Windows Phone 8 应用开发新特性 (1)

姜泳涛
微软最有价值专家
@姜泳涛

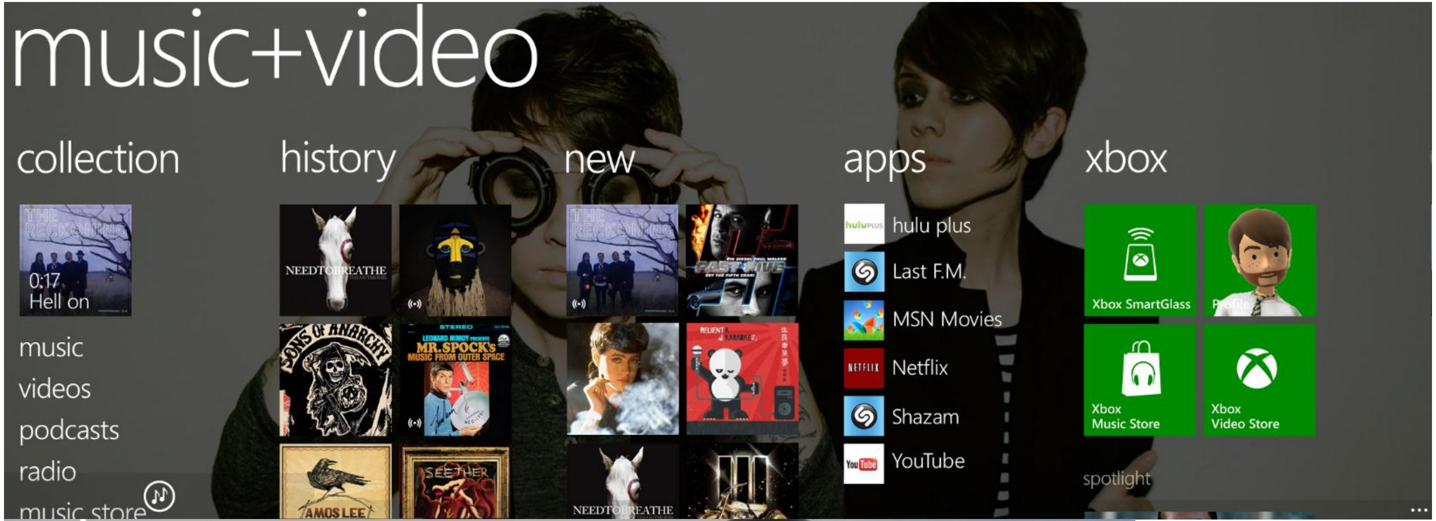
李鹏
MSDN特邀讲师
@MagicBoy-李鹏

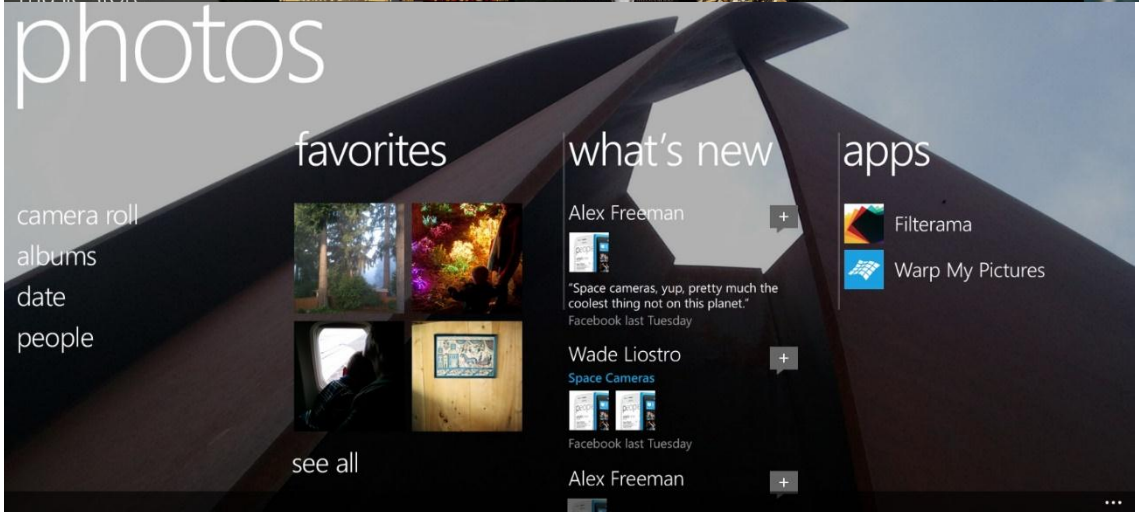
Microsoft®
TechEd
China 2012

议程

- 应用间通信
- 相机滤镜
- 网络通讯
- 钱包

钱包（Wallet）


music+video
collection
0:17
Hell on
music
videos
podcasts
radio
music store
history
new
apps
hulu plus
Last F.M.
MSN Movies
Netflix
Shazam
YouTube
xbox
Xbox SmartGlass
Profile
Xbox Music Store
Xbox Video Store
spotlight
...

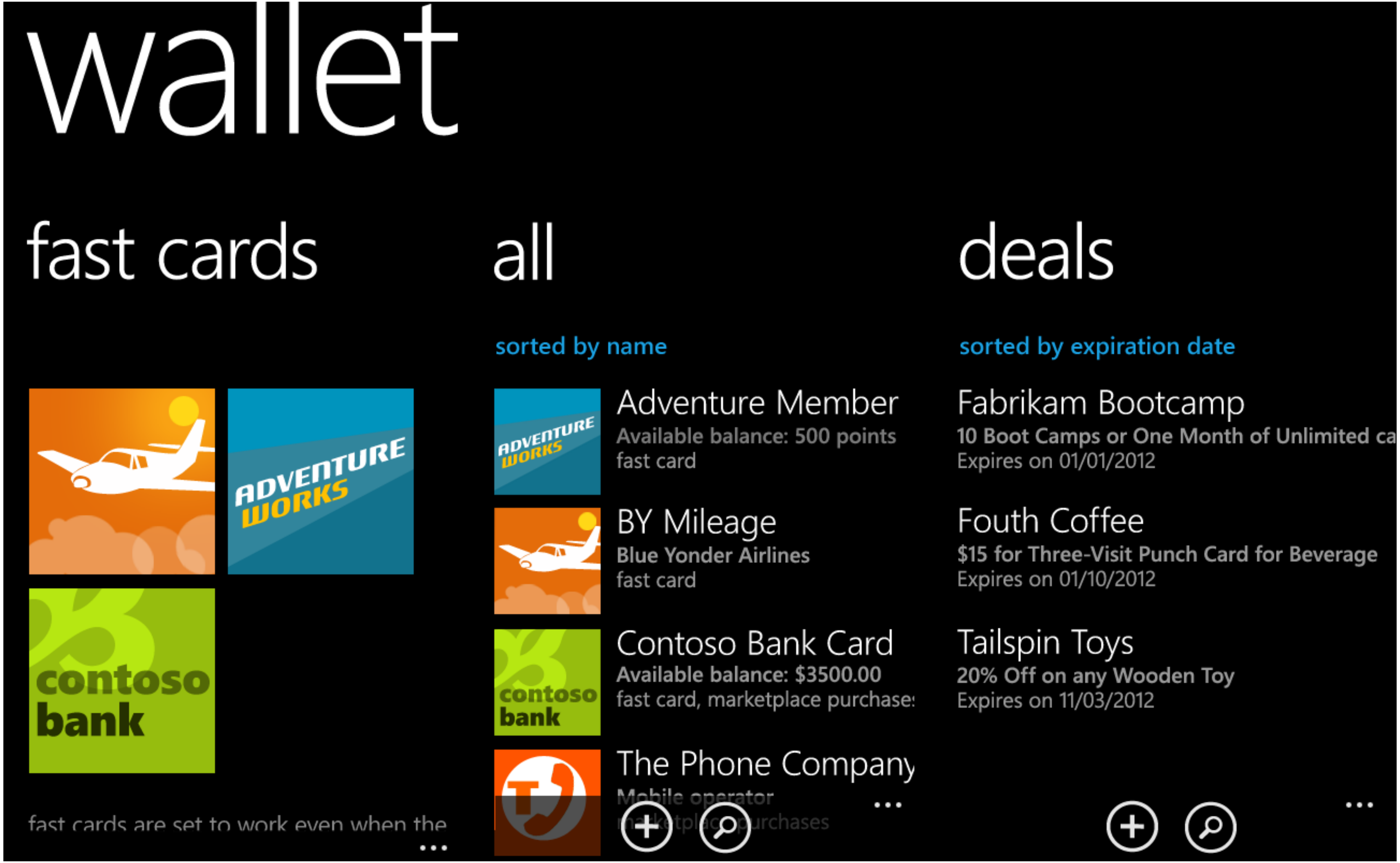

photos
camera roll
albums
date
people
favorites
see all
what's new
apps
Filterama
Warp My Pictures
...

