

J2EE Overview & Performance

이 은 진

썬 교육 사업부 강사

Sun Microsystems Korea



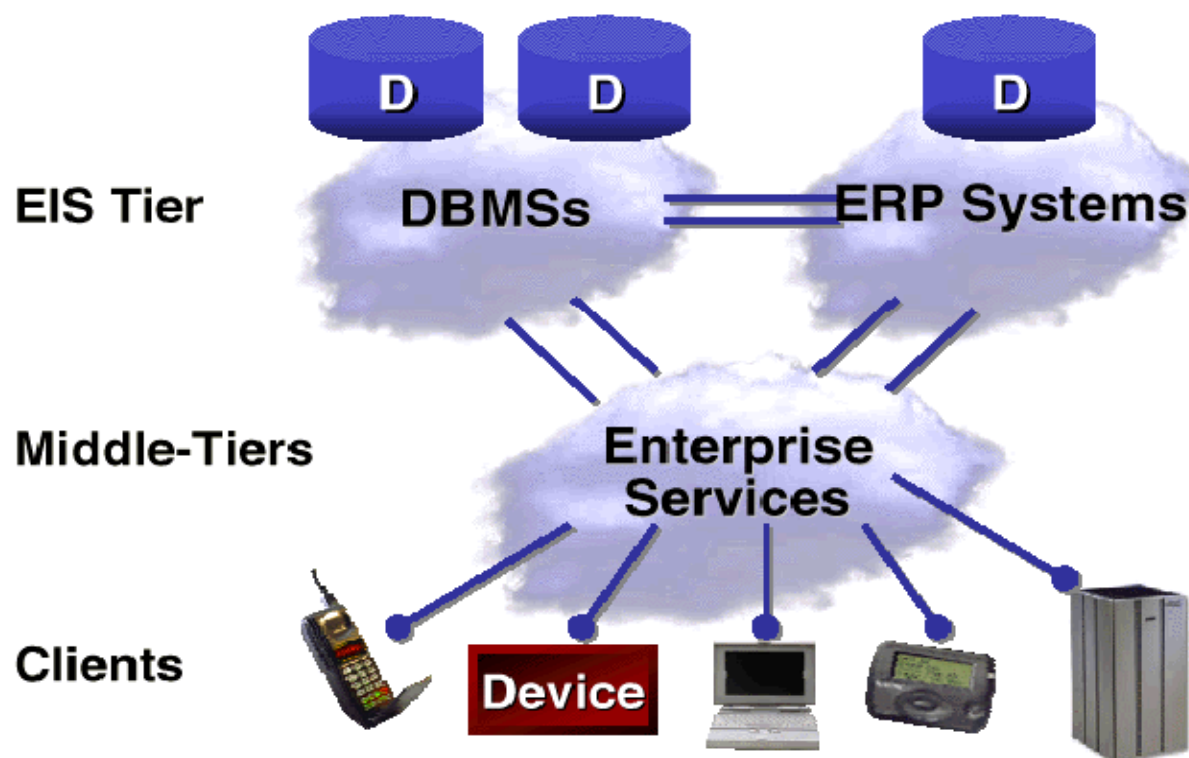
목 차

- ▶ 1부 J2EE Overview
- ▶ 2부 Web Component
- ▶ 3부 EJB Component
- ▶ 4부 Best Practice
- ▶ 5부 References for Developer Tip

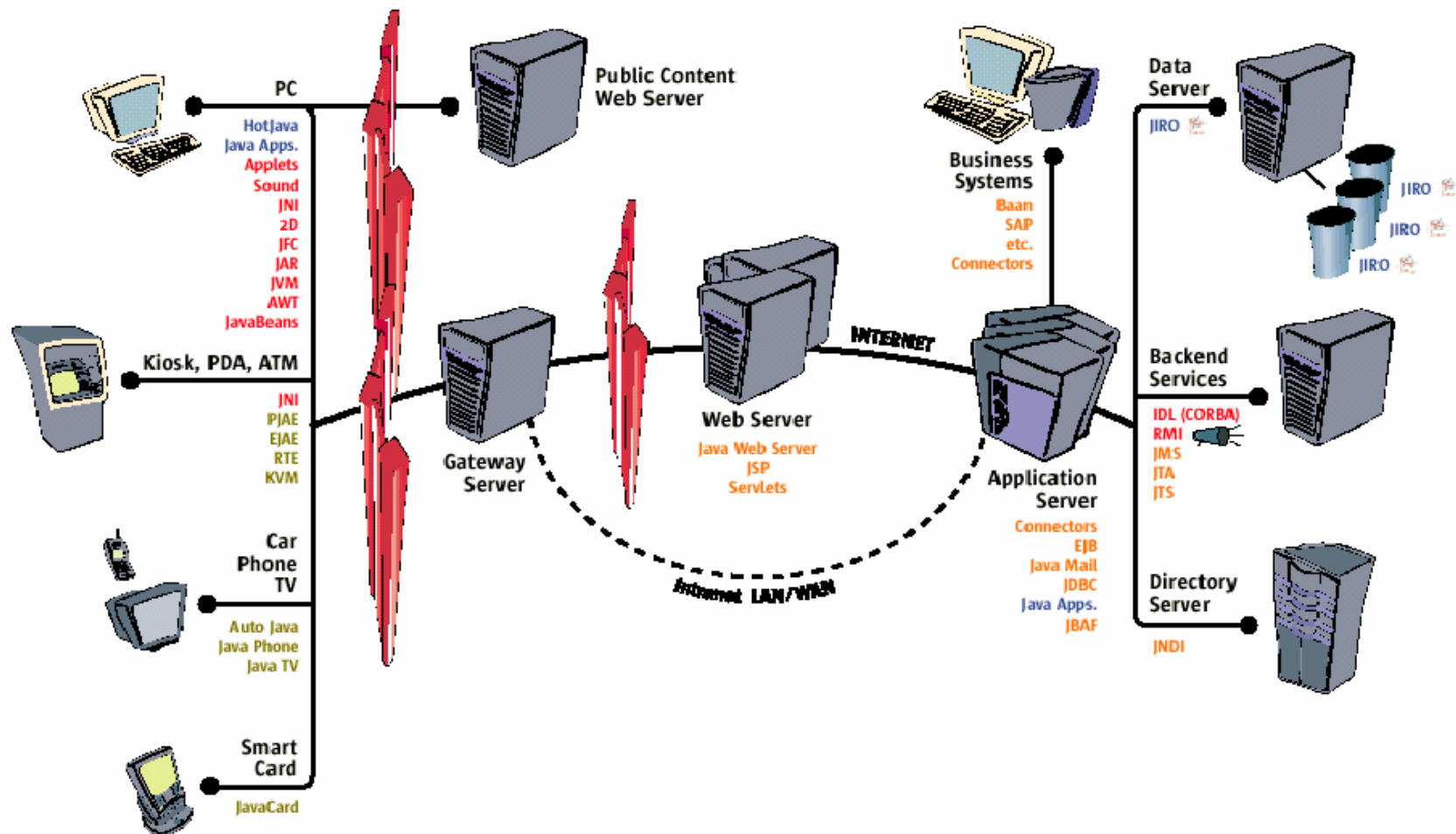
1부 J2EE Overview

- ▶ **Today's Enterprise**
- ▶ **Enterprise Goal**
- ▶ **Java 2 Platform**
- ▶ **Identify multi-tier infrastructure technologies**
- ▶ **Introduce J2EE technology Components and Services**

