A49

WWW.IMS or Websphere Working With IMS

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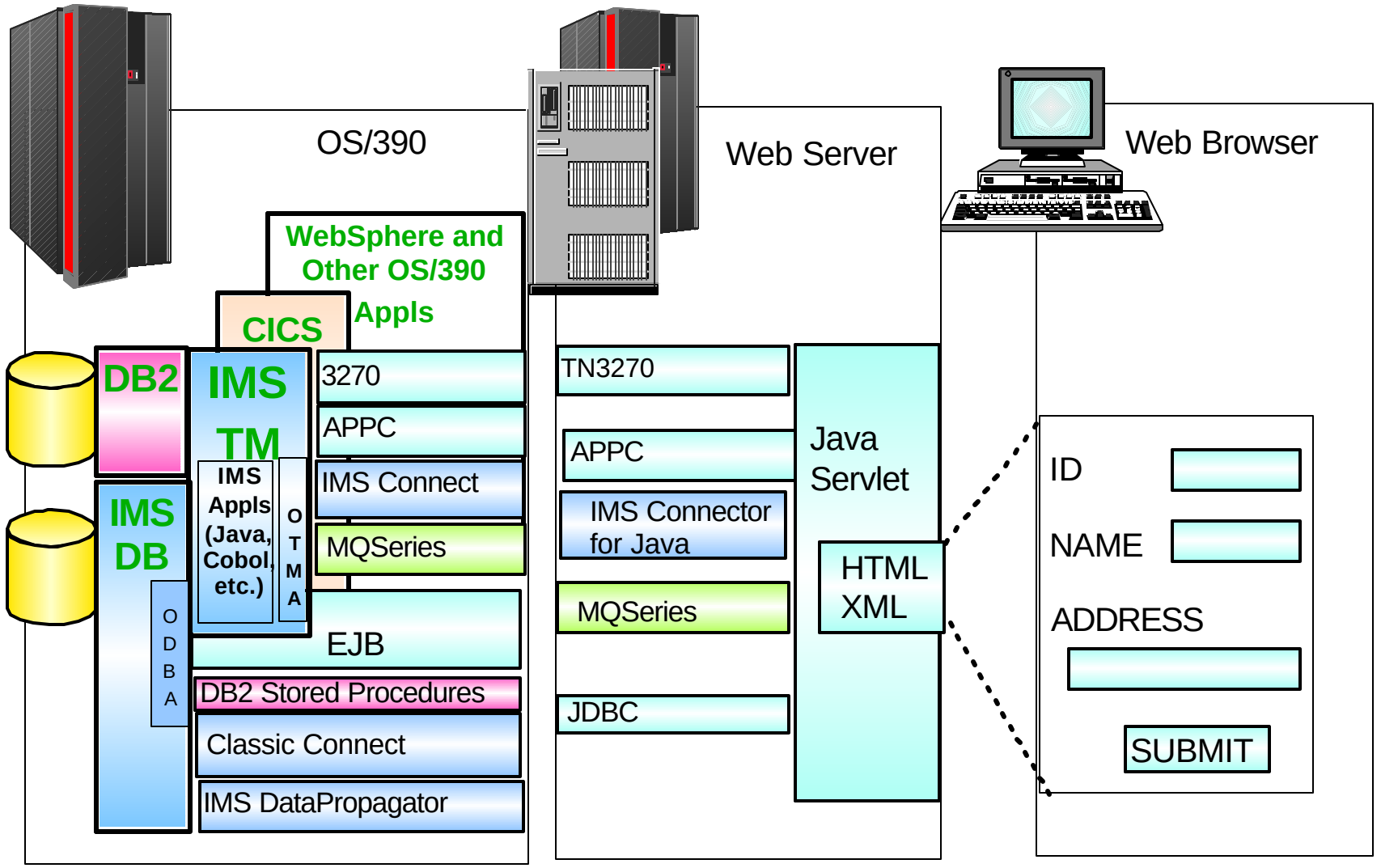
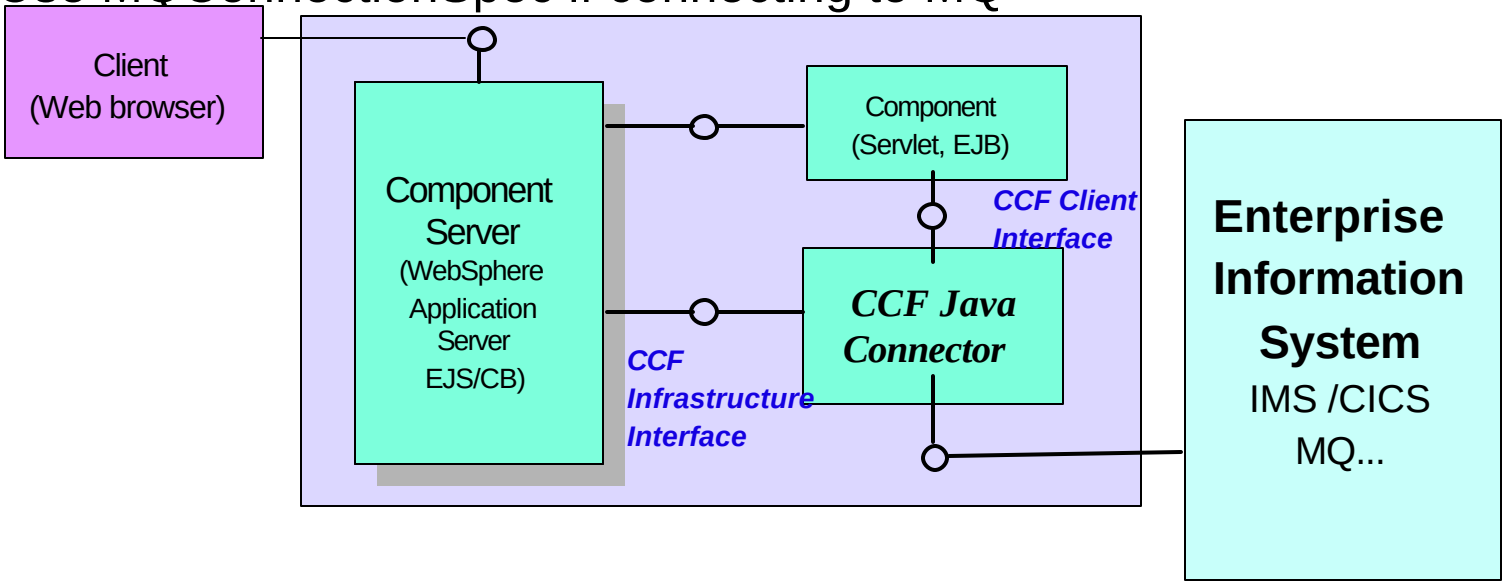
Leveraging Applications and Data

