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JAVA™



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Part of the Network and Business Solutions

“xfy Delivers Web2.0 and Beyond”

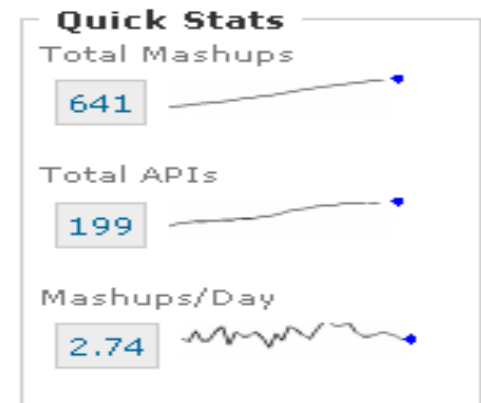
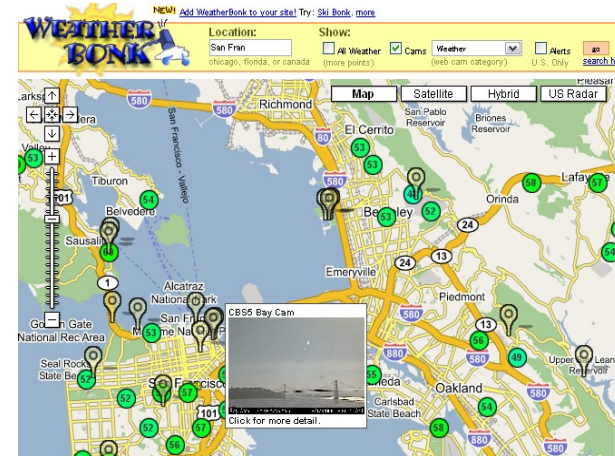
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<http://www.xfy.com>

TS-8401

Mashup (Web Application Hybrid)

- A website or web application that seamlessly combines content from more than one source into an integrated experience (Wikipedia/Mashup)
- Service providers like Google and Amazon started to provide their own Web API's, and others followed
 - Google, Amazon, eBay, Yahoo
- One important piece in the active stream of Web2.0
- Several Mashups are created everyday



Mashup: Current Situation

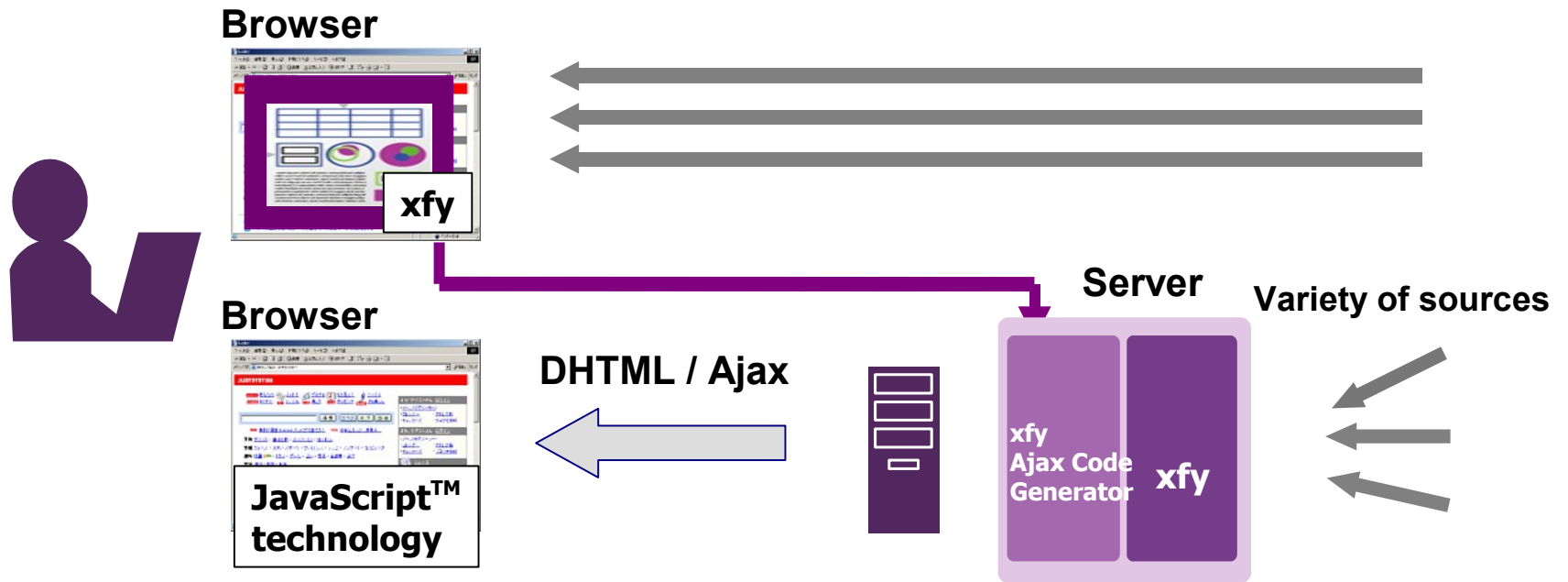
“If I Were to Be Able to Create My Own Mashup, but...”

