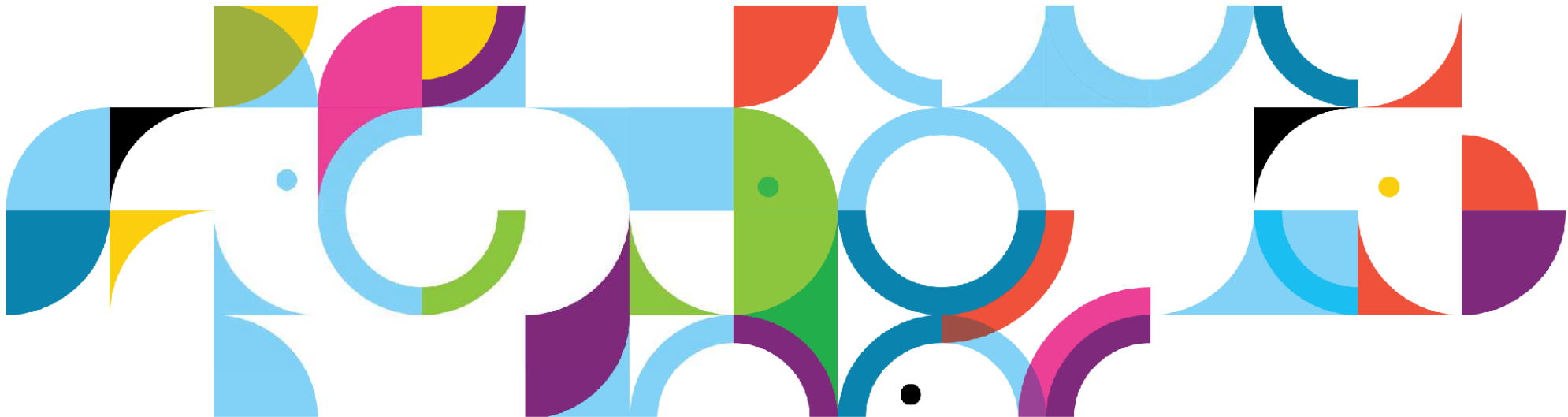# Entwicklercamp 2014 Track 2 Session 2

XPages und IBM Connections

Stefan Neth – IBM Deutschland GmbH

Please Note

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Information regarding potential future products is intended to outline our general product direction and it should not be relied on in making a purchasing decision.

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Performance is based on measurements and projections using standard IBM benchmarks in a controlled environment. The actual throughput or performance that any user will experience will vary depending upon many factors, including considerations such as the amount of multiprogramming in the user's job stream, the I/O configuration, the storage configuration, and the workload processed. Therefore, no assurance can be given that an individual user will achieve results similar to those stated here.

Agenda

XPages and IBM SBT SDK

- What is the IBM SDK
- What you need to do to get started
- XPages Social stack
- XPages Social Enabler sample application

Trouble Ticket Application

- IBM Connections Integration – profiles, forums, communities
- Embedded Experience Integration

XPages and the SBT Playground

- Creating your 1st XPages social snippet
- Diving a little deeper on playground snippets

