

APEX 4

Oracle Application Express 4.0

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SkillBuilders.com/APEX

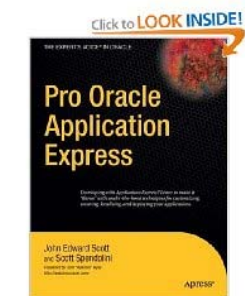


The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.

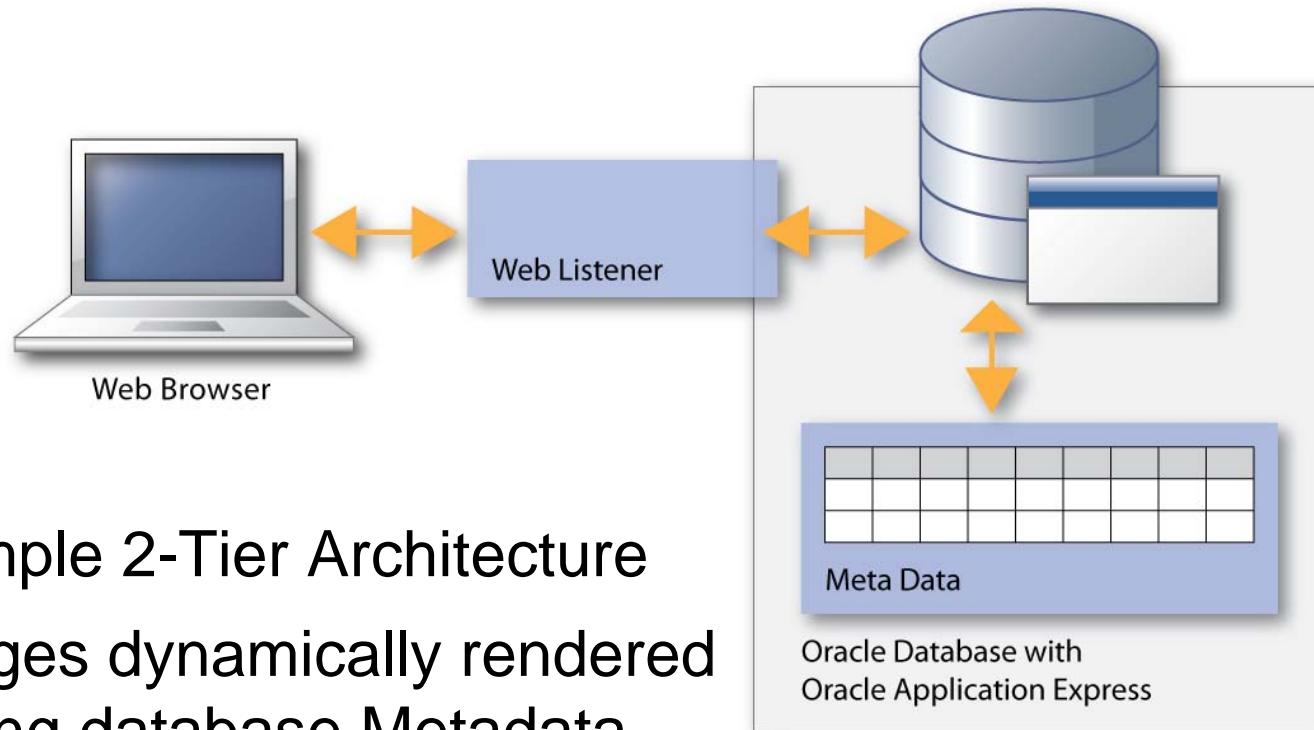


Oracle Application Express Momentum

- ▶ Developer community - 100k+ downloads / year
- ▶ apex.oracle.com – 4m page views / week
- ▶ Active Discussion Forum – 4.6 m views, #3 on OTN
- ▶ 100 Consulting companies, 60 BLOGs, 10 Hosting Partners
- ▶ User Groups: 30 @OOW-09, 50 @ODTUG, APEXposed
- ▶ User interface for Oracle Audit Vault