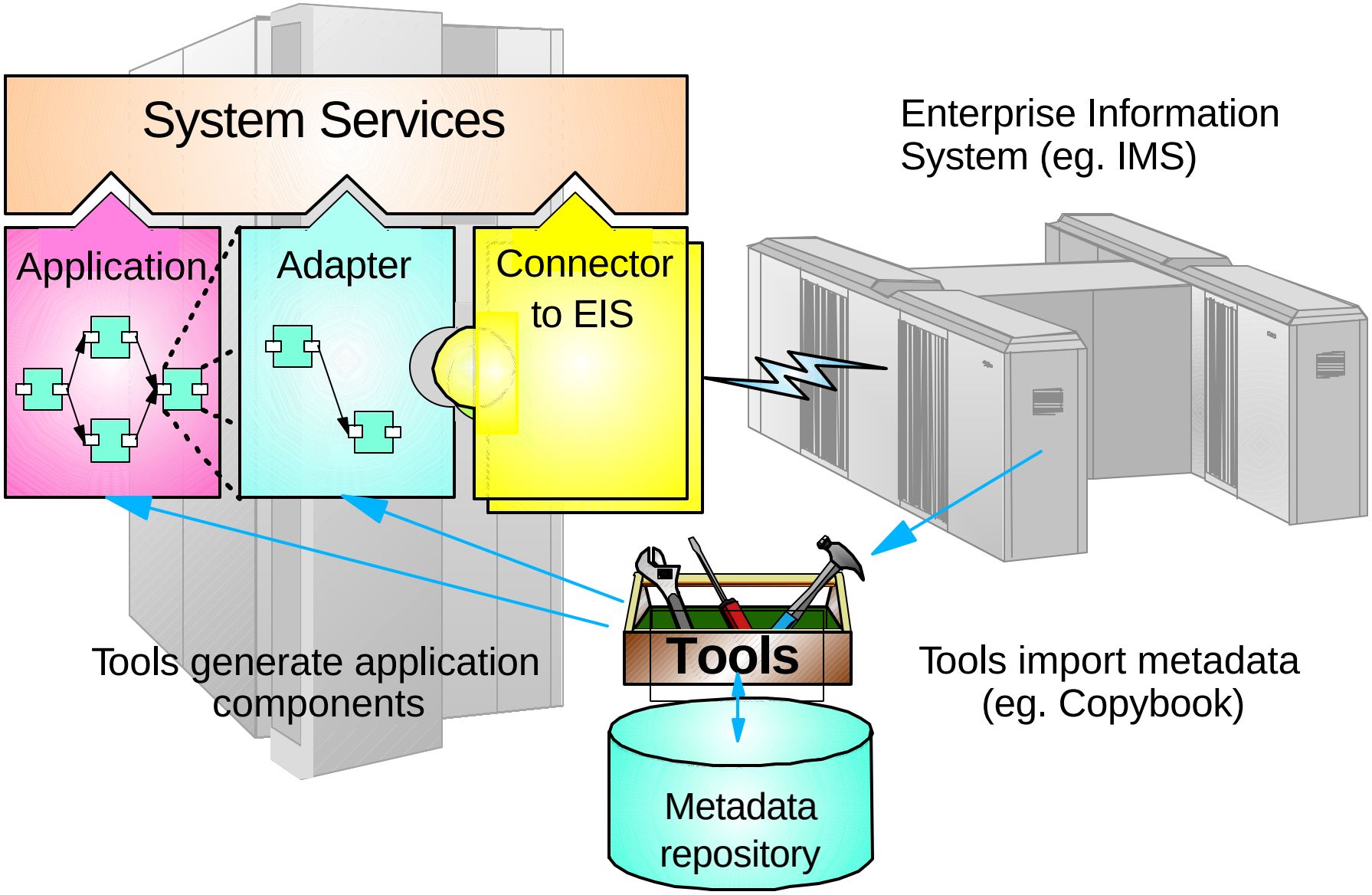


Common Connector Framework

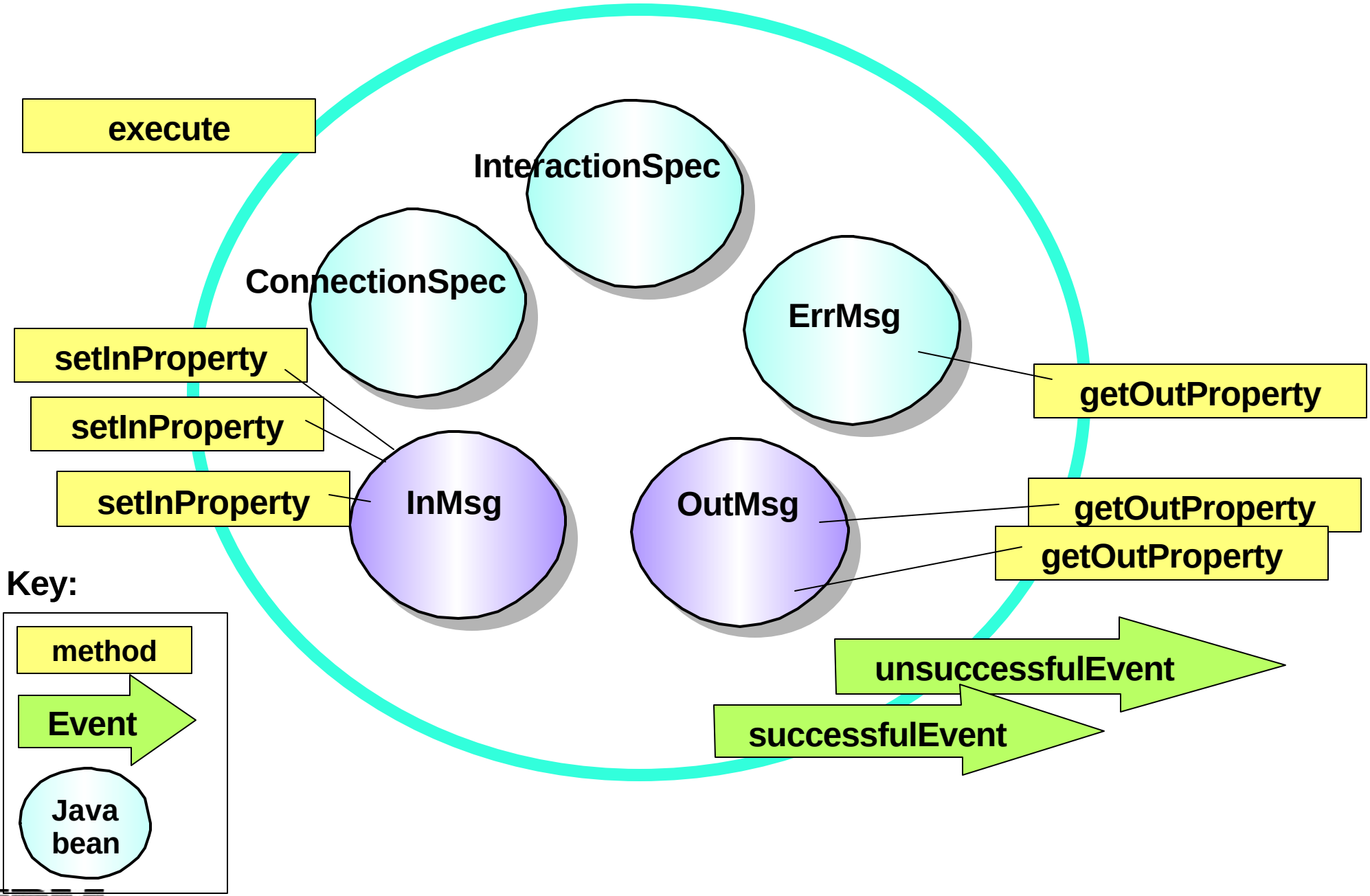
- **Defines a common and consistent set of Java interfaces that all connectors implement**
- **Implements common functions like connections and interactions with back-end resources**
- **Programmer does not have to deal with many differences among different connectors when building applications**
- **Other connectors include CICS, MQ, Encina, SAP, HOD, etc. For example**
  - Use IMSConnectionSpec if connecting to IMS
  - Use CICSConnectionSpec if connecting to CICS
  - Use MQConnectionSpec if connecting to MQ



