Occasionally Connected AIR and BlazeDS Applications

Yakov Fain, Farata Systems

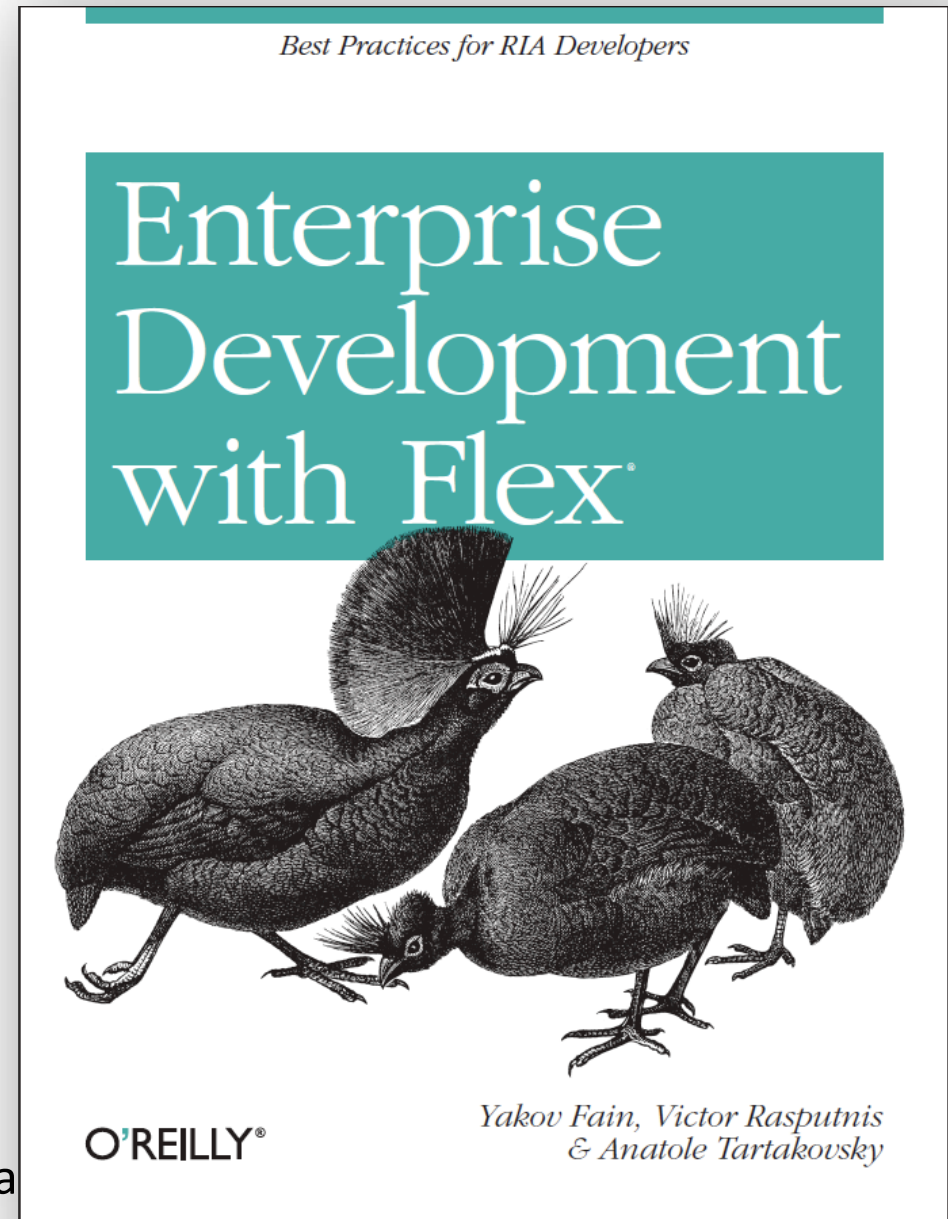**Get this slide deck at http://tinyurl.com/nbnaqd**

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Yakov Fain, Victor Rasputnis & Anatole Tartakovsky

Adobe Integrated Runtime (AIR)

AIR 1.5 is a step toward providing a full platform for desktop application development.

AIR offers development and **predictable runtime environment** for AJAX and Flex developers.

 To run AIR applications, the user's computer must have AIR runtime installed (About 15MB).

