

Building Java Applications with JavaFX 8 and Java EE 7 [CON2150]

Being a smart Java developer on both client and server-side

Bruno Borges
Principal Product Manager – Java Evangelist
Oracle Latin America
September, 2014

Safe Harbor Statement

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.

Speaker



Bruno Borges

Principal Product Manager, Java Evangelist
Oracle Latin America

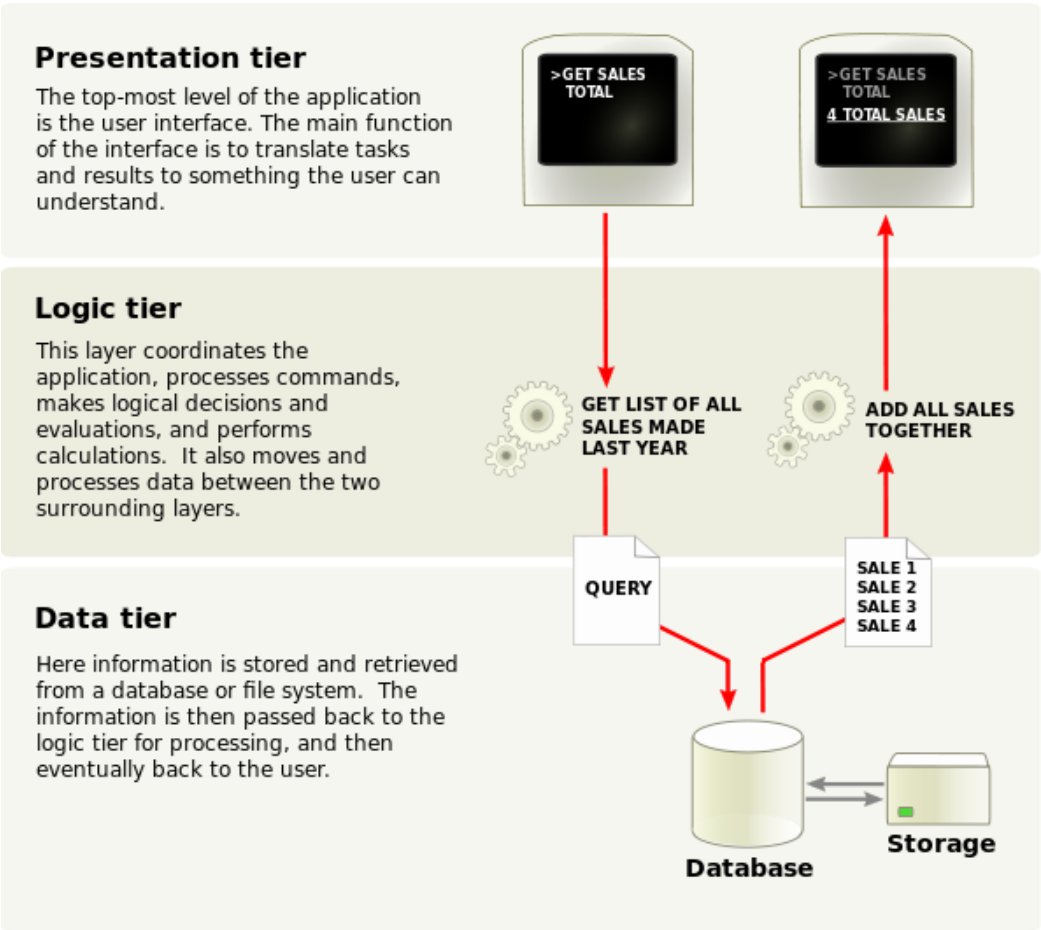
@brunoborges
bruno.borges@oracle.com

Program Agenda

- 1 ➤ JavaFX Desktop Applications Today
- 2 ➤ Exposing Server-side Data with Java EE 7
- 3 ➤ Java EE 7 APIs for Client-side
- 4 ➤ Putting all together
- 5 ➤ Summary