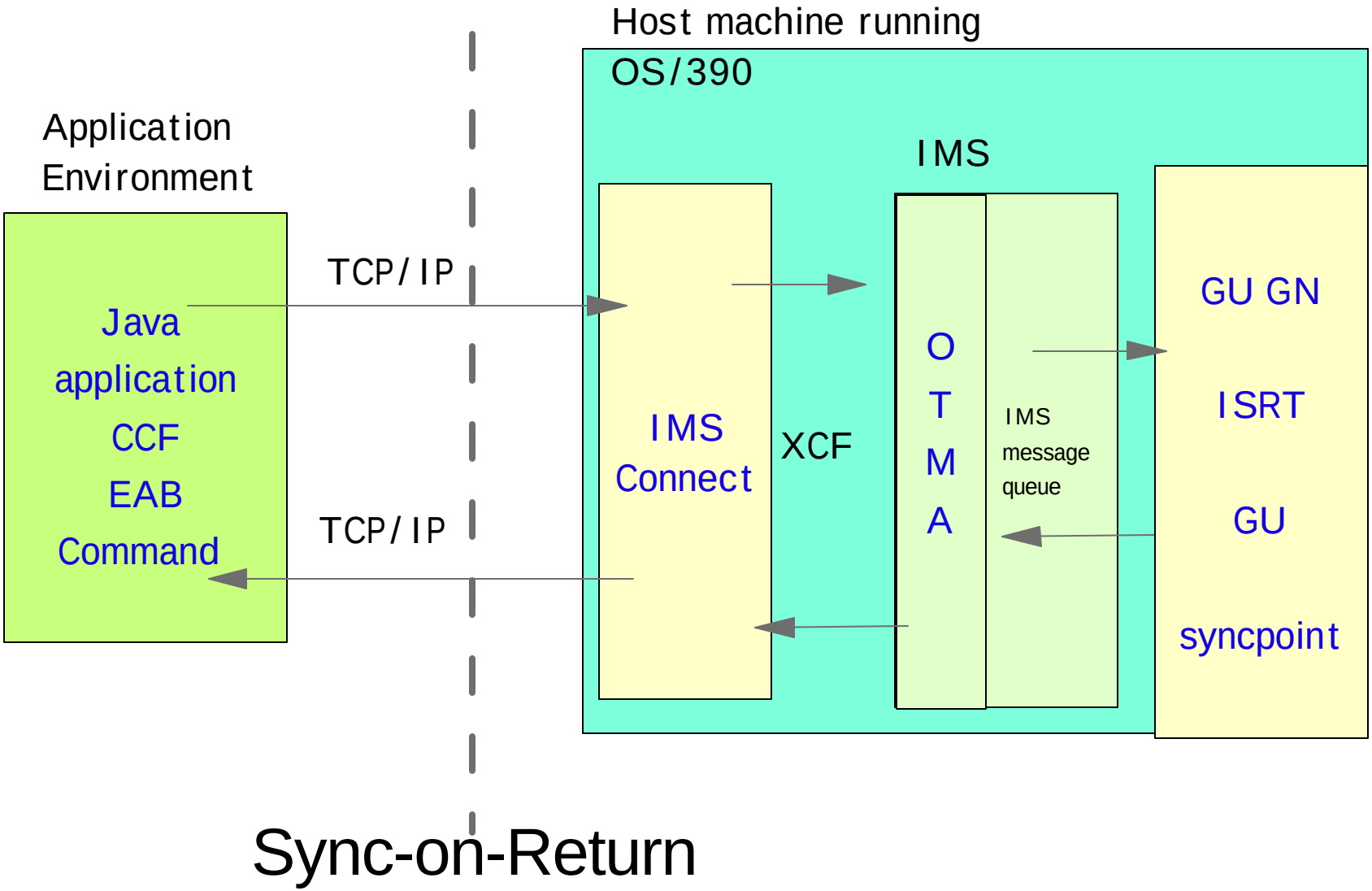
Common Connector Architecture



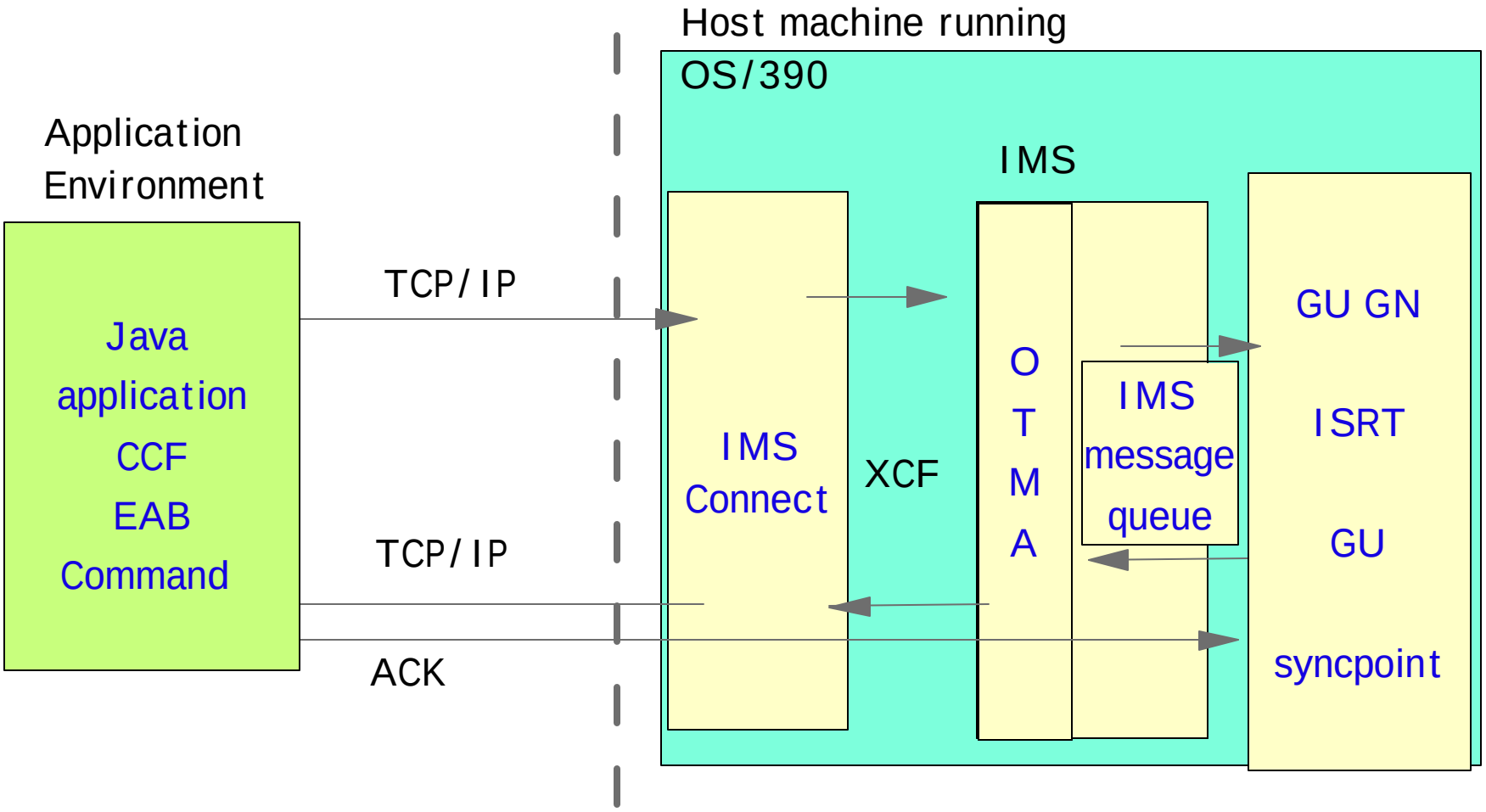
CCF EAB Command



Send-then-Commit
Sync_Level=None

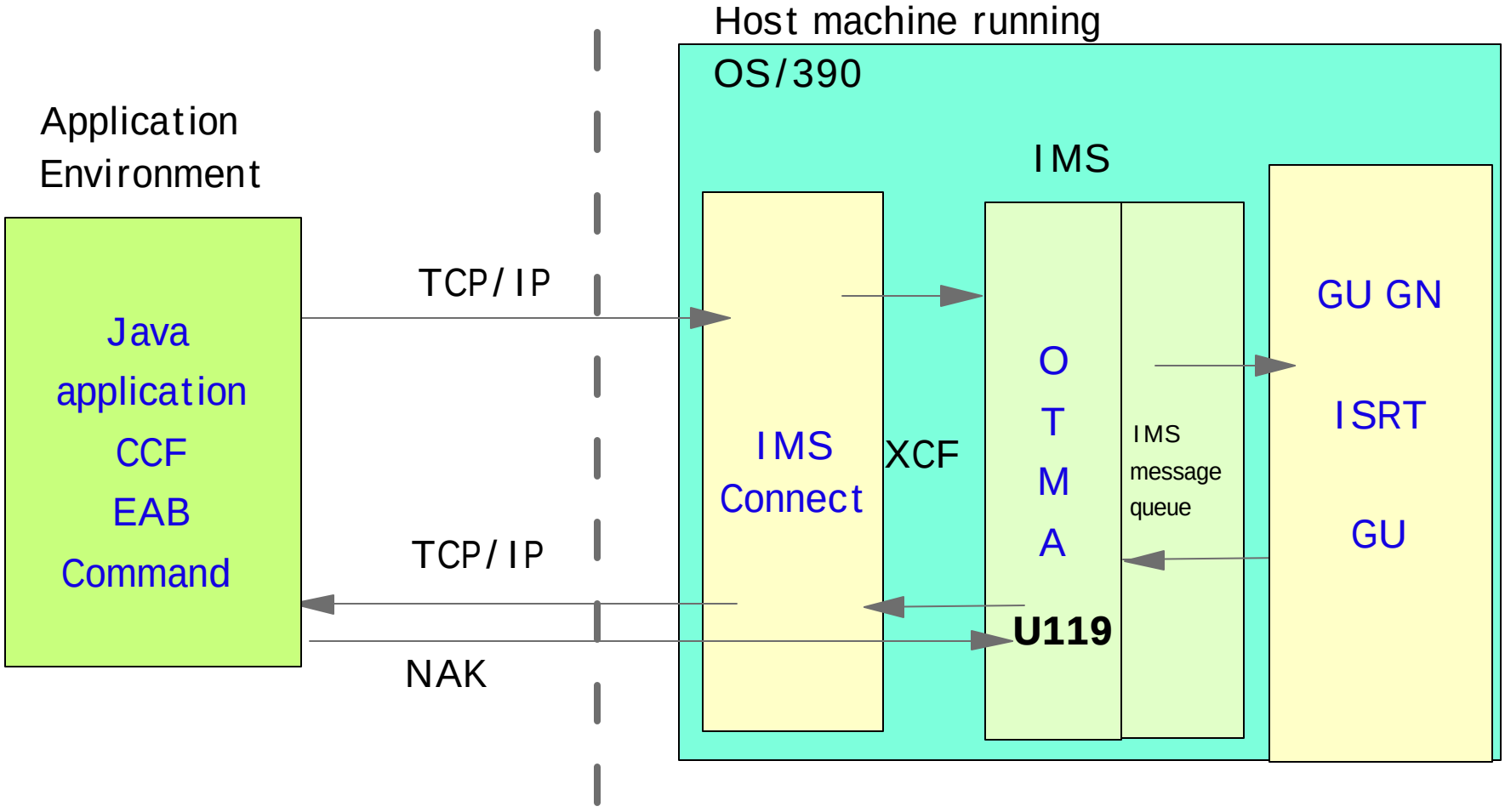


Send-then-Commit
Sync_Level=Confirm

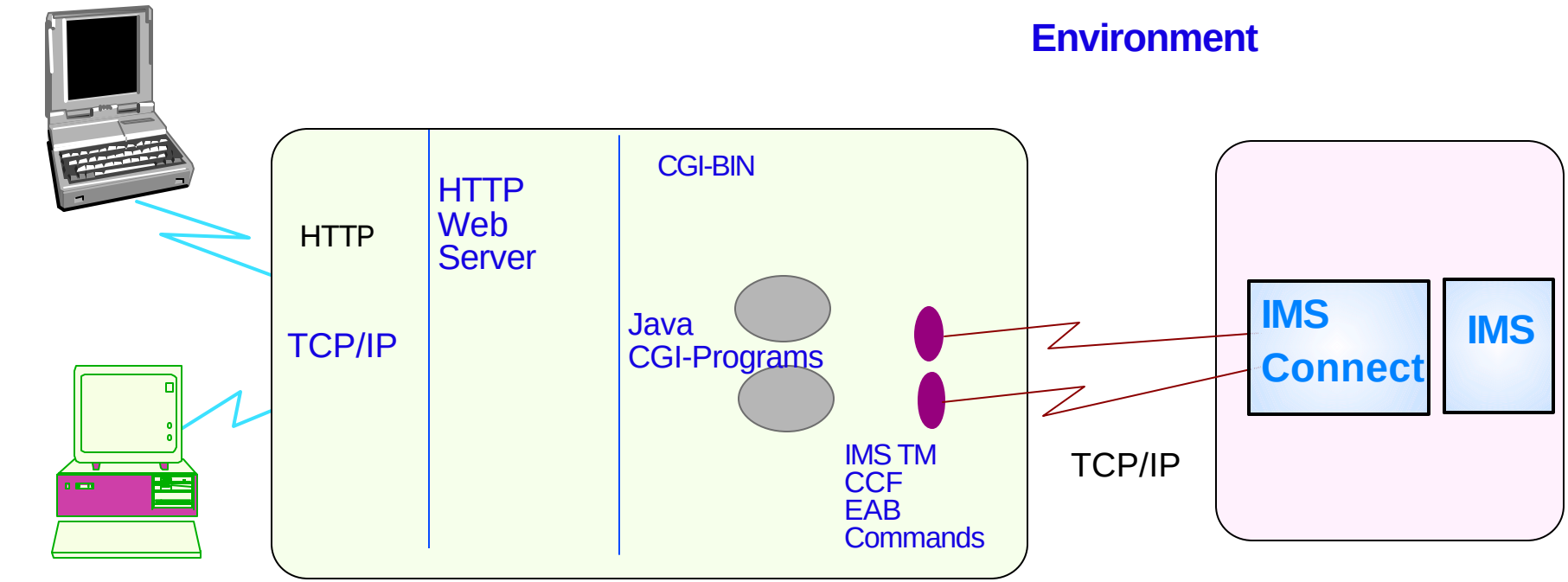


Single Phase Commit

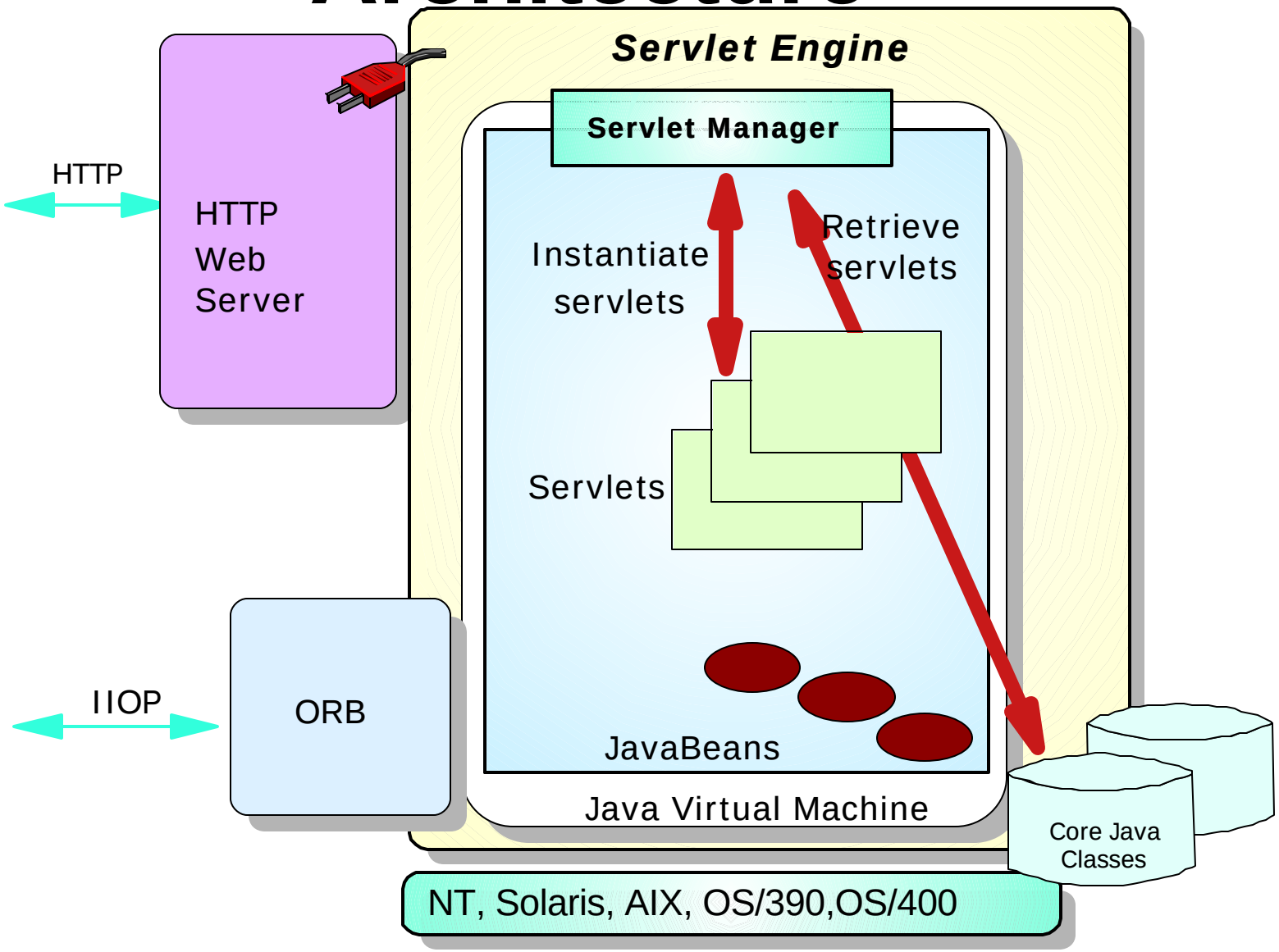
Send-then-Commit
Sync_Level=Confirm-U119



