

WebSphere software



 e-business software

Lotus Collaborative Components

for WebSphere Portal v4.1

IBM Software Group

Agenda

- Definition
- Collaborative Components by example
- Summary and Questions

What are Collaborative Components?

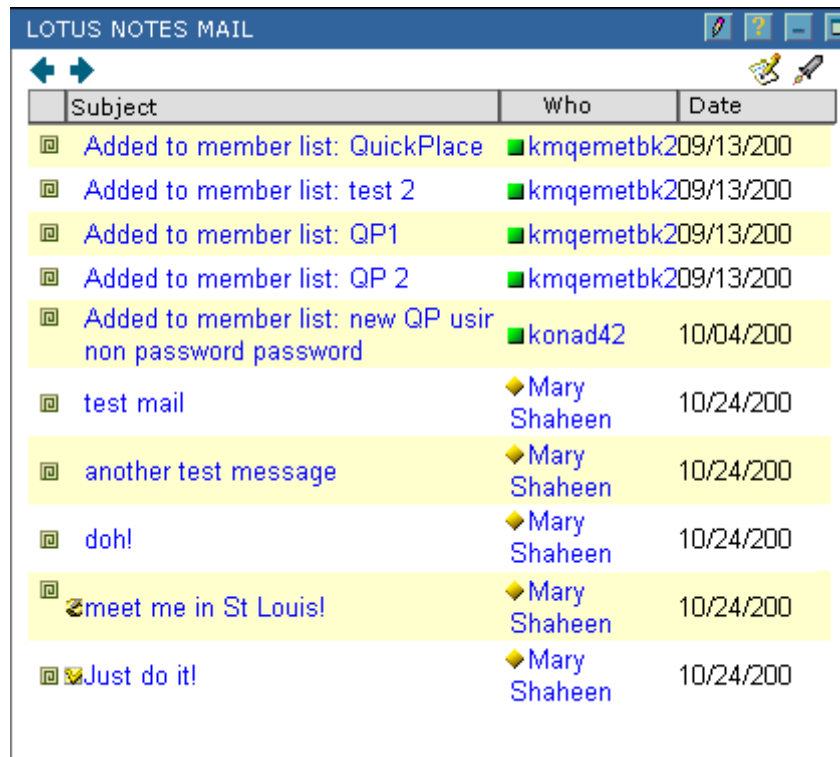
- A set of methods that expose collaboration function to portlet developers
- JavaBeans
- Designed to access Lotus Software products - Domino, QuickPlace, Sametime, Discovery Server
 - ▶ Not a replacement to individual product APIs
- Useful for building custom portlets or adding functionality to portlets, such as menus or online awareness

Benefits of Using Collaborative Components

- Standardized access to the application
 - ▶ for example, works across versions of Domino 4.67 and above
- Easier to use api's, optimized for the portal
- Transparent upgrades to backend systems
- Security context taken care of
- Performance

A quick example that uses...