Q&A

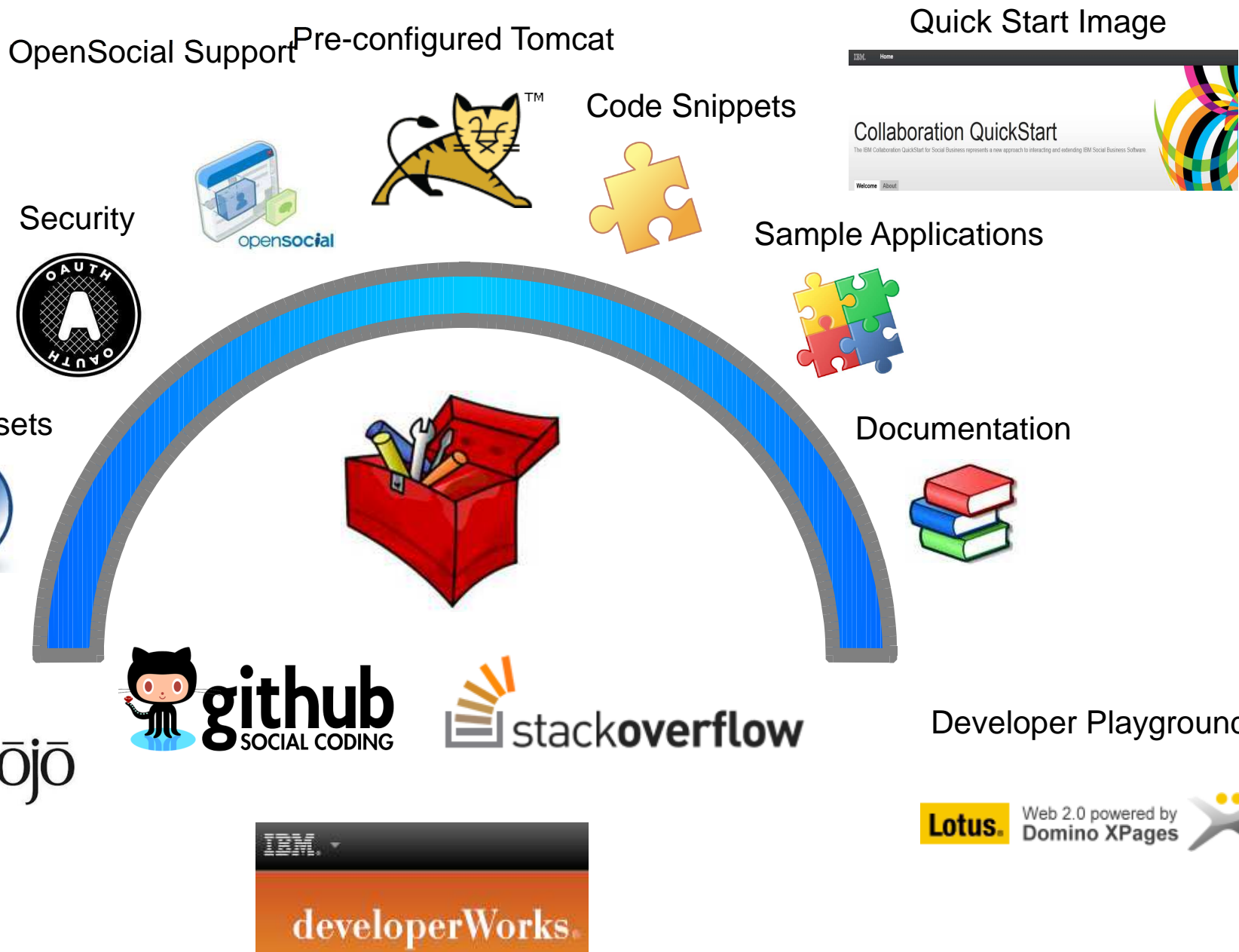# IBM Social Business SDK

IBM Social Business Platform

- Standards based support e.g. REST, OAuth, OpenSocial, …
- Highly scalable and available deployment options
- High barrier to entry for application developers

Social Business SDK simplifies this

- Samples versus Documentation
- Configuration versus Coding
- Virtual Image versus Deployment

Social Business SDK an Open Source Project

- Transparent development
- Continuous releases
- External contributions

Quick Start Image

OpenSocial Support Pre-configured Tomcat

Code Snippets

Collaboration QuickStart

The IBM Collaboration QuickStart for Social Business represents a new approach to interacting and extending IBM Social Business Software.

Welcome About

opensocial

Security

Sample Applications

Reusable Dijits

dōjō

OAUTH

Documentation

Server Assets

Language Bindings

Java JS

jQuery dōjō
write less, do more.

github
SOCIAL CODING

stack**overflow**

Developer Playground

Lotus. Web 2.0 powered by
Domino XPages

IBM.

developerWorks.

Getting started with XPages and IBM SBT SDK

What you need:

- Notes/Domino 9.0 or 9.0.1
  - http://www.tinyurl.com/IBMDominoDesigner
- IBM Social SDK
  - http://ibmsbt.openntf.org/

What you should have:

- Access to IBM Connections, e.g.
  - a greenhouse account on https://greenhouse.lotus.com
  - an IBM Collaboration QuickStart Image (free 60 day trial)
- Access to other Social platforms
  - Dropbox
  - Facebook
  - … you name it !

OpenNTF.Org

Social Business Toolkit SDK - Release: Social Business Toolkit SDK - 20131218

Release Name	Social Business Toolkit SDK - 20131218	Released on	Dec 18, 2013
License	Apache License	Released by	Mark Wallace
Status	Released	Downloads	26
		Cleared	Yes

Installation Information

Install the Domino SBT update site on Domino and Domino Designer

- `<root>\redist\domino\com.ibm.sbt.domino.updatesite.zip`
- Use `File > Application > Install` menu in Domino Designer

Copy sample applications to Notes/Domino data folders

- sbtplayground.nsf
- XPagesSBT.nsf

Open and sign these applications in Designer or Administrator

Customize the end-points defined in your sample applications

Run the applications in a web browser or the Notes client

Users with older XPages SBT SDK:

- Ensure you have the latest XPagesSBT.nsf
- Uninstall old SBT SDK feature
- Verify your app's library dependencies

XPage Libraries

Select the libraries of extended XPage controls to use in this application.

Library ID
☐ com.ibm.xsp.sbtsdk.playground.library
☑ com.ibm.xsp.extlib.library
☐ com.ibm.xsp.extlibx.bazaar.library
☑ com.ibm.xsp.sbtsdk.library

When running on the Web, the libraries must be available on the server. When running on the Notes client, the library plug-ins must be installed on the client.

