



E12

Access to CICS TS in VSE/ESA 2.7

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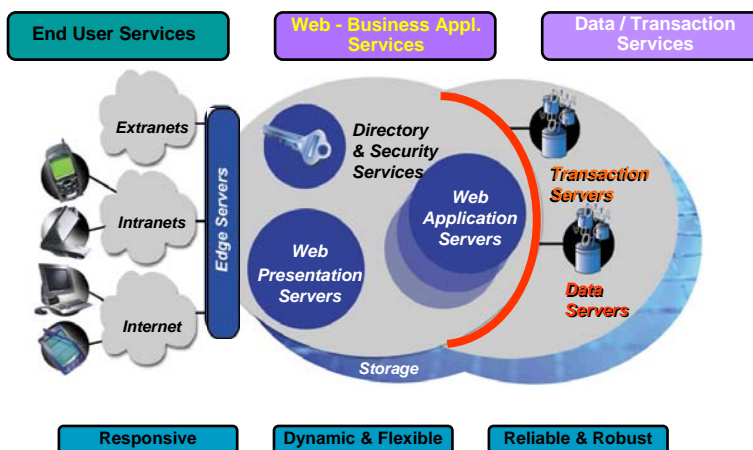
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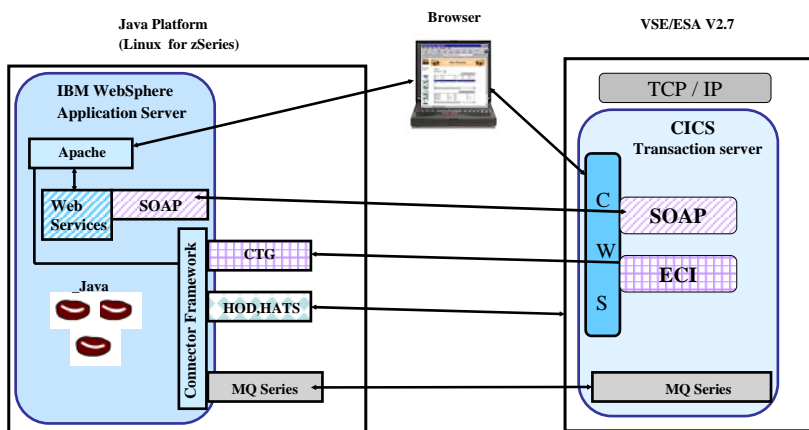
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Infrastructure



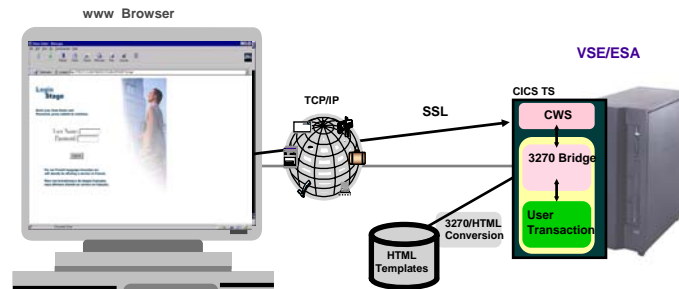
Access to CICS TS in VSE/ESA V2.7



- CWS - CICS Web support (within CICS Transaction server 1.1 for VSE)
- CTG - CICS Transaction Gateway (WebSphere CICS Connector)
- HOD - Host OnDemand (WebSphere Host Integrator)
- HATS - Host Access Transformation server
- SOAP - Simple Object Access Protocol