- Domino Data Service
- People Service
- Menu Service

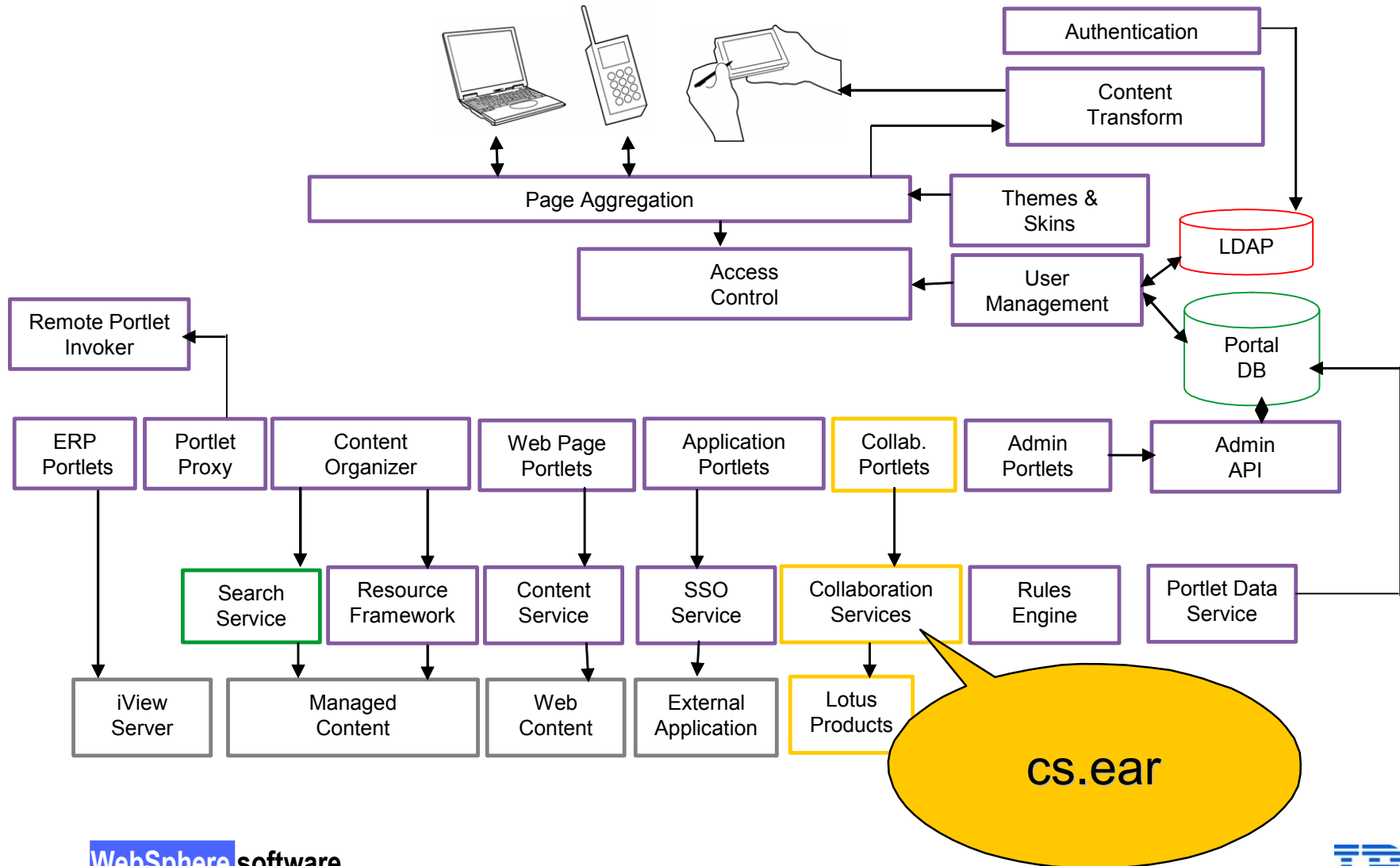


The screenshot shows a window titled "LOTUS NOTES MAIL" with a list of messages. The messages are displayed in a table with columns for Subject, Who, and Date. The messages are as follows:

Subject	Who	Date
Added to member list: QuickPlace	kmqemetbk	209/13/200
Added to member list: test 2	kmqemetbk	209/13/200
Added to member list: QP1	kmqemetbk	209/13/200
Added to member list: QP 2	kmqemetbk	209/13/200
Added to member list: new QP usir non password password	konad42	10/04/200
test mail	Mary Shaheen	10/24/200
another test message	Mary Shaheen	10/24/200
doh!	Mary Shaheen	10/24/200
meet me in St Louis!	Mary Shaheen	10/24/200
Just do it!	Mary Shaheen	10/24/200

Collaborative Components Architecture

Portal Server Architecture



What's in cs.war?

- Sample Java Server Page files
- Domino view images
- JavaScript code for various functions
- Menu Java applet
- Jars for cs, Domino IIOP, LDS
- People tag library
- Menu tag library
- Language resources
- JavaDoc

What are the Collaborative Components?

- Domino Data Service
- QuickPlace Service
- People Service
- Menu Service
- Discovery Server



Collaborative Components by Example

Getting Started

- cs.ear installed to WP server
- Mapped to 9080:/cs for running the sample JSPs
- Instantiating a service:

```
CSEnvironment environ = CSEnvironment.getEnvironment(request);  
CSCredentials cred = environ.getCredentials(request);  
QPService quickplaceService = (QPService)CSFactory.getService(cred,  
CSFactory.QUICKPLACE SERVICE);
```

User Credentials are stored in an http session object
and accessed via CSEnvironment object

Domino Data Service

- Methods to access Domino data and information
 - ▶ versions supported (4.6+)
- Directory-related
- View-related
- Document-related


Directory-related Services

- Use: to access the Domino Directory for server and user information
- Example methods
 - ▶ public HashMap getServers (++)
 - ▶ public HashMap getDatabases (*)
 - ▶ public String[] getDatabaseViews
 - ▶ public HashMap getDatabaseViewsWithAliases (*)
 - ▶ public HashMap getQuickPlaceDatabases (*)
 - ▶ public HashMap getQuickPlaceComponents (*)
 - ▶ public String getMailServerFile (++)
 - ▶ public String getDominoName (++)
 - ▶ public String getEmailAddress (++)
 - ▶ public String getDistinguishedName (++)

