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# Purpose of This Guide

Viaserv provides software systems which incorporate VSE data and applications into enterprise-wide web and client/server applications and architectures. This guide contains important information about preparing your company's computing environment for installation of the ViaSQL system. The following topics are discussed:

- ▼ Viaserv systems, systems components, and features
- ▼ complementary third-party products
- ▼ the team installation process and required skills
- ▼ Viaserv documentation
- ▼ useful documentation from other vendors
- ▼ environmental requirements
- ▼ site preparation
- ▼ product distribution media
- ▼ Viaserv customer support
- ▼ ViaSQL project plan

In addition, it is important that you complete the Site Survey in the envelope at the back of this guide and return it to your Viaserv sales representative or directly to Viaserv support. Viaserv needs this information in order to provide you with the most complete support.

## **If you do nothing else:**

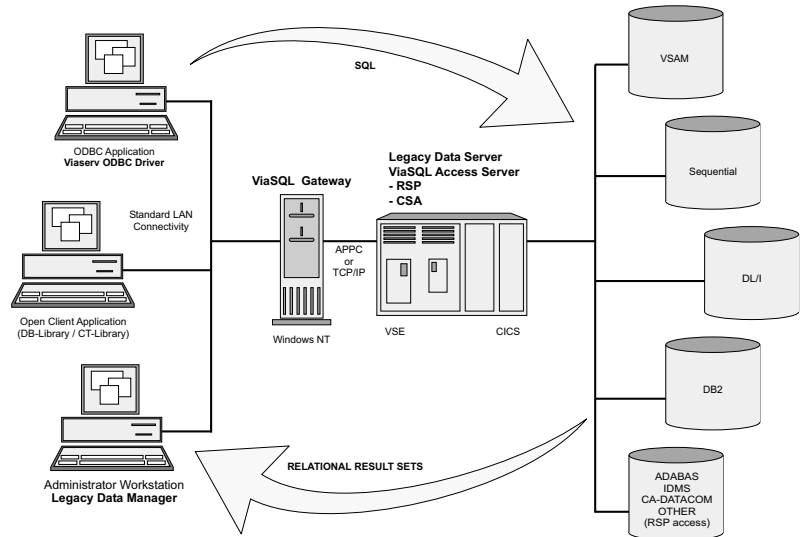
- ▼ Complete the Site Survey (located in the envelope at the back of this guide) and return it to Viaserv and the Viaserv partner you are working with.
- ▼ If using APPC, provide your SNA communications specialist with a copy of the appropriate *APPC Guidelines* documentation.

# Viaserv's Data Access Systems for VSE

The Viaserv solutions — ViaSQL Integrator for VSE and ViaSQL Direct for VSE — provide a way of incorporating VSE data and applications into client/server and Internet applications and architectures.

ViaSQL Integrator enables:

- ▼ SQL access to relational data in DB2 and non-relational data in VSAM or sequential tape and disk files, and DL/I segments, using the ODBC, JDBC, or Open Client API
- ▼ programmatic access to any data source accessible from CICS (via Remote Stored Procedures, or RSPs)
- ▼ access to VSE programs and application code (via RSPs)
- ▼ data transfers, or bi-directional data movement between VSE and a LAN DBMS, or from VSE to a LAN-resident file
- ▼ access to LAN DBMSs and functions from CICS programs (Client Services Applications, or CSAs)

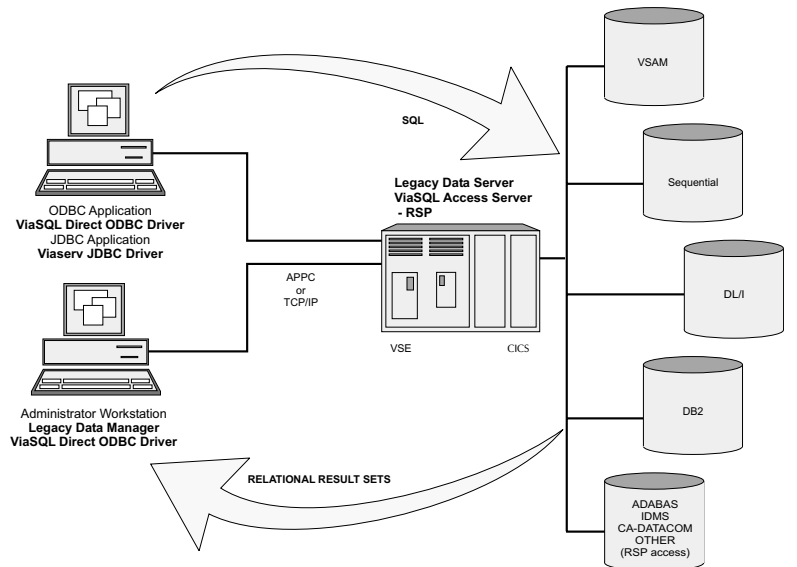


ViaSQL Integrator

A companion product, ViaTransit, enables automated building, scheduling, sequencing, and execution of transfers.

ViaSQL Direct enables:

- ▼ SQL access to relational data in DB2 and non-relational data in VSAM or sequential tape and disk files, and DL/I segments, using the ODBC or JDBC API
- ▼ programmatic access to any data source accessible from CICS (Remote Stored Procedures, or RSPs)
- ▼ access to VSE programs and application code (RSPs)



ViaSQL Direct

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# ViaSQL and ViaTransit Components

ViaSQL Integrator, ViaSQL Direct, and ViaTransit are component-based solutions. Components for each system are shown in the following table.