Alex Freeman

"Space cameras, yup, pretty much the coolest thing not on this planet."
Facebook last Tuesday

Wade Liostro
Space Cameras
Facebook last Tuesday

Alex Freeman



wallet

fast cards

fast cards are set to work even when the

all

sorted by name

Adventure Member
Available balance: 500 points
fast card

BY Mileage
Blue Yonder Airlines
fast card

Contoso Bank Card
Available balance: $3500.00
fast card, marketplace purchase

The Phone Company
Mobile operator
marketplace purchases

deals

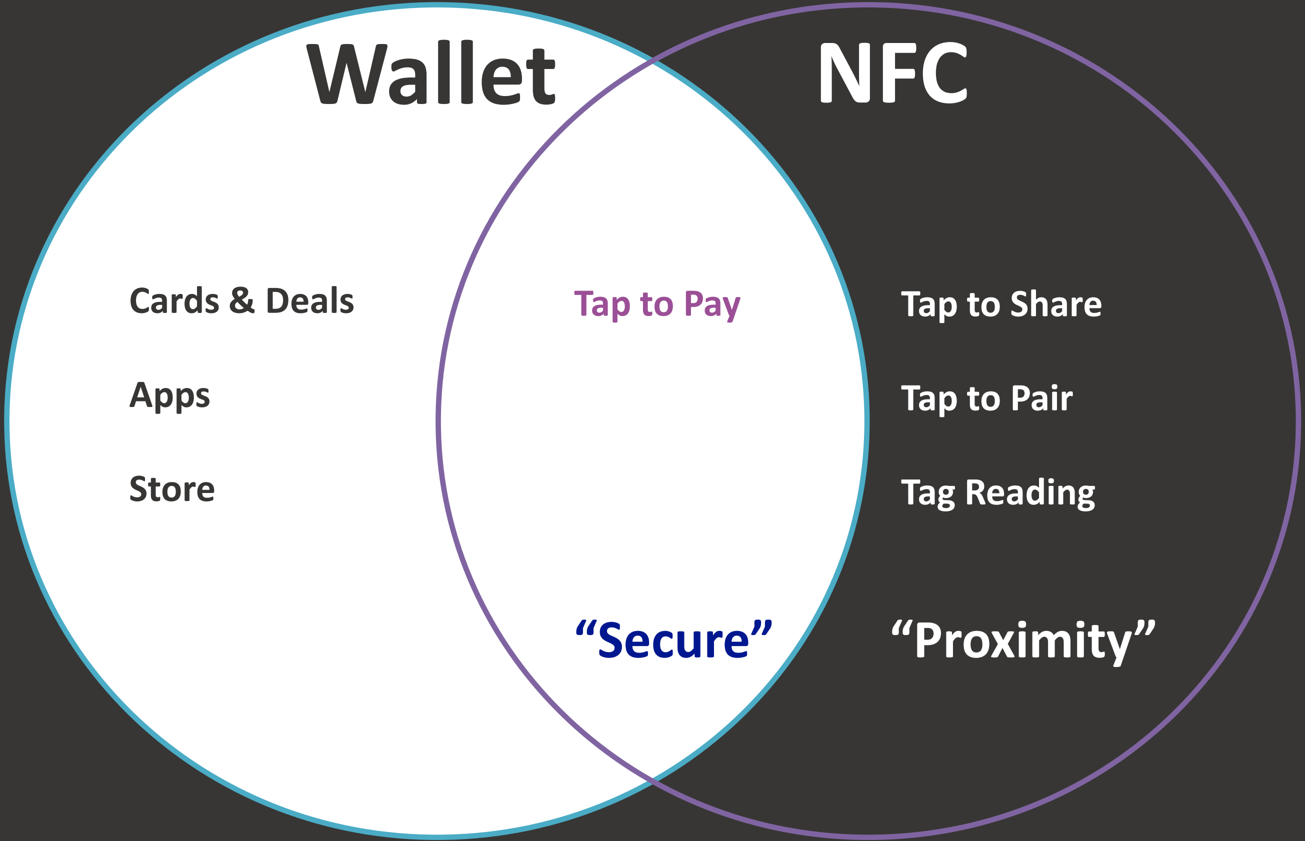
sorted by expiration date

Fabrikam Bootcamp
10 Boot Camps or One Month of Unlimited ca
Expires on 01/01/2012