Today's Enterprise



Today's Enterprise



Enterprise Goal

- ▶ **Reuse**
- ▶ **Interoperability**
- ▶ **Portability**
- ▶ **Time-to-Market**

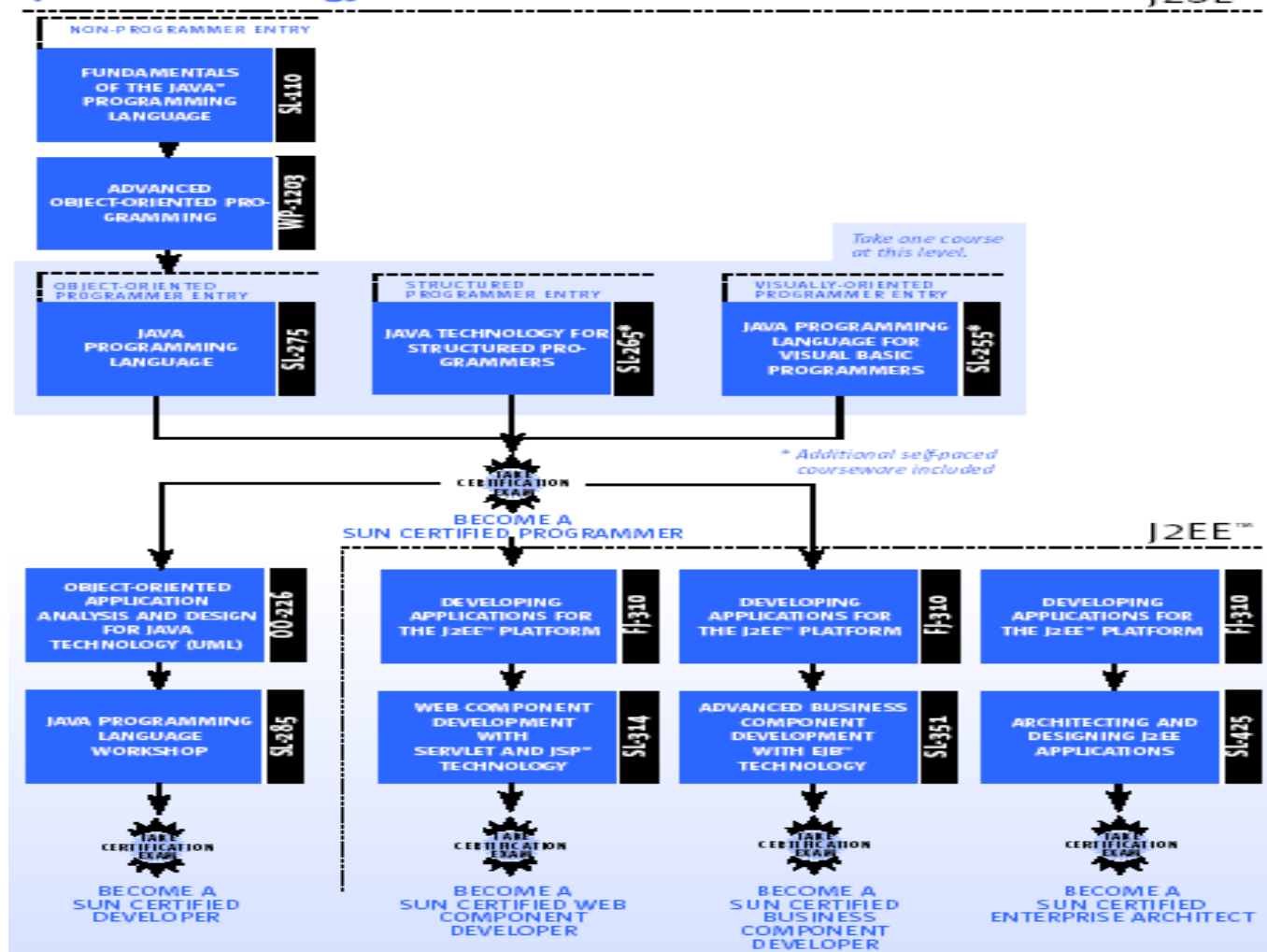


Java 2 Platform



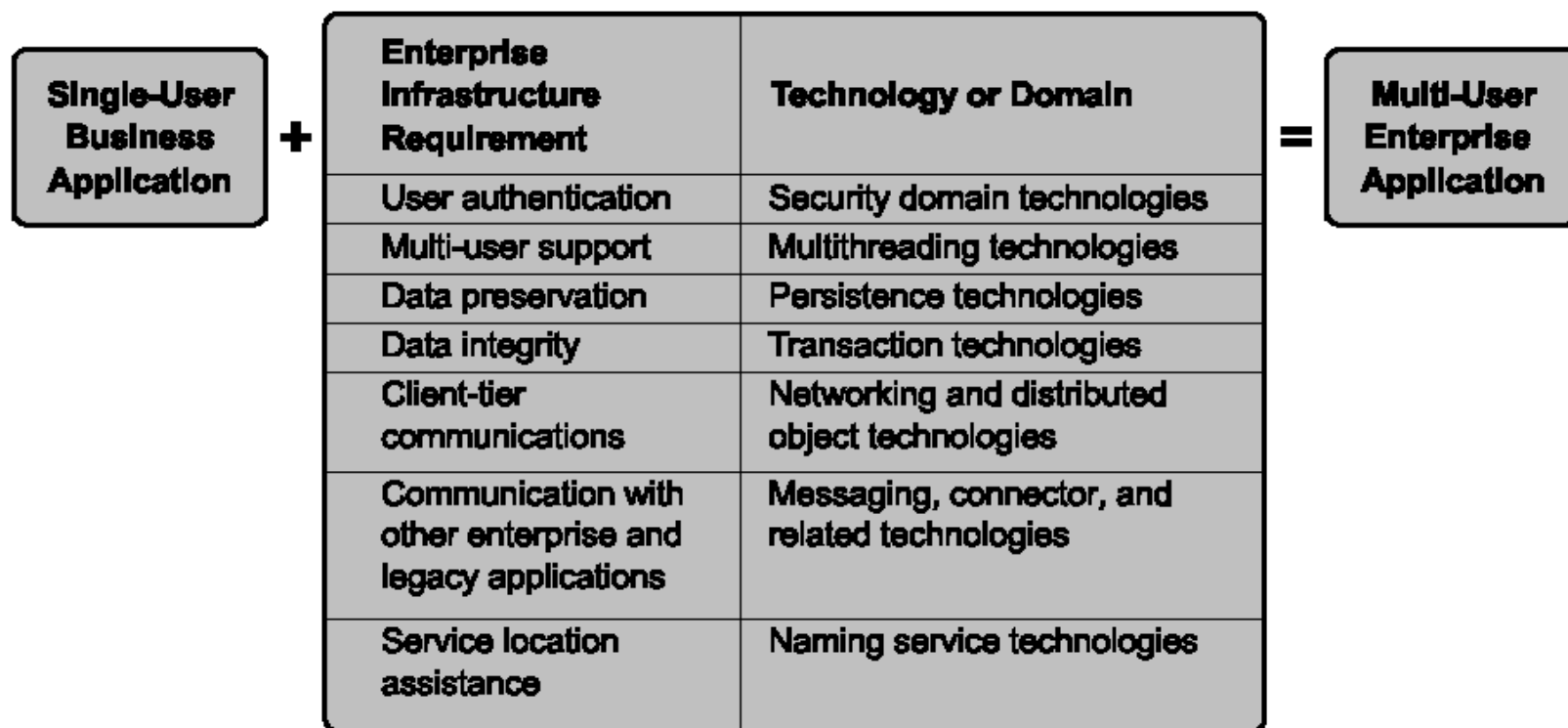
Java 2 Platform

Java™ Technology Certification Paths



Identify multi-tier infrastructure technologies

► Enterprise Infrastructure Technologies



Identify multi-tier infrastructure technologies

► Examine Middle-Tier Design Approaches

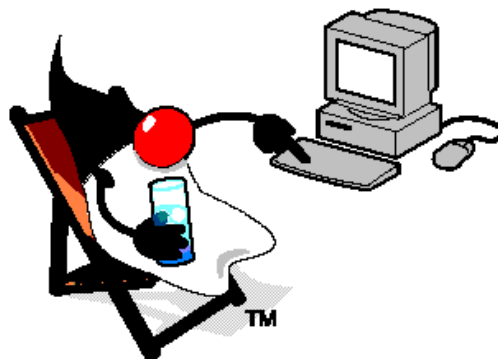