JavaFX Desktop Applications

Usual Desktop Architecture



Source: Wikipedia

JavaFX Frameworks

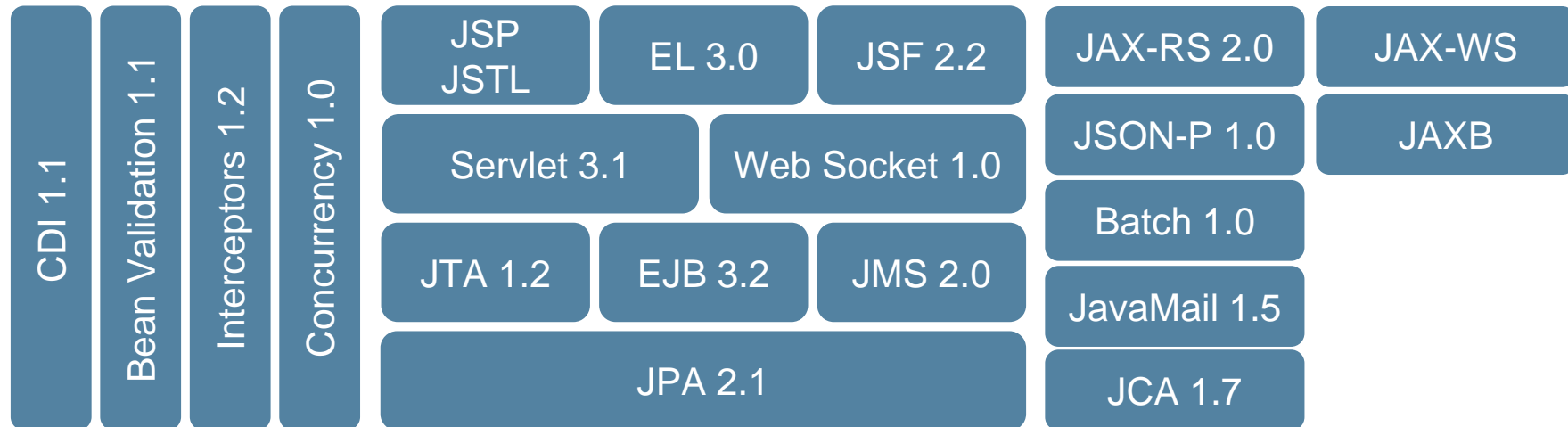


OpenDolphin

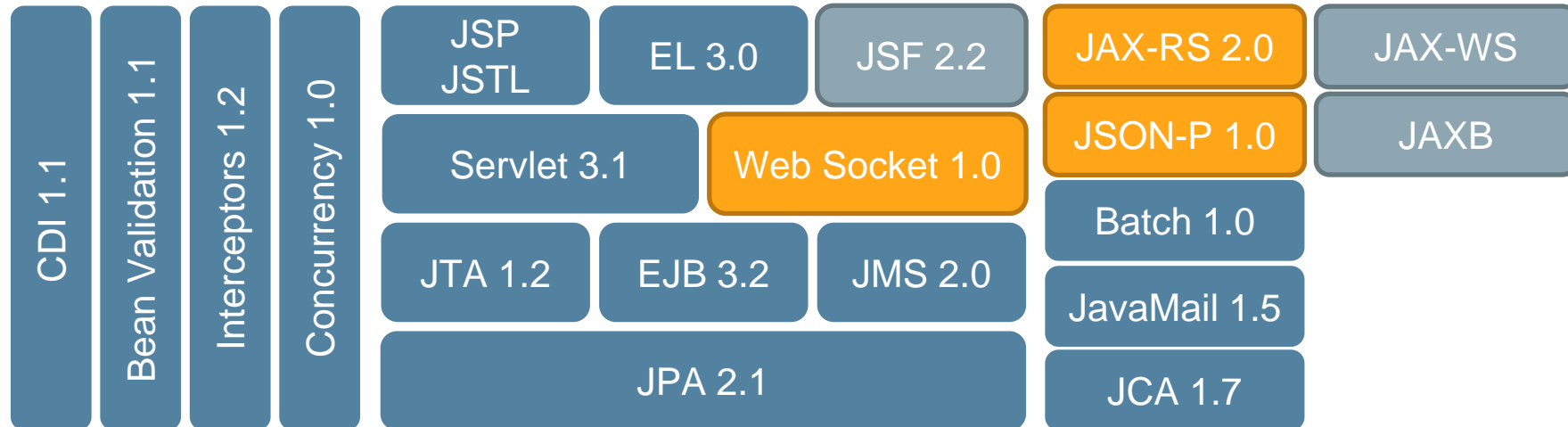
Java EE 7

Not just for Web Development

Java EE 7 APIs



Java EE 7 APIs for Exposing Data



JSR 356: Java API for WebSocket 1.0

Annotated ServerEndpoint Example

```
@ServerEndpoint("/echo")
```

```
public class EchoServer {
```

```
    @OnMessage
```

```
    public void onMessage(Session session, String message) {
```

```
        session.getOpenSessions()
```

```
            .forEach(s ->s.getAsyncRemote().sendText(message));
```

```
    }
```

```
}
```

JSR 339 – JAX-RS 2.0

Annotated REST Service

@Path("/chat")

```
public class ChatServer {
```

```
    @GET @Produces("plain/text")
```

```
    @Consumes("plain/text")
```

```
    public String echo(String message) {
```

```
        return "Echoing via REST the message: "+message;
```