The XPages Stack

Generic Overview of XPages Runtime Stack

- XPages is an application framework with an extensible core

| XPages App 1 | XPages App 2 | XPages App N… |

XPages Ext LibX — Optional

XPages Ext Lib

Base runtime platform from 9.0

XPages Core
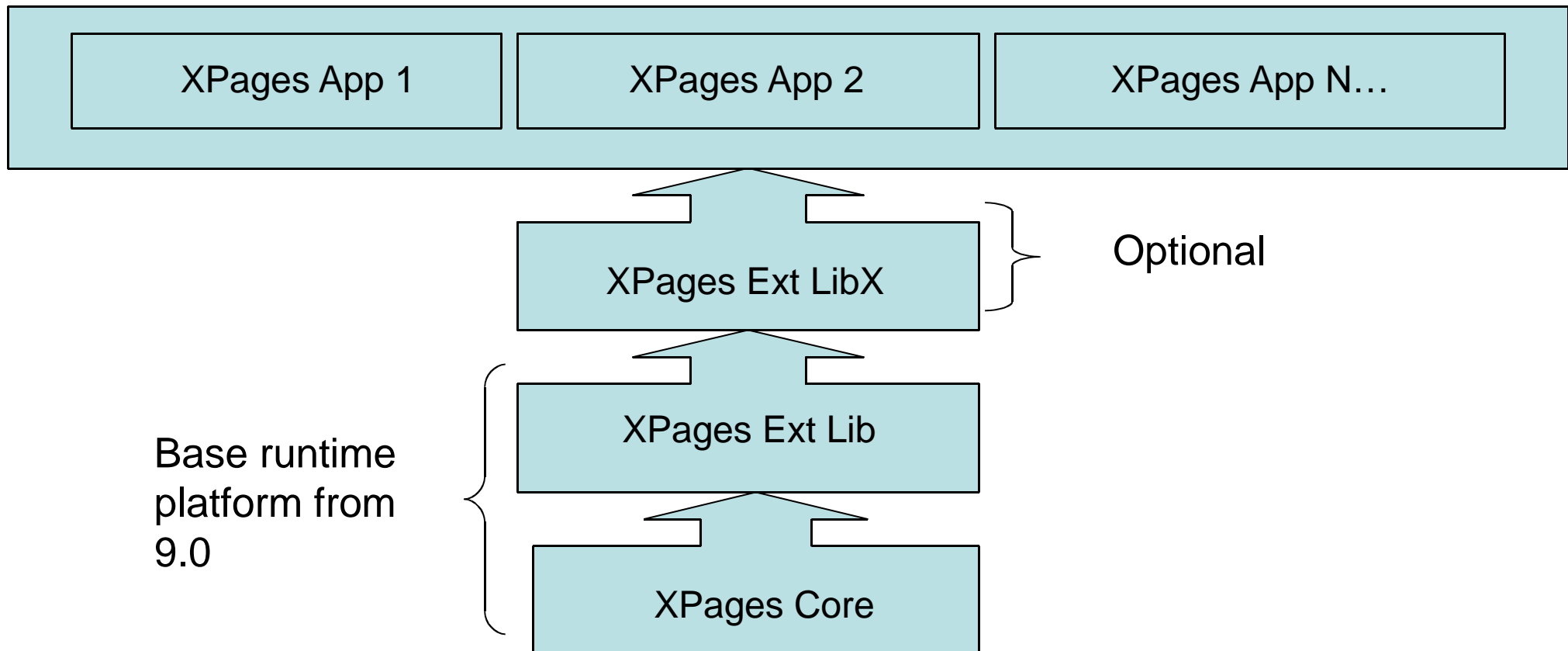
The XPages Social Stack

The XPages social stack has been refactored !

- Social apps no longer depend on ExtLibX but use the IBM SDK

That was then: June'13

```
┌─────────────────────────┐
│      XPagesSBT.nsf       │
└─────────────────────────┘
            △
┌─────────────────────────┐
│      XPages Ext LibX     │
└─────────────────────────┘
            △
┌─────────────────────────┐
│      XPages Ext Lib      │
└─────────────────────────┘
            △
┌─────────────────────────┐
│      XPages Core         │
└─────────────────────────┘
```