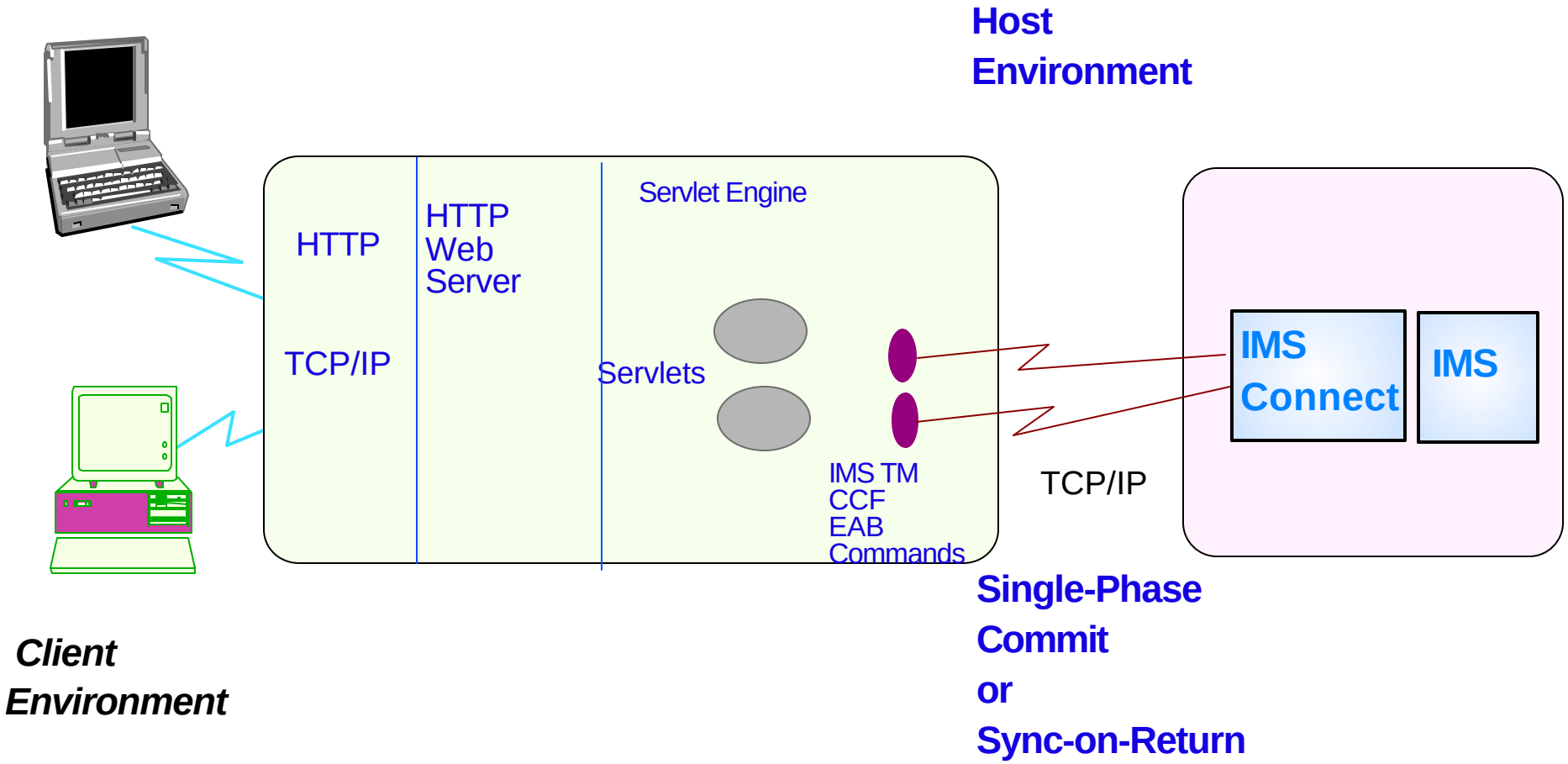
HTTP Server


Host
Environment
HTTP
TCP/IP
HTTP
Web
Server
CGI-BIN
Java
CGI-Programs
IMS TM
CCF
EAB
Commands
TCP/IP
IMS
Connect
IMS
Client
Environment
Single-Phase
Commit
or
Sync-on-Return

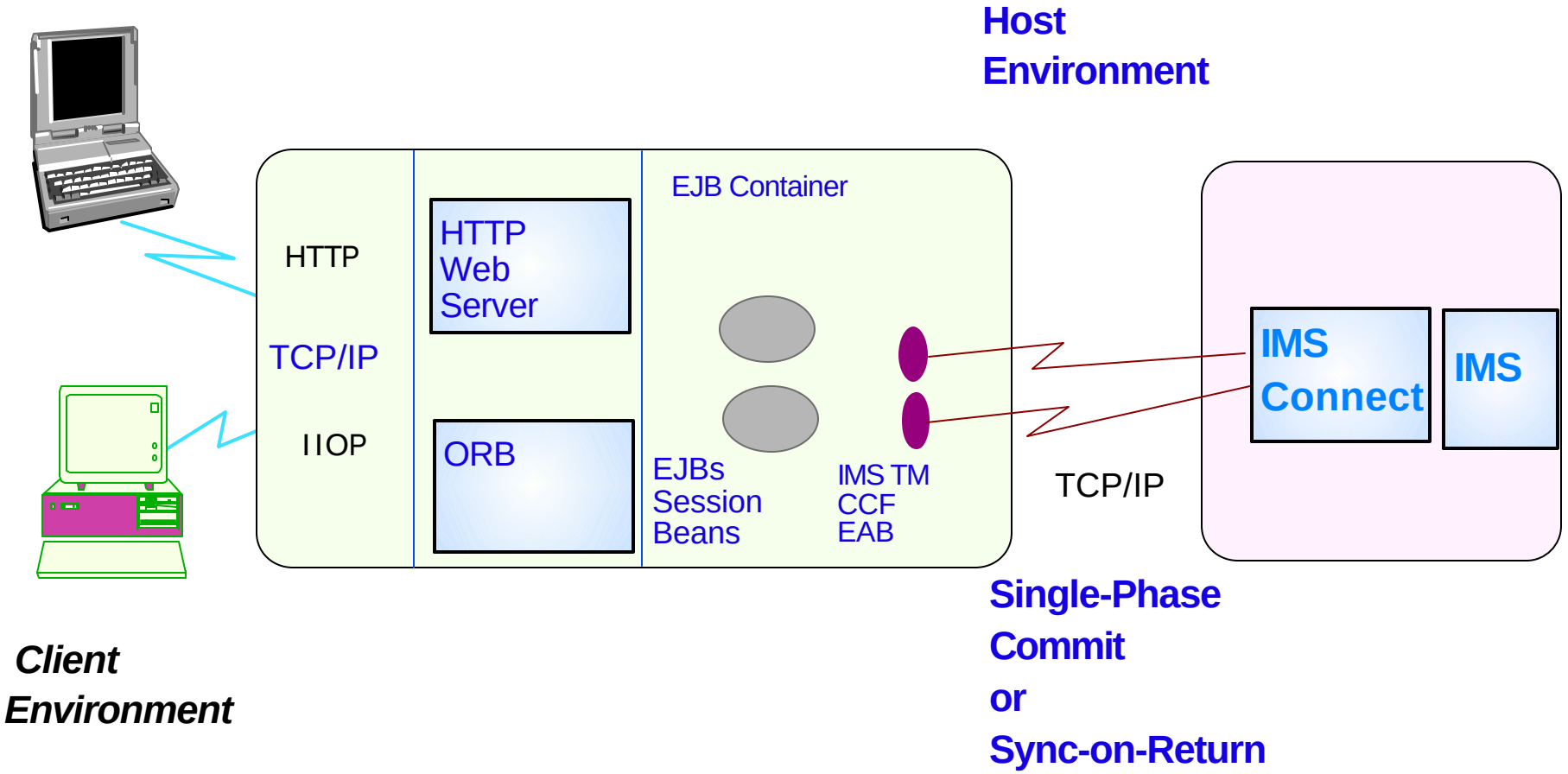
WebSphere Application Server Architecture



