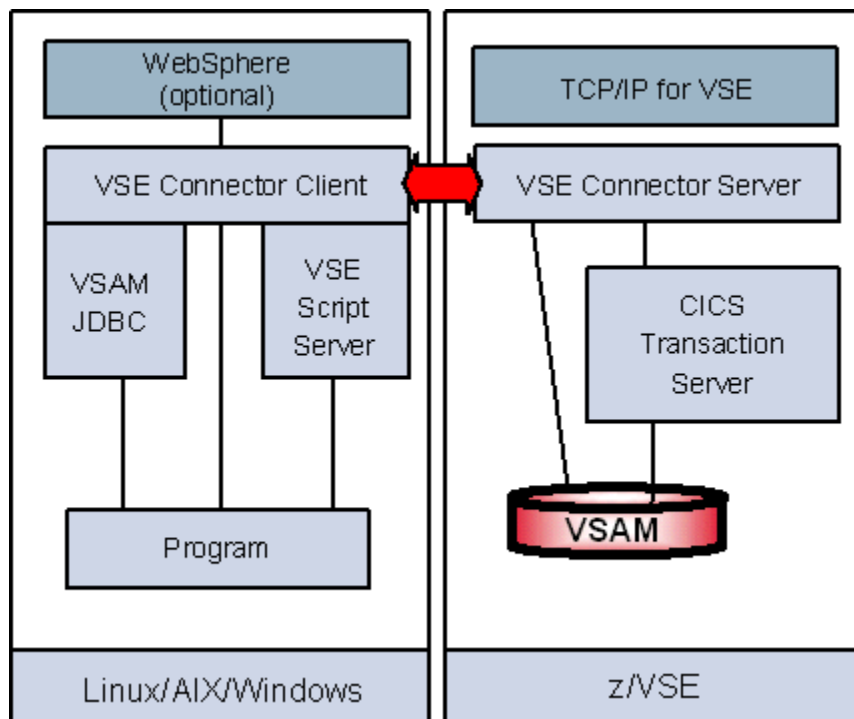


## Access VSAM data from remote systems

One of the most common data access method in z/VSE is VSE/VSAM (Virtual Storage Access Method). VSAM data has its own format and structure which is foreign for other systems.

An actual business need is the integration of VSAM data into distributed processes. Therefore, emphasis was placed on enabling real time access to VSAM data via modern and standard technologies and methods.

### Overview



For real time access to VSAM data from a remote platform the Java-based Connector was developed. It is built of 2 components:

- The z/VSE Connector Server: A batch program running on z/VSE in a static or dynamic partition.
- The z/VSE Connector Client: A Java component running on every Java enabled platform i.e. Linux, UNIX, Windows. This component is delivered with the z/VSE operating system or can be [downloaded](#) for free from internet.

The real-time access to the VSE/VSAM data can be implemented in three ways:

- Including z/VSE-supplied Java beans in user written Java programs.

- Using a z/VSE-supplied JDBC driver to access VSAM data as it were a relational database.
- Invoking [z/VSE Script](#) - a script language developed as part of z/VSE. z/VSE Script allows real time access to VSAM data from non-Java programs such as office applications such as Lotus SmartSuite or Microsoft Office applications using Lotus Script or Visual Basic.

Access to the VSAM dataset can be done directly from the z/VSE Connector Server, or via CICS, if the VSAM dataset is already opened in CICS.

To access VSAM data from a remote site, the structure of the records must be defined. This process is called 'mapping' and can be done with the [z/VSE Maptool](#), [z/VSE Navigator](#) or IDCAMS command RECMAP. The z/VSE Maptool allows to import the mapping directly from your COBOL or PL/I copybooks. Once the mapping is defined, access to the VSAM dataset can be done using the VSAM Java Beans, or via the VSAM JDBC Driver using SQL.

Real time Access to VSE/VSAM:

- from standalone applications (e.g. [z/VSE Navigator](#))
- from web applications (e.g. using WebSphere)
- from Servlets, JSPs, EJBs, Applets
- from office programs using [z/VSE Script Server](#)
- optionally by using SQL

## Benefits

Having real time access to VSAM data, distributed processes can take advantage and faster decisions can be taken, based on the data:

- Real time access - access the data when you need them as you need them.
- Translation between the EBCDIC format (z/VSE) to ASCII format on the remote platform is done.
- Standard, relational interface to VSAM data (JDBC) enables standard programs to integrate VSAM data in their business logic.

## Software requirements

The following software requirements must be met to implement this solution:

- VSE/ESA 2.5 or later
- [TCP/IP for VSE/ESA](#)
- z/VSE Connector Server running on z/VSE
- Linux, Windows, AIX, Unix on remote system
- [Java runtime \(JRE\) or Java developer kit \(JDK\) 1.3 or later](#)
- [z/VSE Connector Client](#) installed on remote system

**Note:** WebSphere is NOT required to run the z/VSE Java-based connector. However, the connector can be deployed into WebSphere as an Resource Adapter or as an JDBC Provider, if you wish to access VSAM from a web application.

## How to get started

To get started, following Steps need to be done:

- Start z/VSE connector server on z/VSE (release STARTVCS from the reader queue or create it from ICCF library 59, skeleton SKVCSSTJ).
- Make sure a Java [runtime \(JRE\) or Java developer kit \(JDK\) 1.3 or later](#) is installed on you distributed platform.
- Download and install the [z/VSE Connector Client](#) to your PC or workstation.
- Create the mapping information to define the VSAM record structure (using z/VSE [Maptool](#), [z/VSE Navigator](#) or z/VSE IDCAMS Command RECMAP).
- Use the different ways (JDBC, Java Beans, Scripts) to access your data.

Note: The z/VSE connector client contains descriptions and samples for accessing VSAM data.

## Additional information

Additional information for this solution scenario can be found:

- [z/VSE e-business connectors User's Guide](#)
- **Redbooks:**
  - [WebSphere V5 for Linux on zSeries Connectivity Handbook \(SG24-7042\)](#)

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## Comments and Questions

Comments or questions on this documentation are welcome. Please send your comments to: [zvse@de.ibm.com](mailto:zvse@de.ibm.com)