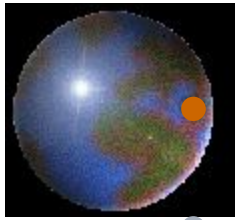


# IBM电子商务解决 方案设计

[hbw@seu.edu.cn](mailto:hbw@seu.edu.cn)



- 概述

- Web Marketing

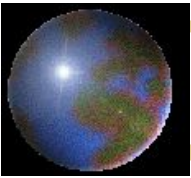
- CRM with Data Access

- Online Sales

- CRM with Transactions

- Supplier Integration

- Supplier Integration with workflow



# 电子商务周期

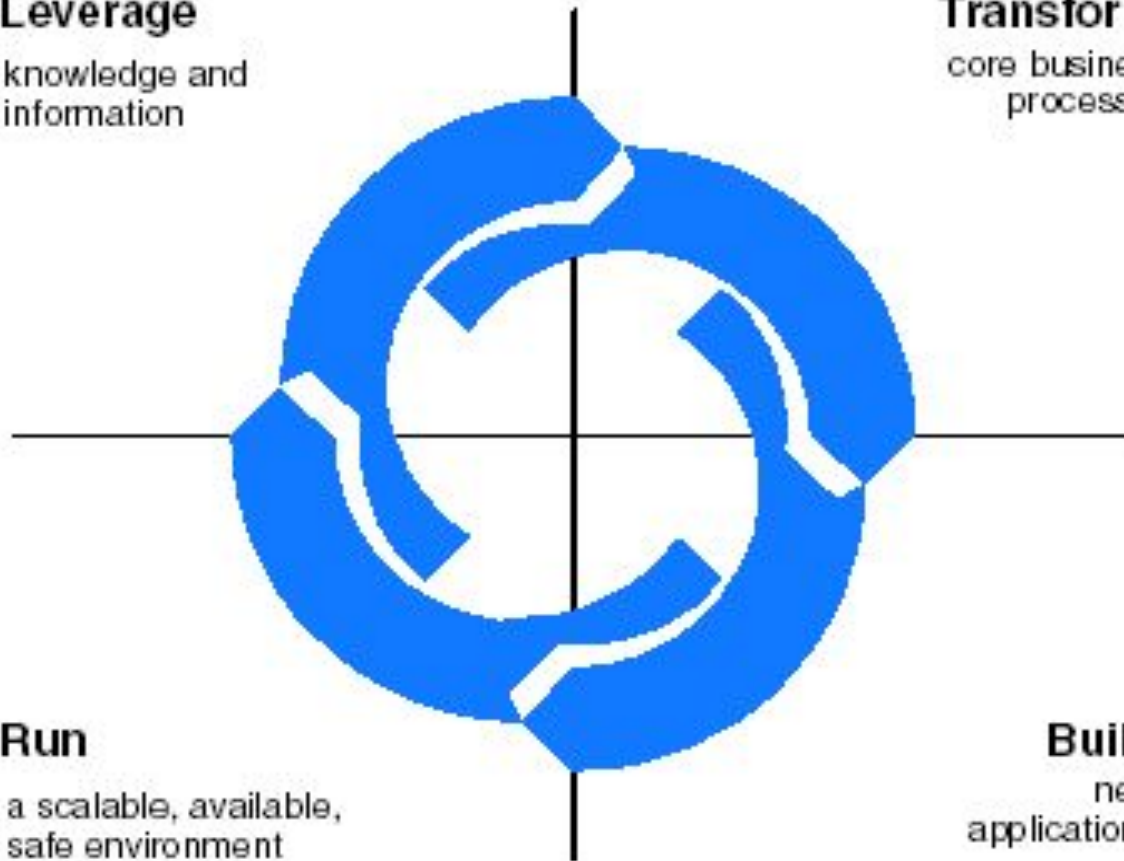
The e-business cycle describes the IBM approach to becoming, and growing as, an e-business

**Leverage**

knowledge and  
information

**Transform**

core business  
processes

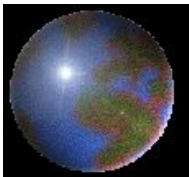


**Run**

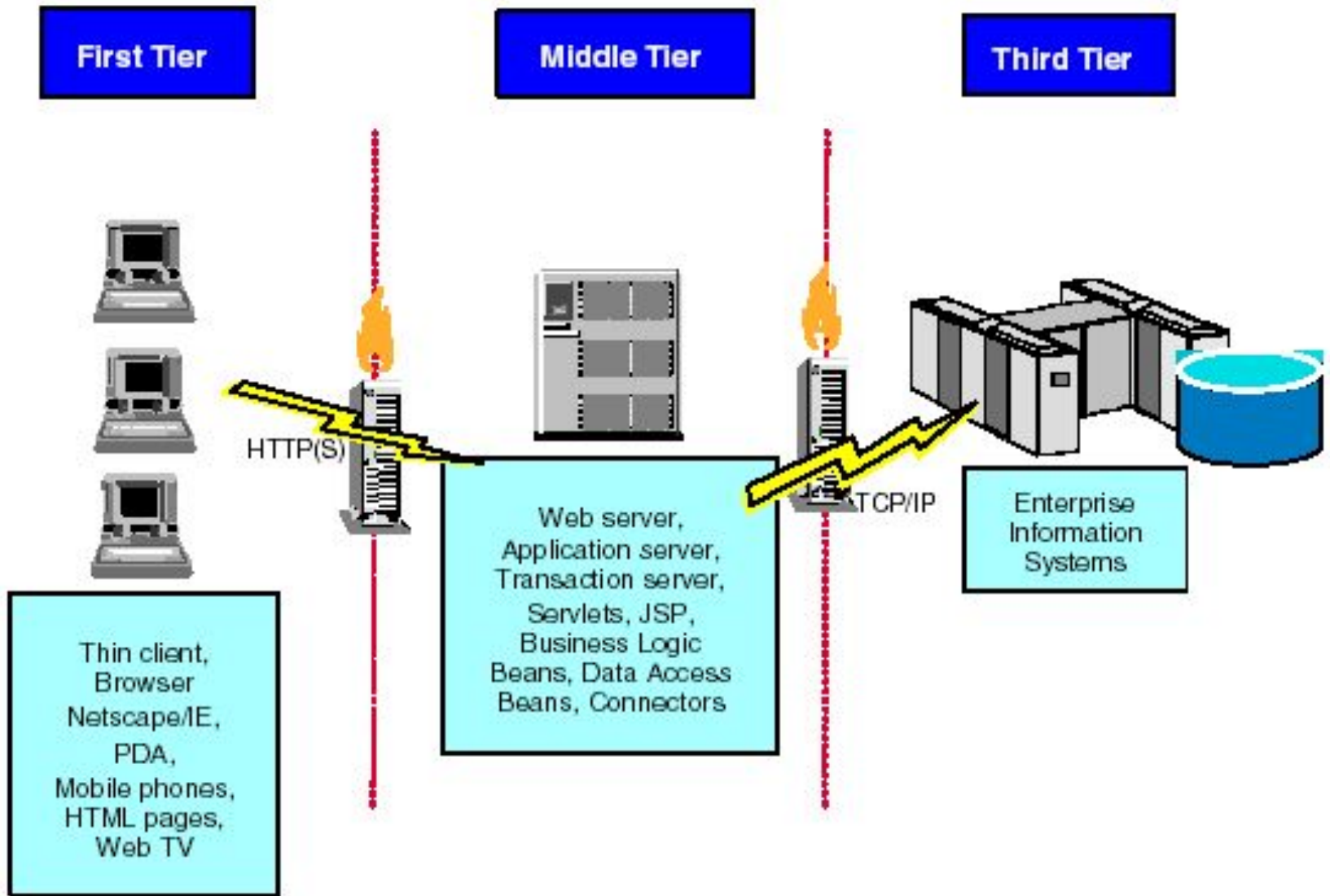
a scalable, available,  
safe environment

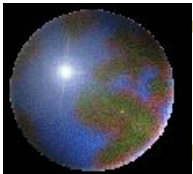
**Build**

new  
applications

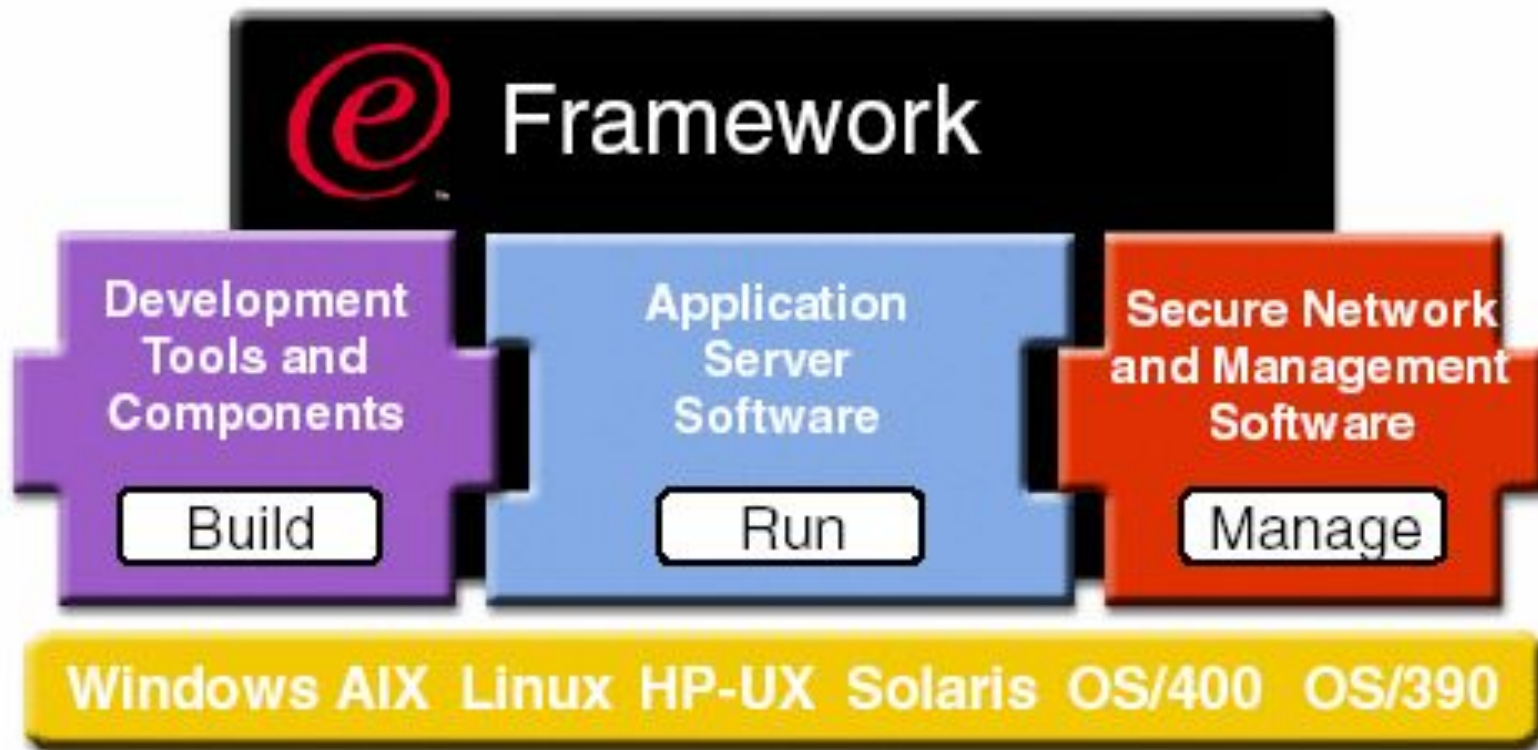


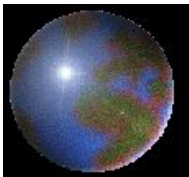
# 电子商务框架系统模型





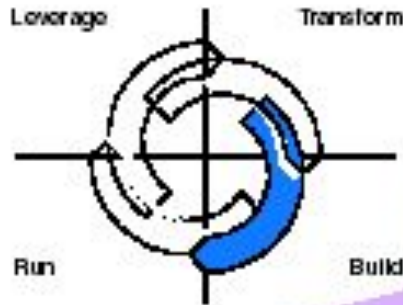
# 电子商务应用框架



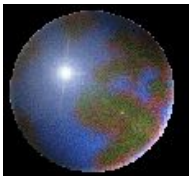


# 开发工具和组件

The e-business cycle

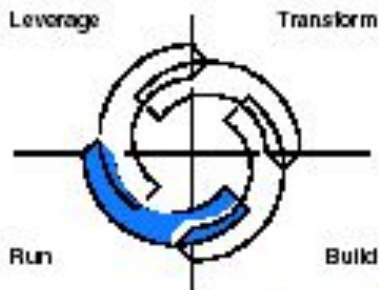






Programmer	Workgroup Designer	Web Developer	Components
			
<ul style="list-style-type: none"> <li>Helps professional programmers extend existing applications and add new functions</li> <li>Visual programming environment</li> <li>Supports major languages, platforms, and team development</li> </ul>	<ul style="list-style-type: none"> <li>Customizable templates that speed the deployment of collaborative applications</li> <li>Built-in services like workflow, content management, and full-text search</li> <li>Visual development environment</li> </ul>	<ul style="list-style-type: none"> <li>Provides integrated tools and a workbench for Web developers using IBM WebSphere</li> <li>Wizards guide the development of servlets and JavaBeans</li> <li>Web site management</li> </ul>	<ul style="list-style-type: none"> <li>Reusable business components accelerate the delivery of applications running on e-business servers</li> </ul>

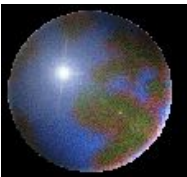


# 应用服务器软件

The e-business cycle

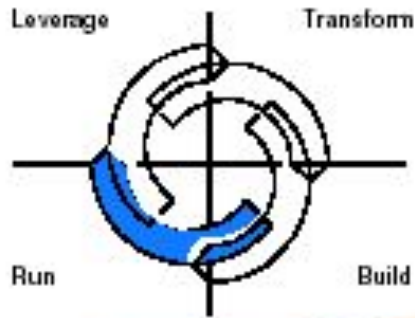


Collaboration	Transactions	Data	Integration
			
<ul style="list-style-type: none"> <li>■ Rapidly develop and deploy collaborative applications</li> <li>■ Advanced capabilities for managing work and information flow</li> <li>● Integration with database, ERP, and transaction systems</li> </ul>	<ul style="list-style-type: none"> <li>● Speed transition from publishing to Web-based transactions</li> <li>■ For transaction-intensive environments</li> <li>● Support for distributed business components</li> </ul>	<ul style="list-style-type: none"> <li>■ Best performing database for UNIX and Windows NT</li> <li>● Handles multimedia and conventional data</li> <li>◆ Optimized for Web applications</li> <li>◆ Delivers enterprise class reliability and availability</li> </ul>	<ul style="list-style-type: none"> <li>◆ Connect applications</li> <li>■ Speed application deployment and integration</li> <li>■ Manage and integrate business process flow across more than 35 application environments</li> </ul>



# 安全网络和管理软件

## The e-business cycle

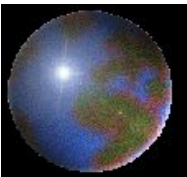


## Secure network and system management

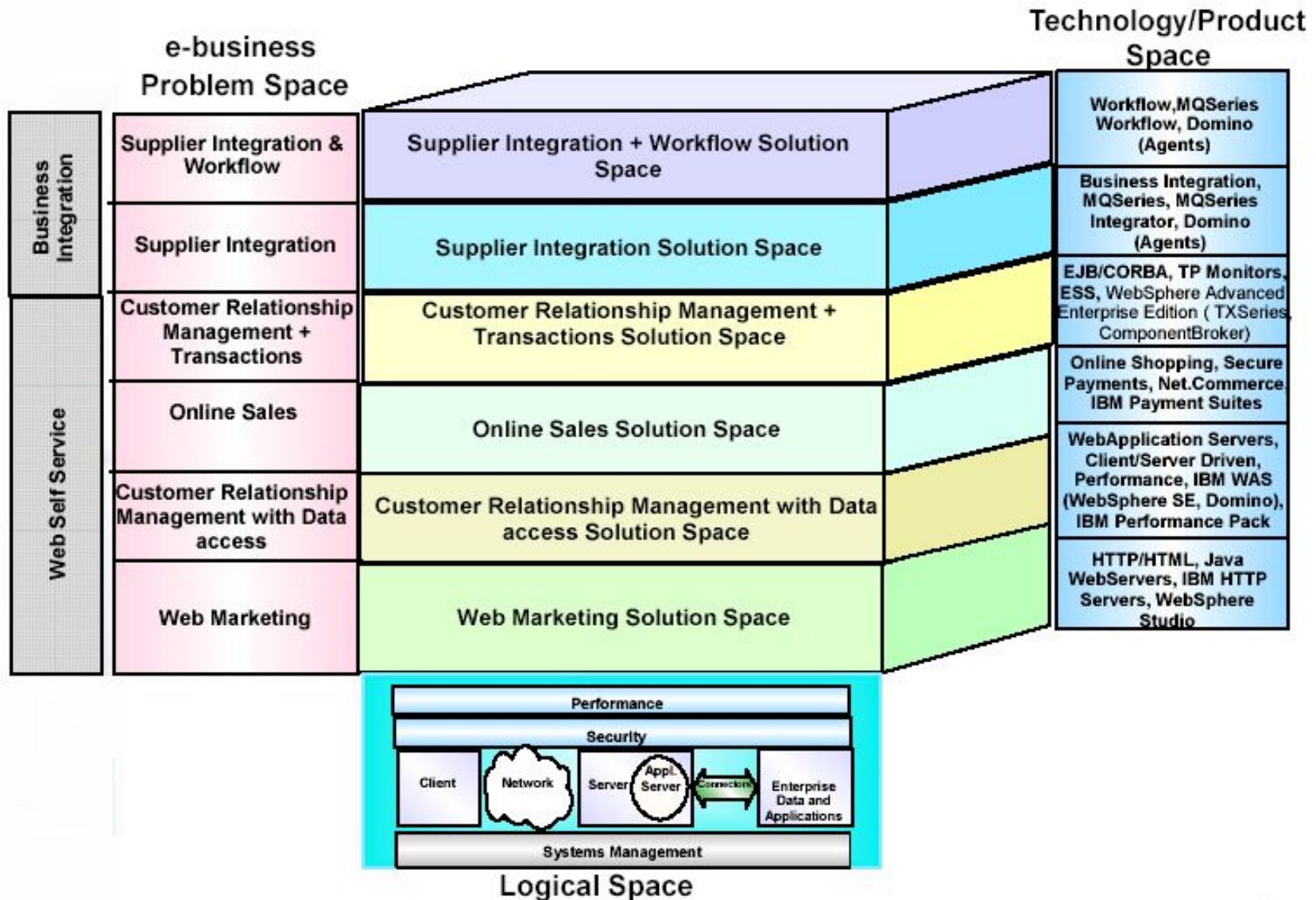


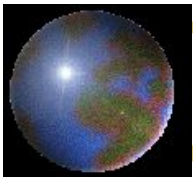
Locate	Connect	Secure	Manage
<ul style="list-style-type: none"> <li>Scalable, standards-based, cross-platform directory</li> <li>Directory integration across an extended enterprise</li> </ul>	<ul style="list-style-type: none"> <li>Simplest solution for host integration</li> <li>Deliver Web applications "on demand"</li> <li>Mobile access</li> </ul>	<ul style="list-style-type: none"> <li>Standards-based Public Key Infrastructure (PKI)</li> <li>Integrated security</li> </ul>	<ul style="list-style-type: none"> <li>Scalable, open, cross-platform</li> <li>Single-action management</li> <li>Easy deployment and maintenance</li> <li>Business system management</li> </ul>



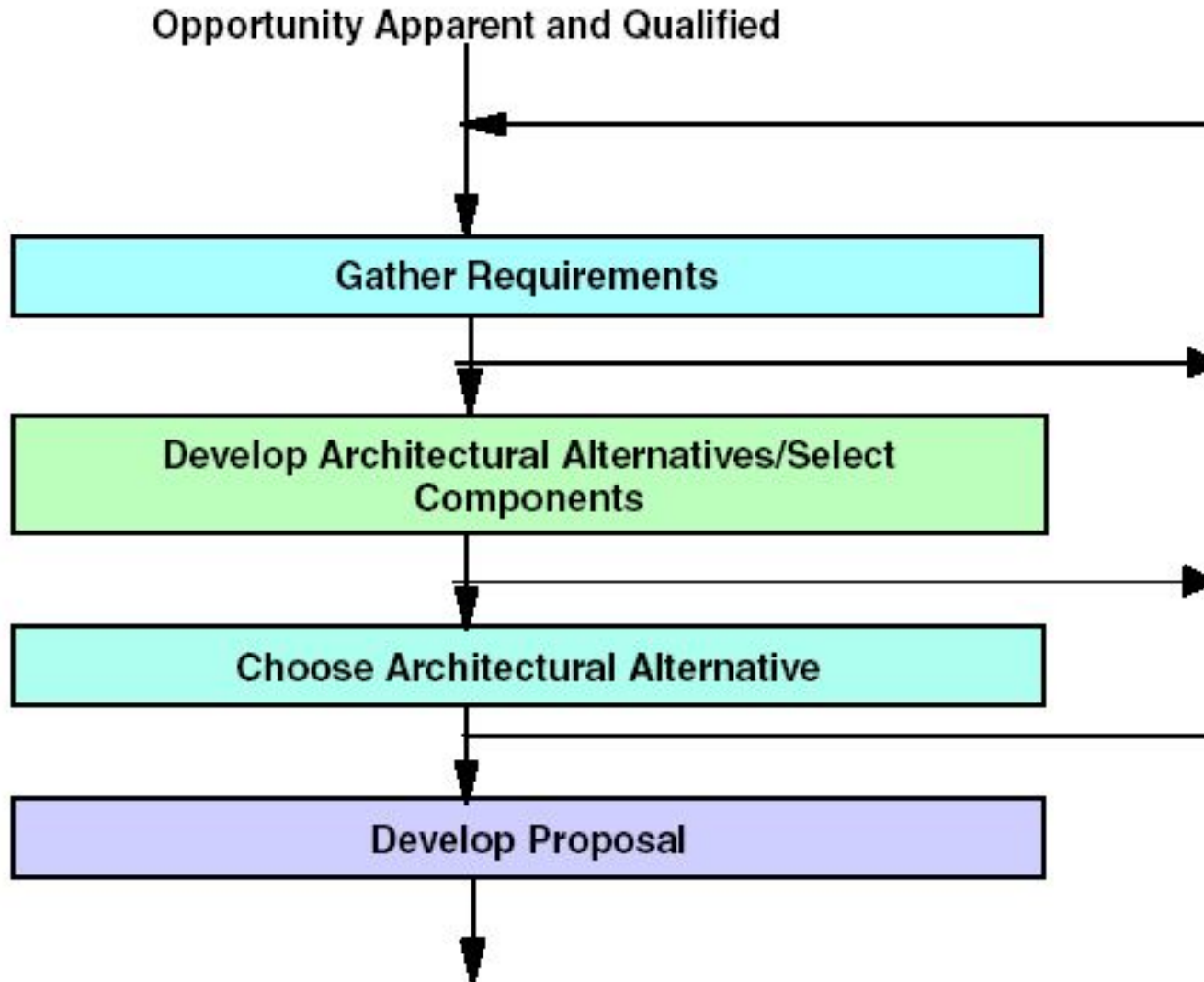


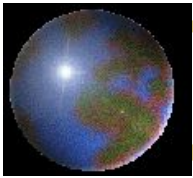
# 电子商务解决方案空间





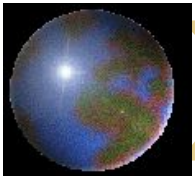
# 电子商务解决方案设计





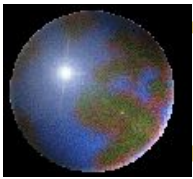
# 步骤1:收集需求

- 业务驱动
- 功能性驱动
- 非功能性驱动
- 已存在客户环境



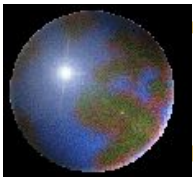
## 步骤2:开发候选方案/选择组件

- 解决方案概览
- 静态应用设计视图
- 动态应用视图
- 安全流程



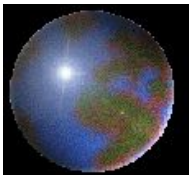
## 步骤3:选择候选架构

- 性能:对请求的响应时间
- 容量:能够处理的请求总数
- 安全性:拒绝未授权访问和允许合法访问的能力
- 可用性:系统运行时间的比率
- 有用性:在正确的时间提供给用户正确的信息,确保用户请求送至正确的服务提供者
- 易维性:更改系统,删除无用功能,适应新的环境,重新结构系统的能力
- 易测性:能够容易的编制在测试中演示出错的软件的能力
- 伸缩性:处理增长的负载的能力
- 移植性:在不同计算环境中运行的能力
- 重用性:在其它应用中重用系统结构和组件的能力
- 业务质量:从成本,时间安排,人员,资源等方面考虑满足客户的业务需求