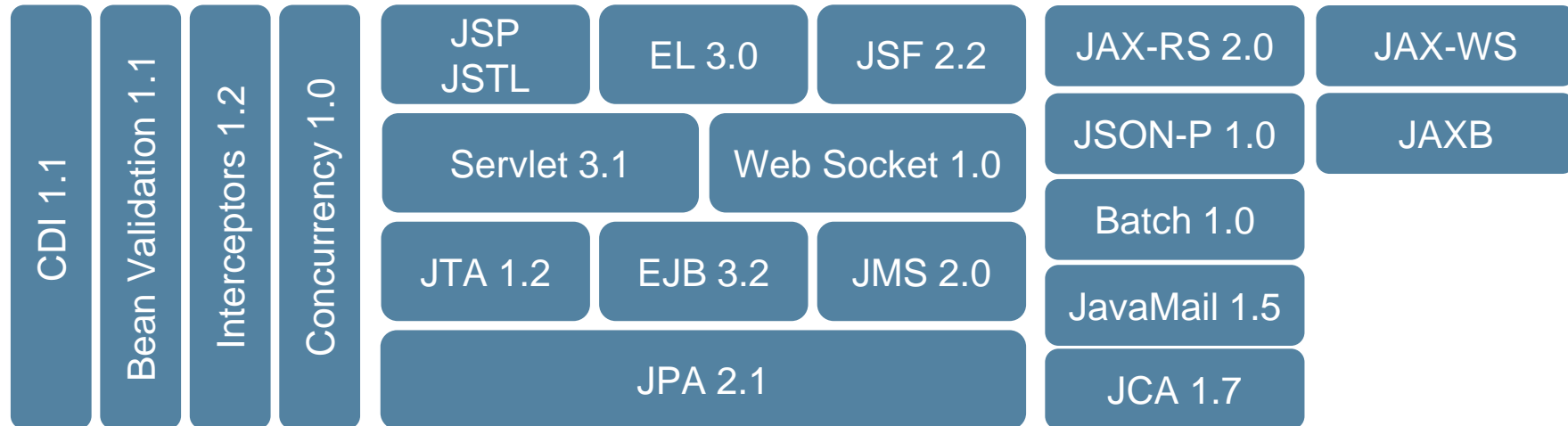
```
    }
```

```
    ...
```

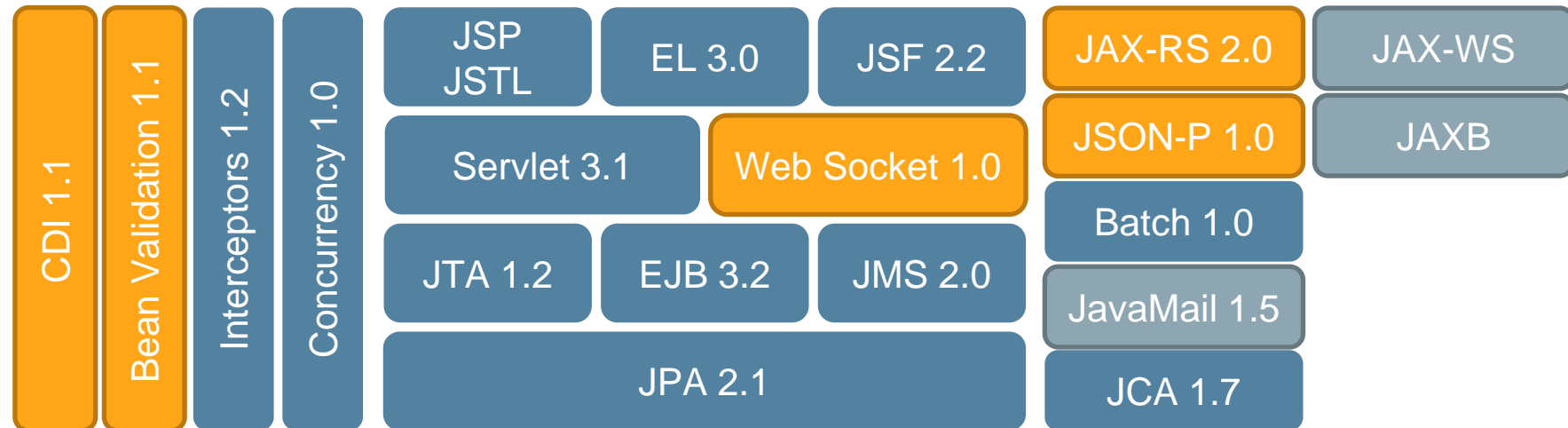
JSR 372 – JavaServer Faces 2.3

- Build webpages and embed them in JavaFX applications with WebView
- Inject real Java objects by manipulating the DOM tree in WebView
 - Do this instead of running Applets in webpages loaded on browsers
 - Consider this for applications that require fast layout changes/evolution
- Part of your application is dynamically loaded from Web
 - Or even the whole screen is loaded as web page?