++ uses LDAP

* uses IIOP

Sample Directory Service

Address  http://ksg5.lotus.com:9080/cs/dbpicksamp

Collaborative Services Sample File

Picker Sample
Select a server:

Domino server name:

- ecat-5/eCAT
- fuyili1/eCAT
- Aburi/eCAT
- titus-netvista/eCAT
- Camsp04a/CAM/I/Lotus
- MtFuji/TYO/M/Lotus
- kmraven6/kmqsecurity
- Jane/eCAT

Internet host name:


Databases:

Database name:

Views:

View name:

Sample Directory Service - 2

Address  http://ksg5.lotus.com:9080/cs/dbpicksamp

Collaborative Services Sample File

Picker Sample
Select a server:

Domino server name:

- BIANCA/TYO/M/Lotus
- ecat-2/eCAT
- Walluf/eCAT
- aixqe6/eCAT
- ksg8/eCAT
- ecat-3/eCAT
- TYOCRM01/TYO/A/Lotus
- Camsp01a/CAM//Lotus

Internet host name:

Databases:



- Doc Library - Notes & Web (R5.0)
- Notes Log (ecat-5/eCAT)
- Statistics Reports
- [iNotes]
- Catalog (R5)
- disctest**
- homepage
- [help]

Database name:


Views:

- View List -

View name:

 Done  Internet

Sample Directory Service - 3

Address  http://ksg5.lotus.com:9080/cs/dbpicksamp

Collaborative Services Sample File

Picker Sample
Select a server:

Domino server name:

- BIANCA/TYO/M/Lotus
- ecat-2/eCAT
- Walluf/eCAT
- aixqe6/eCAT
- ksg8/eCAT
- ecat-3/eCAT
- TYO CRM01/TYO/A/Lotus
- Camsp01 a/CAM/I/Lotus

Internet host name:
ecat-5.lotus.com

Databases:



- testmail2
- Reports for ecat-5/eCAT
- HB Test Mail
- eCAT's Address Book
- Personal Journal (R5.0)
- Domino Web Administrator (R5)
- ecat-5 Stats/eCAT
- Stauths

Database name:
disctest.nsf

Views:

- All Documents
- Author Profiles
- By Alternate Name
- By Author
- By Category**
- My Favorites