Direct access to VSE/ESA transactions via browser

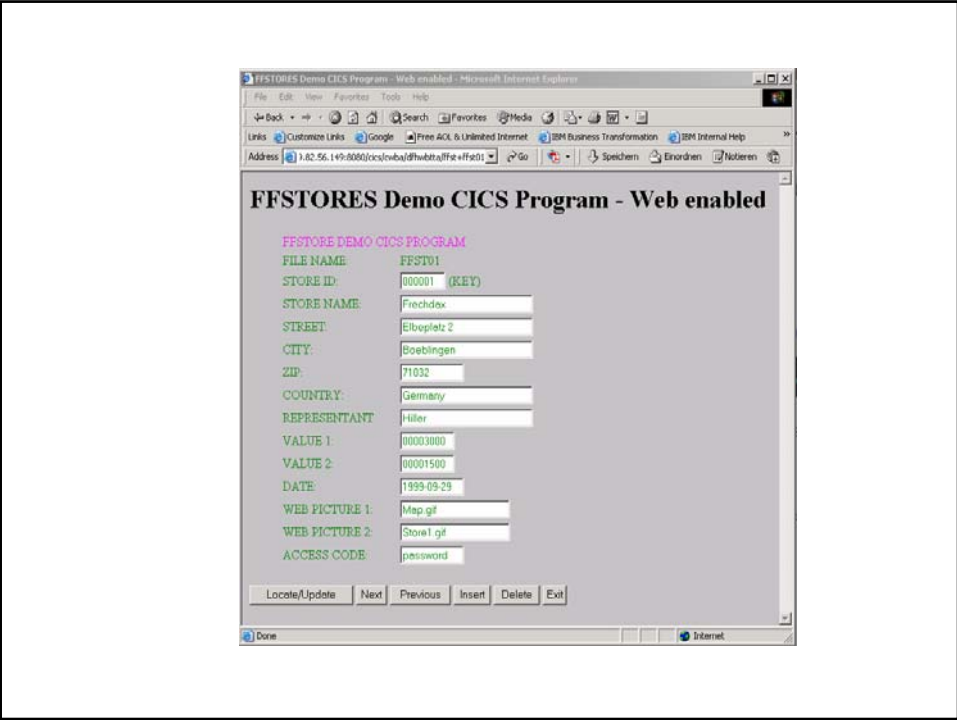
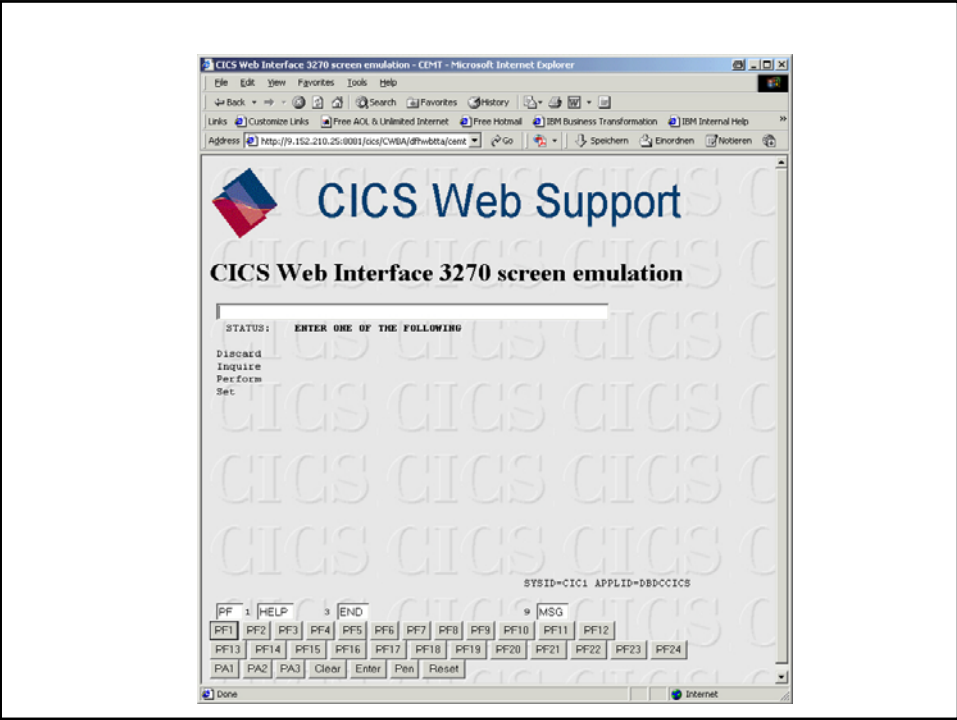
IBM CICS Web Support - Components



- ▶ direct access to VSE/ESA transactions via web Browser
- ▶ Without the need of a web server on VSE/ESA
- ▶ Build in Function in CICS TS