Fouth Coffee
$15 for Three-Visit Punch Card for Beverage
Expires on 01/10/2012

Tailspin Toys
20% Off on any Wooden Toy
Expires on 11/03/2012

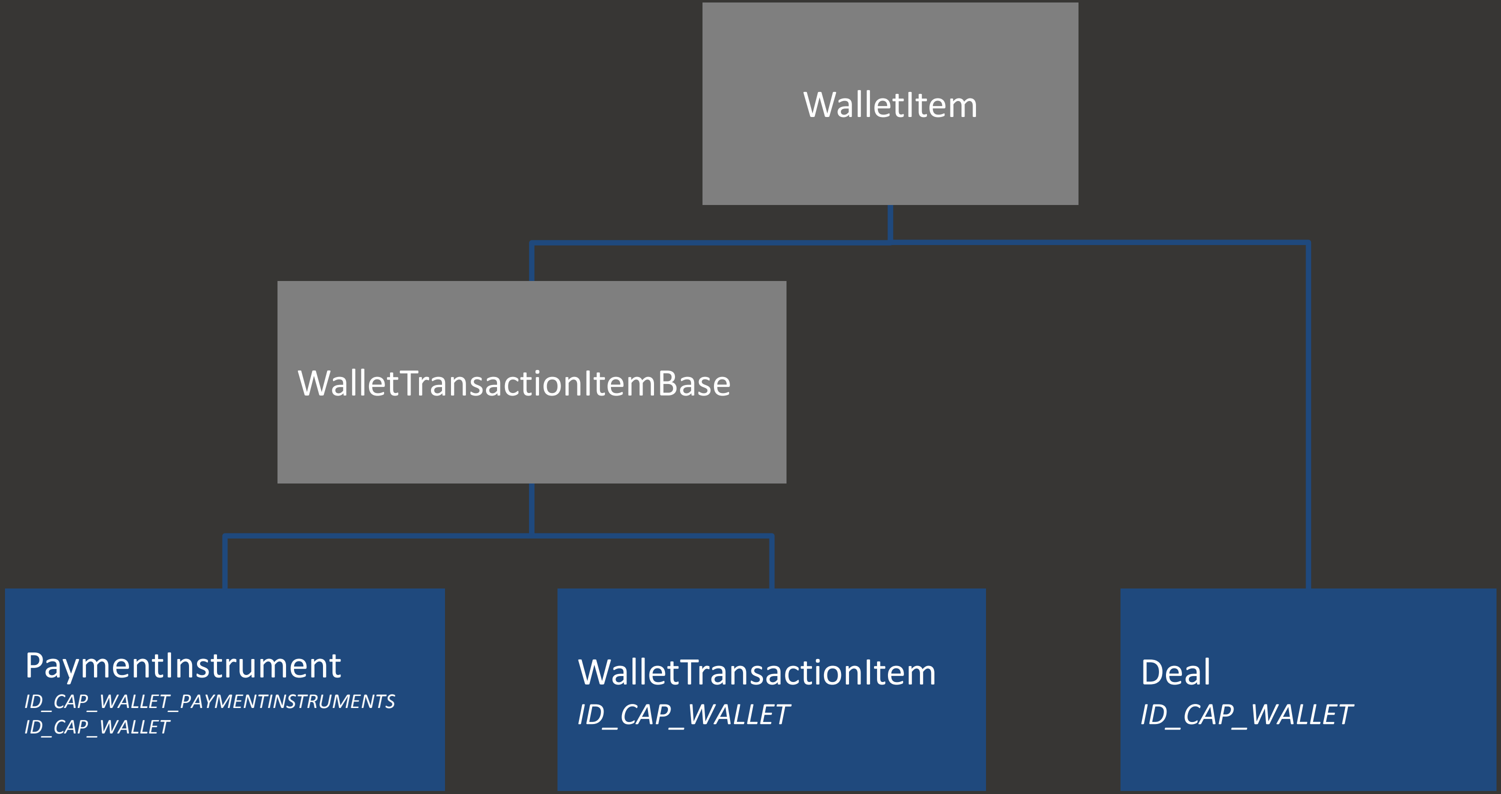
Wallet != NFC



Wallet
NFC
Cards & Deals
Apps
Store
Tap to Pay
“Secure”
Tap to Share
Tap to Pair
Tag Reading
“Proximity”

Demo

对象模型



WalletItem

WalletTransactionItemBase

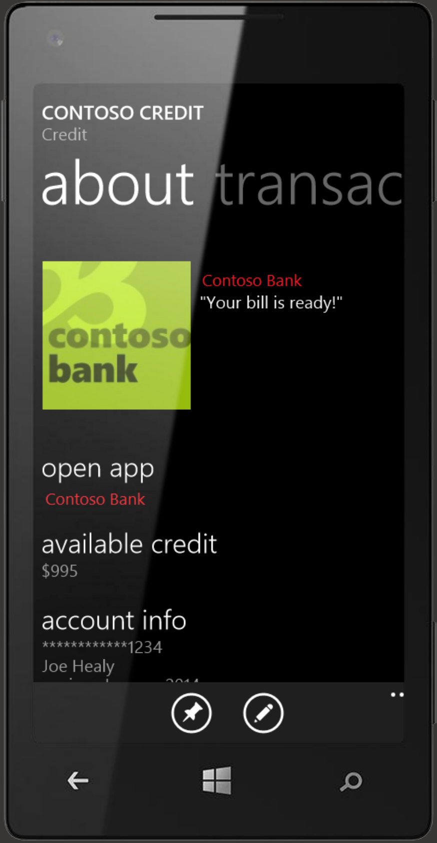
PaymentInstrument
ID_CAP_WALLET_PAYMENTINSTRUMENTS
ID_CAP_WALLET

WalletTransactionItem
ID_CAP_WALLET

Deal
ID_CAP_WALLET

PaymentInstrument

- 需要能力
  - ID_CAP_WALLET_PAYMENTINSTRUMENTS
  - ID_CAP_WALLET
- 用于保存信用卡/借记卡
- 任何人可开发
- 提交时需授权



CONTOSO CREDIT
Credit

about transac

Contoso Bank
"Your bill is ready!"

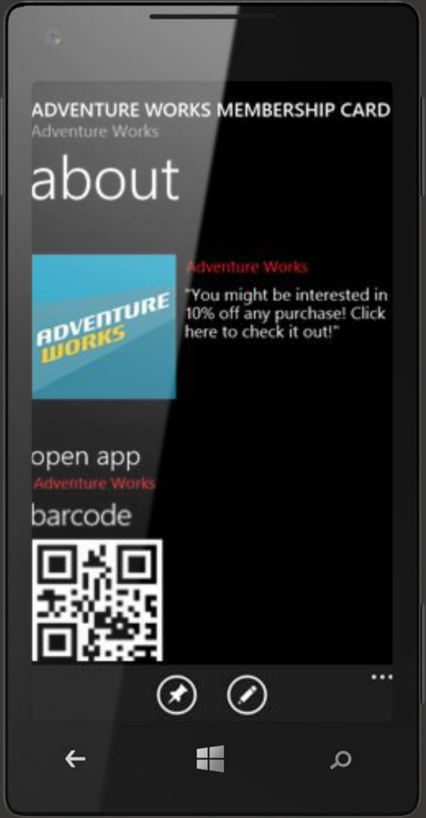
open app
Contoso Bank

available credit
$995

account info
************1234
Joe Healy

WalletTransactionItem

- 需要能力
  - ID_CAP_WALLET
- 用于保存会员卡/积分卡/门票等



ADVENTURE WORKS MEMBERSHIP CARD
Adventure Works

about

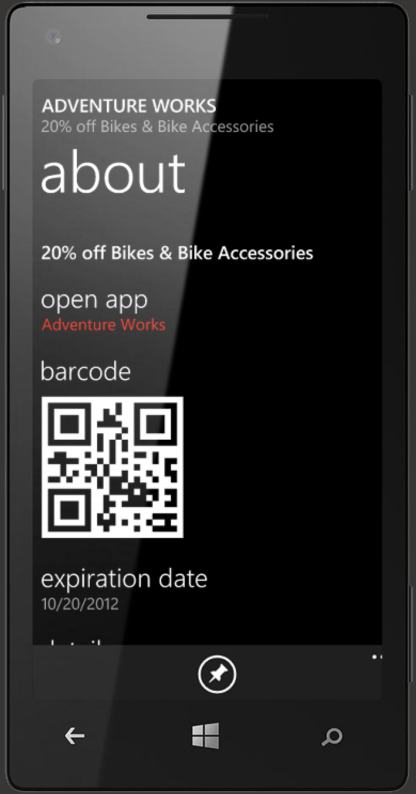
Adventure Works
"You might be interested in 10% off any purchase! Click here to check it out!"

