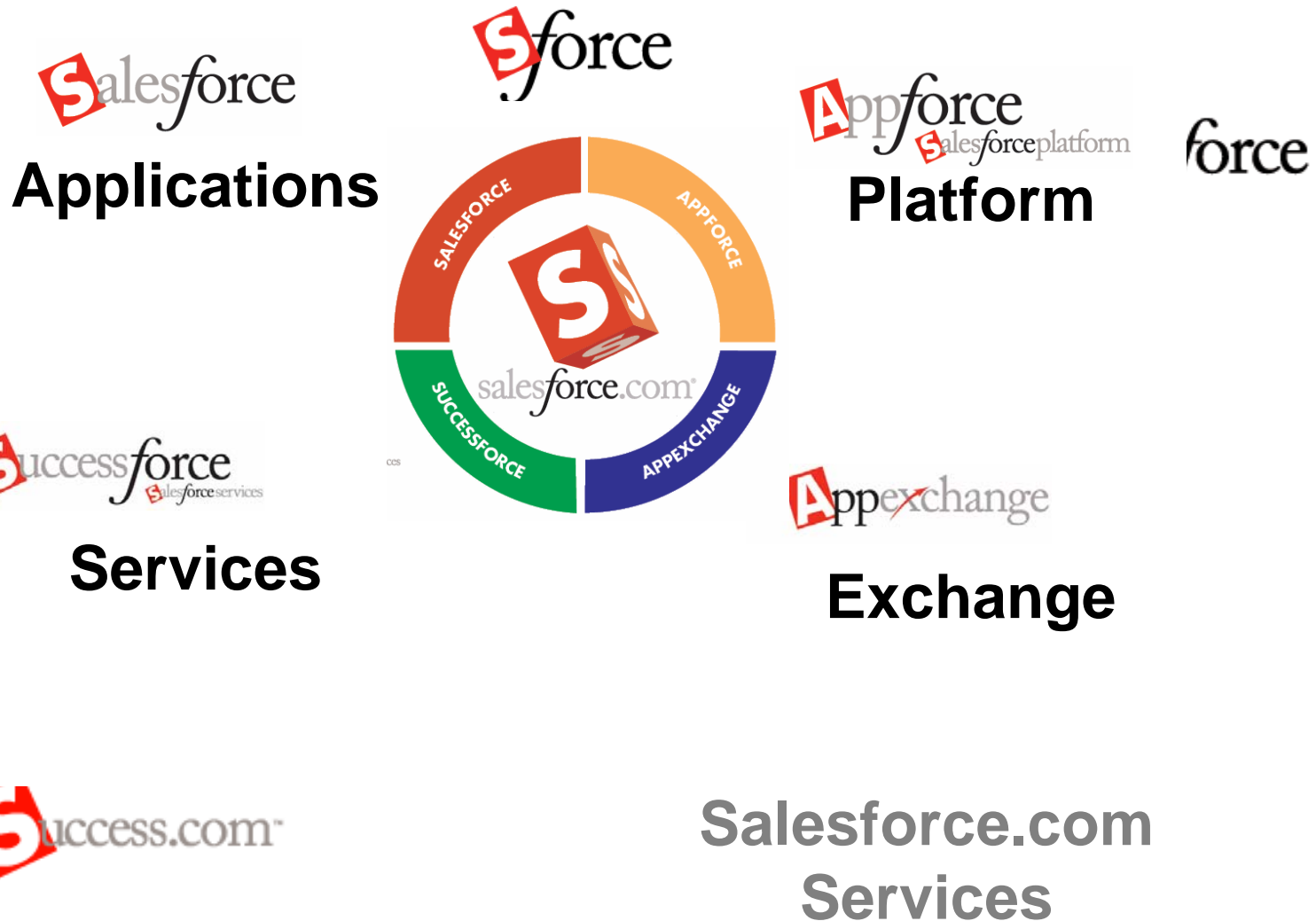


Just a Reminder . . .



