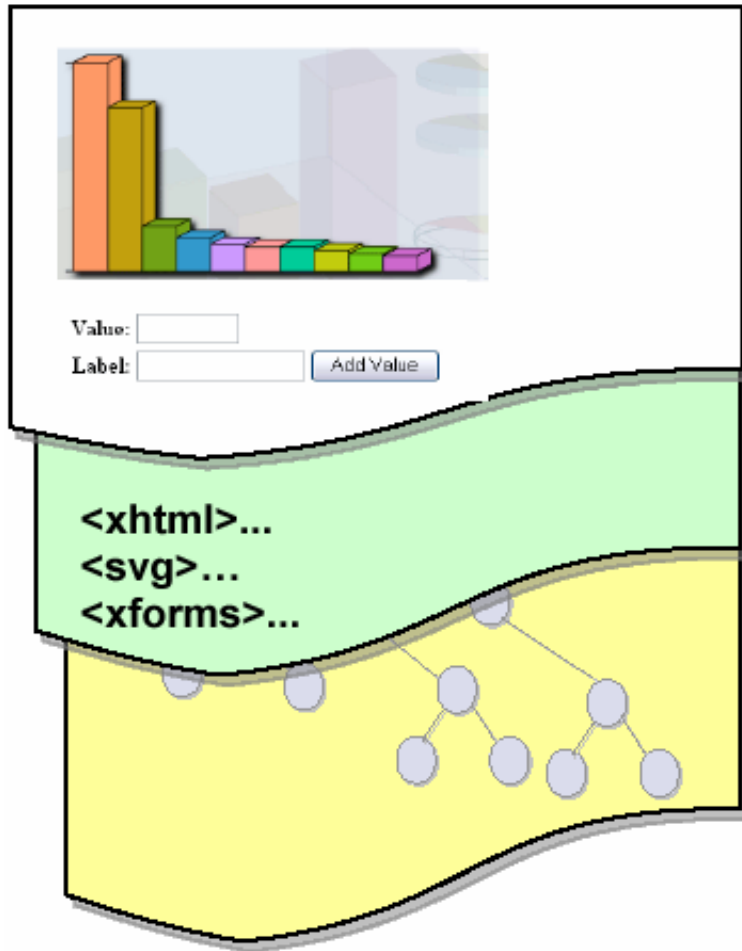# Overview of the Rich Web Backplane Panel and Note

- [Kevin Kelly] → Charlie Wiecha - Introduction and definition, demo

- John Boyer - Intelligent XML Data Model

- Steven Pemberton - Events, Intent based Events

- Mark Birbeck – Submit

- [Al Gilman – Accessibility] → Accessibility and DI (Rhys Lewis)