Architectural Overview



- ▶ Simple 2-Tier Architecture
- ▶ Pages dynamically rendered using database Metadata
- ▶ No code generation or file based compilation
- ▶ Runs Everywhere Oracle Database Runs

Development / Deployment Options

- ▶ Locally as a Dedicated Service
- ▶ Multi-tenant Enterprise Cloud
- ▶ Multi-Tenant Internet Cloud
- ▶ Within Amazon cloud



Local Database



Enterprise Cloud

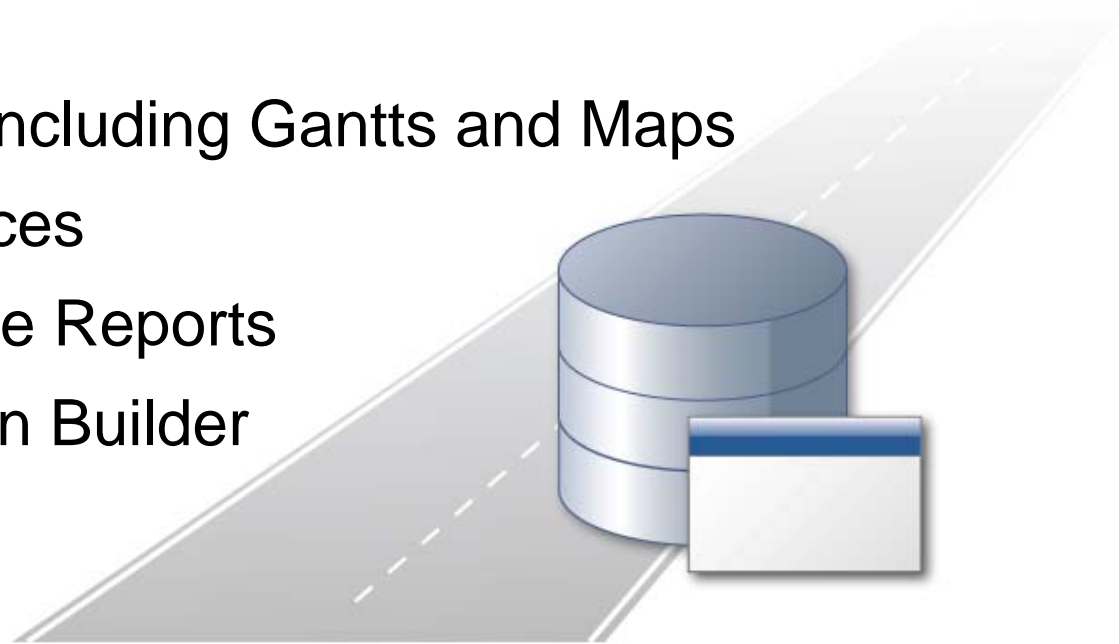


Internet Cloud

Develop & deploy where it is most convenient and cost effective

APEX 4.0 Marquee Features

- ▶ Websheets
- ▶ Dynamic Actions
- ▶ Plug-Ins
- ▶ Team Development
- ▶ Improved Charting including Gantts and Maps
- ▶ RESTful Web Services
- ▶ Enhanced Interactive Reports
- ▶ Improved Application Builder
- ▶ APEX Listener



APEX 4.0 Other Major Features

- ▶ Modernized User Interface themes
- ▶ Improved Tabular Forms (new item types, declarative validations)
- ▶ Sub-regions
- ▶ Modernized item types (auto complete, resizable textarea, JavaScript date picker, number field, new rich-text editor)
- ▶ Declarative support for cascading LOVs
- ▶ Improved UI Defaults with bi-directional synchronization
- ▶ Integration of jQuery and jQuery UI
- ▶ Declarative accessibility settings
- ▶ Instrumentation and Debug framework
- ▶ Support for 11gR2 Edition Based Redefinition
- ▶ Improved self managing, multi-tenant support
 - Automated workspace purge
 - Improved metering of usage by workspace with archiving



Interactive Reports

The screenshot displays an Oracle Interactive Report interface. On the left, a list of employee names is shown. The main area shows a table of employee data, grouped by department. A right-hand menu provides various interactive options like Filter, Sort, and Highlight. A detailed view of a specific employee is shown in the bottom-left corner.