Adobe AIR is cool because

1. AIR supports I/O operations with user's file system

2. AIR allows you to sign and version applications

3. Updater controls proper upgrades of the apps

4. AIR comes with a local database SQLite to keep the data (in clear or encrypted mode) on the user's PC

5. AIR applications can monitor network connections

6. You can run AIR applications when disconnected

7. AIR has better than Flex support of HTML

Adobe AIR is **not** cool because

1. AIR can't make calls to user's OS

2. AIR can't launch non-AIR applications

3. AIR can't instantiate a DLL

4. AIR can't call an ActiveX

5. AIR can't directly access ports on user's PC

6. Adobe doesn't offer data synchronization support for apps that use BlazeDS
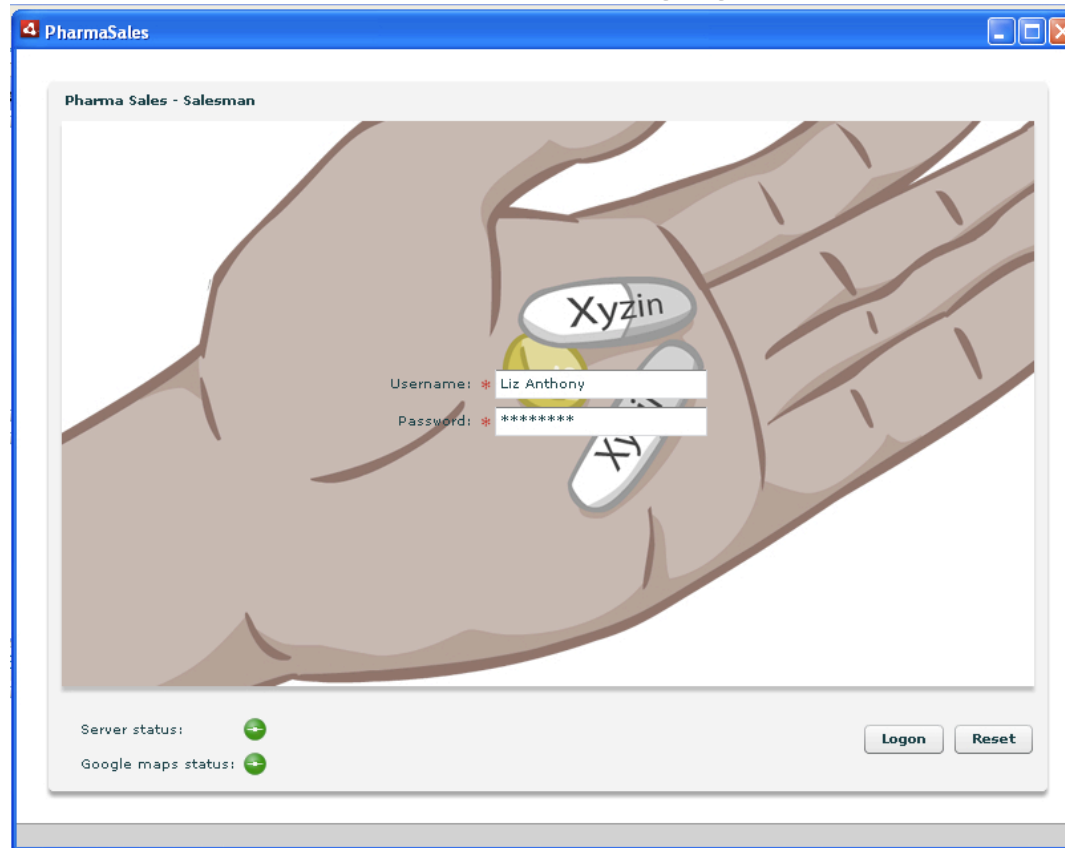
7. AIR Doesn't allow PDF Generation on the client