Platform	Component	ViaSQL Integrator	ViaSQL Direct	ViaTransit
VSE	ViaSQL Access Server for VSE	✓	✓	
	Legacy Data Server	✓	✓	
Windows NT	ViaSQL Gateway	✓		
	ViaSQL CSA Server	✓		
	Transfer Server			✓
Administrator Workstations	Legacy Data Manager	✓	✓	
	Gateway Manager	✓		
	Transfer Manager			✓
Administrator Workstations User Workstations Web Servers	Open Client	✓		
	Viaserv ODBC Driver	✓		
	Viaserv JDBC Driver	✓	✓	
	ViaSQL Direct ODBC Driver	✓	✓	
Sybase or Microsoft DBMS	TransferStore			✓

## ViaSQL Access Server for VSE

The ViaSQL Access Server resides on the mainframe as a CICS transaction program, and provides:

- ▼ dynamic access to DB2 data
- ▼ access to non-relational data via Remote Stored Procedures (RSPs)
- ▼ interface with Legacy Data Server for VSE

## Legacy Data Manager

Legacy Data Manager is a Windows 32-bit ODBC application. It provides mapping functions for defining virtual tables — the relational interface to non-relational VSAM and sequential files and DL/I segments — and administrative functions for the Legacy Data Server. It uses ViaSQL connectivity for mainframe access — either the Viaserv ODBC Driver with the ViaSQL Gateway, or the ViaSQL Direct ODBC Driver.

## Legacy Data Server

The Legacy Data Server resides on the mainframe in its own partition. It provides:

- ▼ storage and catalog functions for the virtual table definitions sent from the Legacy Data Manager
- ▼ interpretation and optimization of the SQL statements sent from client applications
- ▼ access to underlying data files

## ViaSQL Gateway

The ViaSQL Gateway resides on an IBM-compatible PC running Windows NT or Windows 2000. The ViaSQL Gateway provides:

- ▼ VSE access for client applications using the Open Database Connectivity (ODBC), Open Client, or DB-Library API

Note: Because the ViaSQL Gateway is based on the Open Client / Open Server API, ODBC applications accessing the ViaSQL Gateway must use the Viaserv ODBC Driver, distributed with the ViaSQL Gateway, which provides required conversions.

- ▼ management of the APPC conversation or TCP/IP connection between the ViaSQL Gateway and the ViaSQL Access Server
- ▼ execution of the transfer function

## Gateway Manager

Gateway Manager is a Windows tool which allows administrators to configure, start, and stop ViaSQL Gateway instances remotely. It is distributed with the ViaSQL Gateway. It runs as a 32-bit Open Client application, and may be installed on any Windows machine on the network.

## Open Client

Open Client refers to the network drivers and the DB-Library and CT-Library application programming interface files which are required on client workstations for access to the ViaSQL Gateway. Viaserv distributes the following versions of Open Client with the ViaSQL Gateway component in ViaSQL Integrator:

- ▼ Open Client for Windows 95/98 v11.1.1 with EBF 8550
- ▼ Open Client for Windows NT/2000 v.11.1.1 with EBF 8550

Contact Viaserv for other Open Client libraries.

## Viaserv ODBC Driver

The Viaserv ODBC Driver is distributed with ViaSQL Integrator. It performs conversion between ODBC calls, datatypes, etc., and the Open Client equivalents. It can be used only to access the ViaSQL Gateway. It is a 32-bit driver, and supports ODBC Level 3. A compatible ODBC Driver Manager is included.

## Viaserv JDBC Driver

The Viaserv JDBC Driver is distributed with both ViaSQL Integrator and ViaSQL Direct. It enables direct TCP/IP access from JDBC applications and servlets to the ViaSQL Access Server, rather than access through the ViaSQL Gateway. The Viaserv JDBC Driver supports the JDBC 1.0 API, which can be used on both Java 1.1 and Java 2 platforms. Because it is a Type 4 driver, written completely in Java, this driver supports execution under the appropriate Java virtual machines on OS/390, Windows NT, and UNIX. This driver cannot be used for access through the ViaSQL Gateway.

## ViaSQL Direct ODBC Driver

The ViaSQL Direct ODBC Driver is distributed with both ViaSQL Integrator and ViaSQL Direct. It enables direct access from the client workstation to the ViaSQL Access Server, rather than access through the ViaSQL Gateway. Required ODBC conversions are performed by the ViaSQL Direct ODBC Driver. This driver cannot be used for access through the ViaSQL Gateway.

## ViaSQL CSA Server

This component resides on a Windows NT platform (typically the ViaSQL Gateway platform), and allows CICS-based client applications (CSAs) to access LAN-based databases and Open Server applications, and to execute customer-written LAN Stored Procedures (LSPs).

The Viaserv CSA Server supports native connections to Sybase, Microsoft, and Oracle databases, and 32-bit ODBC connections to any database that provides a 32-bit Windows ODBC driver.

## ViaTransit Transfer Manager

Transfer Manager is the administrator interface to ViaTransit. It is used to define transfer sources and targets, transfer statements, transfer schedules and sequences, and pre- and post-transfer processing. These specifications are stored in the TransferStore.