Build From the Ground Up



Developer's Checklist

- ☐ Business service
- ☐ Persistence
- ☐ Transaction
- ☒ Threading
- ☒ Security
- ☒ Networking
- ☐ Service publishing

Use Application Component Server



Developer's Checklist

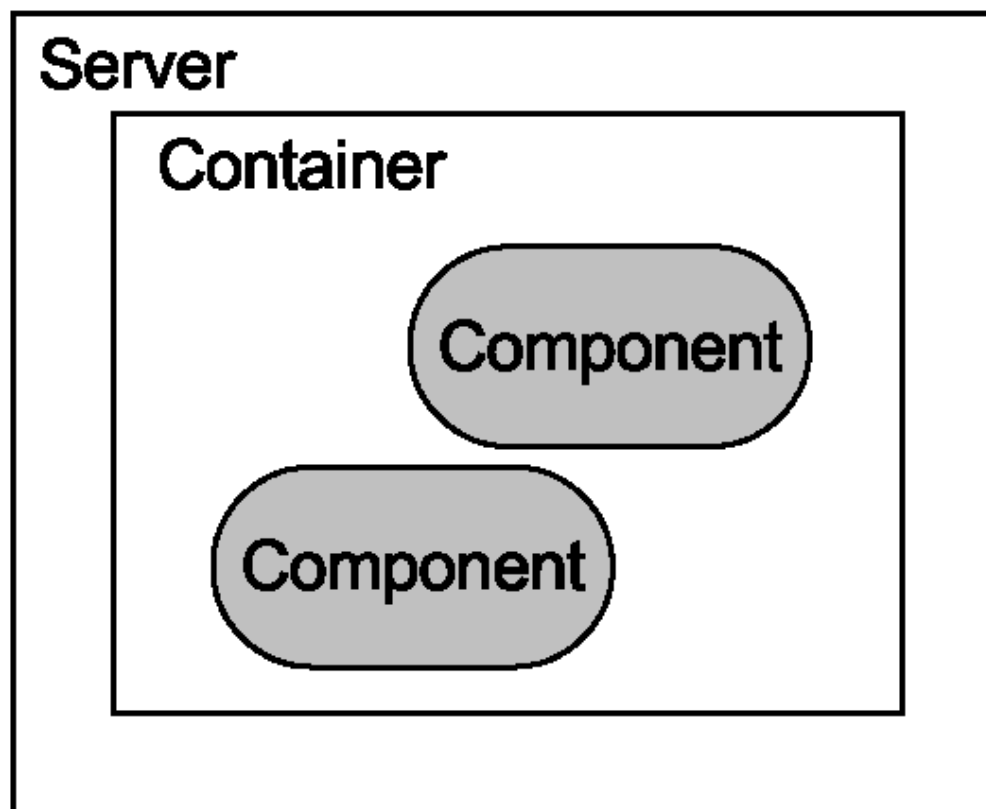
- ☒ Business service

Services Provided by Server

- ☒ Persistence
- ☒ Transaction
- ☒ Threading
- ☒ Security
- ☒ Networking
- ☒ Service publishing

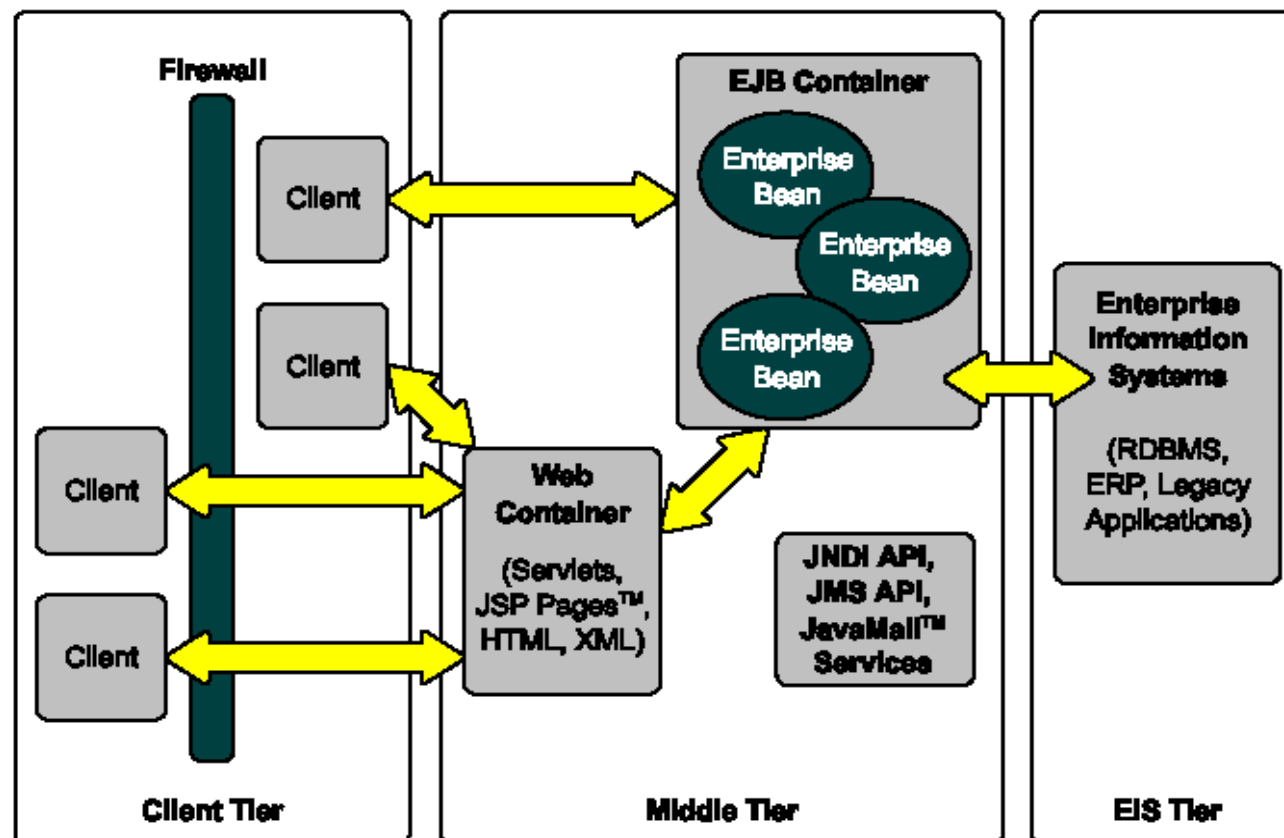
Introduce J2EE technology Components and Services

