



# OGH Themabijeenkomst

## *J2EE onder de loep genomen*

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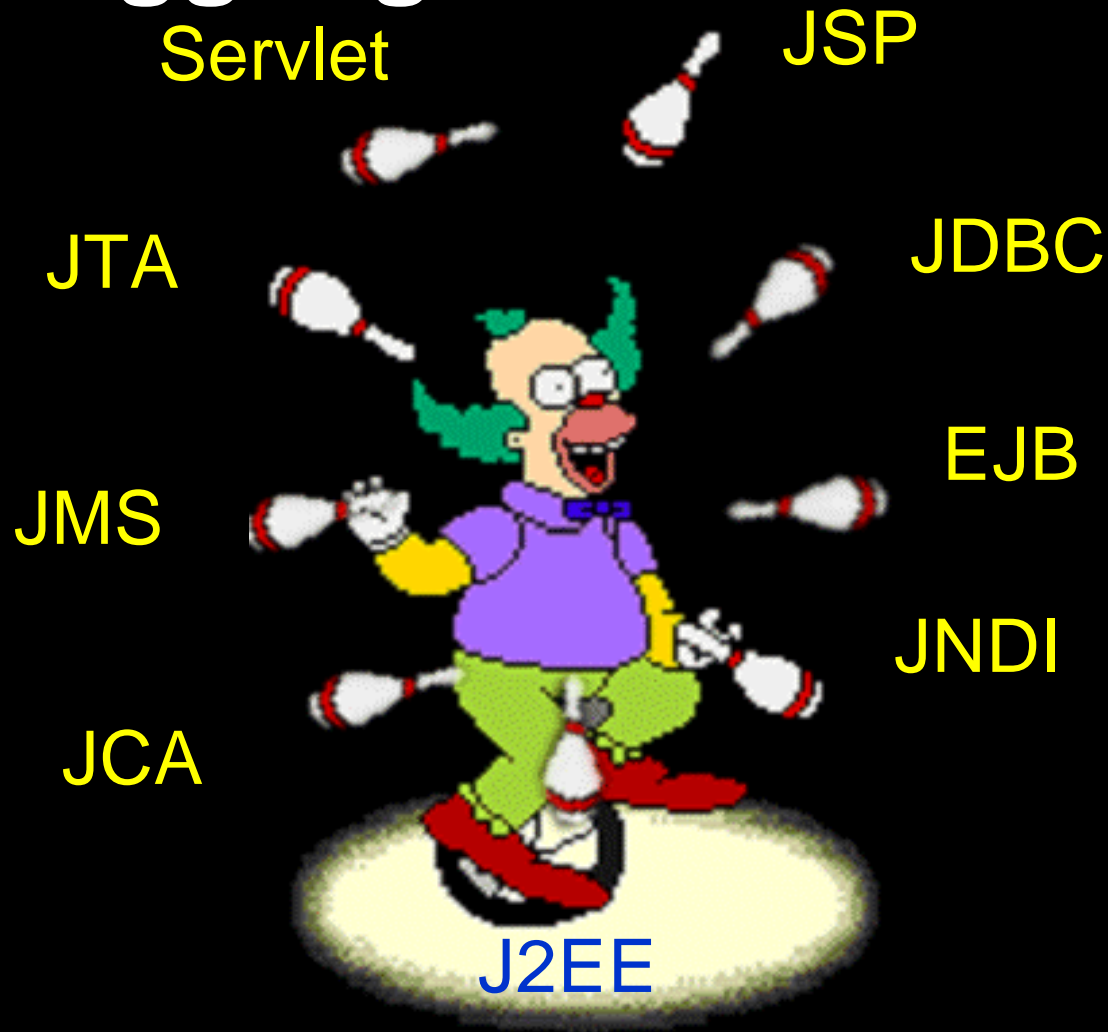
Sandor Nieuwenhuijs

Oracle Application Server 10<sup>g</sup>  
Product Management

# Agenda

- Introduction J2EE
- Database Access from J2EE Applications
  - JDBC
  - EJB (CMP, BMP)
  - Oracle ADF
    - Incl. TopLink, BC4J
- J2EE Database Access specifics
  - Connection pooling
  - SQL Tracing
  - Container-Database interaction
  - Transactions