Farata Systems fixed items 6 and 7

PharmaSales Application
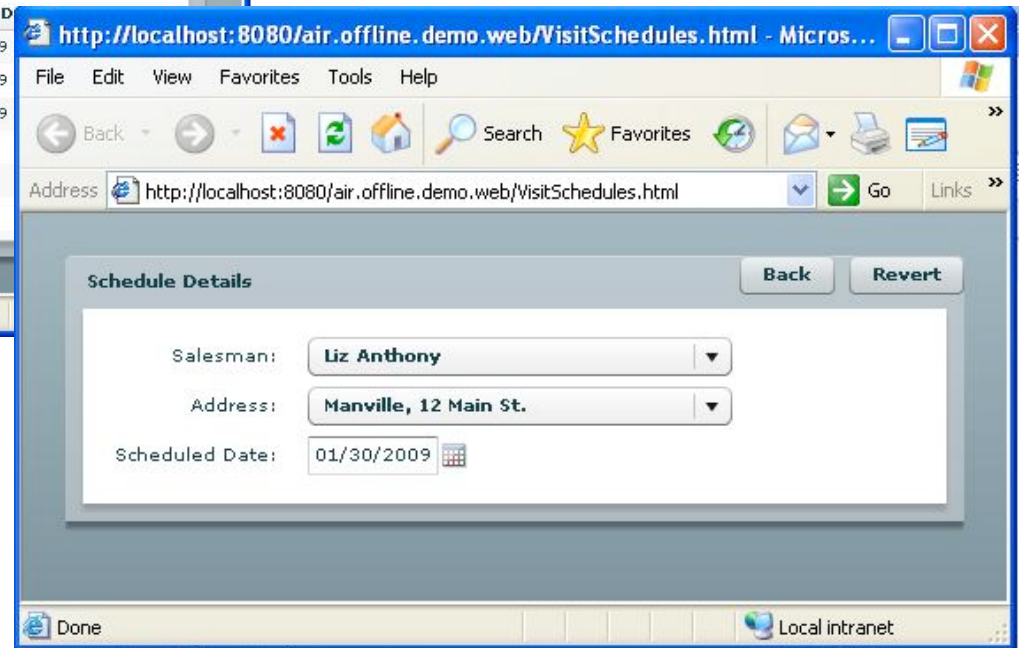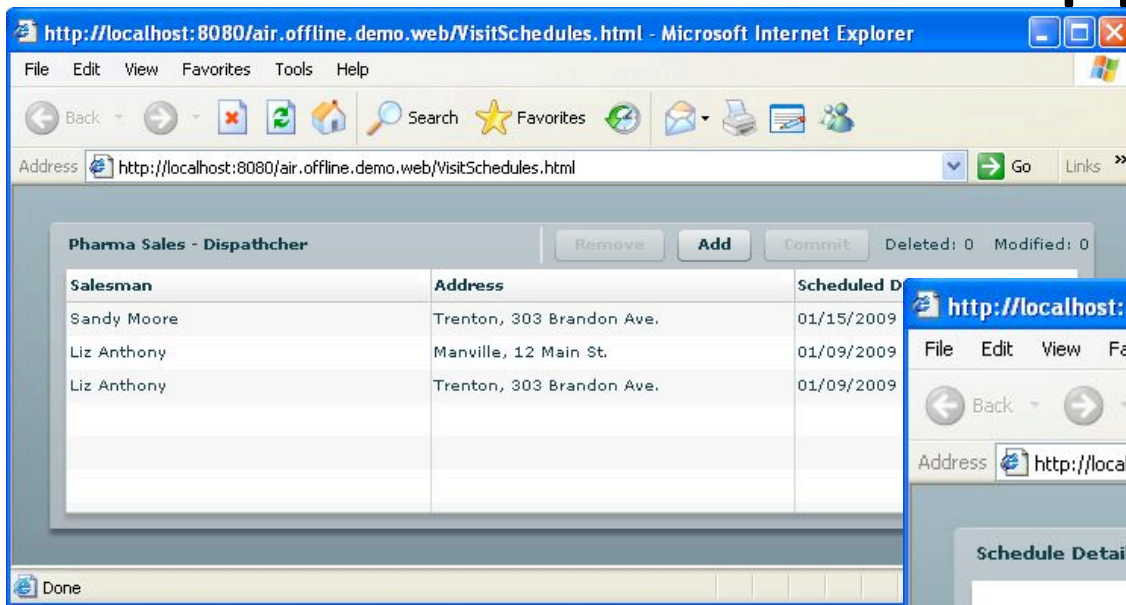
Every day a dispatcher of Acme Pharma Inc. schedules visits for salesman stored in the corporate database.