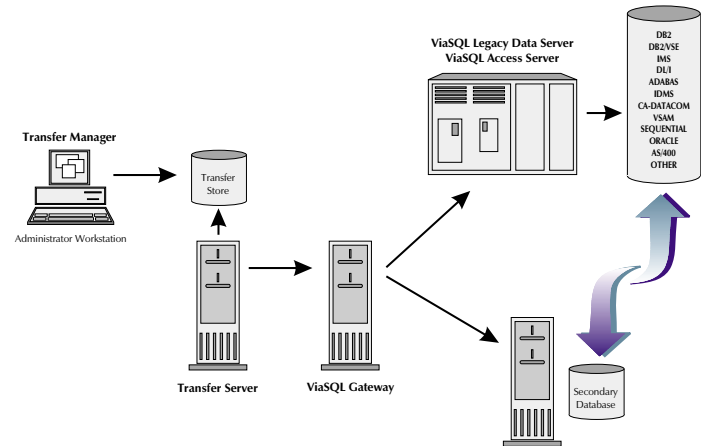
Transfer Manager is also used to view transfer status, and log and error information.

## ViaTransit Transfer Server

Transfer Server implements transfer scheduling and execution, by polling the TransferStore at user-specified intervals, retrieving transfer details, and submitting the transfers to a ViaSQL Gateway for execution.

## ViaTransit TransferStore

TransferStore is a set of tables which are used to store transfer specifications as defined via Transfer Manager. TransferStore must be set up in a supported database accessible from both the Transfer Manager and Transfer Server platforms. Supported databases include Sybase SQL Server, ASE, SQL Anywhere, and MS SQL Server. Upon request, Viaserv provides Sybase SQL Anywhere at no charge.



ViaTransit Architecture

# ViaSQL Major Features

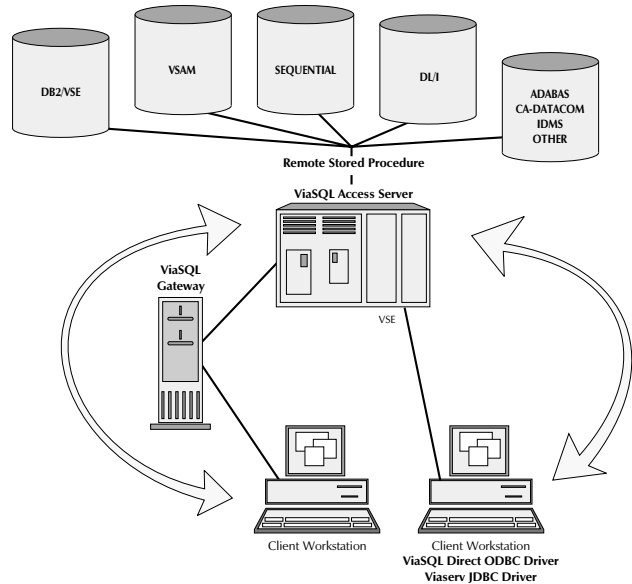
Three major features provided by ViaSQL extend the basic client/server architecture in several ways. This section briefly describes these three features. If you are planning to implement any of these features, please provide detailed information in the Site Survey.

## Remote Stored Procedures (RSPs)

RSPs provide programmatic access to any VSE-CICS data store. RSPs are customer-written programs that contain the Viaserv RSP API, a set of verbs that are used to exchange data and control information between the ViaSQL Access Server and the RSP. RSPs may be written in COBOL II, COBOL/370, or COBOL/LE, Assembler, PL/I, C, Software AG NATURAL, or CA-IDEAL. Existing CICS programs may be converted to RSPs.

RSPs may be executed from Open Client, ODBC, or JDBC, by sending a statement similar to "USE PROCEDURE *rsp\_name*" to the ViaSQL Access Server.

Both ViaSQL Integrator and ViaSQL Direct support RSPs.



## Client Services Applications (CSAs)

CSAs enable VSE-CICS programs to act as clients to LAN DBMSs or Open Server programs, or to execute LAN Stored Procedures (LSPs).

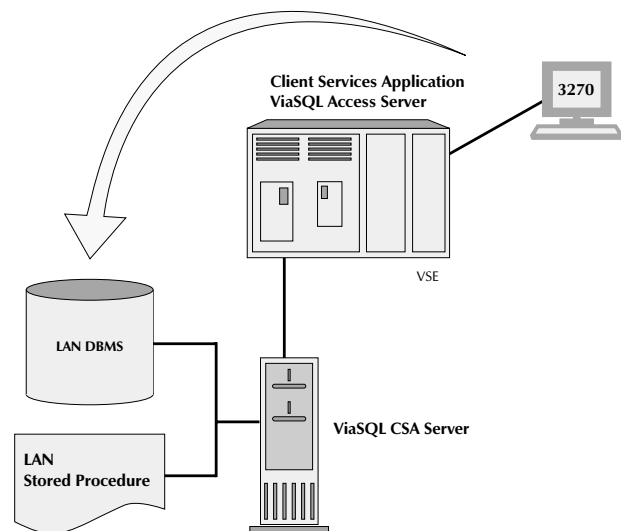
CSAs, like RSPs, are customer-written programs. They use the Viaserv CSA API to manage the exchange of data and control information between the CSA and the ViaSQL Access Server. CSAs may be written in COBOL II, COBOL/370, or COBOL/LE, Assembler, PL/I, C, Software AG NATURAL, or CA-IDEAL. Existing CICS programs may be converted to CSAs.

CSAs have native access to Sybase, Microsoft, and Oracle databases, and ODBC access to any DBMS that provides a 32-bit Windows ODBC driver.

CSAs, being CICS transactions, are executed from a 3270 session, or by a CICS timer or event mechanism.