► Container-Based Application Server



Introduce J2EE technology Components and Services

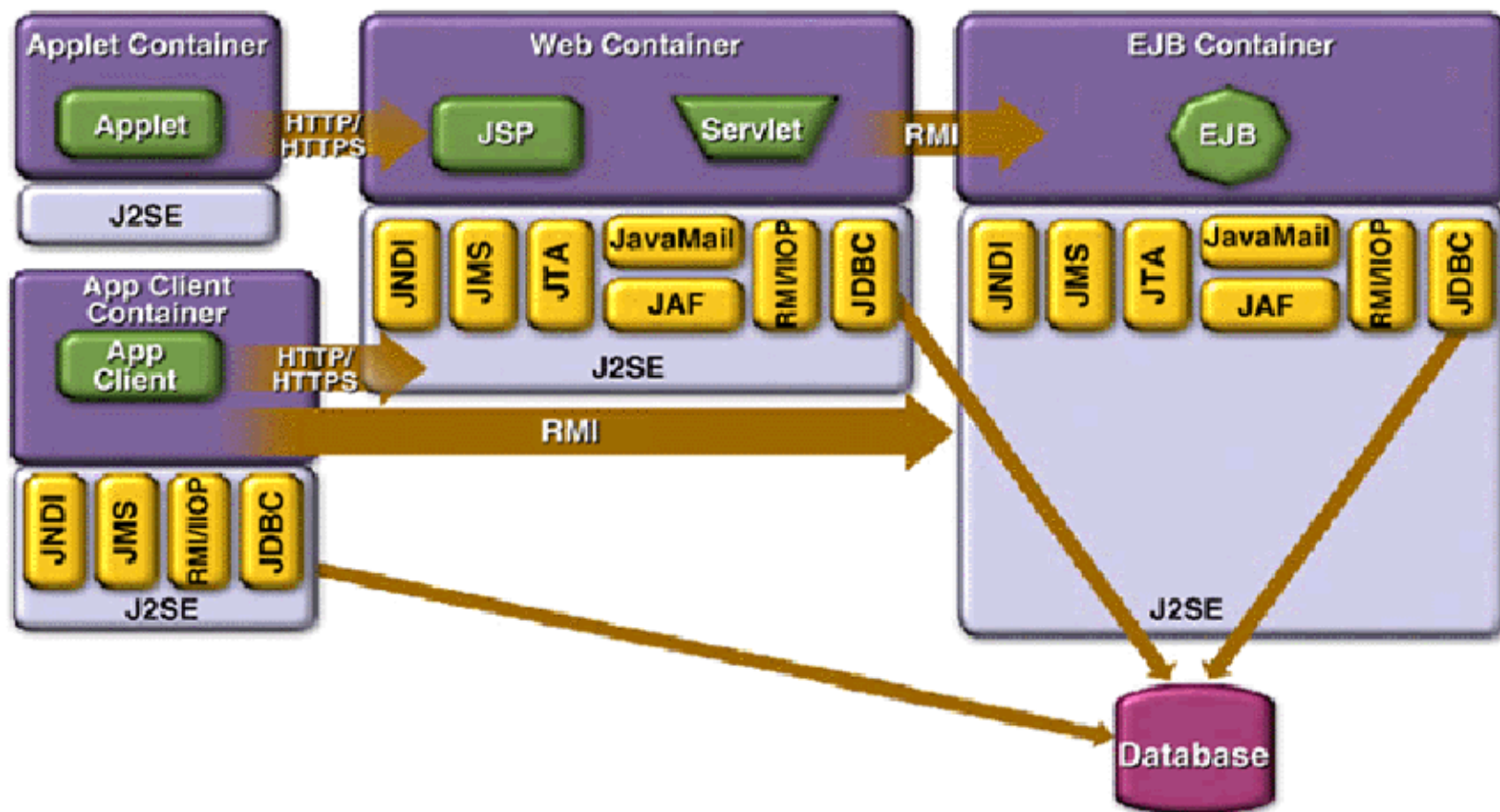
► J2EE Technology Architecture



Key: Hypertext Markup Language (HTML), Extensible Markup Language (XML), JavaServer Pages (JSP Pages), Java Naming and Directory Interface (JNDI), Java Message Service (JMS), Relational Database Management System (RDBMS), Enterprise Resource Planning (ERP)

Introduce J2EE technology Components and Services

► J2EE Technology Architecture



2부 Web Component



- ▶ Understanding Web Component
 - Servlet
 - Servlet Operation
 - JSP Technology
 - JSP Transformation

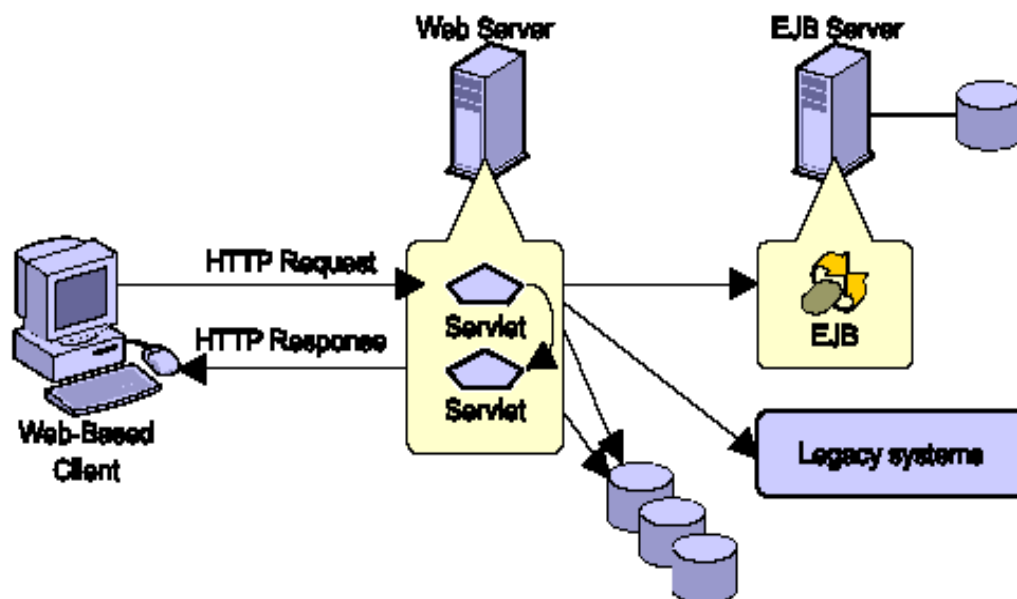
- ▶ Web Component Performance Issue

Understanding Web Component

- ▶ Servlet
 - Programming logic
 - Program flow control
 - Request processing
 - Response generation