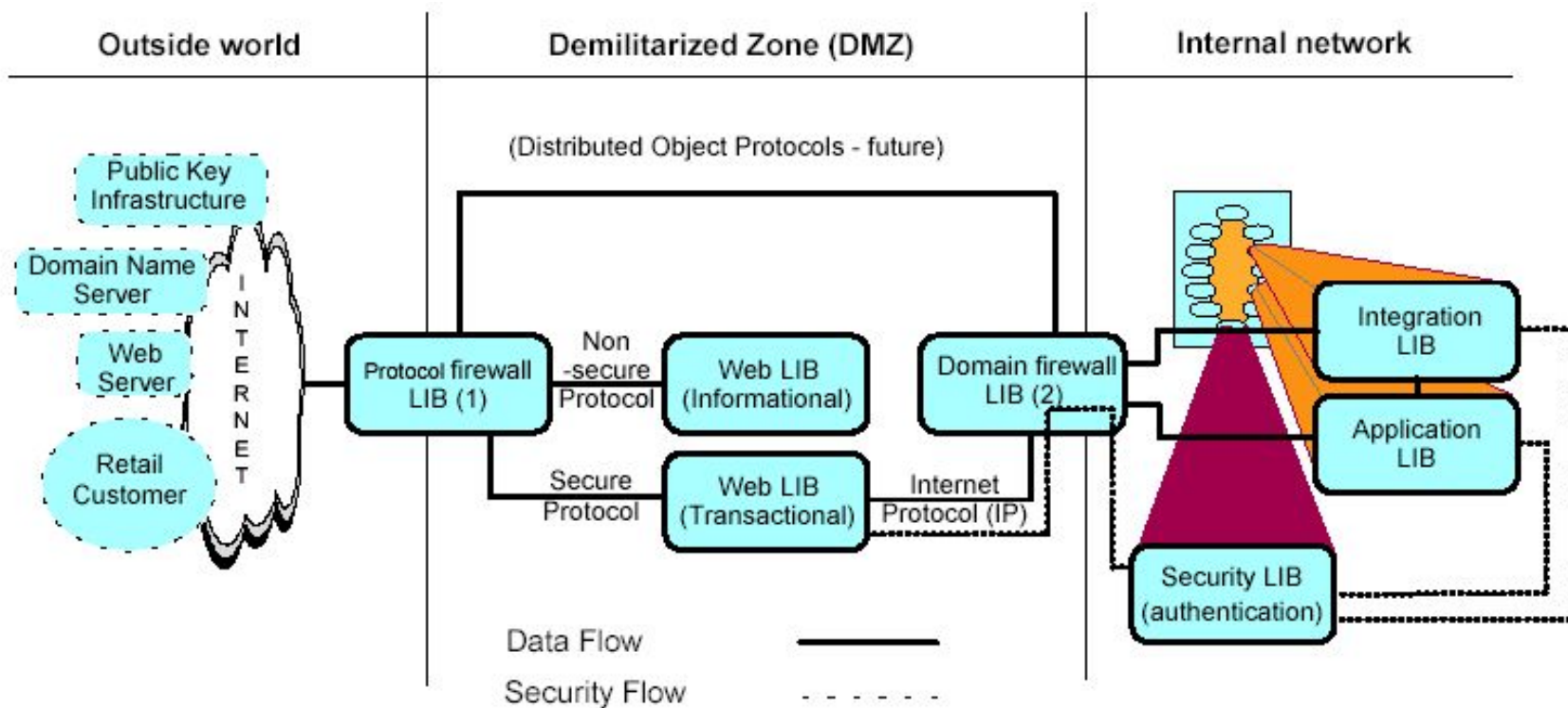


# IBM业务模式

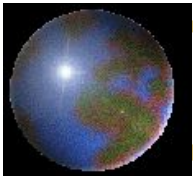
Business Patterns	Targeted e-business Solution Areas
User ↔ Business	CRM
User ↔ Online Buying	e-Commerce
Business ↔ Business	Supply Chain Mgmt
User ↔ 'Data'	Business Intelligence
User ↔ User	Knowledge Mgmt
Mixture of the above	Business Application Integration



# 运行时逻辑结构



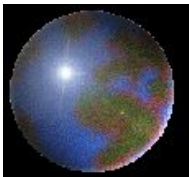
LIB = Logical Implementation Block



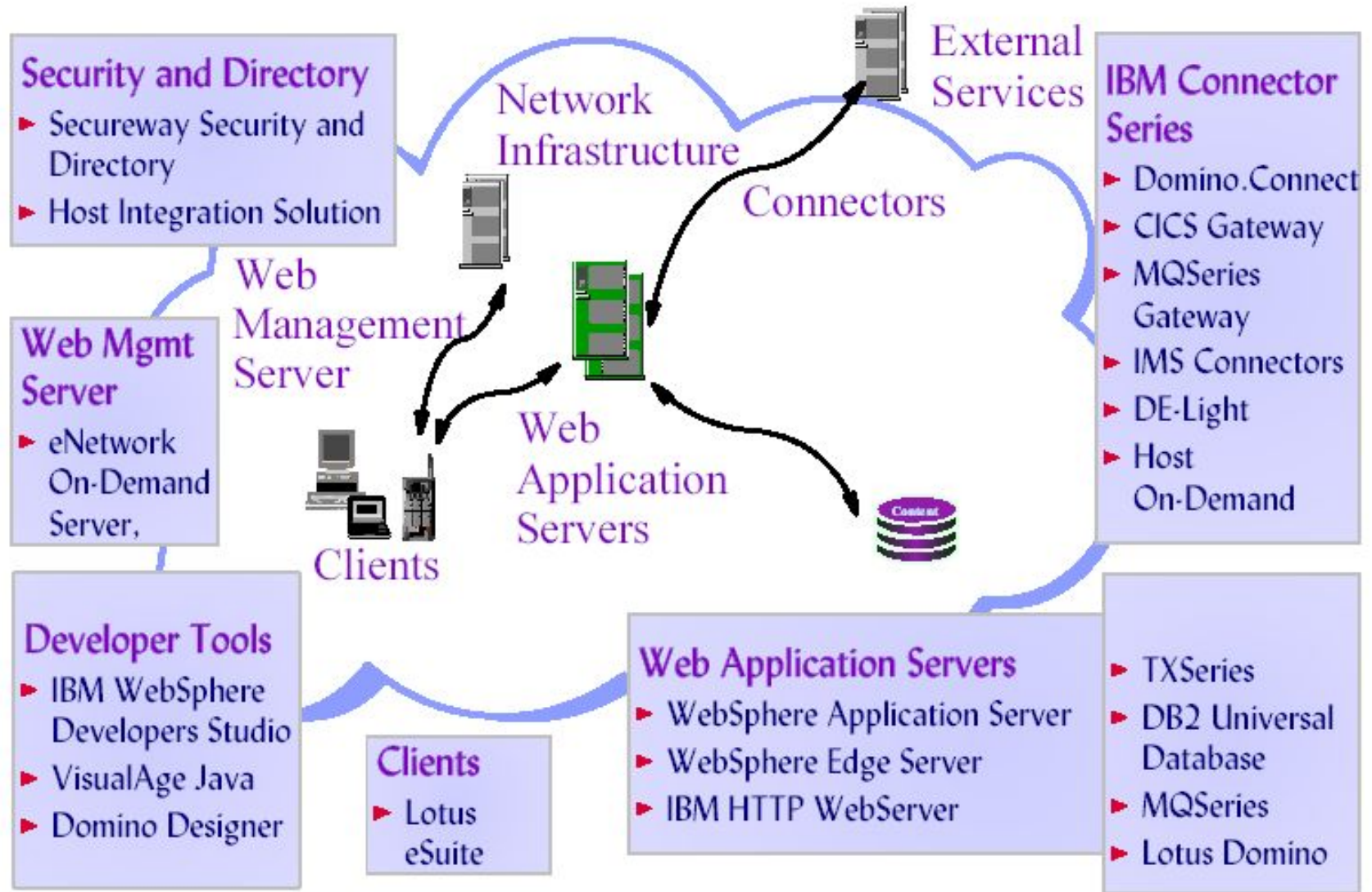
## 步骤4:准备计划实施

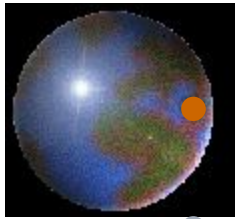
- 反映需求
- 描述每个候选方案及其优缺点
- 描述建议方案及理由
- 推出方案的计划





# IBM电子商务产品与工具

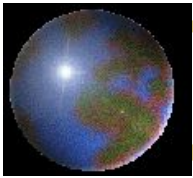




- 概述

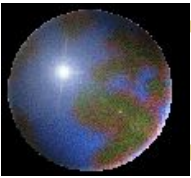
- **Web Marketing**

- CRM with Data Access
- Online Sales
- CRM with Transactions
- Supplier Integration
- Supplier Integration with workflow

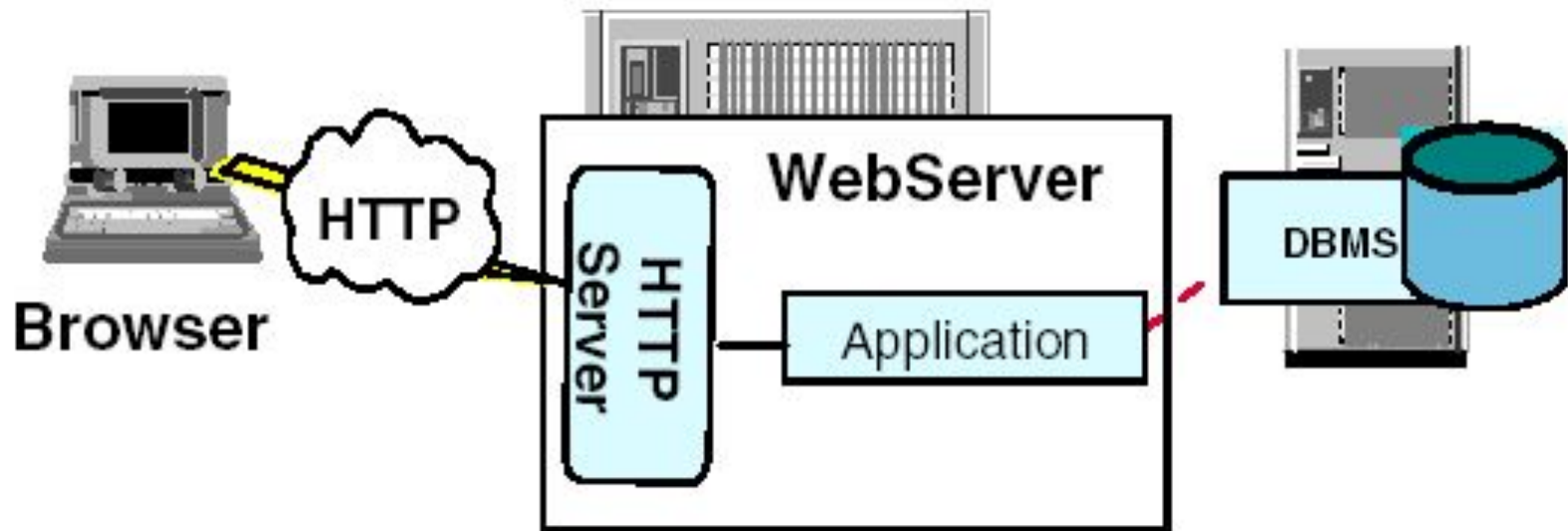


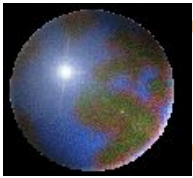
# Web Marketing

- **Web Marketing**电子商务问题涉及用户在**Web**上访问一个公司的信息的情况。信息可以通过静态页面显示,也可以通过**Web**服务器技术动态显示。
- **Web Marketing**允许用户查看与商务有关的信息(产品,服务,联系信息等)。其技术包括**HTML/HTTP, Java**和**Web**服务器。**IBM**产品包括**WebSphere Studio, IBM HTTP Server, Lotus Domino Server**和**Lotus Domino Designer**。



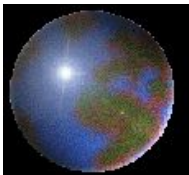
# Web Marketing架构



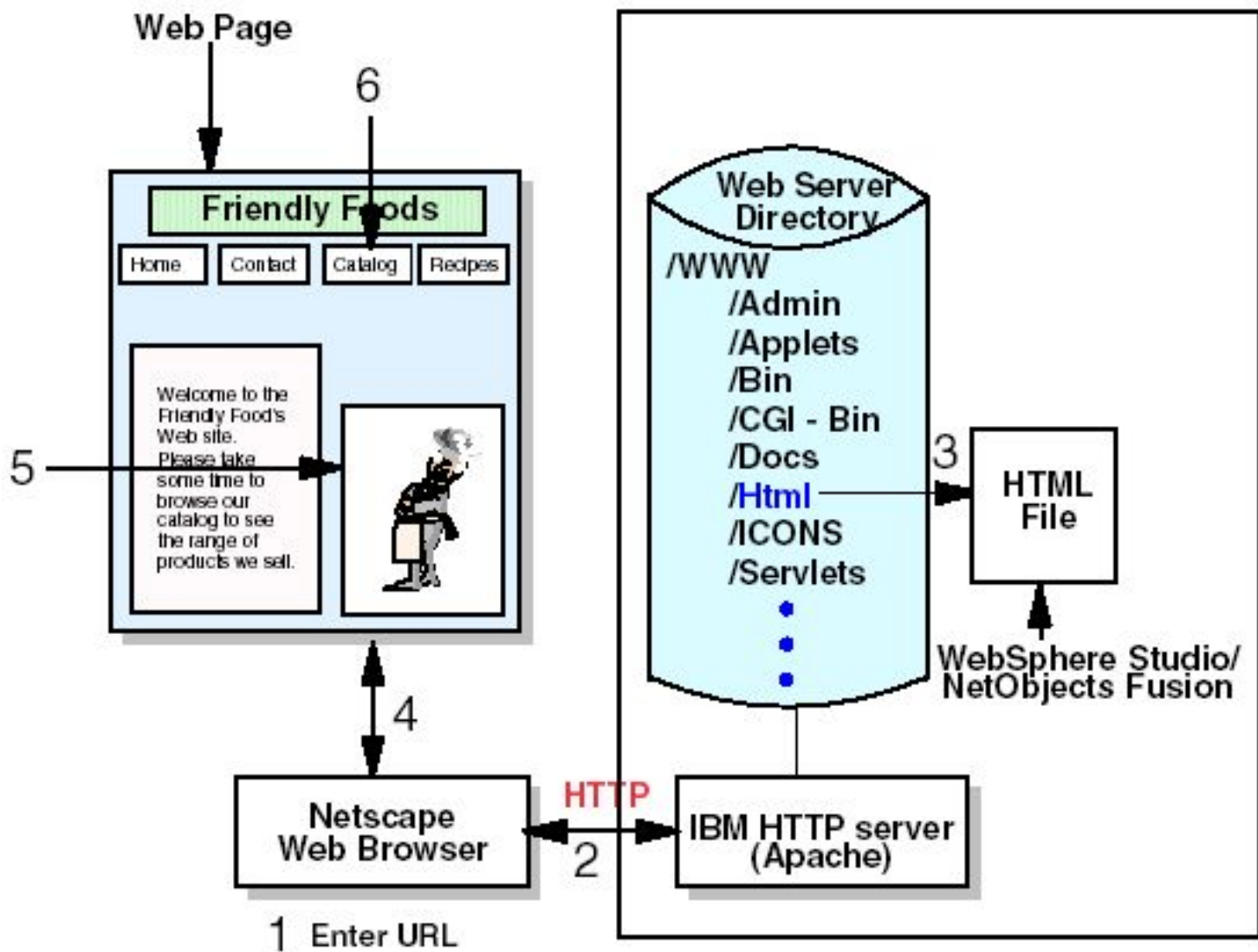


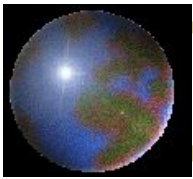
# Web Marketing产品

- **IBM HTTP Server, WebSphere Studio和NetObjects Fusion**
- **Domino Web Server和Domino Designer**

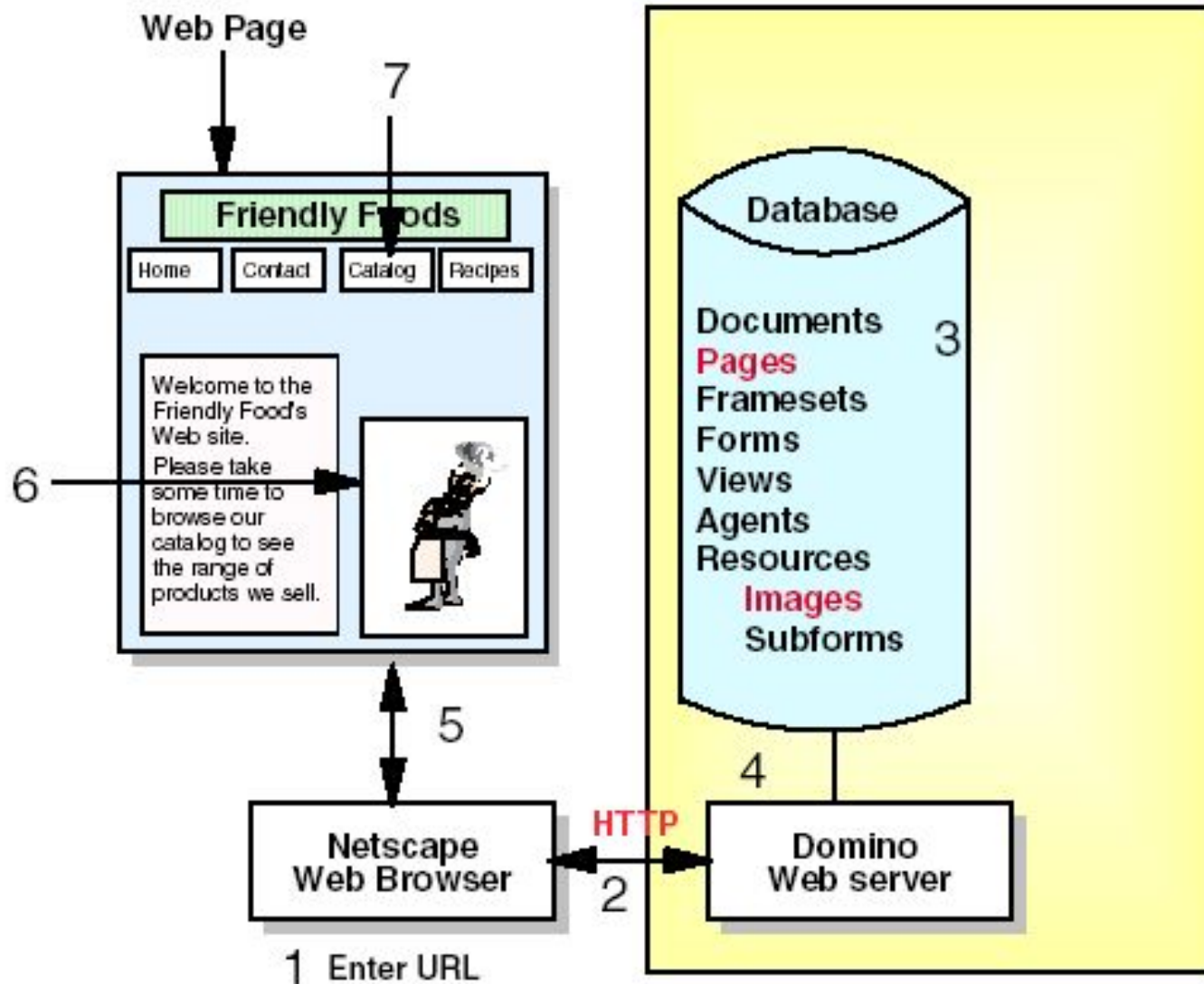


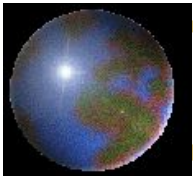
# IBM HTTP Server动态视图





# Domino动态视图





# IHS与Domino方案比较

- **IHS的优点**

- 通过最少的应用开发快速建立并运行网站
- 只使用**HTML**和**HTTP**标准。因此性能非常好
- 网站易于修改与维护

- **IHS的缺点**

- 用户交互受到限制

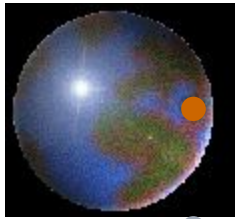
- **Domino的优点**

- 通过最少的应用开发和**HTML**技能快速建立并运行网站
- **Domino**提供动态**Web**服务
- 网站易于修改与维护

- **Domino的缺点**

- 用户交互受限
- 网站设计者需要有**Domino**数据库设计的基础
- **Domino**将对象动态转换为**HTML**, 因此性能不如**HTML**文件服务好
- **Domino**服务器不支持**FTP**

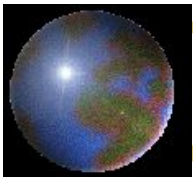




- 概述

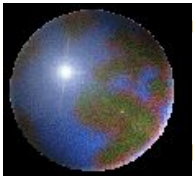
- Web Marketing

- **CRM with Data Access**
- Online Sales
- CRM with Transactions
- Supplier Integration
- Supplier Integration with workflow

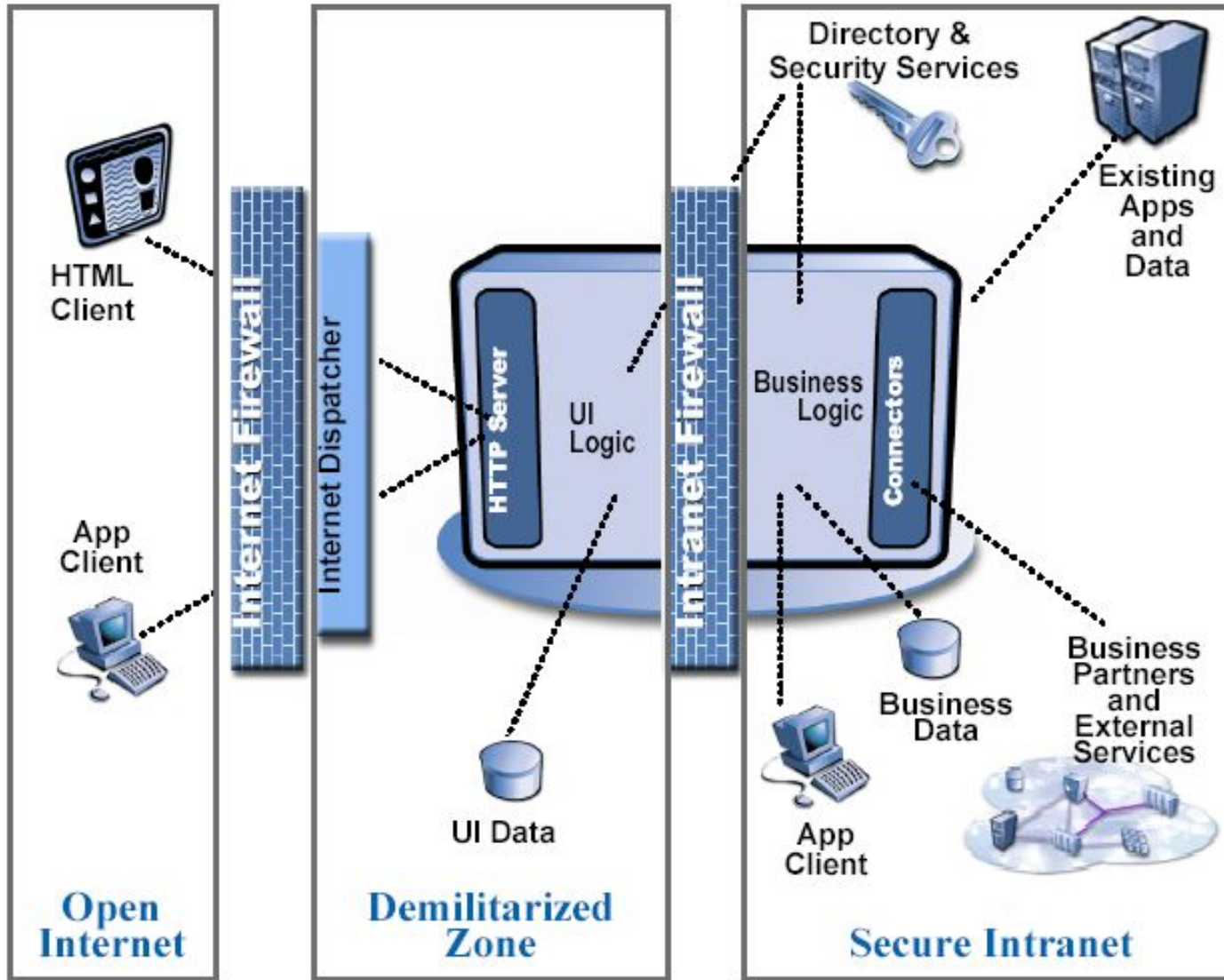


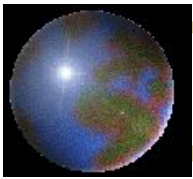
# CRM with Data Access

- 数据访问**CRM**考虑一个典型的自我服务的解决方案的情况，这种情况可以简单地看作“内容访问”。其特征包括提供到异种系统的多重连接，这些系统包含有不同形式与格式的数据和信息。通过使用这些数据，需要将动态的生成内容返回给网络客户。同时可能还需要提供可被多个网络客户同时初始化的高级事务处理的环境。
- 数据访问**CRM**需要在广泛的操作平台和系统上使用开放标准。它们需要实时的快速访问和最新的信息与数据。它们可能需要拥有性能和伸缩性的持久连接，以及方便使用的面向对象的组件。它们可能还需要用于国际贸易的多语言支持。