CSAs are supported only by ViaSQL Integrator.

## Remote Stored Procedures



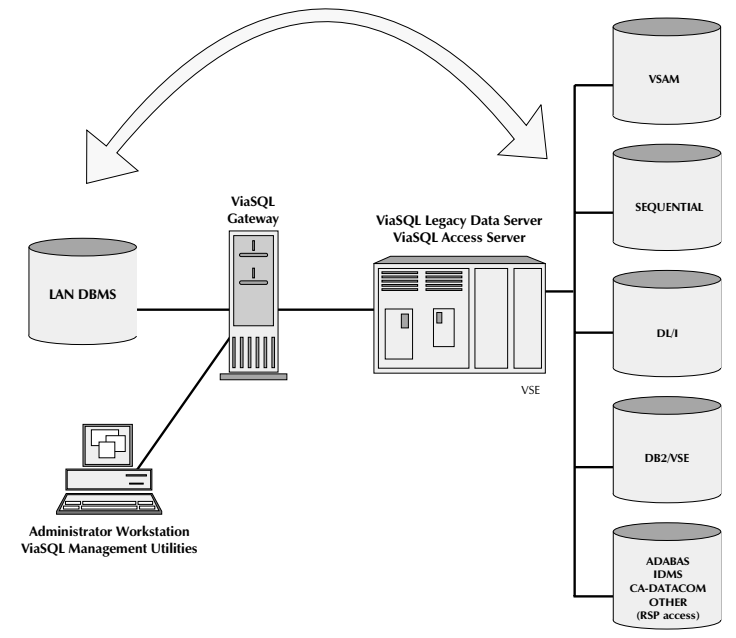
## Client Services Applications

## Transfer

The transfer feature allows you to copy a relational result set from one database to another. ViaSQL supports bi-directional transfer between VSE data stores and LAN databases, and transfer from VSE to a LAN-resident file.

ViaSQL Integrator provides native access to the following LAN DBMSs: Sybase SQL Server or ASE, MS SQL Server, Oracle v7.x or higher, and any DBMS accessible via a 32-bit Windows ODBC driver.

Transfers are supported only by ViaSQL Integrator.



## Transfer

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# Third-Party Products with ViaSQL

Because ViaSQL implements standard APIs and protocols, it can interoperate with a variety of third-party products. This section discusses ViaSQL in combination with front-end tools, Sybase products and architectures, and web-based applications.

## Supported Tools

ViaSQL supports most ODBC, JDBC, DB-Library, and CT-Library applications. For information on specific applications, contact Viaserv customer support.

## Sybase Products and Architectures

Because the ViaSQL Gateway component implements the Open Server and Open Client APIs for LAN connectivity, it interoperates easily with a variety of Sybase products, including OmniConnect, MDI Database Gateway, DirectConnect, and SQL Server or ASE. For example:

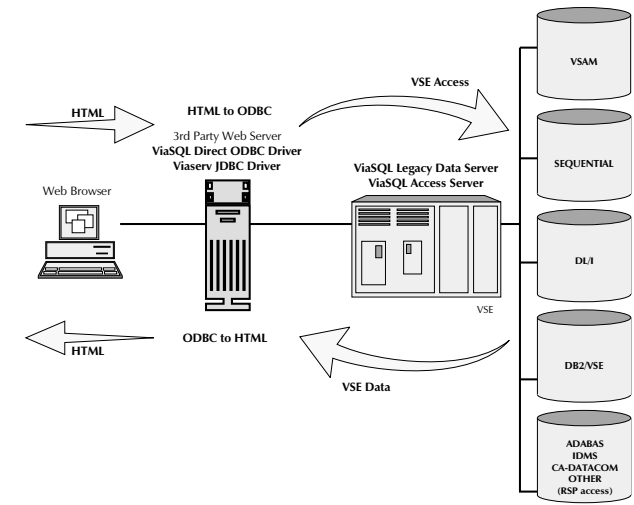
- ▼ ViaSQL may be set up behind OmniConnect to allow users to transparently access and join VSE data with other data.
- ▼ ViaSQL may be accessed by SQL Server remote procedure calls (RPCs).
- ▼ ViaSQL may act as a transfer partner with MDI Database Gateway or DirectConnect.

## Web Access

Both ViaSQL Integrator and ViaSQL Direct support Web access to VSE data and applications.

In a typical implementation, either the Viaserv ODBC Driver, the Viaserv JDBC Driver, or the ViaSQL Direct ODBC Driver is installed on the Web server platform.

Alternatively, a CGI script can invoke an Open Client or DB-Library program to access ViaSQL.



**ViaSQL in Web Environment**

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# ViaSQL Implementation Team

Because the ViaSQL systems span multiple technology areas, Viaserv strongly recommends a coordinated approach involving the following people or skill sets:

## Team Leader

- ▼ Be familiar with your company's database systems.
- ▼ Understand both business and technical requirements of the ViaSQL application.

## Communications Specialist — Mainframe

- ▼ If APPC will be used for the ViaSQL Gateway – ViaSQL Access Server connection, have a working knowledge of APPC communications, including VTAM and NCP.
- ▼ If TCP/IP will be used for the ViaSQL Gateway – ViaSQL Access Server connection, have a working knowledge of TCP/IP communications software for VSE (Connectivity Systems TCP/IP for VSE).