View name:
By Category

 Done  Internet

View-related Services

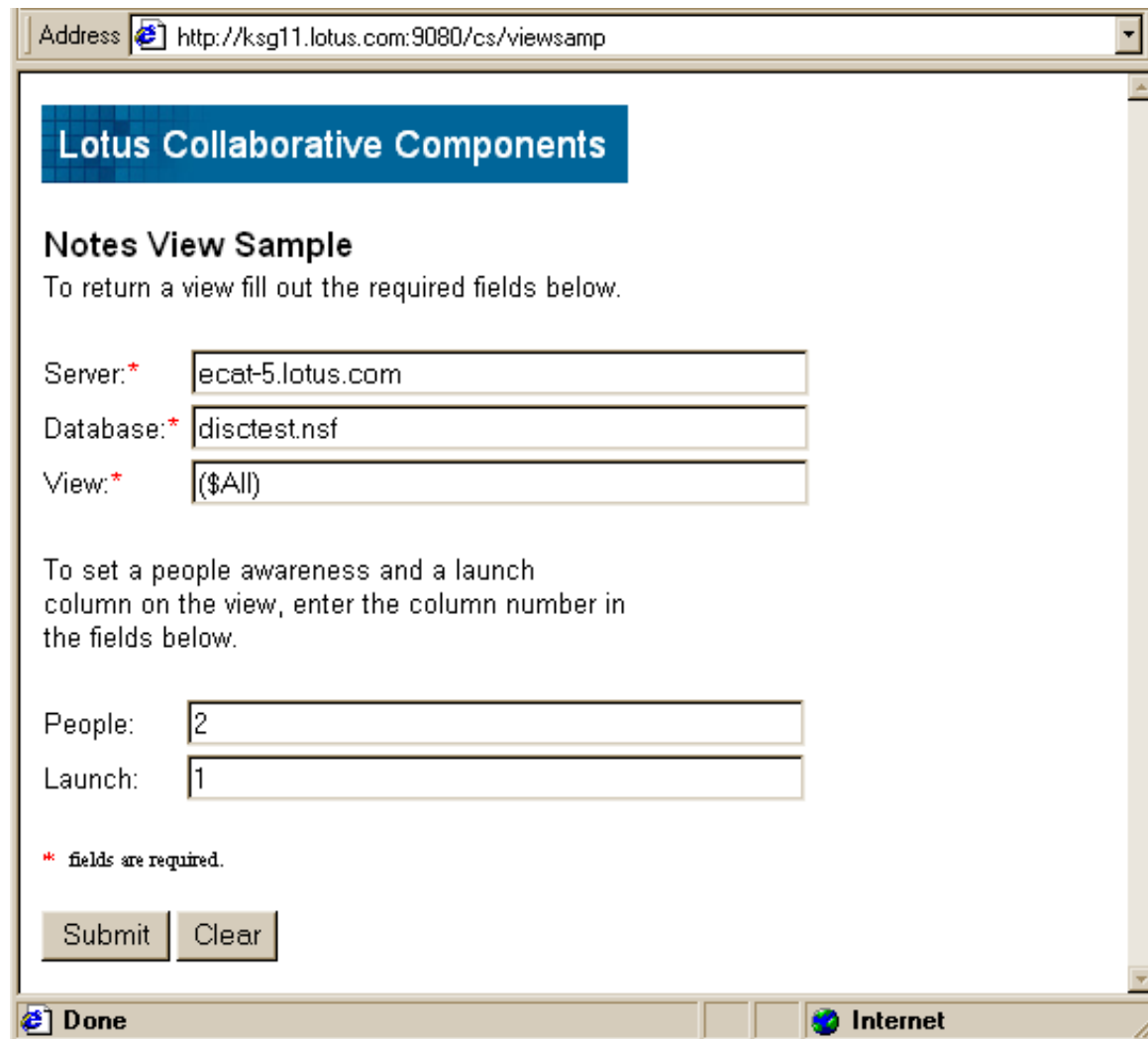
- Use: to access Domino view data for versions 4.6->6
- methods (sampling - there's a lot here)
 - ▶ getViewInfo
 - ▶ getColumnInfo
 - ▶ isCalendar
 - ▶ getRowInfo
 - ▶ getUNID
 - ▶ etc, etc


View Sample

- Sample file:
- <http://server.name.com:9080/cs/viewsamp>

```
{
    DominoService dominoService = (DominoService)CSFactory.getService(cred,
CSFactory.DOMINO_SERVICE, server, "http");
    if (dominoService != null)
    {
        String db = request.getParameter("db");
        String view = request.getParameter("view");
        String urlBase = "http://" + server + "/" + db + "/" + view + "/";
        if (db != null && view != null)
        {
            ViewInfo vi = dominoService.getViewInfo(db, view);
// removed some code....
            ColumnInfo[] ci = vi.getColumnInfo();
            int numTitles = ci.length;
            RowInfo[] ri = vi.getRowInfo("1", 500);
        }
    }
}%>
```

View Sample - 1



Address  http://ksg11.lotus.com:9080/cs/viewsamp

Lotus Collaborative Components

Notes View Sample

To return a view fill out the required fields below.

Server:*

Database:*



View:*

To set a people awareness and a launch column on the view, enter the column number in the fields below.