Agenda

- ❖ What is an S-control?
- ❖ Why build one?
- ❖ What Skill Sets are necessary?
- ❖ S-Control Options
 - ActiveX
 - Java Applet
 - JSP/ASP
 - JavaScript (AJAX)
- ❖ Sample download, usage and an the AppExchange
 - S-Control in Action
- ❖ Resources to leverage
 - Training
 - Sforce Developer Community & Discussion Boards
 - Development Tools
 - Ajax ToolKit
 - Environment

What is an S-Control

- ❖ This discussion is not focused on a web link (web links actually trigger the scontrol)
- ❖ Client (Browser) side programming interface that leverages salesforce.com's API (Enterprise Edition needed) and provides:
 - The ability to extend our user interface (i.e. display information from salesforce in a web tab in a completely different way)
 - The ability to add enhanced business process logic, rules or client side workflow (ex. create dependencies or "gates" for your sales stages)
 - The ability add interfaces to other applications internal to your environment or external (google maps)
- ❖ Leverages client side programming that most developers are very familiar with
 - Java Applets
 - Active X controls
 - JSP/ASP
 - JavaScript (AJAX toolkit)

Why build an S-Control

- ❖ Need to build out capabilities just not supported by salesforce.com
- ❖ Advanced logic to support business processes required by a customer
- ❖ Build composite applications that leverage data in salesforce.com
- ❖ Make processes easier for end user and ultimately get better data quality and metrics

What Skills are necessary

❖ What Skills are necessary

- Depends a little bit on what technology you plan on using, but definitely a developer with OO background (.net or java)
- They should have familiarity with the AppExchange API and go through the training.
 - JavaScript experience required for building AJAX based S-Controls
 - AppExchange API Fundamentals – 1 day
 - AppExchange API Workshop – 4 days
- Play around in a trial/sandbox environment with the samples
 - http://www.salesforce.com/developer/projects_toolkits.jsp
 - Many JSP/ASP/Java samples exist
 - Download S-Controls from AppExchange (demo to follow) and edit them as a starting pt.
 - Build your own basic S-Controls
- Do it right or you may have issues, the untrained and inexperienced can have:
 - Performance issues
 - Cross Browser compatibility issues
 - Error Handling issues

S-Control Options



| ActiveX | Java Applet | JSP / ASP | AJAX |
|---|---|--|---|
| <ul style="list-style-type: none">+ Rich UI+ Can be "trusted"+ Tricky deployment | <ul style="list-style-type: none">+ Rich UI+ Can be "trusted"+ Cross-browser | <ul style="list-style-type: none">+ Rich UI+ Good access to internal systems+ Familiar dev environment | <ul style="list-style-type: none">+ Pretty rich UI+ Simple API access+ Asynchronous+ Familiar html environment+ Javascript / cross-browser+ Quick and easy cycle+ Easy to package and share |
| <ul style="list-style-type: none">- Versioning issues- IE Specific- COM calling COM | <ul style="list-style-type: none">- JVM versioning- SOAP stack deployment- Large footprint- Java developer | <ul style="list-style-type: none">- Need a hosting stack- Expensive development- Packaging and sharing is hard | <ul style="list-style-type: none">- No back-office access- State persistence |

Demo – Google Maps

Home Campaigns Leads Accounts Contacts Opportunities Cases Solutions Contracts Documents Intranet **Google Maps**

New Task | New Campaign | New Lead | New Account | New Contact | New Opportunity | New Case | New Solution | New Document | Recycle Bin

Select Entity to Map Field: Filter Search

Account # Calculated Fields equals 20 Find

Map Satellite Hybrid

307 Waverly Oaks Road
Waltham, MA
Phone: (781) 693-7500
Employees: 100
Type: Enterprise Customer
www.3m.com

Search complete, 3 records mapped.