… This is now

```
┌─────────────────────────────────────────┐
│              XPagesSBT.nsf               │
└─────────────────────────────────────────┘
        △                         △
┌──────────────────┐     ┌──────────────────────┐
│  XPages Ext Lib  │     │  XPages SDK Library  │
└──────────────────┘     └──────────────────────┘
        △                         △
┌──────────────────┐     ┌──────────────────────┐
│   XPages Core    │     │     IBM SBT SDK      │
└──────────────────┘     └──────────────────────┘
```
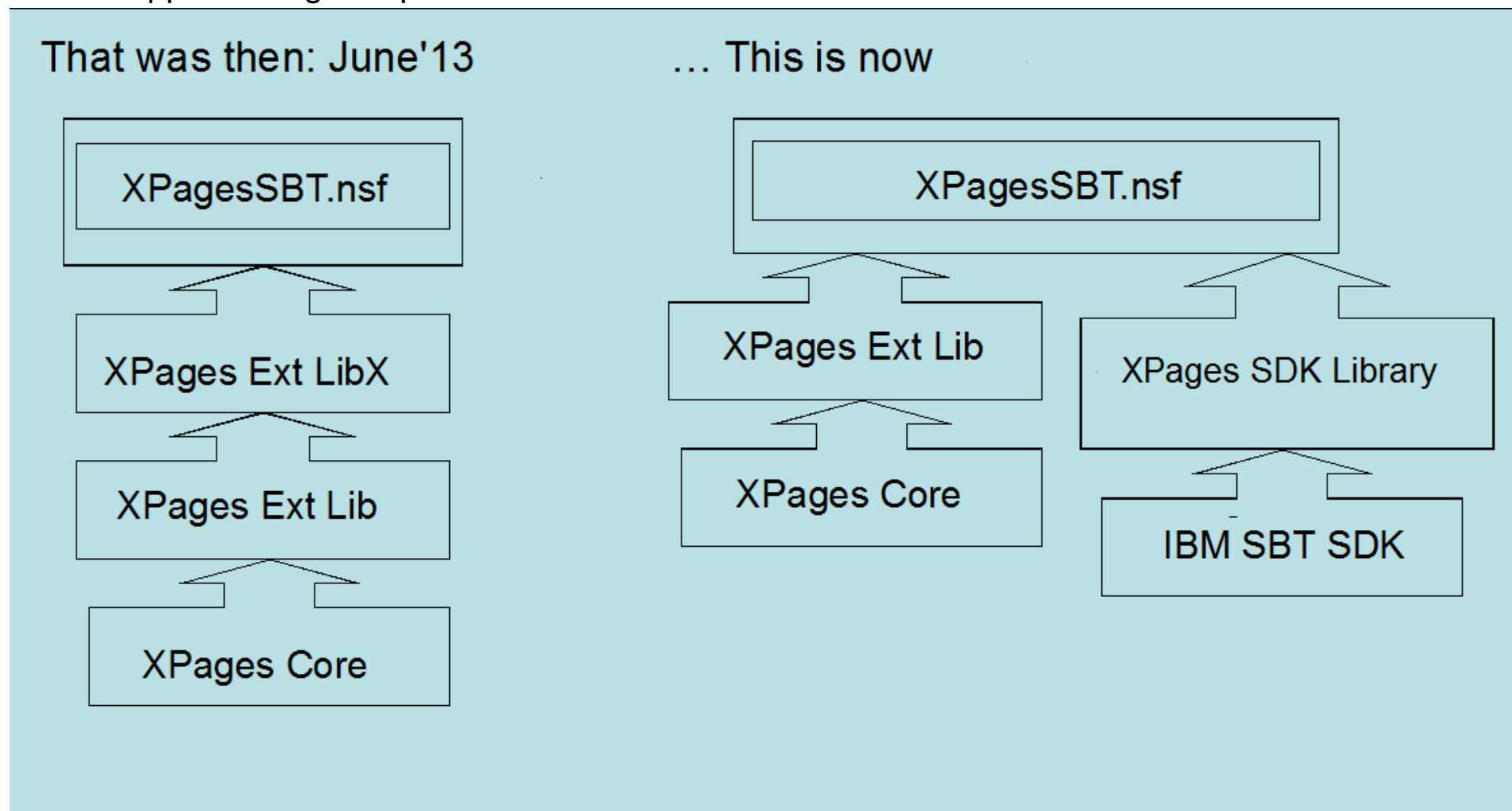
XPages Social support in the SDK

New plugin name → com.ibm.xsp.sbtsdk

- Source code available on GitHub

XPages layer provides Java assets

Data sources for REST services

XPages controls

High level custom controls

Ready to use sample code – XPages Snippets!
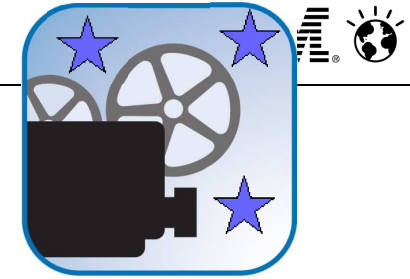
XPages Social Enabler Application

Demo

- See XPages social capabilities across a range of platforms
- Understand what resides where in the XPages social stack

Demo

Quick REST overview

Representational State Transfer

RESTful applications use HTTP

REST API's via HTTP request (PUT,POST,GET,DELETE)
- post data (create and/or update)
- read data (make queries)
- delete data

REST API's give a response (200, 301, 404)
- Body data which is the information returned
- Headers describing type the content returned (XML, JSON...)