Understanding Web Component

► Servlet Operation



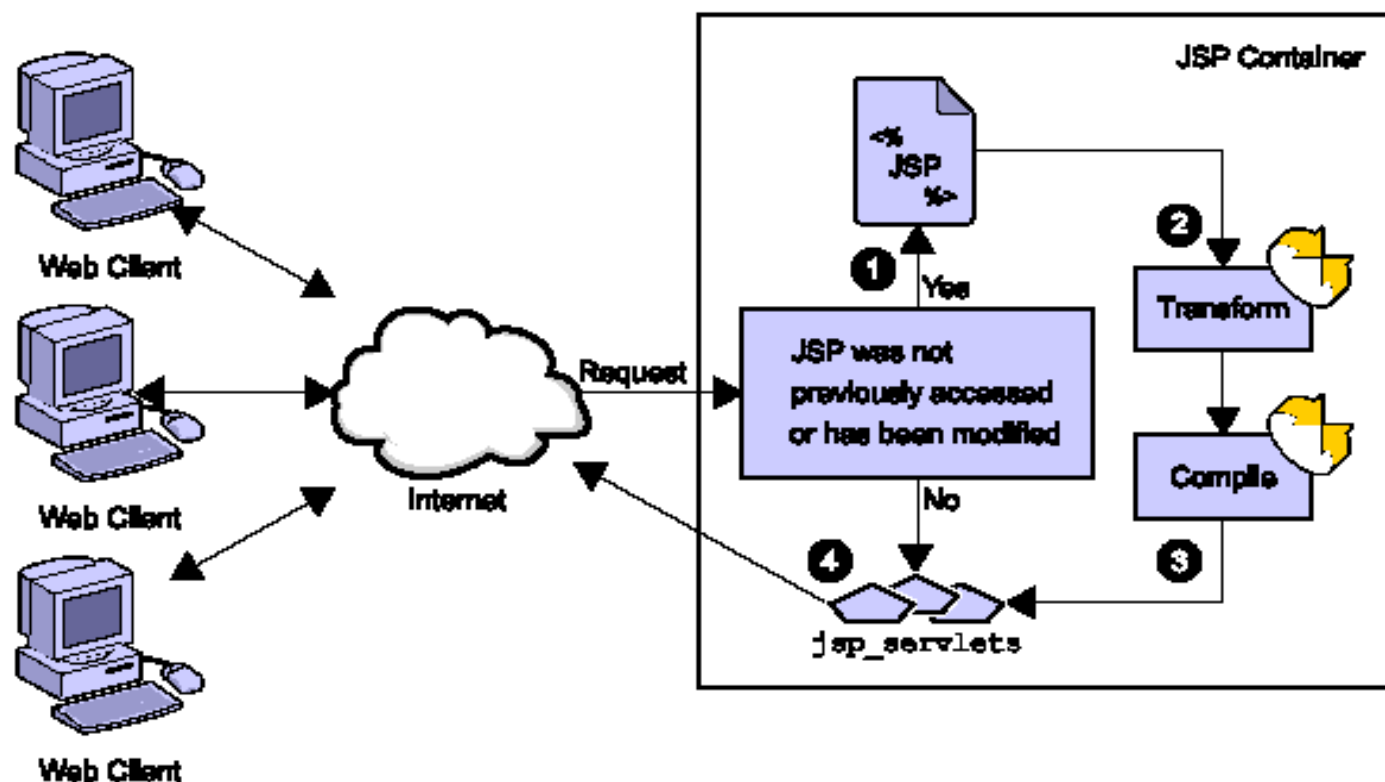
Understanding Web Component

► JSP Technology

- Separation between program logic and presentation
- JSP developer:
 - Requires little or no programming expertise
 - Does not need println statements for embedded markup
 - Is insulated from complex programming tasks
 - Server-side actions
 - JSP elements
 - Tag libraries
 - JavaBeans
 - Java developers: Custom JavaBeans and Tag libraries

Understanding Web Component

► JSP Transformation



Web Component Performance Issue

- ▶ 응답속도(응답처리 건수/단위시간)
- ▶ User 수
- ▶ View 성능
- ▶ HTTP 성능을 사용한 웹 캐싱

3부 EJB Component

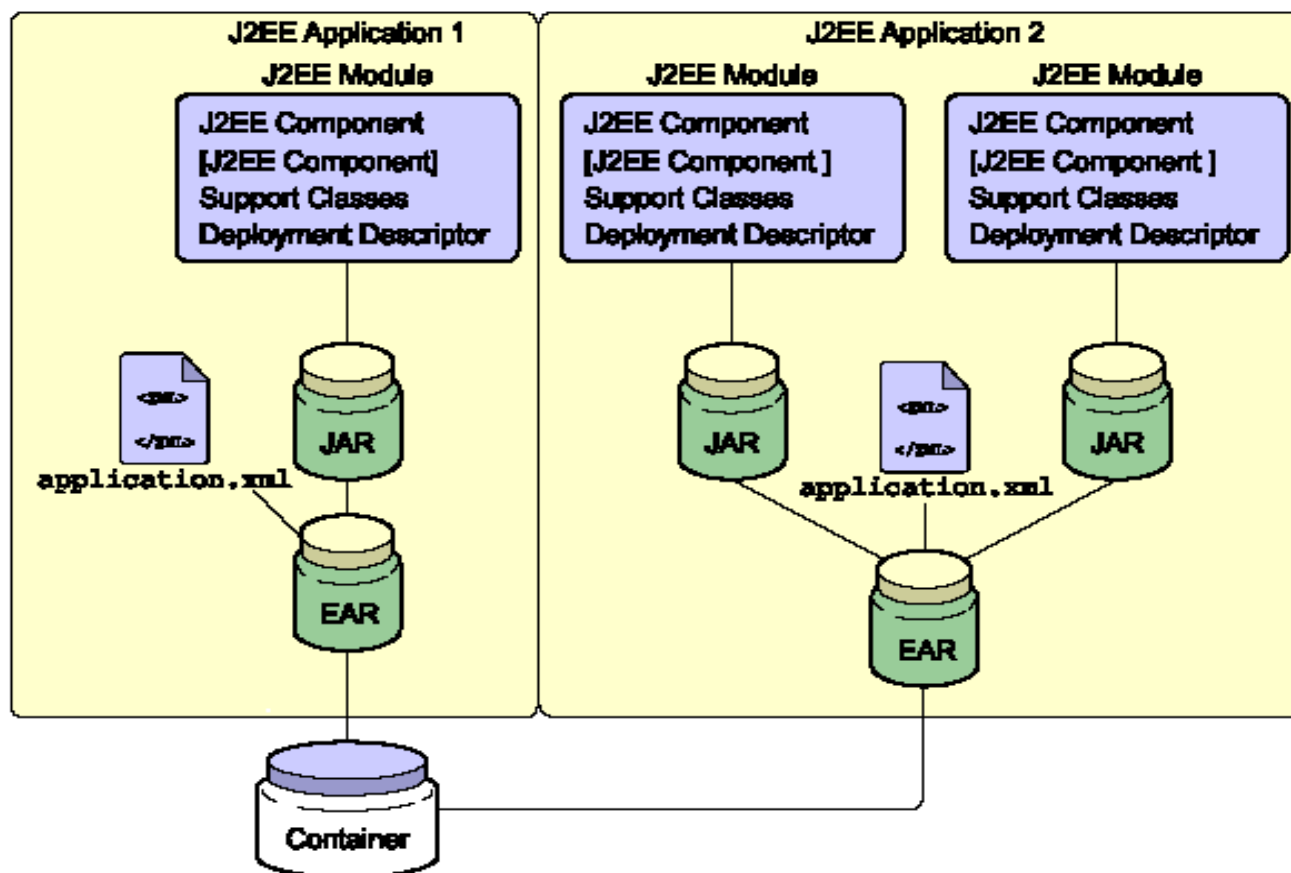


- ▶ Understanding EJB Component
 - J2EE Application
 - Types of EJB Component
 - Types of Client

