



VEGA ODBC DRIVER



VEGA50FT



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Database support

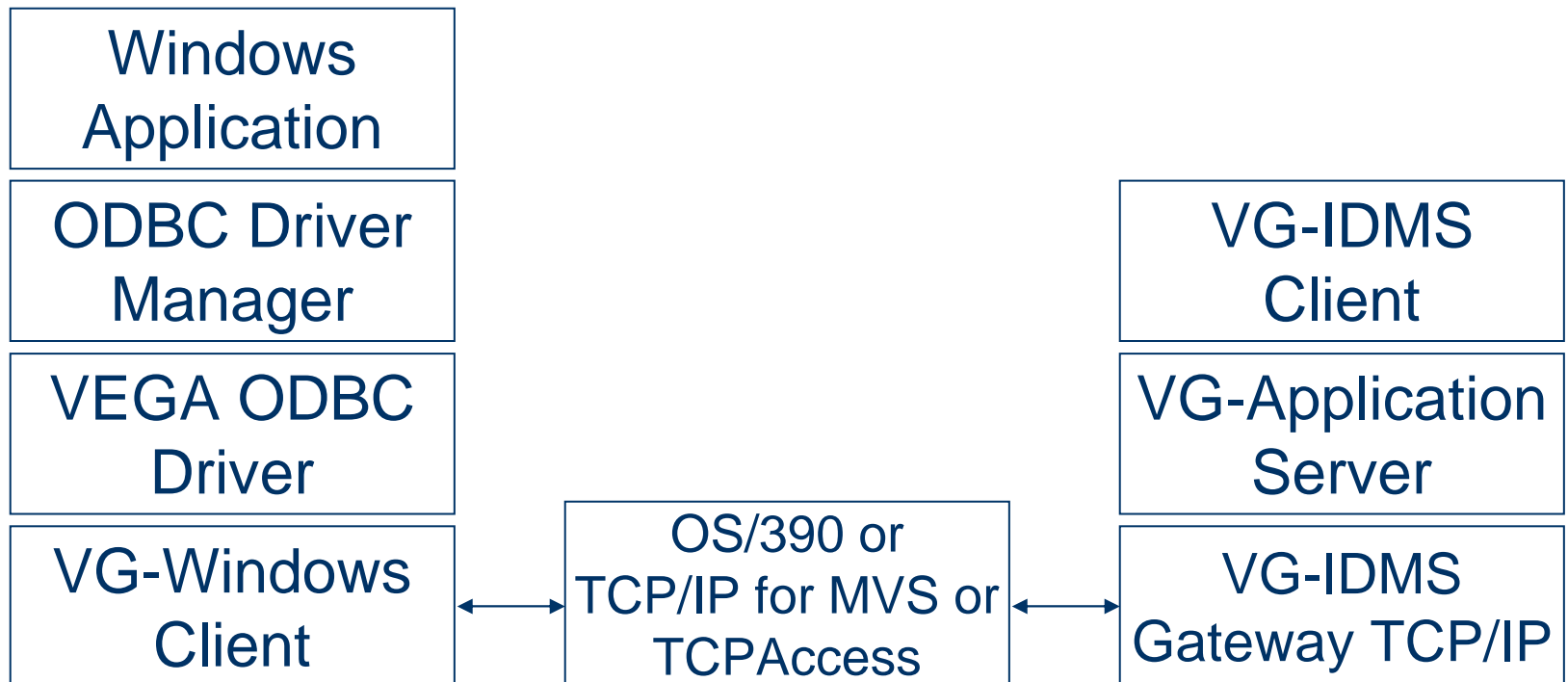
- ◆ CA-IDMS/SQL
 - including table procedures
- ◆ CA-IDMS/DML
 - via stored procedures
- ◆ DB2
 - via VEGA DB2 interface for CA-IDMS

Prerequisites

- ◆ Windows 9x/2000/NT 4.0
- ◆ To access CA-IDMS
 - VG-Windows Client
 - VG-IDMS Gateway TCP/IP Option
- ◆ To access DB2
 - VG-IDMS/DB2 Server
 - access DB2 directly from CA-IDMS using DB2 Call Attachment Facility (CAF)