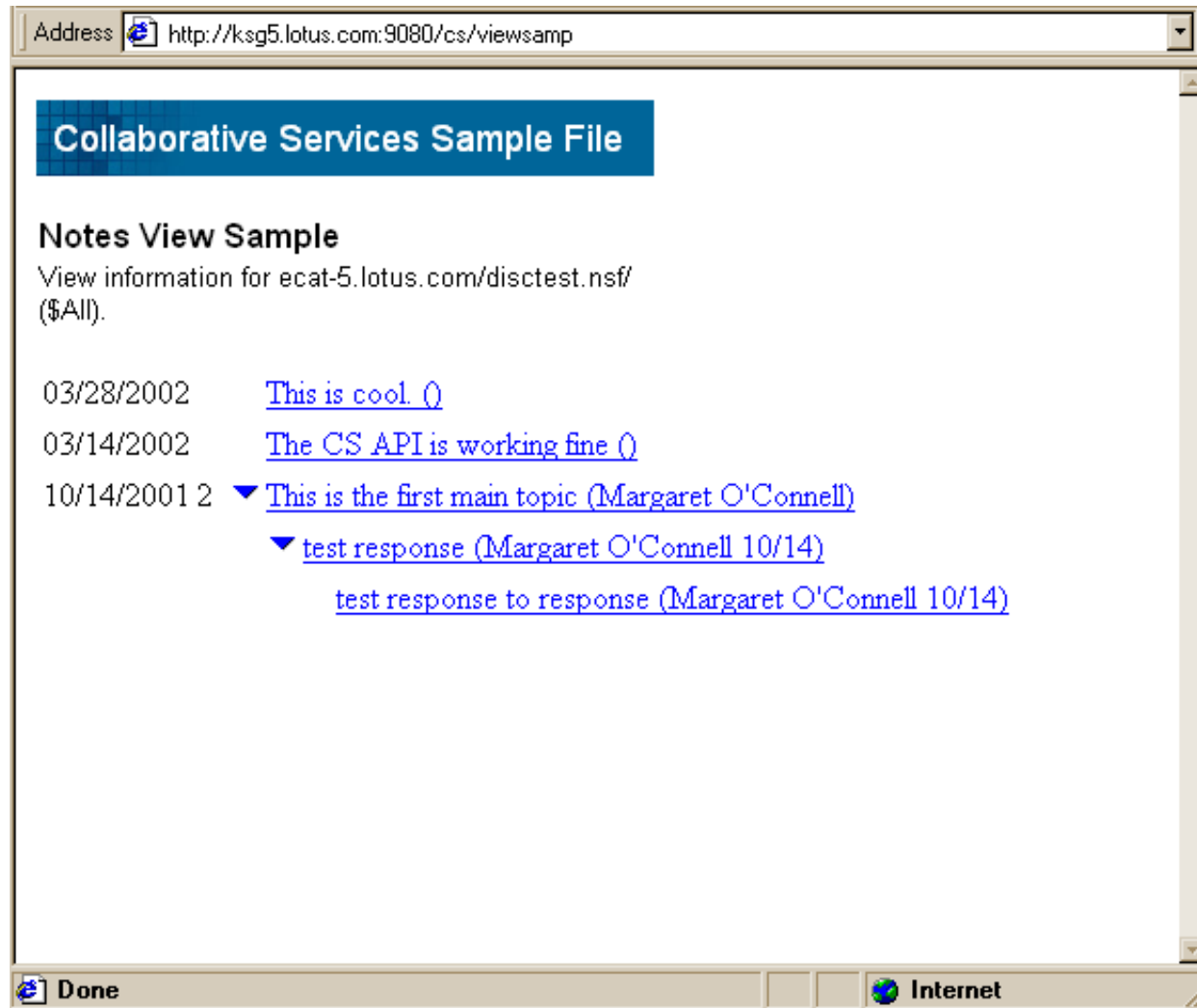
People:

Launch:

* fields are required.

