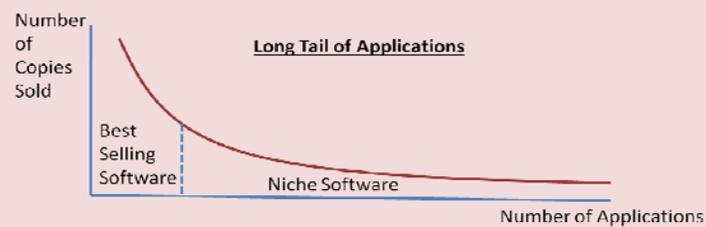


## Architecture of Application Marketplaces

Presented by:  
**Frederick Chong**  
Architect, Microsoft

February 28, 2008

## The Long Tail Market Opportunity



## Those Pesky Long Tail Challenges

OpSource  
**SaaS Summit  
2008**

### Business Customers

- Which solution providers?
- What types of applications?
- How to address disconnected user experience like multiple logins.

### Hosters

- What are the application and hosting platforms to invest in?
- How to recruit the ISV?
- How to reduce the time to onboard ISV?
- What value-added SaaS hosting services to provide to the ISVs?

### VARs and Solution Providers

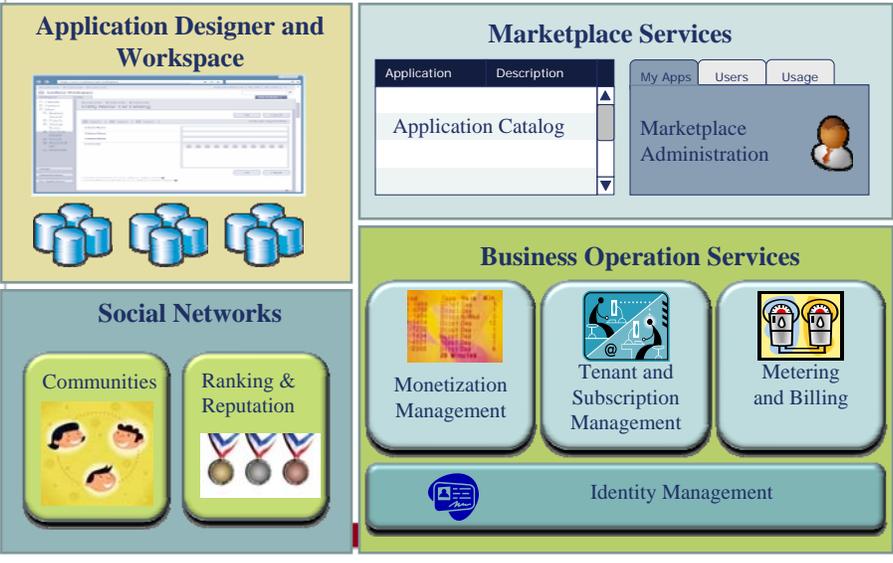
- What is the right bundling package for the business users?
- How to provide a more seamless, integrated and end-to-end experience?
- How to leverage social graph and networks to create viral effects?
- Is it possible to offer market channel services for business customers?

### ISVs

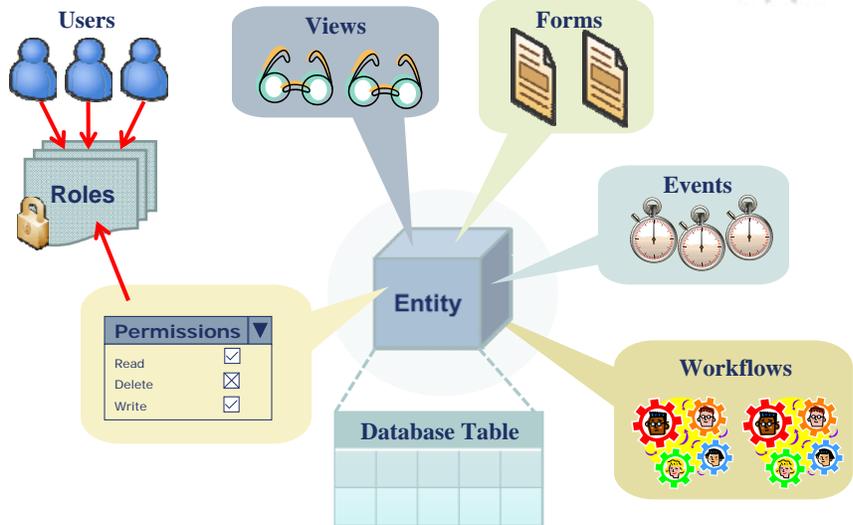
- What is the choice platform for creating multi-tenant applications?
- Who will host and operate the application services?
- How to build the long tail market channel?