Rich Web Application Backplane

- Compound Documents

- Reduce duplication of the same functionality in many markups

- A more reliable, consistent, mixed markup, authoring model

- Enhances interoperability between declarative and procedural authoring

Rich Web Application Backplane

Interaction Namespaces and Frameworks

XHTML	SVG	XForms	VoiceXML	SMIL	AJAX-based Composite Apps

Rich Web Application Backplane

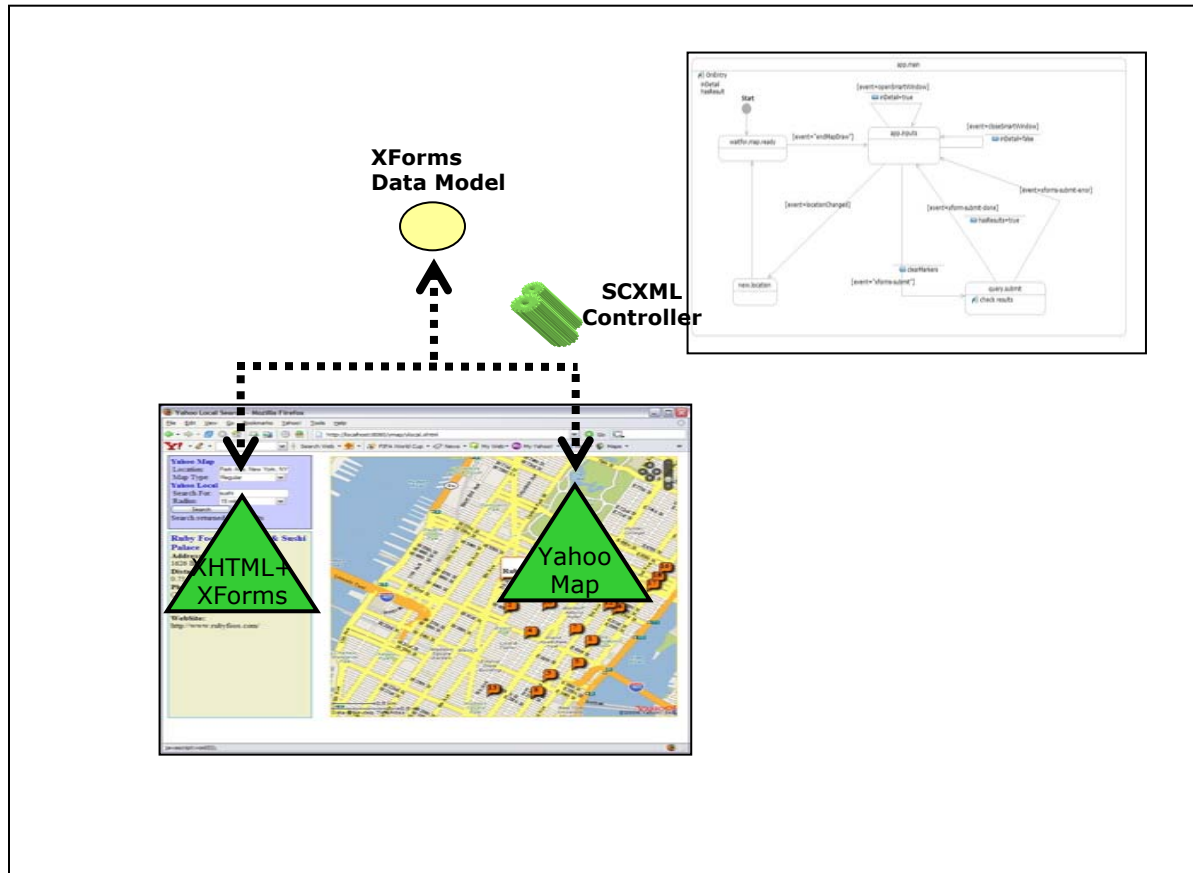| Compound Document Framework	XML Data Model	Model-view binding and events	Submission object (XMLHTTP++) and behavior	Choreography (SCXML)	Component Model and Composition