# Mind boggling J2EE



# What is Java ?

- A platform and an object-oriented language
- Designed to be simple, portable and multi-threaded
- Comes with a broad set of class libraries
- Uses a virtual machine for program execution

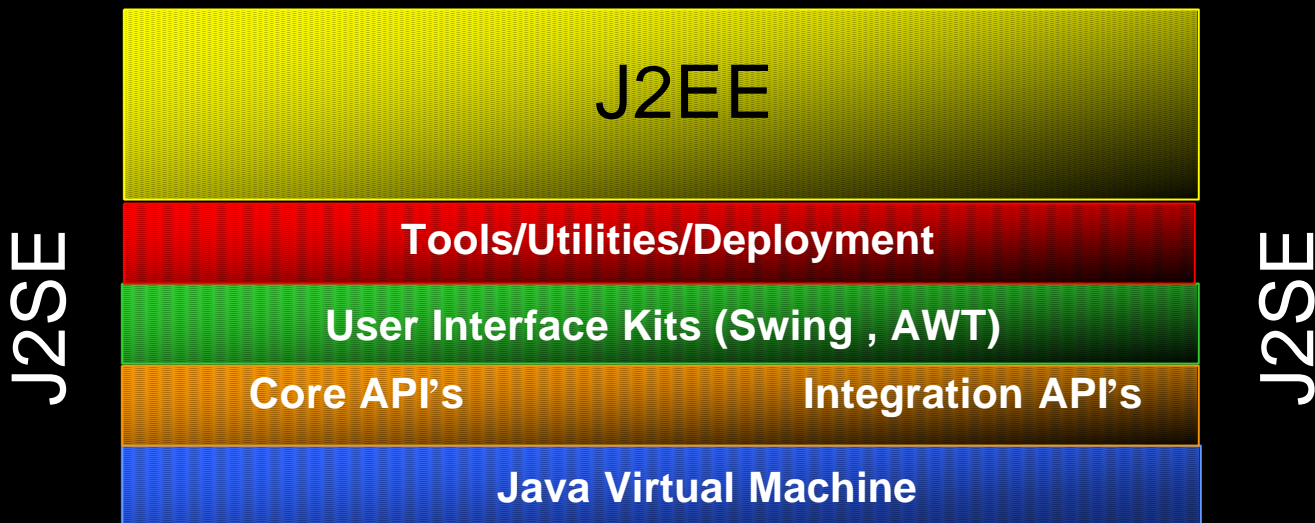
# Java Virtual Machine (JVM)

- JVM interprets Java bytecodes
- Provides the environment for running Java programs