PharmaSales Application

Every morning a salesman starts PharmaSales **AIR** application, which connects to the corporate database (MySQL) and automatically into a local database (SQLite) that exists on salesman's laptop.
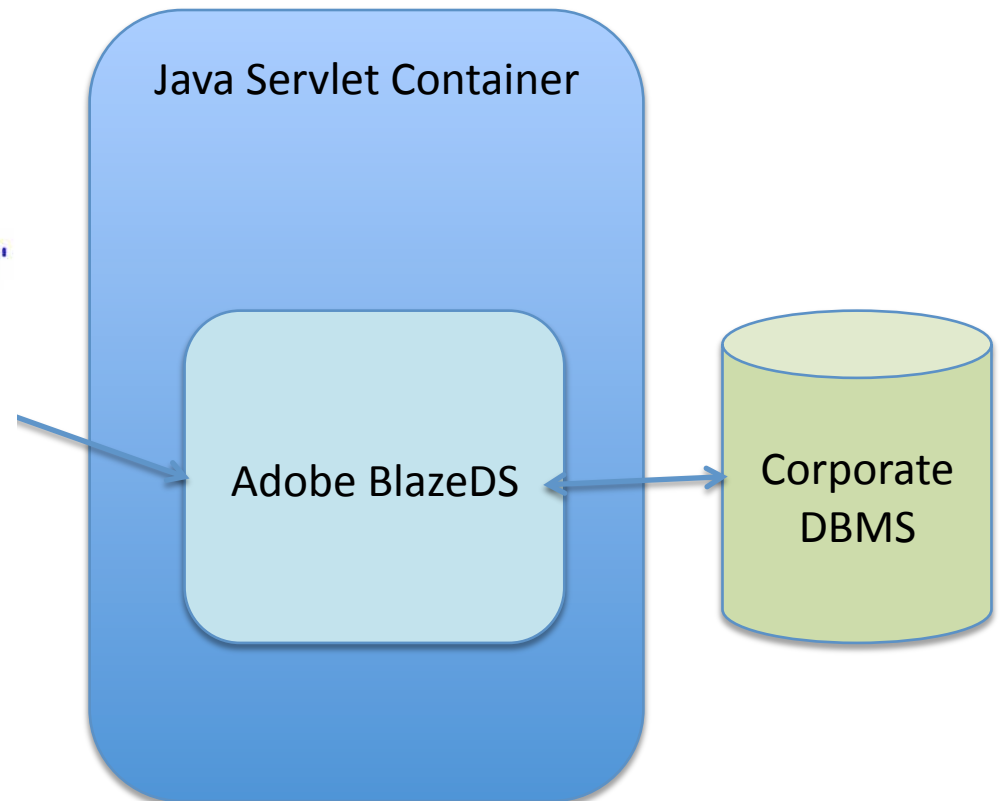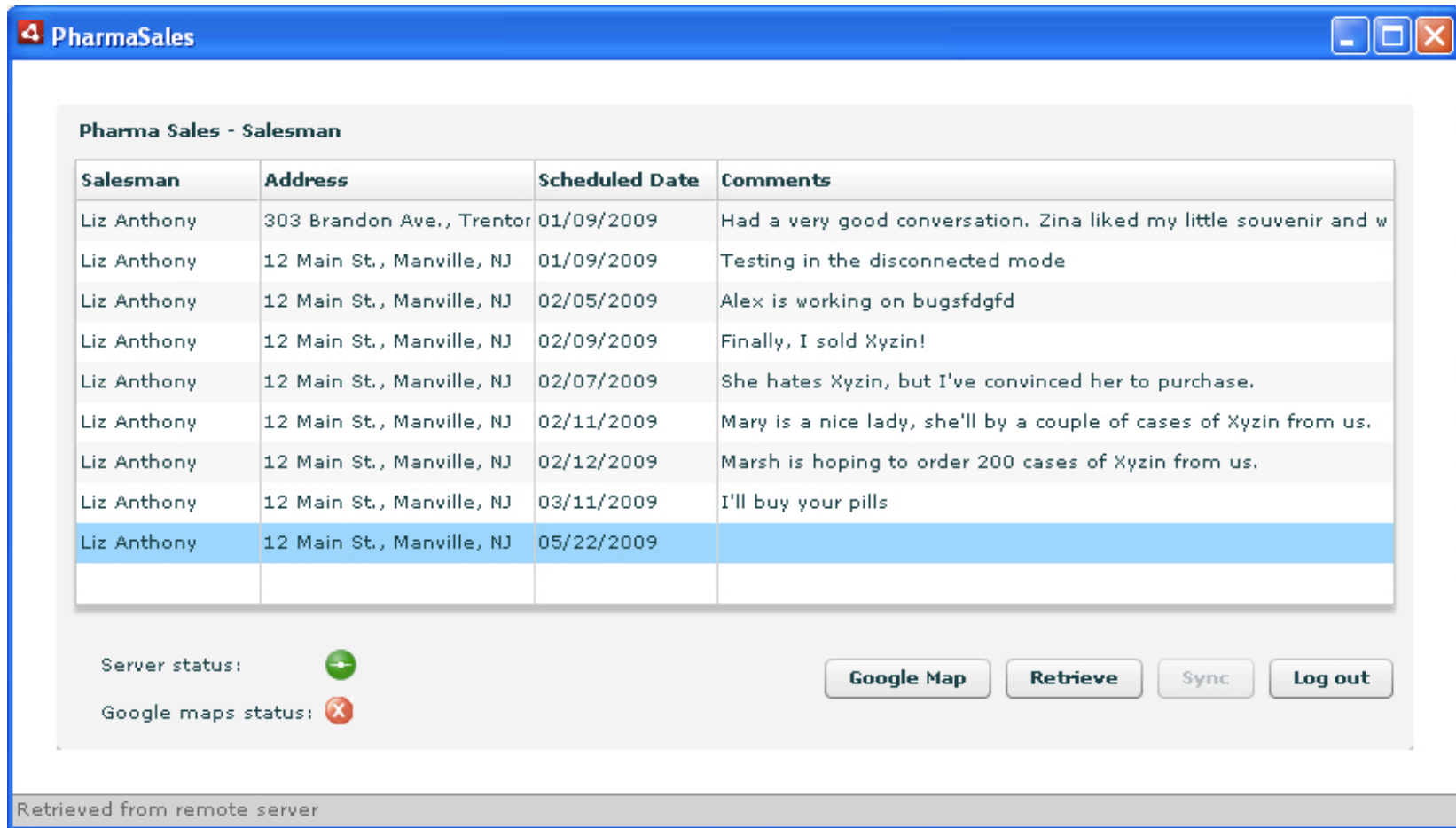
Architecture of Pharma Sales