Platform technologies

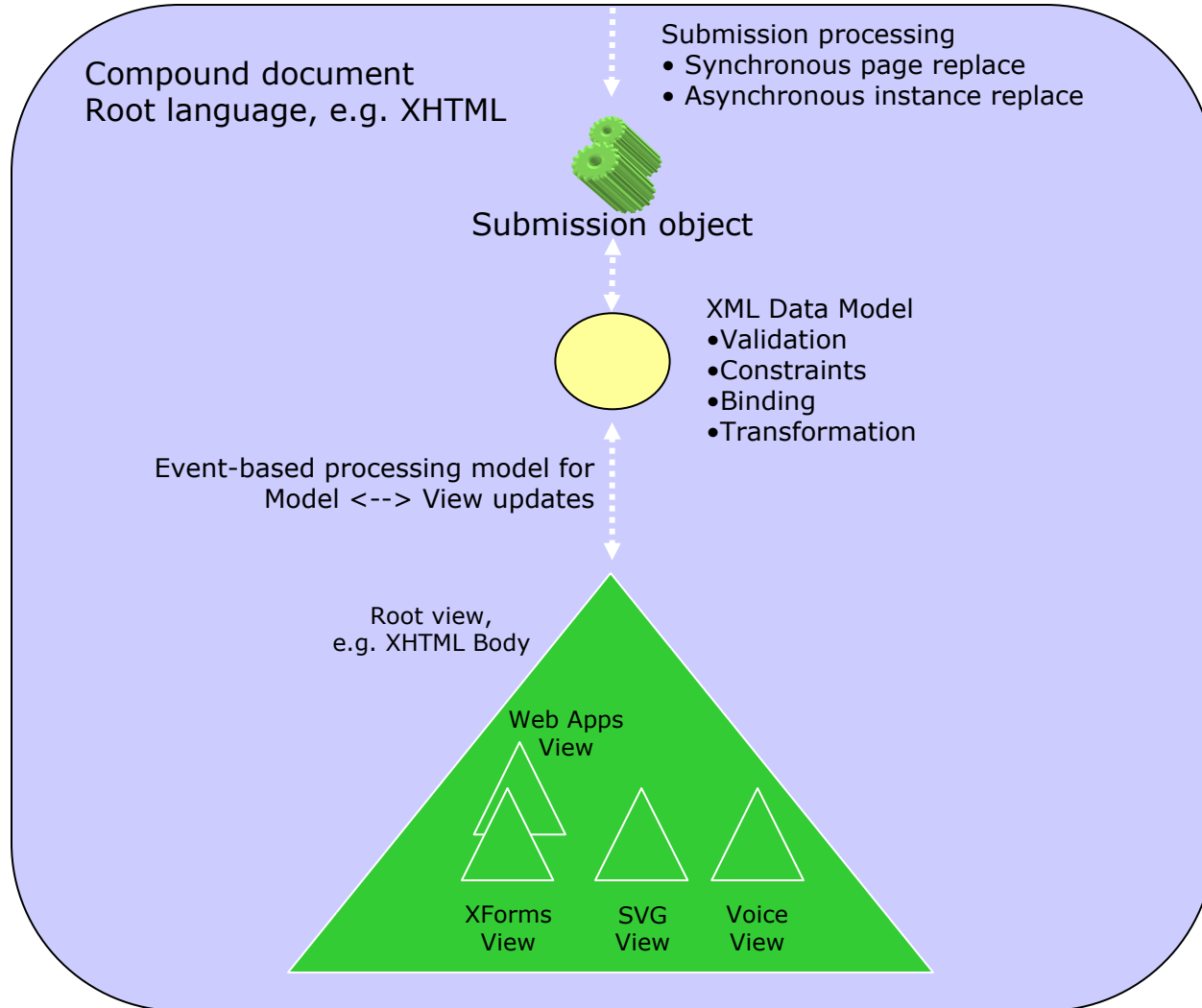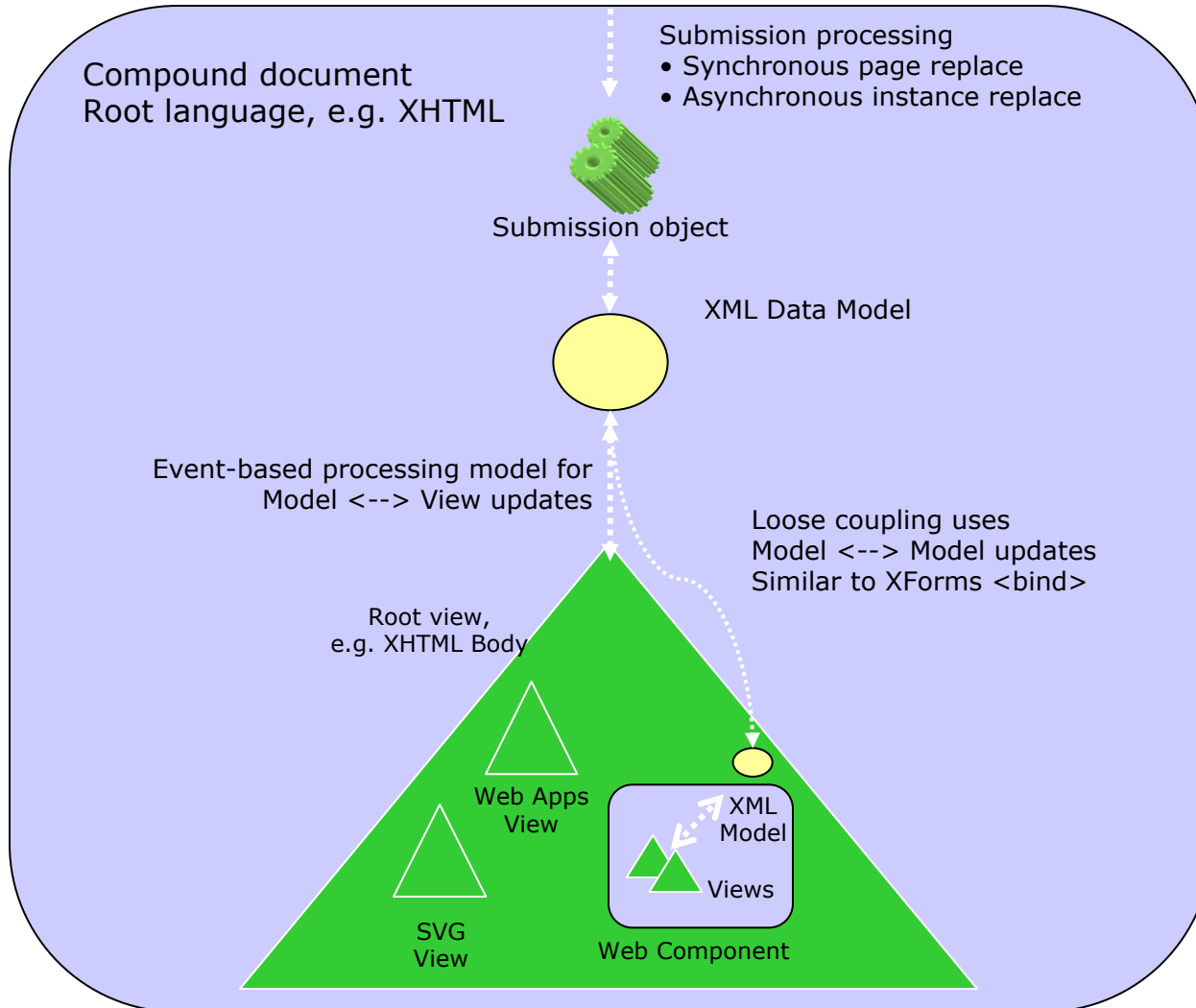| DOM Parser	XPath, XSLT	DOM Events	JS	Security