# Java 2 Platform

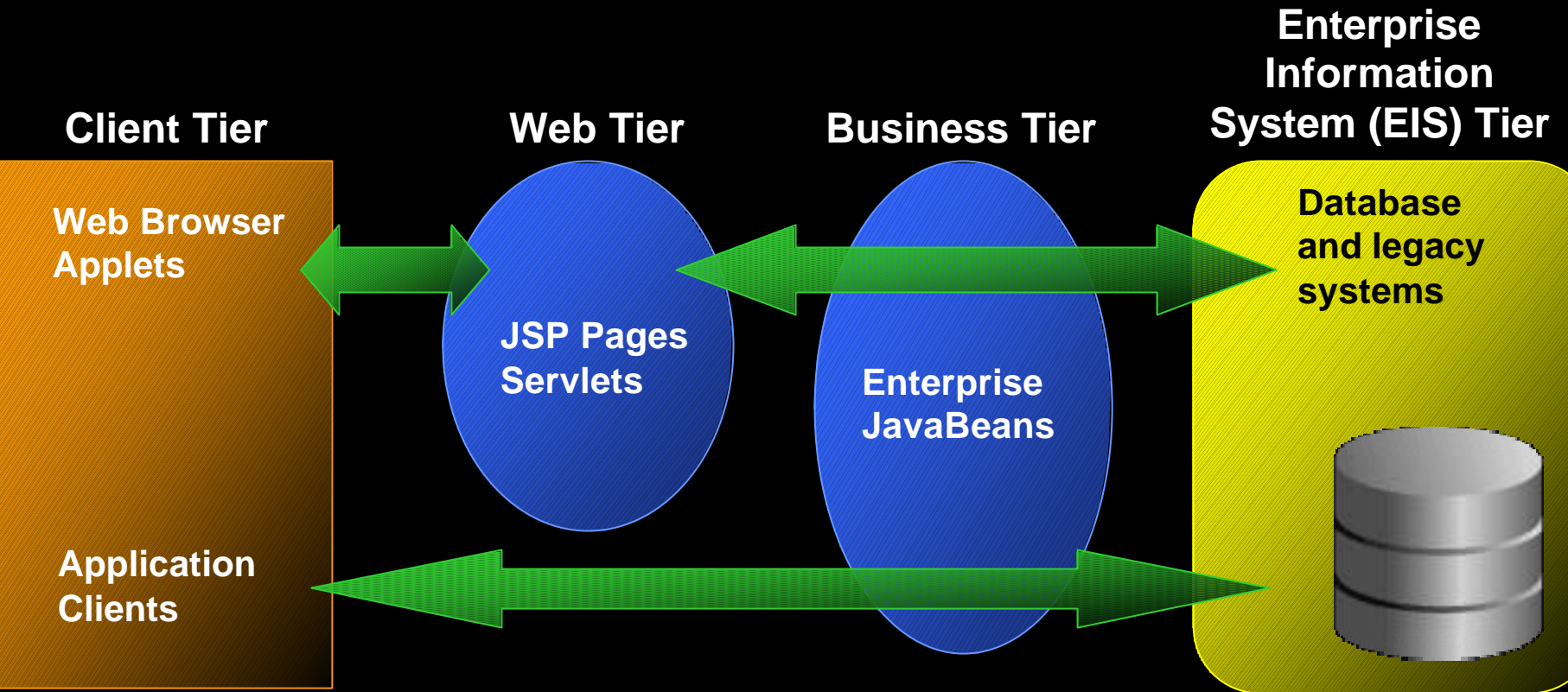
- Java 2 Platform, Standard Edition (J2SE) is at the core of Java technology
- J2SE provides essential tools and APIs for writing applications



# Java 2 Platform, Enterprise Edition (J2EE)

- Unified standard for distributed applications using components
- Built on top of J2SE
- A set of Java extension APIs to build applications
- Provides a runtime infrastructure for hosting applications

# J2EE Architecture



# J2EE Technologies

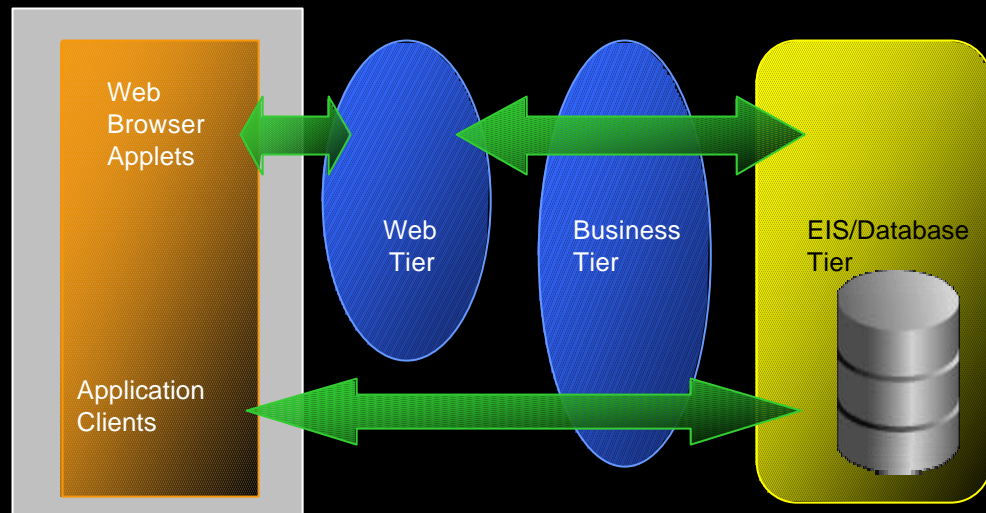
- Component technologies
  - Enterprise JavaBeans (EJB)
  - Java Servlets
  - JavaServer pages (JSP)
- Service technologies
  - JDBC, JTA, JNDI, J2EE CA
- Communication technologies
  - JMS, JavaMail, RMI-IIOP

# J2EE Application

- J2EE applications are made up of components
  - Client tier components
  - Web tier components
  - Business tier components