## Communications Specialist — LAN

- ▼ If APPC will be used for the ViaSQL Gateway – ViaSQL Access Server connection, have a working knowledge of Microsoft SNA Server.
- ▼ If TCP/IP will be used for the ViaSQL Gateway – ViaSQL Access Server connection, have a working knowledge of LAN-based TCP/IP communications software which will connect to Connectivity Systems TCP/IP for VSE.

## Systems Programmer — VSE and CICS

- ▼ Have a working knowledge of VSE and CICS.
- ▼ Have a working knowledge of CICS resource definition (programs, program list tables, transactions, terminals).
- ▼ Have an understanding of VSE Job Control Language (JCL), and a knowledge of specific JCL standards and conventions used on the mainframe where the ViaSQL Access Server and, optionally, the Legacy Data Server, will be installed.

## ViaSQL Gateway Administrator

- ▼ Have a working knowledge of Windows NT/2000 system administration and networking.

## LAN/Workstation Administrator

- ▼ Have a working knowledge of client/server network implementation, including Open Client / Open Server, ODBC, JDBC, and network-specific topics (TCP/IP addressing, Windows NT/2000 domains, etc.).

## **Database Administrator — VSE**

- ▼ Have a working knowledge of all VSE data sources which ViaSQL will access (DB2, VSAM, DL/I, sequential, ADABAS, IDMS, etc.).
- ▼ Have a working knowledge of relational database concepts, including primary and foreign keys and joins.
- ▼ Have a working knowledge of relevant non-relational data structures and concepts.
- ▼ Have a working knowledge of and access to the copybooks used by your applications.

## **Database Administrator — LAN**

- ▼ Have a working knowledge of all LAN data sources which ViaSQL will access.

## **ViaTransit Administrator**

- ▼ Have a working knowledge of Open Client and ODBC setup.
- ▼ Have a working knowledge of database administration for relevant LAN DBMSs.

## **Application Developers — Client**

- ▼ Have a working knowledge of relevant API (ODBC, JDBC, DB-Library, CT-Library).
- ▼ Have a working knowledge of front-end tools to be used.

## **Application Developers — VSE**

- ▼ Have a working knowledge of VSE and CICS.
- ▼ Have a working knowledge of CICS application programming in the language selected for coding Remote Stored Procedures (RSPs) and Client Services Applications (CSAs).

# Viaserv Documentation

The following table lists the available ViaSQL documents with suggestions on distribution to the ViaSQL team. Documentation is available both in hard copy and in PDF format on the distribution media and on the Viaserv web site (<http://www.viaserv.com>). A user ID and password, available from Viaserv, are required for document download.

Document	ViaSQL Integrator	ViaSQL Direct	ViaTransit	Suggested Distribution	Document Purpose
<i>Installation Planning Guide</i>	✓	✓		ViaSQL Team Leader	prepare for installation
<i>APPC Guidelines</i> <i>TCP/IP Guidelines</i>	✓	✓		Communications Specialists	configure and test connectivity from the LAN to the ViaSQL Access Server
<i>Access Server and Legacy Data Server Installation Guide</i>	✓	✓		Systems Programmers — VSE and CICS	install, configure, test ViaSQL Access Server
<i>Access Server and Legacy Data Server Administration Guide</i>	✓	✓		Systems Programmers — VSE and CICS	install, configure, test Legacy Data Server and Legacy Data Manager
<i>ViaSQL Gateway Installation and Administration Guide</i>	✓			ViaSQL Gateway Administrator, LAN/Workstation Administrator	install, configure, test ViaSQL Gateway; set up and test client and administrator workstations
<i>Legacy Data Manager Installation and User's Guide</i>	✓	✓		DBA — VSE	define virtual tables; administer Legacy Data Server
<i>ViaSQL Gateway User's Guide</i>	✓			Application Developer — Client, DBA — LAN, ViaSQL Gateway Administrator	write client applications that access ViaSQL
<i>Remote Stored Procedures Programmer's Guide and Reference</i>	✓	✓		Application Developer — CICS	write, set up, test RSPs
<i>Client Services Applications Programmer's Guide and Reference</i>	✓			Application Developer — CICS	write, set up, test CSAs
<i>ViaTransit Installation Guide</i>			✓	ViaTransit Administrator	install, configure, test ViaTransit
<i>ViaSQL Error Messages</i>	✓	✓		any	comprehensive list of all error messages returned by ViaSQL components

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## Additional Documentation

For more information about other products that might affect ViaSQL operation, contact the appropriate vendor for copies of any of the publications listed below.