Client

Adobe Air
Application

Clear.swc
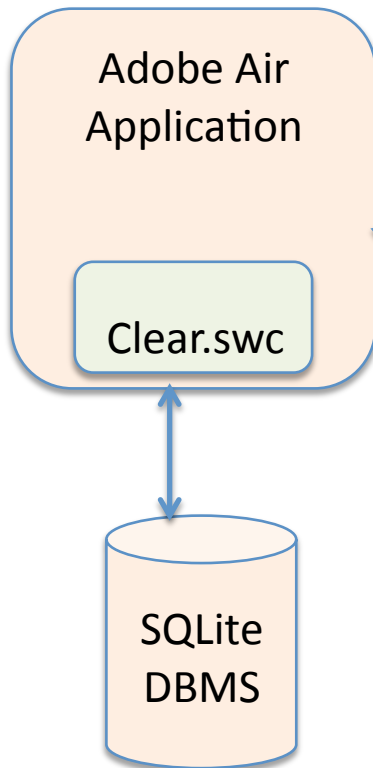
"DAMN... I LOST
THE CONNECTION"

SQLite
DBMS

Server

Java Servlet Container

Adobe BlazeDS

Corporate
DBMS

Liz can see her visits for today

Liz doesn't know that her visits were saved in the local database SQLite.

Liz doesn't give a damn! She just knows it's safe to disconnect and hit the road.

Liz visits a medical office

She enters the comments about this visit…

Liz saves the visit notes locally

PharmaSales

Pharma Sales - Salesman
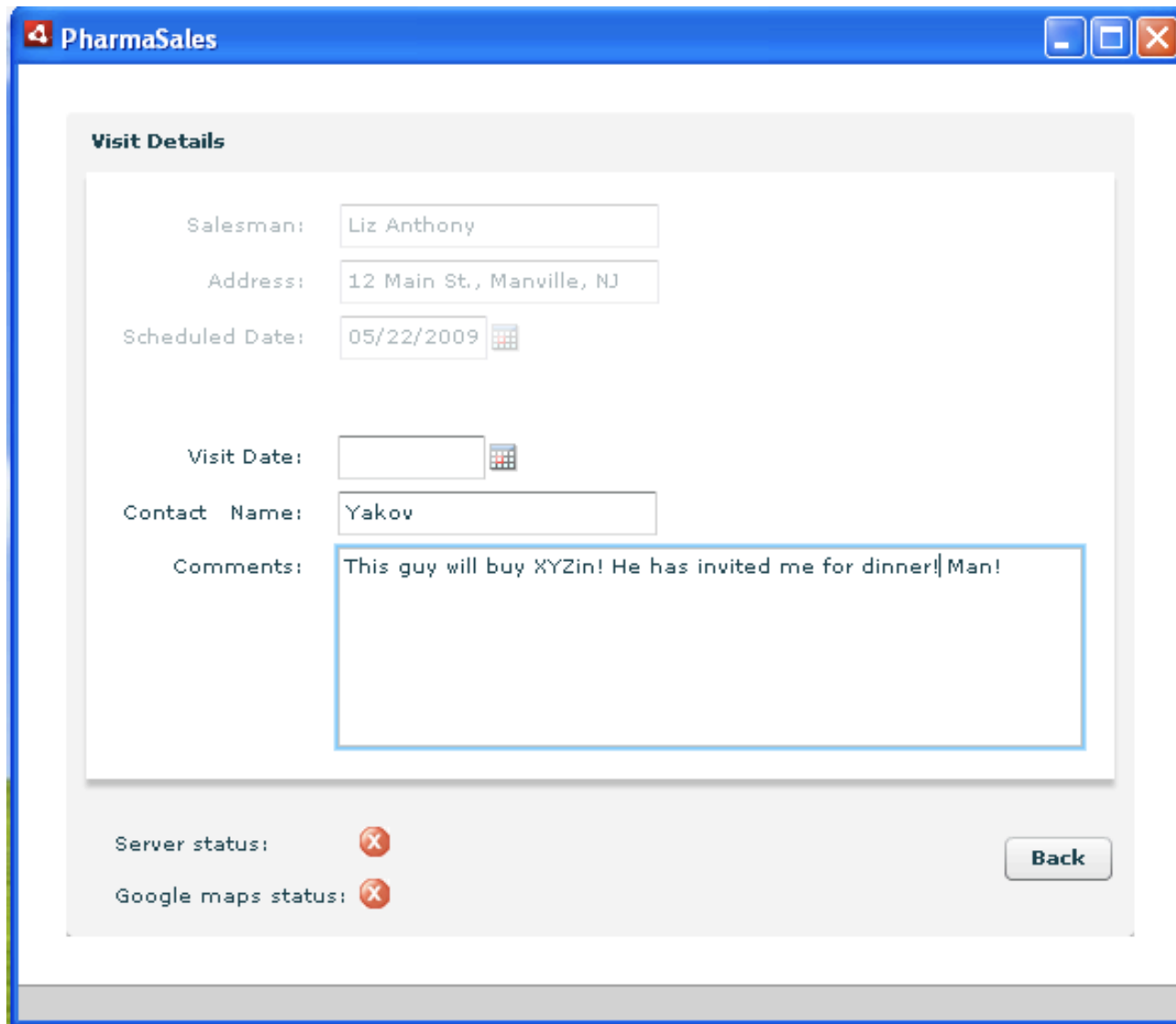
Salesman	Address	Scheduled Date	Comments
Liz Anthony	303 Brandon Ave., Trentor	01/09/2009	Had a very good conversation. Zina liked my little souvenir
Liz Anthony	12 Main St., Manville, NJ	01/09/2009	Testing in the disconnected mode
Liz Anthony	12 Main St., Manville, NJ	02/05/2009	Alex is working on bugsfdgfd
Liz Anthony	12 Main St., Manville, NJ	02/09/2009	Finally, I sold Xyzin!
Liz Anthony	12 Main St., Manville, NJ	02/07/2009	She hates Xyzin, but I've convinced her to purchase.
Liz Anthony	12 Main St., Manville, NJ	02/11/2009	Mary is a nice lady, she'll by a couple of cases of Xyzin from
Liz Anthony	12 Main St., Manville, NJ	02/12/2009	Marsh is hoping to order 200 cases of Xyzin from us.
Liz Anthony	12 Main St., Manville, NJ	03/11/2009	I'll buy your pills
Liz Anthony	12 Main St., Manville, NJ	05/22/2009	This guy will buy XYZin! He has invited me for dinner! Man!

