

e-Survey Suite

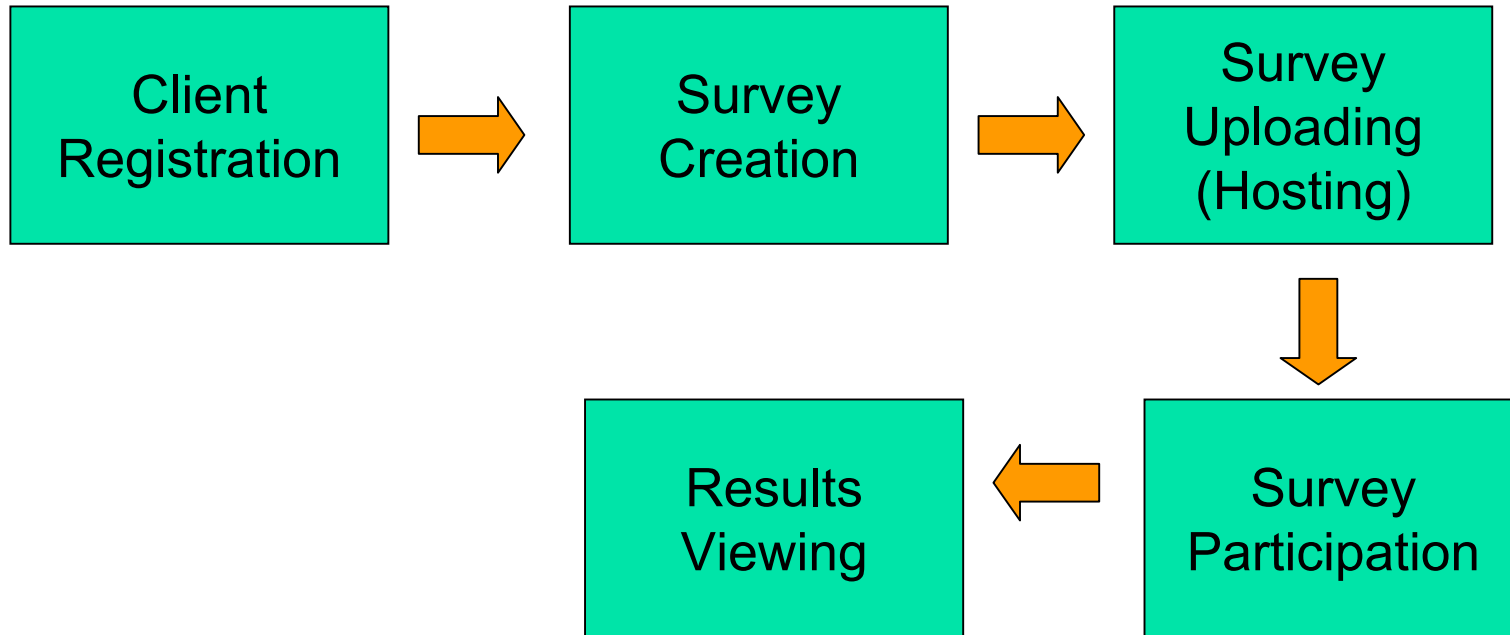
What is e-Survey Suite?

- Web application:
 - Upload client developed surveys
 - Host client surveys
 - Download survey results

Main Features

- Survey composed in XML format
- 15 different question styles supported
- Survey personalization using client logos and images
- Image support at the question level
- Dynamic updates to survey without data (results) loss
- Time history of survey modifications
- Survey results in Excel spreadsheet format

Typical Flow When Using e-Survey Suite



- Each of the steps can be taken at any time during the process

Survey Creation

- Document written in XML format
 - Standard
 - Well formed
 - Flexible
 - Validating Schema
- Created by hand following guide and using sample survey and questions templates
 - Future direction is to use XML builder tool for easier creation
- 15 different question styles supported