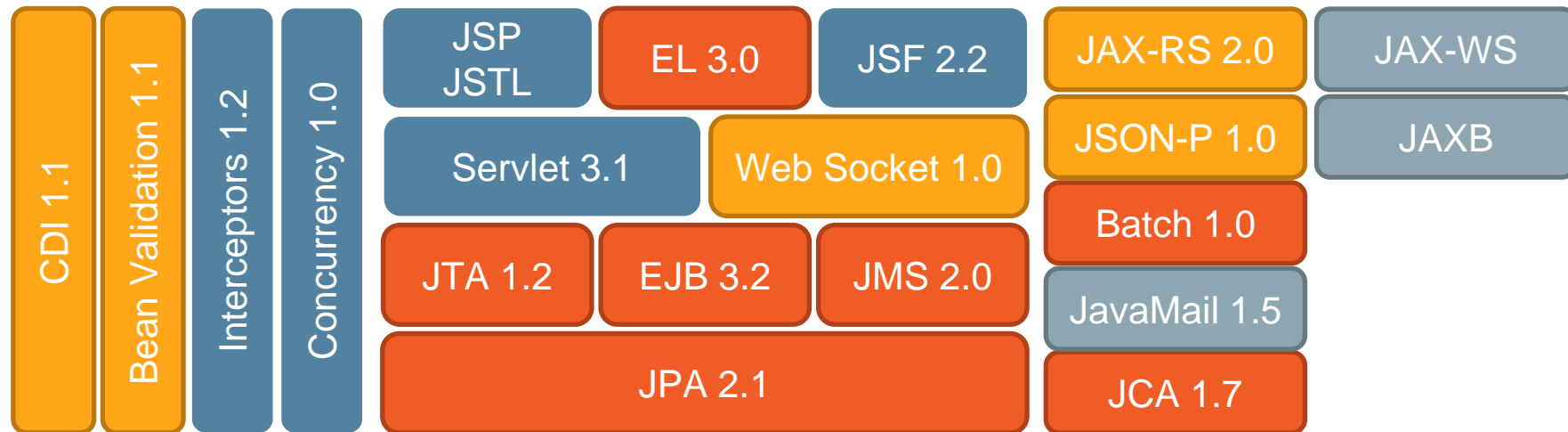
Java EE 7 APIs for Client-side