WebSphere Application Server



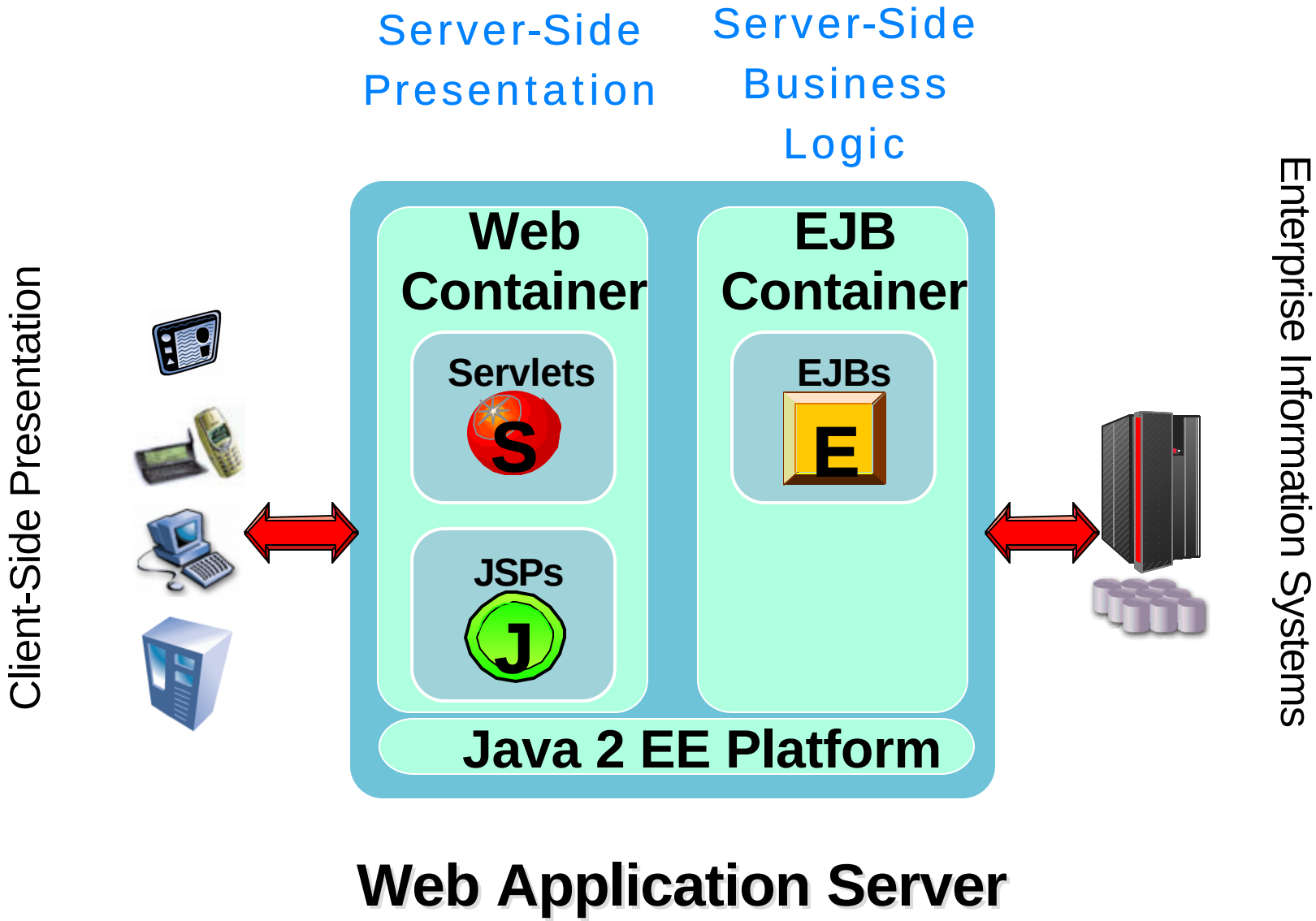
WebSphere Application Server



The J2EE application model

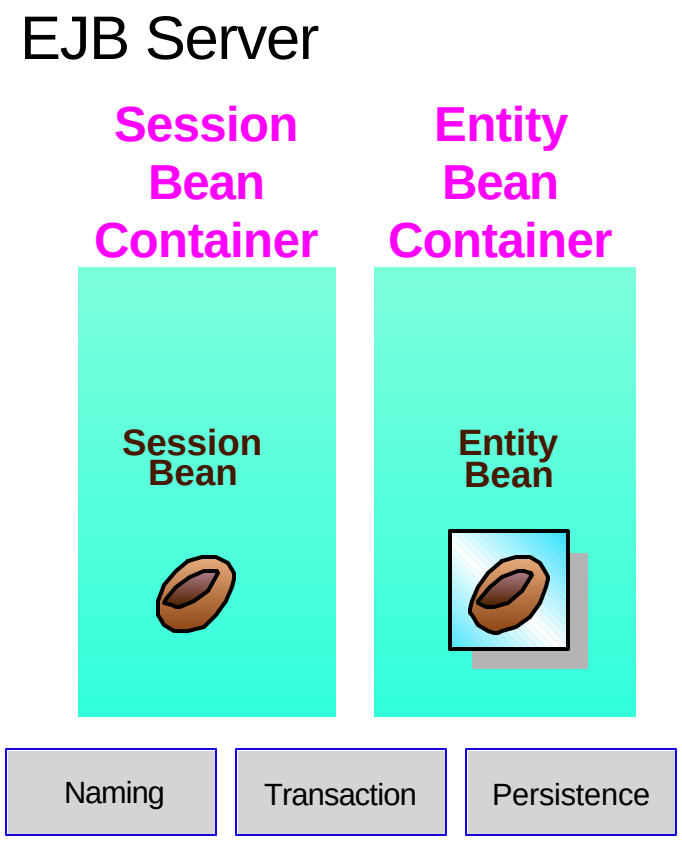
- Components
  - The key focus of application developers. Containers and connectors conceal complexity and promote portability.
- Containers
  - Provide services to components transparently, including transaction support and resource pooling. Many component behaviors can be specified at deployment time, rather than in program code.
- Connectors