Vendor	Product	Document
IBM	VTAM / NCP	<i>SVTAM and NCP Installation Considerations</i> <i>VTAM Resource Definition Guide</i> <i>VTAM Messages and Codes</i> <i>VTAM Version 3 Customization</i> <i>VTAM Programming for LU 6.2</i> <i>NCP/SSP/EP Resource Definition Guide</i>
	CICS	<i>CICS Resource Definition (Online)</i> <i>CICS CICS-Supplied Transactions</i> <i>CICS Messages and Codes</i> <i>CICS System Definition Guide</i> <i>CICS Intercommunications Guide</i> <i>CICS Resource Definition (Macro)</i>
	DB2 for VSE	<i>DB2 for VSE SQL Reference</i> <i>DB2 for VSE Messages and Codes</i> <i>DB2 for VSE Administration Guide</i> <i>DB2 for VSE Application Programming and SQL Guide</i>
	DL/I	<i>DL/I DOS/VS Messages and Codes</i> <i>DL/I DOS/VS Application Programming: CALL and RQDLI Interfaces</i> <i>DL/I DOS/VS Resource Definition and Utilities</i> <i>DL/I DOS/VS Data Base Administration</i>
	Miscellaneous	<i>Data Extract Reference</i> <i>SAA Database Reference</i>
Connectivity Systems	TCP/IP for VSE	<i>Installation Guide</i> <i>Commands Guide</i> <i>Users Guide</i> <i>Messages and Codes</i>
Microsoft	ODBC	<i>ODBC Programmer's Reference</i>
	Windows NT Windows 2000	<i>Windows NT Installation Guide</i> <i>Windows NT Network Client Administrator</i> <i>Windows NT installation CD-ROM on-line documentation</i> <i>Windows 2000 Getting Started</i>
	SNA Server	<i>SNA Server Planning Guide</i> <i>SNA Server Administration Guide</i> <i>SNA Server Reference</i>
Sun	JDBC	<i>JDBC API Tutorial and Reference</i> ( <a href="http://java.sun.com/products/JDBC">http://java.sun.com/products/JDBC</a> )

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# Product Distribution

Component	Media	Notes
ViaSQL Access Server for VSE	CD ROM	Installation requires a workstation with FTP or 3270 SEND/RECEIVE connectivity to the VSE system.
Legacy Data Server	CD ROM	Shipped according to licensing agreement.
Legacy Data Manager	CD ROM	Shipped according to licensing agreement.
ViaSQL Gateway	CD ROM	Shipped only with ViaSQL Integrator.
Open Client	CD ROM	Distributed with ViaSQL Gateway.
Gateway Manager	CD ROM	Distributed with ViaSQL Gateway.
Viaserv ODBC Driver	CD ROM	Distributed with ViaSQL Gateway.
Viaerv JDBC Driver	CD ROM	Shipped with both ViaSQL Integrator and ViaSQL Direct.
ViaSQL Direct ODBC Driver	CD ROM	Shipped with both ViaSQL Integrator and ViaSQL Direct.
Viaserv CSA Server	CD ROM	Distributed with ViaSQL Gateway.
Viaserv ODBC Server	CD ROM	Distributed with ViaSQL Gateway.
ViaTransit	CD ROM	Shipped according to licensing agreement.

# Environment Requirements

## ViaSQL Component Requirements

Component	Platform	Requirements	Comments
ViaSQL Access Server	VSE-CICS	<ul style="list-style-type: none"> <li>▼ VSE adequate for CICS support</li> </ul>	<ul style="list-style-type: none"> <li>▼ APPC and/or TCP/IP connectivity (see VSE Connectivity Requirements section)</li> </ul>
access to DB2/VSE (SQL/DS)		<ul style="list-style-type: none"> <li>▼ CICS v1.7 or later</li> <li>▼ SQL/DS v3.3 or later</li> <li>▼ ARIDBS utility</li> <li>▼ CIRB transaction</li> </ul>	
access to Legacy Data Server		<ul style="list-style-type: none"> <li>▼ CICS v2.1 or later</li> </ul>	
Legacy Data Server	VSE	<ul style="list-style-type: none"> <li>▼ VSE/ESA v1.1 or later</li> <li>▼ VSE partition</li> <li>▼ supported SORT utility</li> </ul>	<p>supported SORT utilities:</p> <ul style="list-style-type: none"> <li>▼ IBM DFSORT v3r1 or later</li> <li>▼ Syncsort r3.0D with PTFs P0130-241, P0130-242, P0130-238</li> <li>▼ Syncsort r3.1B with PTFs P0131-027, P0131-028, P0131-031, or later</li> <li>▼ CA-Sort r8.1 with the Viaserv maintenance ZAP201D applied (contact Viaserv)</li> </ul>
access to DL/I		<ul style="list-style-type: none"> <li>▼ DL/I v1r10 or later</li> <li>▼ DL/I databases to be accessed must be defined under CICS</li> </ul>	requires the Viaserv DL/I Interface
ViaSQL Gateway	<p>Intel processor, 80486 or better</p> <p>32 Mb RAM (64 Mb recommended)</p> <p>Windows NT v3.51 or later</p>	<ul style="list-style-type: none"> <li>▼ APPC (LU 6.2) or TCP/IP access to VSE</li> <li>▼ support for LAN protocol used by client workstations — TCP/IP, NetBEUI (named pipes), or IPX/SPX</li> <li>▼ at least 30Mb disk space</li> </ul>	see VSE Connectivity Requirements section