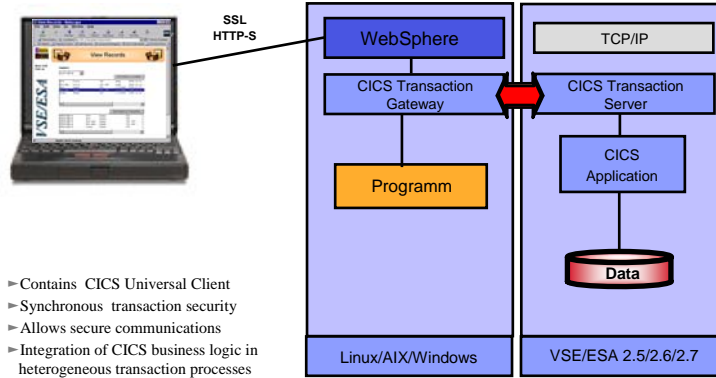
IBM CICS Web Support

- functional characteristics
 - ▶ direct access to VSE CICS transactions via a simple web browser
 - ▶ transaction security for the called transaction
 - ▶ secured connections (SSL) with VSE/ESA 2.6
- requirements
 - ▶ VSE/ESA 2.5 and higher



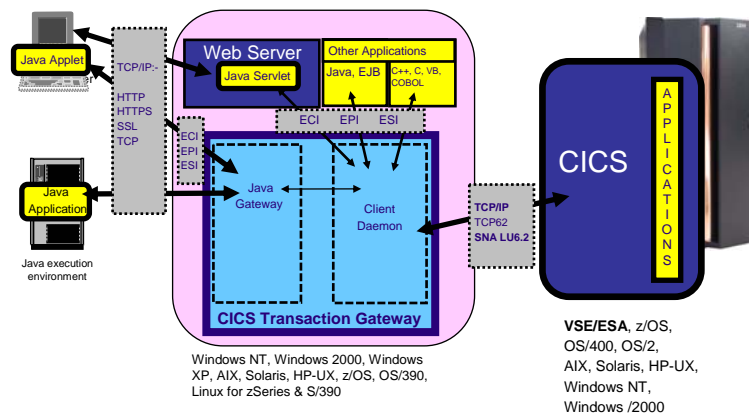
Integration of VSE/ESA transaction processes

CICS Transaction Gateway - Implementation



Integration of VSE/ESA transaction processes

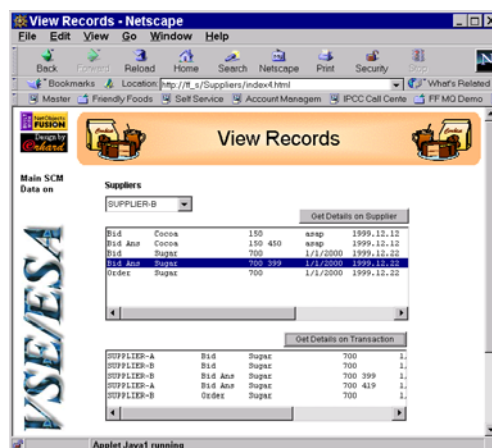
CICS Transaction Gateway (CTG) - Components



CICS Transaction Gateway

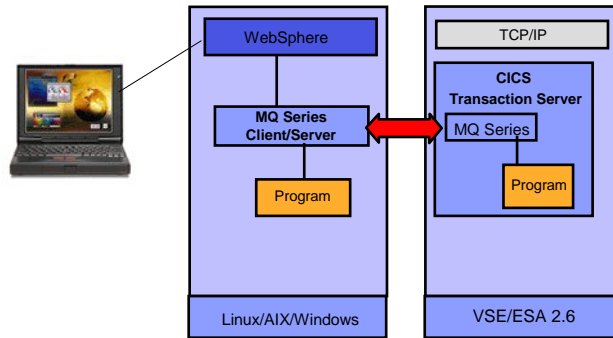
- functional characteristics
 - ▶ access to VSE transactions from a remote platform (program communication)
 - ▶ transaction security for the called transaction therefore, good integration in e-business Processes and WebSphere Application Server.
 - ▶ secured connections (SSL) to CICS Transaction Gateway
- requirements
 - ▶ VSE/ESA and the Product: CICS Transaction Gateway (CTG)
 - ▶ for External CICS Interface (ECI) with TCP/IP, VSE/ESA 2.6 and later is required with CICS Transaction Gateway Version 4 or later