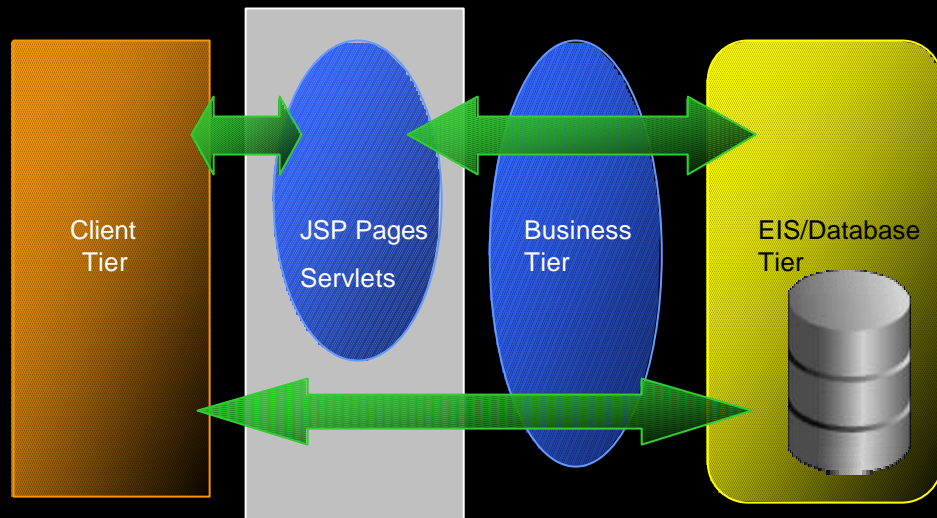
# Client Tier Components

- Application clients
- Applets



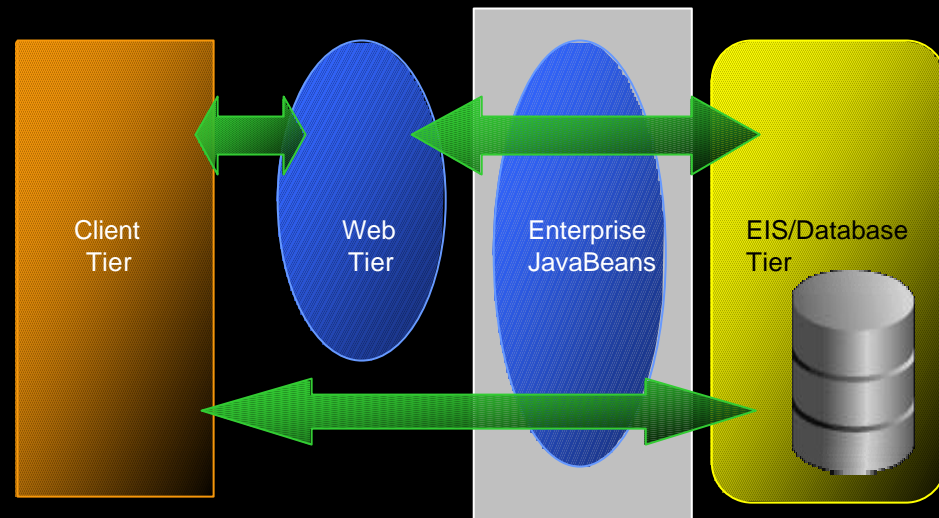
# Web Tier Components

- Java Servlets
- JSP pages
- Other resources (CSS, images)