**Many of those challenges can be addressed through the right kind of application marketplace...**

# Application Marketplace Architecture

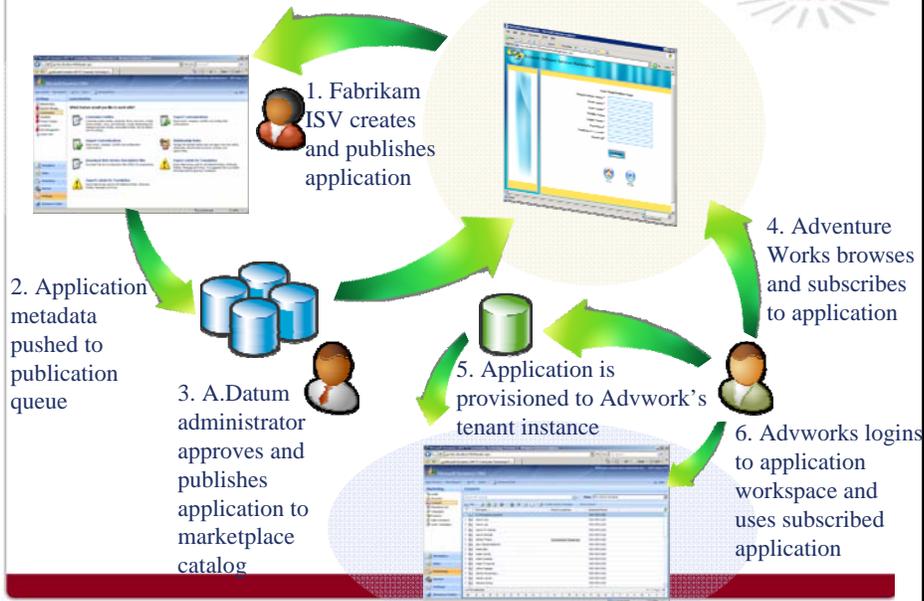


# Leveraging Microsoft Dynamics CRM 4.0 as a Business Application Platform



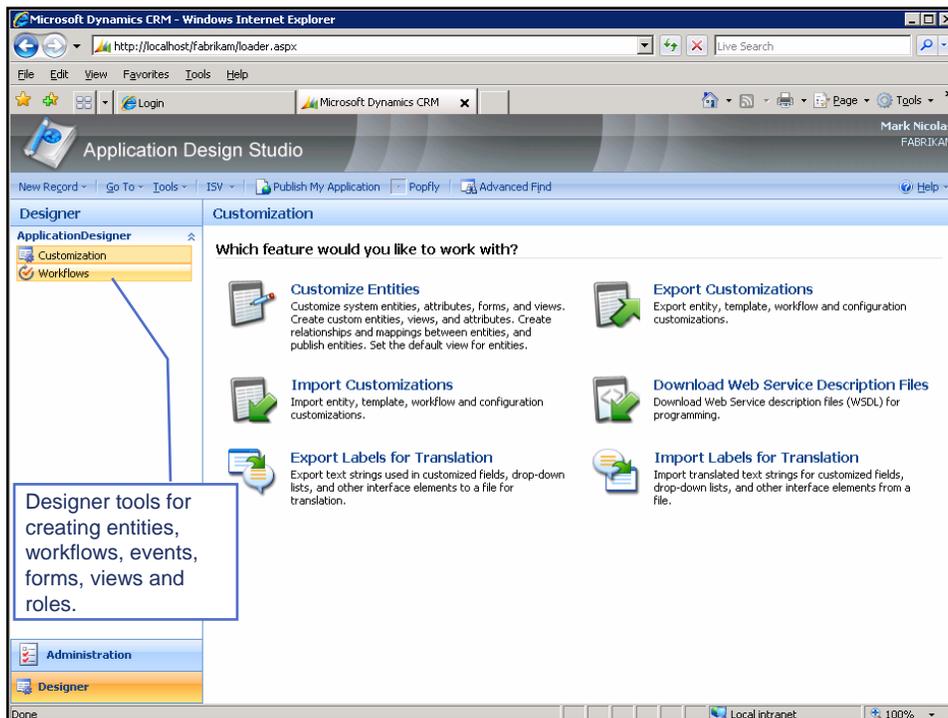
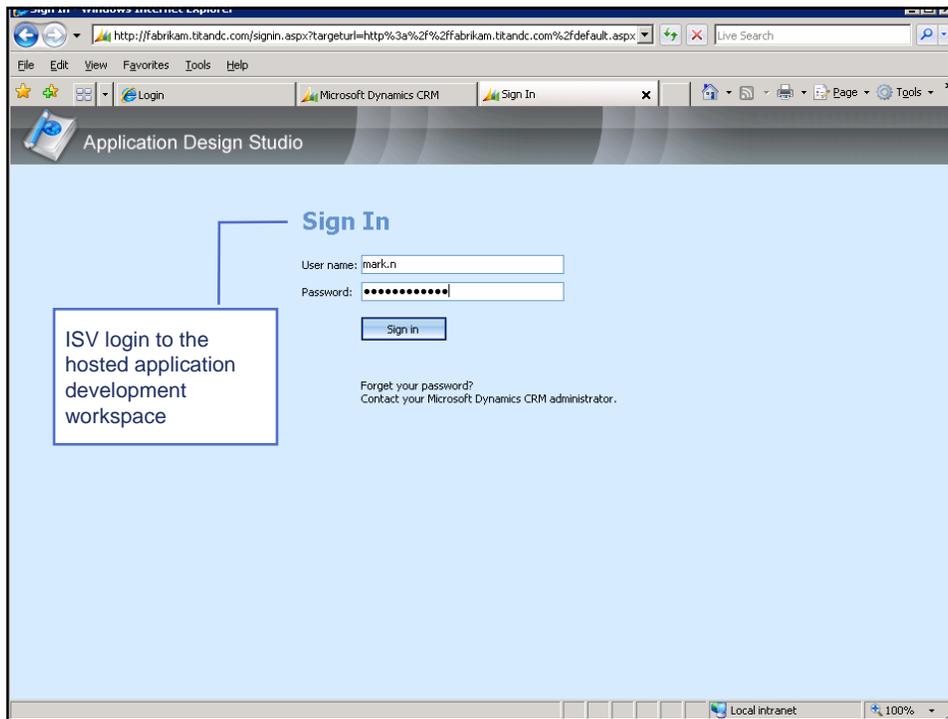
## Scenarios: Create, Publish, Approve and Subscribe

OpSource  
SaaS Summit  
2008



## Scenario Screencast: Integrating application production tools with the market channel

ISV creates and publishes an application to the marketplace



Microsoft Dynamics CRM - Windows Internet Explorer

http://localhost/fabrikam/loader.aspx

Application Design Studio

Designer

ApplicationDesigner

Customization

Workflows

Administration

Designer

Customize Entities

View: Customizable Entities

New Publish More Actions

Display Name	Name	Type	Description
Account	account	Customizable En...	Business that
Activity	activitypointer	Customizable En...	Task perform
Address	customeraddress	Customizable En...	Address and
Appointment	appointment	Customizable En...	Commitment
Business Unit	businessunit	Customizable En...	Business, div
Campaign	campaign	Customizable En...	Container for
Campaign Activity	campaignactivity	Customizable En...	Task perform
Campaign Response	campaignresponse	Customizable En...	Response frc
Case	incident	Customizable En...	Service requ
Case Resolution	incidentresolution	Customizable En...	Special type
Competitor	competitor	Customizable En...	Business com
Contact	contact	Customizable En...	Person with v
Contract	contract	Customizable En...	Agreement tx
Contract Line	contractdetail	Customizable En...	Line item in a
Contract Template	contracttemplate	Customizable En...	Template for
Currency	transactioncurrency	Customizable En...	Currency in v

1 of 54 selected.

Select Contact entity to modify

Entity: Contact - Windows Internet Explorer

Save and Close Actions Help

Contact

Forms and Views

Details:

Information

Forms and Views

Attributes

1:N Relationships

N:1 Relationships

N:N Relationships

Messages

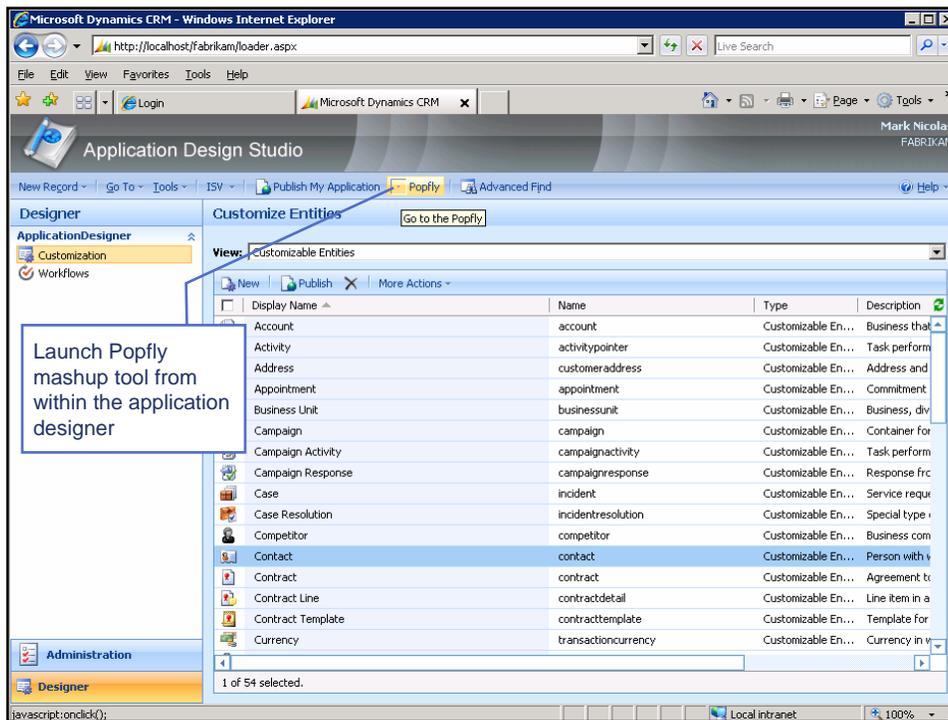
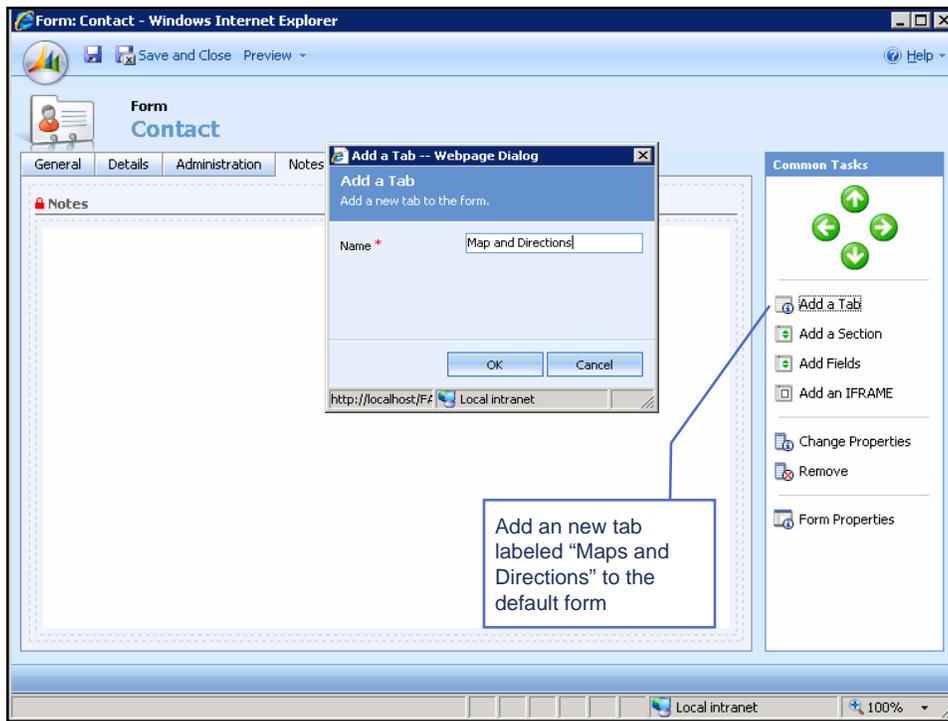
View: All Forms and Views