Survey Example

```
<?xml version="1.0"?>
<survey
  xmlns="http://espiritry.com/survey"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema-instance"
  xsd:schemaLocation="http://espiritry.com/survey http://206.191.28.212/survey/survey.xsd">
  <title>SAMPLE SURVEY</title>
  <password>PASSWORD</password>
  <bannerImageUrl>http://www.espiritry.com/sample.jpg</bannerImageUrl>
  <surveyHeader>
    <surveyHeaderLine>Our sample survey</surveyHeaderLine>
    <surveyHeaderLine>Espirity Inc.</surveyHeaderLine>
  </surveyHeader>
  <startDate>2004-05-31</startDate>
  <endDate>2009-12-31</endDate>
  <backgroundColor>D3D3D3</backgroundColor>
  <foregroundColor>000000</foregroundColor>
  <entries>
    <questionEntry>...</questionEntry>
    <questionEntry>...</questionEntry>
  </entries>
</survey>
```

Personalizing Surveys

- Custom images can be part of the survey
 - Company/Organization logos for example



Take Part in the OOPSLA 2004 Evaluation and Feedback Survey

Vancouver, British Columbia, October 24-28, 2004

We look forward to seeing you next year. To help ensure that OOPSLA maintains its high level of quality, please comment on this year's conference. Your suggestions are vital in planning future meetings. Check the appropriate box and elaborate in the space provided.

1) Was this your first OOPSLA?

- Yes
 No

Personalizing Survey Questions

- Images can be part of a survey question

5) When in Las Vegas should we go to the Bryce Canyon?



Yes

Maybe

No

Hosting Surveys

- Once created and uploaded to the server, surveys are rendered in HTML and accessible
 - Surveys are password protected
 - Participants can take a survey between the survey's start and end date
 - Each survey has a unique, directly accessible URL
 - Participants can be sent the survey's URL to participate in the survey
 - For example an email message to clients: "Dear Bill, click here to participate in our climbing survey"

Participating in Surveys

- The unique URL is created automatically by the e-Survey Suite and can be obtained from **My Surveys** → **Review Survey** link
- This feature simplifies the process of participating in a survey
- It is also possible to participate in surveys from the e-Survey Suite by following the **Surveys** link

Survey Results

- Presented in the Excel spreadsheet format
 - Each row in the spreadsheet represents a single survey response
 - Each response is time and data stamped
 - Each question response is grouped by unique identifier
 - ▬ This identifier is specified by the client for the question and maintained in the survey's xml document

Survey Modification History

- Changes to a survey during its lifetime does not result in data loss
 - Data from previous participation in the survey is kept in the spreadsheet report
 - History of updates is kept in the spreadsheet report
 - Results of participation in the updated survey are also kept in the spreadsheet report

e-Survey Suite Architecture – Design time

```
<?xml version="1.0"?>  
<survey>  
  <title>MySurvey</title>  
</survey>
```