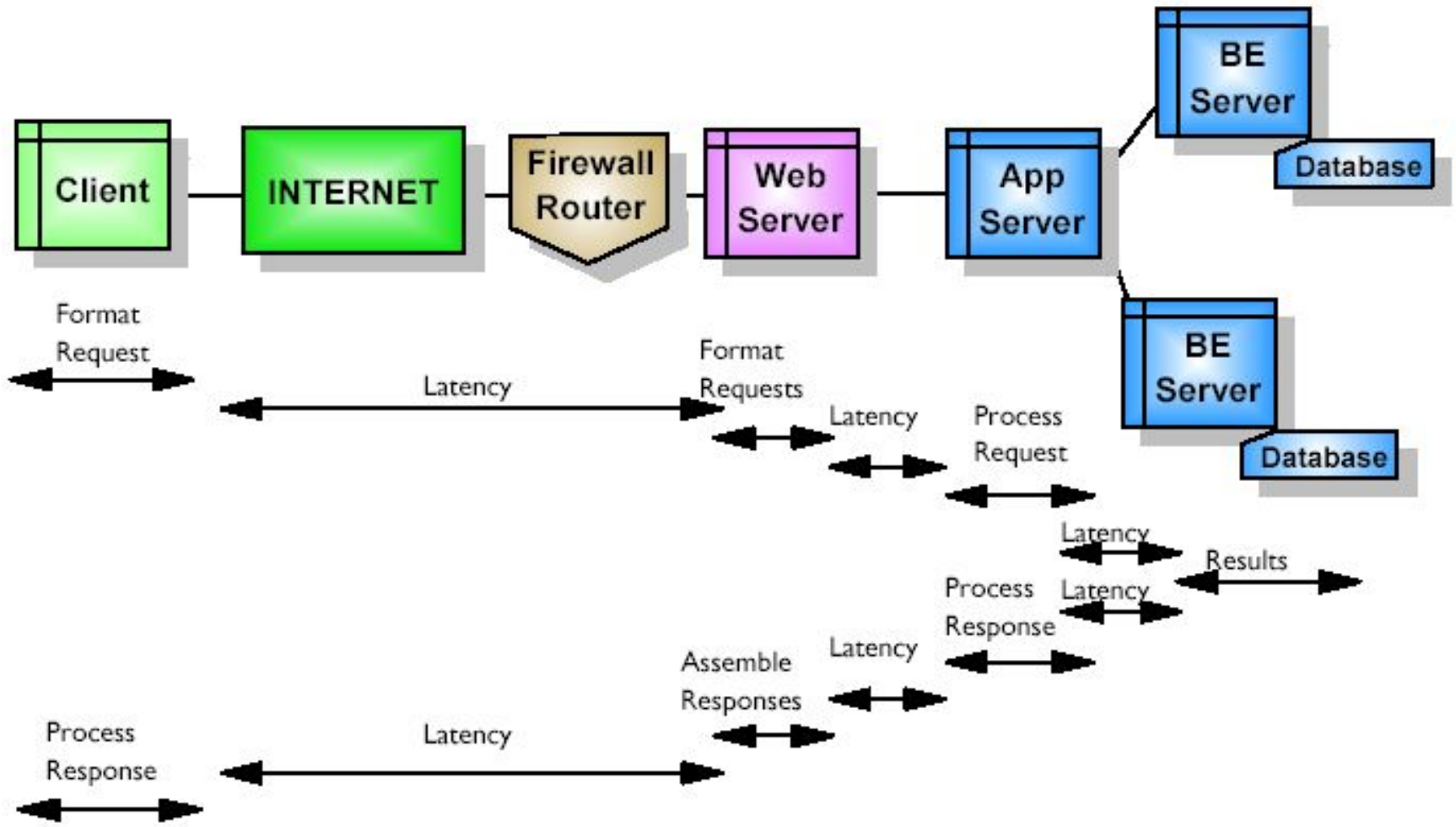


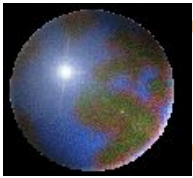
# Web应用拓扑结构





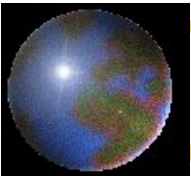
# 瓶颈出现的地方



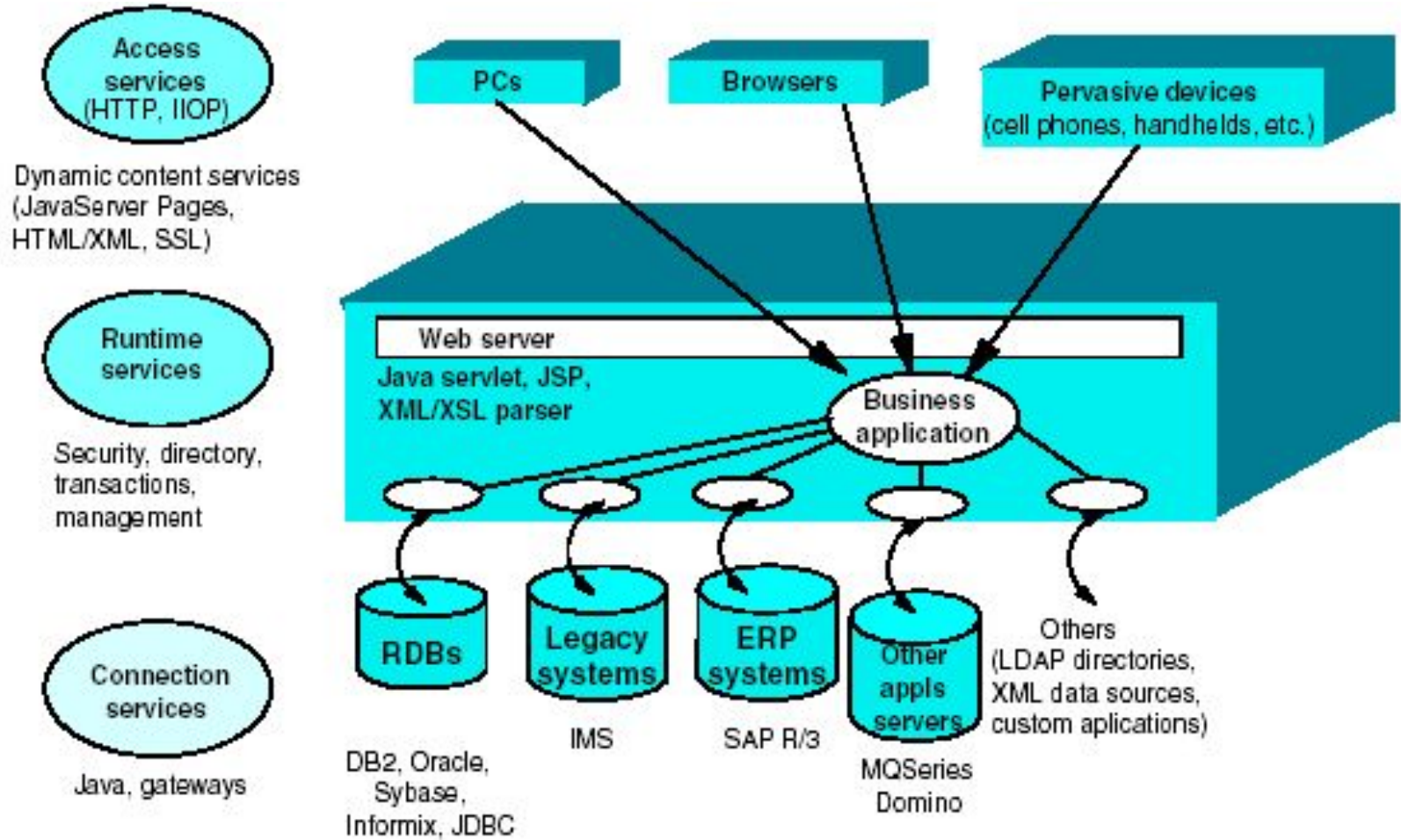


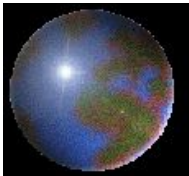
# CRM with Data Access 产品

- WebSphere Application Server 标准版
- Lotus Domino Application Server

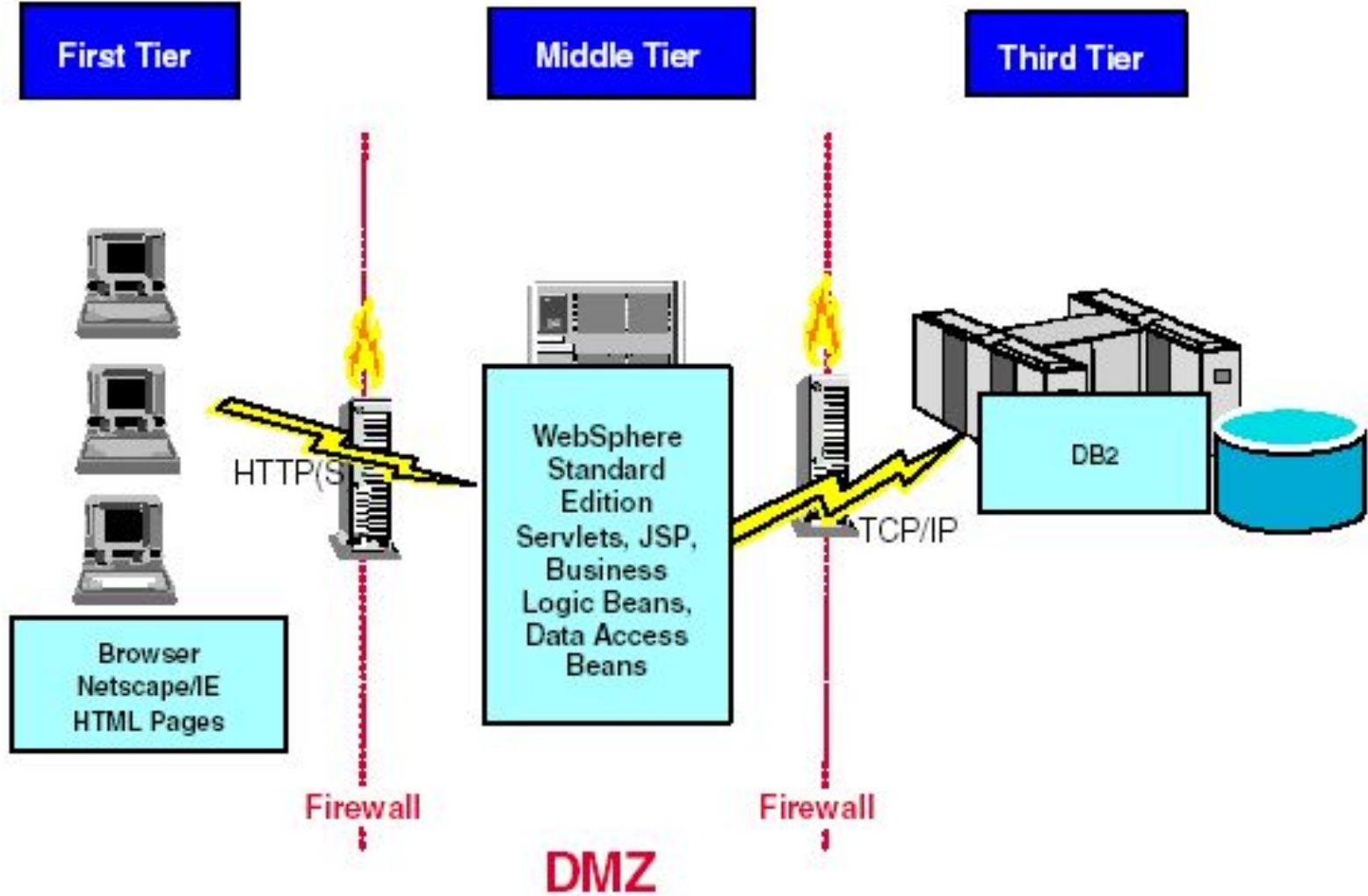


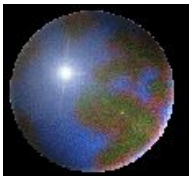
# WebSphere Application Server 标准版



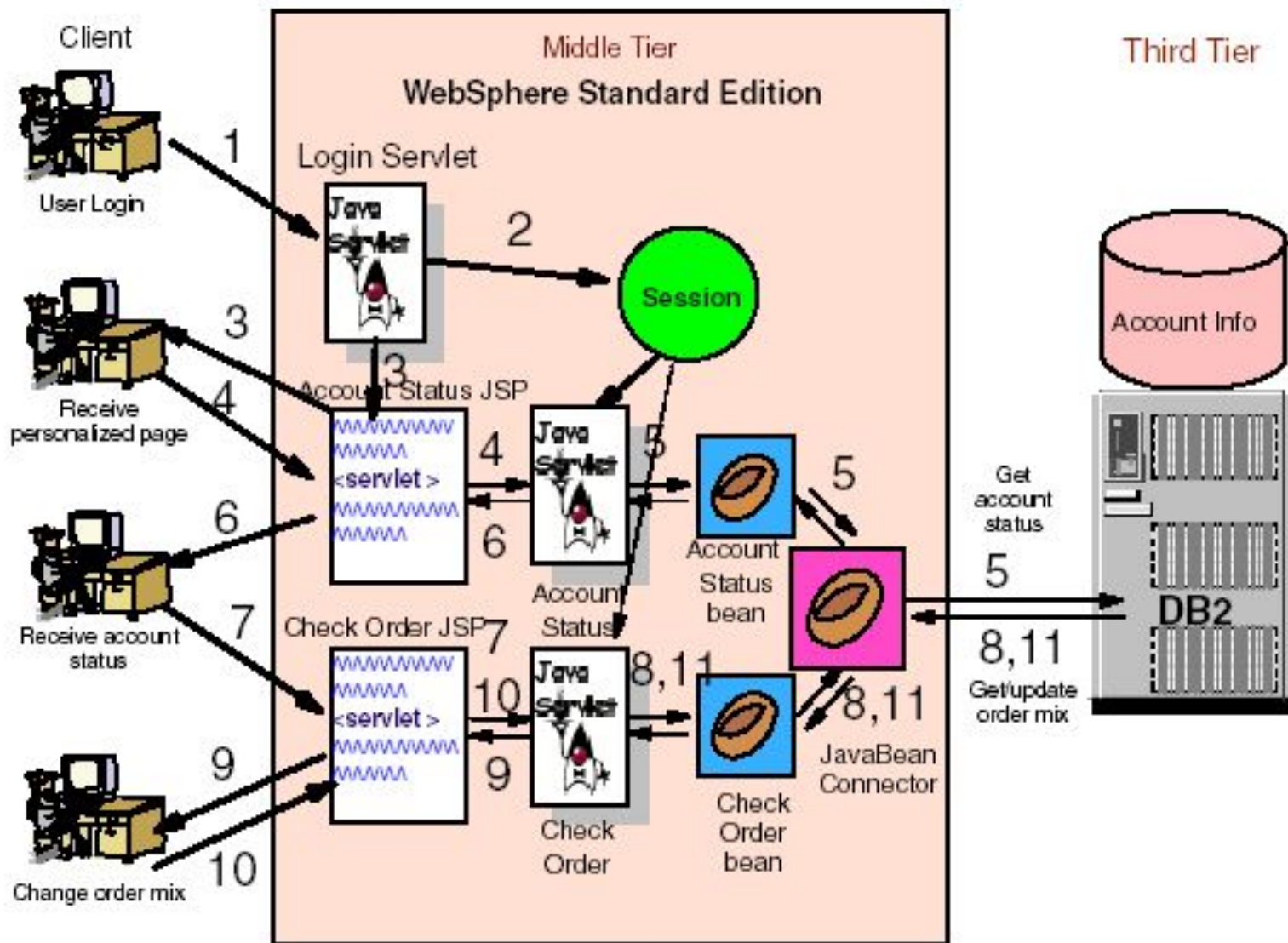


# WebSphere方案静态视图

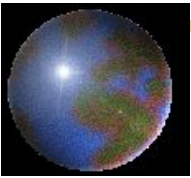




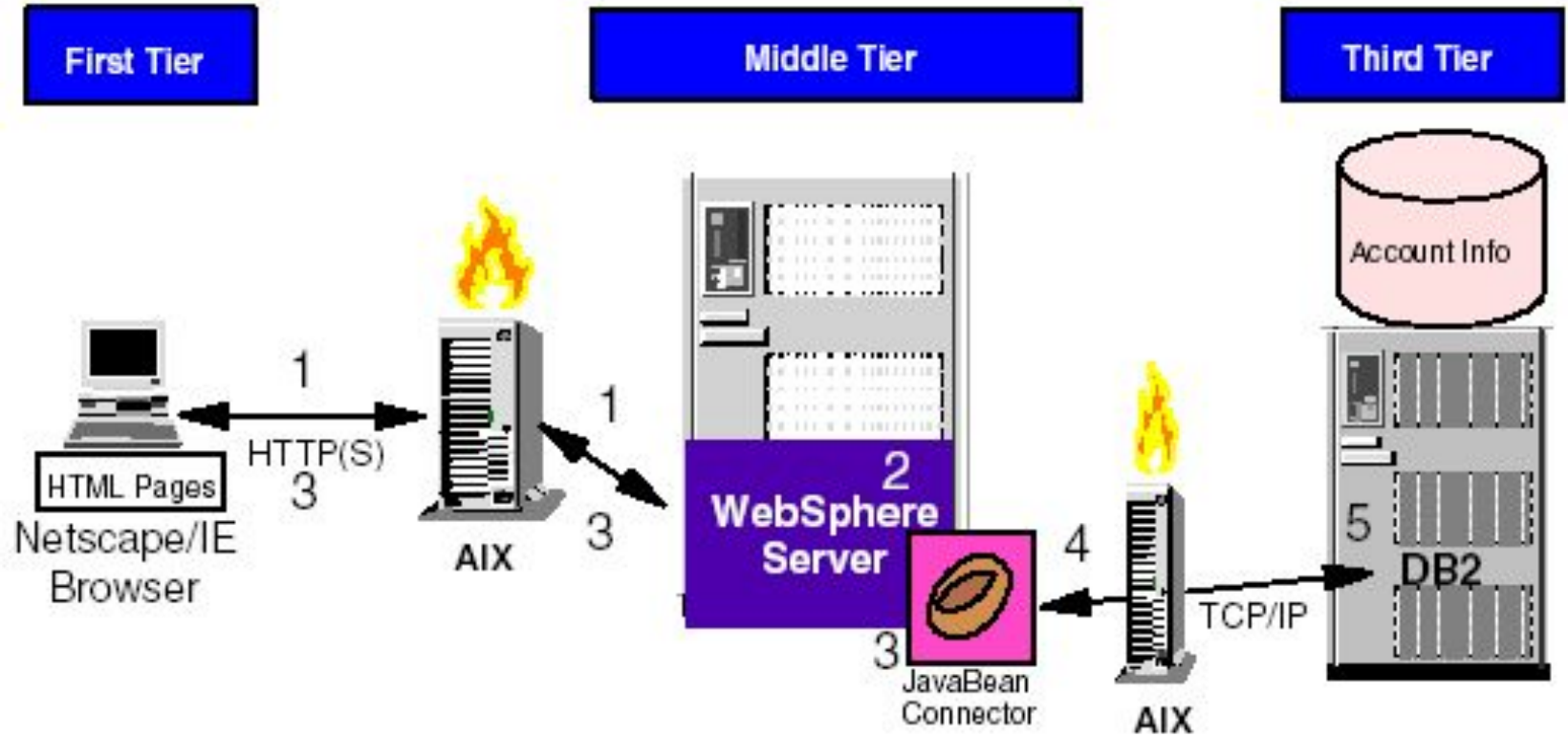
# WebSphere 方案动态视图

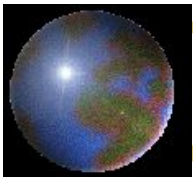






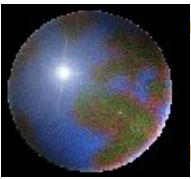
# WebSphere方案安全流程



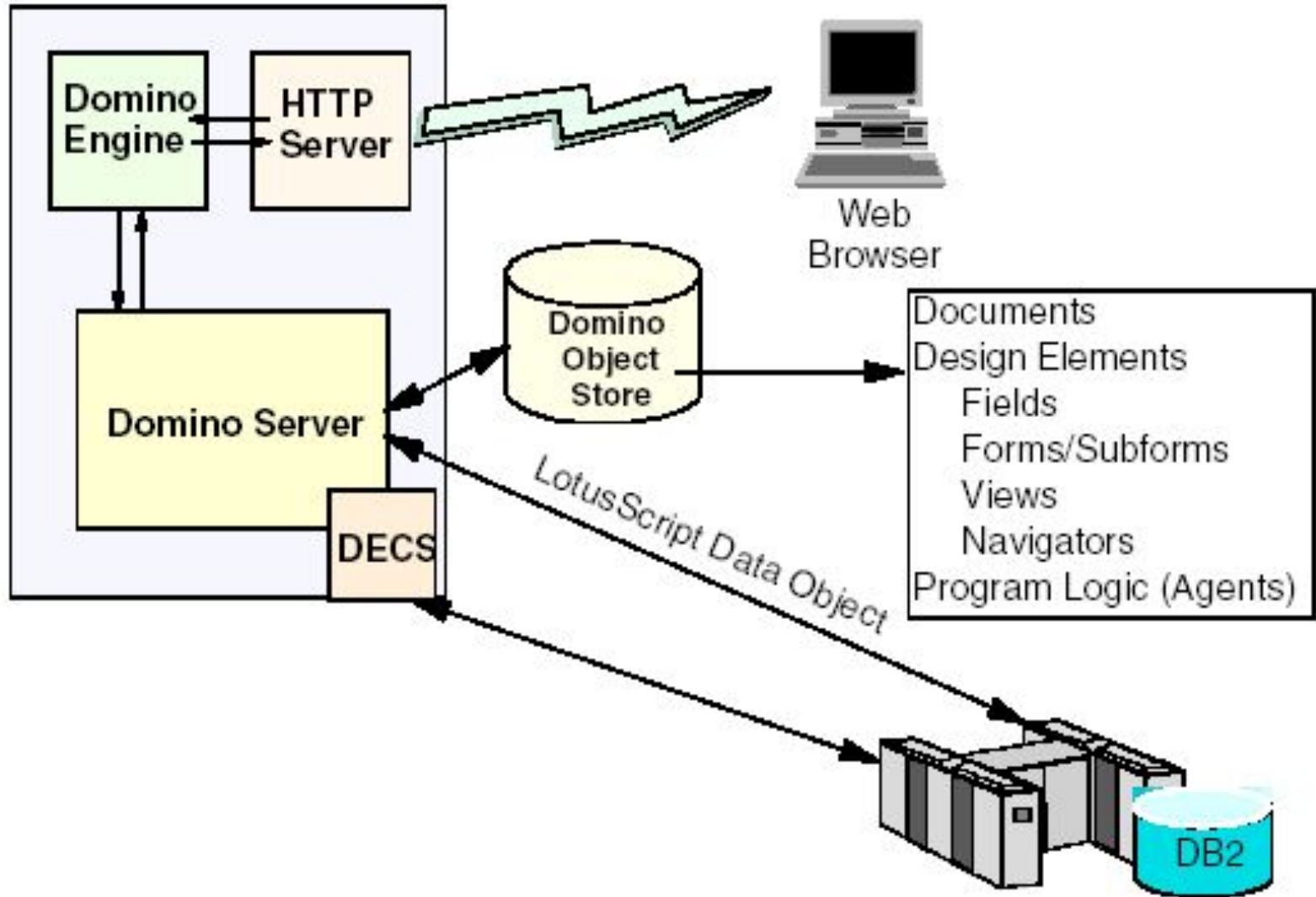


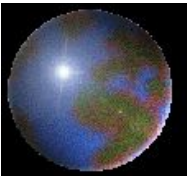
# WebSphere方案优缺点

- **WebSphere方案的优点：**
  - 基于**Java**的**Servlet**和**Bean**易于扩展和重用。
  - **VisualAge for Java**提供建立解决方案的**IDE**环境, 以及用于连接**DB2 UDB**数据库的可视化工具。
  - 可以安装在任何支持**JVM**的系统上。
- **WebSphere方案的缺点：**
  - 开发需要**Java**技术。
  - 许多用于处理请求的对象可能会影响性能。