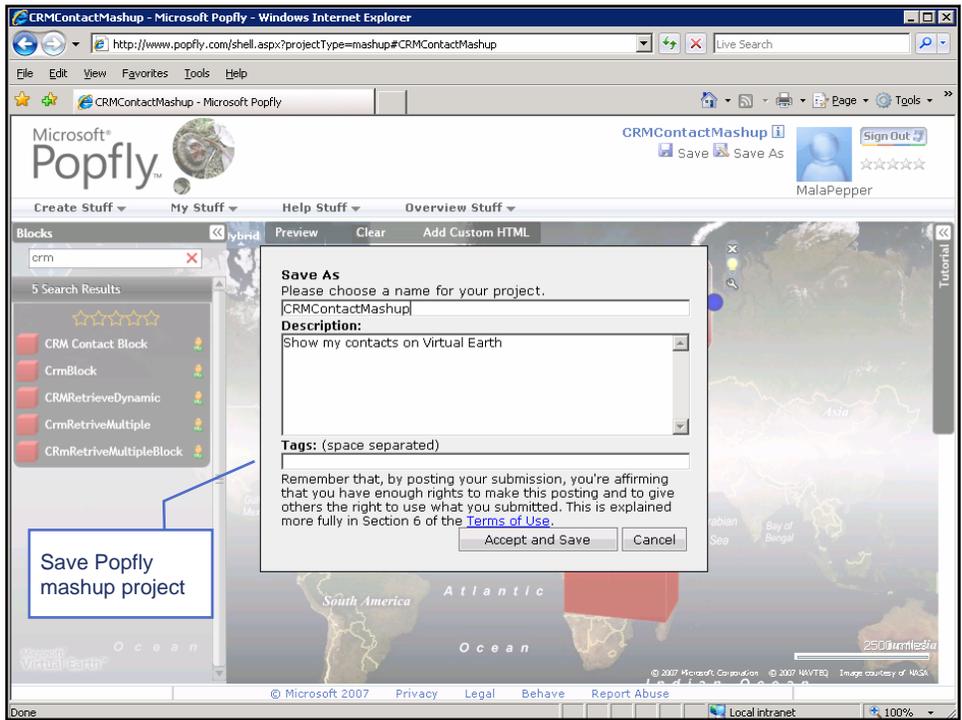
New More Actions

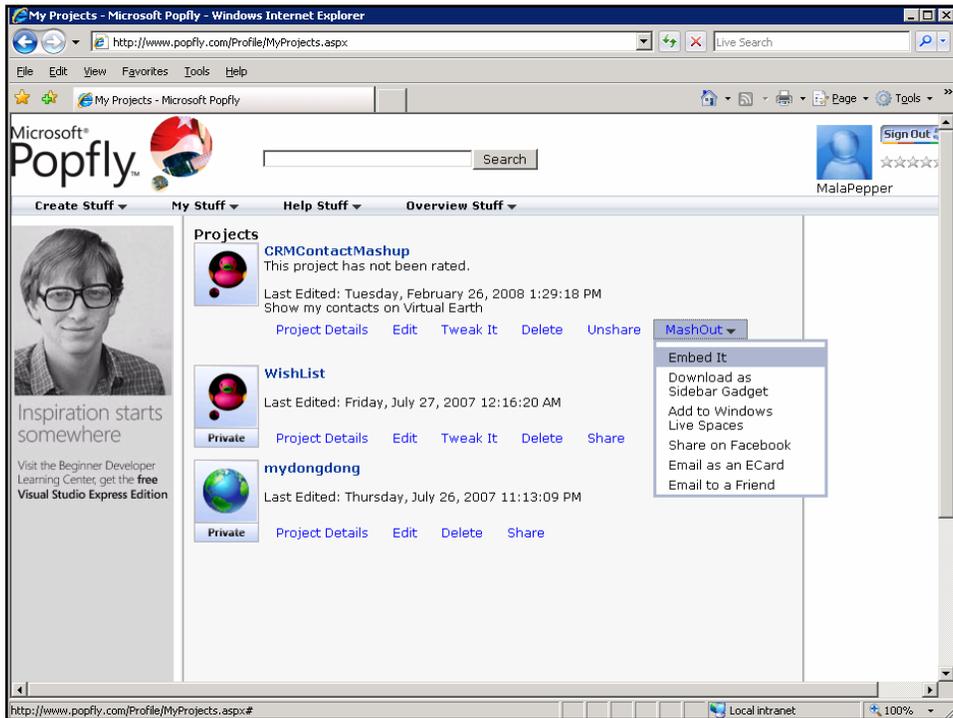
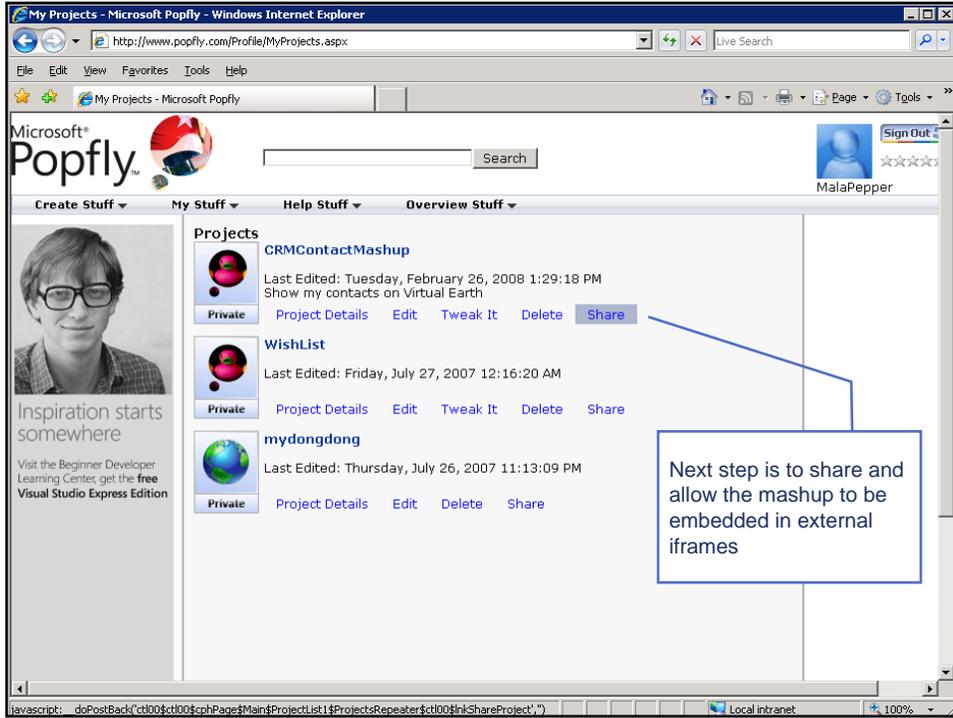
Name	Type	Description
Active Contacts	Public View	
Contact Associated View	Associated View	Displays contact information in the detail form
Contacts Advanced Find View	Advanced Find View	
Contacts Lookup View	Lookup View	
Contacts: No Campaign Activities in ...	Public View	
Contacts: No Orders in Last 6 Months	Public View	
Contacts: Responded to Campaigns i...	Public View	
Form	Form	The main application form.
Inactive Contacts	Public View	
My Active Contacts	Default Public View	
Preview	Preview	This is used to quickly preview record data right
Quick Find Active Contacts	Quick Find View	