Server status: ❌

Google maps status: ❌

Google Map | Retrieve | Save | Log out

Please note, we are disconnected.

Liz came home late…

She inserted the network cable in her notebook and started the PharmaSales application
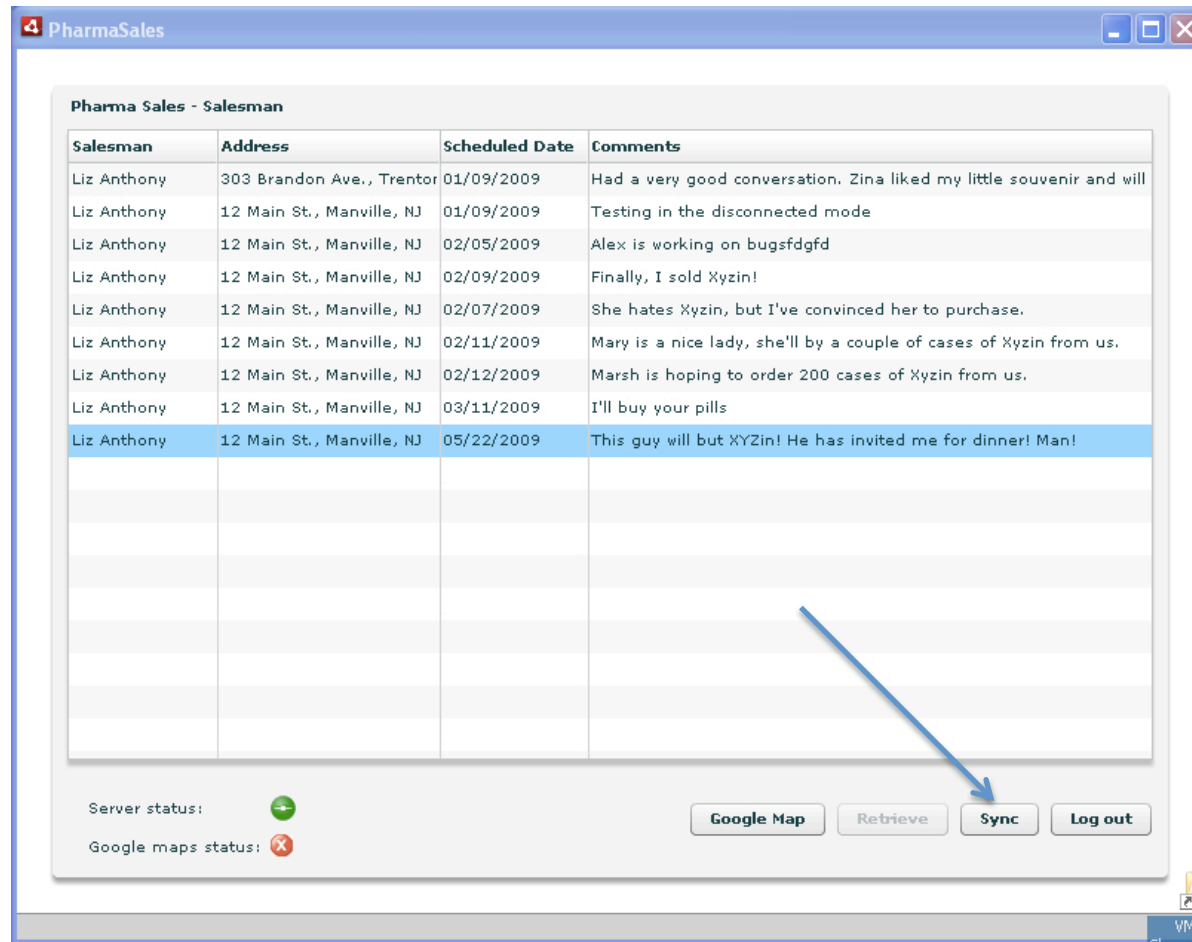
Liz is a little *drunk*, but she can see the button Sync. She clicks on it and falls asleep…