open app
Adventure Works

barcode

Deal

- 需要能力
  - ID_CAP_WALLET
- 用于保存优惠券或预付卡



ADVENTURE WORKS
20% off Bikes & Bike Accessories

about

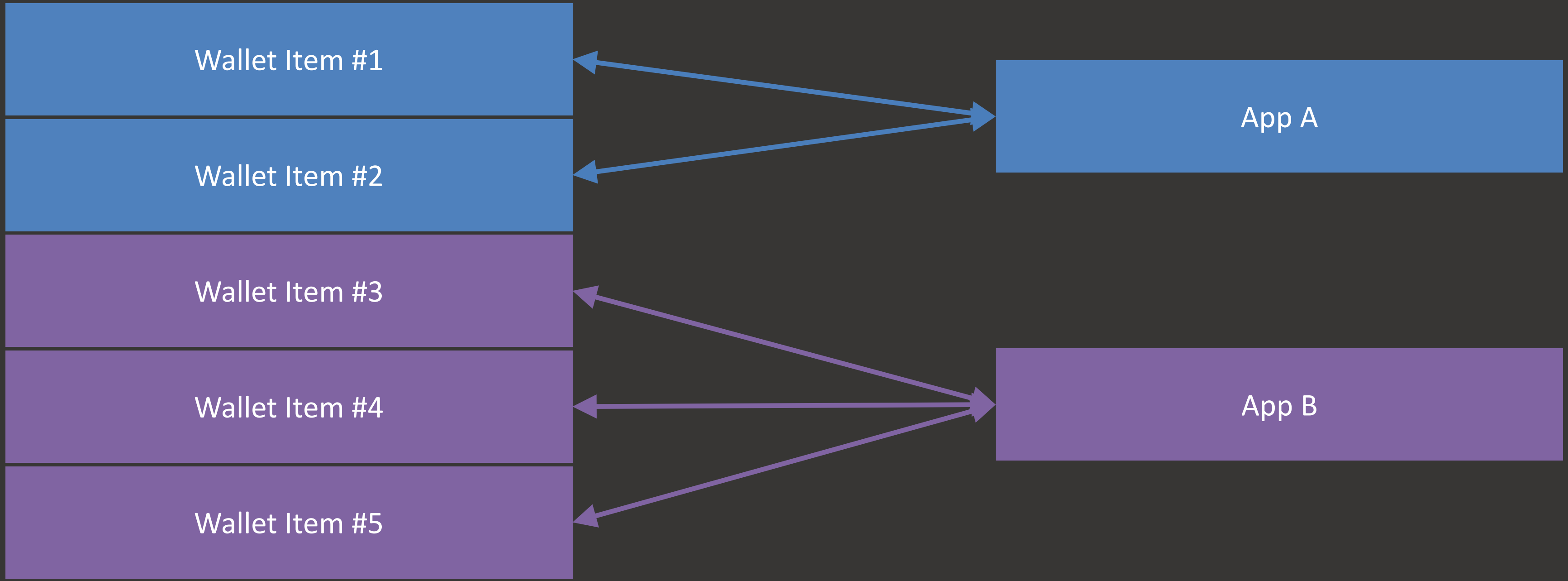
20% off Bikes & Bike Accessories

open app
Adventure Works

barcode

expiration date
10/20/2012

App < - > Item Linking


Wallet Item #1
Wallet Item #2
Wallet Item #3
Wallet Item #4
Wallet Item #5
App A
App B

Demo

网络通讯

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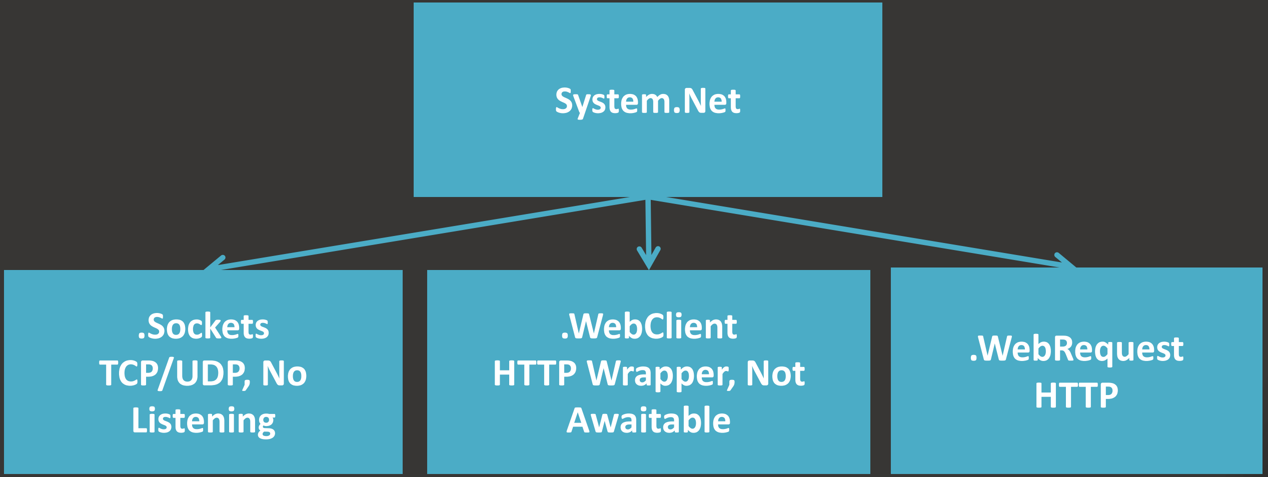
Windows Phone 7



System.Net

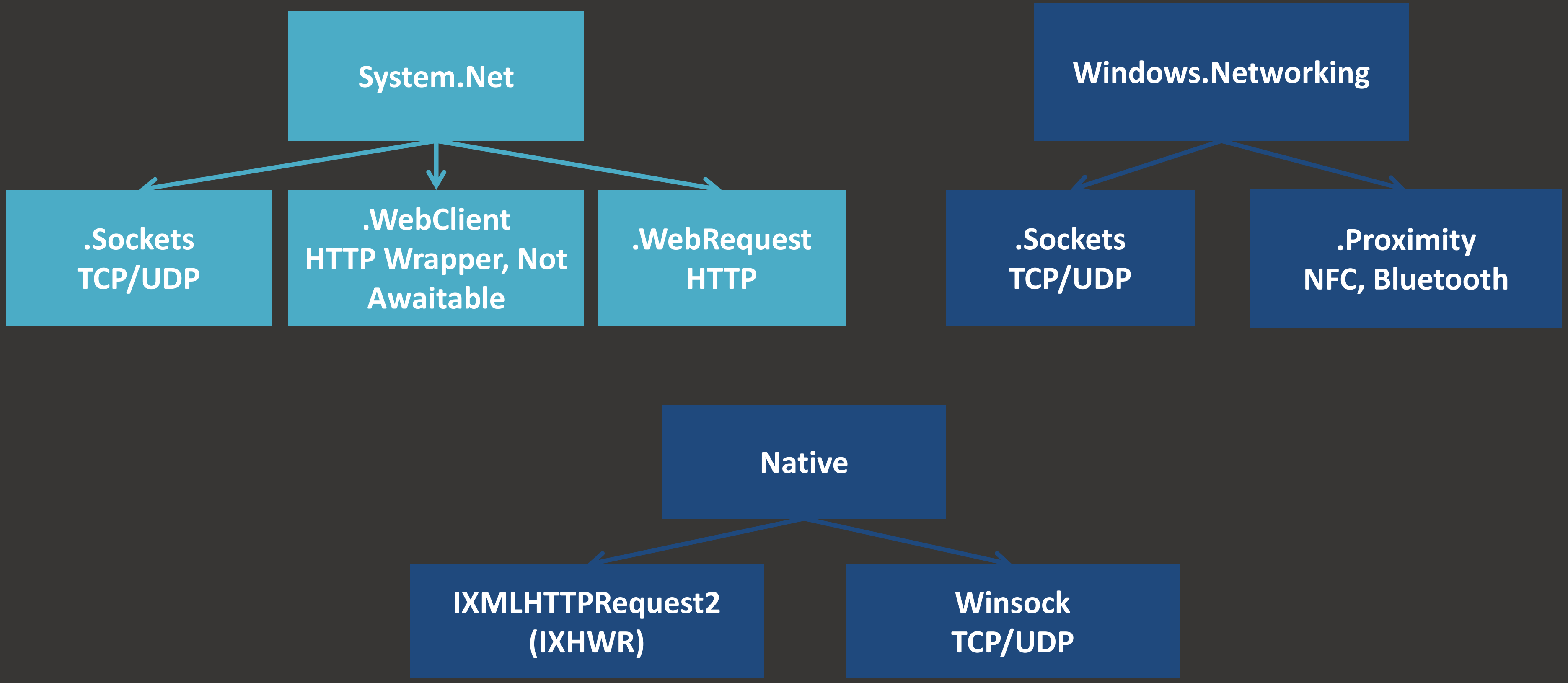
.Sockets
TCP/UDP, No Listening

.WebClient
HTTP Wrapper, Not Awaitable

.WebRequest
HTTP

12:38
2
Phone
People
3
Messaging
25
Outlook
Pictures
Office
XBOX LIVE

Windows Phone 8



System.Net

.Sockets
TCP/UDP

.WebClient
HTTP Wrapper, Not Awaitable

.WebRequest
HTTP

Windows.Networking

.Sockets
TCP/UDP

.Proximity
NFC, Bluetooth

Native

IXMLHTTPRequest2
(IXHWR)

Winsock
TCP/UDP

Sockets

- WinRT – Windows.Networking.Sockets
  - TCP- StreamSocket
  - UDP- DatagramSocket
- Managed Sockets – System.Net.Sockets
  - TCP & UDP- Socket, Multicast, Listen
- Winsock - winsock2.h, ws2tcpip.h, ….
  - Winsock API Family; SOCK_STREAM, SOCK_DGRAM