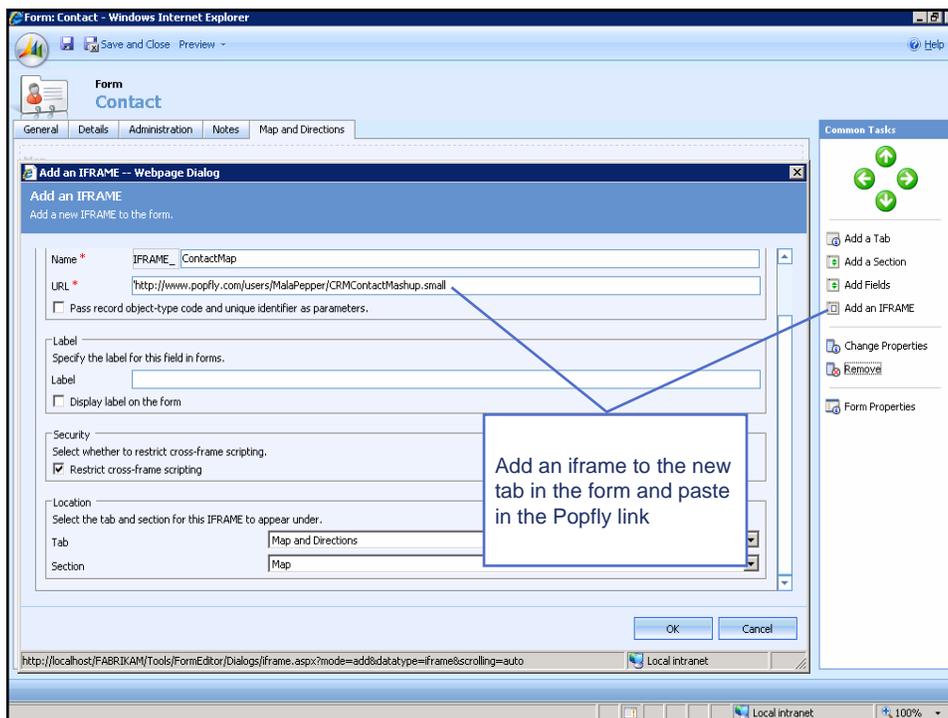
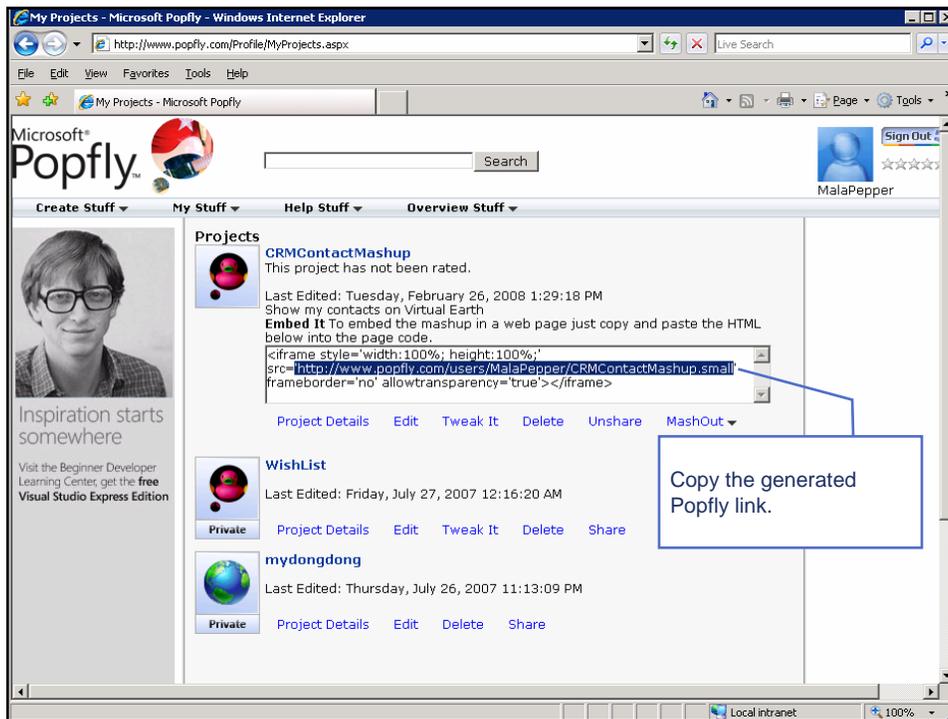
1 of 12 selected.

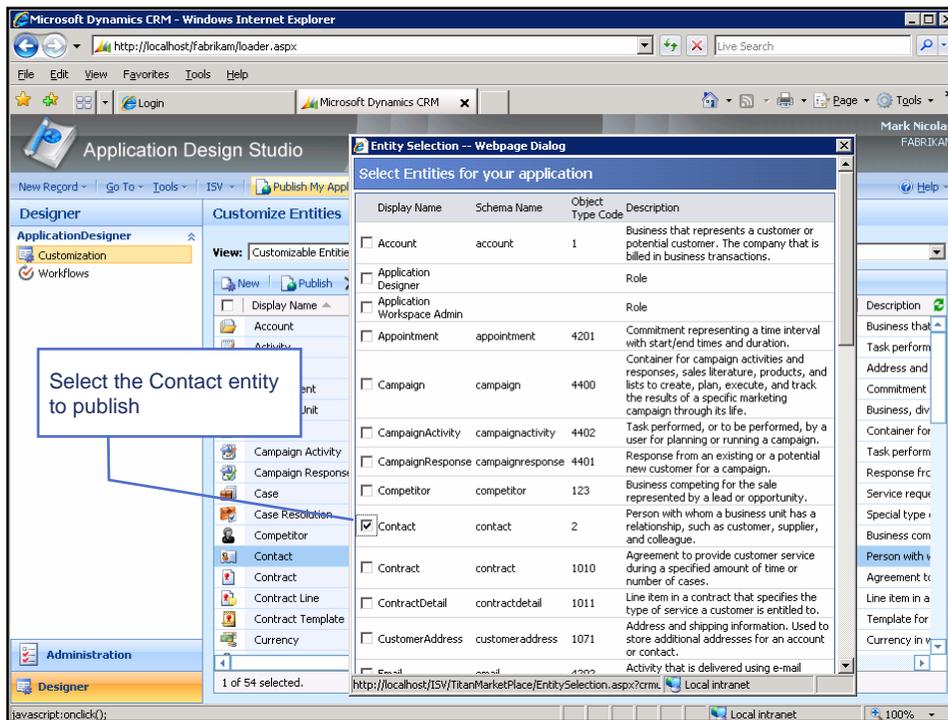
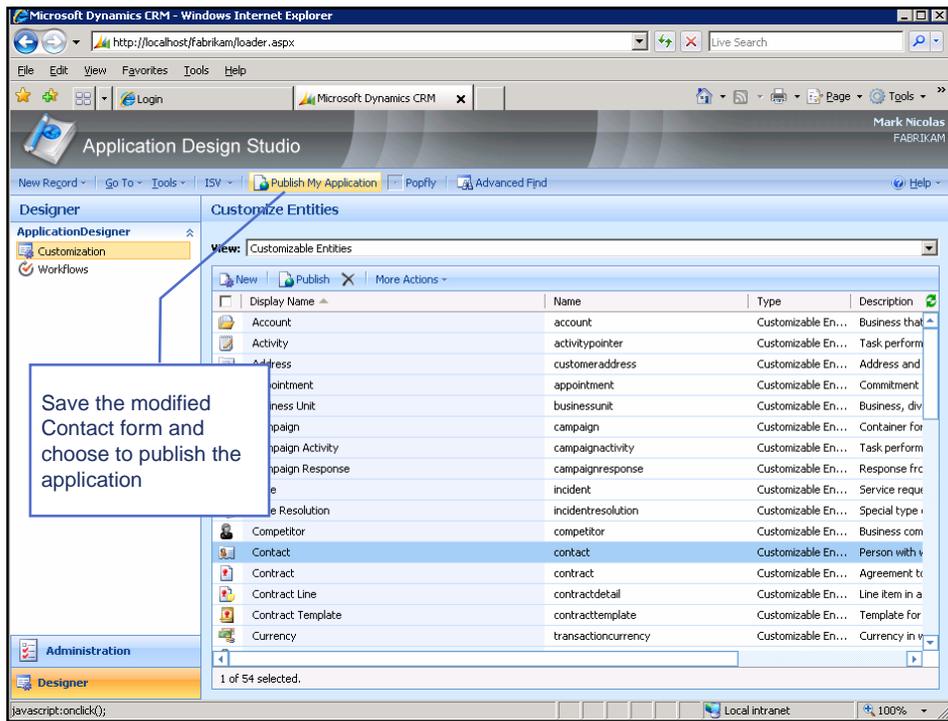
Select Contact Form to modify