- Web API style differs among Web service providers
 - Some are not defined in WSDL; Some are not registered to UDDI
 - Even RSS has many dialects: Yahoo mRSS, Google Gdata
 - Too difficult for end users to create Mashup using multiple services, multiple Web API's
- Limitation of Web browser
 - Direct access to multiple services simultaneously is impossible
 - Ajax programming: Very complex; Low reusability
 - Web browsers' incompatibilities, again
 - Web browser war again, with the release of IE7
- Need server side programming
 - Perl, PHP, Ruby, Python



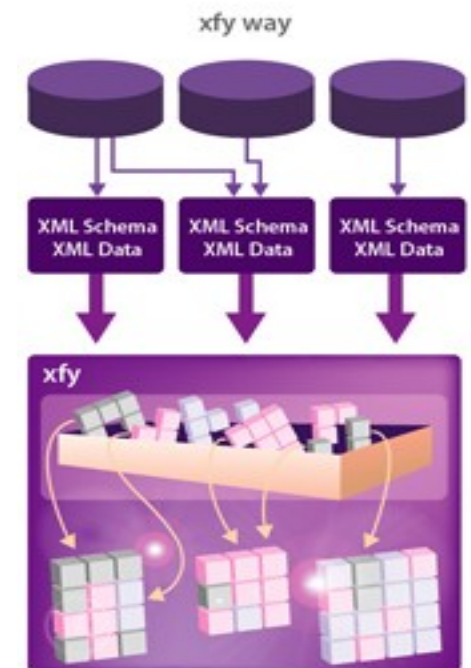
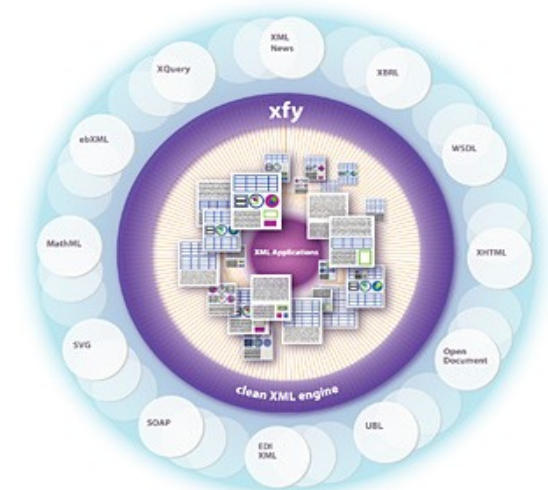
Mashup in xfy Way

Our Goal: xfy as a Mashup Platform

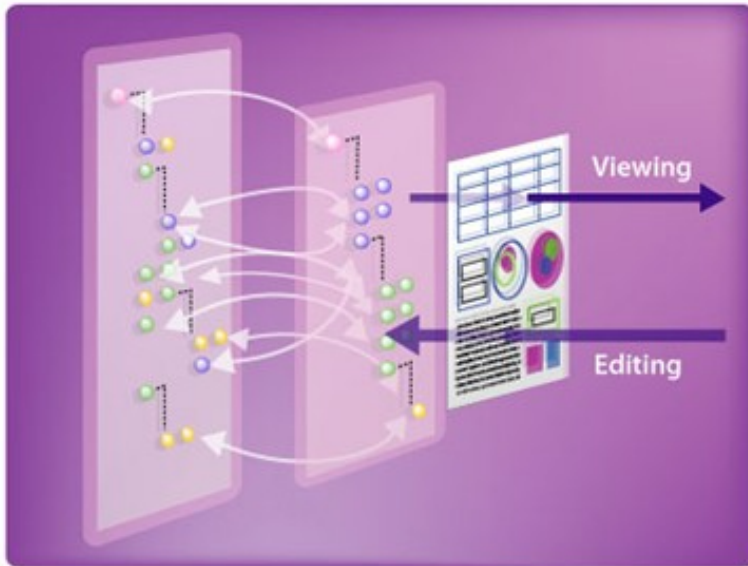


xfy as Mashup Platform

- xfy easily aggregate XML from disparate sources on demand
 - xfy handles multiple vocabularies in XML Compound document seamlessly as if they are single XML Schema
- End users can create Mashups
 - An end user can create an application as if an end user only customizes an application since the extreme reusability brings the power of functional design of application at point of use
- xfy leverages browser