Component	Platform	Requirements	Comments
Open Client	Windows 95, 98, NT, 2000, Macintosh, DOS, UNIX	▼ network access to ViaSQL Gateway platform	▼ 32-bit Windows libraries standard ▼ other libraries by special arrangement
Viaserv ODBC Driver	Windows 95, 98, Windows NT v3.51 or later 32-bit client application	▼ underlying Open Client installation	▼ distributed with ViaSQL Gateway (ViaSQL Integrator)
Viaserv JDBC Driver	Java v1.1 or Java v2 virtual machine	▼ TCP/IP connectivity to ViaSQL Access Server (see VSE Connectivity Requirements section)	▼ distributed with ViaSQL Integrator and ViaSQL Direct
ViaSQL Direct ODBC Driver	Windows 95, 98, Windows NT v3.51 or later 32-bit client application	▼ APPC or TCP/IP connectivity to ViaSQL Access Server (see VSE Connectivity Requirements section)	▼ distributed with ViaSQL Integrator and ViaSQL Direct
Legacy Data Manager	Windows 95, 98, Windows NT v3.51 or later	▼ Viaserv ODBC driver or ViaSQL Direct ODBC Driver	
ViaSQL CSA Server	Windows NT v3.51 or later	▼ APPC or TCP/IP access from ViaSQL Access Server (see VSE Connectivity Requirements section) ▼ network access to target DBMS ▼ network access to LAN Stored Procedures	▼ ViaSQL CSA Server distributed with ViaSQL Gateway (ViaSQL Integrator) ▼ native access to Microsoft, Sybase, or Oracle target DBMSs; 32-bit Windows ODBC access to others
ViaTransit			
Transfer Manager	Windows 95, 98, Windows NT v3.51 or later	▼ 32-bit ODBC access to ViaSQL Gateway, TransferStore DBMS, and secondary DBMS	secondary DBMS is LAN DBMS acting as transfer source or target
Transfer Server	Windows NT v3.51 or later	▼ 32-bit Open Client access to ViaSQL Gateway ▼ native access to TransferStore DBMS	TransferStore DBMS requires 32-bit Open Client (Sybase) or 32-bit DB-Library (Microsoft)

Component	Platform	Requirements	Comments
TransferStore	Sybase System X, System XI, ASE, SQL Anywhere, MS SQL Server	▼ support for 32-bit Open Client or DB-Library	

## VSE Connectivity Requirements

Component	Platform	Requirements	Comments
APPC (LU 6.2)	VSE-VTAM	▼ VTAM v3.2 or above	for 3725 controllers: ▼ NCP v4.3 for 3745 controllers: ▼ NCP v5.2 for parallel sessions through 3174 controllers: ▼ VSE/ESA ▼ VTAM v3.4 ▼ controller Microcode Level C
	Windows NT Server v3.51 or later	▼ Microsoft SNA Server v2.1 or later	
TCP/IP	VSE	▼ Connectivity Systems TCP/IP for VSE v1.2 at Service Pack G or later	
	Windows NT v3.51 or later	▼ native TCP/IP stack	
	Java v1.1 or v2 virtual machine	▼ native TCP/IP stack	

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# Site Preparation

To make installation quicker and easier, complete the following tasks before you receive the ViaSQL software.

## Mainframe

- ▼ Ensure that your site meets the requirements specified in the previous section. Check requirements for both the ViaSQL Access Server and the Legacy Data Server, as appropriate.

## ViaSQL Gateway Platform

- ▼ Ensure that the machine meets the requirements specified in the previous section.
- ▼ Ensure that all communications protocols that clients will use are appropriately defined.
- ▼ If APPC will be used for ViaSQL Gateway – ViaSQL Access Server connectivity, ensure that MS SNA Server is installed and available to the ViaSQL Gateway.

## Connectivity to VSE

- ▼ If APPC will be used for ViaSQL Gateway – ViaSQL Access Server connectivity, establish an APPC communications link between SNA Server and the CICS region where the ViaSQL Access Server will be installed. The local node must be defined to VTAM as a physical unit (PU) Type 2.1 node capable of logical unit (LU) 6.2 sessions to CICS. Detailed information about establishing and testing this connection is provided in the *APPC Guidelines* documentation.
- ▼ If TCP/IP will be used for ViaSQL Gateway – ViaSQL Access Server connectivity, ensure that the ViaSQL Gateway machine can successfully ping the VSE host, and that the VSE host can successfully ping the ViaSQL Gateway machine. Refer to the *TCP/IP Guidelines* documentation.

## DB2

- ▼ Ensure that the required DB2 version level is installed.
- ▼ Define and activate DB2 connection in CICS region where the ViaSQL Access Server will be installed.
- ▼ Prepare reference information on DB2 tables and columns that will be accessed by the client applications. Verify or create useful indexes.
- ▼ Grant the appropriate DB2 table privileges to the ViaSQL users.
- ▼ Grant SELECT authority on the DB2 catalog tables to users whose applications include catalog stored procedures.

## DL/I

- ▼ Ensure the required DL/I version/release level is installed.
- ▼ Define in CICS all DL/I databases to be accessed by ViaSQL Legacy Data Server.

## Other VSE Data Sources

- ▼ Identify VSAM and sequential files and DL/I segments which will be accessed by ViaSQL applications.
- ▼ Locate copybooks or file structure information for all files to be accessed.
- ▼ Verify or create useful indexes.

## Security

- ▼ Define DBA user ID for ViaSQL Legacy Data Server administration.

## Clients

- ▼ Install and test network communications.
- ▼ Install front-end applications.

## LAN

- ▼ Verify that each client workstation can make a connection to the machine where the ViaSQL Gateway will be installed.
- ▼ For transfers and CSAs, verify connectivity from the ViaSQL Gateway machine to the LAN database.
- ▼ For remote procedure calls (RPCs), verify connectivity from the LAN DBMS to the ViaSQL Gateway platform. .

## LAN Databases

- ▼ Install and test LAN database if:
  - ▼ you plan to use ViaSQL's transfer feature to transfer data to or from the DBMS
  - ▼ CSAs will access the LAN DBMS
  - ▼ you plan to execute remote procedure calls (RPCs) from the DBMS to the ViaSQL Gateway

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# Viaserv Customer Support

Viaserv customer support provides assistance to customers whose software is under warranty or who purchased support under a maintenance agreement.