J2EE and the WebSphere Software Platform



Web Application Server

EJB: Server and Container



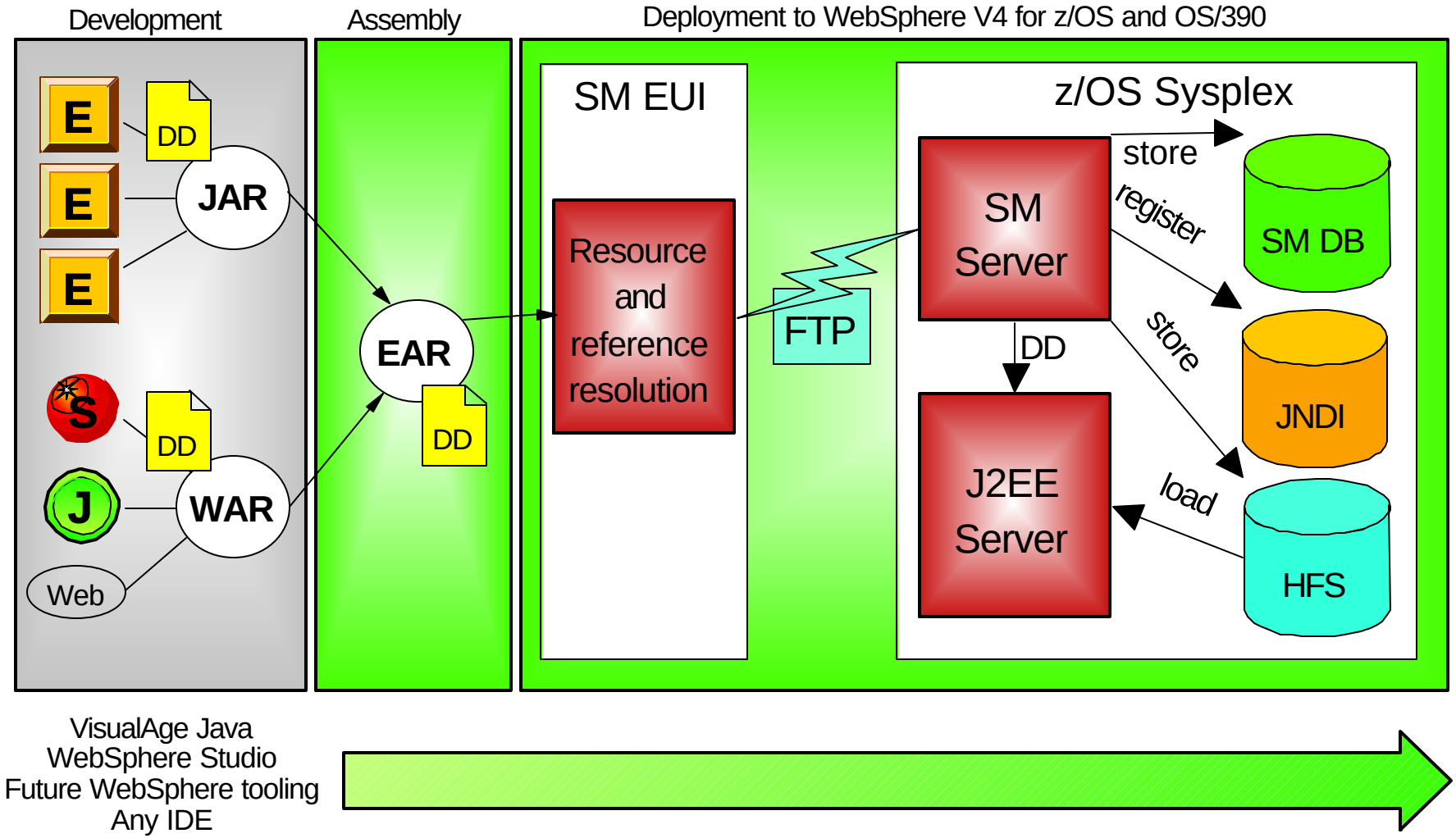
Server manages the EJB environment

- Naming
- Transaction
- Persistence

Container

- Required for Transactions
- Manages Session Beans and Entity Beans

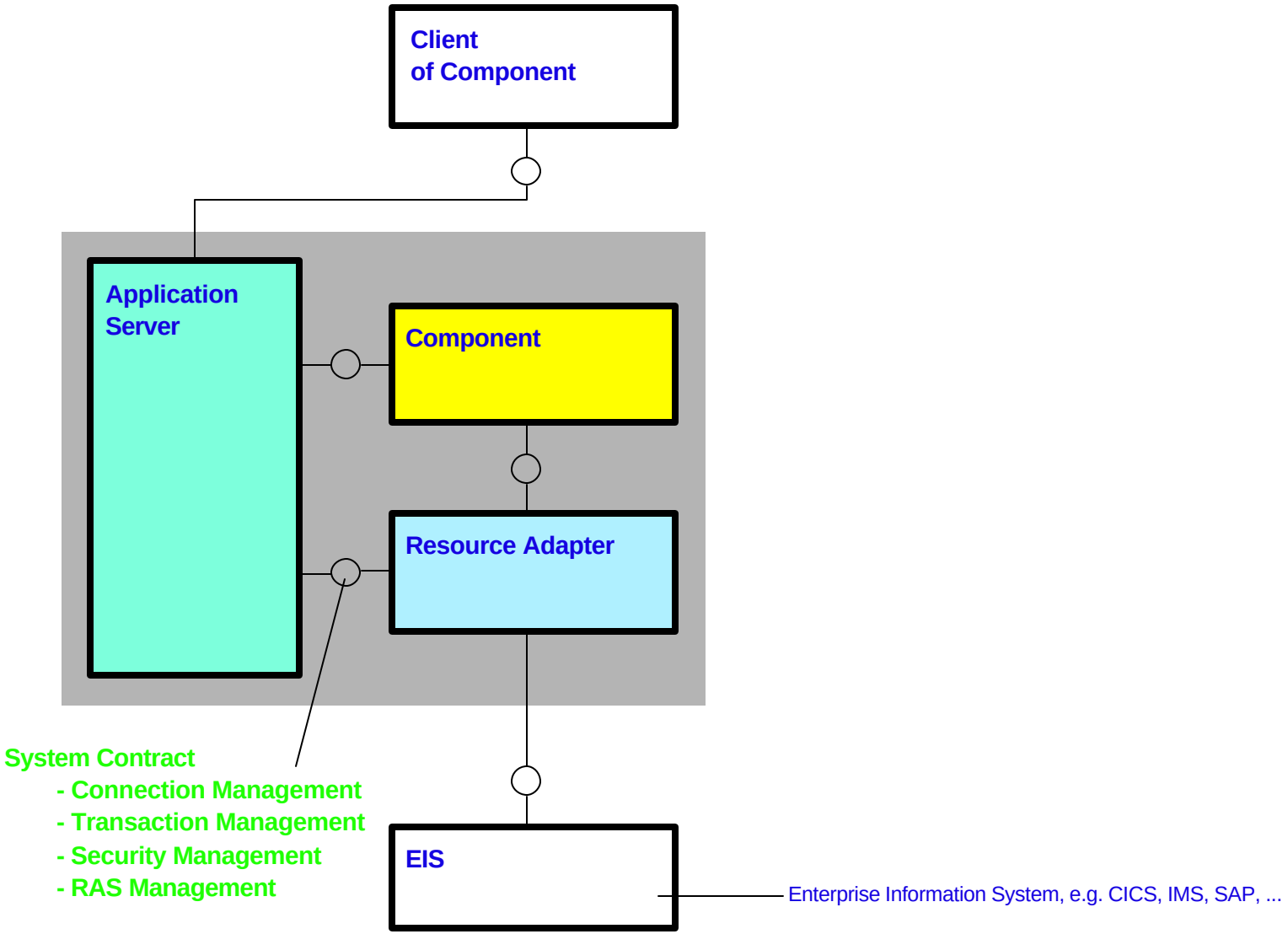
Developing and deploying V4 applications



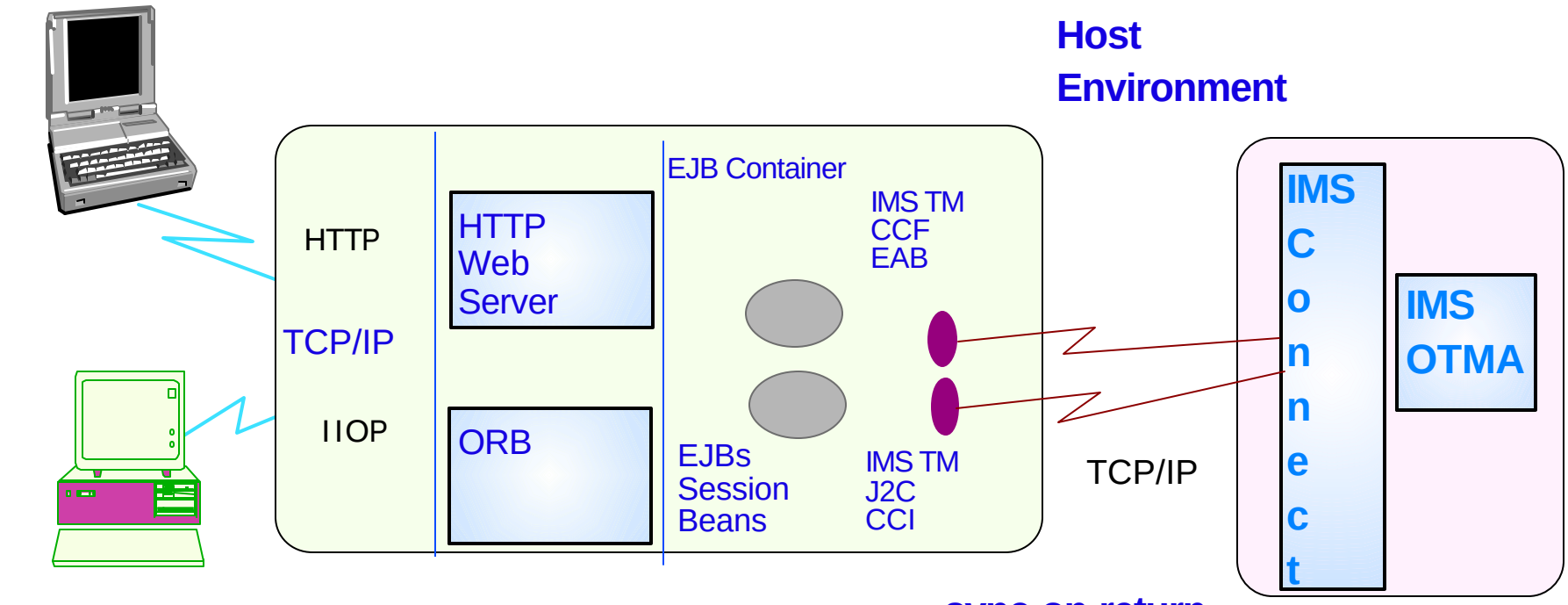
J2EE File Types

- Web Archive(WAR)
  - Servlets
  - Java ServerPages(JSP)
- Java Archive(JAR)
  - Enterprise JavaBean(EJB)
- Enterprise Archive(EAR)
  - Enterprise application(WAR + JAR)

