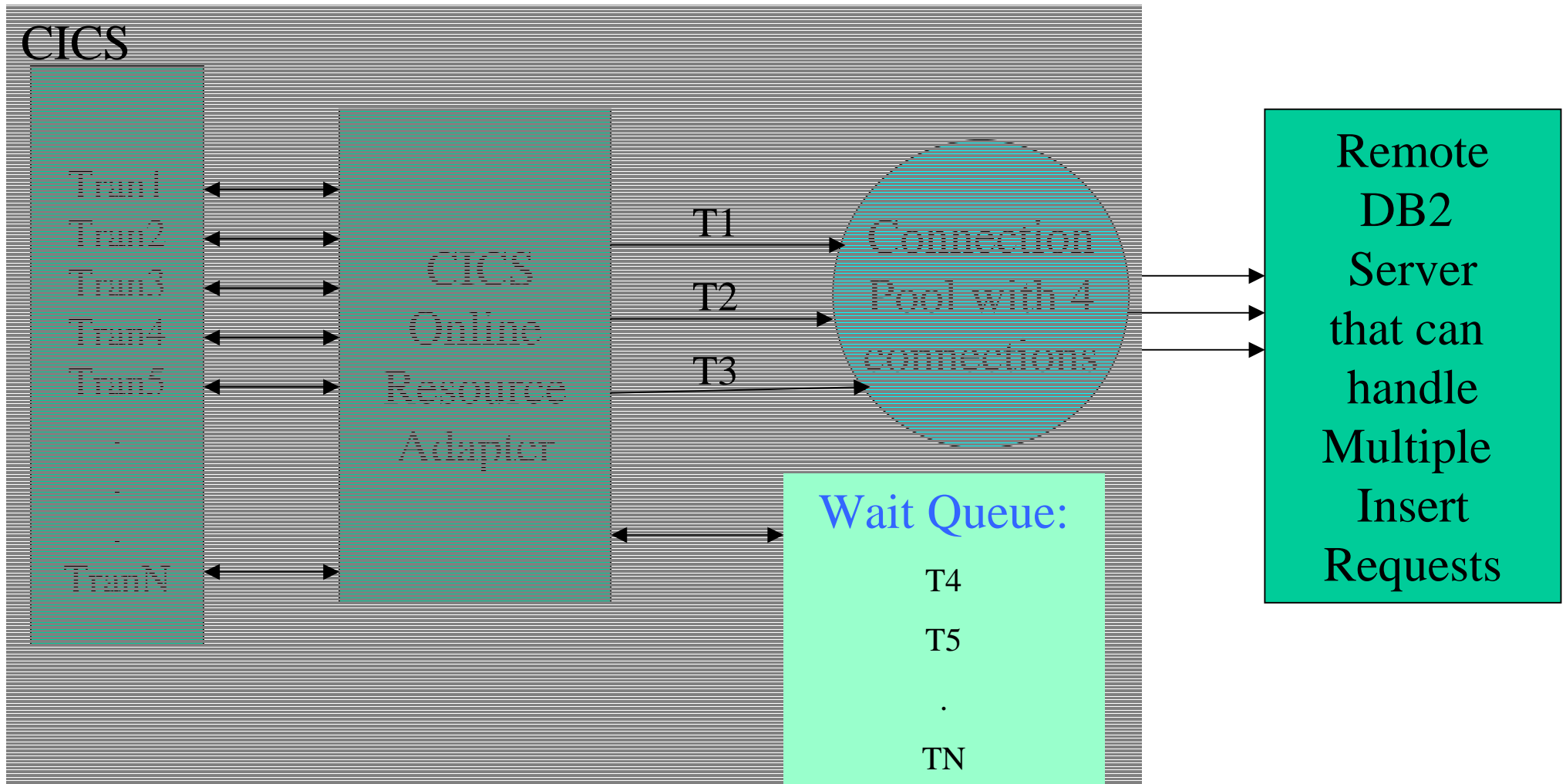
Limitations and Considerations:

- Heterogeneous INSERTs or non-INSERT SQLs between homogeneous INSERTs cannot benefit from this feature.
- Not enabled for Online applications where user intervention is high
- Number of INSERTs or PUTs that can be buffered is limited to a maximum limit of 32K. But this is a lot

Recommendations:

Good option for high speed mass data movement

Connection Pooling for Online users over DRDA via TCP/IP



Connection Pooling for Online Users

Benefits of this feature:



- Subsecond response time for User transactions, if a connection is free to be allocated
- UserID switching is no more slow and happens in a blitz
- Large VSE Online applications with database accessing routines which perform CONNECT on every entry are the most benefitted

Connection Pooling for Online Users

Limitations and Considerations:

- Users have to wait if all connections in the pool are exhausted
- Transactions communication across different CICS regions have seen problems sharing the allocated connection. This will be ironed out by the development soon.
- DB2_SERVER_CONTIMEOUT at the server should be set to maximum to avoid lost connections in the pool.

Recommendations:

Good option for Online users that connect to a remote database with a high number of users but limited resources for creating those many connections

Section 2 - Enhancements under development for DB2 on VSE and VM

- ⌘ DB2 Client Edition on VSE and VM
- ⌘ Improved Checkpoint Performance
- ⌘ Application Message Formatter
- ⌘ Bind File support for Batch VSE and VM
- ⌘ Use EZASMI TCP/IP Interface
- ⌘ More DRDA Performance Enhancements
- ⌘ Making Online Resource Adapter run above the line

DB2 Client Edition on VSE and VM



Business value for this feature:

- Reduce Total Cost of Ownership for Customers by help keep their investments on Applications
- Reduce cost on license charges if customers want to use only the client portion of the DB2 on VSE and VM product.
- Reduced code size means less storage and less maintenance costs
- Some of the key features under development focus on flexibility and enhanced performance for the Client which is planned to come along with the new Client Edition.

Improved Checkpoint Performance

Business value for this feature:



- High speed Archiving/Checkpoint performance by leveraging modern I/O capabilities on z.

Application Message Formatter

Business value for this feature:

- Flexibility and enhanced error message display method to the user to get the symptom description of an SQL error.

Bind file Support for VM/VSE Batch



Business value for this feature:

- More standardized and robust way of application update and maintenance

EZASMI TCP/IP Interface

Business value for this feature:

- Upgrade to more robust interface, which would help add more communication capabilities to the product in the future

More DRDA Performance Enhancements



Business value for this feature:

- Faster turn around time, through
 - better buffering logic for Resource adapter runtime data
 - Enhanced DRDA message parsing logic that reduce CPU through better process elimination techniques
 - Increasing resident properties of frequently accessed routines
- Reduction of Communication wait time at the server by reducing client processing time and faster turn around time to submit subsequent request to the server.

Bind file Support for VM/VSE Batch



Business value for this feature:

- More standardized and robust way of application update and maintenance

EZASMI TCP/IP Interface

Business value for this feature:

- Upgrade to more robust interface, which would help add more communication capabilities to the product in the future

Make Online RA Phases run above the line

Business value for this feature:



- More space available for 24-bit applications

Section 3 - Future Plan for DB2 Server for VSE and VM

- More SQL Capabilities
- Preprocessor Enhancements
- Size of the Database > 64GB
- Diagnostic and Data Movement Tools
- Enhanced Customer Support



Q & A

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Thank You.

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