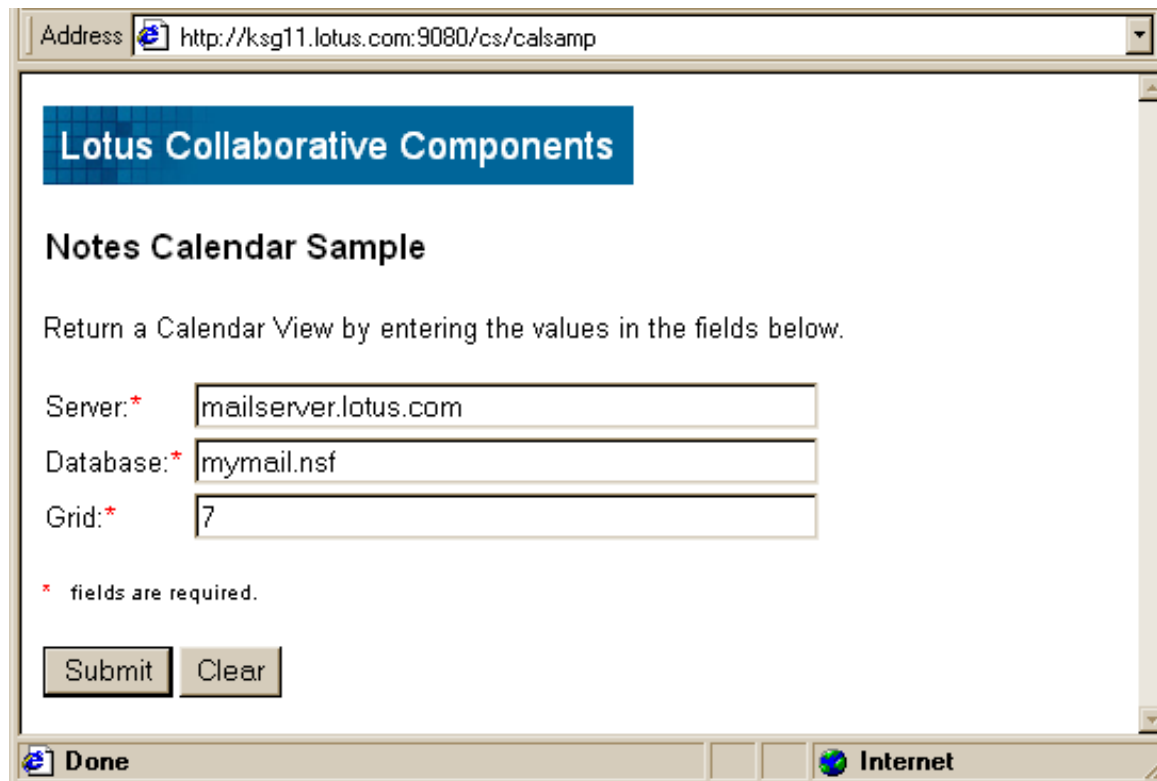
 Done  Internet

View Sample - 2



Calendar View Sample

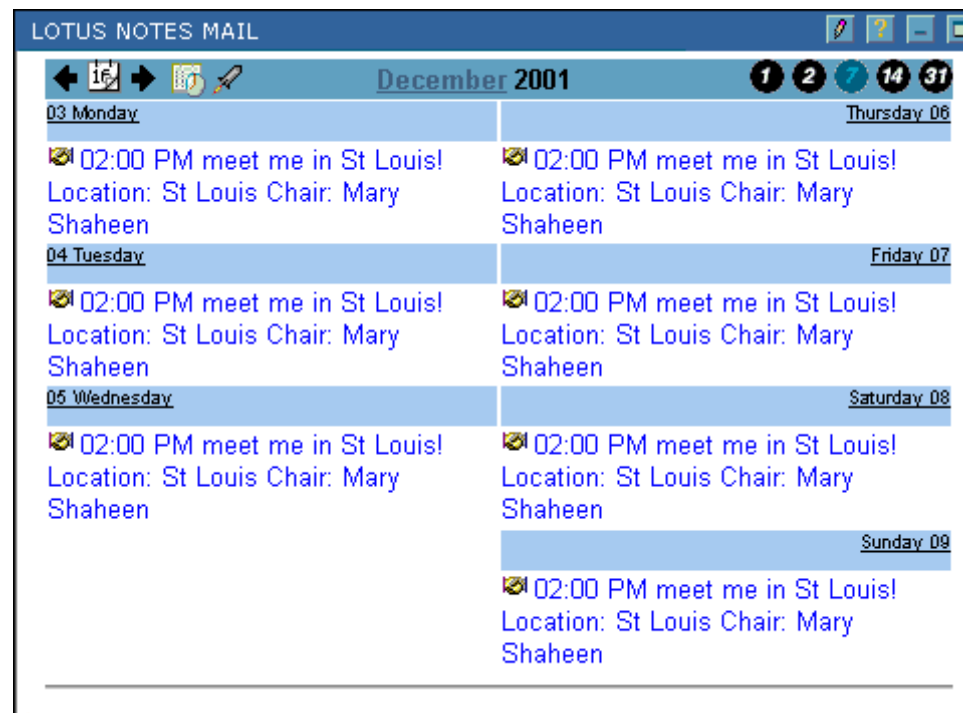
- Sample file:
- <http://server.name.com:9080/cs/calsamp>



The screenshot shows a web browser window with the address bar containing `http://ksg11.lotus.com:9080/cs/calsamp`. The page content includes a blue header with the text "Lotus Collaborative Components", followed by the title "Notes Calendar Sample". Below the title is the instruction "Return a Calendar View by entering the values in the fields below." There are three input fields: "Server:*" with the value "mailserver.lotus.com", "Database:*" with the value "mymail.nsf", and "Grid:*" with the value "7". A note below the fields states "* fields are required." At the bottom of the form are two buttons: "Submit" and "Clear". The browser's status bar at the bottom shows "Done" and "Internet".

