



# CONNX DB ADAPTER FOR IBM® VSAM™

## UNLOCK ENTERPRISE DATA WHEREVER IT RESIDES

The CONNX for VSAM module provides secure, real-time and read/write access to VSAM™ data sources on MVS™, z-OS® and z/VSE®. In conjunction with other modules, it enables you to perform seamless joins between VSAM and most other databases.

### Support for VSAM/CICS® on OS/390®/z/OS

CONNX for VSAM offers real-time access to VSAM/CICS files on an OS/390 or z/OS mainframe server running TCP/IP. It runs as a CICS transaction, ensuring interoperability with existing CICS applications and is able to import metadata directly from COBOL FD copybooks, which describe the VSAM file layouts.

### OS/390 / z/OS started task support for VSAM, QSAM and PDS files

The started task/batch job version of CONNX for VSAM/QSAM/PDS provides read/write access to VSAM files and read-only access to QSAM and PDS files. In conjunction with CONNX for CICS/VSAM, this version provides real-time access to VSAM files during CICS region downtime periods. Both versions for CONNX for VSAM on OS/390/z/OS provide read/write access to Keyed Sequential Data Sets (KSDS), Relative Record Data Sets (RRDS) and Entry Sequenced Data Sets (ESDS).

### Support for VSE/ESA

CONNX also supports real-time CICS TCP/IP access to VSAM files stored on IBM VSE/ESA (Virtual Storage Extended/ Enterprise Systems Architecture) hosts. The CONNX CICS TCP/IP listener program runs in a VSE/ESA CICS partition and waits for client connection requests from ODBC/OLE DB/ Microsoft® .NET/ JDBC® compliant programs. The CONNX server program provides full read/write access to VSAM KSDS, RRDS and ESDS. CONNX for VSE/ESA imports VSAM metadata from COBOL FD copybooks into a CONNX Data Dictionary file. Once imported, the target VSAM file can be treated as one or more logical tables or views.

### Join VSAM with multiple data sources

When using in conjunction with other products in the CONNX suite, you can perform seamless joins between two or more supported disparate databases using ODBC, OLE DB, JDBC and .NET. CONNX for VSAM access is fast and efficient. With CONNX, a single metadata model can be created that spans all enterprise data sources and applications requiring data access. The result is an enterprise-wide view of data that provides a reusable standards-based framework for information access. To the user or application, data appears as if it existed in a single federated relational database.

## SQL and CONNX for VSAM

The CONNX distributed SQL engine reduces the workload placed on the mainframe by performing CPU-intensive operations where the CONNX client resides (UNIX®, Linux® or Windows®, remote desktop, web and/or application server), while allowing the database engine to perform tasks for which it is best suited. CONNX supports: ANSI SQL (insert, update, select and delete); grouping by distinct, aggregate (AVG, MIN, MAX, SUM, and COUNT); and all substring, string, date, conversion and math functions. Nested inner and outer left/right joins are supported, as well as subqueries and correlated subqueries. CONNX also supports unions and insert/select.

### Key features

#### Views

CONNX supports the creation of views, which facilitate hiding table relationships from the end user. CONNX Views facilitate the creation of heterogeneous joins between multiple disparate databases.

#### Data conversions

CONNX supports more than 600 data types and performs bi-directional data conversions for data updates and retrieves.

#### Compliance

Count on ODBC Full Compliance (level 2), JDBC Type 3 Driver, OLE DB 2.5 Driver, .NET 2.0 Driver and above.

#### Security preserved and extended

The CONNX Data Dictionary provides additional field and table-level encryptable security by group or user, ensuring the security of sensitive information. CONNX also supports row-level security with

CONNX Views. Additionally, the CONNX Data Dictionary is encrypted to secure sensitive information.

#### Occur clauses

The CONNX unique Rotated Array Technology makes manipulation of large arrays simple. CONNX accomplishes this by returning each column of the array as a separate row.

#### Metadata import

CONNX for VSAM imports VSAM metadata directly from COBOL copybooks and a CONNX Text Specification file format into a CONNX Data Dictionary file.

#### Command execution

For CICS/VSAM, CONNX provides a Remote Procedure Call (RPC) mechanism that allows remote execution of batch jobs, command procedures and applications from a PC.

#### Table redefinition

The CONNX Data Dictionary supports multiple record layouts of the same VSAM file based on a "record type" field.

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