XVCD—XML Scripting Language



- Benefits
 - Easy to develop GUI application based on XML without Java™ technology programming
 - Similar expression as XSLT but extra functionalities such as controlling editing capability
- Specification
 - Compatible with XSLT (1.0)
 - Bi-directional capability for UI and input functions
 - Implementation of part of controls defined by XSLT (2.0)
 - Expansion of XPATH (1.0) functions

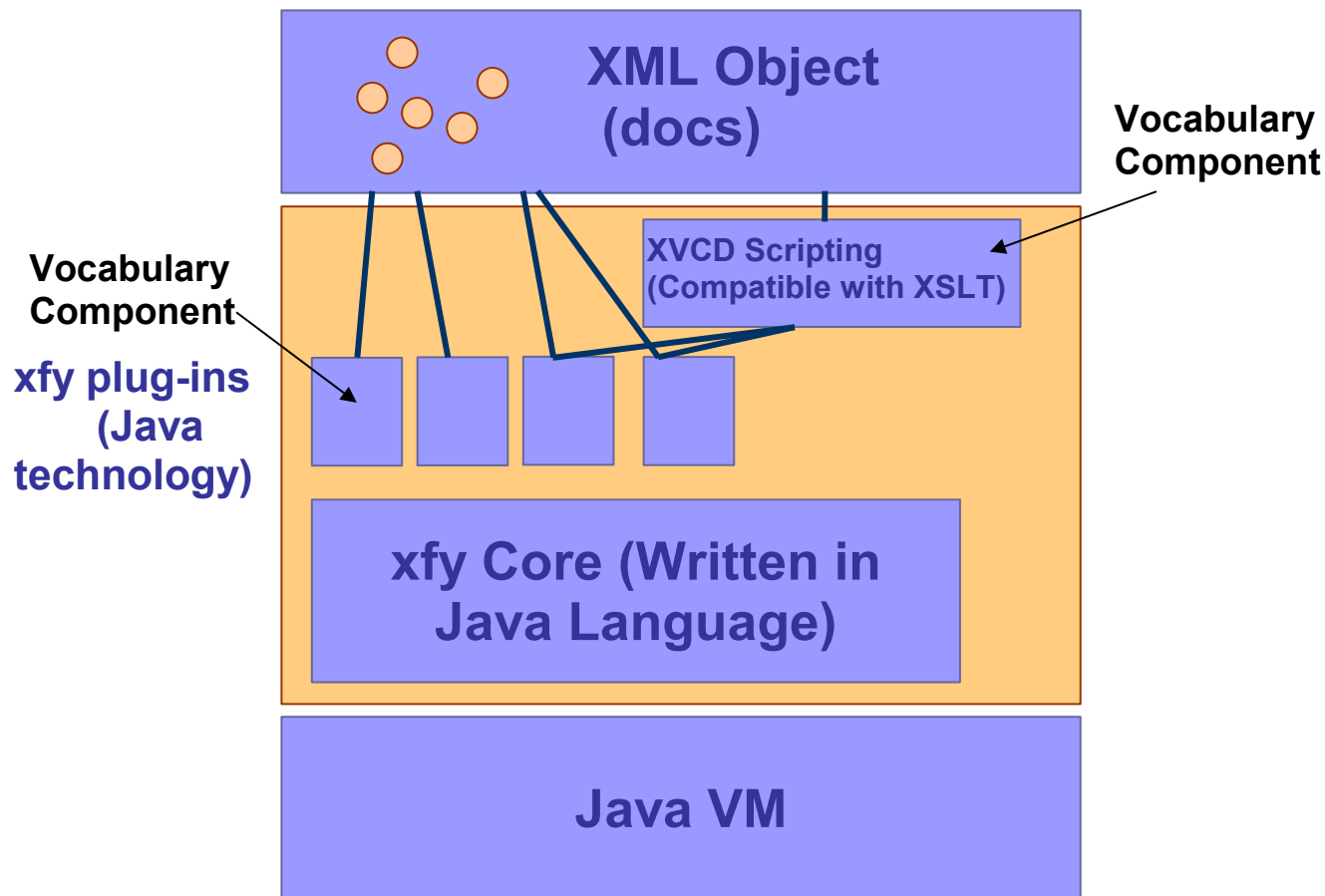
XVCD Sample Code

Sample of XVCD

```
<xvcd:vcd xmlns:xvcd="http://xmlns.xfy.com/xvcd" xmlns:doc="..." ...>
...
<xvcd:command name="REMOVE-ITEM">
  <xvcd:delete select="xvcd:caret-node()/ancestor-or-self::doc:Item"/>
</xvcd:command>
...
<xvcd:template match="doc:Item">
  <div>
    <xvcd:if test="@Level > 5">
      <xvcd:attribute name="style">color: red</xvcd:attribute>
    </xvcd:if>
    <xvcd:text-of select="."/>
  </div>
</xvcd:template>
...
</xvcd:xvcd>
```