# Clear Toolkit is cool because

It supports data sync between the local SQLite database with BlazeDS. The local data are sent to the Acme Pharm central DBMS.

This is done by the class **OfflineDataCollection** that comes with **clear.swc**, a library of Flex components from open source Clear Toolkit https://sourceforge.net/projects/cleartoolkit/.

It's nice to have a map handy…
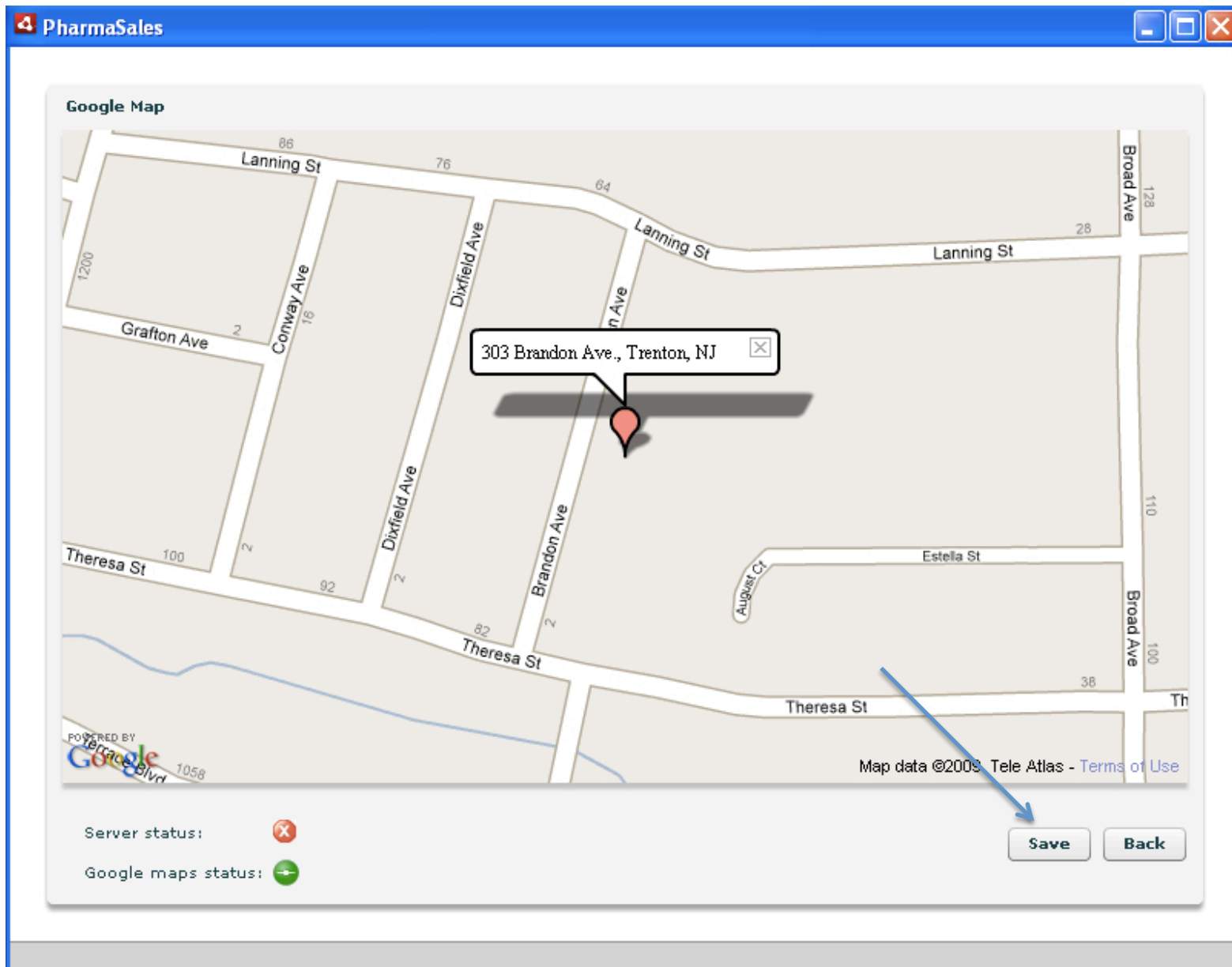
…Even if you are disconnected
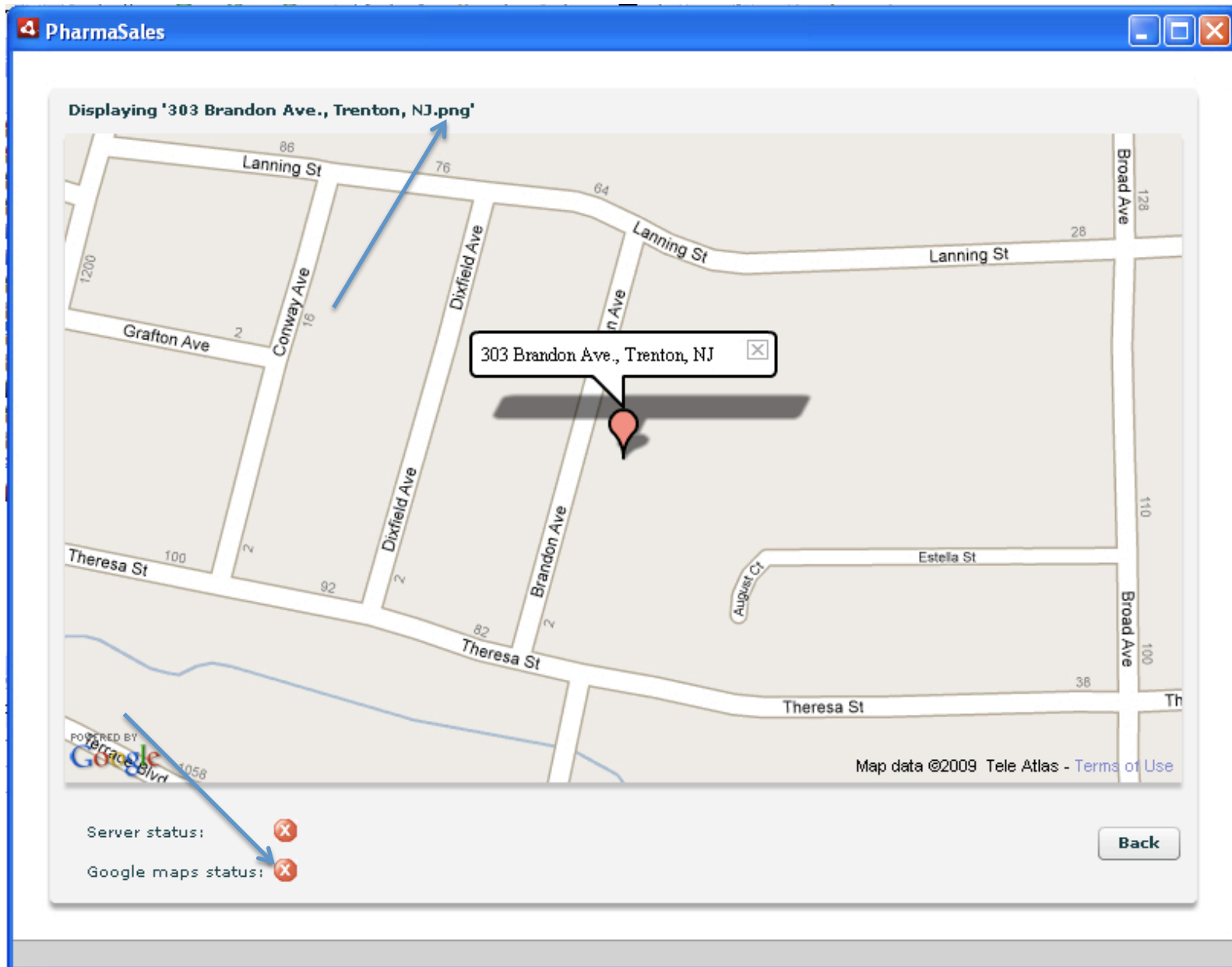
Let's add PDF printing to Pharma Sales Application

PDF Generation on the client

1. Open source library AlivePDF (http://alivepdf.org/)

2. Flex UI components from Clear Toolkit library (http://sourceforge.net/projects/cleartoolkit), which can expose their state in an XDP format to be used for generation PDF.

Printing into a local pdf file

Generated PDF with header and footer

Live Demo of Pharma Sales

And

Code Walkthrough

Contact Info & Links

Email: yfain@faratasystems.com

Pre-recorded demo of Pharma Sales application:
 http://flexblog.faratasystems.com/?p=394

Clear Toolkit: http://sourceforge.net/projects/cleartoolkit/

O'Reilly Book "**Enterprise Development with Flex**":
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