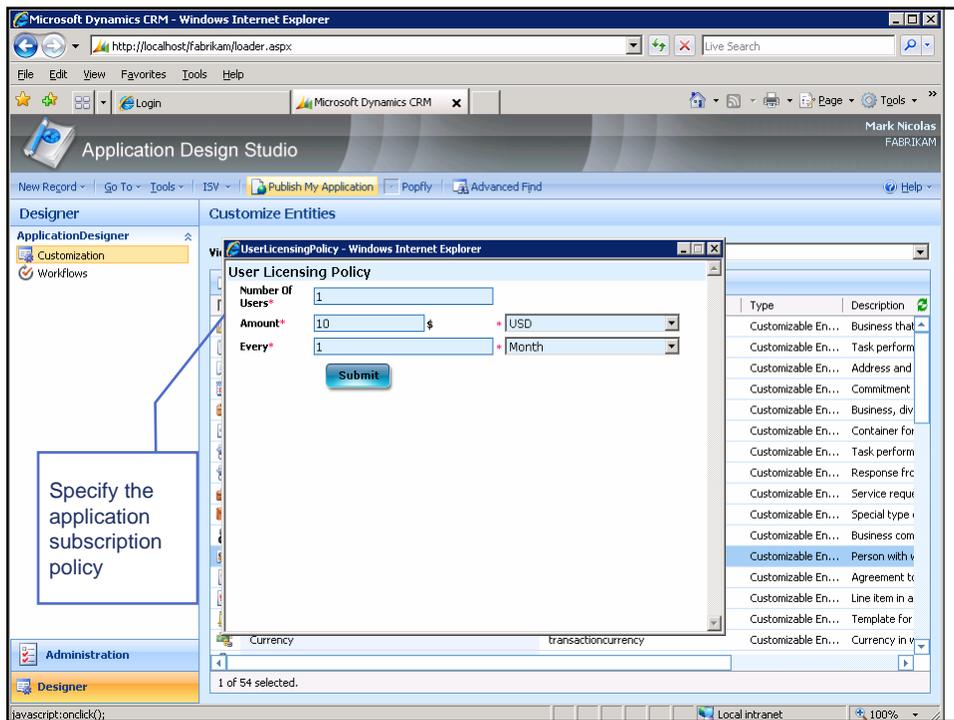
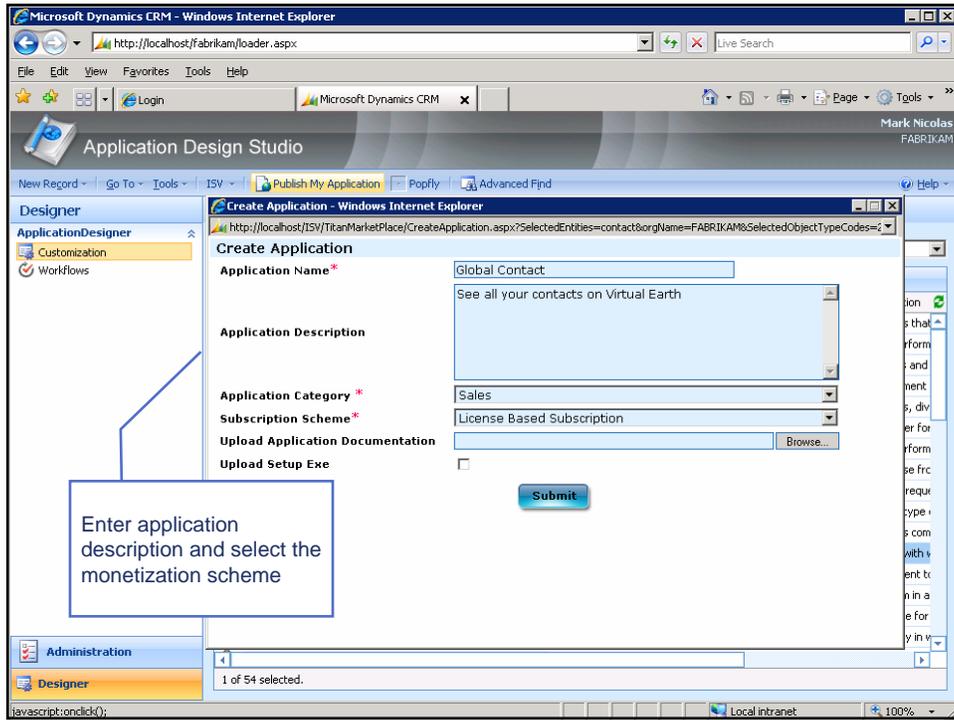


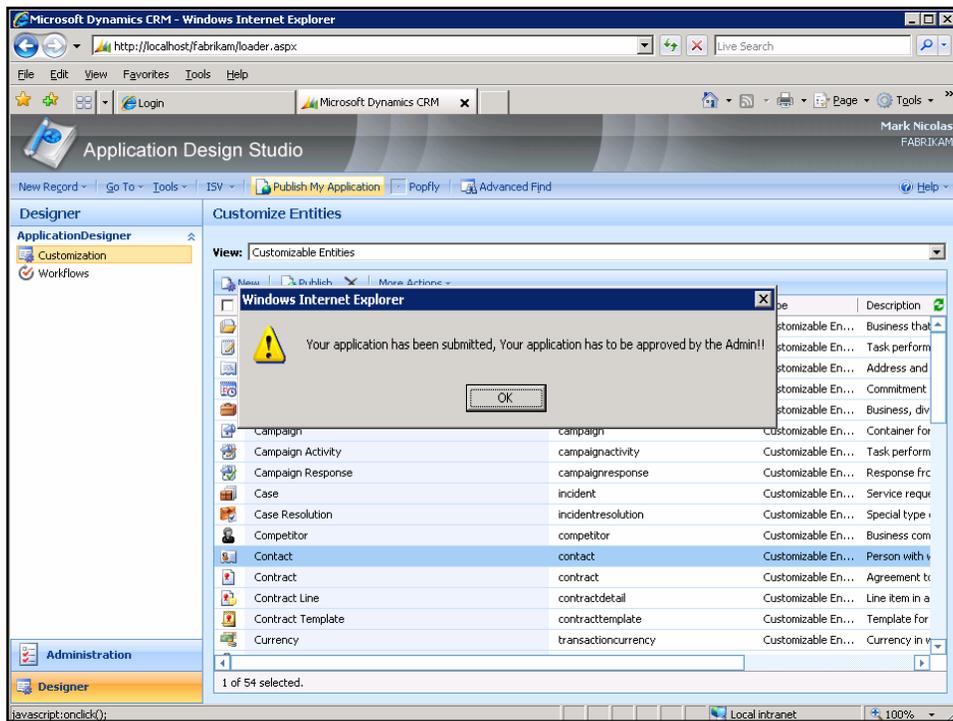








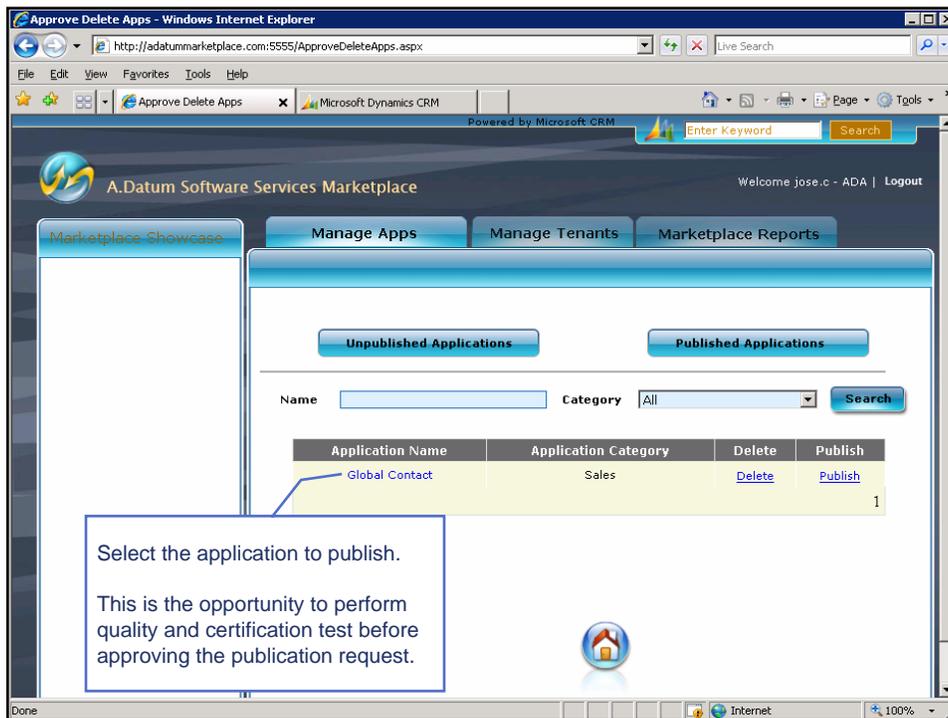
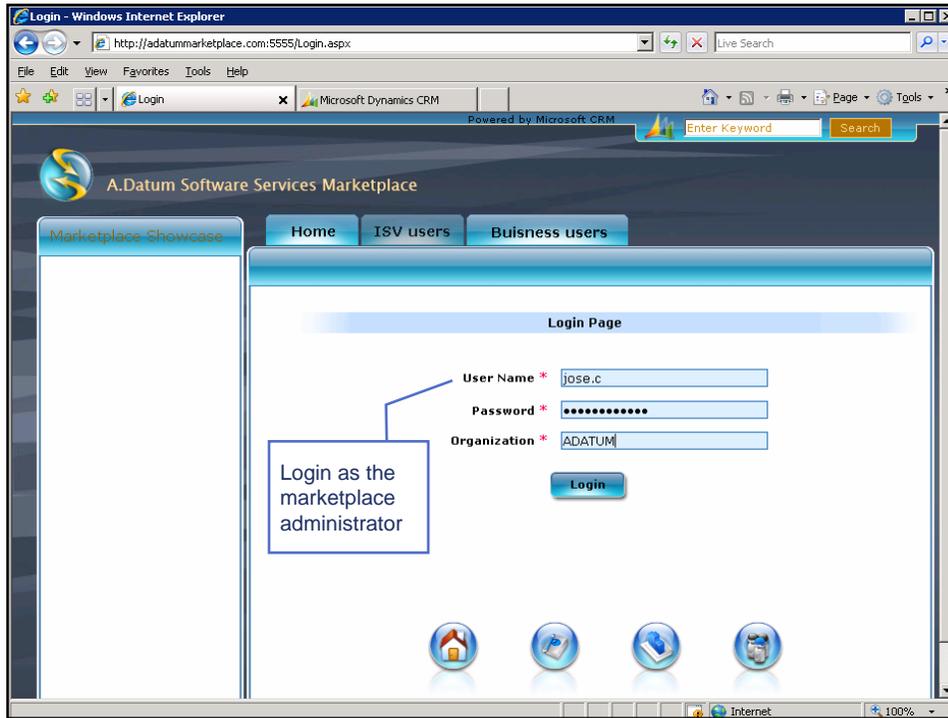