Demo

Sockets Summary

- WinRT Sockets
  - 推荐
  - 便于迁移到Windows 8 Store 应用
- .NET sockets
  - 难于迁移到Windows 8 Store应用
  - 只用于已有代码中已大量使用了.NET sockets的情况
- Winsock
  - 难于迁移到Windows 8 Store应用
  - 只用于已有代码中已大量使用了Winsock的情况

Proximity

- 蓝牙
  - 0-100m
  - WinRT StreamSocket (~2.1 Mbit/s)
  - Allows App->App and App->Device connectivity
- 近场通信(NFC)
  - 短距离 (2-4cm，低带宽(~424 kbit/s)
  - 获取链接，执行少量数据交换，启动WinRT StreamSocket
  - Allows App->App and App->Device connectivity

Demo

HTTP

平台	托管API	原生API
WP8	• HTTPWebRequest • WebClient	• IXMLHTTPRequest2
Win8	• HTTPWebRequest • HTTPClient	• IXMLHTTPRequest2

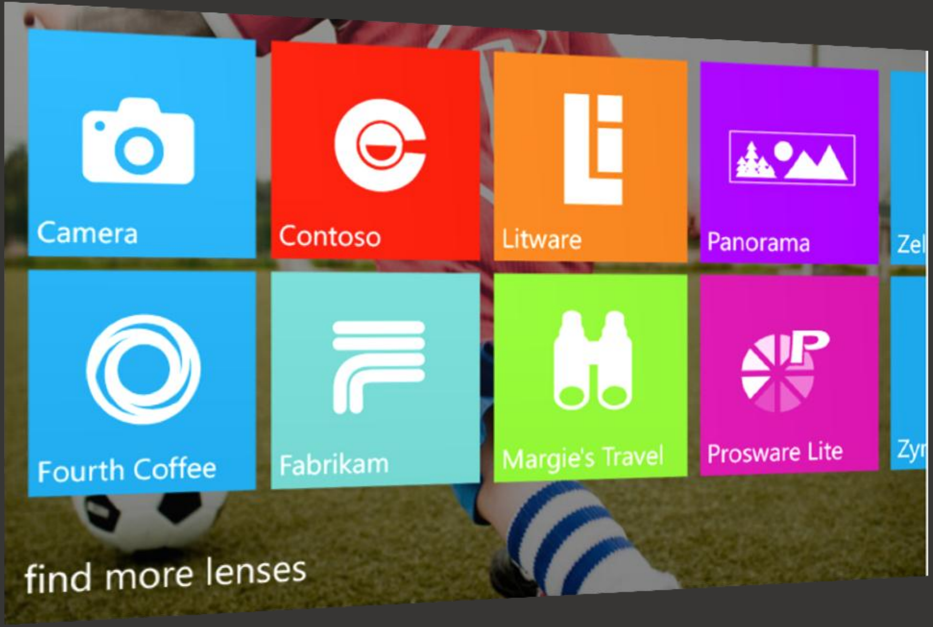
Demo

相机滤镜

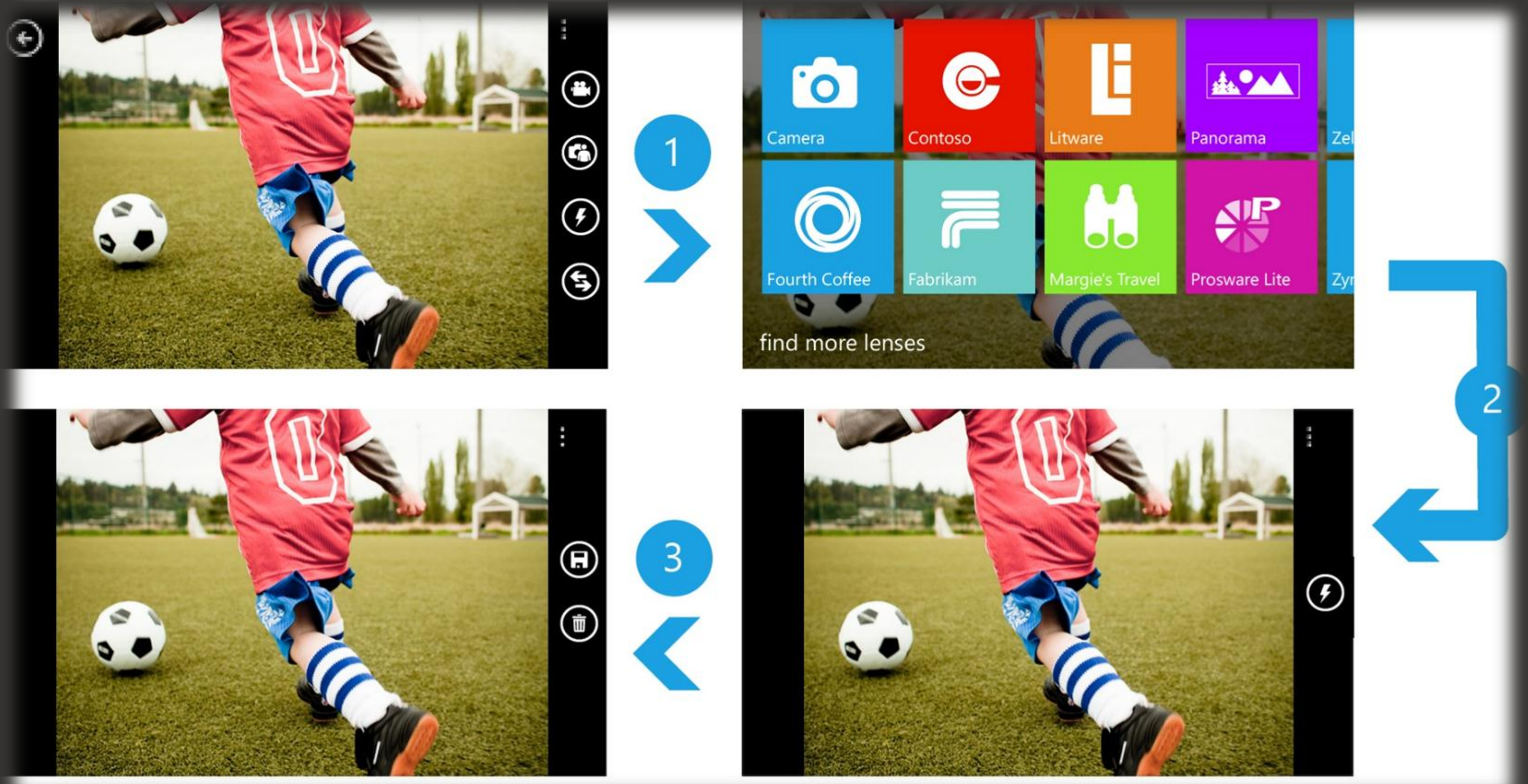
什么是相机滤镜?