Employee List:

- Adam
- Alana
- Alberto
- Alexander
- Alexis
- Allan
- Alyssa
- Amit
- Anthony
- Britney
- Bruce
- Charles

Table 1: Accounting Department

First Name	Last Name	Job Title	Email	Salary
Shelley	Higgins	Accounting Manager	SHIGGINS	\$12,000.00
William	Gietz	Public Accountant	WGIETZ	\$8,300.00
Sum:				\$20,300

Table 2: Administration Department

First Name	Last Name	Job Title	Email	Salary
Jennifer	Whalen	Administration Assistant	JWHALEN	\$4,400.00
Sum:				\$4,400.00

Table 3: Executive Department

First Name	Last Name	Job Title	Email	Salary
Neena	Kochhar	Administration Vice President	NKOCHHAR	\$17,000.00
Kochhar	Neena	Administration Vice President	NKOCHHAR	\$17,000.00
King	John	President	SKING	\$24,000.00
Sum:				\$58,000.00

Detailed View (Row 2 of 106):

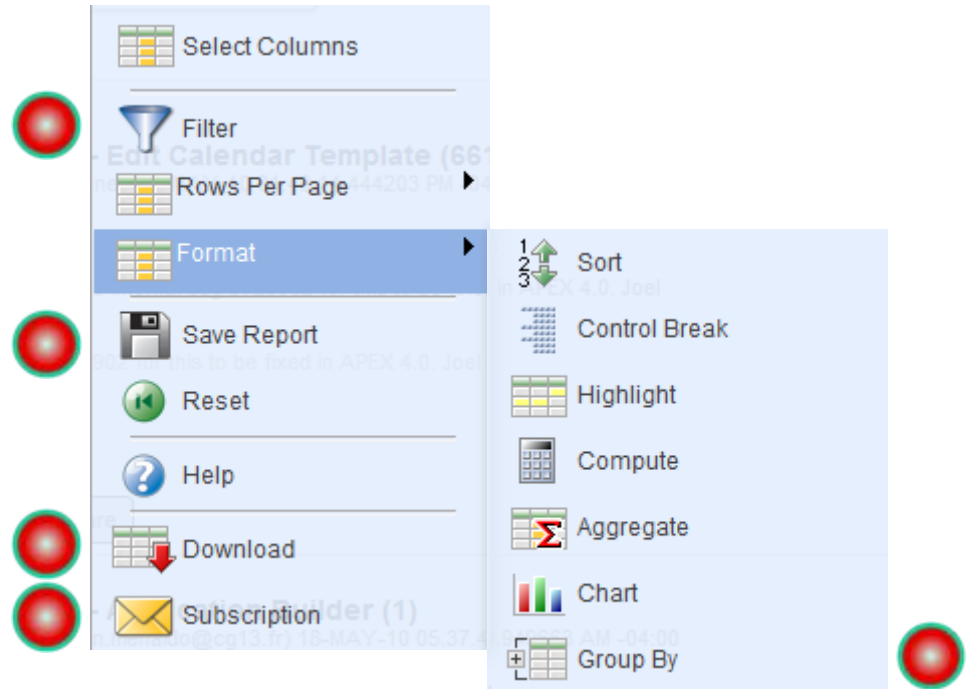
- First Name:** Neena
- Last Name:** Kochhar
- Email:** NKOCHHAR
- Phone Number:** 515.123.4568
- Hire Date:** 21-SEP-1989
- Salary:** \$17,000.00
- Department:** Executive
- Job Title:** Administration Vice President
- Commission:**

Right-hand Menu:

- Select Columns
- Filter
- Sort
- Control Break
- Highlight
- Compute
- Aggregate
- Chart
- Flashback
- Save Report
- Reset
- Help
- Download

Improved Interactive Reports

- ▶ Integrated Report, Icon & Detail Views
- ▶ Compound filter expressions
- ▶ Group By
- ▶ Saved Reports
 - Developer Supplied (Primary / Alternate)
 - Personal {Existing}
 - Shared
- ▶ Additional Downloads
 - Searchable HTML
 - Email Report Results
- ▶ Email Subscriptions



Introducing Websheets

- ▶ Build basic applications faster and with more functionality
 - Websheet Applications
 - Text Pages
 - Editable data grids
- ▶ Interactive Reports
- ▶ Designed for Business Users
- ▶ Incorporates “sharing” model (ACL)
- ▶ “Builder” integrated with “Runtime”
- ▶ Integrated annotations - attachments, tags, notes, links



Websheets vs Database Applications

	Worksheet Applications	Database Applications
Database Objects	Automatically managed (APEX\$ tables)	Created using SQL Workshop
Primary Key Management	Automatically managed	Triggers and sequences
Validations	Defined using runtime UI	Created using wizards
Report Layout	Defined using runtime UI	Created using SQL
List of Values	Defined using runtime UI	SQL or Static
Page Flow	Limited	Controlled by branches
Form Layout	Column groups	Items and regions
Look and Feel	Basic control	Themes and templates



Dynamic Actions

- ▶ Provides a way to define client-side behavior declaratively within Application Express, without the need to know JavaScript
- ▶ Simple Wizard to create
 - Select Page Item
 - Select Condition (e.g. equal to, greater than, is null, in list, JavaScript expression, etc.)
 - Enter value
 - Select Action (Show, Hide, Enable, Show Item Row)
 - Enter list of items
 - Add Condition (Optional)



Plug-Ins

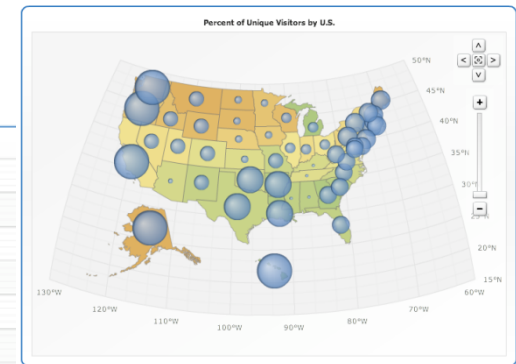
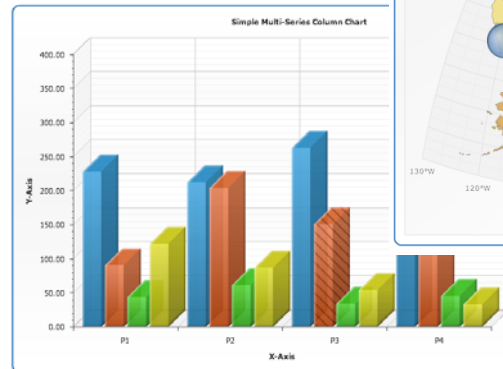
- ▶ Easy way to enhance the existing built-in functionality of Oracle APEX with new item types, region types, dynamic actions, etc.
- ▶ Developers use in similar fashion to native widgets
- ▶ Wizard support and declarative setting of attributes
- ▶ Included in APEX application export
- ▶ By providing this plug-in system in APEX, we want to engage the APEX community to create a rich ecosystem around Oracle APEX