## Scenario Screencast: Managing the marketplace activities

Marketplace administrator approving a publication request



Approve Delete Apps - Windows Internet Explorer

http://adatummarketplace.com:5555/ApproveDeleteApps.aspx

File Edit View Favorites Tools Help

Approve Delete Apps x Microsoft Dynamics CRM

Powered by Microsoft CRM

Enter Keyword Search

A.Datum Software Services Marketplace

Welcome jose.c - ADA | Logout

Marketplace Showcase Manage Apps Manage Tenants Marketplace Reports

Unpublished Applications Published Applications

Name  Category All Search

Application Name	Application Category	Delete
Order Management	Sales	<a href="#">Delete</a>
Competitor Management system	Sales	<a href="#">Delete</a>
Contact Management System	Sales	<a href="#">Delete</a>
Global Contact	Sales	<a href="#">Delete</a>

1 2

Application is now published to the marketplace

Tenant Management - Windows Internet Explorer

http://adatummarketplace.com:5555/TenantManagement.aspx

File Edit View Favorites Tools Help

Tenant Management x Microsoft Dynamics CRM

Powered by Microsoft CRM

Enter Keyword Search

A.Datum Software Services Marketplace

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Marketplace Showcase Manage Apps Manage Tenants Marketplace Reports

Organization Name	Status	Delete
FABRIKAM	<a href="#">Disable</a>	<a href="#">Delete</a>
CONTOSO	<a href="#">Disable</a>	<a href="#">Delete</a>
ADVWORKS	<a href="#">Disable</a>	<a href="#">Delete</a>
ADATUM	<a href="#">Disable</a>	<a href="#">Delete</a>

1

Tenant management features: e.g. suspending a tenant account due to non payment event.

Untitled Page - Windows Internet Explorer  
 http://adatummarketplace.com:5555/MarketplaceAdminReports.aspx

File Edit View Favorites Tools Help

Microsoft Dynamics CRM

Enter Keyword Search

A.Datum Software Services Marketplace  
 Welcome jose.c - ADA | Logout

Marketplace Showcase

Reporting and business intelligence on marketplace performance: e.g. total revenue for the month, best selling applications etc.

Manage Apps Manage Tenants Marketplace Reports

Application Marketplace Revenue Report

Application	Category	Publisher	Licenses	Amount
Account Management	Sales	Fabrikam	50	1,000.00 \$
Campaign Management	Sales	Fabrikam	30	600.00 \$
Contact Management System	Sales	Fabrikam	25	500.00 \$
Incident management system	Service	Fabrikam	50	1,500.00 \$
Order Management	Sales	Fabrikam	25	200.00 \$

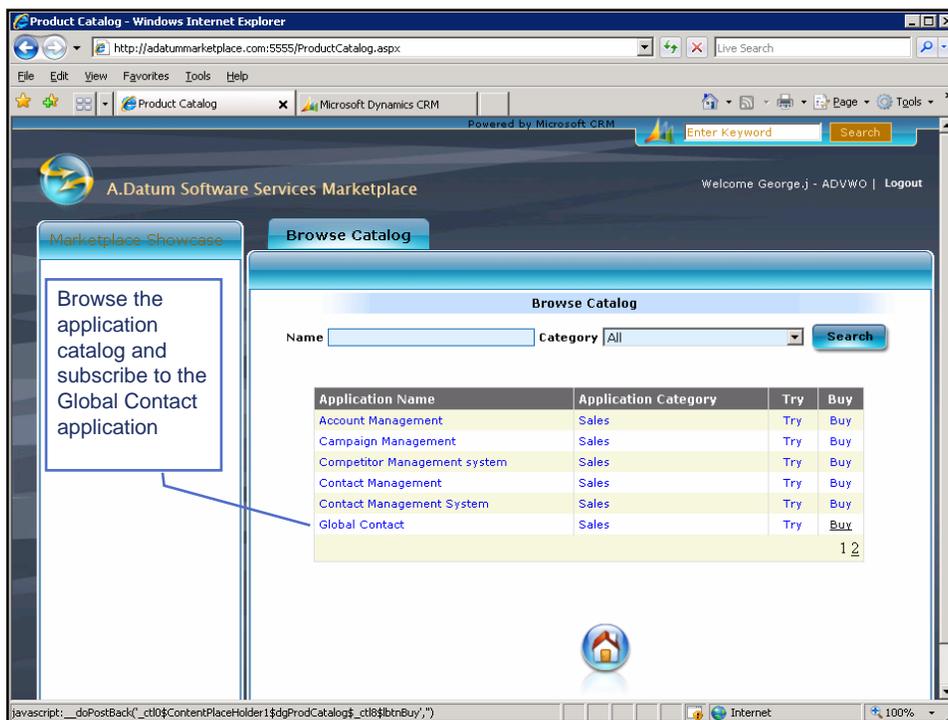
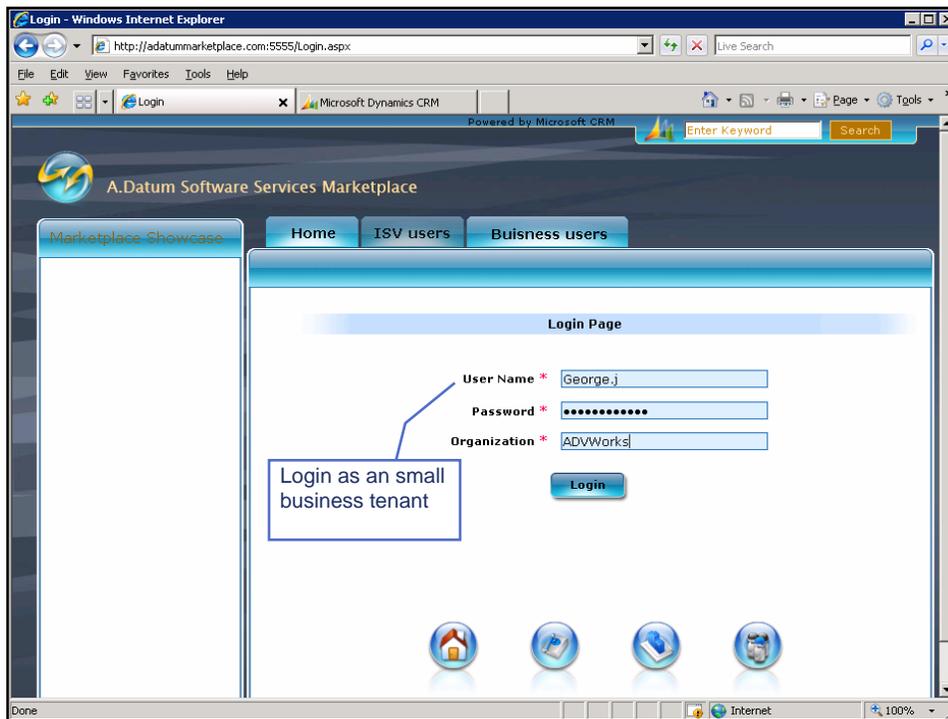
Application Sales