Windows Phone 滤镜

- 取景器驱动的体验
- 内置在相机和图片应用程序中
- 创建、浏览并编辑照片和多媒体
- 新的相机API和扩展
- 通过商店购买


Camera
Contoso
Litware
Panorama
Fourth Coffee
Fabrikam
Margie's Travel
Proswware Lite
find more lenses

滤镜的工作流程


1
Camera
Contoso
Litware
Panorama
Zel
Fourth Coffee
Fabrikam
Margie's Travel
Prosware Lite
Zy
find more lenses
2
3

关键滤镜组件

- 滤镜以<Extension> 开始，但也包含其他特性
- 取景器的入口点
- 滤镜指定的用户体验流程
- 多媒体
- 自定义磁贴图标
- 可以使用下列技术创建：
  - XAML with C# for UI
  - Access to C++

使用滤镜的要求

- 在WMAppManifest.xml 文件的<Extensions> 元素中添加“Camera_Capture_App” 扩展
- 深度链接 URI 包含 “ViewfinderLaunch”

分辨率	图标大小	文件夹	文件名
WVGA	173 × 173 px	/Assets/	Lens.Screen-WVGA.png
720p	259 × 259 px	/Assets/	Lens.Screen-720p.png
WXGA	277 × 277 px	/Assets/	Lens.Screen-WXGA.png

多媒体

- 滤镜能够捕获的不仅仅是JPEG
  - 交互式全景捕获
  - 无损编辑
- 连接相机的JPEG和滤镜，并将内容保存在本地存储
- “Photos_Rich_Media_Edit” <Extension>
  - 根据包含深度链接的URI启动
  - 标识的“RichMediaEdit” 和文件标记

如何构建好的滤镜体验

- 一致的捕获体验
  - 控件, 手势和动画
- 内置的滤镜相机转换
  - 带或不带富媒体
- 应用流 / 返回按键
  - 查看/编辑 模式

应用间通信

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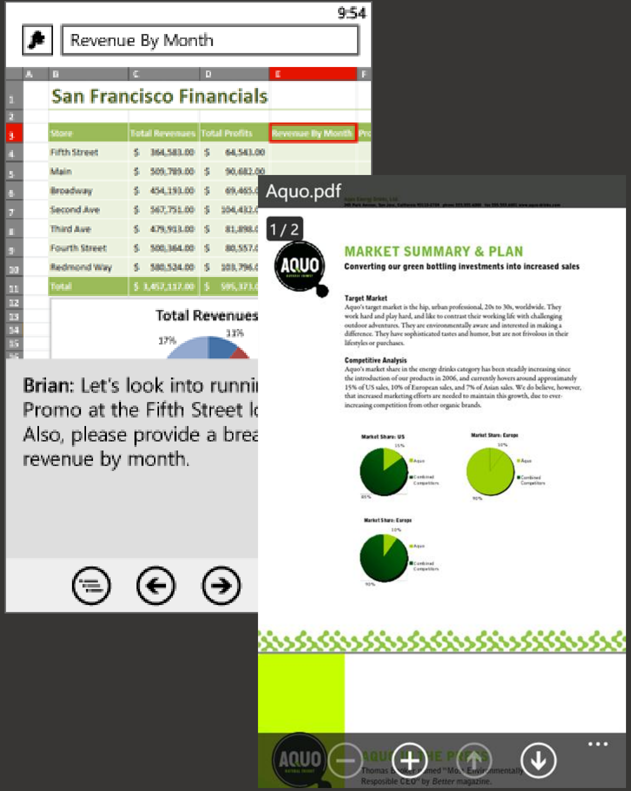
什么是应用间通信?

自定义URI关联

- 启动其它应用来完成任务
  - 启动Skype
  - 通过Spotify播放音乐专辑
  - 通过Twitter发送一条信息
- 将自己的应用整合到内置的系统应用当中
  - 浏览器
  - 短信
  - 电子邮件

文件类型关联

- 在合适的应用中打开你的文件
  - Microsoft Office
  - Adobe Reader
- 在你的应用中处理自定义文件
  - Browser
  - Email
  - Office Hub



San Francisco Financials

Store	Total Revenues	Total Profits	Revenue By Month
Fifth Street	$ 364,583.00	$ 64,543.00	
Main	$ 509,789.00	$ 90,682.00	
Broadway	$ 454,193.00	$ 69,465.	
Second Ave	$ 567,751.00	$ 104,432.	
Third Ave	$ 479,913.00	$ 81,898.	
Fourth Street	$ 500,364.00	$ 80,557.	
Redmond Way	$ 580,524.00	$ 103,796.	
Total	$ 3,457,117.00	$ 595,373.	

Total Revenues

Brian: Let's look into runni
Promo at the Fifth Street l
Also, please provide a brea
revenue by month.

Aquo.pdf

MARKET SUMMARY & PLAN

Converting our green bottling investments into increased sales

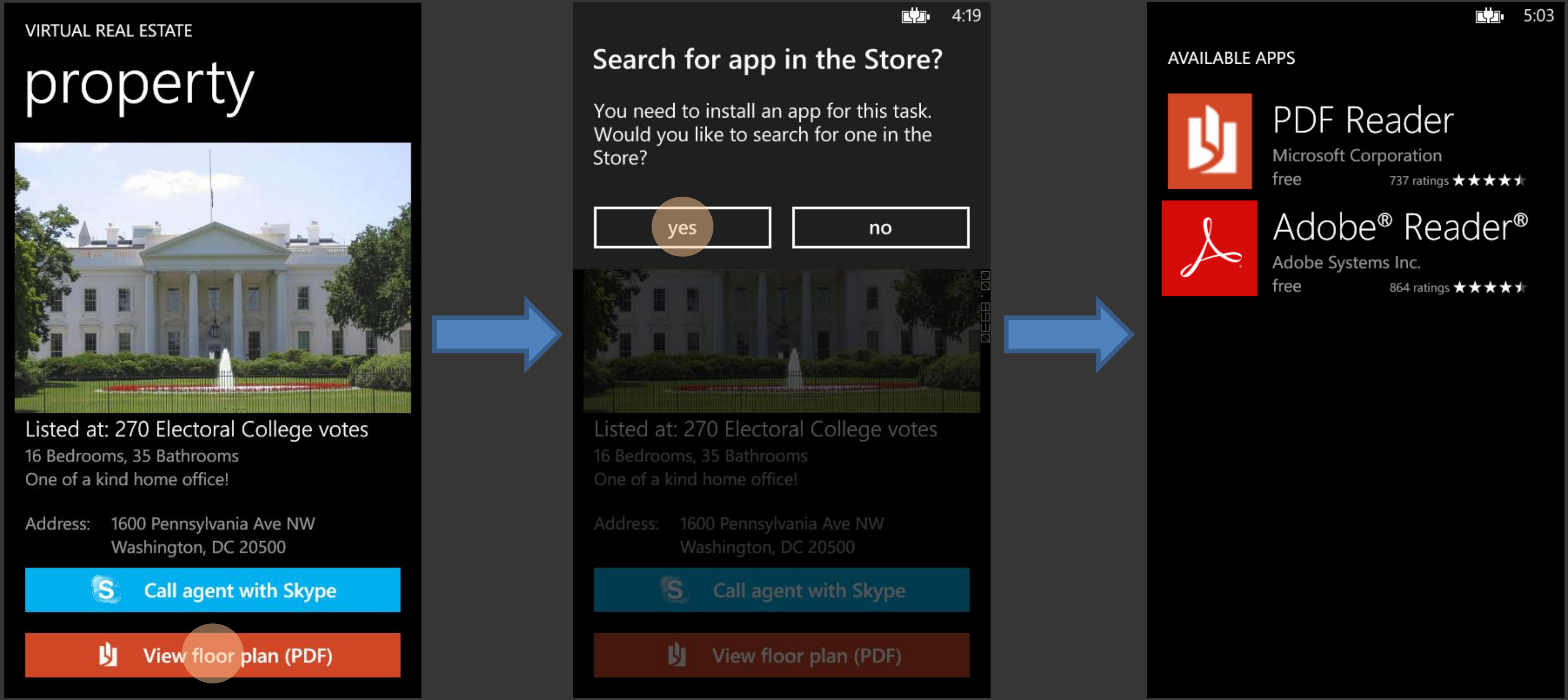
Target Market
Aquo's target market is the hip, urban professional, 20s to 30s, worldwide. They work hard and play hard, and like to contrast their working life with challenging outdoor adventures. They are environmentally aware and interested in making a difference. They have sophisticated tastes and humor, but are not frivolous in their lifestyles or purchases.

Competitive Analysis
Aquo's market share in the energy drinks category has been steadily increasing since the introduction of our products in 2006, and currently hovers around approximately 15% of US sales, 10% of European sales, and 7% of Asian sales. We do believe, however, that increased marketing efforts are needed to maintain this growth, due to ever-increasing competition from other organic brands.