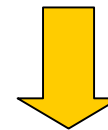
Survey design



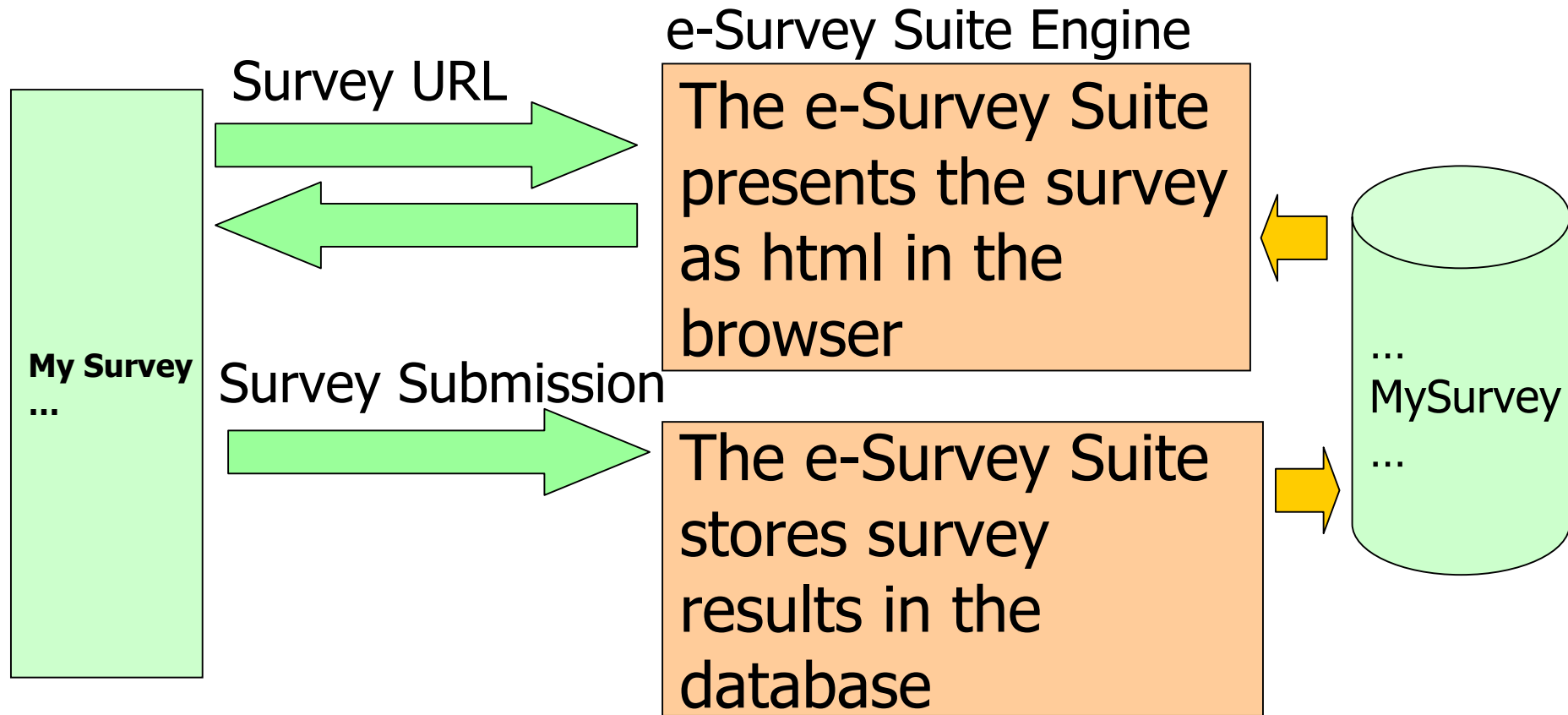
Uploading survey

e-Survey Suite Engine

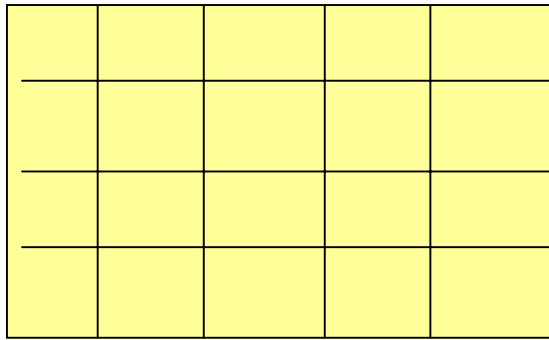
The e-Survey Suite processes xml and stores surveys in the database