# Business Tier Components

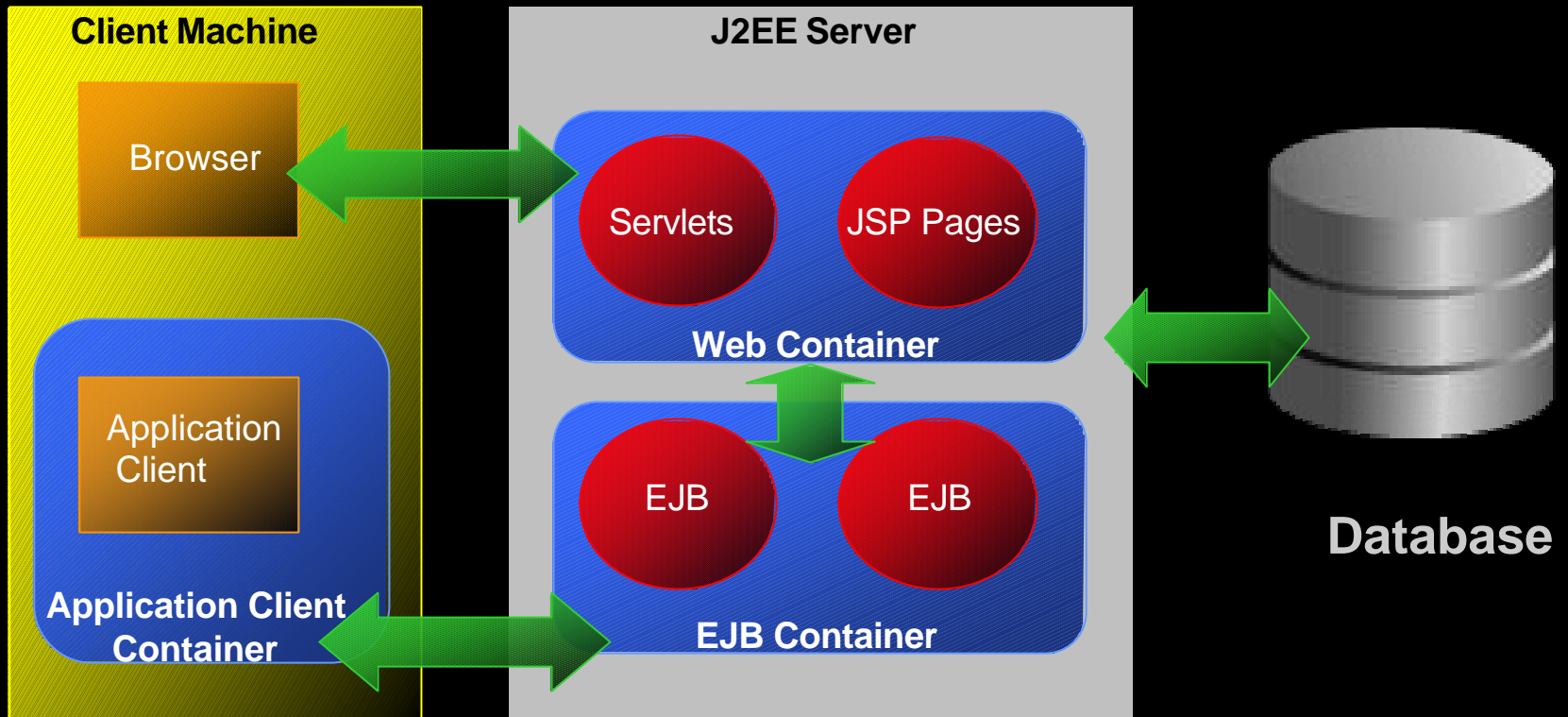
- Enterprise JavaBeans (EJB)



# J2EE Containers

- Interface between J2EE components and J2EE server
- Provides a set of services
  - Lifecycle management of application components
  - Resource pooling
  - Security
  - Transaction management