REST client for Firefox

REST Client in Firefox
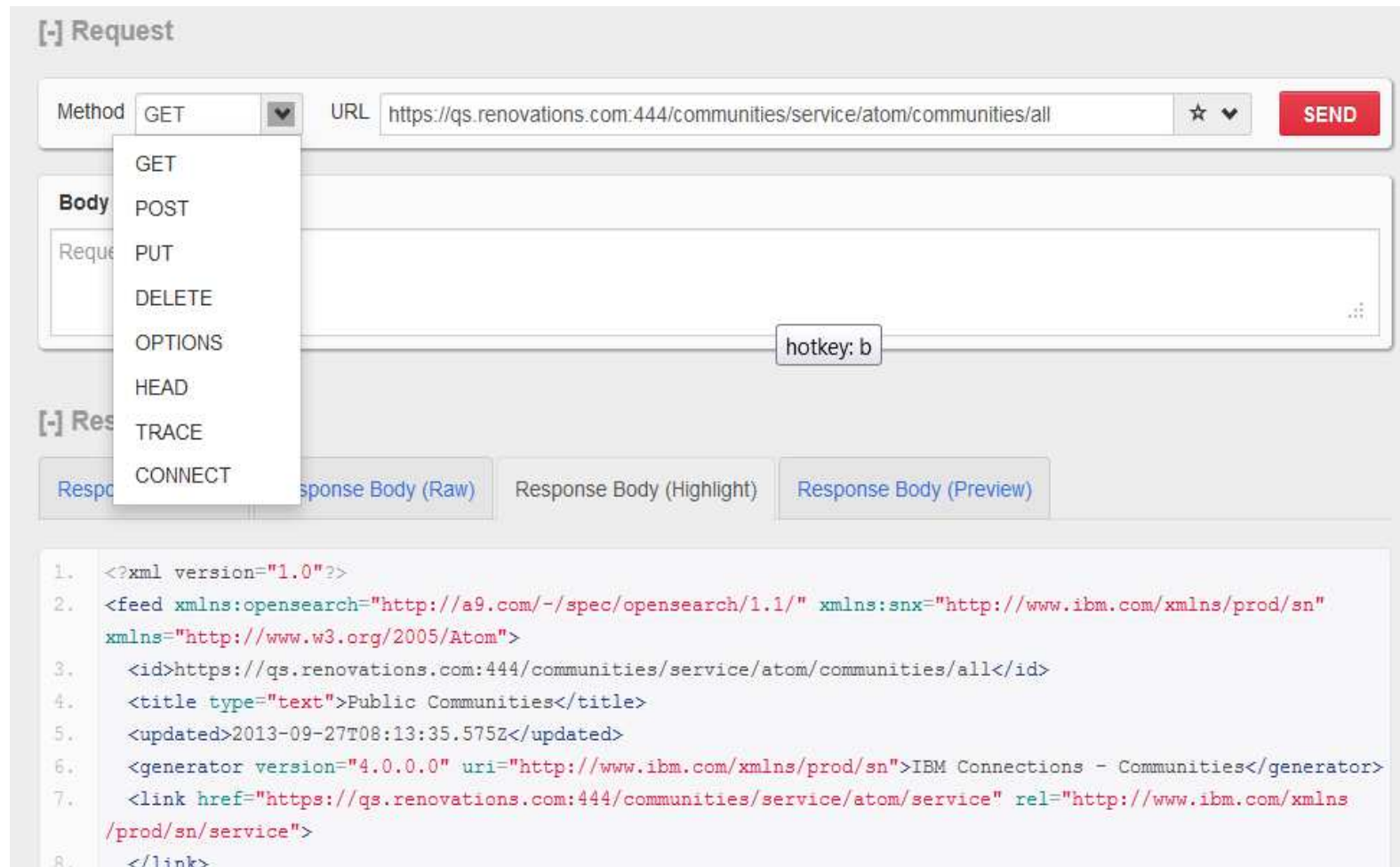
Connections + REST

Connections REST API doc

http://www-10.lotus.com/ldd/appdevwiki.nsf/xpDocViewer.xsp?
lookupName=IBM+Connections+4.0+API+Documentation#action=openDocument&content=catcon
tent&ct=prodDoc

Mechanisms to access the data

- Anonymous – only for limited GET requests
- Basic – User name and password
- OAuth – Using secret Key
- SSO – Using Lpta Token

API's to access to Activities,Activity Stream,Blogs, Profiles ...