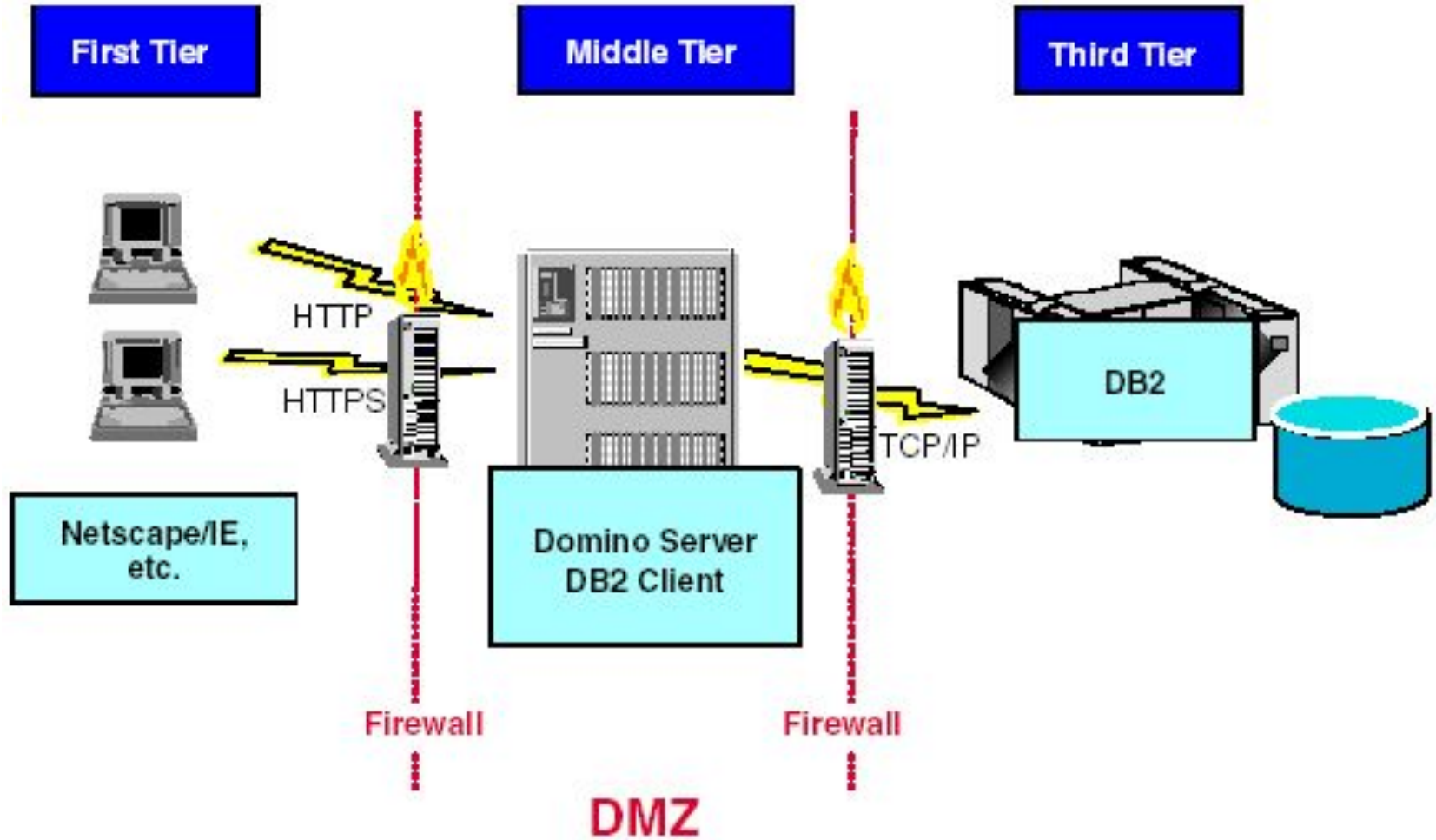


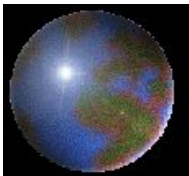
# Domino Application Server



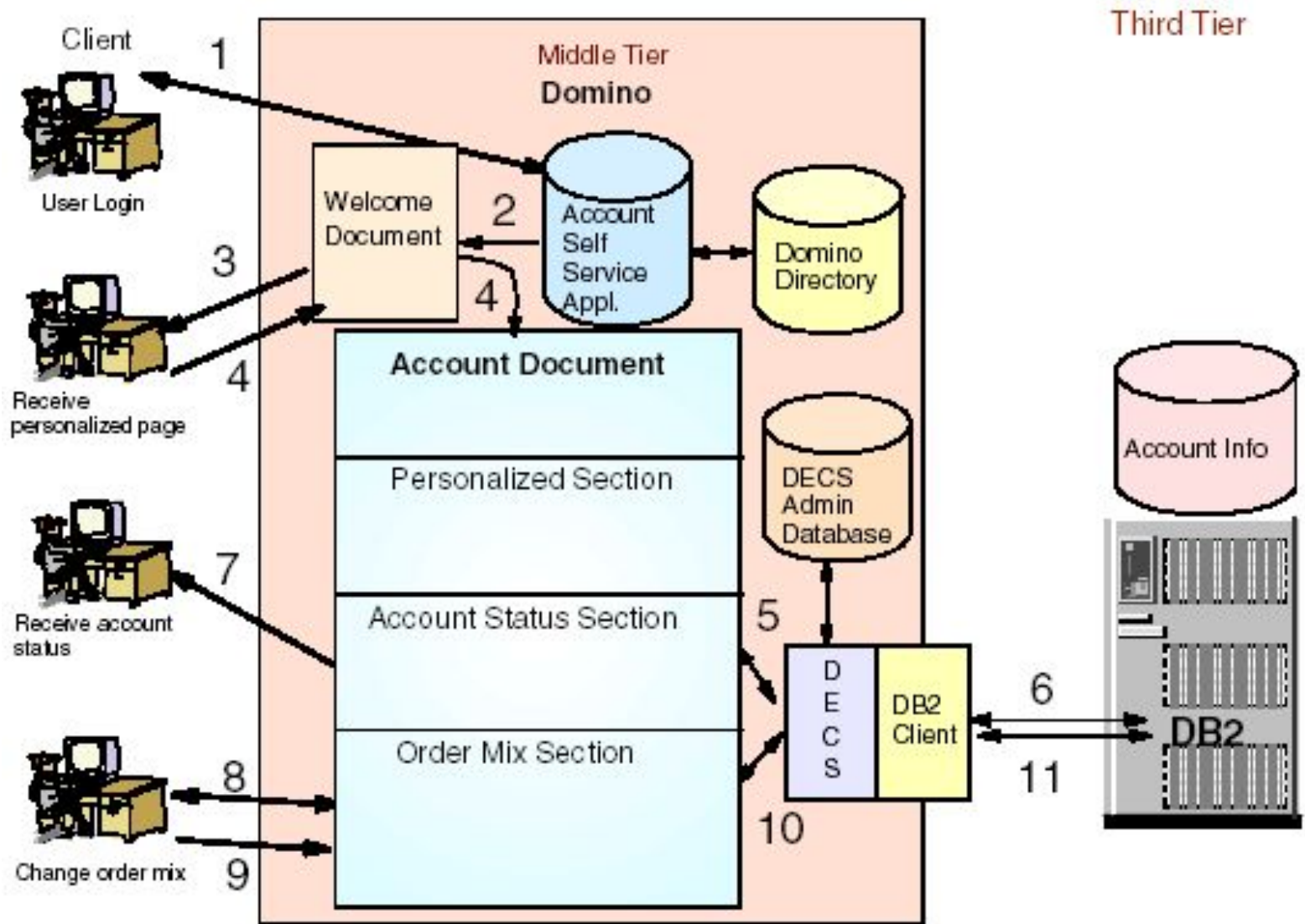


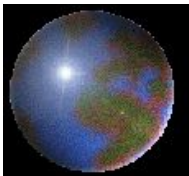
# Domino 方案静态视图



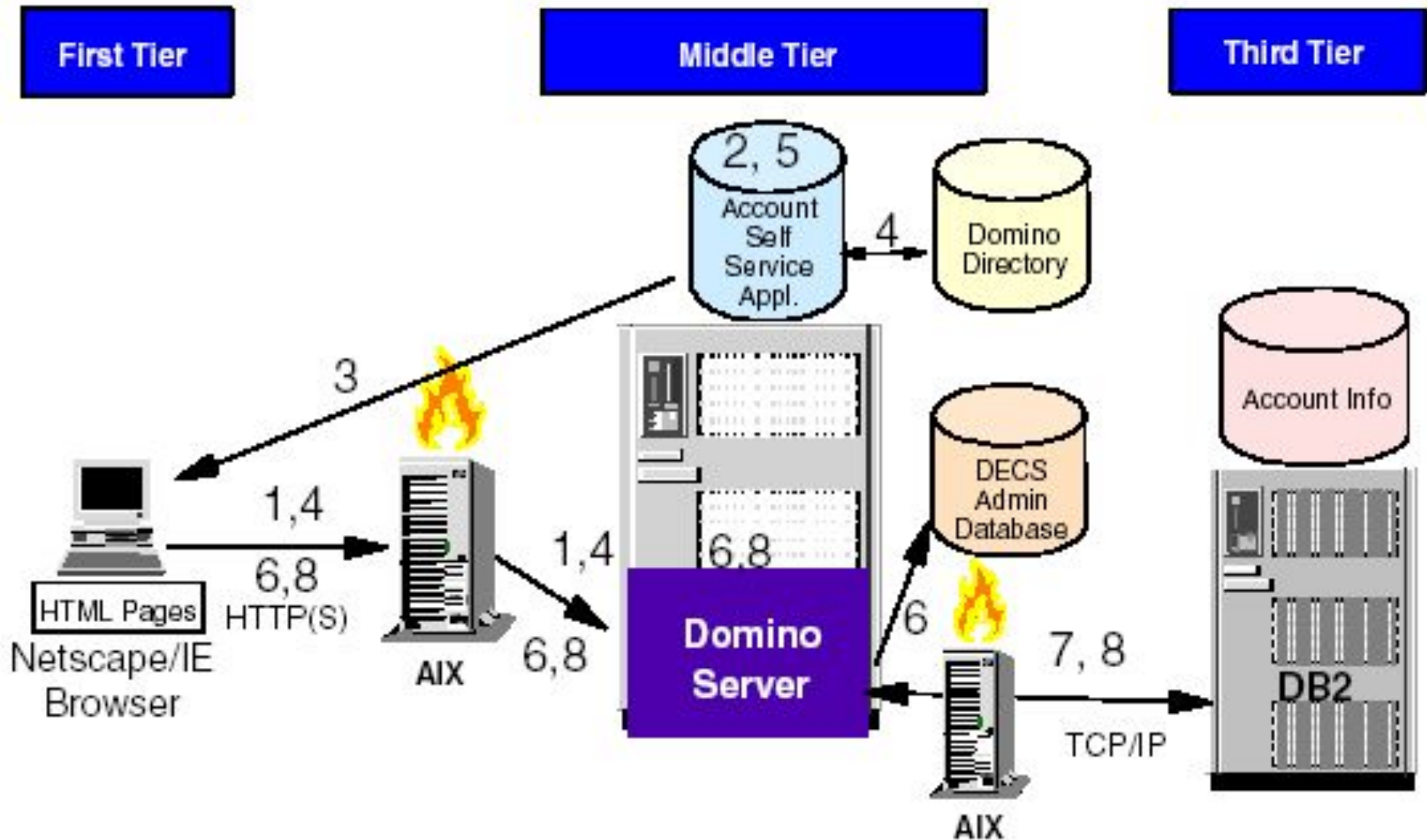


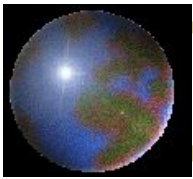
# Domino 方案动态视图





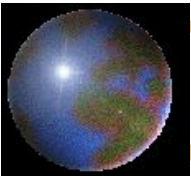
# Domino 方案安全流程



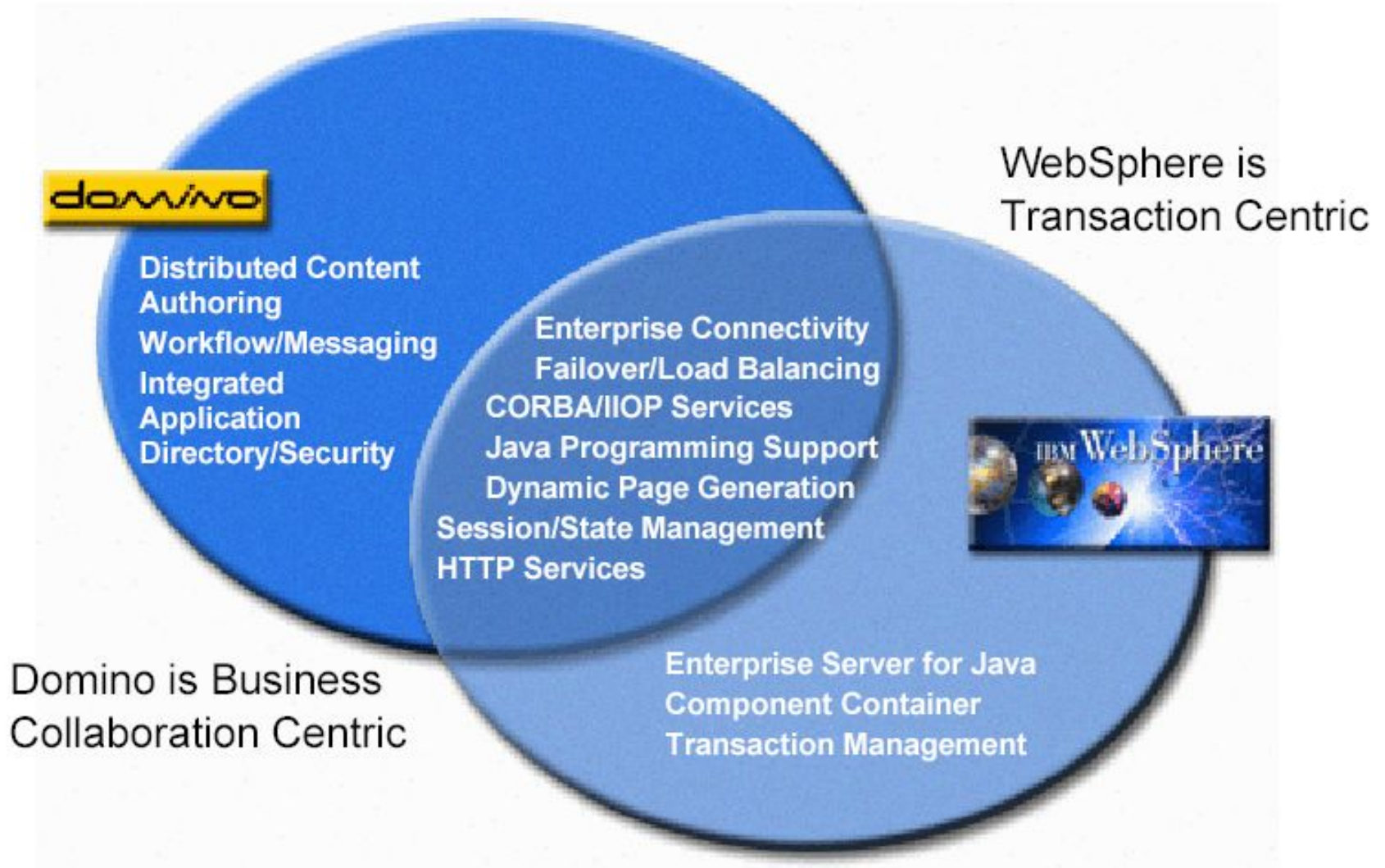


# Domino方案的优缺点

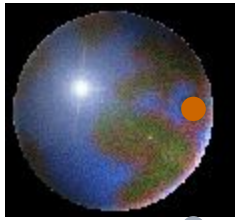
- **Domino方案的优点：**
  - **DECS**是基于表格的，易于开发和维护。
  - **DECS**通过带有池的连接，允许对外部数据的实时访问。
  - 应用易于扩展至包括讨论组，公告牌，**e-mail**等等。
  - 利用现有的**Domino**开发技术。
  - 应用开发简单迅速。
- **Domino方案的缺点：**
  - 支持同时连接的用户数量较少。
  - 应用只能运行于**Domino**平台上，移植性差。
  - 需要**Domino**开发技术。



# WebSphere与Domino方案比较







- 概述

- Web Marketing

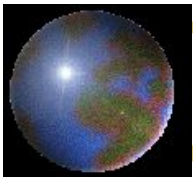
- CRM with Data Access

- **Online Sales**

- CRM with Transactions

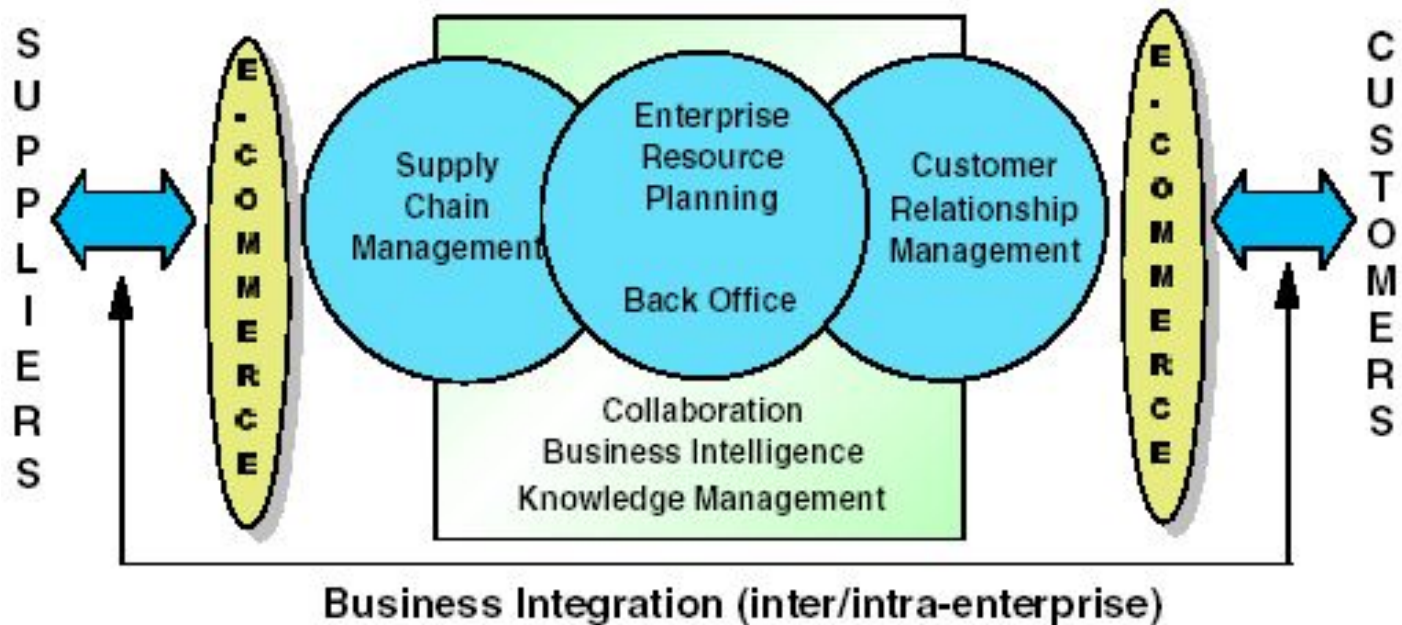
- Supplier Integration

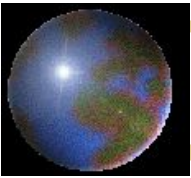
- Supplier Integration with workflow



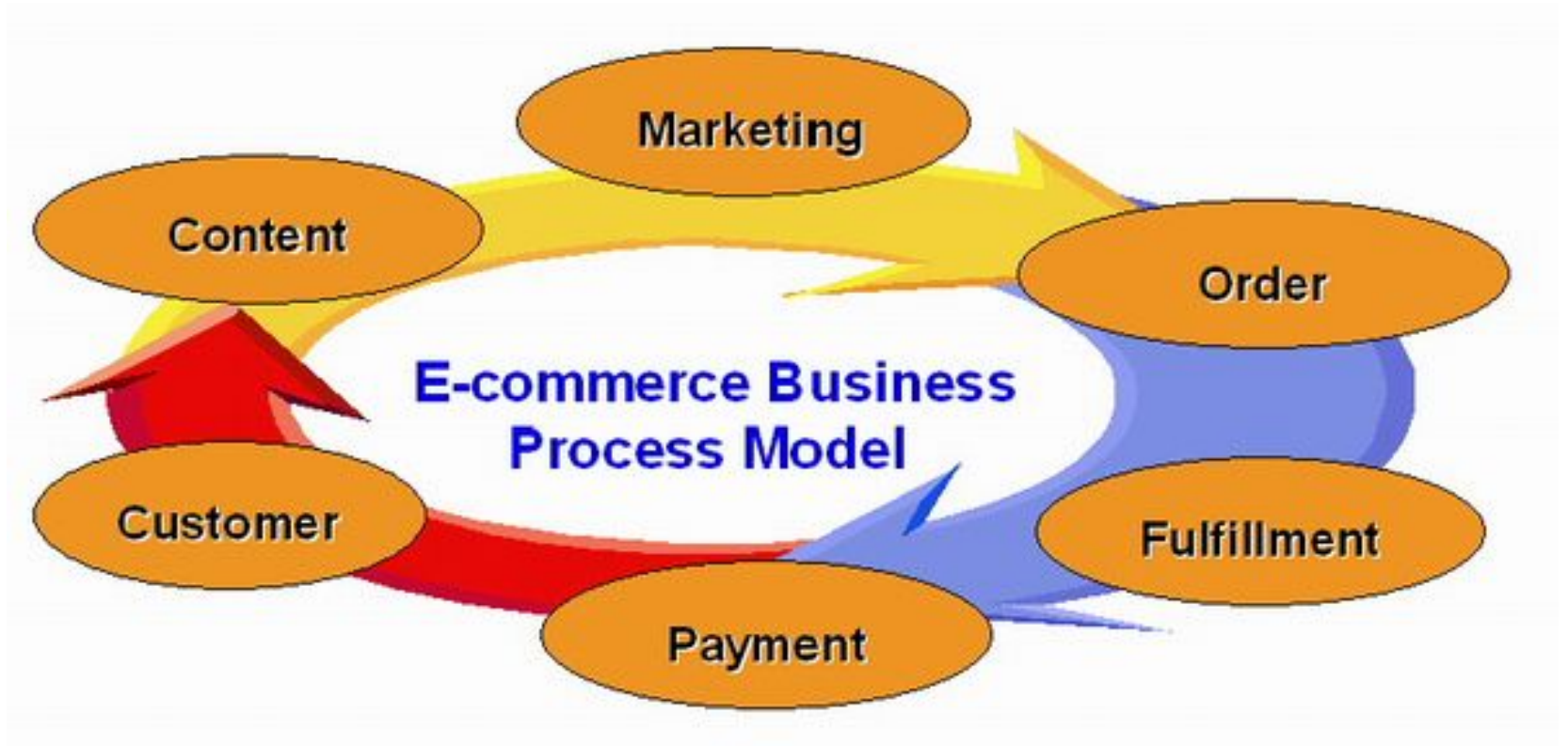
# Online Sales

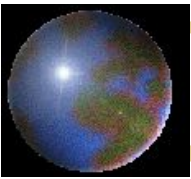
- 在线销售，又称电子交易(e-commerce)。它通过诸如intranet, extranet, Internet等电子技术进行商业活动。它允许顾客以电子的方式, 安全的购买商品和服务。通过电子交易, 可以将零售商和供应商联系起来。



