# Java access to z/VSE data from remote systems

In the last releases of z/VSE, new functions were developed to allow an easier integration of z/VSE data, applications and transactions into heterogeneous environments. That opens new possibilities for real time access, automation and management of z/VSE resources and system operation. Most modern technologies can be used to access z/VSE resources. Examples are Web technologies like Web services, using XML and SOAP, Java, Scripts and standard interfaces like JDBC. You can have access to VSAM, POWER, Librarian, ICCF, Console and DL/I.

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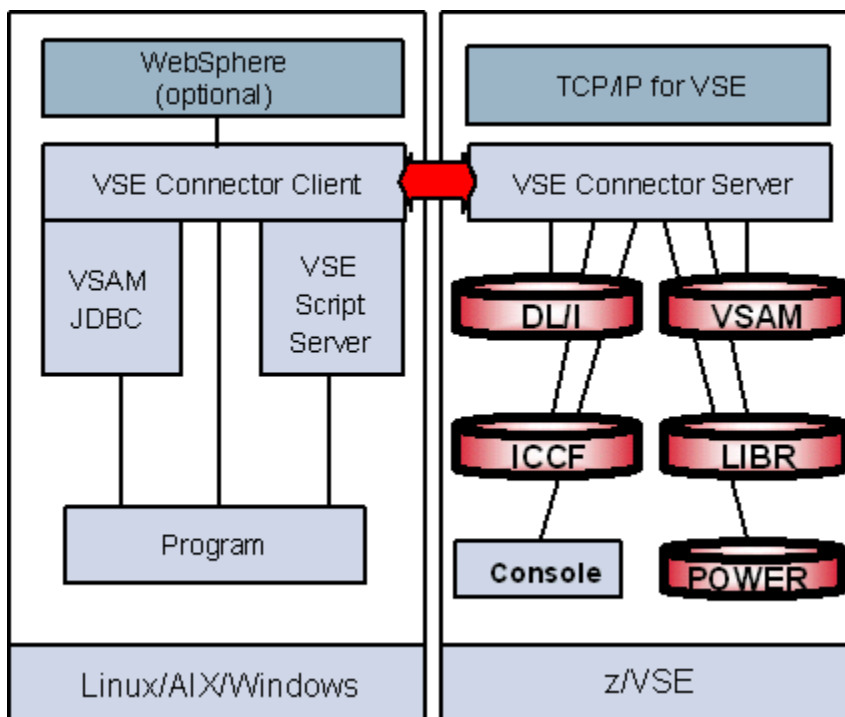
For real time access to VSAM data from a remote platform the Java-based Connector was developed. It is built of 2 components:

- 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 z/VSE Connector Client provides:

- A lot of samples and detailed documentation about the possibilities to access z/VSE resources,

- Documentation of the programming interface, which can be exploited by any kind of java program or web application.
- Samples and descriptions for access from non-Java applications like office products, using the z/VSE Script Server.

Access to VSAM, POWER, Librarian, ICCF, Console and DL/I is implemented.

- Access to POWER enables the remote work with the POWER queues and therefore the possibility of z/VSE job automation and automatic report generation and distribution. More details on such solutions can be found in the operation section of the solutions:
  - o JOB Automation
  - o Operation with Power via TCP/IP
- Access to Librarian and ICCF allows the interaction from distributed platforms with these z/VSE library systems. With our free of charge tool z/VSE Navigator you can see how easy it is to exchange data or edit them on another platform and store them into the Librarian. Even Drag and Drop between z/VSE systems is implemented in z/VSE Navigator.
- The interaction with the z/VSE Console with this connector enables console automation and monitoring functions for console messages from a remote platform. More details can be found here:
  - o Console Automation
- Access to data access methods like DL/I and VSAM enable the integration of z/VSE data with heterogeneous applications. More detailed solutions for VSAM and DL/I access can be found in the section here, with the links below:
  - o Access VSAM data from remote systems
  - o Access to DL/I from remote

Benefits

Because of the need for standard interfaces and the cross platform transparent global access to resources, the real-time access to z/VSE resources is the way of integration for z/VSE resources into distributed processes.

Real time access to z/VSE subsystems like POWER, Librarian and the Console enable remote job control, automation and system management functions, as well as web based integration of resources.

A real-time access to data like VSAM and DL/I enable the extension of data integration across platforms. z/VSE can participate in modern solutions like data warehousing, business intelligence and modern web technologies.

Real time Access to z/VSE data can be included in all modern web technologies:

- 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

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

The variety of possibilities for real time access to z/VSE resources is included in our z/VSE Connector Client as description and samples and in the z/VSE Navigator tool as the biggest standalone tool. Therefore, as a start point follow the steps to install and work with the provided samples:

- On z/VSE: Start the z/VSE Connector Server (STARTVCS - you can find it in your reader queue or in ICCF Lib59 as SKVCSSTJ)
- Install a Java Developer Kit
- Download the z/VSE Connector Client
- Install z/VSE Connector Client (using the install scripts provided)
- Use the samples described and commented in the online documentation.

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)
- Connectors Workshop Documentation

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Comments and Questions

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