Trouble Ticket Application

End to End Work Flow application

- Create, Assign, Update and Close Tickets

Enhancements

- Management Setup Page
  - Enable/Disable IBM Connections Integration
  - Simplified Endpoint configuration for authentication
- Mobile UI
- Forums, Profiles and Communities Integration
- Embedded Experience via sendMail Simple Action
- Trouble Ticket iWidget

Available to download on OpenNTF and source code available on GitHub

Trouble Ticket Application – Mobile + Social

Mobile UI

- Welcome Page

- Assigning Tickets

- Community Files
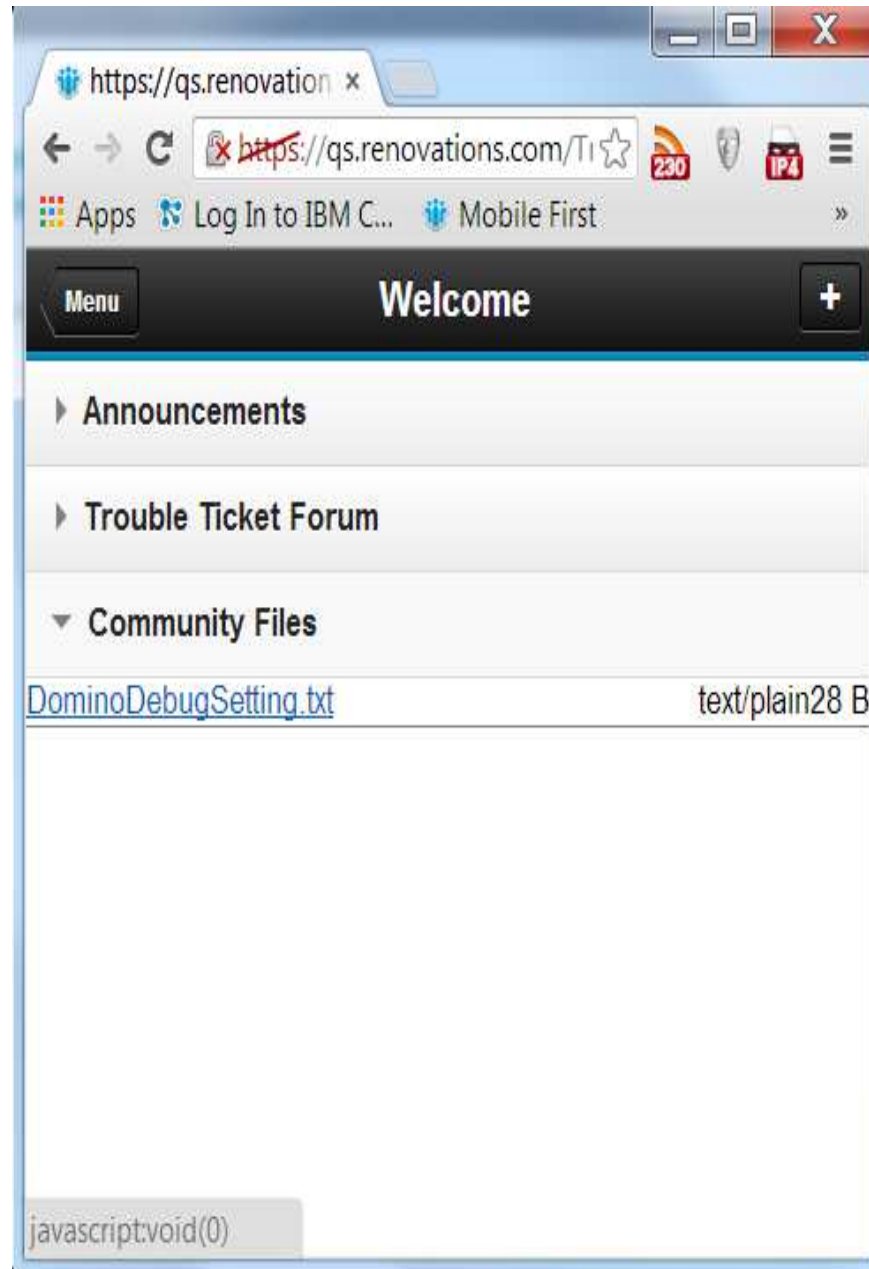
Trouble Ticket Application – Dashboard

Trouble Tickets | Welcome | My Tickets | Staff | Manager

Search...

Trouble Tickets Demo

Lorem Ipsum dolor sit amet, consectetuer adipiscingelit. Duis tellus. Donec ante dolor, iaculis nec, gravidaac, cursus in, eros. Mauris vestibulum, felis et egestasullamcorper, purus nibh vehicula sem, eu egestas antenisl non justo. Fusce tincidunt, lorem nev dapibusconsectetuer, leo orci mollis ipsum, eget suscipit erospurus in ante.