指导原则

- 用户行为总在控制之中
  - 应用程序不能接管一个扩展
- 已安装的应用程序列表是用户的私有数据
  - 应用程序不能查询已安装的应用程序、协议和文件扩展
- 标准任务应简单且可预见
  - 标准类型应由内置的用户体验来处理

没有关联程序的情况



VIRTUAL REAL ESTATE

property

Listed at: 270 Electoral College votes

16 Bedrooms, 35 Bathrooms

One of a kind home office!

Address: 1600 Pennsylvania Ave NW
Washington, DC 20500

Call agent with Skype
View floor plan (PDF)
4:19

Search for app in the Store?

You need to install an app for this task. Would you like to search for one in the Store?

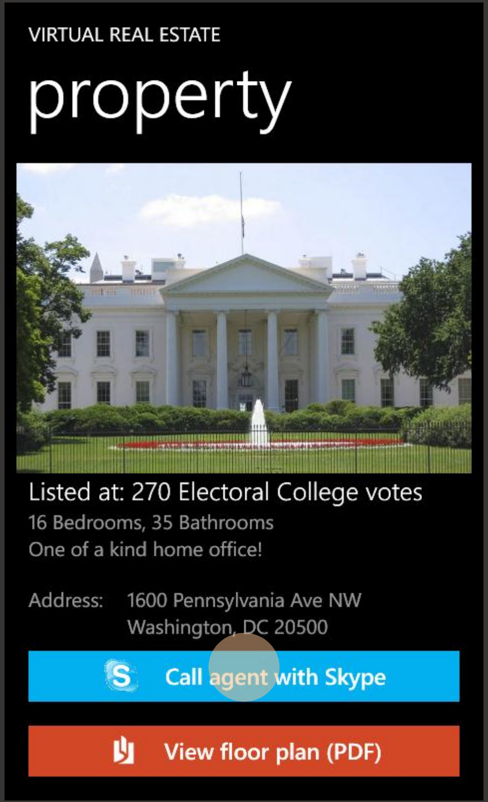
yes
no
5:03

AVAILABLE APPS

PDF Reader
Microsoft Corporation
free 737 ratings ★★★★

Adobe® Reader®
Adobe Systems Inc.
free 864 ratings ★★★★

一个关联程序的情况


VIRTUAL REAL ESTATE

property

Listed at: 270 Electoral College votes

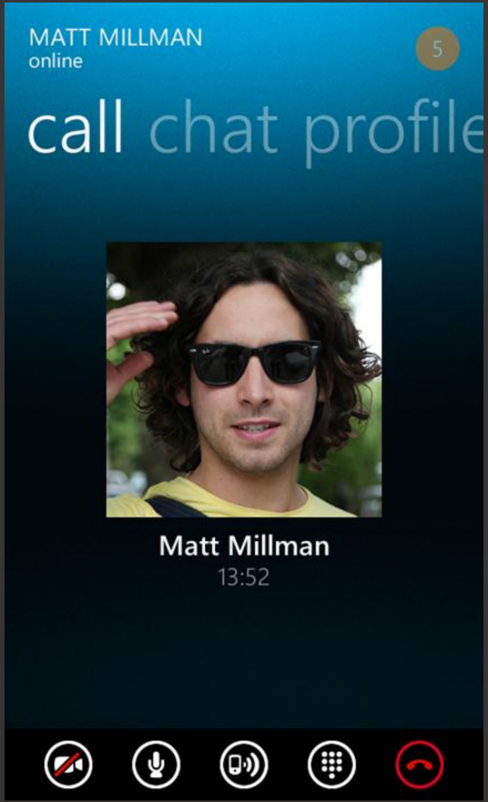
16 Bedrooms, 35 Bathrooms

One of a kind home office!

Address: 1600 Pennsylvania Ave NW
Washington, DC 20500

Call agent with Skype
View floor plan (PDF)

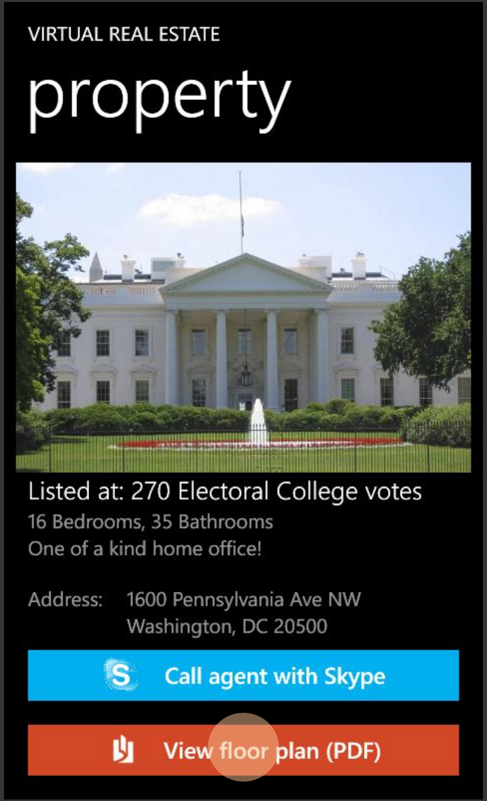
Launch URI: skype:call?5551234


MATT MILLMAN
online

5
call chat profile

Matt Millman
13:52

多个关联程序的情况



VIRTUAL REAL ESTATE

property

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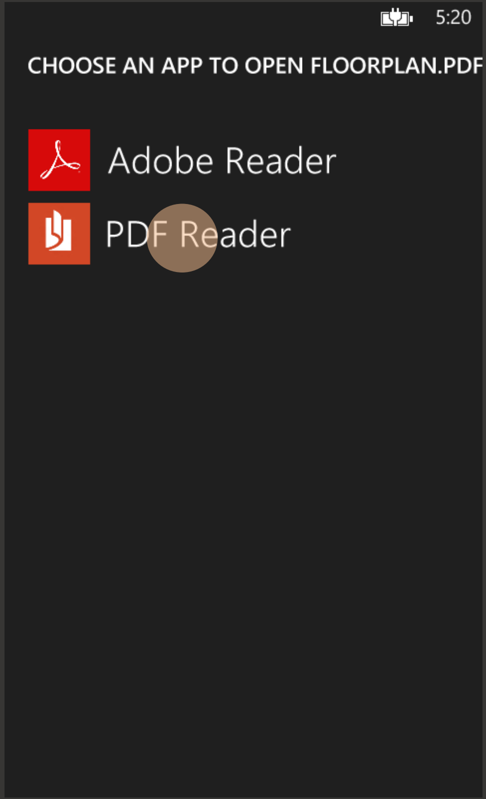
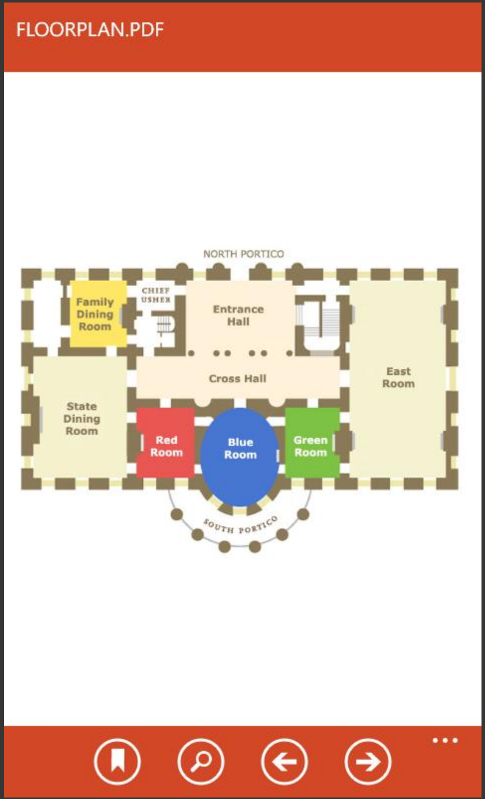
Call agent with Skype
View floor plan (PDF)