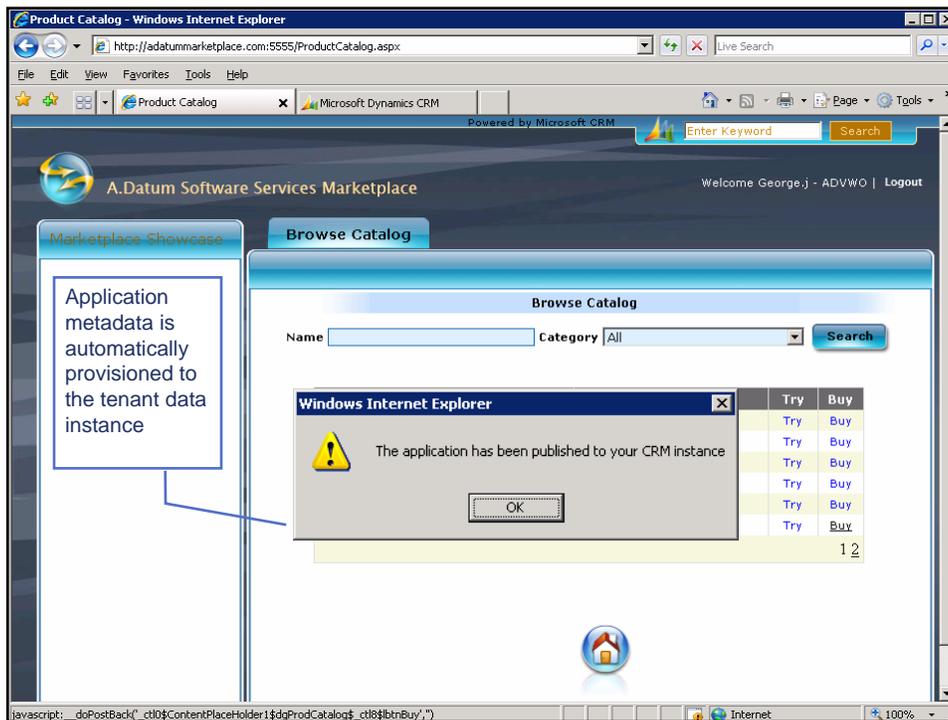
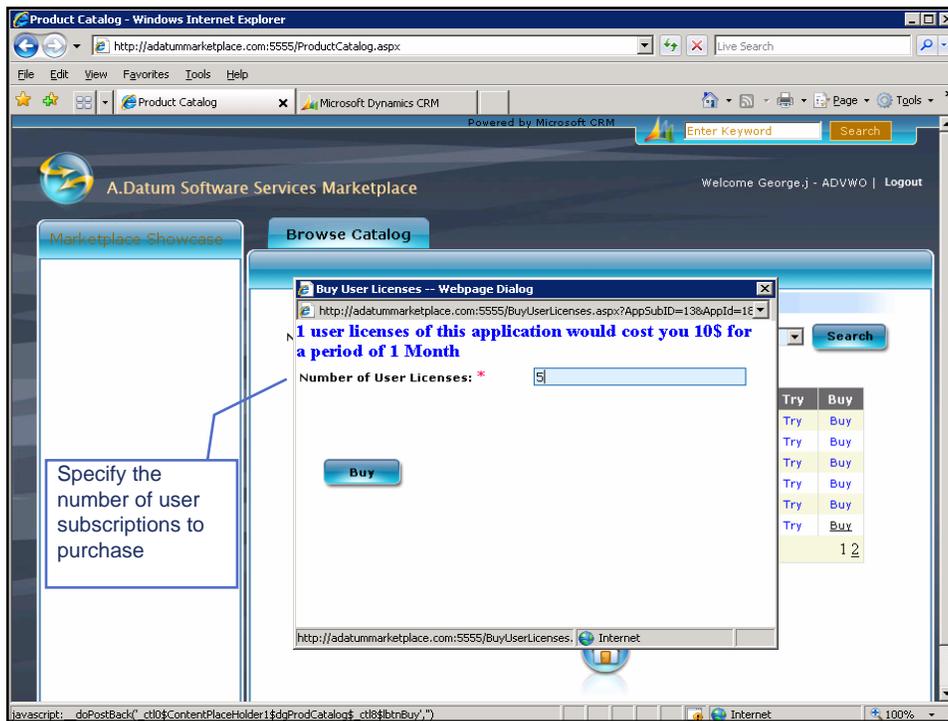
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**Scenario Screencast: Selling to the long tail**

**SMB subscribes an application from the marketplace**





Purchased Apps - Windows Internet Explorer

http://adatummarketplace.com:5555/PurchasedApps.aspx

File Edit View Favorites Tools Help

Purchased Apps x Microsoft Dynamics CRM

Powered by Microsoft CRM

Enter Keyword Search

A.Datum Software Services Marketplace

Welcome George.j - ADVVO | Logout

Marketplace Showcase Trial Apps Subscribed Apps My Apps Report

Tenant can view all the subscribed applications and manage the purchased licenses.

Application Name	Application Category	Manage Licenses	Subscribe	Unsubscribe
<a href="#">Account Management</a>	Sales	<a href="#">Manage Licenses</a>	Subscribe	<a href="#">Unsubscribe</a>
<a href="#">Incident management system</a>	Service	<a href="#">Manage Licenses</a>	Subscribe	<a href="#">Unsubscribe</a>
<a href="#">Campaign Management</a>	Sales	<a href="#">Manage Licenses</a>	Subscribe	<a href="#">Unsubscribe</a>
<a href="#">Global Contact</a>	Sales	<a href="#">Manage Licenses</a>	Subscribe	<a href="#">Unsubscribe</a>

1

Internet 100%

javascript:ShowResolutionInfo('AssignUserLicenses.aspx?OrgapplicationId=13')

Purchased Apps - Windows Internet Explorer

http://adatummarketplace.com:5555/PurchasedApps.aspx

File Edit View Favorites Tools Help

Purchased Apps x Microsoft Dynamics CRM

Powered by Microsoft CRM

Enter Keyword Search

A.Datum Software Services Marketplace

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Marketplace Showcase Trial Apps Subscribed Apps My Apps Report

Assign User Licenses

Remaining Licenses

Available Users

Users Assigned

George.j

Assign >>

<< Remove

Submit

Assign licenses to users in the organization

Internet 100%

javascript:ShowResolutionInfo('AssignUserLicenses.aspx?OrgapplicationId=13')

Revenue Report - Windows Internet Explorer

http://adatummarketplace.com:5555/RevenueReports.aspx?ReportName=User.LicenseUsageReport

File Edit View Favorites Tools Help

Revenue Report Microsoft Dynamics CRM

Powered by Microsoft CRM

Enter Keyword Search

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Marketplace Showcase

Trial Apps Subscribed Apps My Apps Report

View current application subscriptions and fees.

1 of 1 100% Find | Next

Select a format Export

**Current user license subscriptions**

Application	Licenses	Amount
Account Management	50	1,000.00 \$
Campaign Management	30	600.00 \$
Global Contact	5	50.00 \$
Incident management system	50	1,500.00 \$
<b>Total</b>		<b>3,150.00</b>

Page 1 of

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Done Internet 100%

Sign In - Windows Internet Explorer

http://advworks.bitandc.com/signin.aspx?targeturl=http%3a%2f%2fadvworks.bitandc.com%2floader.aspx

File Edit View Favorites Tools Help

Untitled Page Microsoft Dynamics CRM Sign In

Business Application Workspace

**Sign In**

User name:

Password:

Forget your password?  
Contact your Microsoft Dynamics CRM administrator.

Login as business user

Done Local intranet 100%

Microsoft Dynamics CRM - Windows Internet Explorer

http://localhost/advworks/loader.aspx

Live Search

File Edit View Favorites Tools Help

Microsoft Dynamics CRM

George j ADWORKS

Help

Business Application Workspace

New Record - Go To - Tools - ISV - Advanced Find

My Apps

Account Management

Incident management s...

Campaign Management

Contact Management

Contact Management S...

Global Contact

Administration

My Apps

Accounts

Search for records

View: My Active Accounts

New | Test | Test | Web Only | More Actions

Account Name	Main Phone	Address 1: City	Primary Contact	E-mail
0 of 0 selected.				

Page 1

All # A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Local intranet 100%

Workspace is the dashboard for using subscribed applications

Microsoft Dynamics CRM - Windows Internet Explorer

http://localhost/advworks/loader.aspx

Live Search

File Edit View Favorites Tools Help

Microsoft Dynamics CRM

George j ADWORKS

Help

Business Application Workspace

New Record - Go To - Tools - Save and Close

My Apps

Account Management

Incident management s...

Campaign Management

Contact Management

Contact Management S...

