



IBM Software Group

# CICS VSAM Transparency V1.1

## February 2005

A decorative horizontal bar with a purple background, featuring a series of colorful squares (cyan, green, yellow, red) and various icons including a globe, a person's face, and a grid of dots.

@business on demand.

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## CICS Application Transformation Tools

### Vision Statement

Tools to provide cost-efficient CICS application change / reuse / integration and enable our Customers' legacy IT for SOA

### Target customers

CICS customers, particularly those implementing on demand strategies, running WebSphere / CICS mixed workload environments or implementing SOAs

### Key Customer Pains

- Poor application knowledge, especially CICS **runtime** applications
- Need **comprehensive** tools to **extend** core applications and data into the on demand world
- Need to **reuse CICS assets** in an SOA as provider & requester



## Transform your CICS applications

**Extend and modernize  
CICS applications  
efficiently**

**Improve programmer  
productivity**

**Increase customer  
satisfaction**

**Enable IT for SOA**

### **CICS Application Transformation Tools**

#### **CICS Business Event Publisher for MQSeries®**

- Create and manage outbound events using WebSphere MQ without changing existing CICS applications

#### **CICS VSAM Transparency**

- Enable VSAM to DB2 migration without rewriting applications

#### **CICS Interdependency Analyzer**

- Understand your active application inventory for efficient maintenance and upgrades

#### **WebSphere Studio Enterprise Developer**

- Efficiently develop and maintain a new generation of CICS COBOL or JAVA applications

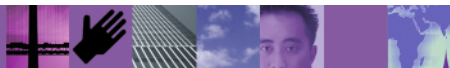
### **Coming Soon!**

#### **CICS 3270 Bridge Adapter**

- Enable WBI Message Broker and/or J2EE app integration with 3270 CICS applications

#### **CICS Integrator Agent (in CICS TS V3.1)**

- Deploy modeled web service flows across CICS applications (Commarea & 3270)