5:20

CHOOSE AN APP TO OPEN FLOORPLAN.PDF

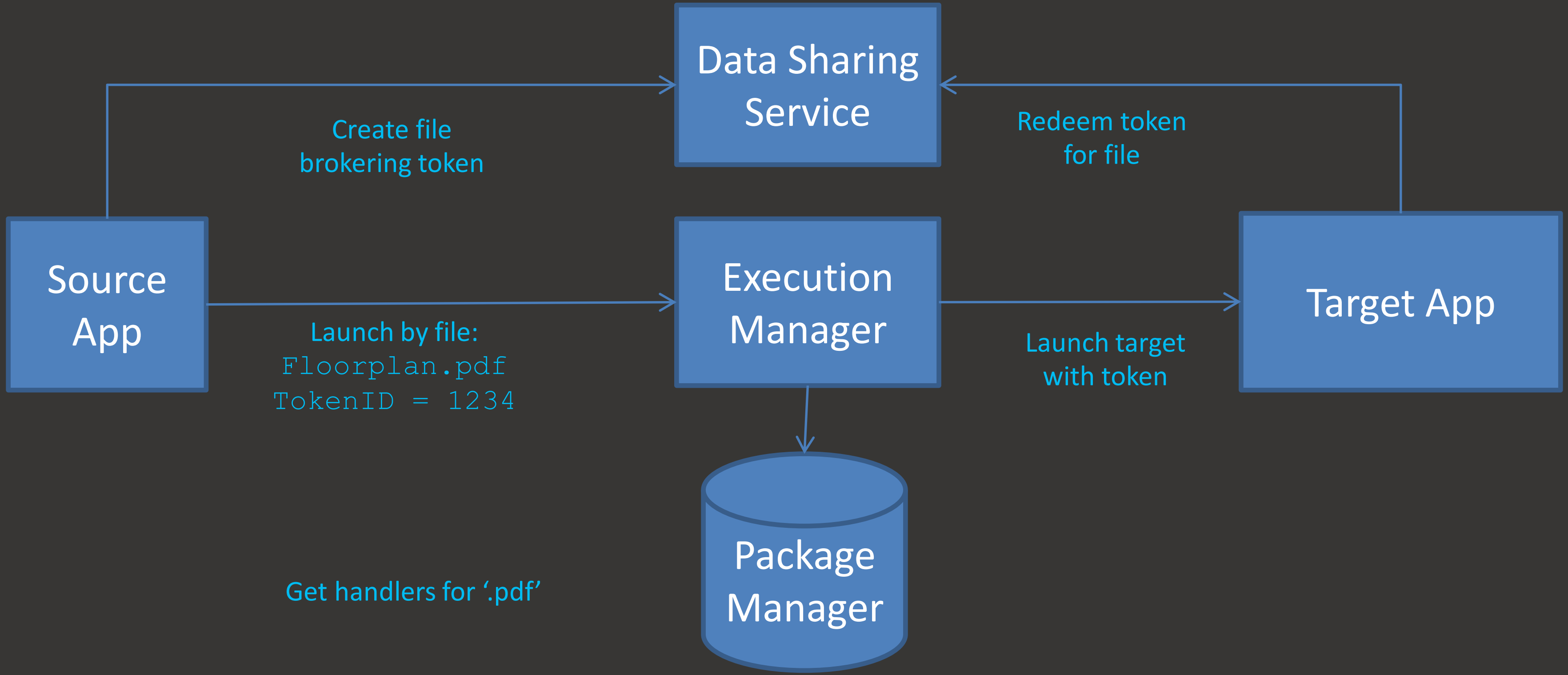
Adobe Reader
PDF Reader



FLOORPLAN.PDF

NORTH PORTICO
Family Dining Room
CHIEF USHER
Entrance Hall
Cross Hall
East Room
State Dining Room
Red Room
Blue Room
Green Room
SOUTH PORTICO

原理



Data Sharing Service

Create file brokering token

Redeem token for file

Source App

Execution Manager

Target App

Launch by file:
`Floorplan.pdf`
`TokenID = 1234`

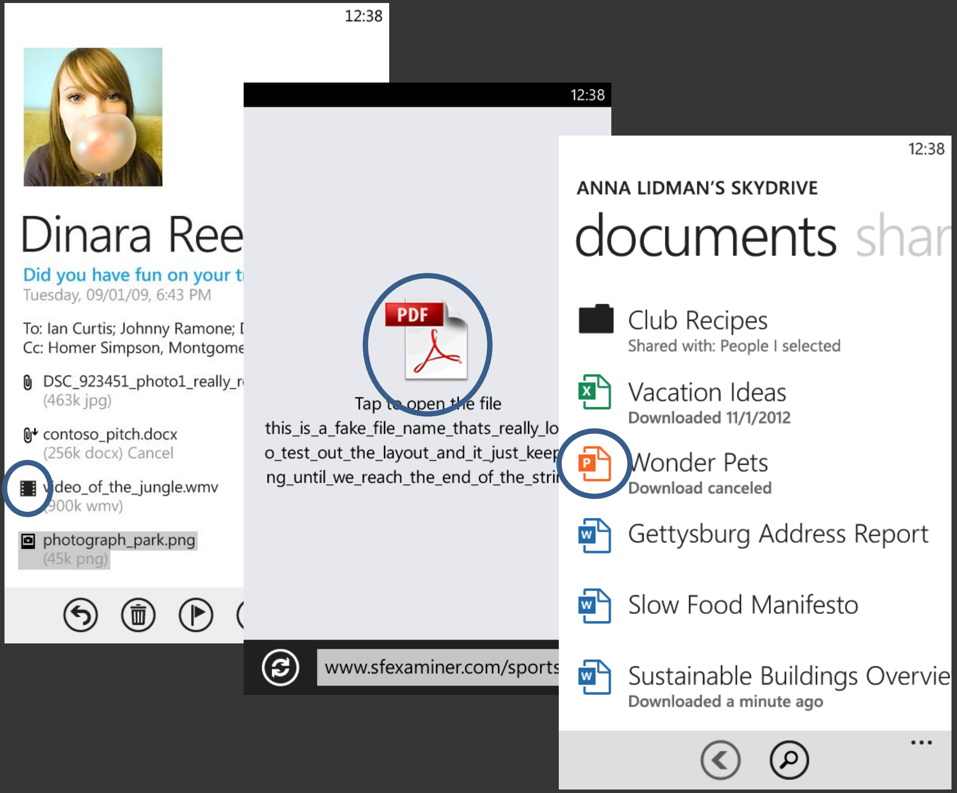
Launch target with token

Package Manager

Get handlers for '.pdf'

文件类型图标

- 出现在Email, Browser, Office Hub中
- WXGA 中的图标推荐
  - 小: 33px
  - 中: 69px
  - 大: 176px



12:38

Dinara Ree

Did you have fun on your t

Tuesday, 09/01/09, 6:43 PM

To: Ian Curtis; Johnny Ramone; I

Cc: Homer Simpson, Montgome

DSC_923451_photo1_really_r
(463k jpg)

contoso_pitch.docx
(256k docx) Cancel

video_of_the_jungle.wmv
(900k wmv)

photograph_park.png
(45k png)

12:38

Tap to open the file

this_is_a_fake_file_name_thats_really_lo
o_test_out_the_layout_and_it_just_keep
ng_until_we_reach_the_end_of_the_stri

www.sfexaminer.com/sports

12:38

ANNA LIDMAN'S SKYDRIVE

documents shar

Club Recipes
Shared with: People I selected

Vacation Ideas
Downloaded 11/1/2012

Wonder Pets
Download canceled

Gettysburg Address Report

Slow Food Manifesto

Sustainable Buildings Overvie
Downloaded a minute ago

通过近场通信启动应用

- 目标应用
  - 通过另一台设备上发送过来的URI能够启动你的应用程序
  - 处理代码几乎相同
  - 不需要近场通信能力
- 源应用
  - 你可以使用近场通信(Proximity)API启动在其它设备中的应用程序

THANK YOU！