Calendar View Sample 2

- Calendar portlet in action



Document-related Services


- Use: to create and edit documents, find urls
- Sample methods:
 - ▶ public HashMap getDocumentInfo (*)
 - ▶ public String getOpenURL
 - ▶ public String getEditURL
 - ▶ public boolean updateDocumentInfo (*)
 - ▶ public boolean deleteDocument
 - ▶ public String createDocument (*)
 - ▶ public boolean createDatabase (*)
 - ▶ public boolean addACL (*)
 - ▶ public lotus.domino.Session getSessionObject (*)
 - ▶ public lotus.domino.Document getDocumentObject (*)

* uses IIOP

Sample Document Service

- Sample file:
- <http://server.name.com:9080/cs/dbdocsamp>

Sample Document Service - 1

Address  http://ksg11.lotus.com:9080/cs/dbdocsamp

Lotus Collaborative Components

Add a Document to Existing Database

Server name: *

Database name (no spaces): *

Document content

Subject: *



Category: *

Content: *

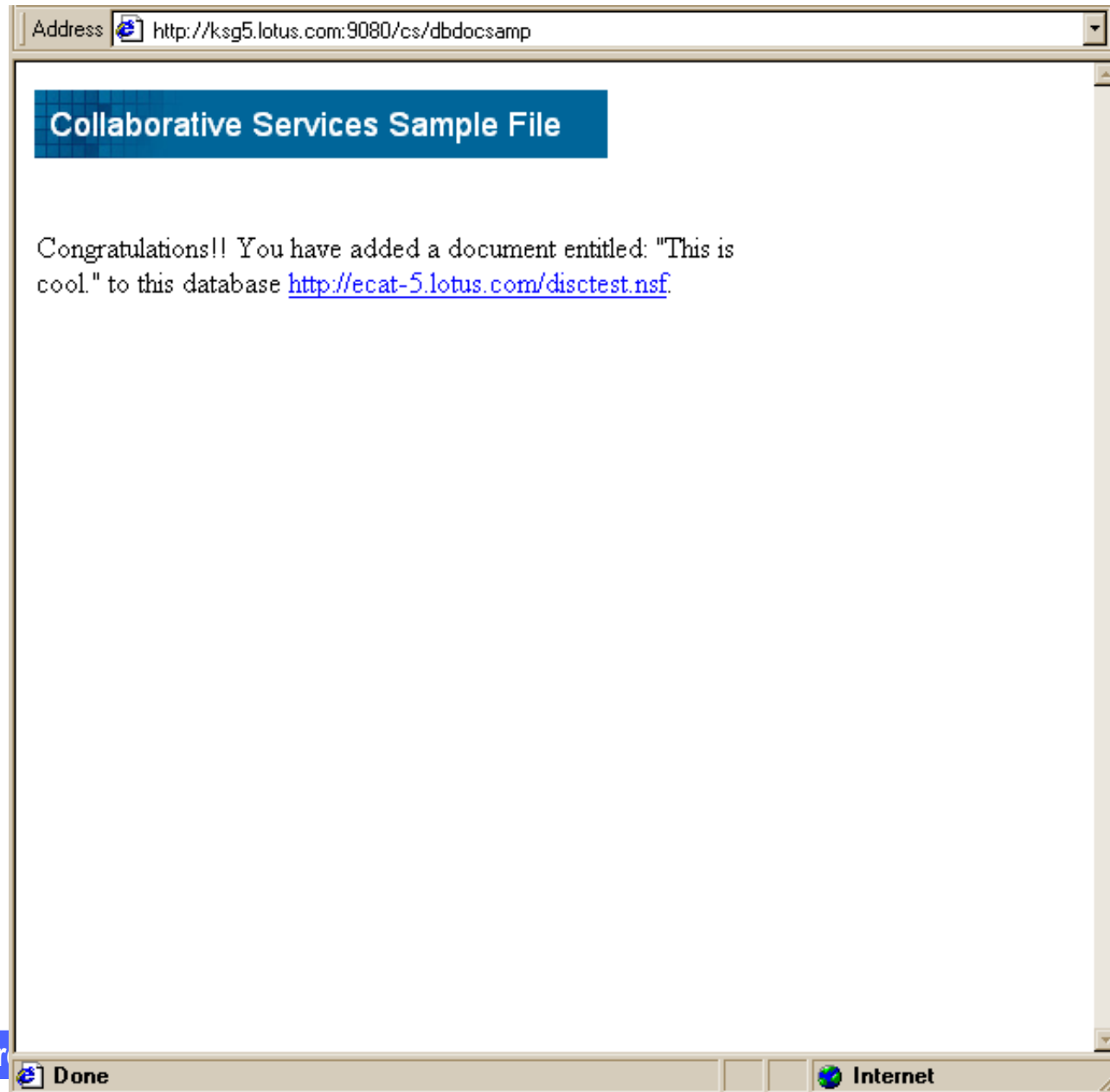
I can create a document in the discussion db directly from the portal now.

Chris

* fields are required.