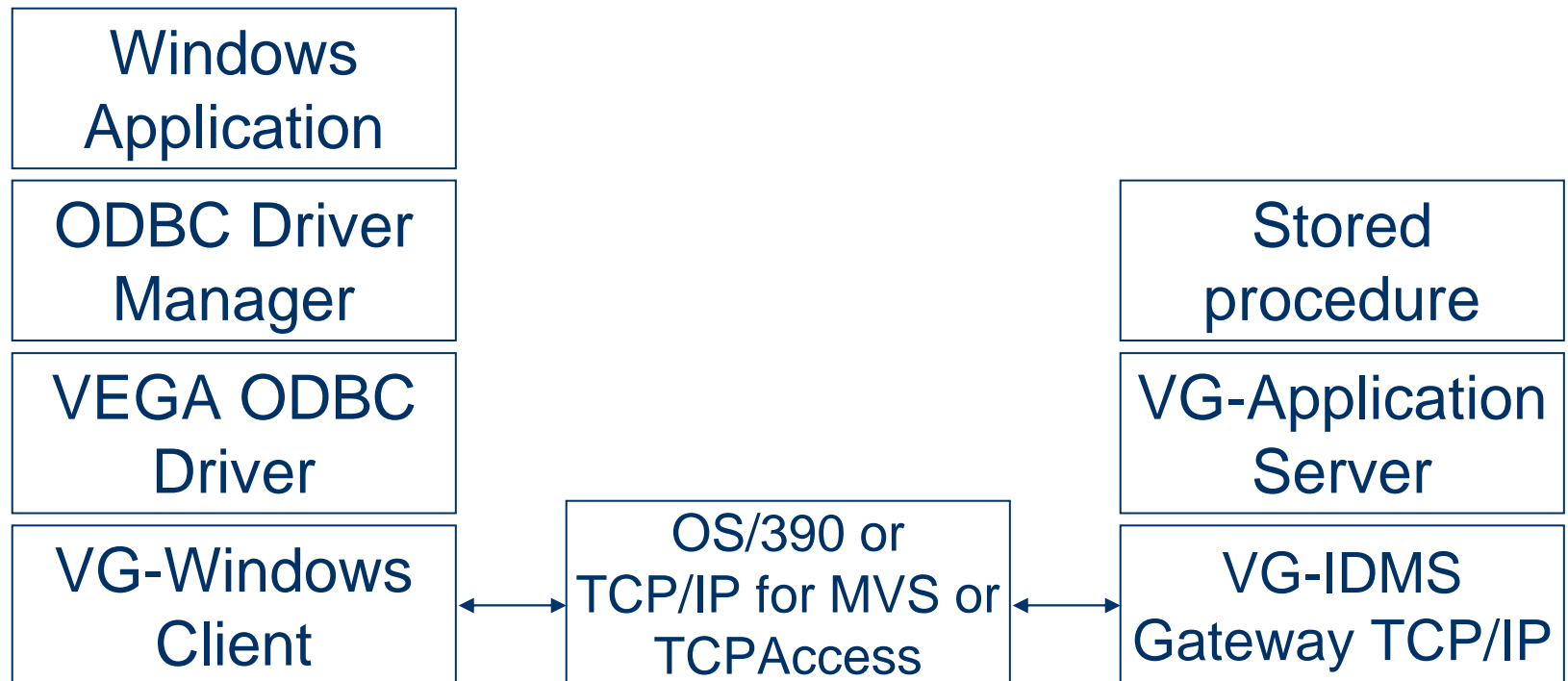
Architecture

- Access CA-IDMS/SQL and/or DB2



Architecture

- Access CA-IDMS using stored procedures



Driver features

- ◆ ODBC 3.0 compatible
- ◆ Level 2 API
- ◆ Minimum+ SQL grammar
- ◆ CA-IDMS extensions supported
 - e.g. ...where FIRST set-name ...
- ◆ Thread-safe
- ◆ Supports Stored Procedures

Driver features

- ◆ Qualified table names
 - e.g. `select * from demompl.employee`
- ◆ Positioned update/delete
 - e. g. `delete from demoempl.employee where current of c1`
- ◆ Syntax checking
 - local parser verifies SQL grammar
 - final syntax checking in the target system
- ◆ SQL pass-through (optional)
 - SQL statement sent as is to the target system
 - no local syntax checking

Driver features

- ◆ Internal bulk fetch enabled
 - if there is no 'for update of' clause in select
 - in all catalog functions
- ◆ Catalog functions implemented as stored procedures
- ◆ Supported scalar functions, if SQL pass-through is not enabled
 - length, ceiling, character_length, concat, curdate, current_date, current_time, current_time stamp, curtime, dayofmonth, extract, floor, hour, left, right, rtrim, minute, now, second, substring, year



Driver features

◆ Restrictions

- interval types not supported
- outer joins not supported
 - if SQL pass-through is enabled, outer joins can be used

Setup dialog

VEGA ODBC Driver Setup [X]

Data Source

VEGA Server

Server IP Address

Server Port

User

Password

New Password

Reenter New Password

Default Table Owner

Enable driver trace

Convert table names to uppercase

Enable Sql pass-through

OK Cancel Help Test Connection



Setup

- ◆ Data Source is the only required field
- ◆ Optional fields override VG-Windows Client defaults
 - there is no default for new password
- ◆ Signon and password change are supported in CA-IDMS R12 and later
- ◆ All attributes can be set in SQLDriverConnect



Stored procedures



- ◆ A stored procedure is
 - a DC-COBOL program
- ◆ Stored procedures can
 - use any CA-IDMS service except Mapping
 - also use external services
 - DB2
 - MQSeries
 - TCP/IP

Stored procedures

- ◆ How to call
 - ODBC short-hand syntax
 - { call proc [(p1[, p2][, ...])] }
 - VEGA extension syntax
 - call proc [(p1[, p2][, ...])]
- ◆ Restrictions
 - return values not supported
 - output parameters are part of result set



Stored procedures

- ◆ Terminal emulation available
 - to make life easier, because non-terminal tasks are difficult to test
 - emulates the ODBC driver functionality

Procedure structure

- ◆ Always 3 call parameters
 - output scratch name
 - permanent work area
 - input from the driver
- ◆ Required functions
 - response to 'PROCINFO'
 - describe result set and input parameters
 - response to 'EXECUTE'
 - process request and return data

Data description

- ◆ Stored procedure sends description of the result set and optional input parameters to ODBC driver
 - Example:

Col1	Col2	Col3	P1	P2
data to ODBC	data to ODBC	data to ODBC	data from ODBC	data from ODBC

Procedure output

- ◆ Procedure writes all output to a scratch area
 - at least one record
 - contains sqlca
 - optional data records
 - eod record (sqlcode=100)
- ◆ After goback
 - VG-Application Server sends the data to VG-Windows Client



Where to use

- ◆ In mission-critical applications
- ◆ If CA-IDMS SQL Option not available
 - VEGA supports CA-IDMS 10.2x and later
- ◆ To access multiple database systems
 - CA-IDMS
 - DB2
- ◆ To reuse existing business logic in stored procedures