Inside xfy—Written Entirely in Java Language

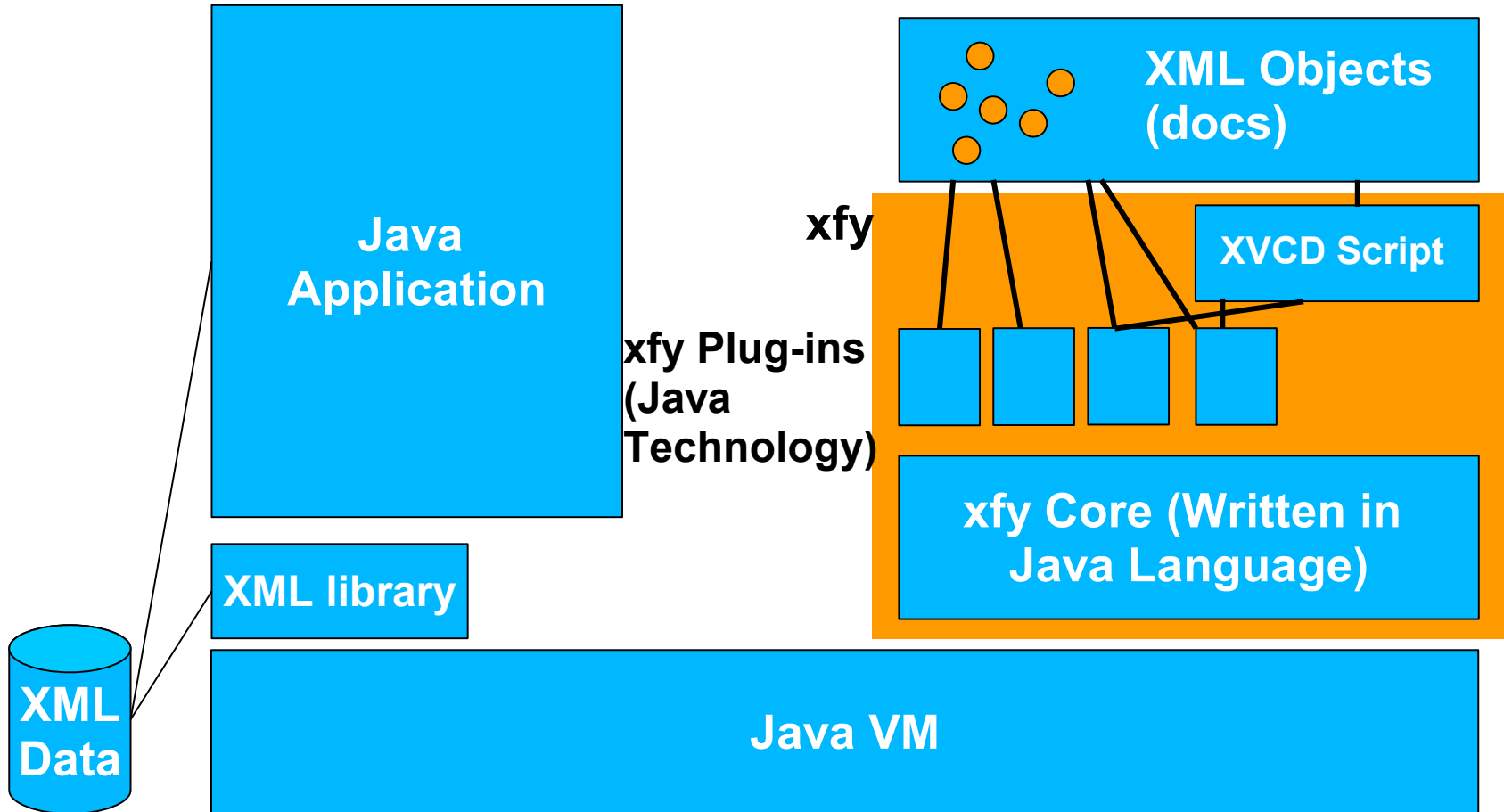
XML Objects Run on xfy



Conventional Application and xfy

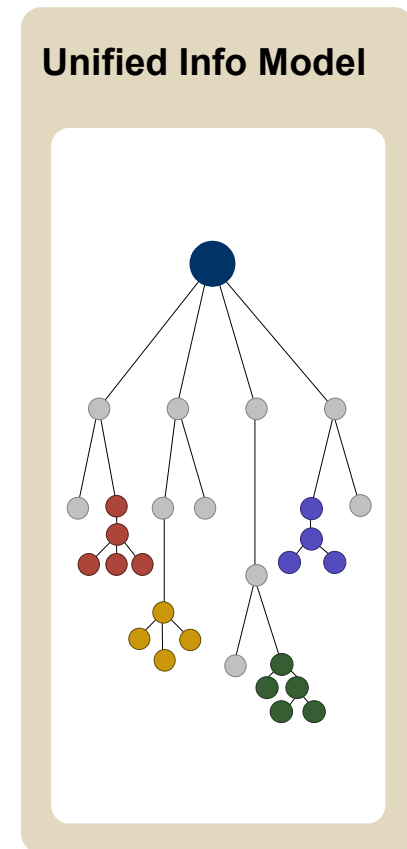
Conventional Application

xfy's Approach

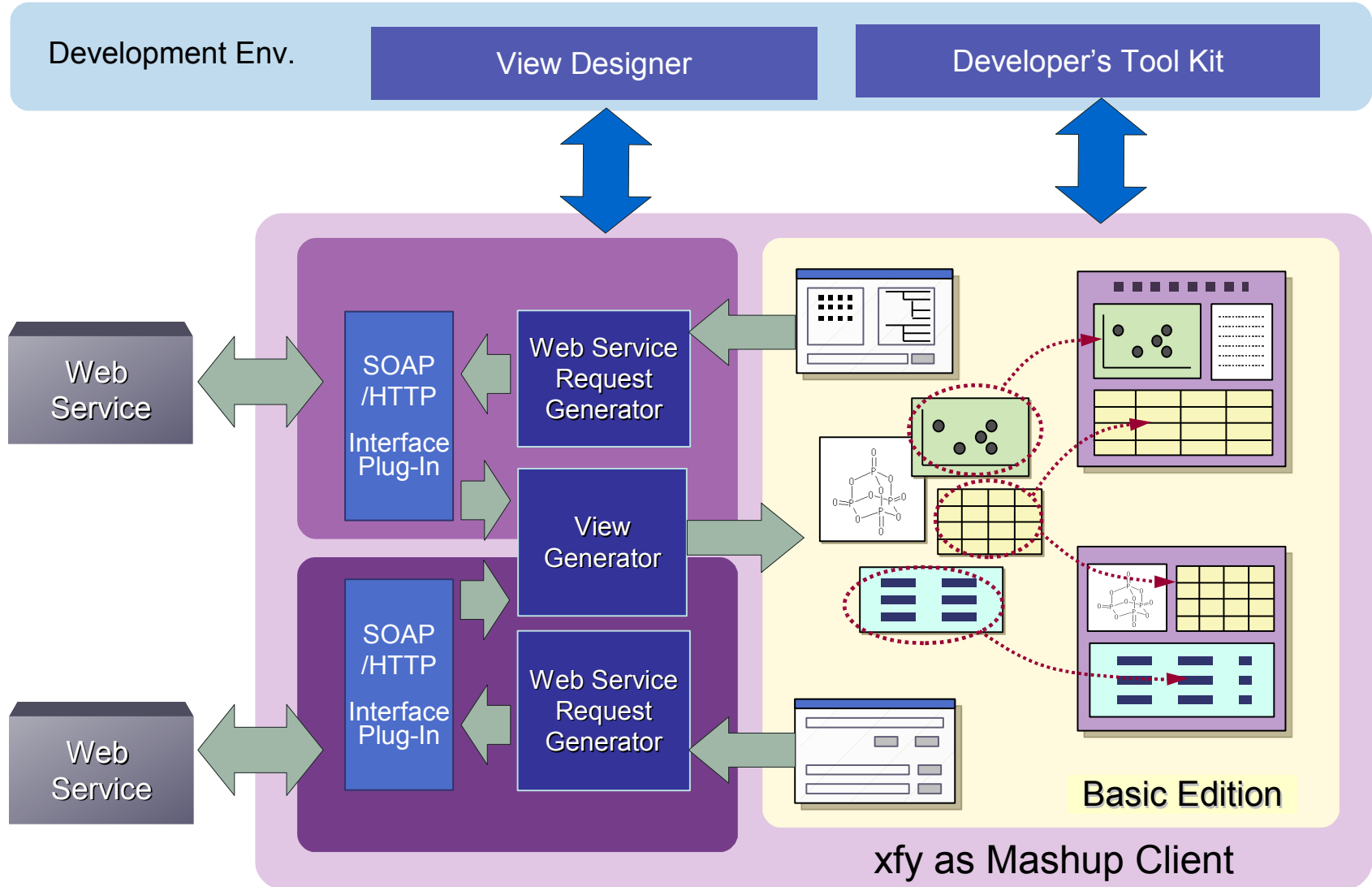


Inside xfy—Single DOM Tree

- xfy loads multiple XML vocabularies into single DOM tree
 - Easily accessible to any nodes of DOM
- Ability for users to read, write, compound and utilize any XML
 - If you develop an XML application on xfy, you've got these functionalities in default