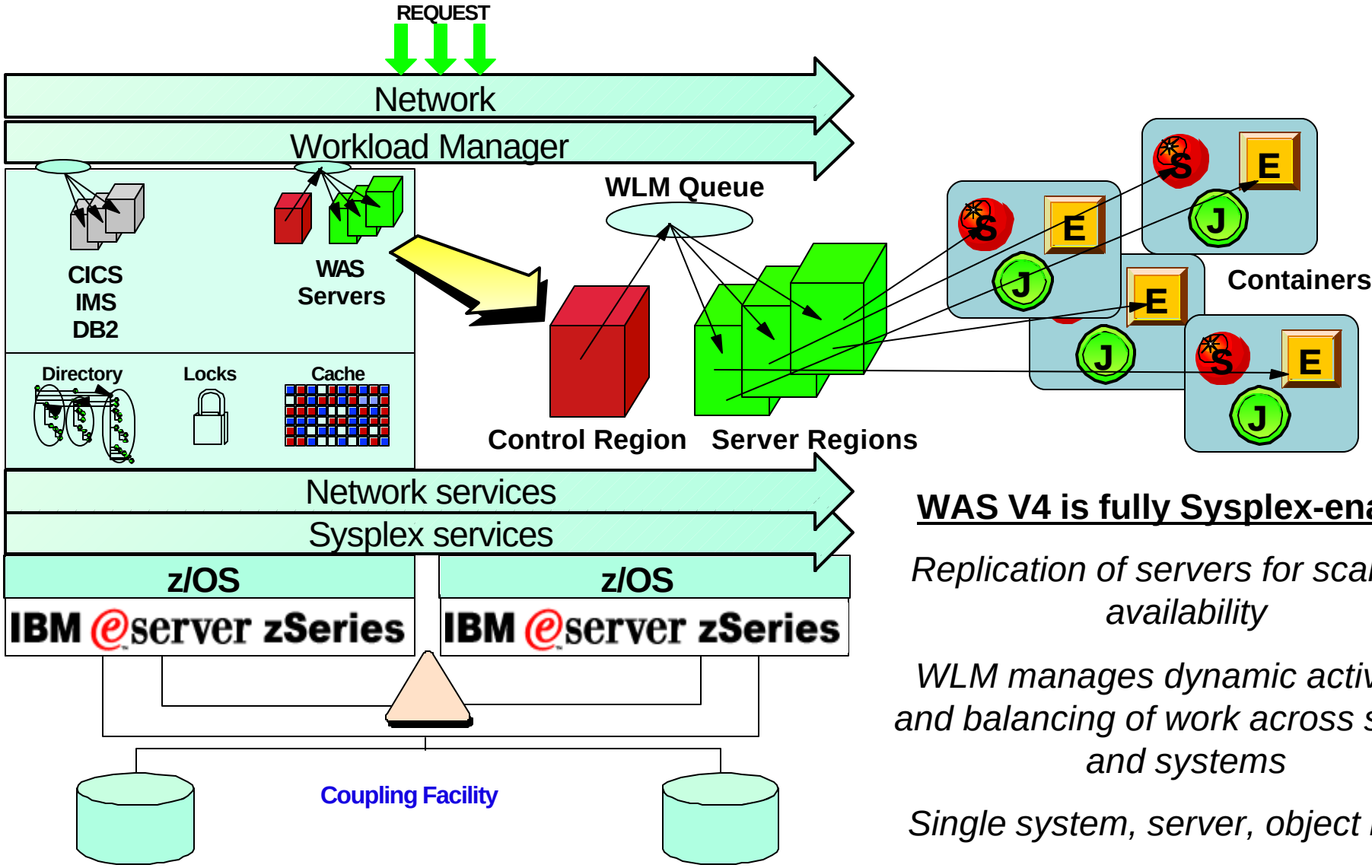
J2C Architecture



WebSphere Application Server Enterprise Edition



WAS V4



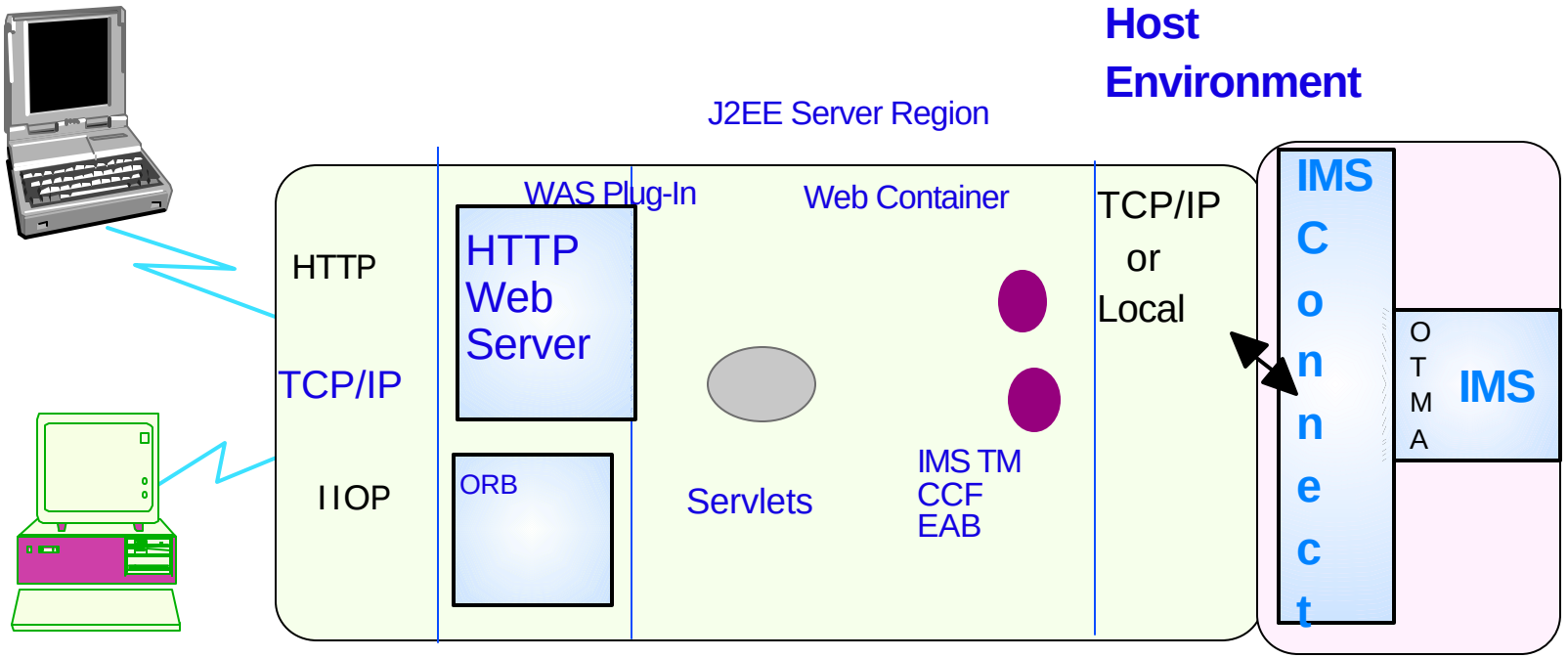
WAS V4 is fully Sysplex-enabled

Replication of servers for scale and availability

WLM manages dynamic activation and balancing of work across servers and systems

Single system, server, object image

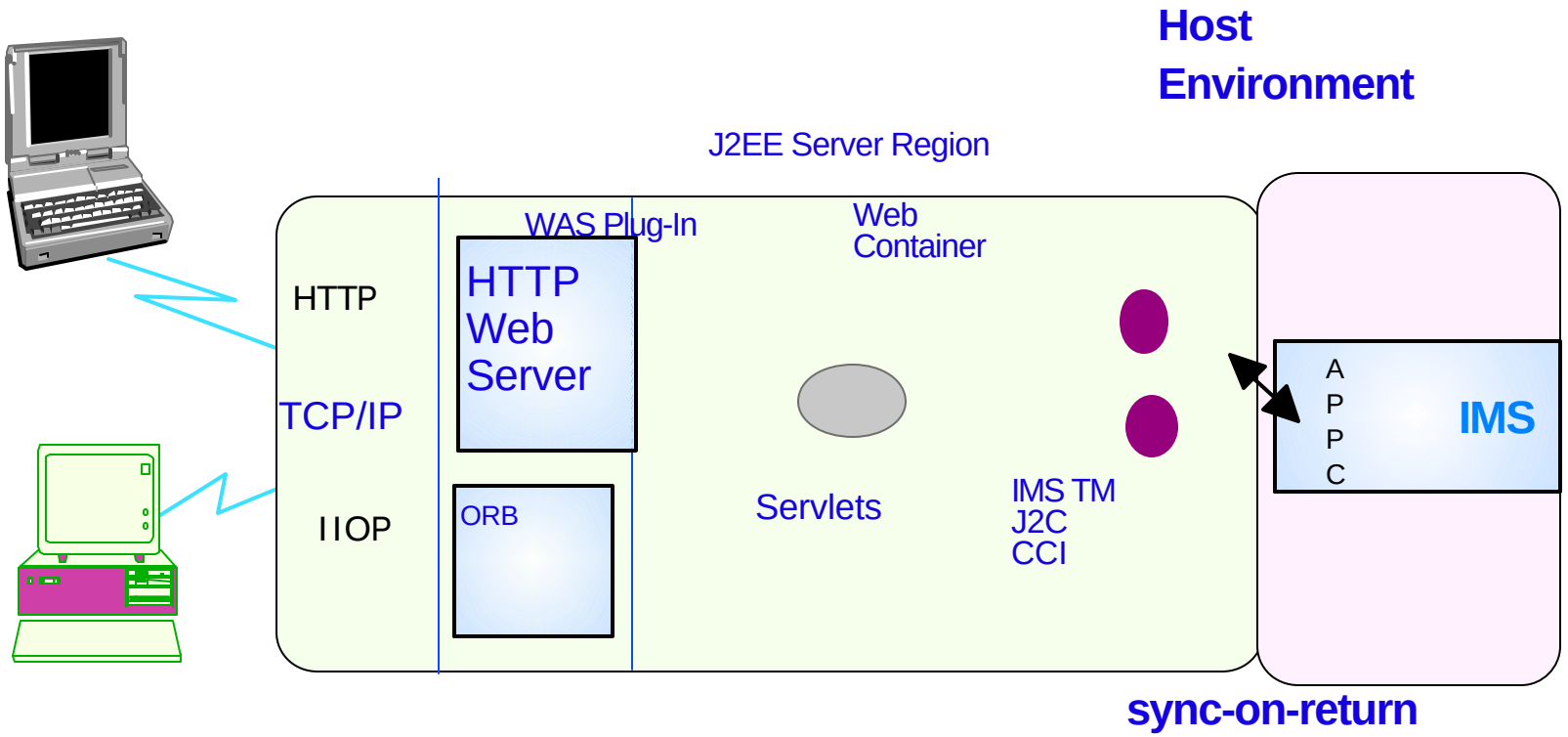
WebSphere Application Server Enterprise Edition - WAS/390



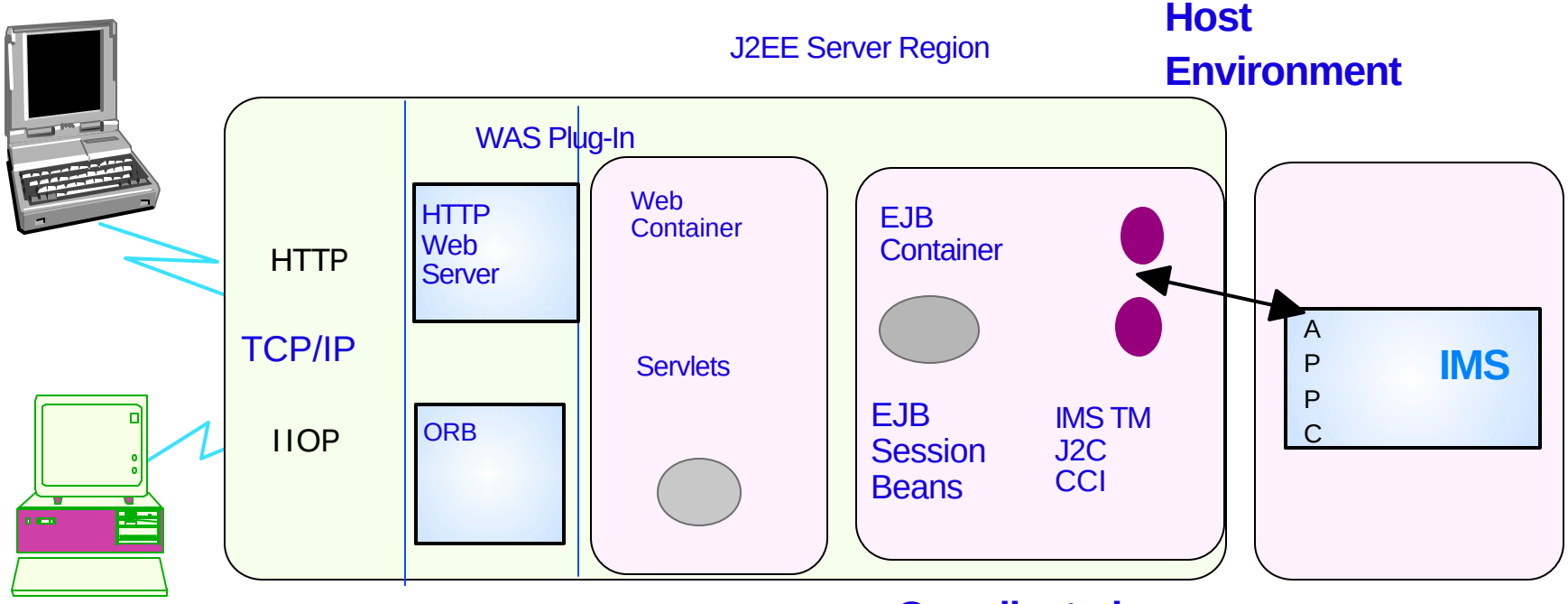
Client Environment

Future support coordinated two-phase commit

WebSphere Application Server Enterprise Edition - WAS/390



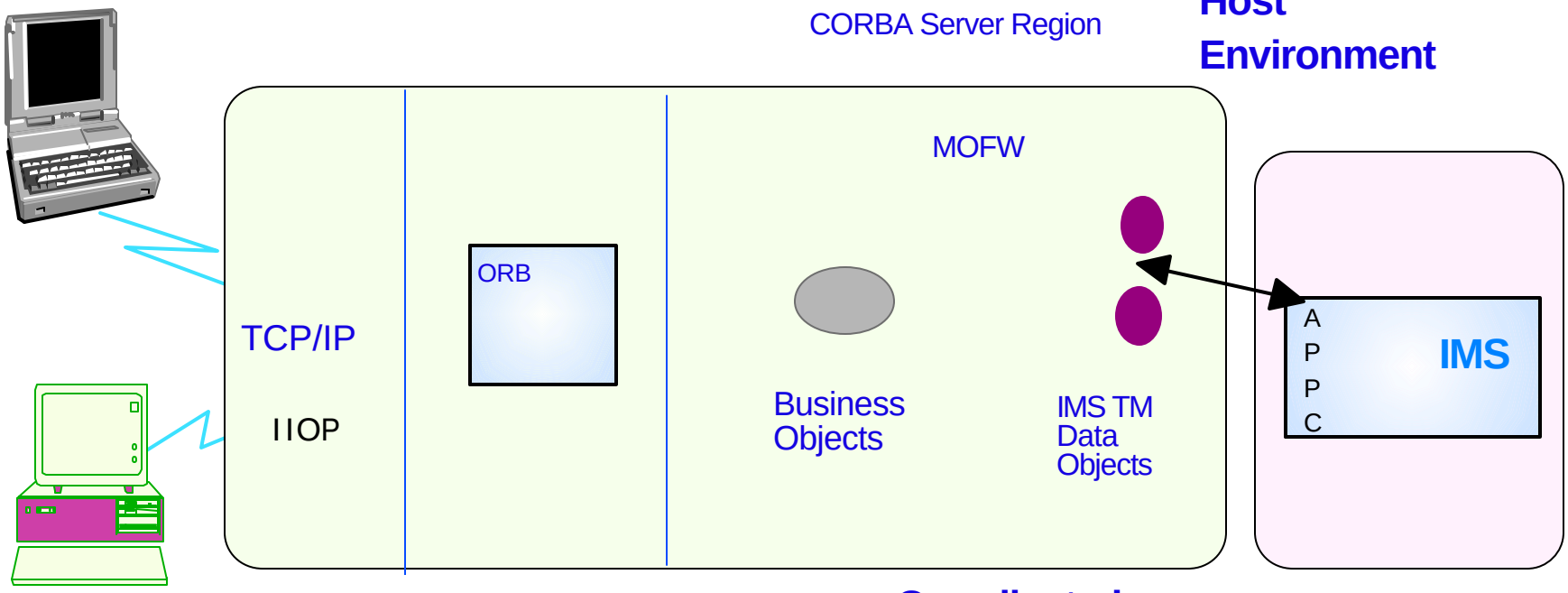
WebSphere Application Server Enterprise Edition - WAS/390