Map data ©2005 NAVTEQ™ - Terms of Use

Demo - Sforce Explorer

The screenshot shows the Sforce Explorer application interface. At the top, there is a navigation bar with tabs: Home, SforceGoo, SOQL Tester (selected), Hello World, Address Update, Tester, Encore Test, and Encore Test 2. Below the navigation bar is a status bar with "New Task | Recycle Bin".

The main interface is divided into several sections:

- Search:** A search bar with a "Search" button and a link to "Advanced Search...".
- Recent Items:** A list of recent items, including "Ferrari Giveaway - Jan 7, 2004", "Chris Friedman", "Jill Lindsey", "Tom James", "Subaru Rally and Race", "Kyle Pearson", "Jeannie Rogers", and "Sean Forbes".
- SQL Query:** A text area containing the query: "Select Id, LastName, FirstName, Street, City, State from Lead". Above the text area, it shows "Elapsed Time: 31.927" and a "Run Query" button.
- Results Table:** A table displaying the results of the query. The columns are "Id", "Last Name", "First Name", "Street", "City", and "State". The table contains 15 rows of data.
- Describe Results:** A list of Sforce objects, including Account, AccountContactRole, AccountShare, AccountTeamMember, Application__c, Approval, Asset, AssignmentRule, Attachment, Bug2Case__c, Bug2User__c, Bug__c, BusinessHours, BusinessProcess, Campaign, CampaignMember, Candidate__c, Case, CaseComment, CaseHistory, CaseSolution, CaseStatus, Channel_Account_Plan__c, Collateral_Request_Object__c, and Contact.

At the bottom of the results table, it shows "20 of 83" and a "Query More" button. Below the table, there is a "Toggle Debug" button.

| Id | Last Name | First Name | Street | City | State |
|-------|--------------|------------|--------------------------|------|-------|
| IQEA2 | Peel | Chris | | | |
| IREA2 | De Marr | Frank | 12 Madison Avenue | | N |
| ISEA2 | Robinson | Phil | 12 South Meridian Street | | Ir |
| IVEA2 | Johanson | Susan | 200 Market St | | S |
| IWEA2 | Trenton | Malcolm | 200 3rd mt | | S |
| IXEA2 | Richardson | Phil | | | D |
| IYEA2 | Bergman | Janice | 11455 Sunrise Valley | | R |
| IZEA2 | Owens | Brad | | | |
| IaEAM | Pearson | Kyle | | | |
| IbEAM | Johnson | Alex | | | |
| IcEAM | Hunter | Helen | | | |
| IdEAM | Lead Convert | Testing | | | |
| IeEAM | Beach | Michael | 100 2nd St | | |

Demo – Quote Line Items AppExchange Application

- ❖ Create a quote and add products
- ❖ Add quote to opportunity (updateing amount

Resources

- ❖ Training (assuming AJAX Controls)
 - JavaScript Training & Books (O'Reilly amongst others)
 - Lots of free Resources on the internet
 - Read the API docs (www.sforce.com) and attend the API training
 - Salesforce.com plans on creating a 1 day class on S-controls (targeting end of q2)
- ❖ Developer Community and Discussion Boards
 - www.sforce.com – sign up for a trial and join the community
 - <http://blog.sforce.com> – getting started, postings on ajax etc
- ❖ Development Tools
 - Development Environment
 - Text editor
 - Eclipse (javascript specific plugins)
 - Visual Studio .NET
 - Other standard IDEs
 - Debugging
 - MS Script Debugger (ok)
 - Visual Studio .NET (best)
 - Mozilla/Venkman Debugger (ok)
 - Mozilla Javascript Console
- ❖ Ajax ToolKit (pre-integrated with AppExchange Toolkit for Eclipse)
 - http://www.salesforce.com/developer/projects_toolkits.jsp
 - <http://blog.sforce.com>
 - Read the blog, Ajax getting started guide and tool kit beta 3 documentation
- ❖ Its best to do all development testing in a developer org or sandbox edition (with the later choice better)