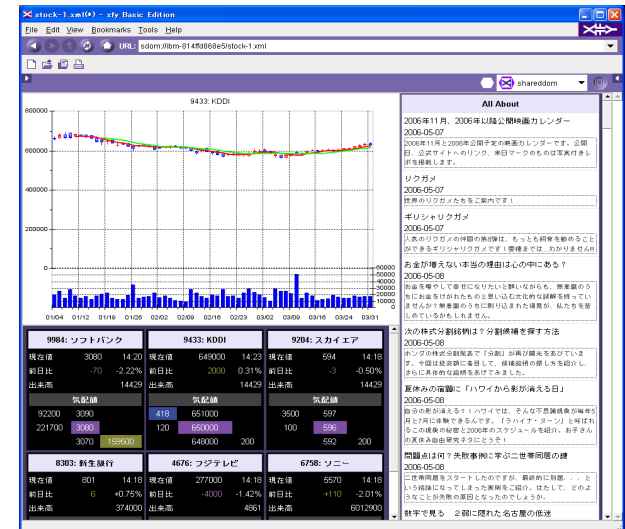
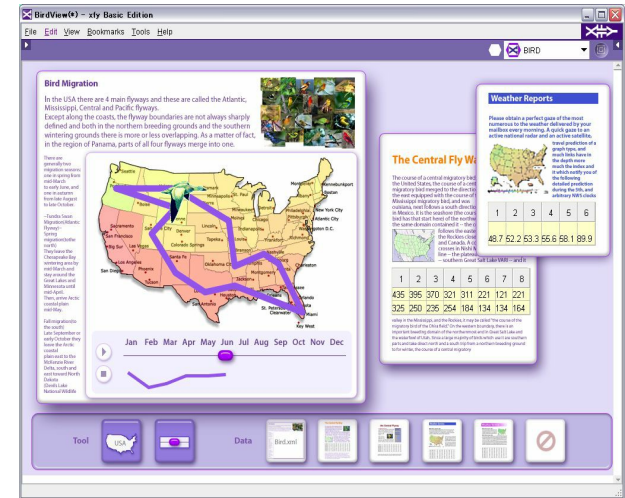


xfy Basic Edition and UltraRAD



xfy Mashups

- Bird migration demo
 - Mashed up geographical info, weather info, and bird location data
 - This demo was presented during 2005 JavaOneSM conference
 - Before Google Map API release
 - The word “Web2.0” did not exist at that moment
- Day trader demo
 - Mashed up stock exchange info and news feed



Discovery by Mashup

```

<bird:plot point month="1">
  <bird:x>435</bird:x>
  <bird:y>325</bird:y>
  <bird:stateid>FL</bird:stateid>
</bird:plotpoint>
<bird:plotpoint month="2">
  <bird:x>395</bird:x>
  <bird:y>250</bird:y>
  <bird:stateid>GA</bird:stateid>
</bird:plotpoint>

```



Found the temperature of the state where bird is.