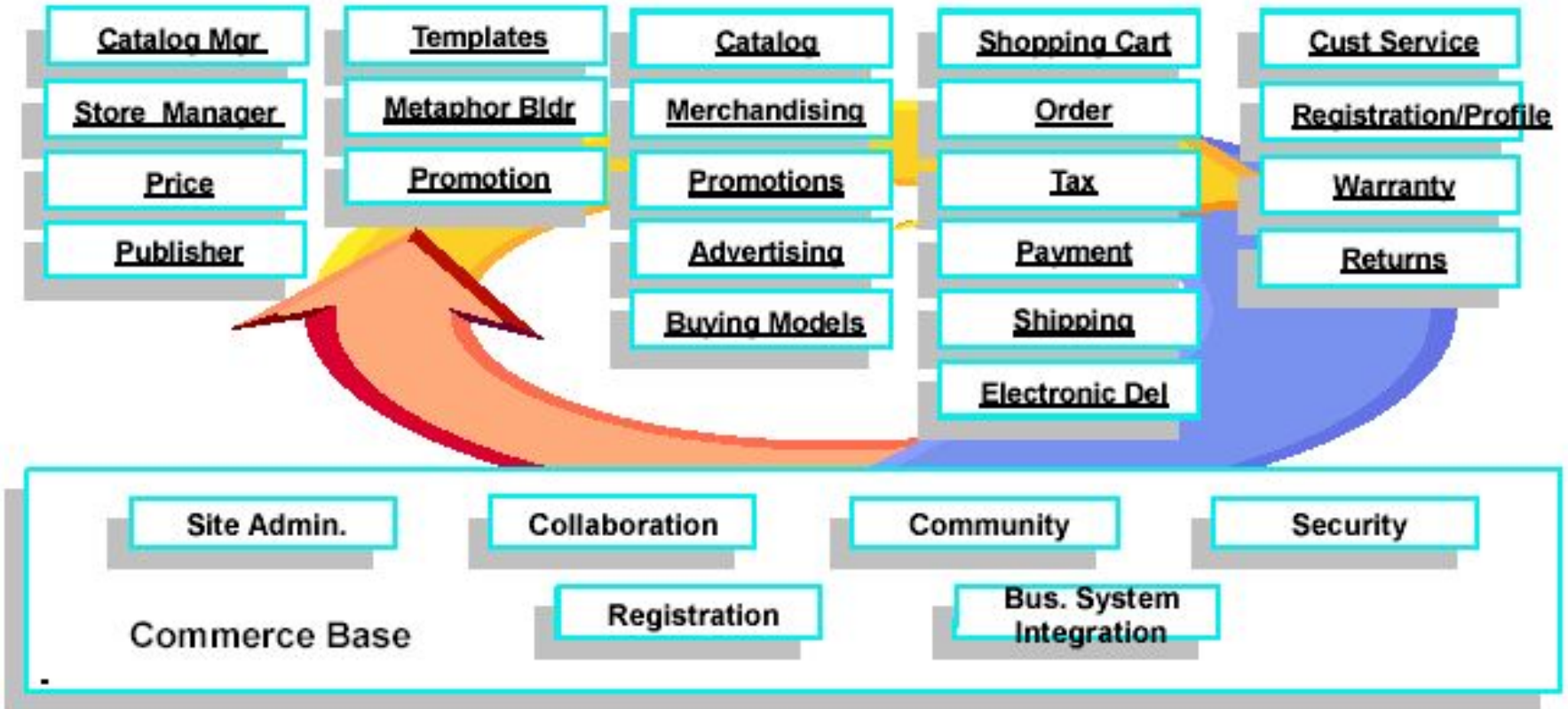


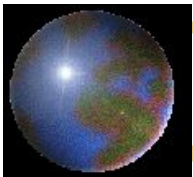
# Online Sale 业务处理模型



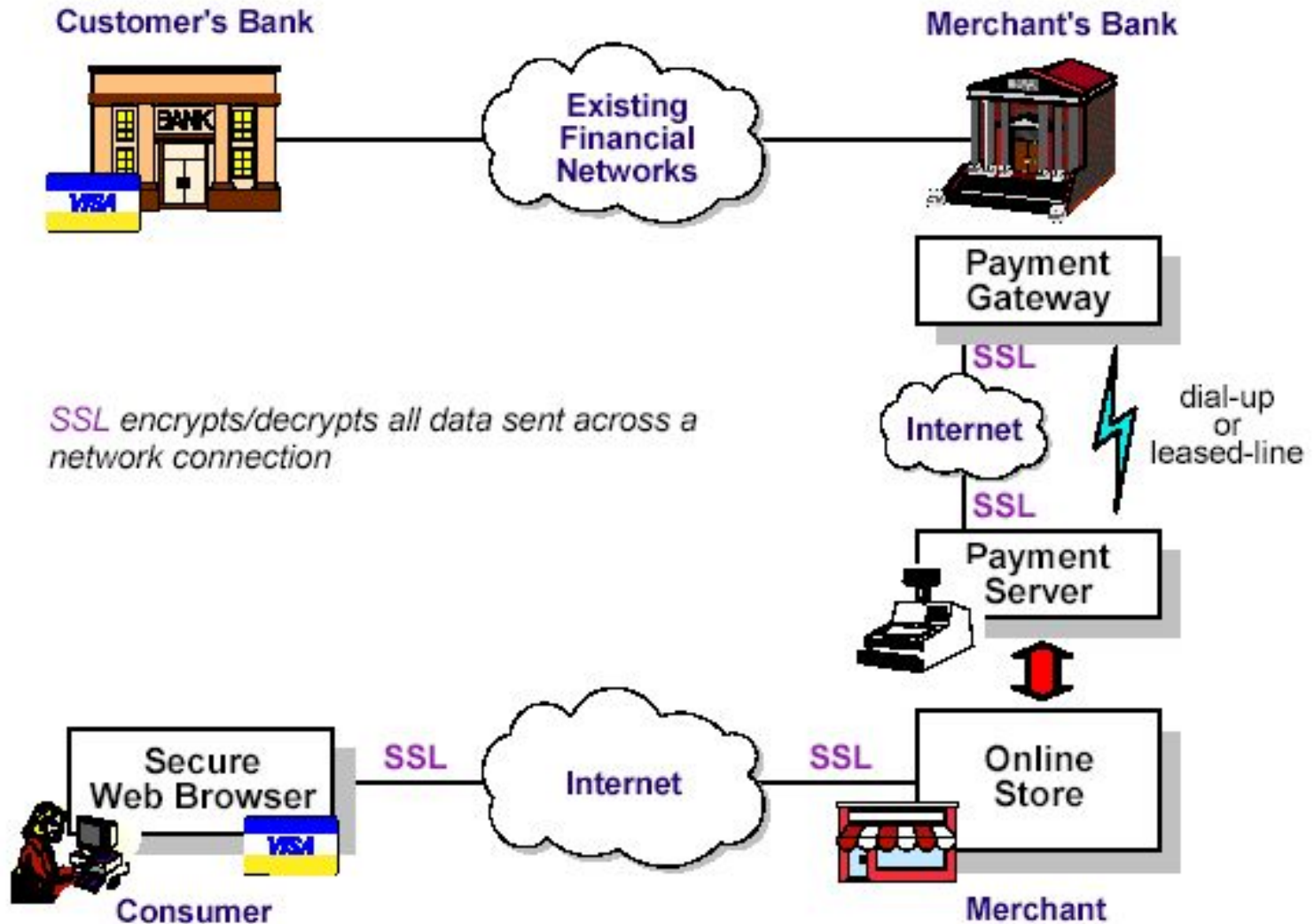


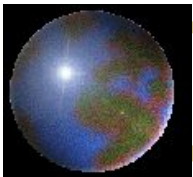
# Online Sale功能



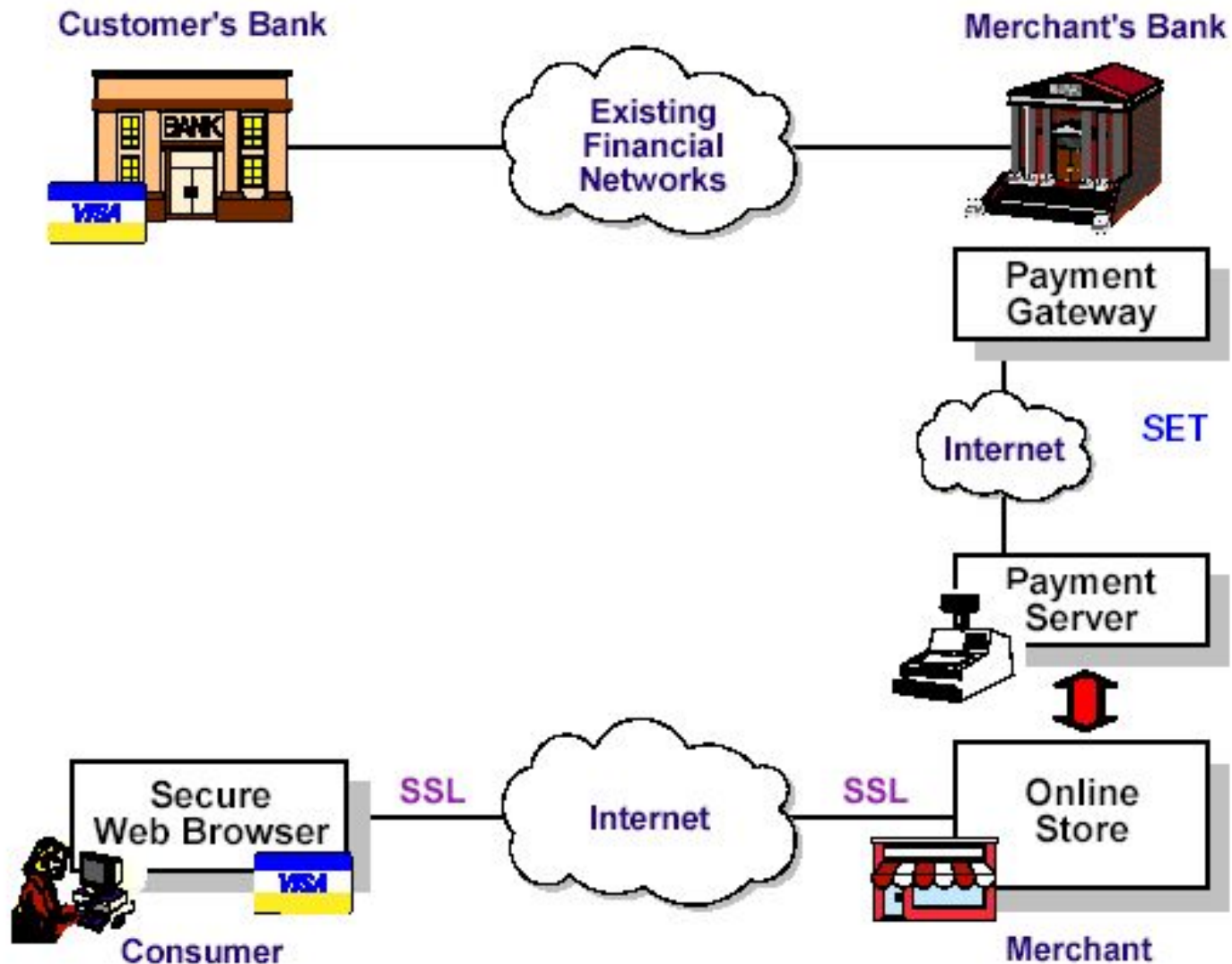


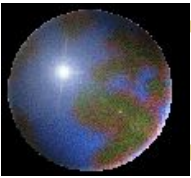
# 安全支付手段:SSL



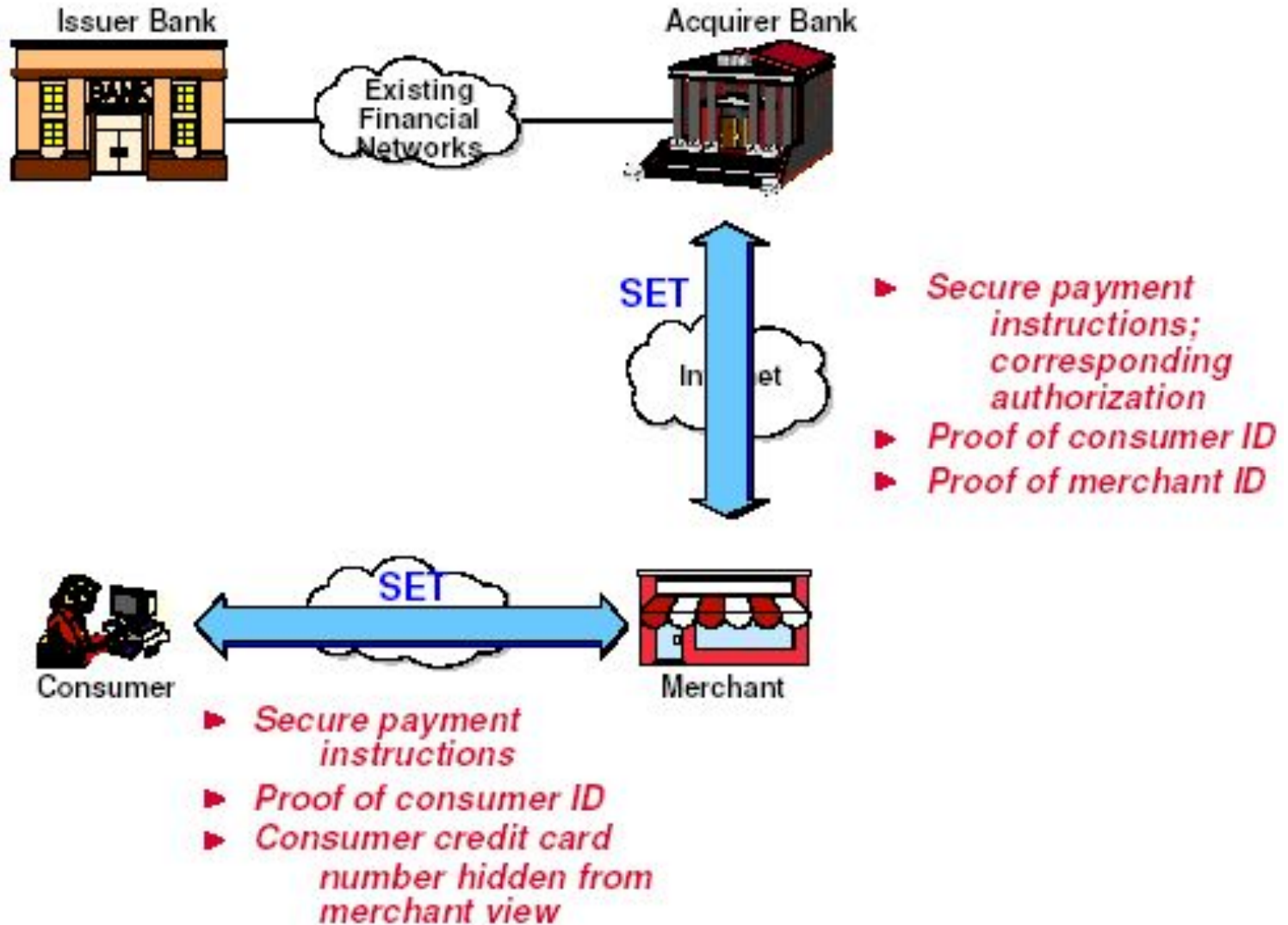


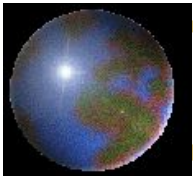
# 安全支付手段:MOP





# 安全支付手段: SET

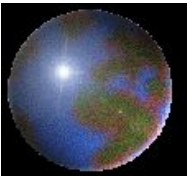




# 安全支付手段: CyberCash

- **CyberCash**支持多种不同的**Internet**支付手段, 它包括:
  - 安全信用卡事务 (包括**SSL**和**SET**)
  - **CyberCoin**服务, 支持从**\$0.25**到**\$10**的现金支付
  - **PayNow**电子检查服务, 用于交互账单应用





# Online Sale产品空间

## WebSphere Commerce Suite

Start Edition / Pro Edition /  
Service Provider Edition / MarketPlace Edition

**WebSphere**  
Catalog Manager

**WebSphere Commerce**  
Server and Studio

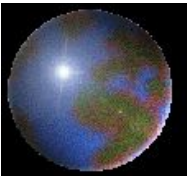
**WebSphere Application/HTTP**  
Server

DB2  
UDB

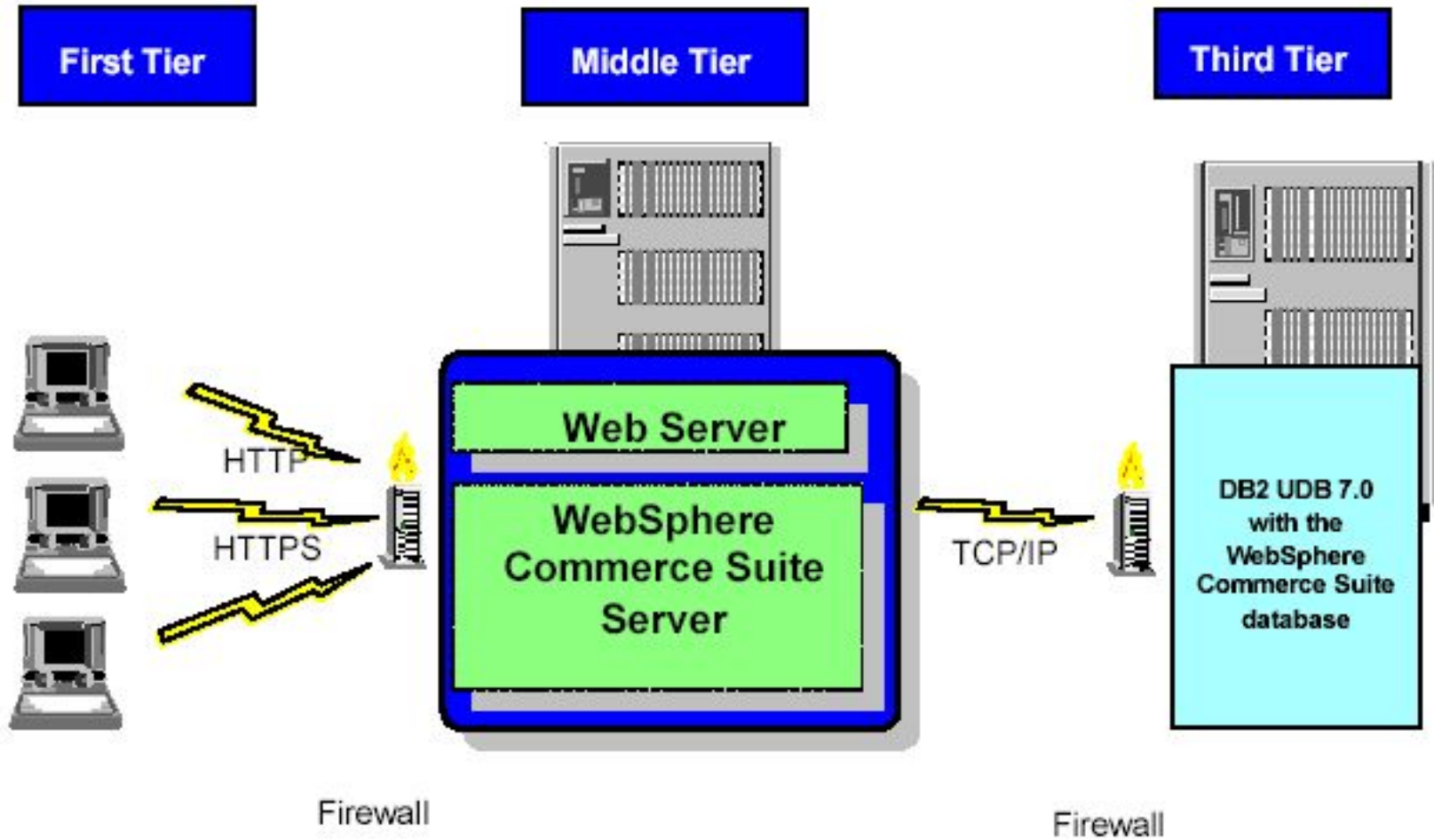
SecureWay  
LDAP  
Directory

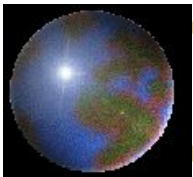
WebSphere  
Payment  
Manager

**Commerce Integrator**

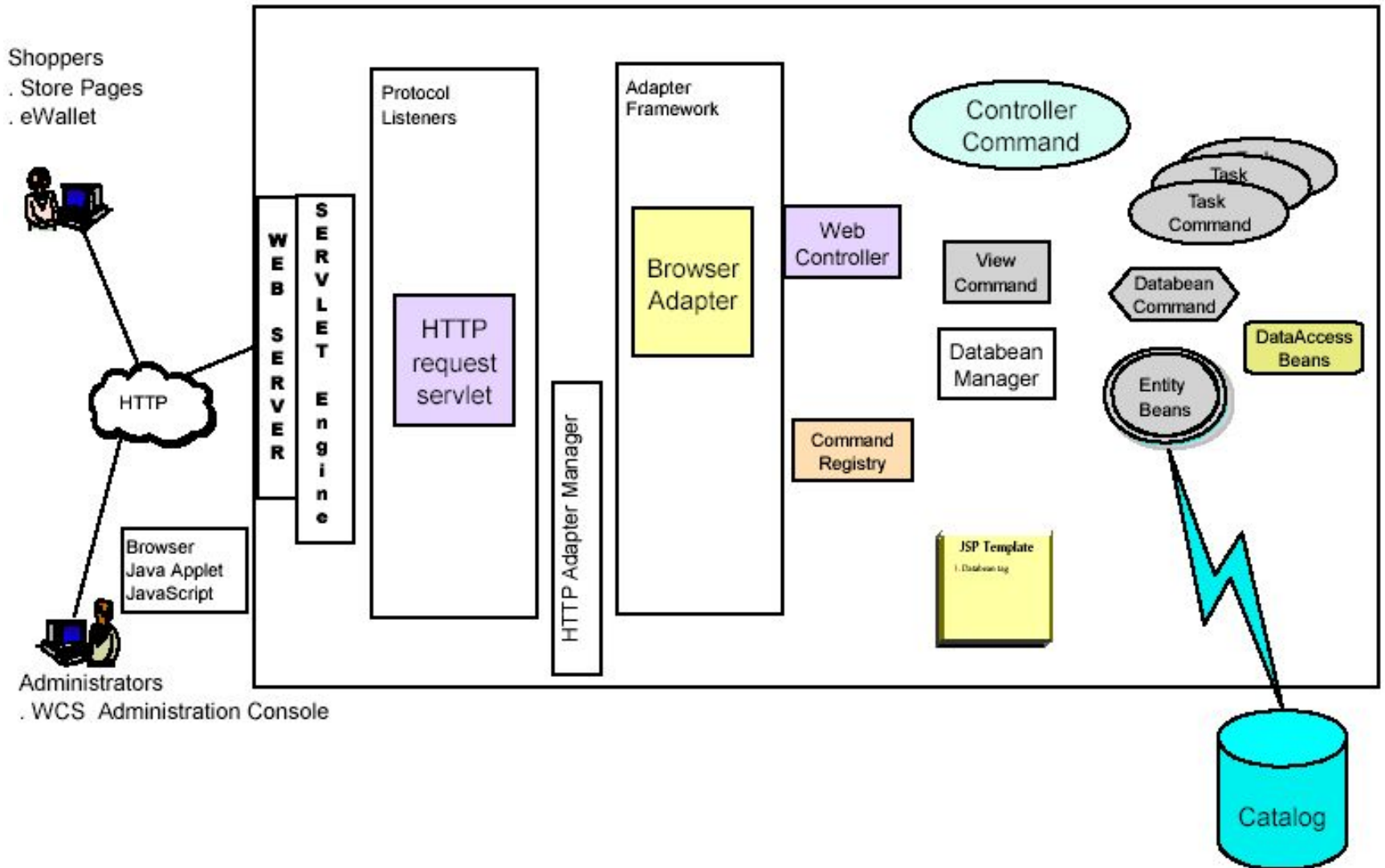


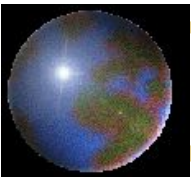
# WCS方案结构



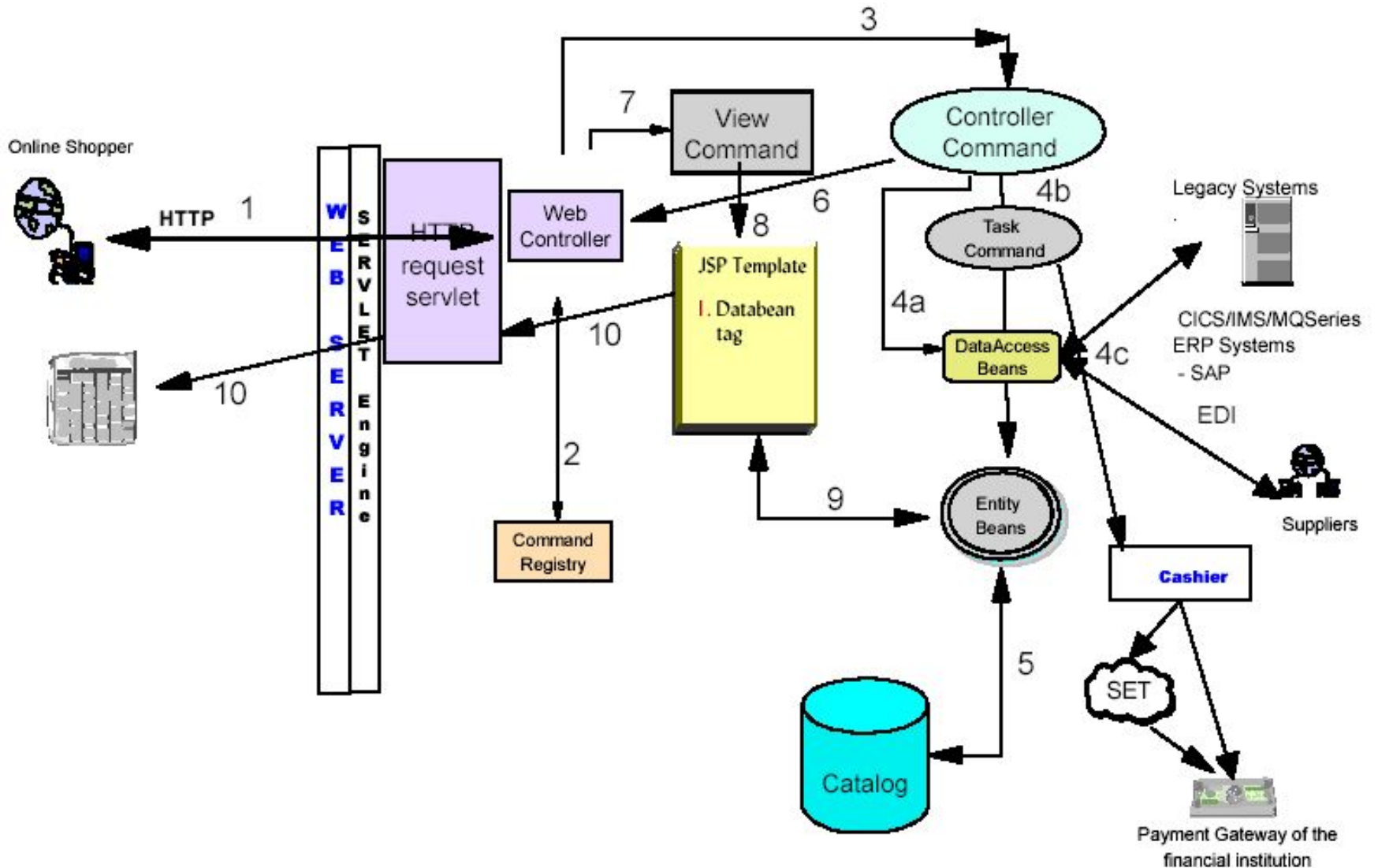


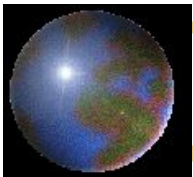
# WCS方案静态视图





# WCS方案动态视图





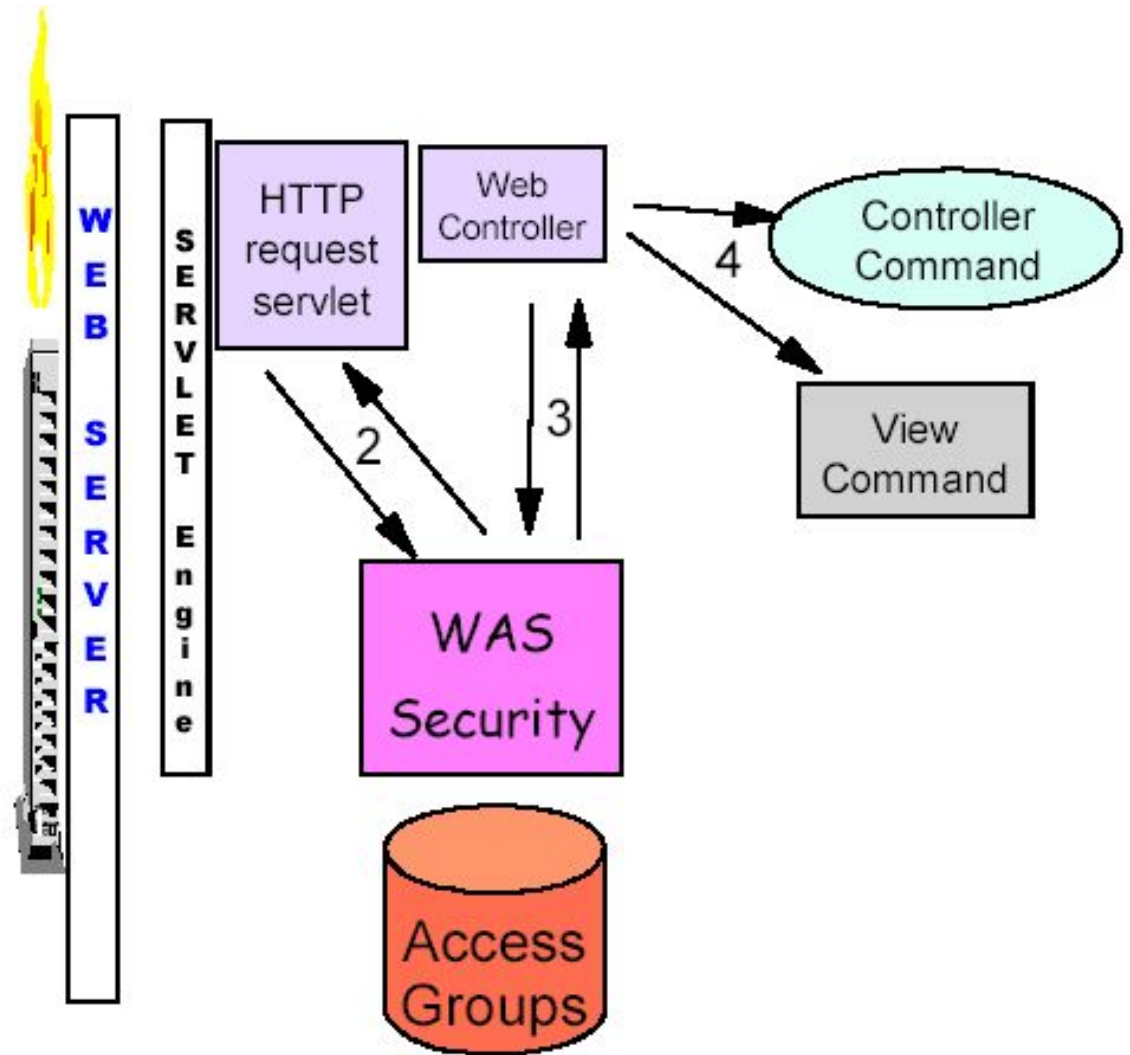
# WCS安全流程

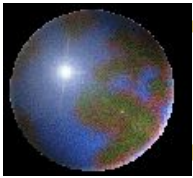
Online Shopper



SSL

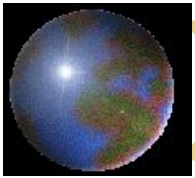
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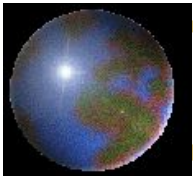
# WCS方案的优缺点

- **WCS方案的优点：**
  - 提供开发、修改、测试应用的广泛工具
  - 无需打断销售过程就可以扩展和修改应用
  - 支持多种服务器和主机平台
  - 稳定, 可靠, 成熟
  - 良好的文档和在线帮助
  - 能够建立单独的销售处理流
  - 数据库形式可以扩展
- **WCS方案的缺点：**
  - **Pro**版本价格昂贵
  - **Start**版本只支持**NT**



# CRM with Transaction

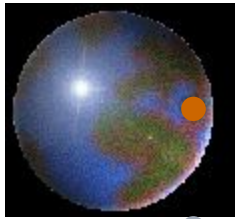
- **事务处理CRM问题**描述了当用户操作一个需要锁住资源直到处理完毕的应用时的情况