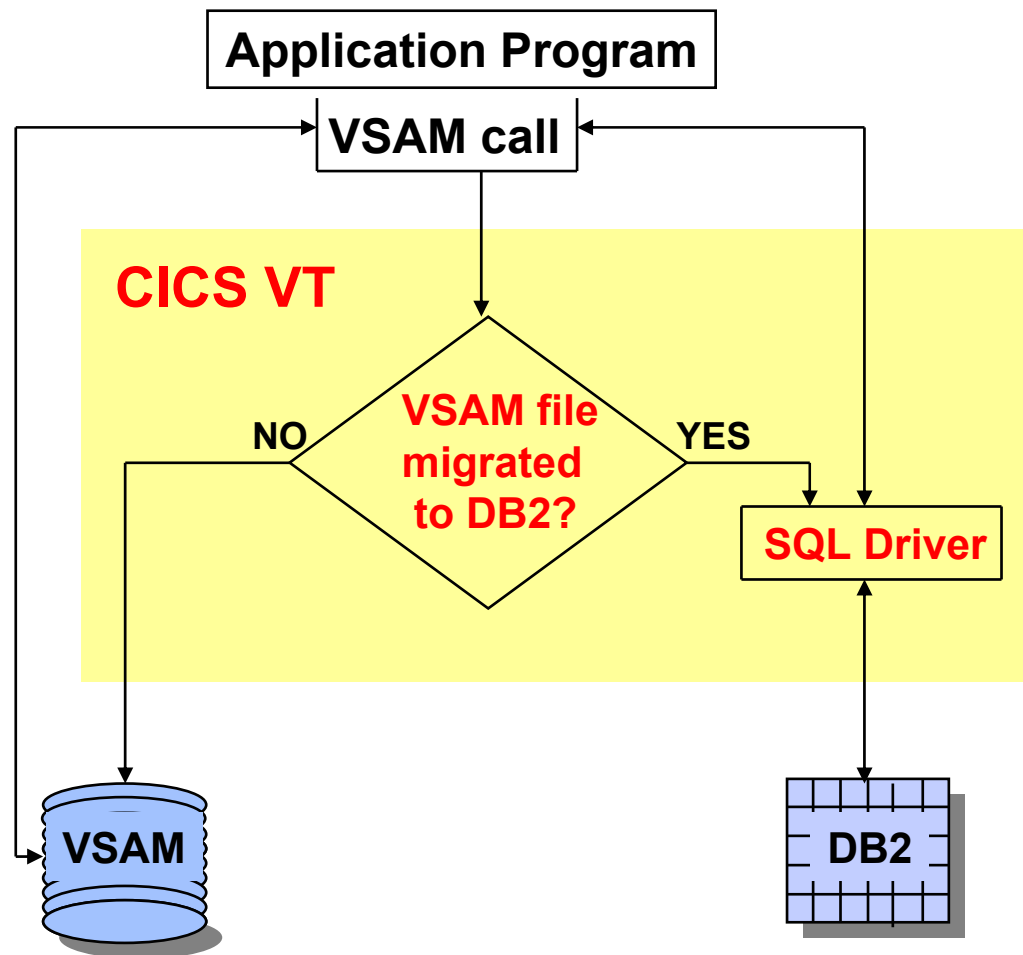


## What is CICS VT?

- **Quick solution to get legacy customer applications to exploit DB2 functions without the need for Application program changes**
- migrates legacy VSAM files to DB2 without changing application programs
- Completely separate from application program
- Transparent access to data in DB2
- CICS and batch programs access data in DB2 under the control of CICS VT
- Migrated data can be accessed by SQL by new programs
- Existing programs enhanced using SQL
- Lower risk migration strategy
- Migration of individual VSAM files as required
- Enabling new applications to be fully DB2 technology-based
- Preserving investments in legacy applications



# What is CICS VT?



## CICS VT components

- Mapping component
  - ▶ Establishes relationship between VSAM record and DB2 row
  
- Data migration component
  - ▶ Utilities to migrate data and re-engineer if required
  
- Run time component
  - ▶ Intercepts application calls to VSAM data sets migrated to DB2



## Identifying opportunities

- Corporate strategic direction to modernize apps and integrate data
  - ▶ involves moving data to relational DB
- Concerns about high cost of migrating data -> rewriting apps
  - ▶ Delays in projects, escalating costs....
- CICS VT can rapidly migrate the VSAM data to DB2 without a rewrite and reduce the expense and risk.

### Initial questions to ask:

- Have you considered re-writing existing VSAM applications to DB2? If yes was it the cost and time to convert due to manual re-writing that prevented you from completing this?
- How many mission critical VSAM applications do you have?
- How many of these applications are critical to gain flexibility for DB2 and e-business?



## Customer benefits

- Reduced cost and time – no rewrite of CICS apps required
- Auto-mapping for single record VSAM files
- data in DB2 can be accessed by both online CICS and batch applications simultaneously.
- Customers overcome the limitations imposed by VSAM and benefit from the rich features provided by DB2
- VSAM limitations
  - ▶ VSAM not designed for open data access (i.e. management reporting, analytics)
  - ▶ VSAM data does not easily integrate with data from DB2 and other systems
  - ▶ VSAM is not easily accessible from other platforms
  - ▶ VSAM is not designed to support high availability 24 x 7 mixed online and batch workloads
  - ▶ VSAM maintenance and re-organizations tools are lacking the richness of DBMS tools
- DB2 benefits
  - ▶ batch and online sharing of data
  - ▶ Integration with new applications based on DB2 tech, such as online and e-bus. Systems
  - ▶ Creating visual information, such as executive dashboards
  - ▶ Exploitation of database maintenance tools
  - ▶ Running ad hoc queries
  - ▶ Ability to perform data analysis
  - ▶ Single source of production data available to all with consistent Quality of Service





# Customer questions

## #1 What is the performance impact if I move from CICS VSAM to CICS – VT – DB2?

When moving from a simple file structure like VSAM to a sophisticated relational database like DB2, there is a processing overhead. There is minimal overhead caused by VT itself. Consideration factors such as processing capacity, amount of memory, buffer pool management, and data re-engineering. With the increased functionality of a DB2 environment will be a processing cost but user response times (on-line and overall batch processing) can be maintained. We recommend a small subset of VSAM Dataset should be migrated with VT to see the impact in your own environment. In IBM testing the overall CPU usage increased caused by the move to DB2, found that VT contributed less than one tenth of that increase. (this can be further discussed with tech-sales staff)

Do I have two copies of the data? One in VSAM and one in DB2? No with VT there is only ever a single copy of the data, After its been migrated to DB2, it no longer existing as a VSAM file

Do I have to re-write the application to utilize the data now that it is in DB2? No, this is the key benefit to VT compared to other conversion tools.

Since I don't have to re-write, what if any is my IT staff investment (time)? It depends on if you will want to test some or all.

Do I have to migrate all the VSAM data at once? No they can be modified one file at a time. This permits you to convert selected files, test and immediately benefit from data being in DB2.



## Further Info / Resources

CICS VT internet site  
[www.ibm.com/cics/vt](http://www.ibm.com/cics/vt)  
includes library