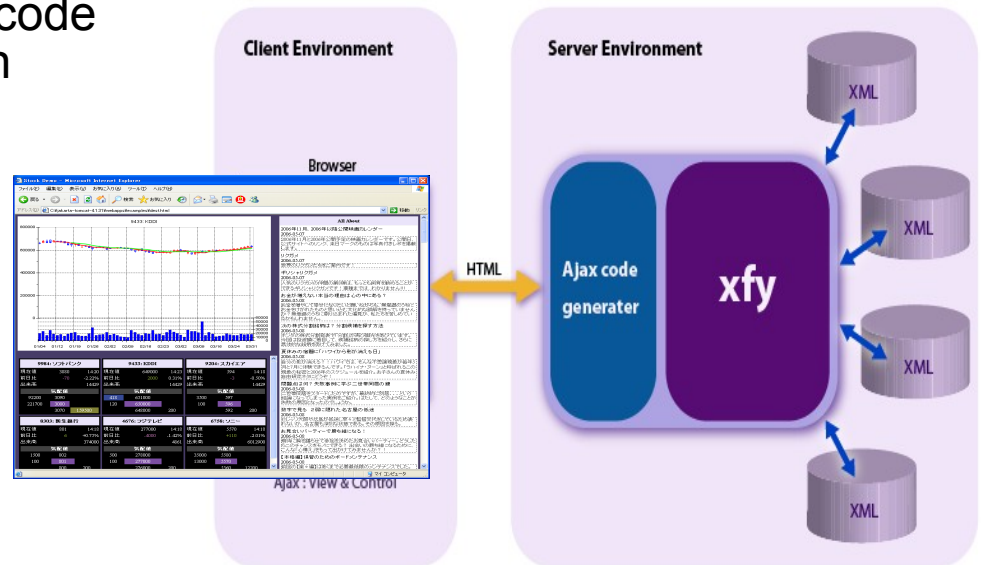
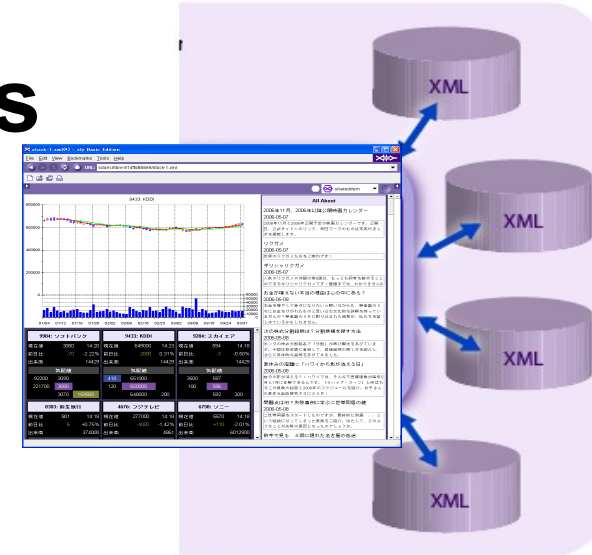
```

<bird:thermodata bird:month="1">
  ...
  <bird:temperature stateid="FL">67.2</bird:temperature>
  <bird:temperature stateid="GA">41.0</bird:temperature>
  ...
</bird:thermodata>
<bird:thermodata bird:month="2">
  ...
  <bird:temperature stateid="FL">68.5</bird:temperature>
  <bird:temperature stateid="GA">44.8</bird:temperature>
  ...
<bird:thermodata bird:month="2">

```


Write Once, Run Both Ways

- Write Once, Run Both Ways
 - “Web2.0 Way” or “xfy Way”
 - Mashup application created for the client PC, also runs on server side
- Ajax Code Generator
 - Auto generation of Ajax code from the XML application written in xfy XVCD
 - This application runs with Web browser



Ajax Code Generator

Can say : xfy is yet another Ajax development environment.

```

<?xml version="1.0"?>
<xvcd:xvcd
xmlns:xvcd="http://xmlns.xfy.com/xvcd"
version="1.0">

  <xvcd:vocabulary name="Sample"
match="service" call-template="root">
    </xvcd:vocabulary>

  <xvcd:template name="root">
    ...
  </xvcd:template>

  <xvcd:command name="show">
    <instruction:param name="arg"/>
    <instruction:if test="...">
      ...
    </instruction:if>
  </xvcd:command>
</xvcd:xvcd>
  