Consolidation of VSE/ESA transaction processes



Asynchronous work with CICS transactions

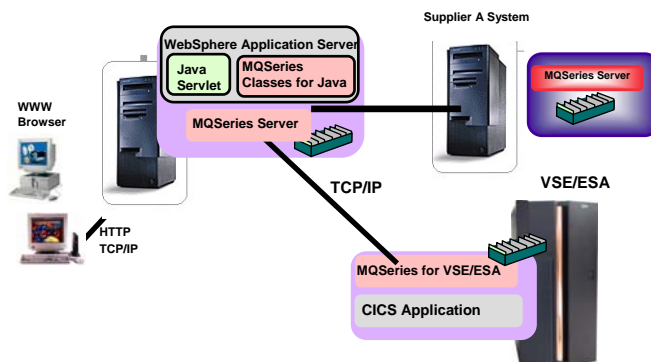
MQ Series - Implementation



- ▶ asynchronous data exchange using message queuing
- ▶ guaranteed and 'only once' delivery
- ▶ integration into Web Application servers (WebSphere)

Asynchronous work with CICS transactions

MQ Series - Components



- ▶ asynchronous data exchange using message queuing
- ▶ Various platforms supported
- ▶ integration into Web Application servers (WebSphere)

MQ Series - asynchronous transactions

■ functional characteristics

- ▶ guaranteed, secured asynchronous data access for remote systems
- ▶ same API for all supported MQ Series platforms
- ▶ transaction security, therefore appropriate for e-business processes
- ▶ integration with WebSphere Application Server
- ▶ works well for Business-to-Business (B2B) environments

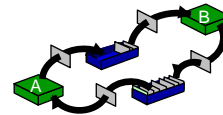
■ software requirements

▶ For VSE/ESA :

- ▶ VSE/ESA 2.6/2.7
- ▶ MQ Series Server
- ▶ Program that interfaces with MQ Series server on VSE/ESA

▶ On the remote system:

- ▶ MQ Series Client / Server
- ▶ Program that interface with MQ Series

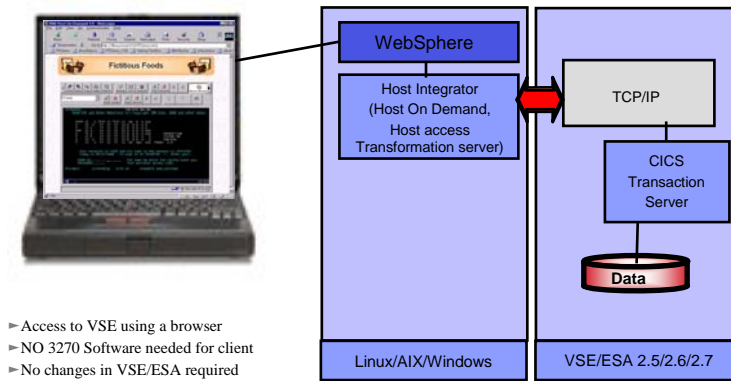


MQSeries servers and MQSeries Clients



General access to VSE/ESA via browser

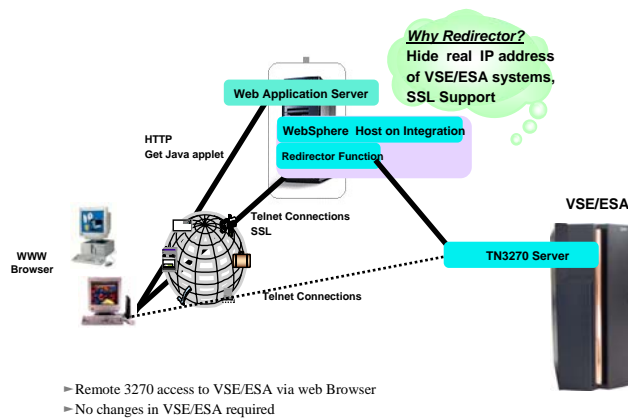
WebSphere host Integrator - Implementation