- ▶ EJB Component Performance Issue

Understanding EJB Component

► J2EE Application



Understanding EJB Component

► Types of EJB Component

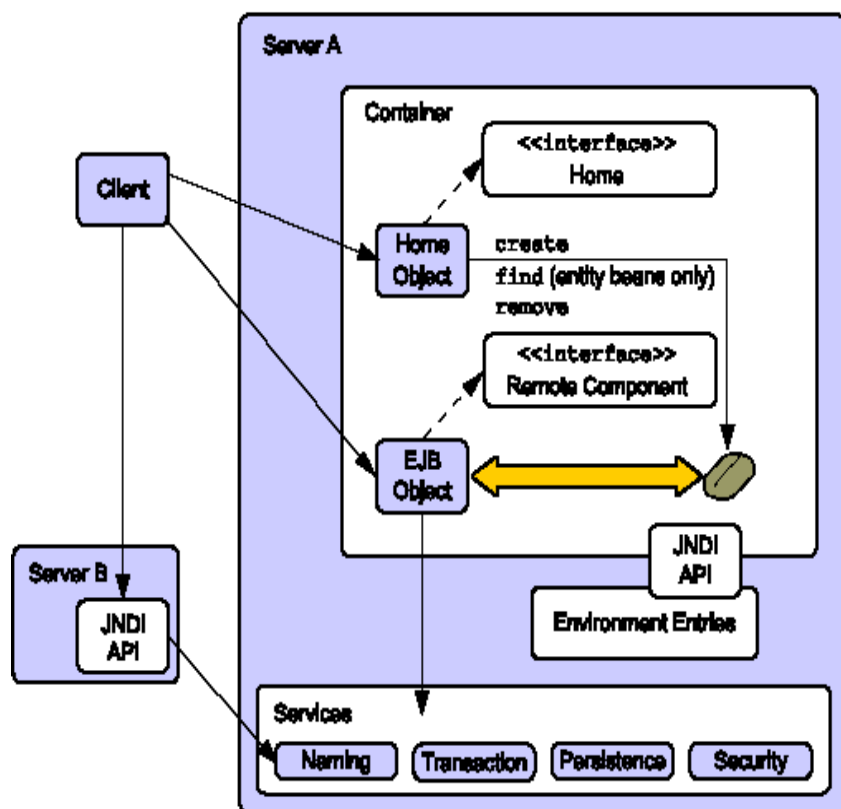
- Session Beans :
 - Perform work for an individual client on the server
- Entity Beans :
 - Represent a persistent business entity
- Message Driven Bean :
 - Asynchronous message consumers

