



IBM Software Group

IBM® WebSphere® Application Server V6

Java™ 2 Enterprise Edition (J2EE) 1.4

Overview and New Features



@business on demand.

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Goals

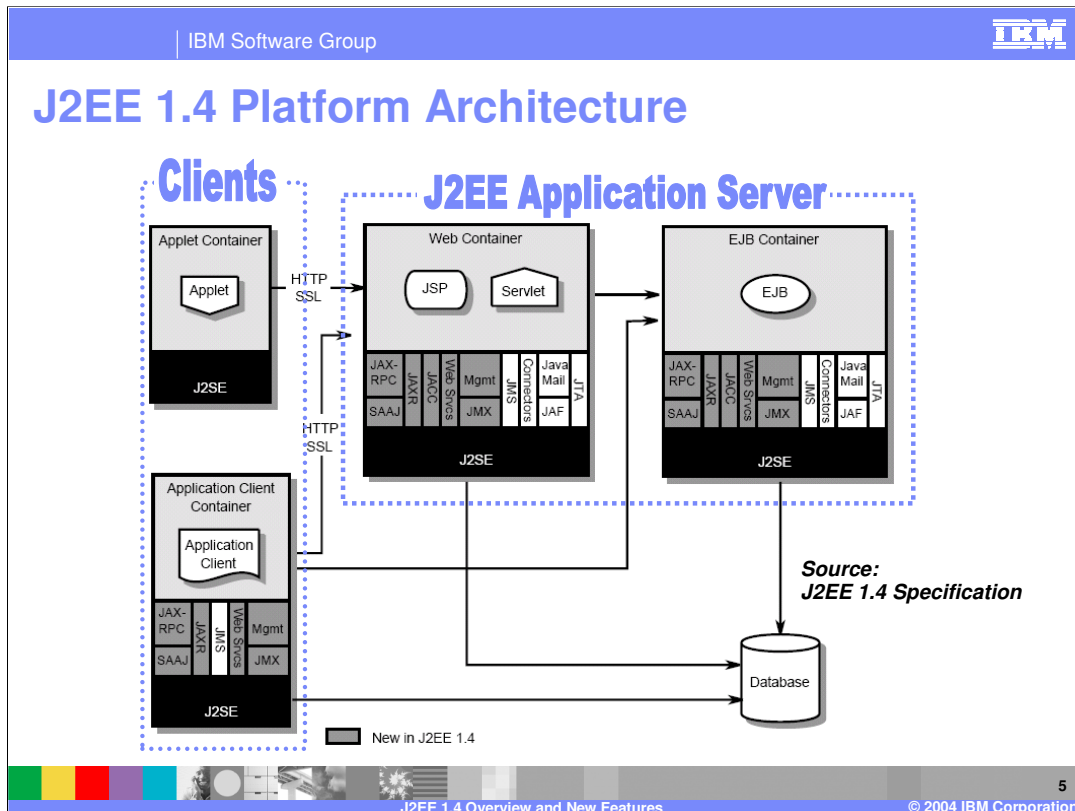
- Provide a brief overview of J2EE 1.4 platform
- Highlight the new features included in J2EE 1.4

Agenda

- J2EE 1.4 Overview
- New Features
- Application Packaging and Files

Section

J2EE 1.4 Overview



The diagram shown on this slide appears in the J2EE 1.4 specification document found at the following URL <http://www.jcp.org/en/jsr/all>.