- Donec sapien ante, accumsan ut
- Maecenas a elitlacinia urna posuere

[View My Tickets] [New Ticket]

Announcements

Summary	Date
List of XPages Sessions at Connect 2014	Dec 23, 2013
Whats new in the IBM XPages support in the SDK?	Dec 23, 2013

Community Forum

Topic	Content
lost my badge	lost my badge
The printer is out of Ink	Printer has no black ink Frank
Upgrade my laptop network bios	network bios
Need help with my video card	Mobile card broke
Need some printer ink	Need Ink

Community Files

Filename	Filetype	Size
DominoDebugSetting.txt	text/plain	28 B

[Upload File]

My Files

Filename	Filetype	Size
chinese.txt	text/plain	15 B
console.log	text/plain	36 KB

[Upload File]

Domino Data

IBM Connections Data

orporation

Trouble Ticket Application – Management Setup Page

Management Setup Page

• Simplifies EndPoint Configuration via ConnectionsBean

Trouble Ticket Application – ~~IBM Connections~~

Disable IBM Connections Integration

- Use Domino data sources
  - Or alternative data sources
- SendMail action for Embedded Experience in IBM Notes and iNotes

EE support for XPages

- URLs to web pages rendered in iFrames
- Context is passed via URL parameters
- SSO and basic authentication

Edit Simple Action

(i) Enter values for simple action arguments

Category: Basic

Action: Send Mail

Arguments for this Action

Basics | Deliver Options | Embedded Experience

From:

To: {Computed}

Cc:

Bcc:

Subject: A new trouble ticket was assigned to you.

Body (HTML): {Computed}

Body (Plain text): {Computed}

Send Mail action sends an email and optionally embeds content in the email

OK   Cancel

XPages Snippets in the Playground

60 + XPages Snippets and increasing!

- Forums, Communities
- Activities, Blogs
- Profiles, Files

Extending examples to include IBM SmartCloud, Dropbox, Twitter etc

sbtplayground.nsf available to download as part of SDK release

XPages Snippets in the Playground
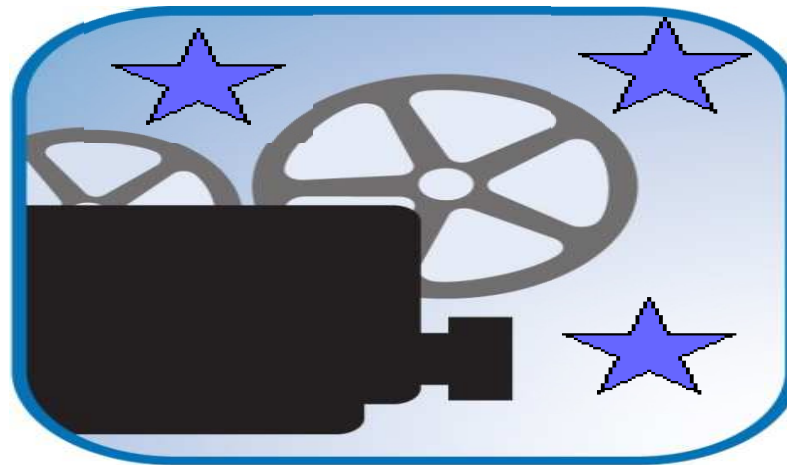
Demo

SDK controls in XPages

SBT Client control

- Embed any SDK control
- Call the SDK client side API's

```
<xe:sbtClient id="sbtClient1"></xe:sbtClient>
<div id="gridDiv"></div>
<xp:scriptBlock>
    <xp:this.value><![CDATA[//
try {

require(["sbt/dom", "sbt/connections/controls/communities/CommunityGrid"],
function(dom, CommunityGrid) {
    var grid = new CommunityGrid({
        type: "my"
    });

    dom.byId("gridDiv").appendChild(grid.domNode);
    grid.update();
});}
 catch(e) {
  document.getElementById('gridDiv').innerHTML = 'Exception:'+e.toString();
}
]]></xp:this.value>
    </xp:scriptBlock>
```

Session Summary

What You Learned:

- Calling SBT SDK APIs via JavaScript in XPages
- Calling SBT SDK APIs via Java in XPages
- Using XPages to bind to IBM Connections data via XPath
- Using XPages data sources to access IBM Connections data
- Integrating a IBM Domino application with the IBM Connections applications
- Embedding an SDK Control

```
<xe:dataView rows="10" id="dataView1"
    value="connectionsAtom1" columnTitles="true" var="entry"
    collapsibleDetail="true" detailsOnClient="true">
    <xe:this.data>
        <xe:connectionsData var="connectionsAtom1"
            serviceUrl="/communities/service/atom/communities/all"
            maxBlockCount="3">
        </xe:connectionsData>
    </xe:this.data>
    <xe:this.summaryColumn>
        <xe:viewSummaryColumn columnTitle="Content"
            value="#{xpath:entry:title}">
        </xe:viewSummaryColumn>
    </xe:this.summaryColumn>
```

XPages Connections Data Source

Data Binding Using XPath

Engage Online

SocialBiz User Group socialbizug.org
  – Join the epicenter of Notes and Collaboration user groups

Follow us on Twitter
  – **@IBMConnect** and **@IBMSocialBiz**

Engage Online

LinkedIn http://bit.ly/SBComm
  – Participate in the IBM Social Business group on LinkedIn:

Facebook https://www.facebook.com/IBMSocialBiz
  – Like IBM Social Business on Facebook

Social Business Insights blog ibm.com/blogs/socialbusiness
  – Read and engage with our bloggers

Questions & Answers

Contact Information:
martin_donnelly@ie.ibm.com
padraic.edwards@ie.ibm.com

Thank You!