Understanding EJB Component

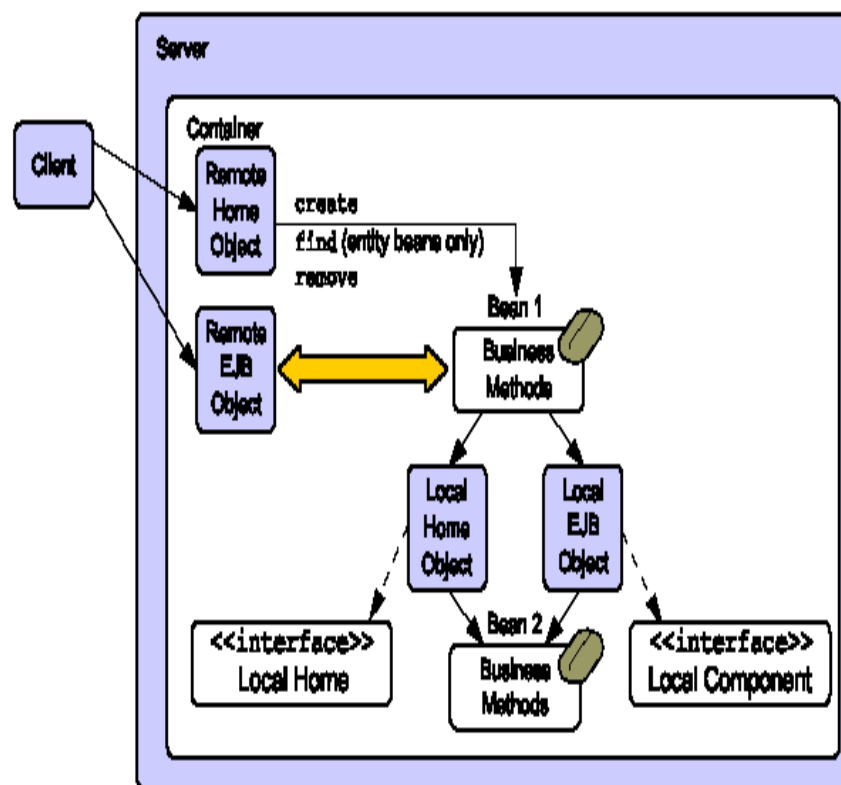


Types of Client

Remote Client



Local Client



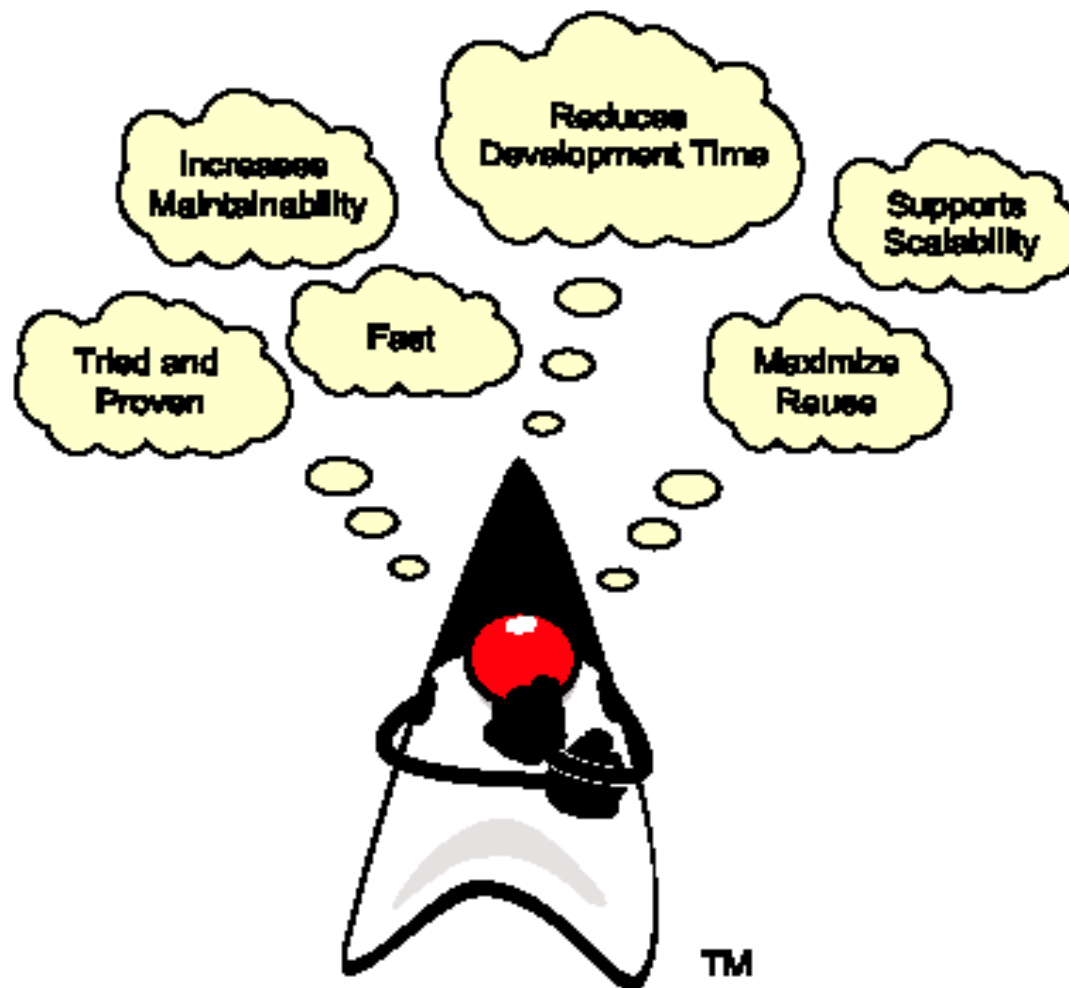
EJB Component Performance Issue

- ▶ Bean Type
- ▶ Client Type
- ▶ Resource Access
- ▶ Transaction Control

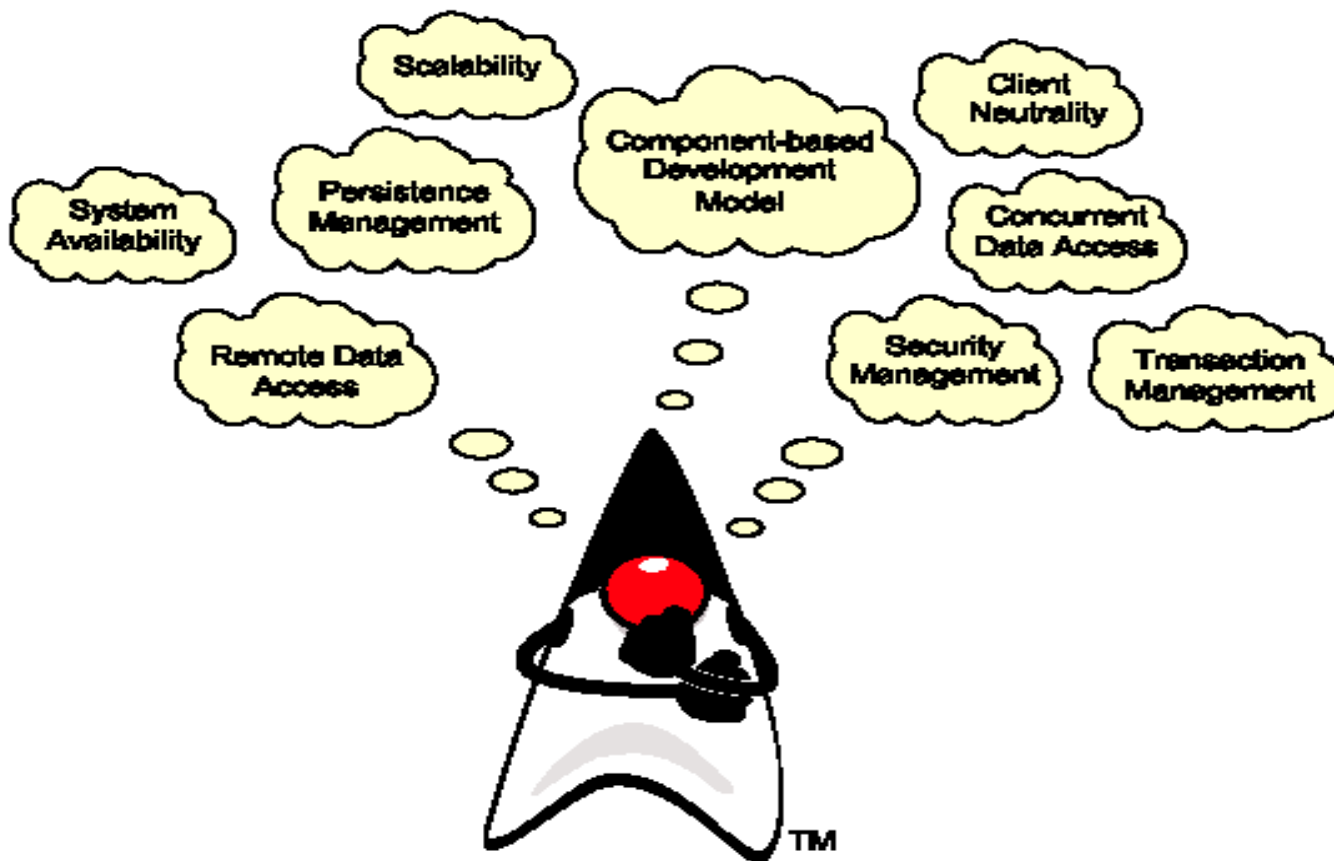
4부 Best Practice

- ▶ Defining Best Practice
- ▶ Choosing Between EJB and non-EJB Technology
- ▶ Applying Known Patterns
- ▶ Making J2EE Application Design Decisions
- ▶ Minimizing Network Traffic

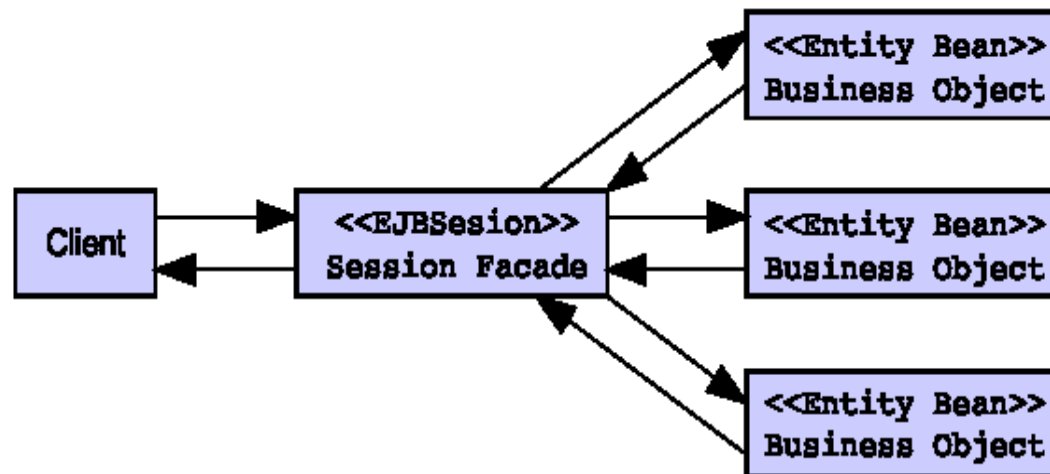
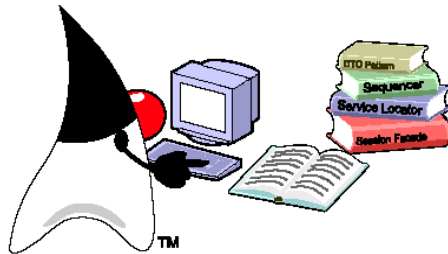
Defining Best Practice