The J2EE platform offers a component-based model for building distributed, multi-tiered enterprise applications. Each application is typically made up of one or more J2EE components that work together in a distributed environment. The types of components that can make up a J2EE based application are:

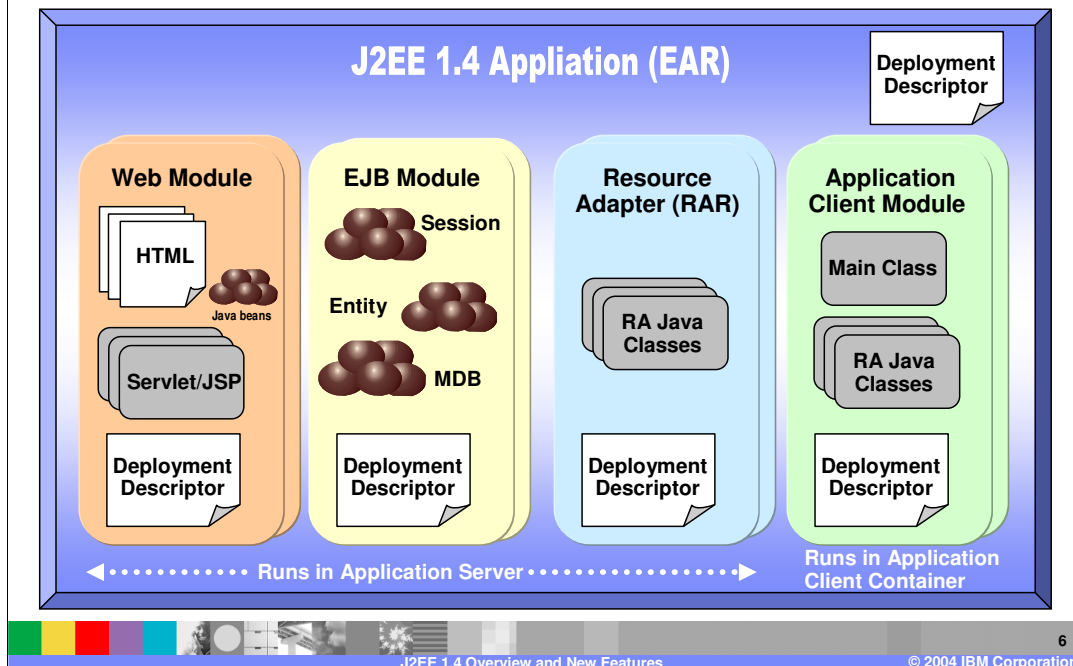
Client tier components (Application Clients and Applets) – Run on a client machine

Web Components (Servlets and JSPs) – Run in the Web Container within the Application Server

Business Components (EJBs) – Run in the EJB Container within the Application Server

Each container shown in this diagram shows the type of application component that it supports, along with services that are available to the components by the container to support various application functions.

J2EE 1.4 Application Components



J2EE applications are packaged as Enterprise Archive files that are typically referred to as EAR files (these files have a .ear extension). Each ear file contains a deployment descriptor along with one or more J2EE modules. Each module groups one or more application components that are of the same type, along with a deployment descriptor for that module.

For example, a Web module is packaged in a Web Archive file (WAR file), and contains Web components such as JSP and Servlets along with a deployment descriptor for that module.

Section

J2EE 1.4 New Features

J2EE 1.4 New Features Overview

- Deployment Descriptors
 - ▶ Defined as XML schemas instead of DTDs
- Enterprise JavaBeans 2.1 new features
 - ▶ EJB Timer Service
 - ▶ Enhancements to EJB query language (EJB-QL)
 - ▶ Support for Web Services
 - ▶ Extended Message-Driven beans (MDBs)

J2EE 1.4 New Features Overview (cont.)

- Servlet 2.4
 - ▶ New HTTP Request Listeners
 - ▶ Enhancements to Filters
 - ▶ Request Dispatcher
 - ▶ Listeners
 - ▶ Sessions
 - ▶ Internationalization
- JavaServer Pages (JSP) 2.0
 - ▶ Expression Language
 - ▶ Improved Tag support

J2EE 1.4 New Features Overview (cont.)

- Java 2 Connector 1.5
 - ▶ Inbound Communication
 - ▶ Message Inflow
 - ▶ Transaction Inflow
 - ▶ Lifecycle Management
 - ▶ Work Management

J2EE 1.4 New Features Overview (cont.)