```

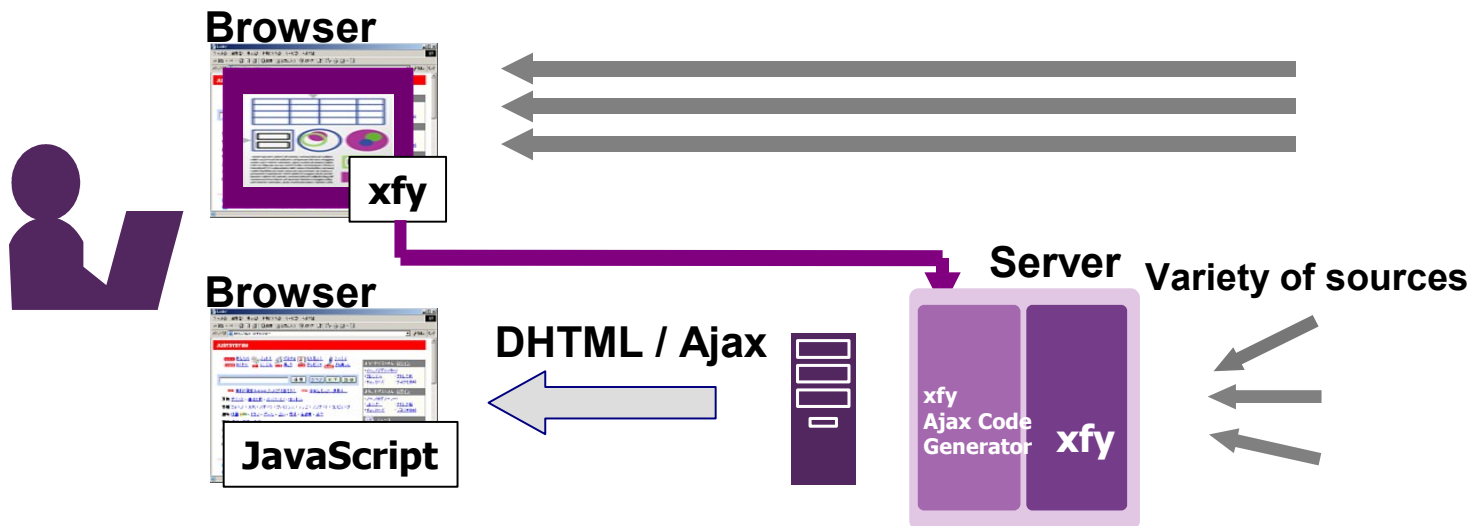
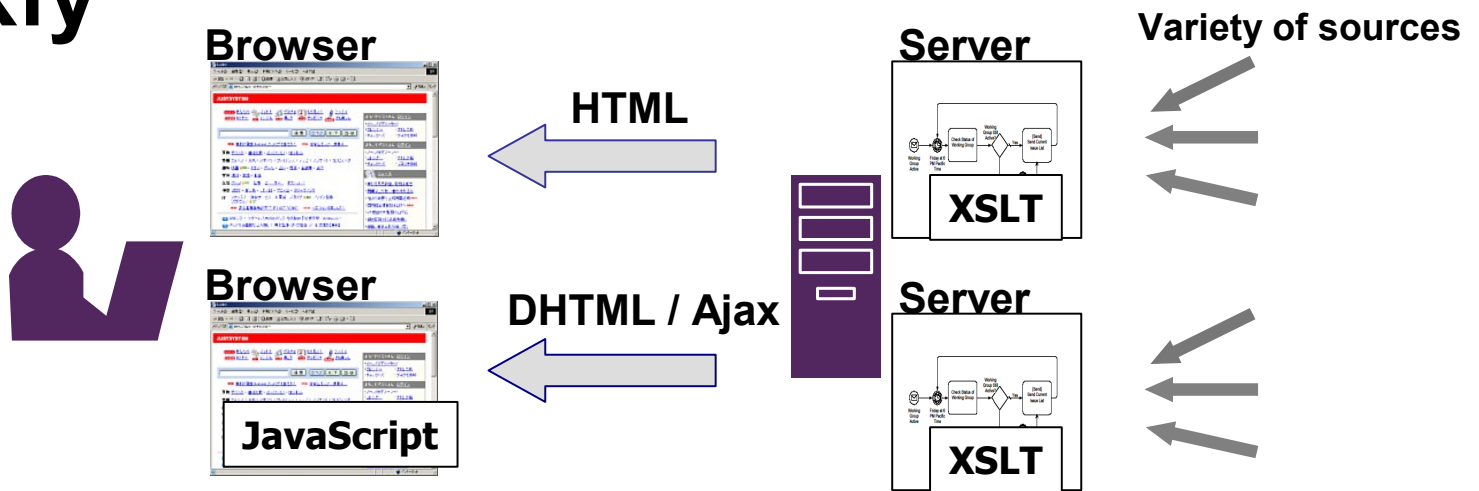
```

<html><head>
<title>Ajax Sample</title>
<script type="text/javascript">
function newXMLHttpRequest() {
  var xmlreq = false;
  if (window.XMLHttpRequest) {
    xmlreq =
      new XMLHttpRequest();
  }
  return xmlreq;
}

function show(arg) {
  if(...) {
    ...
  }
}
</script>
</head>
<body>
...
</body></html>
  
```

XVCD into Ajax enabled app

Gradual Transition from Web Browser to xfy



Summary: xfy Delivers Web2.0 and Beyond

- xfy can extend Mashup application and expand the use of Web API's
- xfy brings Mashup creation to end users
 - Easy creation of Mashup
 - Long tail of software/services
- Gradual transition from Web browser to xfy; choices are for end users whether to use Web browser or xfy

xfy Mashup Samples Are Available for Download

The screenshot shows the xfy website interface. At the top, a navigation menu includes 'Why xfy?', 'Products', 'Downloads', 'Support', 'Press', and 'Community'. The 'Community' link is circled in red. A large red arrow points from this link down to the 'xfy Community Downloads' section. This section features a search bar, a 'Main : Application & Solution : Webservice Mashups :' filter, and a list of mashup samples. Two samples are visible: 'eBay and Amazon Search XVCD' and 'Flickr YahooMaps XVCD'. Each sample includes a 'View Full Details' link and a 'Download Now!' button. The right sidebar contains 'Hot Topics' and 'Hot Downloads' sections.



See the Future ?

www.xfy.com



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