# 事务处理环境类型

- 经典的事务处理和事务处理处理监视  
(**TM或TP Monitor**)
- 数据库管理系统事务处理环境(**DBMS**)
- 消息队列系统事务处理环境(**MOM**)
- 对象事务处理监视(**OTM**, 面向对象  
, **C++**)
- **CORBA ORB/IIOP**模型支持事务处理  
监视(**ORB**)
- **EJB**容器/服务器, 包括  
**CORBA/ORB/IIOP (EJS)**





- 概述

- Web Marketing

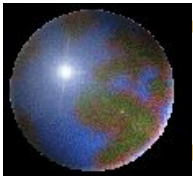
- CRM with Data Access

- Online Sales

- **CRM with Transactions**

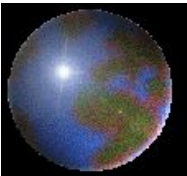
- Supplier Integration

- Supplier Integration with workflow

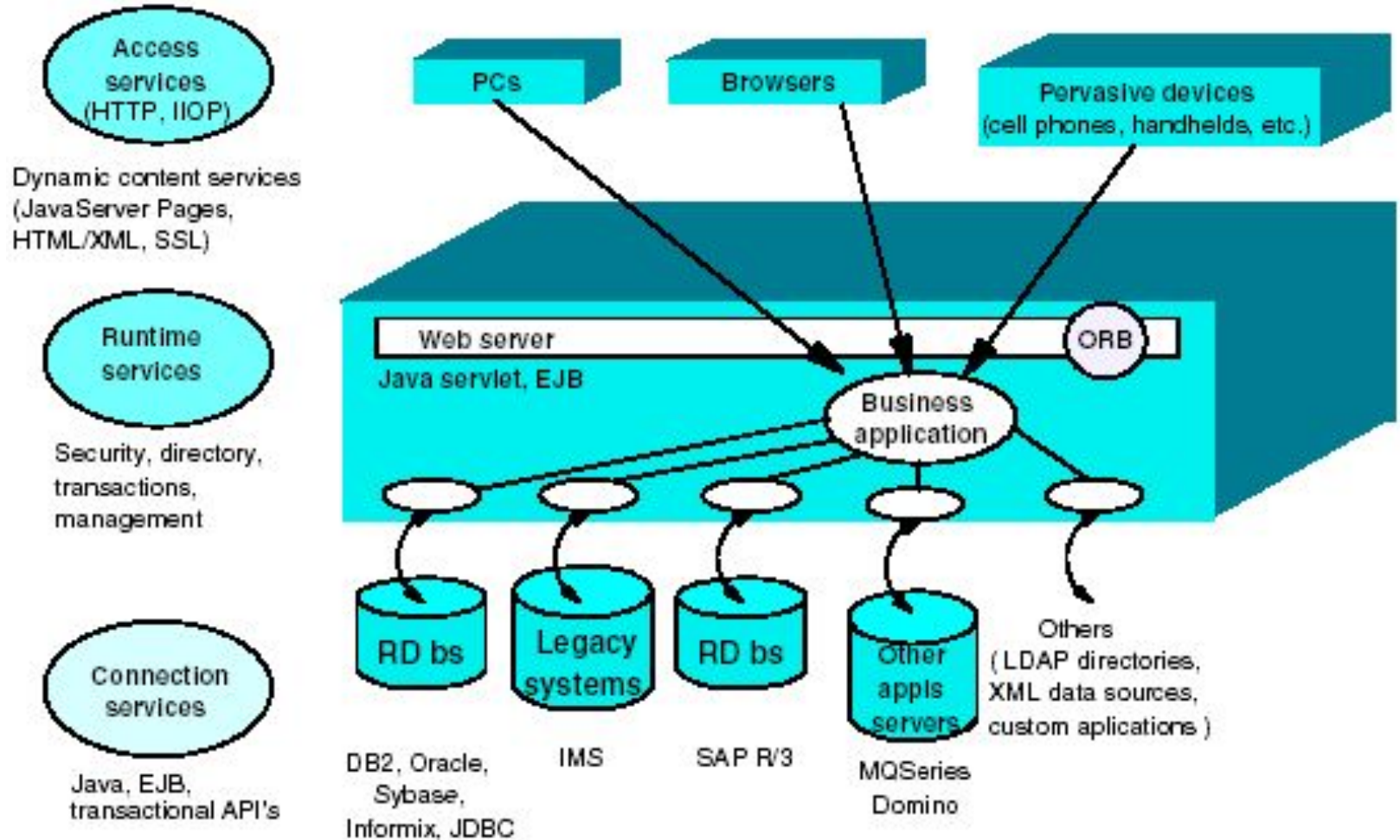


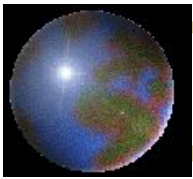
# CRM with Transaction 产品

- **WebSphere高级版**
- **WebSphere企业版 – TX Series**
- **WebSphere企业版 – Component Broker**

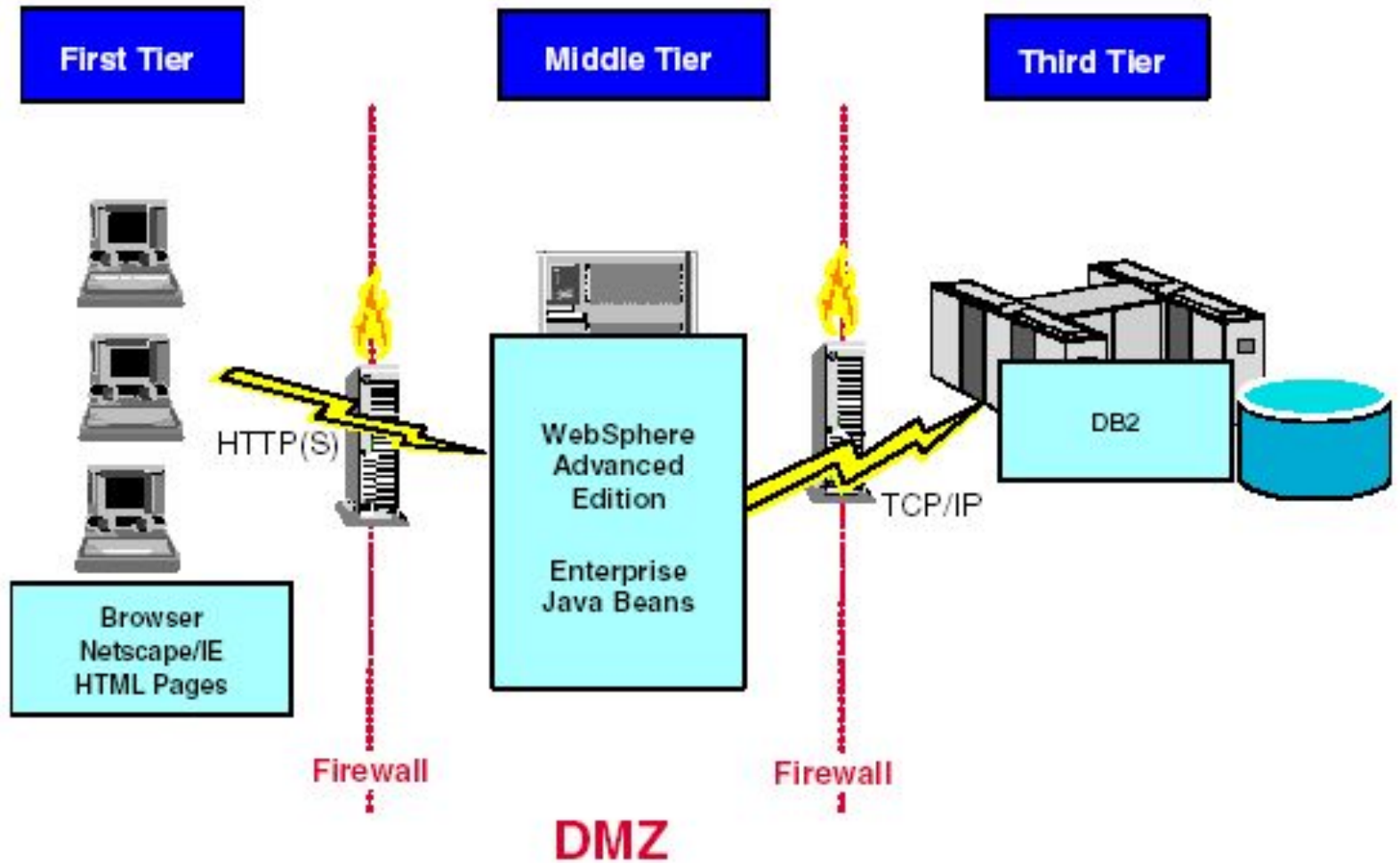


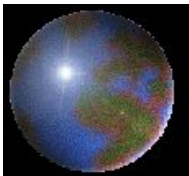
# WebSphere高级版



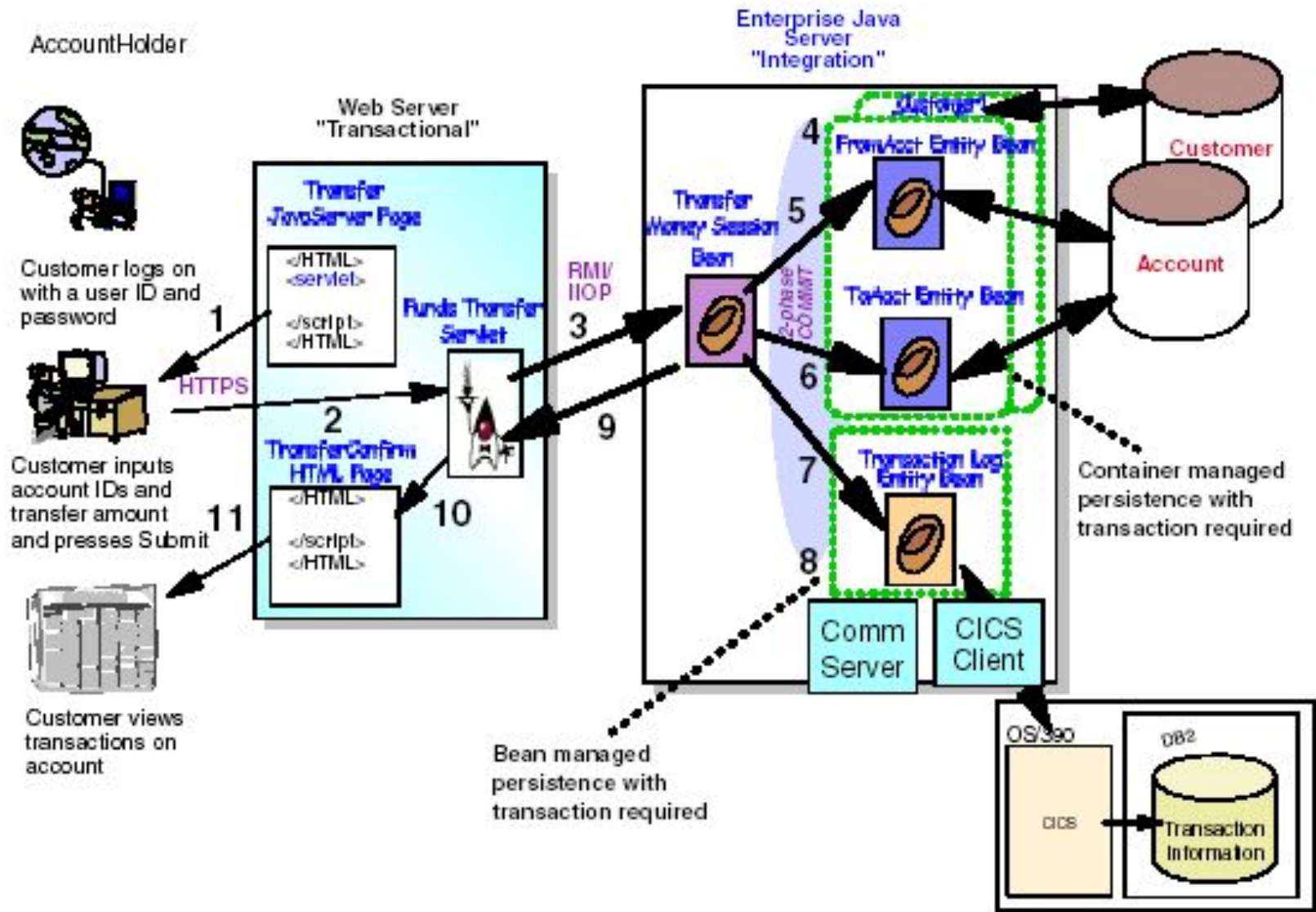


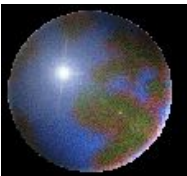
# WebSphere高级版方案静态视图



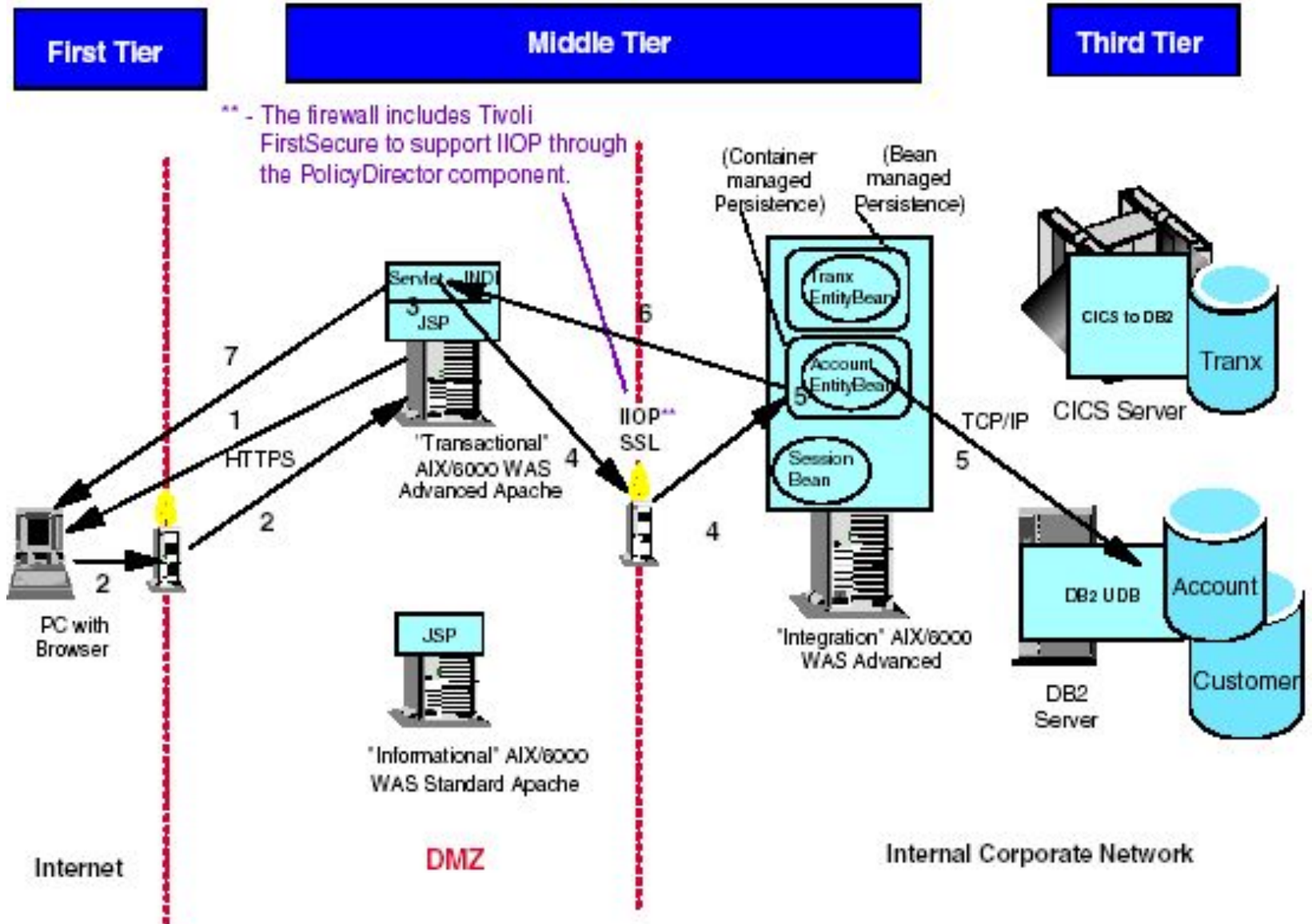


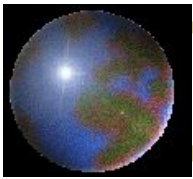
# WebSphere高级版方案动态视图





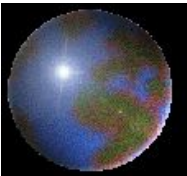
# WebSphere高级版安全流程



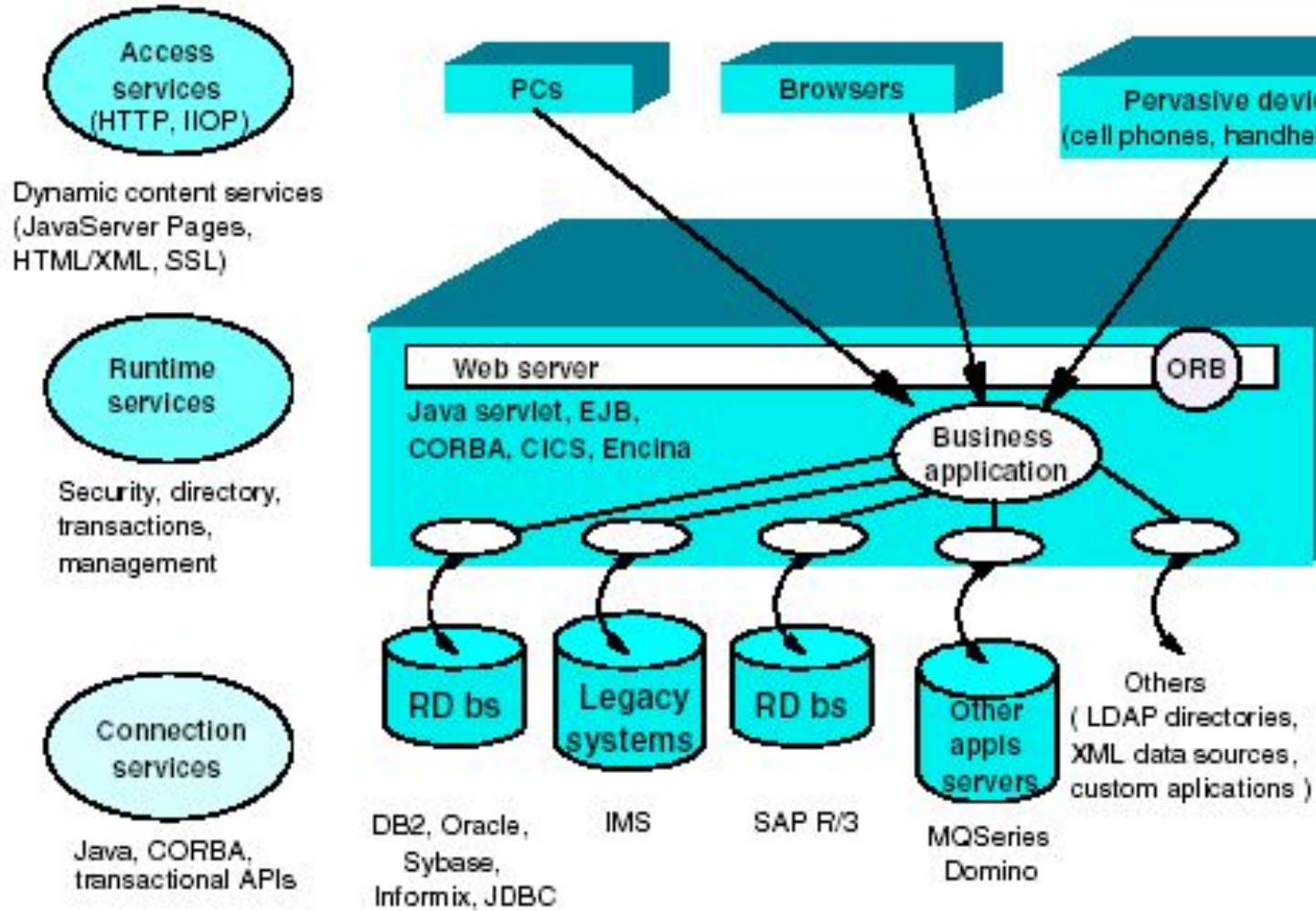


# WebSphere高级版方案优缺点

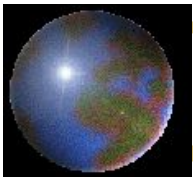
- **WebSphere高级版方案的优点**
  - 全部基于**Java**的解决方案(一次书写, 任意运行)
  - 遵循**EJB**标准
  - 易于与其它**EJB**计算环境交互操作
  - **EJB**组件结构便于增加和修改组件, 以及重用其他基于**EJB**应用的组件
  - **ESS**结构通过将事务处理与信息服务器分离提高安全性
  - 中间层的事务监视器帮助管理性能, 容量和可用性
- **WebSphere高级版方案的缺点**
  - 不能处理大容量的事务
  - **EJB**组件结构使得应用的开发, 维护和管理非常复杂
  - 建立需要专门的技术和资源, 代价高



# WebSphere企业版



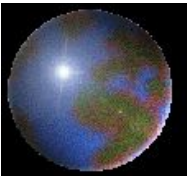




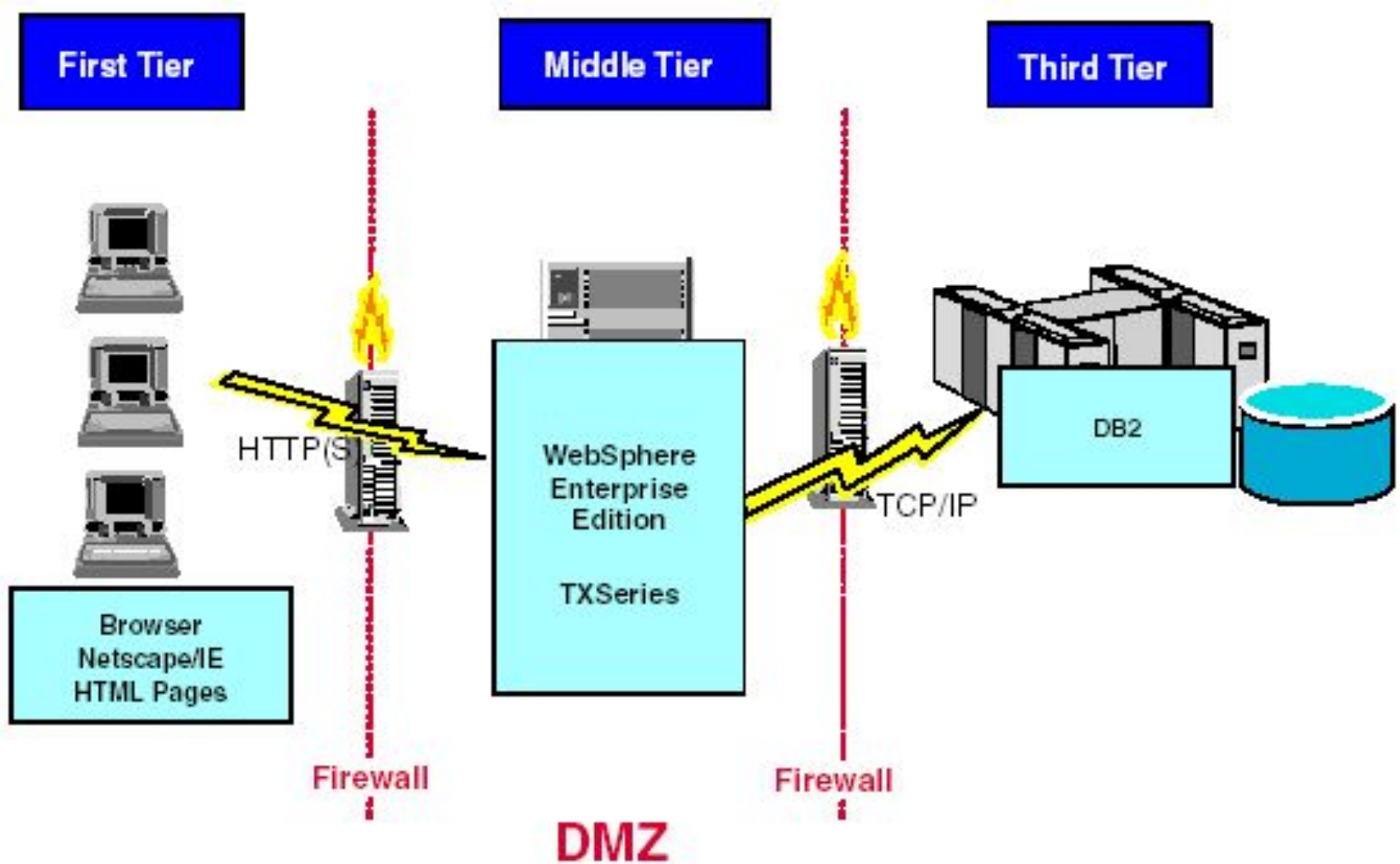
# WebSphere企业版 – Tx Series

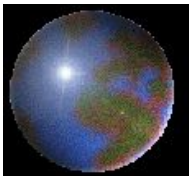
**Tx Series**是IBM重要的事务处理中间件产品，用于**Windows NT, UNIX, Linux**。它提供了一个鲁棒的应用服务器环境，具有以下功能：

- 编程模型范围
  - **Encina, CICS**过程API
  - **Encina++**分布式对象
  - **CICS**的**C++**基类
- 应用程序间通信
  - 同步
  - 异步(**MQSeries**)
- 高性能和高可用性
  - workflow管理和故障修复
- 安全性
  - 认证, 授权, 隐私
- 出色的主机访问
  - 对主机应用和数据快速, 事务, 双向的访问
- 瘦客户, 胖客户和**Web**客户的访问
  - 三层**C/S**结构加上瘦客户, **Web**客户和**Java**客户
- 开放工具的支持