NEW!: Communication Server (CS) available for Linux for zSeries

General access to VSE/ESA via browser

WebSphere Host Integration – Components

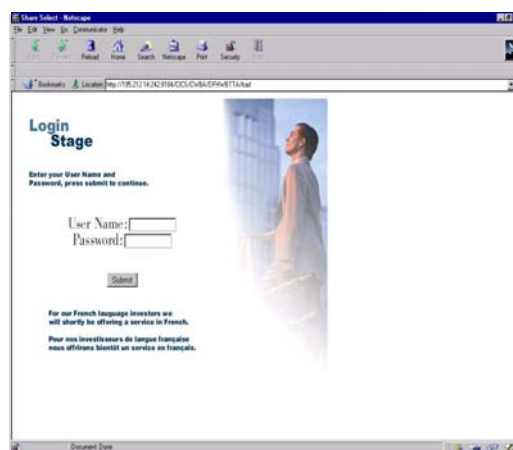


Host Access Transformation Server

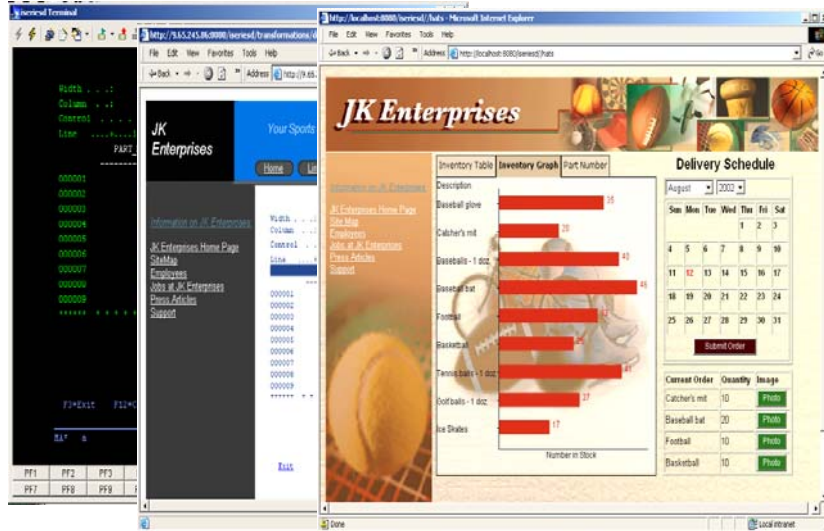
- functional characteristics
 - ▶ access to VSE/ESA via browser
 - ▶ the access is similar with a local access via 3270 emulator
 - ▶ can be used in Intranet or Internet and /or
 - ▶ integrated with WebSphere Application Server
 - ▶ support for secured connections (SSL) to the HostOnDemand Server and a redirector to mask the real IP addresses
 - ▶ Host Access Transformation Server – for 3270 screen scraping
 - ▶ Host Publisher - a bean generator to create the Java Beans (Integration Objects), to provide legacy access for new Web applications.
- Requirements
 - ▶ WebSphere Host Integration products on middle tier
 - ▶ NO additional software on VSE/ESA required

Benefit: Easily extend existing applications to the web

Interaction with VSE/ESA via browser

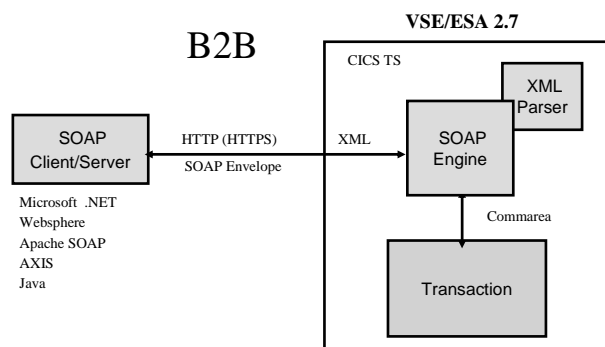


Interaction with VSE/ESA via browser



Web Services with VSE/ESA 2.7

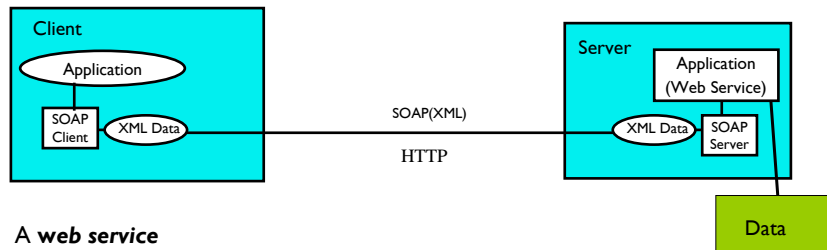
XML data interchange with CICS transactions