Example: From "mash-ups" to "hook-ups"

- Search box elements and Yahoo map component "hook-up" to backplane – vs. mash-up to each other

- State Chart XML Controller manages cross-component coordination

Composition in the Backplane

Loose Coupling of Applications in the Backplane

Compound document
Root language, e.g. XHTML

Submission processing
• Synchronous page replace
• Asynchronous instance replace

Submission object

XML Data Model
•Validation
•Constraints
•Binding
•Transformation

Event-based processing model for
Model <--> View updates

Root view,
e.g. XHTML Body

Web Apps
View

XForms
View

SVG
View

Voice
View

Web Components and Composition in the Backplane

Compound document
Root language, e.g. XHTML

Submission processing
• Synchronous page replace
• Asynchronous instance replace

Submission object

XML Data Model

Event-based processing model for
Model <--> View updates

Loose coupling uses
Model <--> Model updates
Similar to XForms <bind>

Root view,
e.g. XHTML Body

Web Apps
View

SVG
View

XML
Model

Views

Web Component

Example: Recursive XML application components
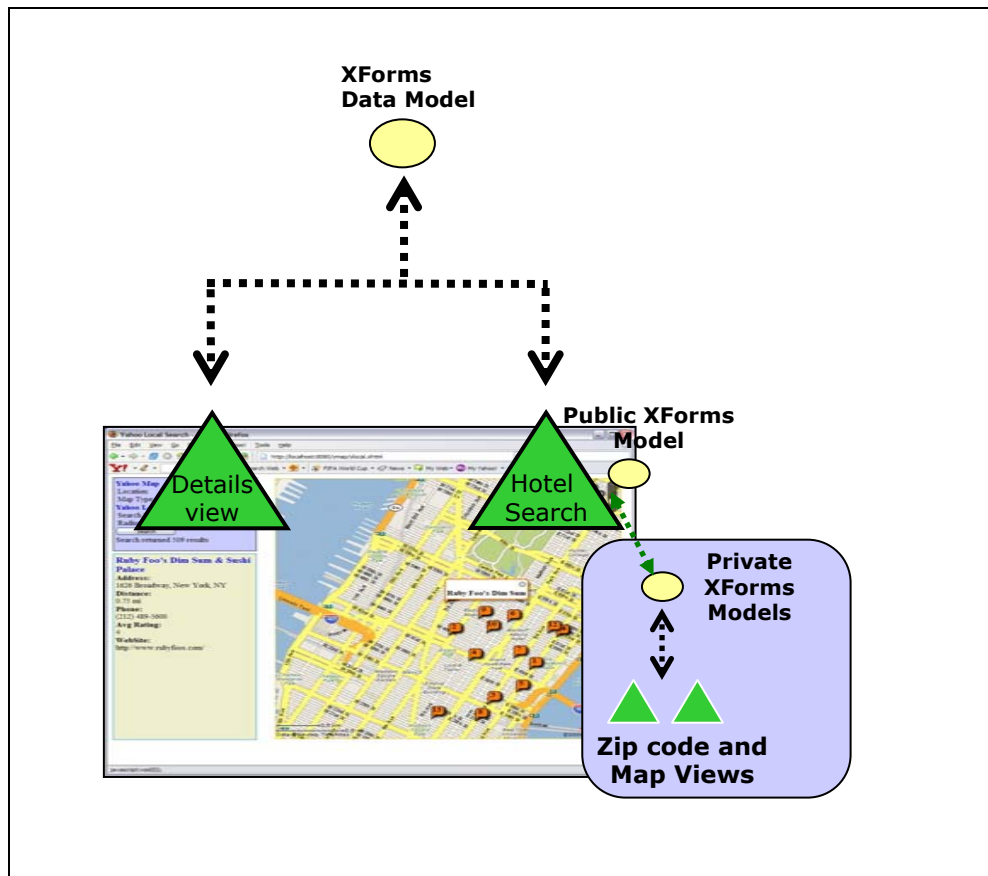
- Search box elements and Yahoo map component combined into "hotel search" component

- Enclosing application document sees component as XForms control with "subtree" binding