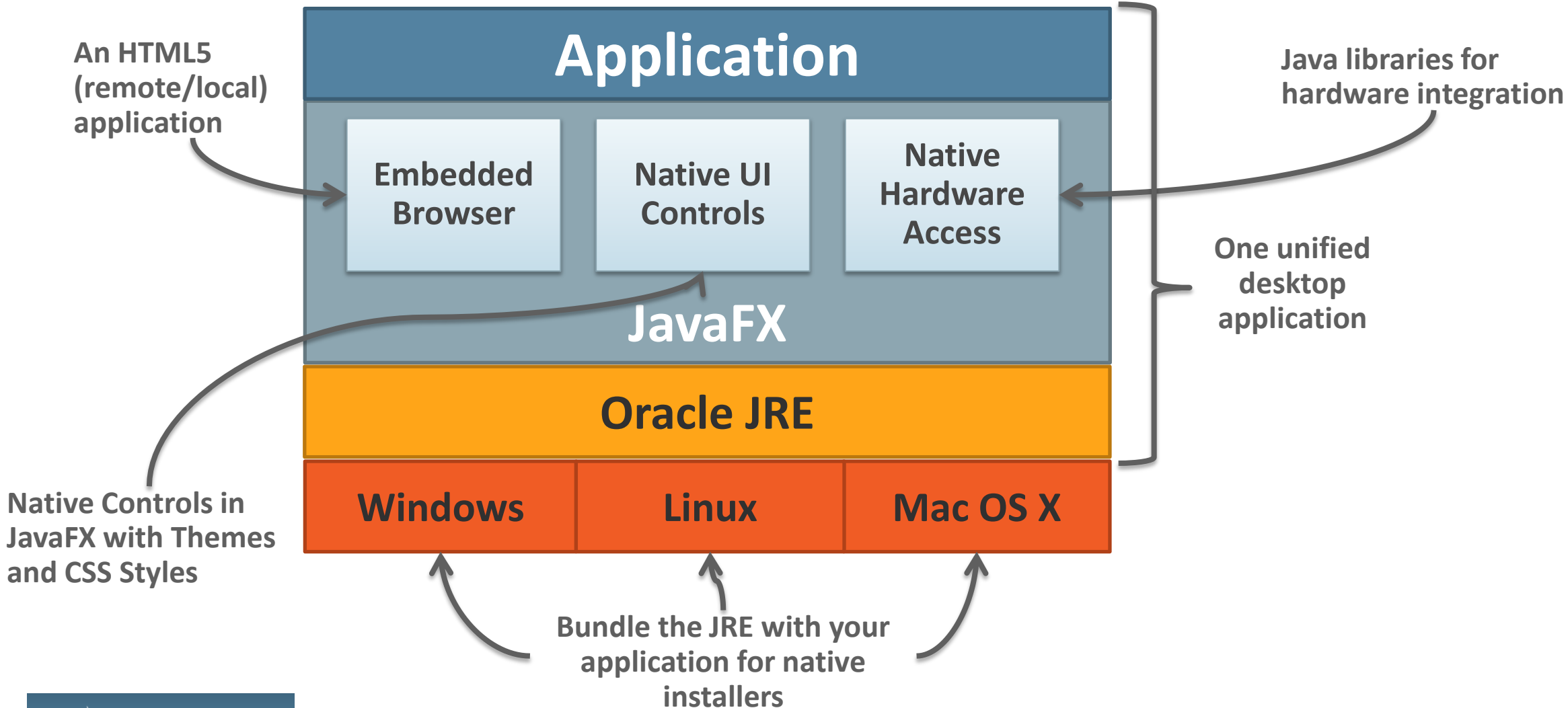
Java EE 7 APIs To Be Used on Client-side