## Technical Support

For technical support call Viaserv at 800-348-3964 or 303-415-9083. Technical support is available during normal business hours Monday through Friday Mountain Time.

## Web-Based Support

The Viaserv web site contains a variety of support information, including:

- ▼ PDF versions of product documentation
- ▼ release summaries for ViaSQL components
- ▼ current version information for ViaSQL components
- ▼ a searchable knowledgebase
- ▼ sample RSPs and CSAs

The web site URL is <http://www.viaserv.com>. A user ID and password are required to enter the customer section. Contact Viaserv to obtain the required values.

## Viaserv Professional Services

Viaserv Professional Services offers consulting and training programs to help you realize the benefits of Viaserv products. For more information, call 303-415-9083.

## Customer Feedback

If you have questions, comments, or suggestions about any Viaserv product, document, or service, contact Viaserv through the technical support line, your sales representative, or email at [info@viaserv.com](mailto:info@viaserv.com). You may also contact the Viaserv partner you are working with.

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# ViaSQL Project Plan

The following table describes the tasks involved in installing and implementing the ViaSQL system.

The tasks are presented in phases. In general, each phase must be completed before the next one can begin. Within each phase, various tasks can be performed in parallel, although testing of one task may require completion of a parallel task.

The table assumes installation of a complete ViaSQL Integrator system, including RSPs, CSAs, RPCs, and transfers. Omit tasks that are not relevant to your installation. Detailed information for each task can be found in the ViaSQL documentation. If ViaTransit will be used, Viaserv recommends that ViaSQL installation be completed and tested before installing ViaTransit.

Viaserv recommends that you use this table to organize and assign tasks, and also as a checklist to verify completion of tasks.

As part of getting ready for this project plan, the team leader should:

- ▼ Assemble the installation team
- ▼ Complete the Site Survey and return to Viaserv and the Viaserv partner you are working with
- ▼ Identify ViaSQL users
- ▼ Gather business and technical information on the applications that ViaSQL will support
- ▼ Gather information on the front-end tools to be used with ViaSQL
- ▼ Obtain and distribute ViaSQL documentation
- ▼ Train the installation team
- ▼ Train the application development team

# ViaSQL Project Plan — Phases I – VI

	VSE Environment and Data	LAN Communications	LAN and Workstation
Phase I for APPC Connectivity	Configure VTAM (and NCP if required) for both LU 6.2 and 3270 communications.	Install and configure SNA LU 6.2 communications package.	Set up LAN connectivity on the server where the ViaSQL Gateway will be installed.
	Configure CICS node definitions.	Configure and test a 3270 connection to the host system.	Set up and test LAN connectivity from all client workstations to the ViaSQL Gateway platform.
	Check host security parameters.	Configure an LU 6.2 (APPC) connection.	
	Install CICS component of APPCTEST.	Install LAN component of APPCTEST.	
		Test APPC conversation with APPCTEST.	
	VSE Environment and Data	LAN Communications	LAN and Workstation
Phase I for TCP/IP Connectivity	Install and configure Connectivity Systems TCP/IP for VSE.	Configure TCP/IP for connectivity to VSE host.	Set up LAN connectivity on the server where the ViaSQL Gateway will be installed.
	Test ping from VSE host to ViaSQL Gateway platform.	Test ping from ViaSQL Gateway platform to VSE host.	Set up and test LAN connectivity from all client workstations to the ViaSQL Gateway platform.
	VSE Environment and Data	ViaSQL Gateway Platform	ViaSQL Gateway Platform as Client
Phase II	Install, configure, and test ViaSQL Access Server and Legacy Data Server.	Install ViaSQL Gateway.	
		Configure ViaSQL Gateway instance and test connection to ViaSQL Access Server.	Install, set up, and test Legacy Data Manager on ViaSQL Gateway platform.

	VSE Environment and Data	ViaSQL Gateway Platform	ViaSQL Gateway Platform as Client
Phase III		Create DB2 tables for CSP support, ODBC support, and testing.	Test access to DB2.
		Create and test virtual table definitions.	Test access to virtual tables.
	VSE Environment and Data	ViaSQL Gateway Platform	LAN and LAN DBMS
Phase IV		Configure ViaSQL CSA Server if required.	Verify access from SQL Server to ViaSQL Gateway (RPCs).
		Install and test third-party native or ODBC drivers as required.	Verify access from ViaSQL Gateway platform to LAN databases (transfers and CSAs).
	VSE Environment and Data	Administrator Workstations	User Workstations
Phase V	Verify CICS user IDs.	Install, set up, and test Open Client, Viaserv ODBC Driver, Viaserv JDBC Driver, or ViaSQL Direct ODBC Driver as required.	Install, set up, and test Open Client, Viaserv ODBC Driver, Viaserv JDBC Driver, or ViaSQL Direct ODBC Driver as required.
	Grant required privileges on data to be accessed.	Install, set up, and test Gateway Manager and Legacy Data Manager.	Test access to DB2 tables and virtual tables.
	Review ViaSQL Access Server and Legacy Data Server configuration and modify or define additional instances as required.	Review ViaSQL Gateway configuration and modify or define additional Gateway services as required.	Modify Open Client, ODBC, or JDBC configuration to use new ViaSQL services as required.
	VSE Environment and Data	Servers	Workstations
Phase VI	Code and test RSPs and CSAs.	Write and test transfers, LAN Stored Procedures, RPCs.	Install and test front-end applications.
	Grant required RSP and CSA authorizations.	Grant required LAN DBMS privileges.	