Coordinated Two-Phase Commit using RRS or sync-on-return

Client Environment

WebSphere Application Server Enterprise Edition - WAS/390



Coordinated Two-Phase Commit using RRS or sync-on-return

Client Environment

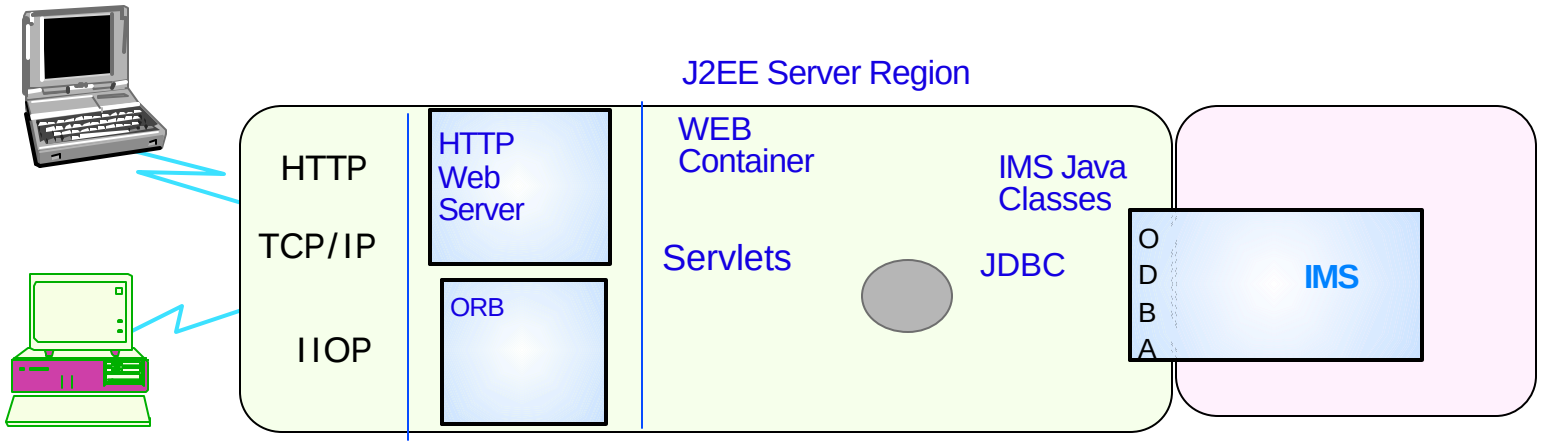
Access to IMS Transaction
J2C - CCI

- The submission of transaction requests is done using an APPC connection with the target IMS.
- Only non-conversational IMS transactions are supported.
- Connector supports only SEND_RECEIVE
  - A single request may be sent to IMS and a single response is expected back from IMS.
- Only single segment input and output messages are supported

Access to IMS Transaction J2C-CCI

- WS/390 only supports Container managed resource security, any username/password specified by the ConnectionSpec will be only verified for validity, but not used.
- Userid assigned to connections obtained from an IMSAPPCConnectionFactory will always be the userid associated with the current thread under which getConnection() processing is currently running. Normally, this will be the userid of the caller that invoked the getConnection() method.

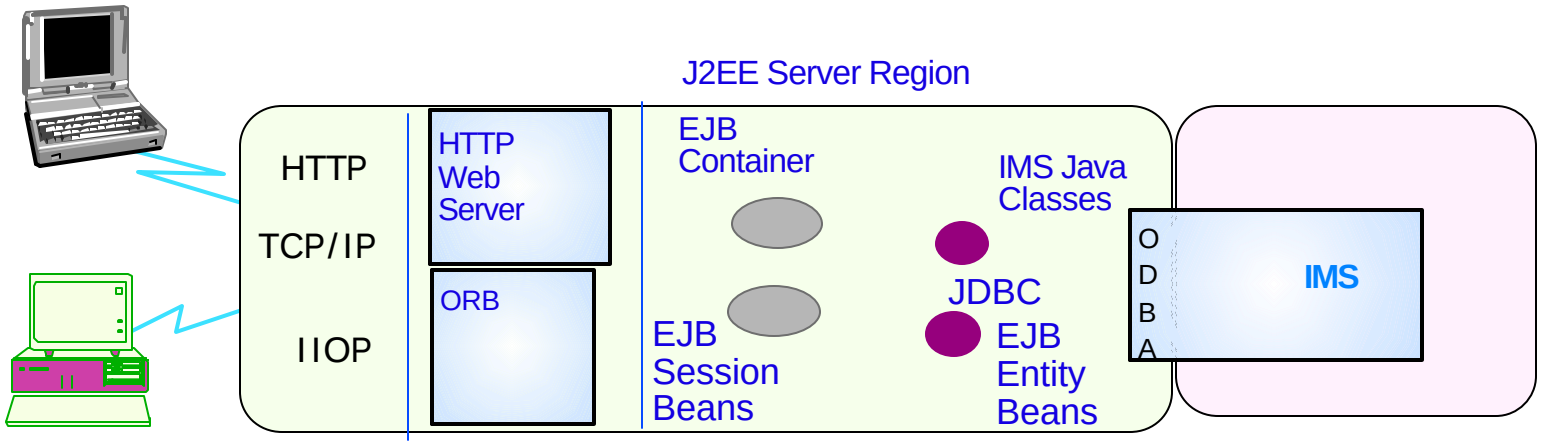
OS/390 WebSphere Application Server Using IMS V7 Java Classes Servlets/JDBC Access to IMS DB



Coordinated Two-Phase Commit

Requirement: To provide OS/390 WebSphere Application Server JDBC access to IMS DB data

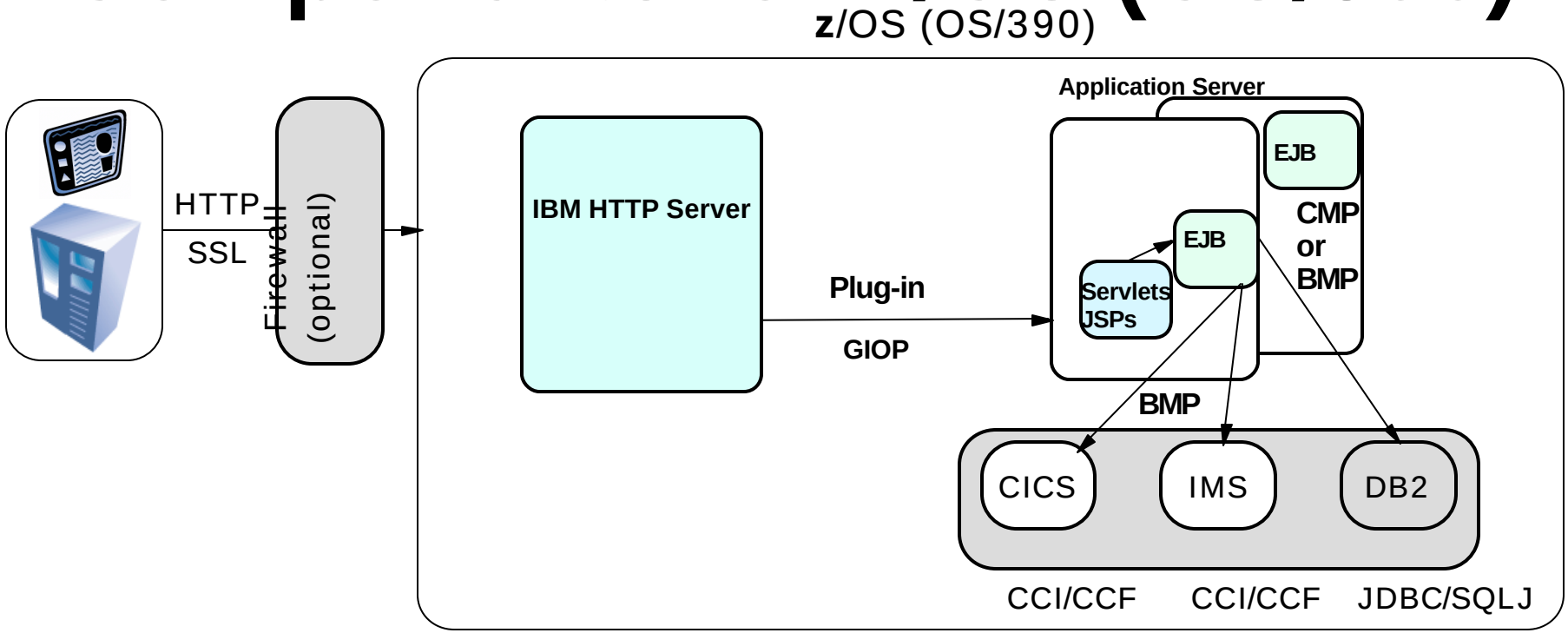
OS/390 WebSphere Application Server Using IMS V7 Java Classes EJB/JDBC Access to IMS DB



Coordinated Two-Phase Commit

Requirement: To provide OS/390 WebSphere Application Server Entity Bean access to IMS DB data

e-transactions with Java Components for z/OS (OS/390)



Summary

- **WebSphere Application Server**
  - Provides J2EE Runtime
    - Supports Web Applications(Servlets,JSPs)
    - Supports Enterprise Beans(EJBs)
  - Provides CORBA Runtime
    - Supports CORBA Applications
- **Connectors**
  - Provides J2C connectors to CICS and IMS
  - Supports JDBC to DB2
  - Supports CCF connectors to CICS and IMS

http://www.ibm.com/software/webservers/appserv/download_v4z.html

WS390Connectors_yymmdd.zip

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