★ VSE/ESA Transactions as Web Service

Web Services

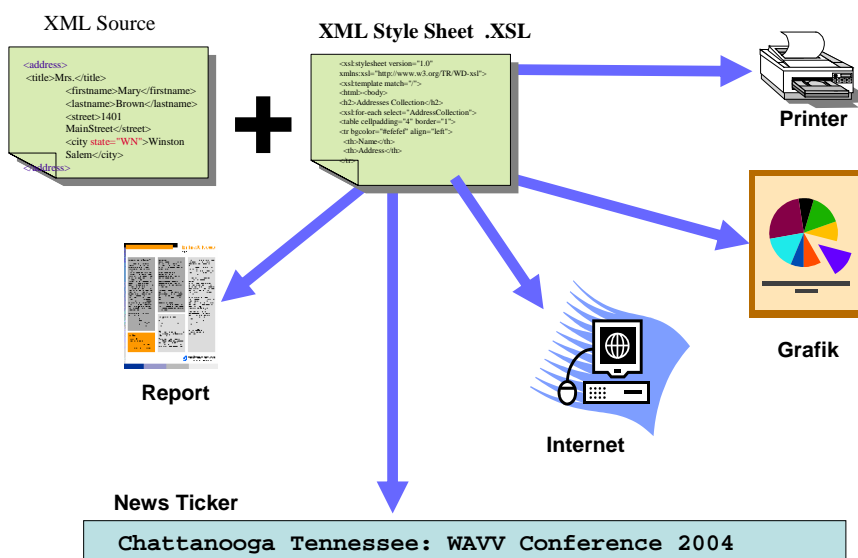
XML Document + SOAP Protocol = Web Services



A web service



- ☞ implements a business, application or system functionality
- ☞ is intended for application communication
- ☞ is useable in internet, intranet, extranet
- ☞ is useable for browser-based solutions up to the B2B integration between companies
- ☞ uses only standard internet technologies

XSL – formatting of XML documents



What is SOAP?

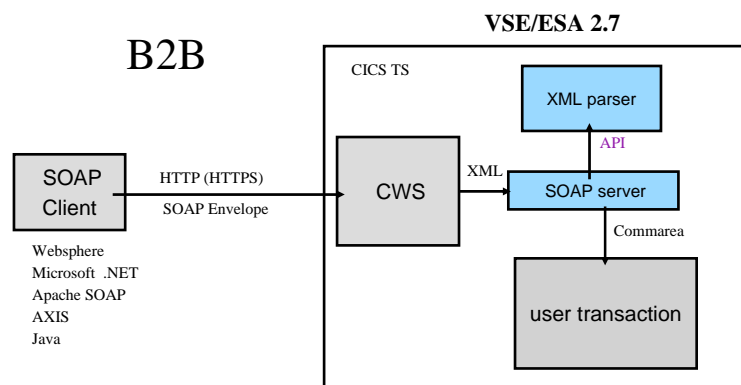
Simple Object Access Protocol

- SOAP is an **XML** based protocol for communication between two remote applications:
 - is based on RPC messaging
 - is language independent (de-couples interface from implementation)
 - represents remote procedure calls and responses
- A SOAP message consists of:
 - Envelope 
 - Wraps the message itself
 - Defines rules for decoding the message
 - Message 
 - Request (method to invoke on a remote object and parameters)
 - Response (result of running the method and exceptions)

VSE/ESA as SOAP server

Web Services (SOAP)