Rating



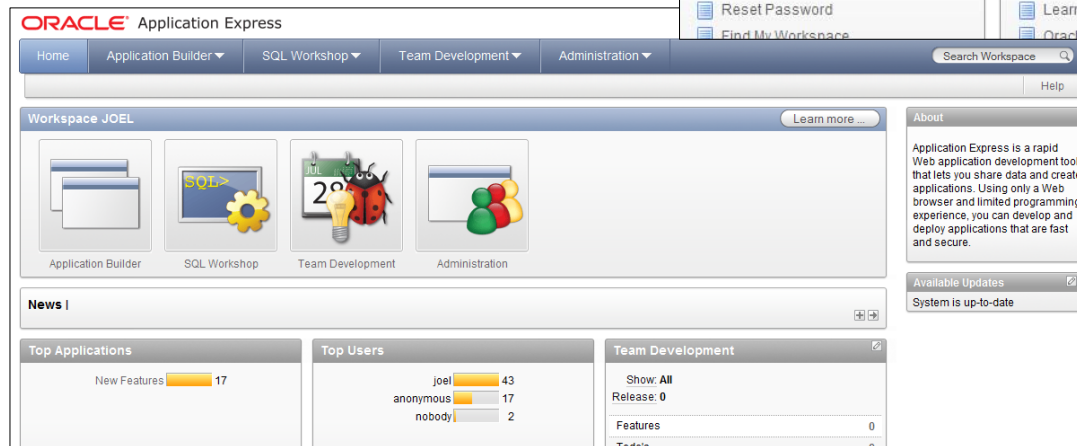
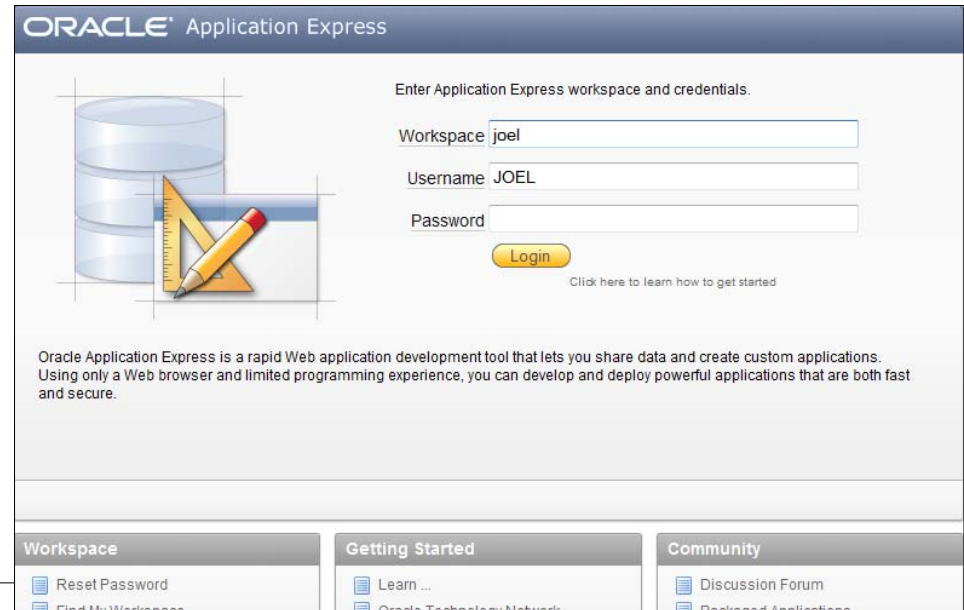
Improved Charting

- ▶ New charting engine (AnyChart 5.1) = faster, better graphics and decreased rendering time
- ▶ Support for Maps & Gantt
- ▶ New Features:
 - Scrolling support
 - Interactive labels
 - Markers in legends
 - Multiple data markers
 - Context menu localization
- ▶ All chart types can be combined within an interactive dashboard: Charts, gauges, maps, Gantt, etc.