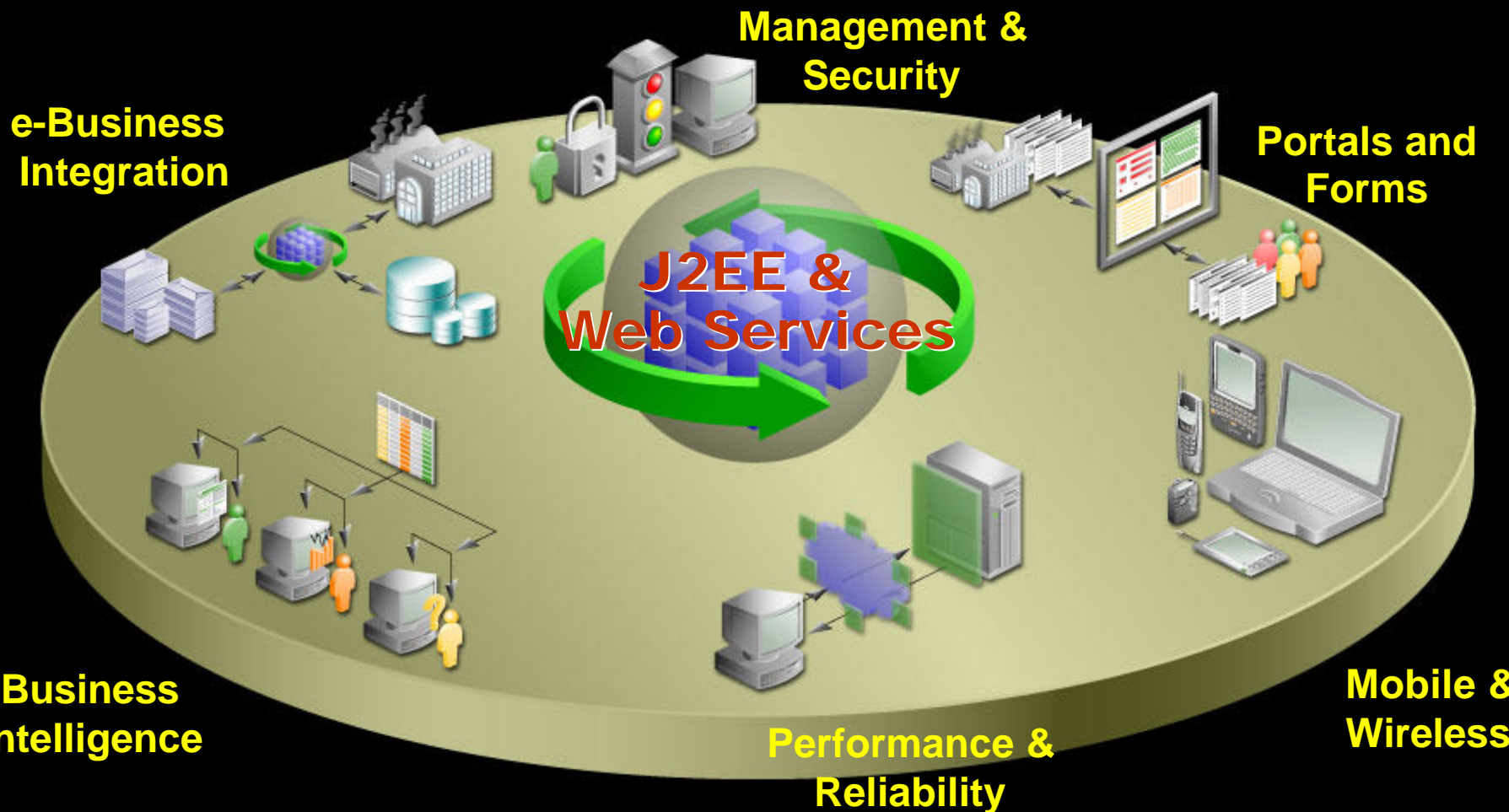
# J2EE Containers



# Oracle's J2EE Strategy

- Complete and integrated solution with Oracle platform
  - Oracle Database 10g, Oracle Application Server 10g, Oracle Developer Suite 10g
- Industry's most comprehensive Java support
- Oracle Application Server Java Edition for J2EE development and deployment
  - OracleAS Containers for J2EE (OC4J)
  - Standard, open and integrated development tools
  - Integrated management tools

# Oracle Application Server 10g



# Oracle Application Server Java Edition

- New Edition of Oracle Application Server
- Combines J2EE development and deployment
- Includes:
  - Full J2EE 1.3 (OracleAS Containers for J2EE)
  - Oracle HTTP Server
  - OracleAS TopLink
  - Oracle9i JDeveloper
  - Oracle Enterprise Manager (Standalone instance)

# OracleAS Containers for J2EE (OC4J)

J2EE 1.3 Compliance	Oracle9iAS
EJB	2.0
Servlets	2.3
JSP	1.2
JDBC	2.0
JAAS	1.0
JMS	1.0.2
Connector	1.0

- J2EE™ 1.3 Compatible
- Advanced Caching and Clustering
- Integrated, Productive Development Tools
- Advanced Security with Authentication and Authorization



# Oracle JDeveloper 10g

- Complete and Integrated
  - Full development lifecycle
  - One tool for Java, XML, & PL/SQL
- Standard and Extensible
  - Support for latest J2EE standards
  - Open Extension API (JSR 198)
  - MyJDeveloper
- Easy to Use and Productive
  - Visual and declarative development
  - Oracle Application Development Framework (ADF)