# Tx Series 方案静态视图



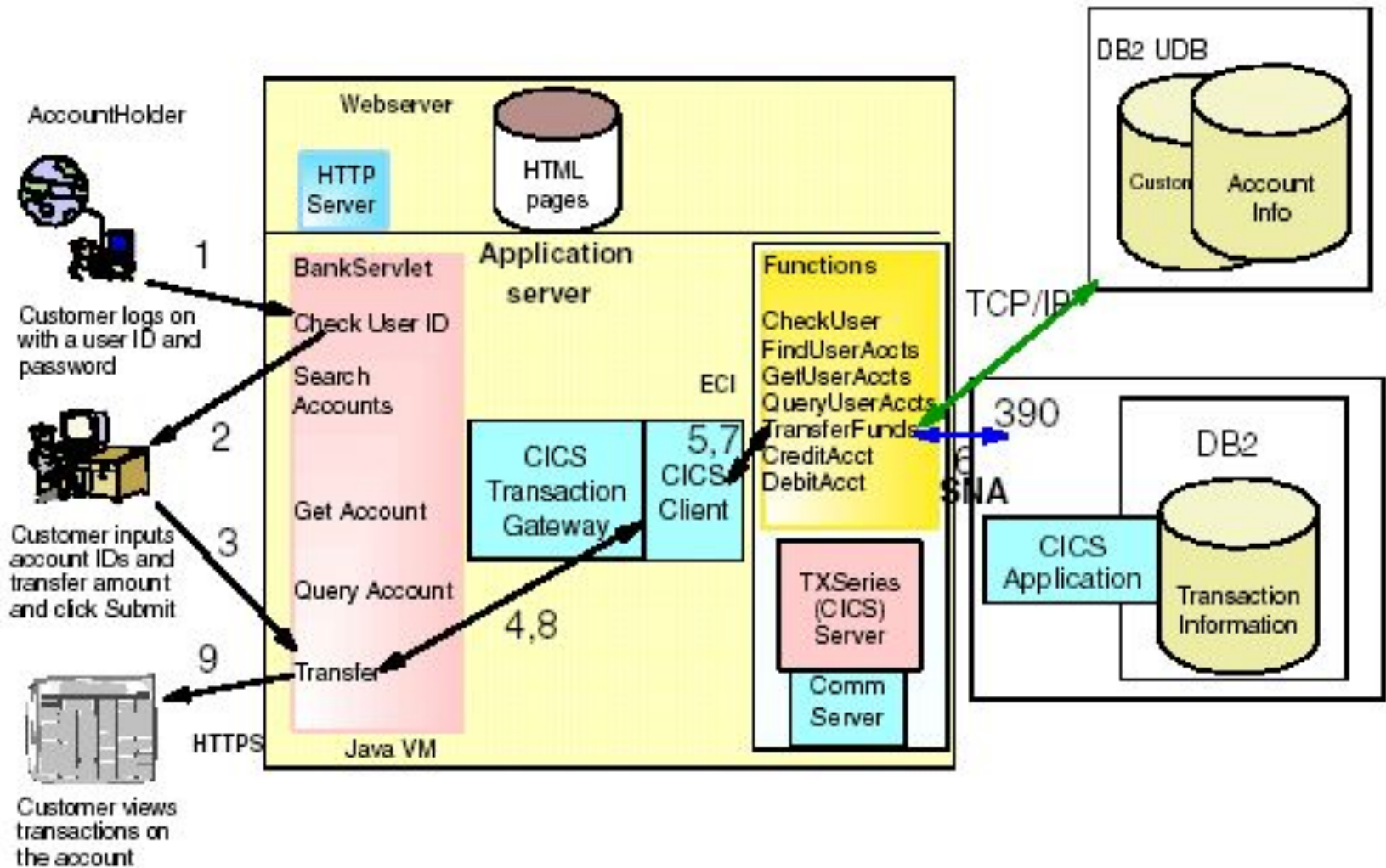


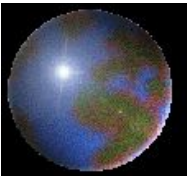
# Tx Series 方案动态视图

First Tier

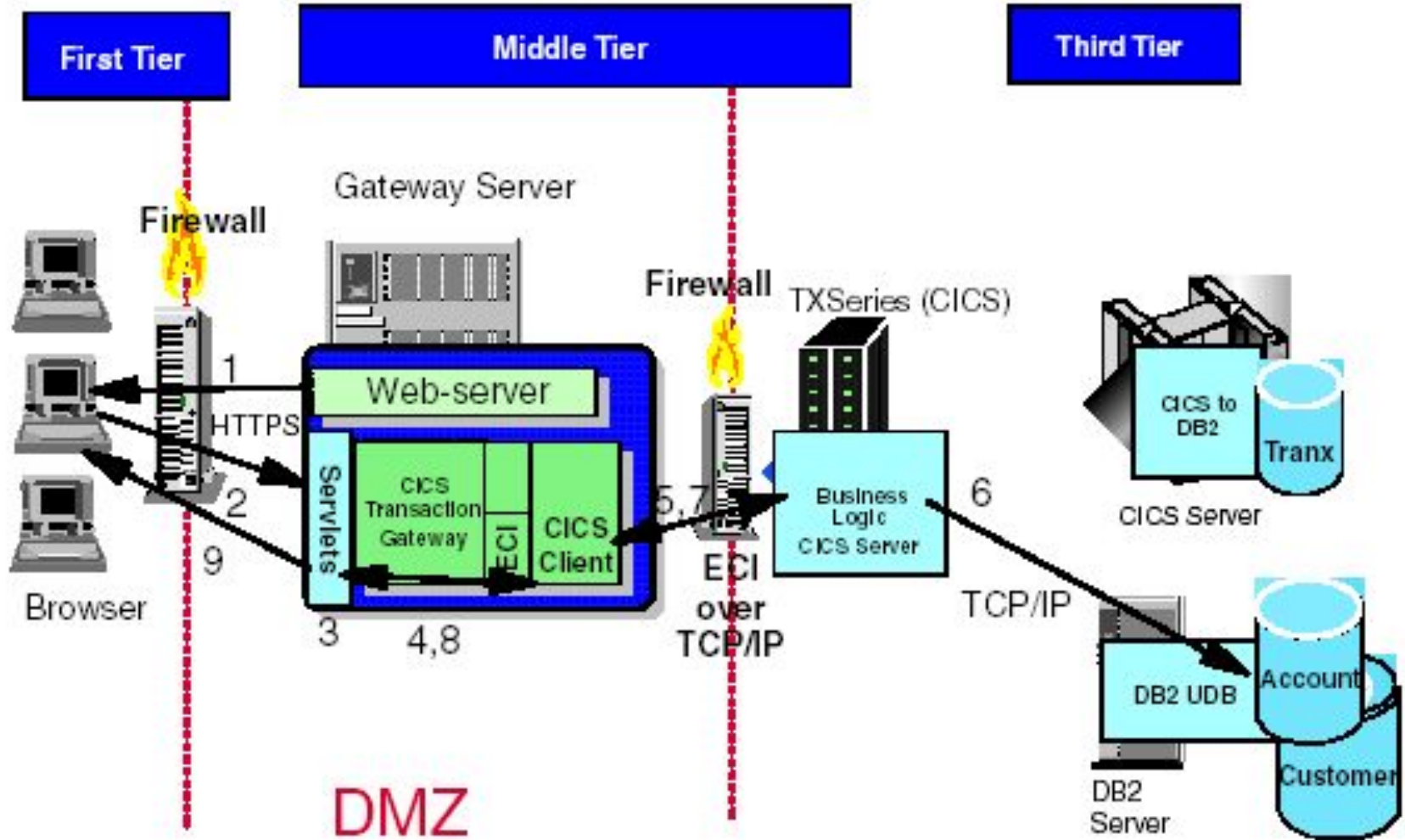
Middle Tier

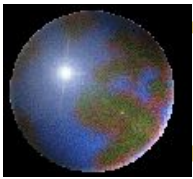
Third Tier





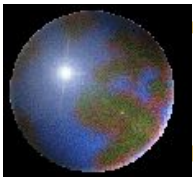
# Tx Series 方案安全流程





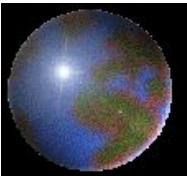
# Tx Series方案的优缺点

- **Tx Series方案的优点：**
  - 在事务数量方面有很高的伸缩性
  - 非常可靠
  - 利用现有的**CICS**技术
  - 需要时可以在**Encina**和**CICS**之间互操作
  - **WebSphere**企业版支持企业级的簇，用以帮助管理容量和可用性
  - 在中间层使用事务监视帮助管理性能，容量和可用性
- **Tx Series方案的缺点：**
  - 难以增加新的功能
  - 难以与其它计算环境互操作，难以重用其它应用的组件
  - 难以找到**CICS**技术

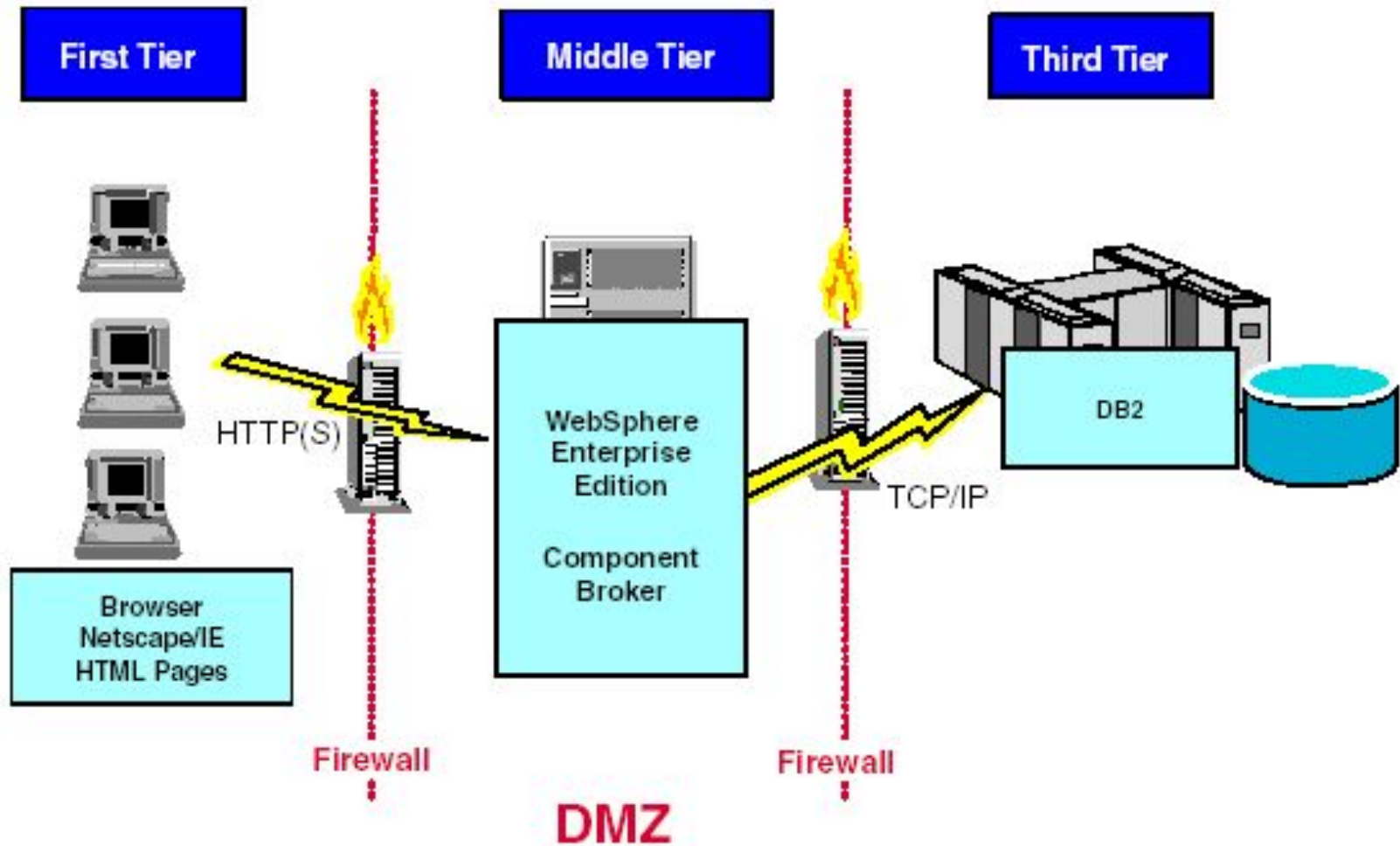


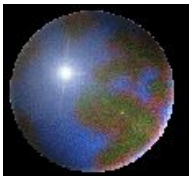
## WebSphere企业版 – Component Broker

- **Component Borker**是一个对象容器，它支持**CORBA**和**EJB**对象，它可以利用现有的系统并且与之共存于一个共享的事务环境中。**CORBA**还提供客户客户端和服务端实现语言的选择。

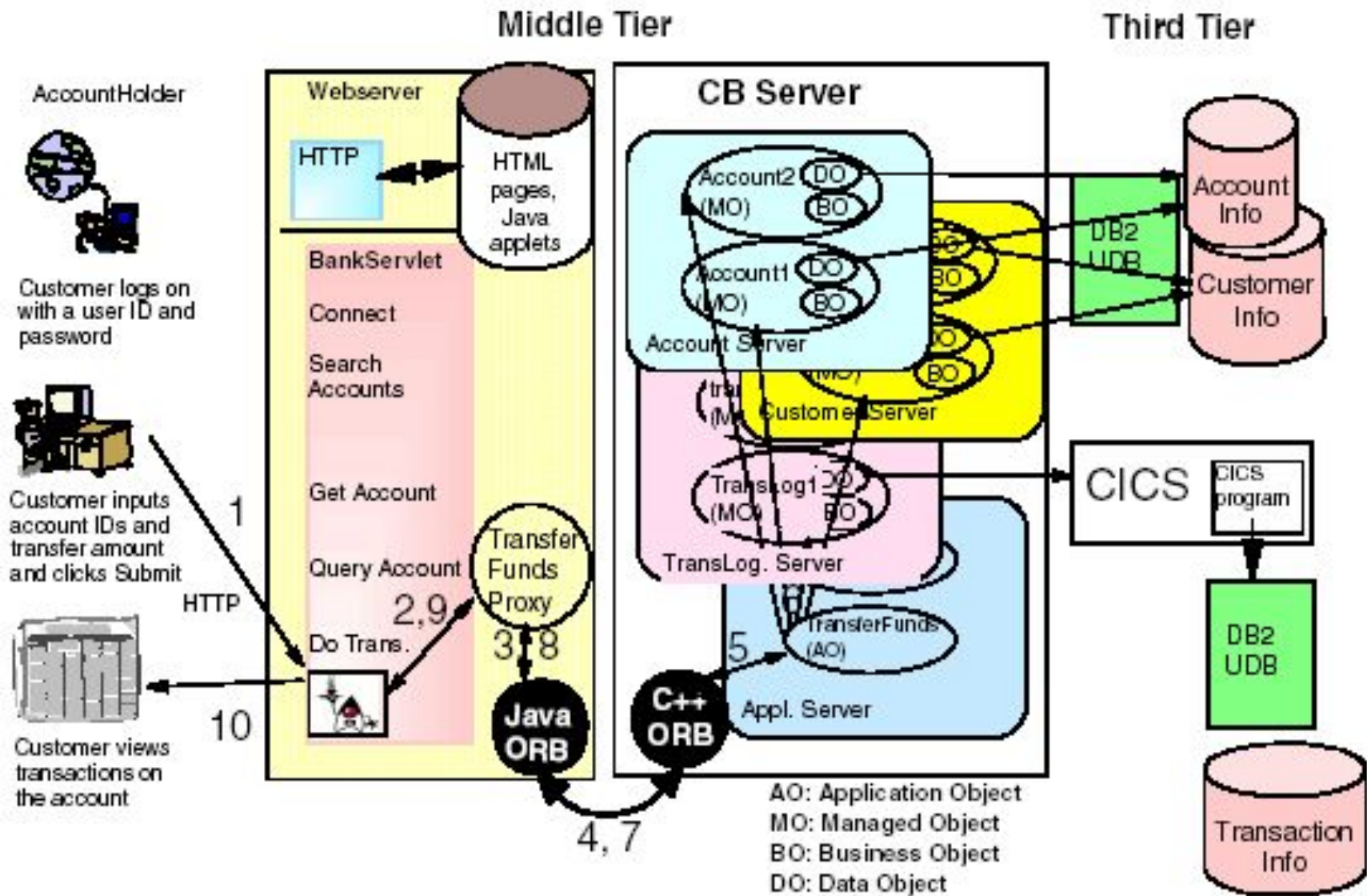


# Component Broker 方案静态视图

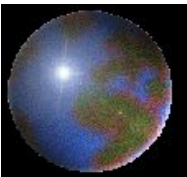




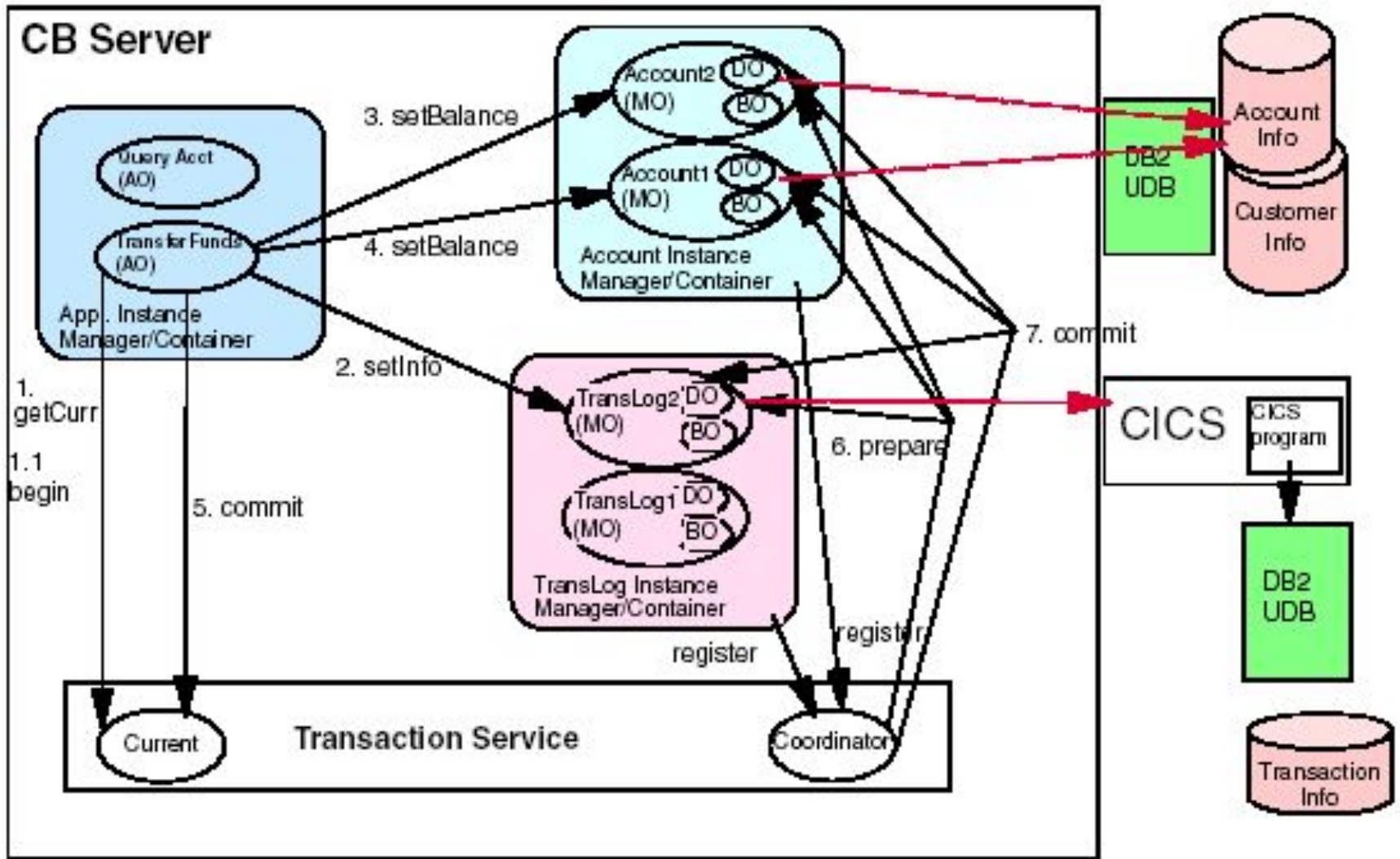
# Component Broker方案动态视图(1)

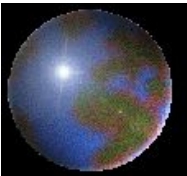




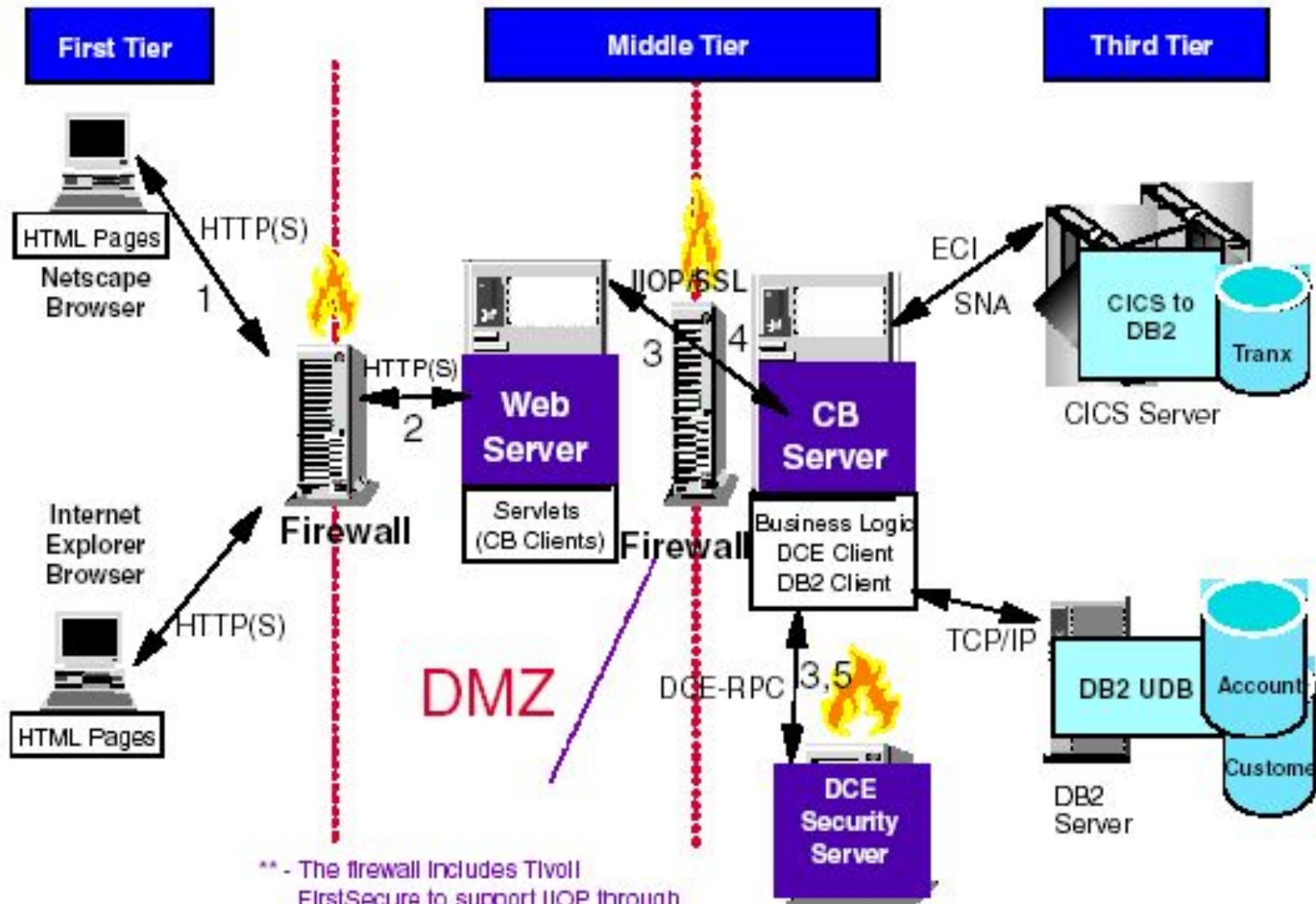


# Component Broker方案动态视图(2)

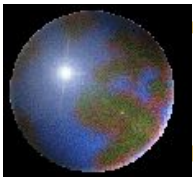




# Component Broker 方案安全流程

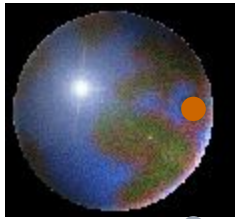


\*\* - The firewall includes Tivoli FirstSecure to support IOP through the PolicyDirector component.