Your feedback is important!

ขอบคุณ

Merci

Gracias

நன்றி

Danke

多谢

Buíochas

धन्यवाद

Grazie

Спасибо

شكراً

Obrigado

감사합니다

多謝

Access Connect Online to complete your session surveys using any:

– Web or mobile browser

– Connect Online kiosk onsite

Session ID: AD308

Session Title: XPages in a Social World

Technical Education

IBM Press Books and eBooks

- Three major publications over the past two years
- All available for evaluation in the bookstore in the Solutions Expo
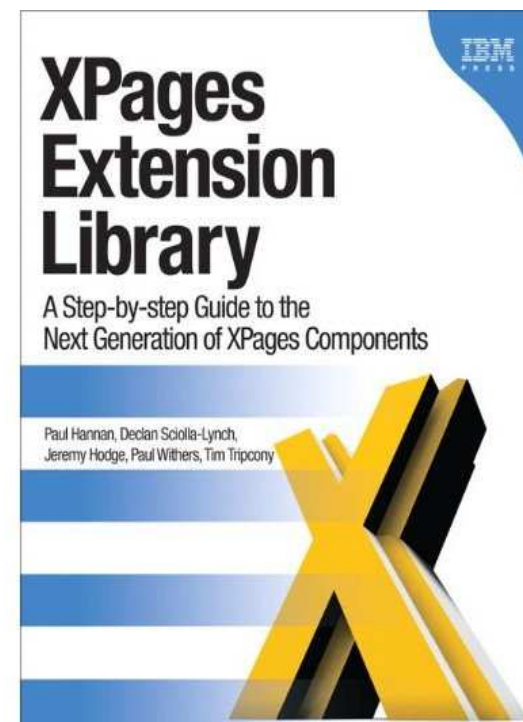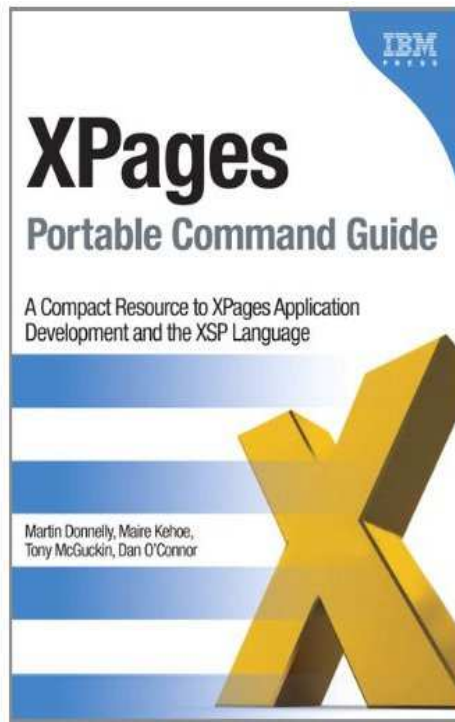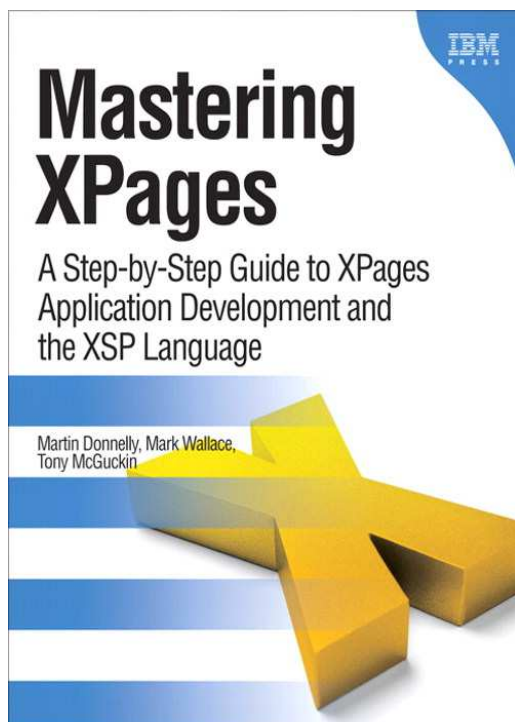
Acknowledgements and Disclaimers

XPages as an OAuth Consumer

What is OAuth?

- "An **open** protocol to allow **secure API authorization** in a **simple** and **standard** method from desktop and web applications."
- It is used extensively by cloud services and social networking sites as the preferred means of authentication(e.g. Facebook, Dropbox,IBM SmartCloud etc..)

XPages Social Enabler and related back-end code acts as an 'OAuth consumer'

The Web Security Store is responsible for storing the OAuth key and secret

OAuth requests execute queries against the Web Security Store for the OAuth credentials and URLs.

OAuth Flow