



# TIBCO™ SOLUTION FOR RETAIL STORE DELIVERY

## ORGANIZATION

The client is a global shoe retailer operating over 4,800 stores across the USA, Canada, Central America, the Caribbean, and South America. The company offers a wide range of footwear and fashion accessories products by focusing on innovation and dynamic response. The client has several warehouse facilities and supply chains supported by a Warehouse Management System (Manhattan WMS).

## CHALLENGE

Traditionally, our client was using a batch-oriented processing methodology for fulfillment of outstanding orders. The data from the mainframe system was processed during the night or early morning time-frame and was fed into the WMS. Ecommerce orders were also processed as part of the traditional store orders in batch. The result was increased volumes during the batch processing. As the load on the infrastructure increased, their target systems, and particularly WMS, were subjected to several processing and time constraints.

### TECHNICAL LANDSCAPE:

Prior to implementation of our solutions, the technical landscape was characterized by the following:

- The data management processes, associated controls, and governance were lacking.
- Data was presented as text files from the mainframe system.
- Integration capabilities needed to be built to transfer data from the mainframe to WMS.
- Issues were further compounded with data joins since the two different distribution centers resided on separate instances of the WMS application.

Our client wanted a way for the incoming pick ticket requests from the mainframe system to integrate in real-time with the MA-WMS to ensure quick fulfillment of the outstanding orders.

Also, there was a need for the solution to be consistent and architecturally compatible between the Western Distribution Center (WDS) and the Eastern Distribution Center (EDC).

## SOLUTION

XTIVIA delivered a real-time solution utilizing the TIBCO suite of integration and enterprise data management products. The solutions were developed and implemented separately for each of the two WMSs and deployed to a central enterprise integration management and administration application.

### ARCHITECTURE AND SOLUTION DETAILS:

The mainframe processes ecommerce orders and creates a pick ticket file. The data from the pick ticket needed to be extracted, transformed, and loaded into the WMS staging tables. XTIVIA implemented Publisher-Subscriber Architecture, wherein the Publisher component would receive, inspect and transform the input data, and publish it onto JMS Server. The subscribers receive the data and upload it to the target system. Two such subscribers were the WDC and EDC WMS system subscribers.

## KEY COMPONENTS

### TECHNOLOGIES USED

- TIBCO™ BusinessWorks
- TIBCO DataExchange
- TIBCO Rendezvous
- TIBCO EMS
- TIBCO Object Star Adapter for Files (z/OS)
- Adapter for Files (UNIX)





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## SOLUTION (CONTINUED)

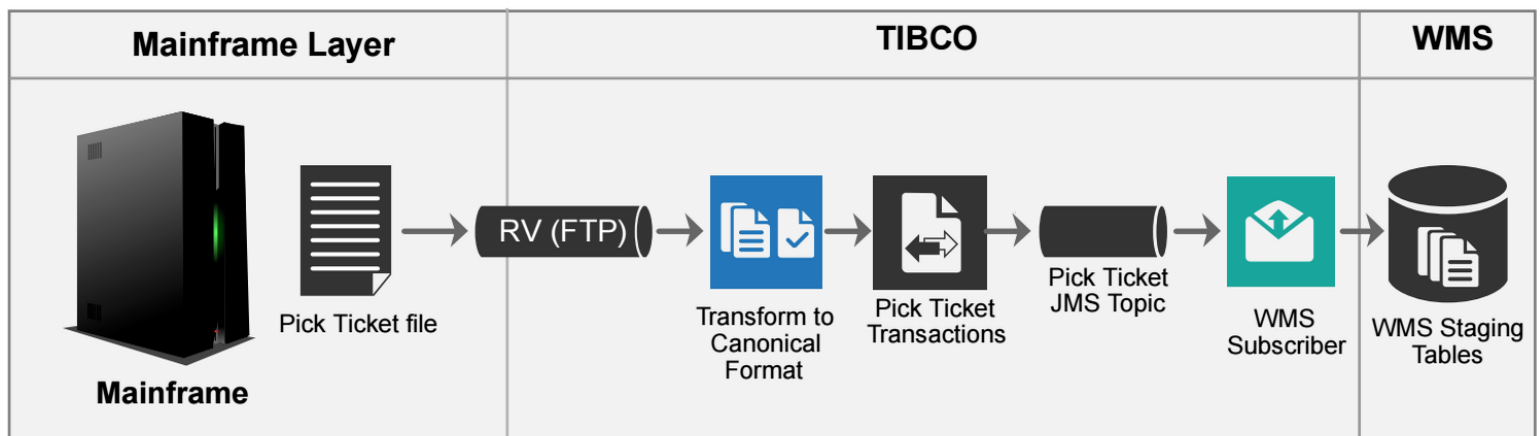
Since reliability was a must, the TIBCO adapters operation in file transfer mode were chosen as opposed to FTP. Once the file is available for processing in the integration environment, the BW publisher component reads the file from the TIBCO File Server, parses the transactions, creates an order message from the records, converts the message in to canonical format, and publishes the individual transactions. The BW component publishes the rows to different queues. The subscribing BW component subscribes to the message in canonical format, converts into WDC/EDC format and inserts the transactions into the respective WMS staging tables. Once all the records have been uploaded to the WMS staging tables, a process completion trigger is published to the mainframe system to indicate the completion of transaction.

The XTIVIA team analyzed the existing solution and based on the review of each of each of the business requirements, the team provided a comprehensive data transformation and integration solution. The solution was engineered to attain another previously unstated critical business goal—one of reusability of the existing services and adherence to the retail industry standards. Another requirement was that, if needed, this data should also be made available to interested parties other than the WMS.

## RESULTS

Among the many benefits that implementation of the solution entailed, the following are key:

- Ability to process the orders in real time.
- Enhanced and improved order management.
- Centralized and Efficient Distribution center operations.
- Improved operational performance of the WMS.
- Improved the data consolidation and system scalability.
- Avoided using the WMS system for analysis, thereby reducing overall system resource usage.



## XTIVIA OVERVIEW

XTIVIA is a proven technology integration and innovation company known for delivering leading-edge technology solutions to our clients' specific requirements, regardless of project complexity. We bring next-level business operations to reality through Application Development, Business Intelligence, Data Warehousing, Database Support & Management, Enterprise Information Management, Digital Experience Solutions and Enterprise Resource Planning. Our success stems from a demonstrated ability to deliver deep expertise via professional services, empowering clients to leverage their chosen technology successfully, competitively and profitably. XTIVIA has offices in Colorado, New York, New Jersey, Missouri, Texas, Virginia, and India. [www.xtivia.com](http://www.xtivia.com)