- Web Services now part of J2EE 1.4
 - ▶ JAX-RPC (JSR 101) 1.1
 - ▶ Web Services for J2EE specification (JSR 109)
 - ▶ WS-I Basic Profile 1.0
 - ▶ SAAJ 1.1 – SOAP with attachments API for Java
 - ▶ JAX-R - APIs to access UDDI Registry



JSR 101 - Provides standard programming model for interoperable Web Services based on accepted standards such as SOAP and WSDL.

JSR 109 - Provides standard deployment model of Web Services application within a J2EE Application Server

WS-I Basic Profile 1.0 - - provides interoperability in a heterogeneous environment

SAAJ - Allows attachments which are passed in a SOAP call to be accessed from Java

J2EE 1.4 New Features Overview (cont.)

- Management and Deployment APIs
 - ▶ JSR 77 – J2EE Management 1.0 API defines J2EE management
 - ▶ JSR 88 – J2EE Deployment 1.1 API provides a standard API for deploying J2EE applications
- Security
 - ▶ Java Authorization Service Provider Contract for Containers (JACC)
 - Allows custom authorization service providers to be plugged into the Application Server

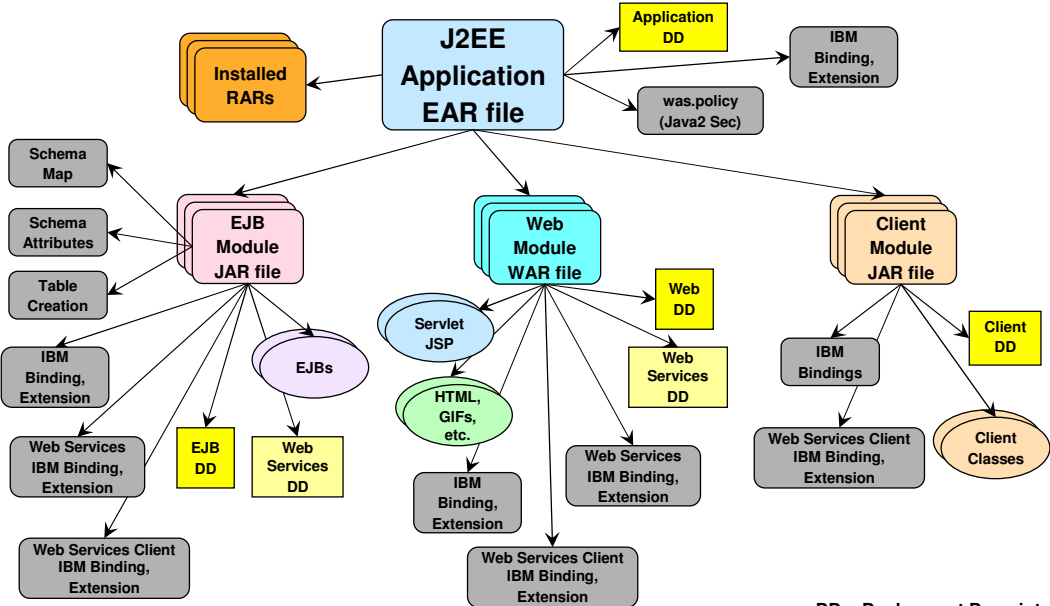


Our recommendation is to continue using our command line scripting “wsadmin” which is more powerful than these APIs

Section

J2EE 1.4 Packaging

WebSphere J2EE 1.4 Packaging and Files



DD = Deployment Descriptor

Section

Summary and References

Summary

- Inclusion of Web Services support is a significant addition to J2EE 1.4
- Management and deployment APIs are now part of the J2EE 1.4 specification
- Several new functions added to existing J2EE based technologies

References

- JSR specifications
 - ▶ <http://www.jcp.org/en/jsr/all>

- J2EE 1.4 Tutorial
 - ▶ <http://java.sun.com/j2ee/1.4/docs/tutorial/doc/index.html>

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