# Component Broker方案优缺点

- **Component Broker**方案的优点有：
  - 遵循**CORBA**标准
    - 易于改变
    - 在其它应用中重用组件
    - 与任何符合**CORBA**标准的客户端或服务器端组件互操作
    - 可以使用桥使用其它非**CORBA**标准的组件
  - 能够处理异种资源上的两阶段提交
  - 使用**DCE**安全服务器帮助认证和授权
  - **WebSphere**企业版支持企业级的簇, 用以帮助管理容量和可用性在中间层使用事务监视帮助管理性能, 容量和可用性
- **Component Broker**方案的缺点有：
  - 建立解决方案复杂
  - 管理解决方案复杂
  - 在事务数量很大时可能会有问题



- 概述

- Web Marketing

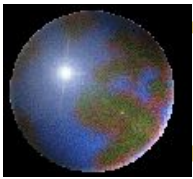
- CRM with Data Access

- Online Sales

- CRM with Transactions

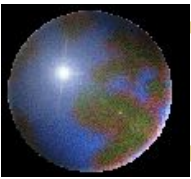
- **Supplier Integration**

- Supplier Integration with workflow



# 供应商集成 ( Supplier Integration )

- **IBM**将商务集成定义为用于运行产生统一的, 完整的, 稳定的关于完成任何商业交易所需信息的视图的业务的所有应用和处理的集成。它意味着建立集成不同系统上和应用的解决方案, 使之操作时像一个企业范围的解决方案一样。它主要包括供应商集成和带有工作流的供应商集成。
- 商务集成建立在企业应用集成(**EAI**)技术上, 提供一个完整的以业务为中心的解决方案。**EAI**集成了内部应用, 以及通过同样技术将企业扩展至供应商, 分销商, 合作伙伴的业务集成。



# EAI 拓扑

Enterprise A

Enterprise B

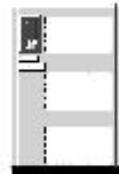


Presentation Logic



Presentation Logic

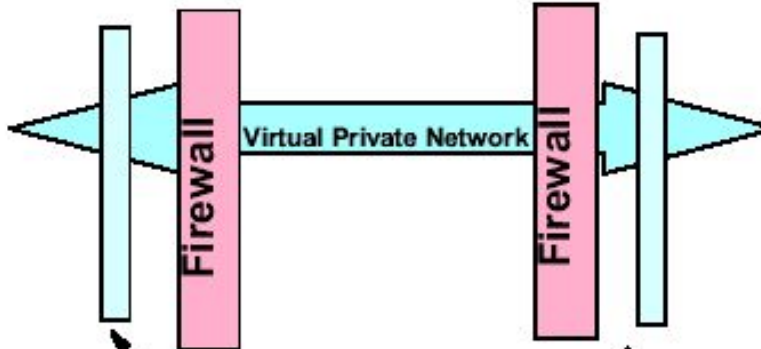
Business/ Appl. Logic



Transaction Logic



Data Access. Logic



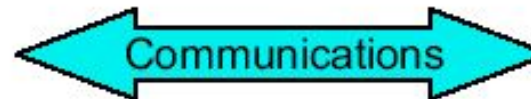
Presentation Logic

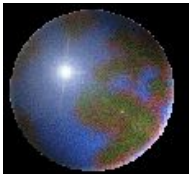
Presentation Logic

Business/ Appl. Logic

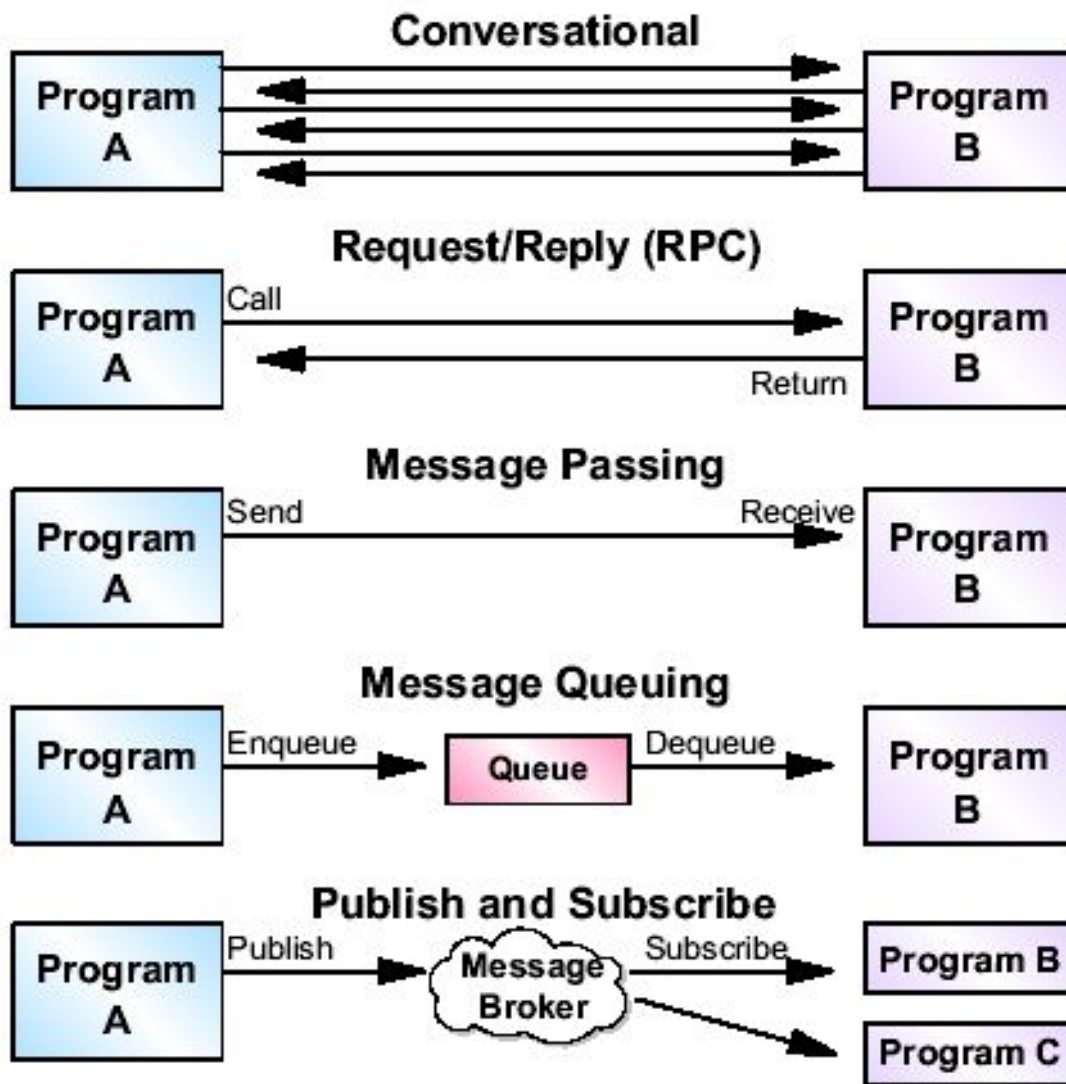
Transaction Logic

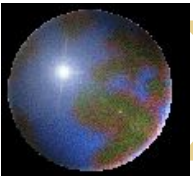
Data Access. Logic





# 程序间通信的模式

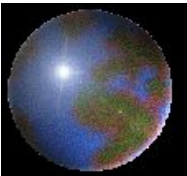




# 商业集成产品

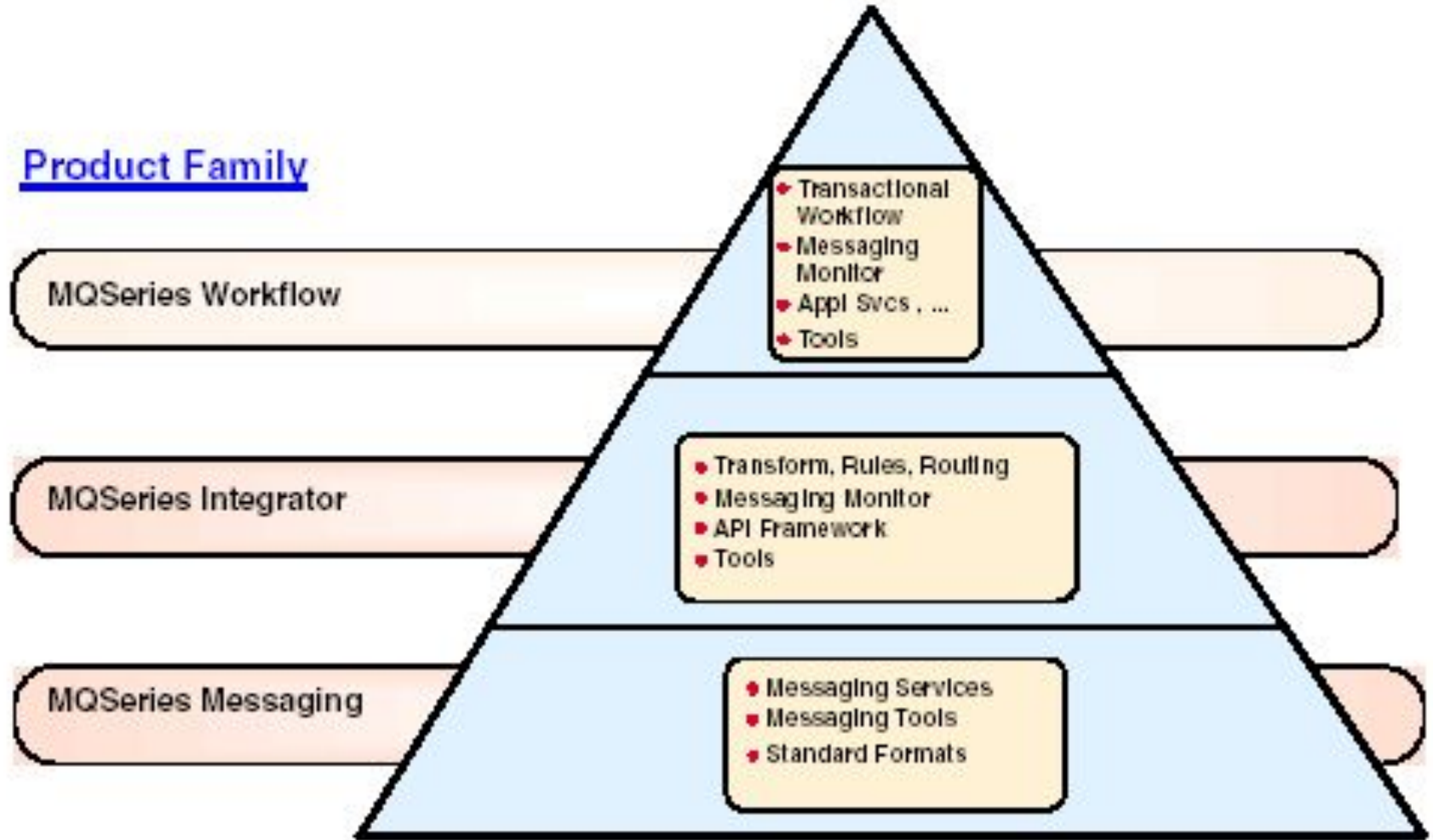
- **MQ Series**
  - **MQ Series**
  - **MQ Series Integrator**
- **Domino(Agents)**

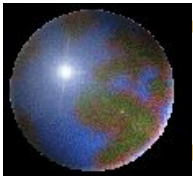




# MQ Series系列

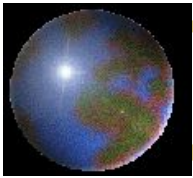
## Product Family





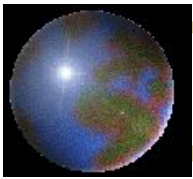
# MQ Series特点

- 有保证的一次发送
- 支持**35**个平台的单独**API**
- 跨**SNA, TCP/IP, SPX, NetBios**的网络集成
- 事务控制
- 内容独立
- 允许单一文件大于**100MB**



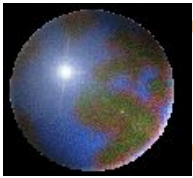
# MQ Series Integrator组件

- **MQSeries** – 确保混合网络平台上数据的实时发送
- **Formatter** – 消息格式的动态转换
- **Rule** – 消息的智能路由



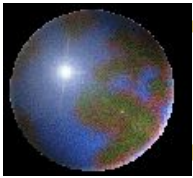
# MQ Series Integrator优缺点

- **MQ Series的优点：**
  - 具有良好的可伸缩性。它将规则，路由，格式逻辑与业务逻辑相分离
  - 适合企业范围的应用
  - 有用于**Rule**和**Formatter**的**GUI**方式的综合工具
  - 所需编程经验少
- **MQ Series的缺点：**
  - 价格高



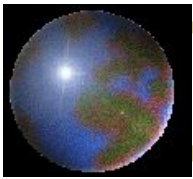
# Domino(Agents)

- **Agents**是**Domino**应用中用于格式转换的程序。
- **Agents**可以用**Notes**规范语言, **Lotus Script, Java**创建。**Agents**访问存储于**Domino**数据库中的文档, 包括读, 修改, 创建和删除的功能。**Agents**还用于对企业应用和数据的程序化访问。**Domino**使用**Object Store**存储一切, 并且所有都通过文档完成。



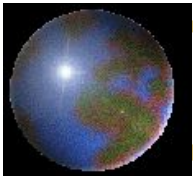
# Agents组件

- 触发器(何时采取动作)
- 搜索(对哪个文档进行操作)
- 动作(做什么)



# Domino集成工具

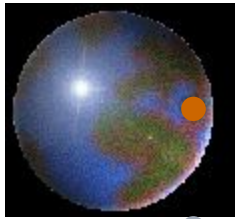
- **Domino Enterprise Connection Service (DECS)**。它提供实时访问，是非程序性的
- **Lotus Enterprise Integrator(LEI)**。它提供时间和事件触发访问，也是非程序性的
- **Domino Connection LotusScript Extention, Domino Connection Java Class Library, Formula Language**。它们提供程序性访问



# Domino(Agents)优缺点

- **Domino(Agents)的优点：**
  - 价格低廉
  - 适合部门应用
  - 一定的工作流功能
- **Domino(Agents)的缺点：**
  - 可伸缩性较差
  - 需要编程





- 概述

- Web Marketing

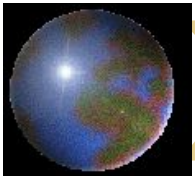
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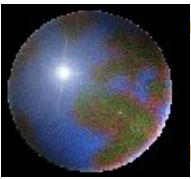
- Supplier Integration

- **Supplier Integration with workflow**



# SI with WorkFlow

- 电子商务应用有时需要执行跨越多用户访问通道和后台应用系统的固定的处理。电子商务需要工作流来定义, 执行和控制这些处理过程。工作流协调运行过程所需的所有应用的集成。带有工作流的供应商集成主要用于以下:
  - 业务需要业务处理过程自动化以减少整个周期时间
  - 需要重复性和固定的业务处理过程
  - 需要有审计的业务处理过程



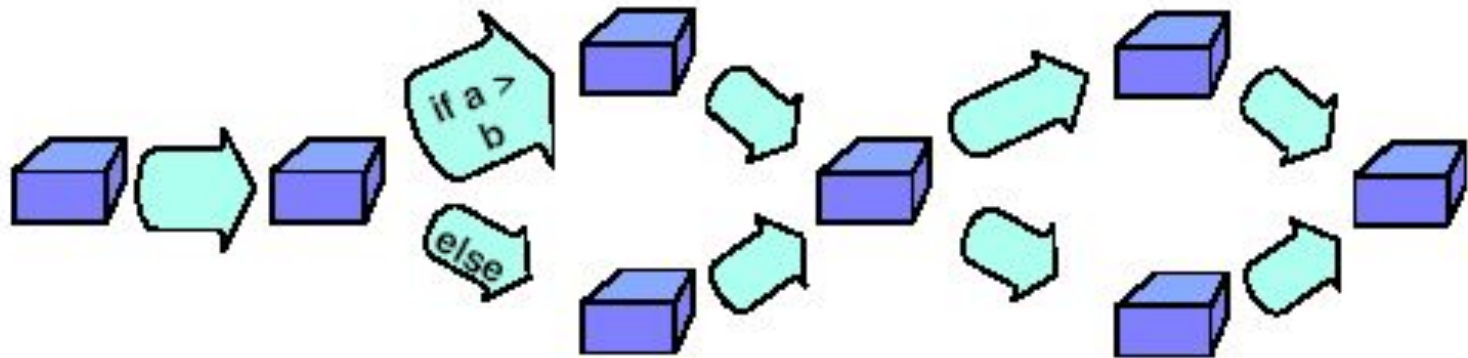
# 处理流程流

## Process Flow

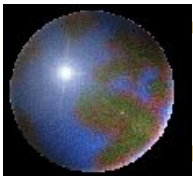
- Routing based on:
  - Rules
  - State data
  - events
- Short duration (sub-second to minutes)
- Application to application automation

## Applications

- Flow independent
- Encapsulated
- Decoupled from each other



**Workflow manager:** Provides the necessary data and control to the relevant activity at the right point in the process and across the enterprise.



# workflow 自动化

## Workflow

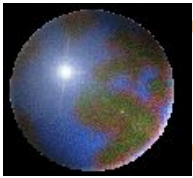
- Long duration (minutes to weeks)
- Application-to-application, Human oriented
- Could involve document management
- Across departments/enterprises

## Work assignment to people based on

- Roles
- Organizations
- Levels
- Process categories

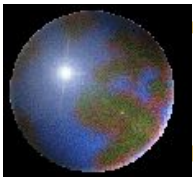


**Workflow manager:** Provides the responsible person/process with the relevant activity/control and the necessary data, at the right point in the business process and across the enterprise.

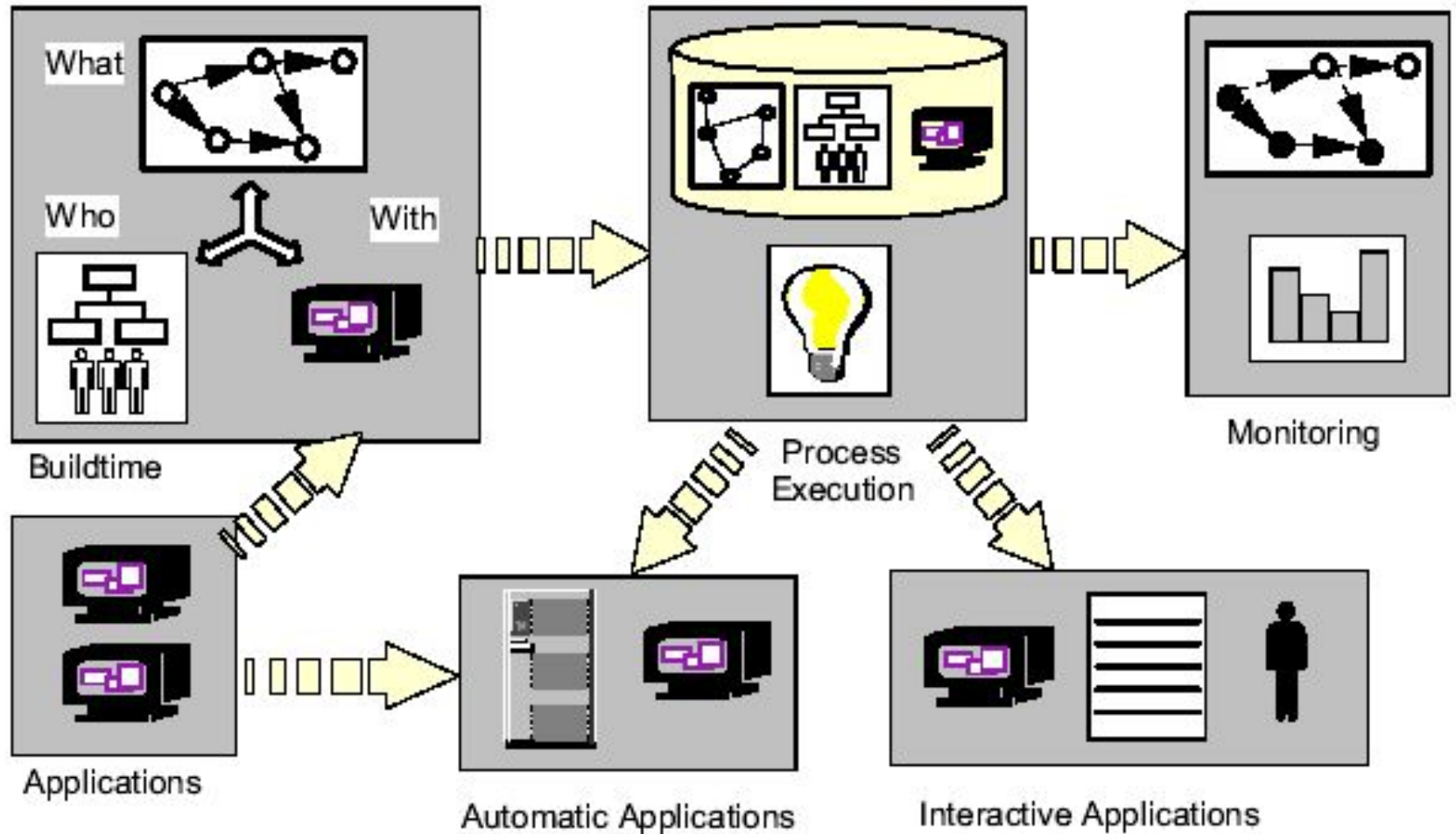


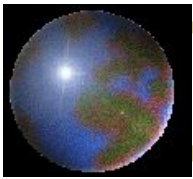
# SI with WorkFlow 产品

- **MQSeries Workflow**
- **Domino(Workflow with Agents)**



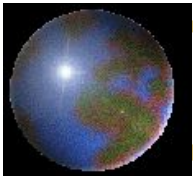
# MQ Series Workflow 执行过程结构





# MQ Series Workflow包括的元素

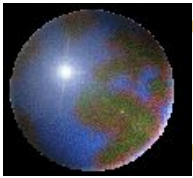
- 创建时(**Buildtime**)
- 处理过程模型
- 职员模型(**stuff modeling**)
- 运行时服务器
- 导航
- 控制/通知
- 审核
- 运行时客户端
- 客户端**API**
- 客户端**GUI**
- 管理
- 自定义/调整
- 备份/恢复



# MQ Series Workflow的特点

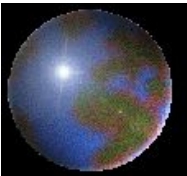
- 商业流和应用逻辑分离
- 以处理过程管理为中心
- 基于工作清单的客户端用户接口
- 与其它应用集成
- 基于时间的异常路由
- 可审计



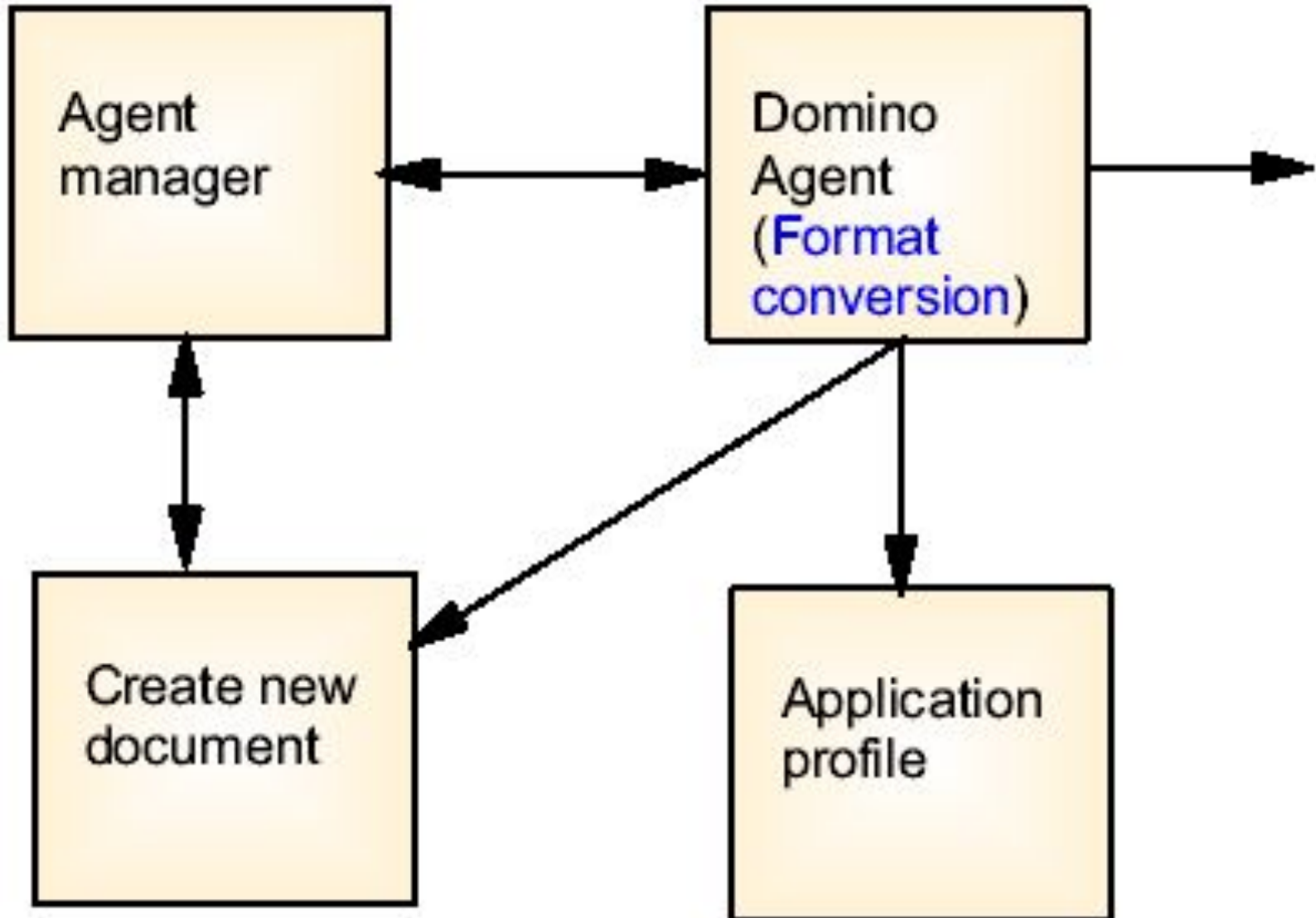


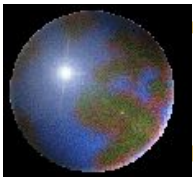
# MQ Series Workflow的优缺点

- **MQ Series Workflow的优点有：**
  - 针对 workflow 问题的全功能产品
  - 实现标准的工作安排和管理
  - 可在跨异种平台和应用上工作
  - 可与其它标准 workflow 产品结合
  - 高伸缩性
  - 基于 **GUI** 的工具
  - 多个并行任务的适应性
- **MQ Series Workflow的缺点有：**
  - 价格高



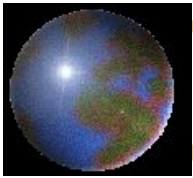
# Domino Workflow with Agents





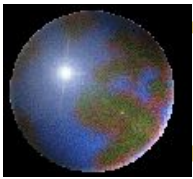
# Domino Workflow的特点

- 可适应的处理过程管理，可以快速实现和修改处理过程
- 利用**Domino Application Services**，包括安全性，消息，复制，应用程序开发
- 提供新的可视化处理过程设计工具。提供了基于活动的元模型
- 增强了处理过程控制。包括时间底线，自动任务，工作分发
- 与**Domino.Doc**集成



# Domino Workflow的组件

- **Domino Workflow结构**: 它是一个图形接口, 允许 workflow 开发者快速设计和管理 workflow 处理过程
- **Domino Workflow引擎**: 它是 workflow 系统的核心, 存放着过程逻辑, 组织目录和工作任务
- **Domino Workflow察看器**: 允许用户察看工作的结构和历史, 提高透明度



# Domino Workflow的优缺点

- **Domino Workflow的优点：**
  - 利用已有的**Domino**技术
  - 短期建立花费低廉
  - 集成的服务器
  - 与已知环境的客户端集成
  - 对客户操作简单
- **Domino Workflow的缺点：**
  - **Roll Your Own**
  - 较低伸缩性
  - 需要编程
  - 无法与其它工作流产品交互
  - 缺乏工具支持