Improved Application Builder

- ▶ New look
- ▶ Improved navigation
- ▶ Improved Administration screens
- ▶ IR's everywhere
- ▶ Integrated 'Advisor' and 'Application Search'



Team Development

- Facilitates the management of Software application development process
- Can link directly to APEX Applications and Pages

The screenshot displays the Oracle Application Express Team Development workspace for user JOEL. The interface includes a top navigation bar with tabs for Home, Application Builder, SQL Workshop, Team Development (selected), and Administration. A search bar is located in the top right corner. Below the navigation bar, the breadcrumb path is Home > Team Development. The main workspace area is titled "Workspace JOEL" and contains five icons representing different features: Features (lightbulb), Milestones (calendar), To Dos (clipboard with red checkmark), Bugs (ladybug), and Feedback (speech bubble). To the right of the workspace is an "About" section with text explaining the tool's purpose and a "Learn more..." link. Below the workspace is a "News" section with a "Reset" button. At the bottom, there are filters for Assignee (All), Release (All), and Application (All), along with a "Set" button.

Team Development - Built-In Feedback

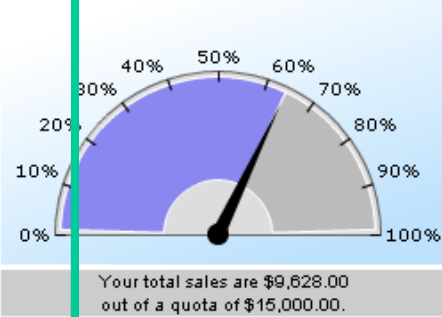
- ▶ Integrate into your APEX Applications
- ▶ Automatically saves session state
- ▶ Feedback managed in Team Development
- ▶ Easily transformed into Features, To-Dos or Bugs

Sample Application

DEMO **Feedback** Print Logout Home

Home

My Quota



My Orders

Order #	Customer Name
7	LaGuardia, Fiorello
3	Hartsfield, William
1	Dulles, John

ORACLE Application Express

Welcome JOEL (Logout) Feedback

Home Application Builder SQL Workshop Team Development Administration

Home > Team Development > Feedback

Dashboard Feedback Calendar By Application By Filing User

Show All Set Reset

Go Actions

Expanded Basic

EA3-107 Oracle APEX AppBuilder (4000) — Edit Calendar Template (661)

Filed by svk1@comcast.net (svk1@comcast.net) 10-04-11 01:49:14 444203 PII -04 00

I get the following error when I try to save an edit to a copy of the Calendar template. ORA-20001...

48 hours ago, joel. Thank you for providing this feedback. I have filed internal bug 9725902 for this to be fixed in APEX 4.0. Joel

Public Response
Thank you for providing this feedback. I have filed internal bug 9725902 for this to be fixed in APEX 4.0. Joel

Feedback Type: **Bug**
Browser: MSIE 8.0
OS: compatible; MSIE 8.0; Windows NT 5.1; Trident/4.0; HD0545; HC0731; NET CLR 1.1.4322; InfoPath.3
Component: **Other**
Status: **Closed**

REST Web Services

- ▶ Incorporating new declarative APEX component
- ▶ Utilizes a simpler architecture than SOAP style Web services
- ▶ Typically parameters are passed to a REST Web service as part of the URL and an XML document is returned
- ▶ Many popular public Web services provided by Google, Yahoo, Amazon and PayPal use the REST architecture
- ▶ Some Web Service providers use the REST architecture exclusively



[Yahoo! Flickr](#)



[Google Picasa](#)