Choosing Between EJB and non-EJB Technology



Applying Known Patterns



Making J2EE Application Design Decisions

Matching the EJB components to the tasks

Session Beans

Model business process

Types:

- **Statefull**
- **Stateless**

Entity Beans

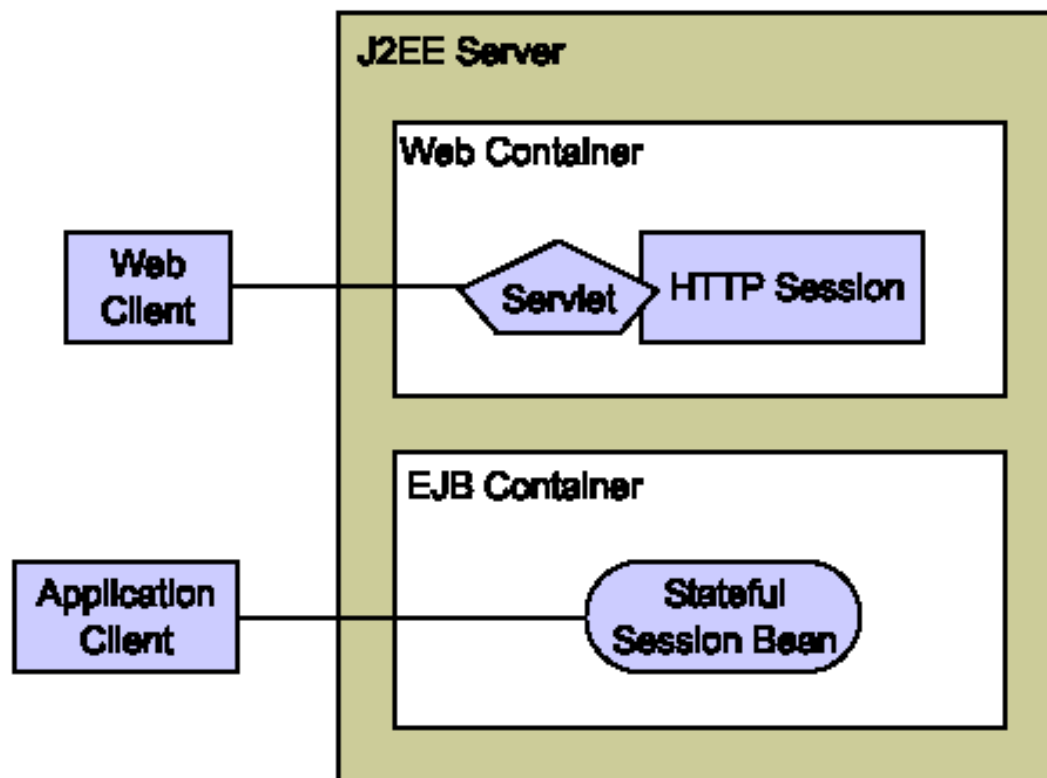
Model business data

Message-Driven Beans

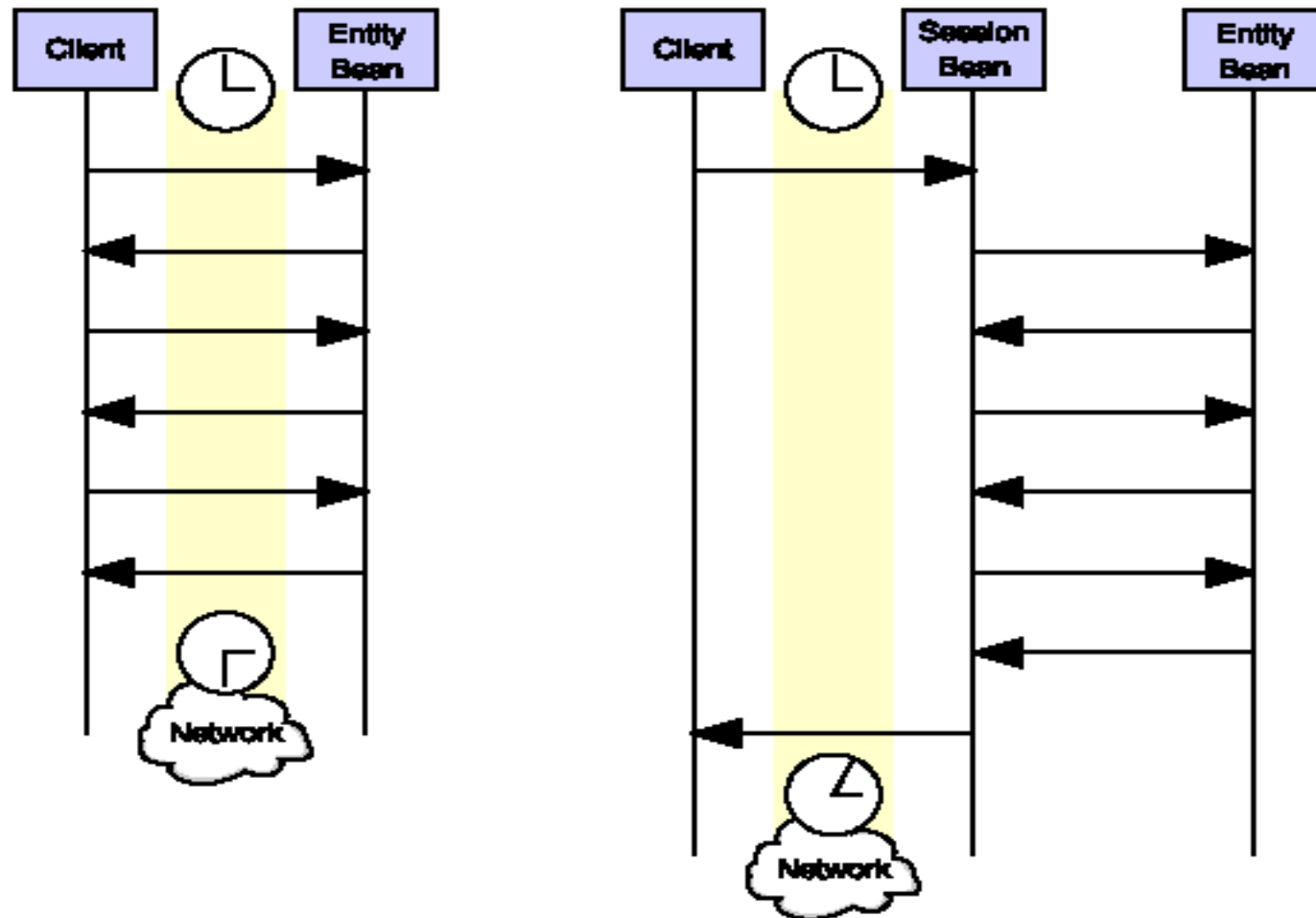
Model messaging system event listeners

Making J2EE Application Design Decisions

Maintaining session-specific data



Minimizing Network Traffic



5부 References for Developer Tip

- ▶ <http://java.sun.com/developer/JDCTechTips/>
- ▶ <http://java.sun.com/developer/EJTechTips/>
- ▶ <http://java.sun.com/docs/hotspot/index.html>
- ▶ <http://java.sun.com/j2se/1.4/performance.guide.html>
- ▶ <http://weblogs.java.net/pub/wlg/1101>
- ▶ <http://java.sun.com/blueprints/corej2eepatterns/Patterns/index.html>

Q & A

이 은 진

leeunjin@suned.co.kr