e-Survey Suite Architecture - Runtime



e-Survey Suite Architecture – Processing time

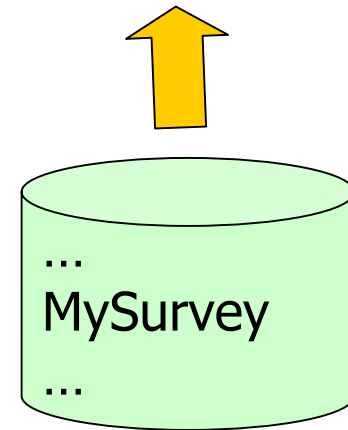


Survey results



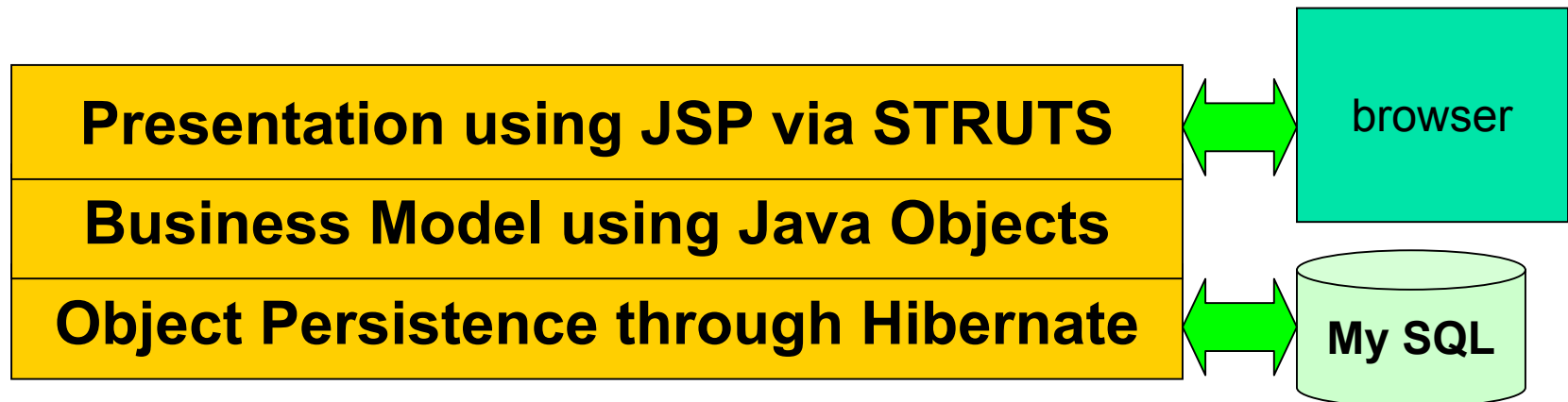
Viewing results

e-Survey Suite Engine
The e-Survey Suite processes survey results and presents them in a spreadsheet



e-Survey Suite Application Design

- Standard layered architecture that increases flexibility and maintainability



Architectural Standards

- Java and J2EE standards
 - Development Environment:
 - Eclipse, LOMBOZ, ANT
 - Runtime Environment:
 - STRUTS, Hibernate, Tomcat
- Open Source software:
 - Entire development and runtime software is open source
 - MySQL as persistence storage
- XML as survey representation
 - Rendered by the suite at runtime to present surveys to participants

More on Technologies

- All technologies used are standards in J2EE web application domain
 - STRUTS used as a front-end MVC implementation
 - Hibernate used as object persistence layer
 - Tomcat used as application server
 - Eclipse used as IDE
 - LOMBOZ used for developing JSPs
 - ANT used for running automated builds
 - MySQL used for storing surveys and responses to surveys

e-Survey Suite Packaging

- Two main packaging:
 - As a service, hosted and maintained by Espirity
 - Licensed by a client to host and maintain their own Survey application
 - The e-Survey Suite can be deployed to any J2EE application server (Weblogic, Websphere, OC4J, etc.)
 - The e-Survey Suite can also be further customized for particular client needs

Future Plans

- Survey Builder
 - a visual XML builder permitting clients to create surveys visually
- Further data processing and analysis
 - “X percentage of survey participants answered Y to a question Z”

How to Use e-Survey Suite?

- 5 steps process:
 - Register as client
 - Create survey
 - Upload survey
 - Send survey URL to survey participants
 - Download a view survey results

Step 1: Register as Client

- Follow **My Profile** → **Create Client** link

Espirity Survey Client Add - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <http://206.191.28.212/survey/customerClientAdd.action?start=InitialState>

Espirity

Your Enterprise Services Provider

Home Surveys My Profile My Surveys Administration Contact Us

■ Create Client

■ Update Client

Client Create

First Name:

Last Name:

Email Address:

Password:

Address:

Phone Number:

Credit Card Number:

Credit Card Type:

Credit Card Expiration Month:

Credit Card Expiration Year:

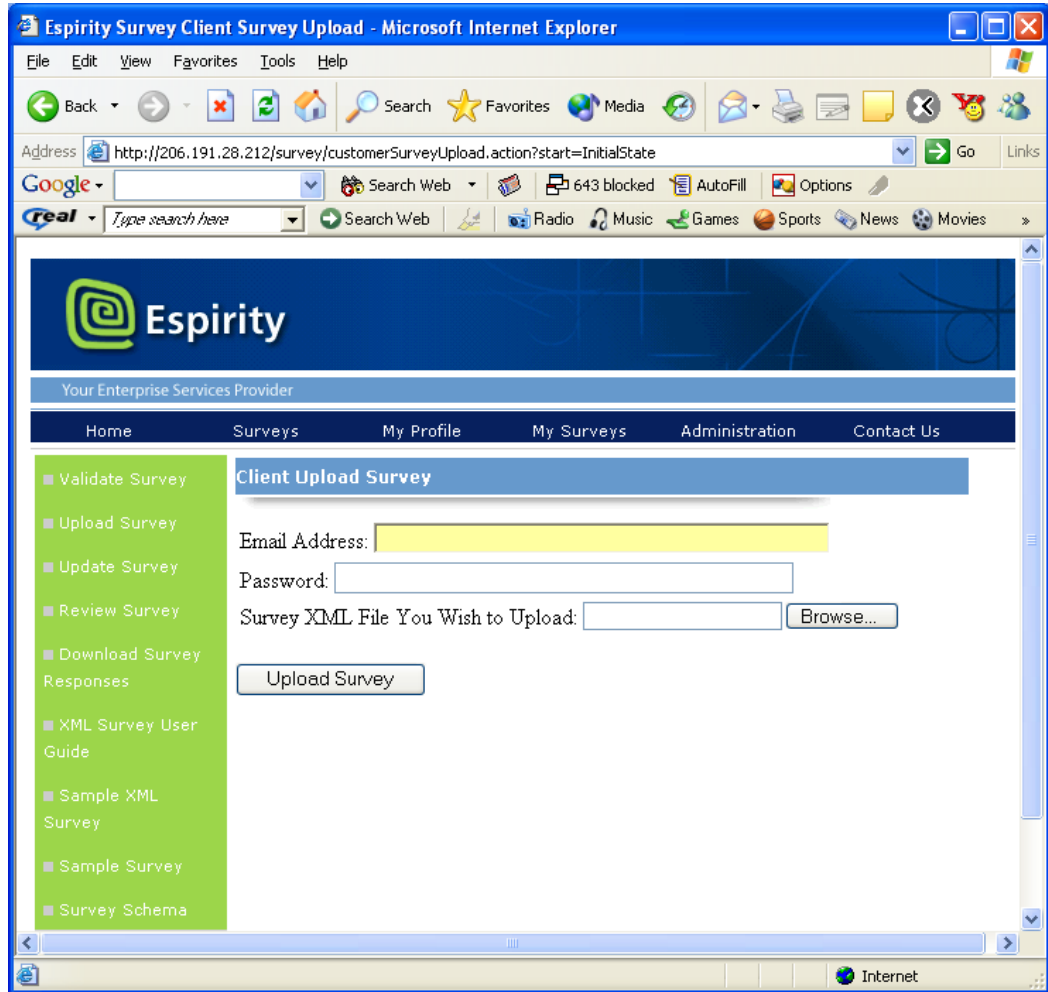
Create Client

Step 2: Create and Upload Survey

- For creating a survey follow the **Sample XML Survey** instructions from the **My Surveys** link
 - ▣ The Acrobat file can be downloaded as well by choosing **Save Target As...** from the popup menu on the link
- XML Survey User Guide contains detailed description on how to create surveys
 - ▣ The XML file can be saved by choosing **Save Target As...** from the popup menu on the link

Step 3: Upload Survey

- Uploading surveys means hosting it on a server
 - To upload survey follow the **My Surveys** → **Upload Survey** link
 - Once uploaded survey can only be updated (**Update Survey** link), or deleted (administrative privilege)



Step 4: Participate in Survey

- Send the Survey URL to participants
 - The URL can be obtained by choosing **My Surveys** → **Review Survey** link
 - The URL is automatically created by the e-Survey Suite
 - Participants can also get to the surveys through **Surveys** link
 - A password for surveys is requested (automatically part of the URL created when reviewing surveys)

Step 5: View Survey Results

- To view results from survey participation simply follow **My Surveys → Download Survey Responses** link
 - ▣ This opens/downloads the Excel spreadsheet with all survey responses