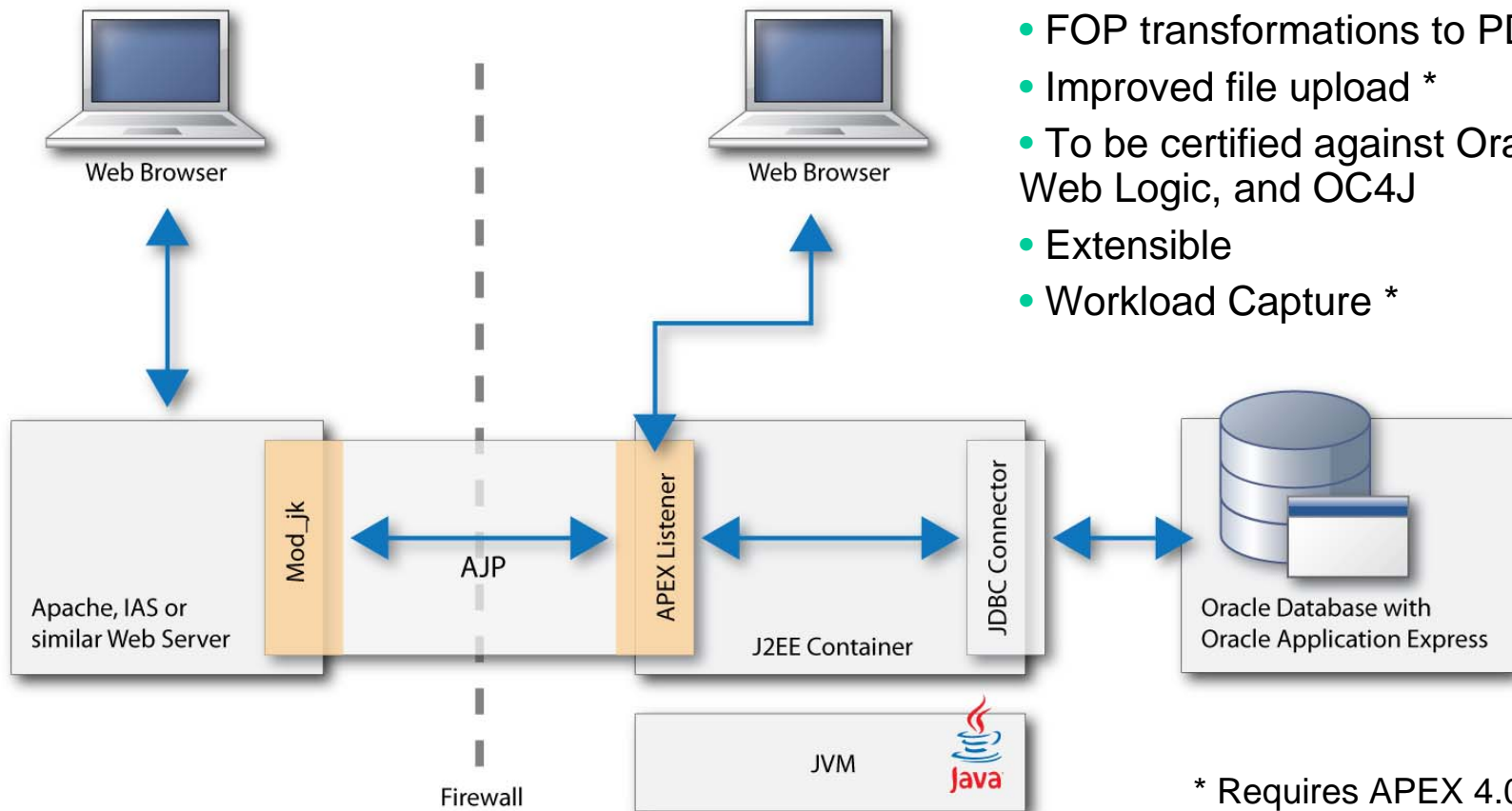


[Amazon Products](#)



Oracle APEX Listener

- Java based
- mod_plsql replacement
- Support latest APEX releases
- File system caching *
- FOP transformations to PDF *
- Improved file upload *
- To be certified against Oracle Web Logic, and OC4J
- Extensible
- Workload Capture *



* Requires APEX 4.0

APEX 4.0 Summary

- ▶ Continues the APEX Vision
- ▶ Express-ier
- ▶ Declarative Web 2.0 Magic
- ▶ Greater Extensibility





Thank You

- ▶ Don't miss Kaleidoscope – June 27th – July 1st !
- ▶ SkillBuilders Oracle Application Express Training
 - Onsite or Online
 - Mentoring Services
- ▶ Oracle Application Express Consulting Services
 - Micro to long-term onsite
 - Full life-cycle application development, training, mentoring
 - Oracle Forms to APEX conversion

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