Java EE 7 APIs You Can Use but Likely Won't...



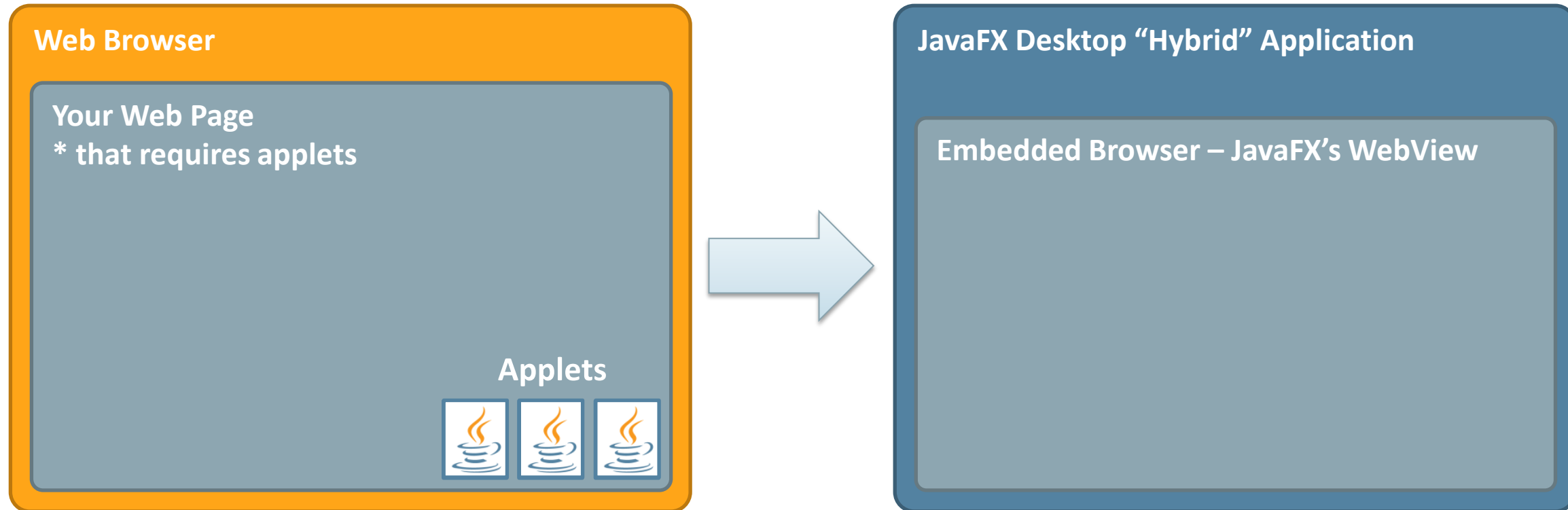
Hybrid JavaFX Desktop Application – Architecture



JavaFX Hybrid Apps

Building Desktop Apps instead of Web Apps with Applets

Native
Features



Demo

Adopt-A-JSR

- Want Java EE APIs to be aligned with Desktop/JavaFX Applications?
- Want a Java EE “Client Profile”?

glassfish.org/adoptajsr



JavaOne™

ORACLE®