Global Contact

Administration

My Apps

Global Contact

Marketing: Campaigns

Information

General Details Administration Notes Map and Directions

Salutation

First Name \* Ted

Middle Name

Last Name \* Smith

Job Title

Parent Customer

Currency US Dollar

Business Phone

Home Phone

Mobile Phone

Fax

Pager

E-mail

Address

Address Name

Street 1

Street 2

Street 3

City Redmond

State/Province Washington

ZIP/Postal Code 98052

Country/Region

Phone

Address Type

Shipping Method

Freight Terms

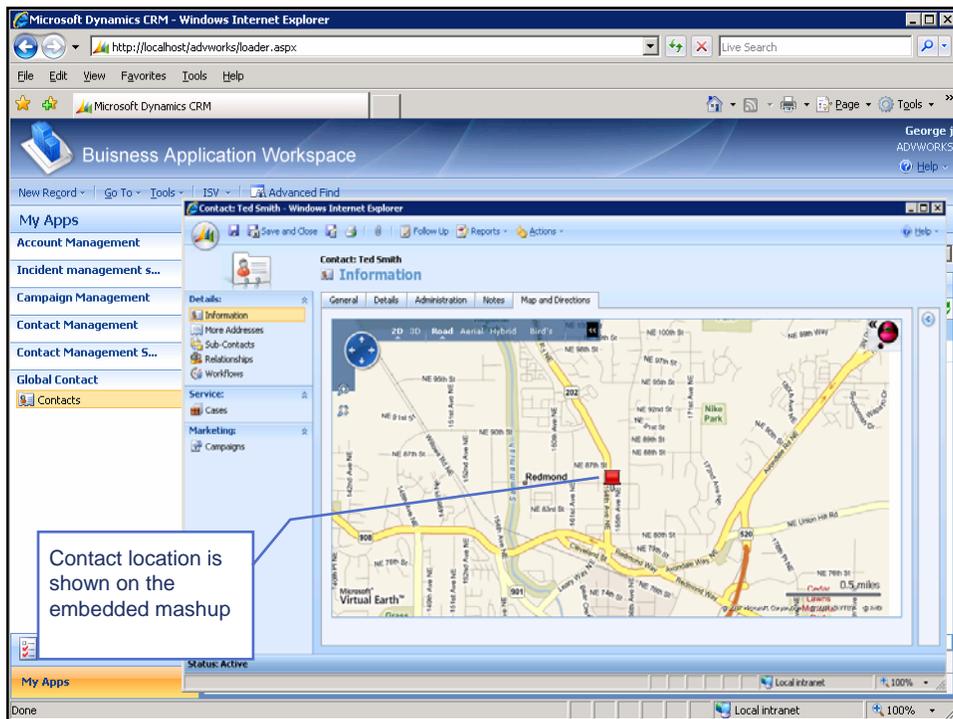
Status: New

Done

All # A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Local intranet 100%

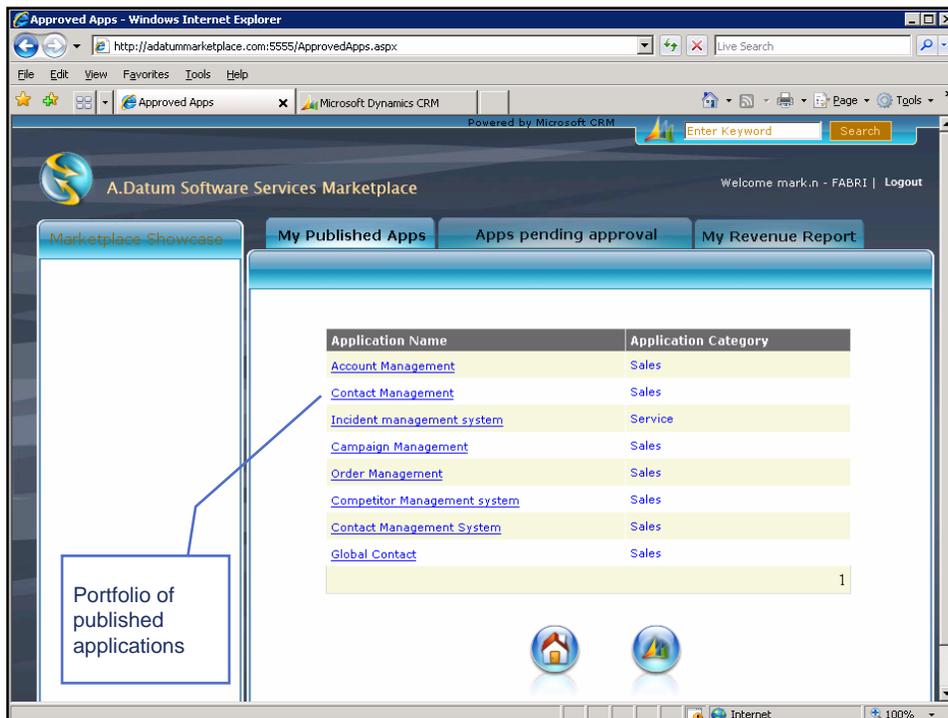
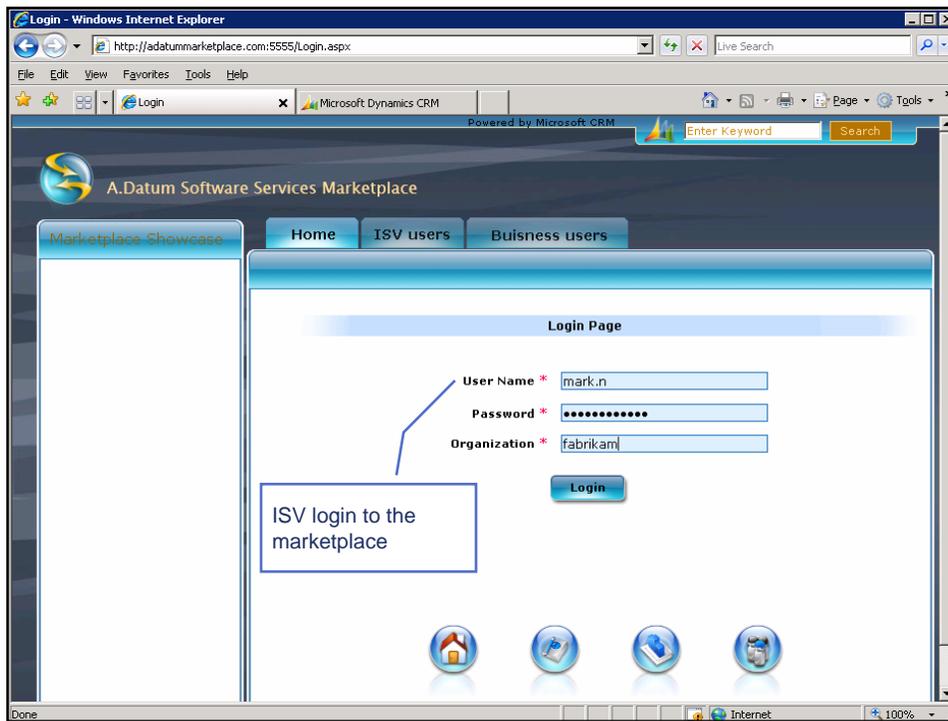
Use the Global Contact application to add a new contact



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**SaaS Summit**  
2008

**Scenario Screencast: Show me the money**

**Marketplace reporting for ISV**



Revenue Report - Windows Internet Explorer

http://adatummarketplace.com:5555/RevenueReports.aspx?ReportName=UserLicenseRevenueReport

File Edit View Favorites Tools Help

Revenue Report Microsoft Dynamics CRM Product Catalog

Powered by Microsoft CRM

A.Datum Software Services Marketplace

Welcome mark.n - FABRI | Logout

Marketplace Showcase My Published Apps Apps pending approval My Revenue Report

Current Licence revenue from marketplace subscriptions

Application	Licenses	Amount	Details
Global Contact	45	450.00 \$	<a href="#">Details</a>
Order Management	25	300.00 \$	<a href="#">Details</a>
Account Management	50	1,000.00 \$	<a href="#">Details</a>
Campaign Management	30	600.00 \$	<a href="#">Details</a>
Contact Management System	25	500.00 \$	<a href="#">Details</a>
Incident management system	50	1,500.00 \$	<a href="#">Details</a>
<b>Total Revenue</b>		<b>4,350.00 \$</b>	

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Done

Revenue reports for all published applications

Revenue Report - Windows Internet Explorer

http://adatummarketplace.com:5555/RevenueReports.aspx?ReportName=UserLicenseRevenueReport

File Edit View Favorites Tools Help

Revenue Report Microsoft Dynamics CRM Product Catalog

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A.Datum Software Services Marketplace

Welcome mark.n - FABRI | Logout

Marketplace Showcase My Published Apps Apps pending approval My Revenue Report

Licence revenue from marketplace subscriptions details for Global Contact

[Back to Main Report](#)

Organization Name	Licenses	Amount
ADWORKS	5	50.00 \$
CONTOSO	40	400.00 \$

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Done

Drill down to view tenants of individual application

## Summary



- Preview of an application marketplace starter kit:
  - Final release available Q2 2008 from [MSDN Software + Services Architecture Website](#)
  - Content: Sample code implementation, how-to and architecture documentation
- Provide “Channel as a Service” technical guidance for the long tail software + services market
- Application marketplaces and long tail software:
  - [Application Marketplaces and the Money Trail](#)
  - [http://blogs.msdn.com/fred\\_chong/default.aspx](http://blogs.msdn.com/fred_chong/default.aspx)
- Colleague blogs on S+S architecture:
  - <http://blogs.msdn.com/gianpaolo>
  - <http://blogs.msdn.com/eugenio>