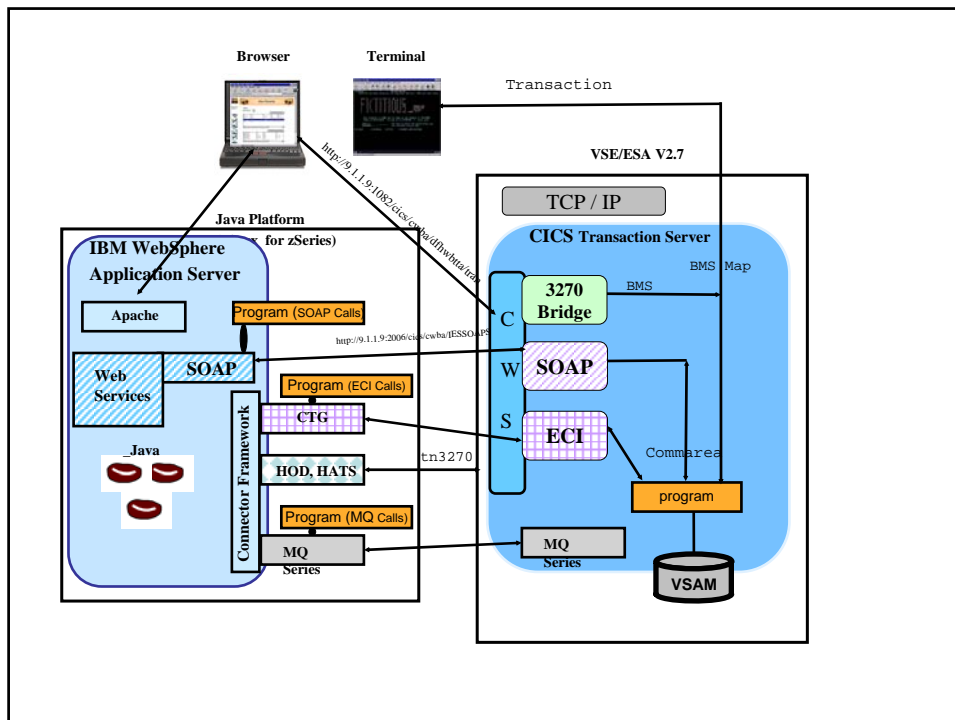
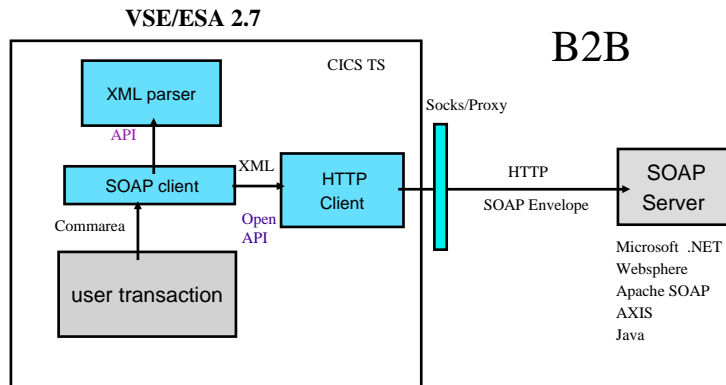
SOAP - Simple Object Access Protocol
(platform independent remote procedure call)



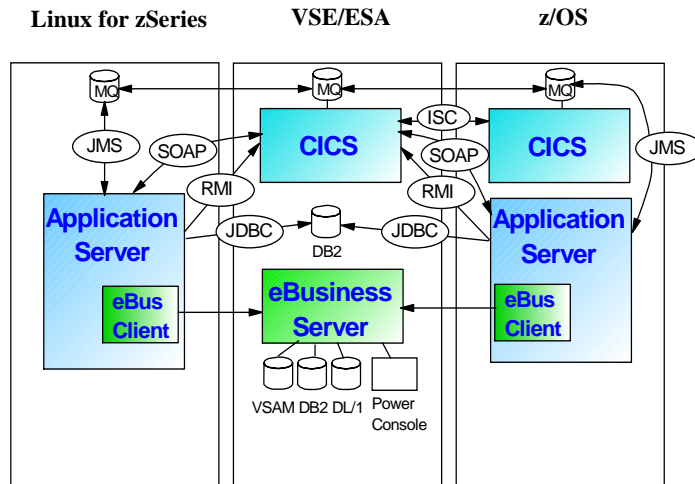
VSE/ESA 2.7 as SOAP client

Web Services (SOAP)

SOAP - Simple Object Access Protocol
(platform independent remote procedure call)



Modern CICS Interconnections



Additional Information

- VSE/ESA Home Page
<http://www.ibm.com/servers/eserver/zseries/os/vse/>
- Connectors for VSE/ESA
<http://www.ibm.com/servers/eserver/zseries/os/vse/support/vseconn/>
- e-business Connectors User's Guide SC33-6719
<http://www.ibm.com/servers/eserver/zseries/os/vse/support/vseconn/>
- e-business Connectivity for VSE/ESA SG24-5950
- e-business Solutions for VSE/ESA SG24-5662
- Servlet and JSP Programming SG24-5755
- Linux Web Hosting with WebSphere, DB2, and Domino SG24-6007



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