 Done  Internet

Sample Document Service - 2



Sample Document Service 3

The screenshot shows a web browser window with the following elements:

- Address Bar:** Contains the URL `nsf/8178B1C14B1E9B688525624F0062FE9F/406B39B54232BB9A85256B8A00592336?OpenDocument`.
- Toolbar:** Includes three buttons: "Edit Document" (pencil icon), "Add Topic to Interest Profile" (plus icon), and "Cancel" (X icon).
- Discussion Header:**
 - Discussion** (Large bold text)
 - Main Topic** (Medium bold text)
 - Chris Reckling/CAM/Lotus** (Author name)
 - Today 11:13 AM** (Timestamp)
- Subject:** This is cool.
- Category:** Collaboration

The main content area contains the following text:

I'm able to create a document in the discussion teamroom from the portal now!

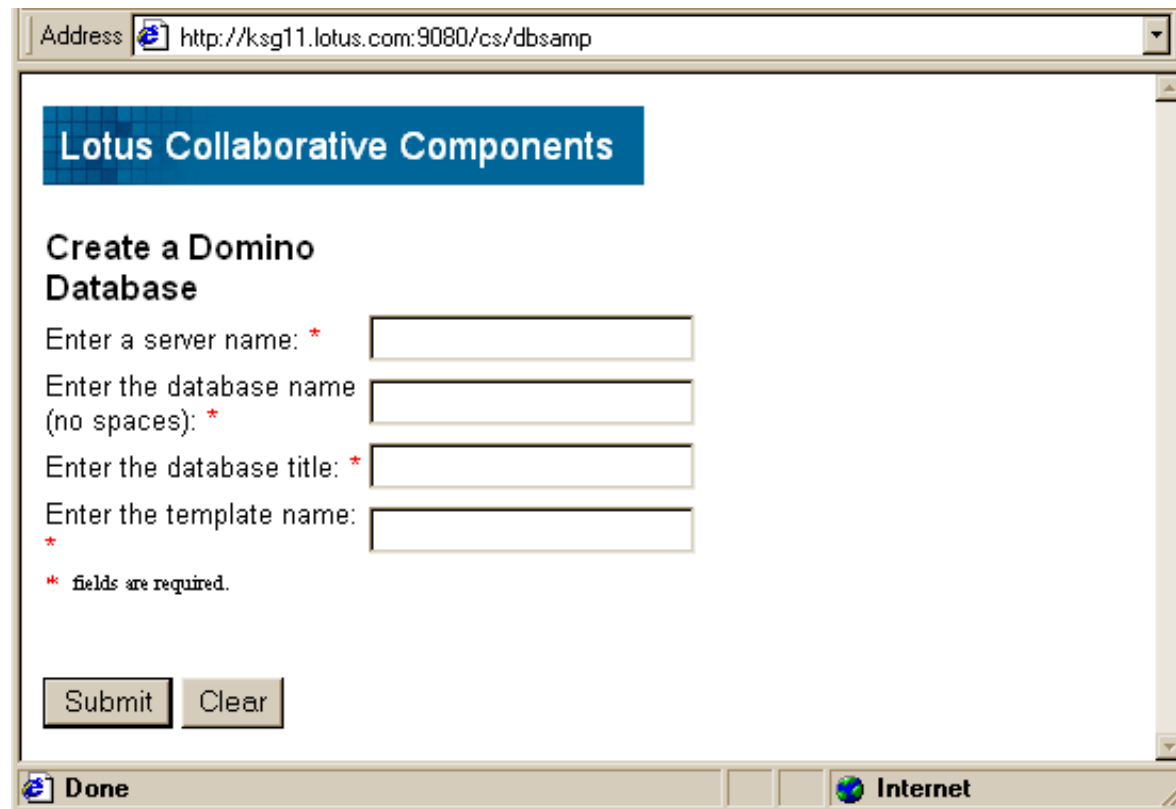
Chris

[All Documents](#) [By Author](#) [By Category](#) [By Alternate Name](#) [Go Back](#)

The browser's status bar at the bottom shows "Done" and "Internet".

Create a Domino Database

- Sample file:
- <http://server.name.com:9080/cs/dbsamp>



The screenshot shows a web browser window with the address bar containing `http://ksg11.lotus.com:9080/cs/dbsamp`. The page title is "Lotus Collaborative Components". The main heading is "Create a Domino Database". Below the heading are four input fields with labels and asterisks indicating they are required:

- Enter a server name: *
- Enter the database name (no spaces): *
- Enter the database title: *
- Enter the template name: *

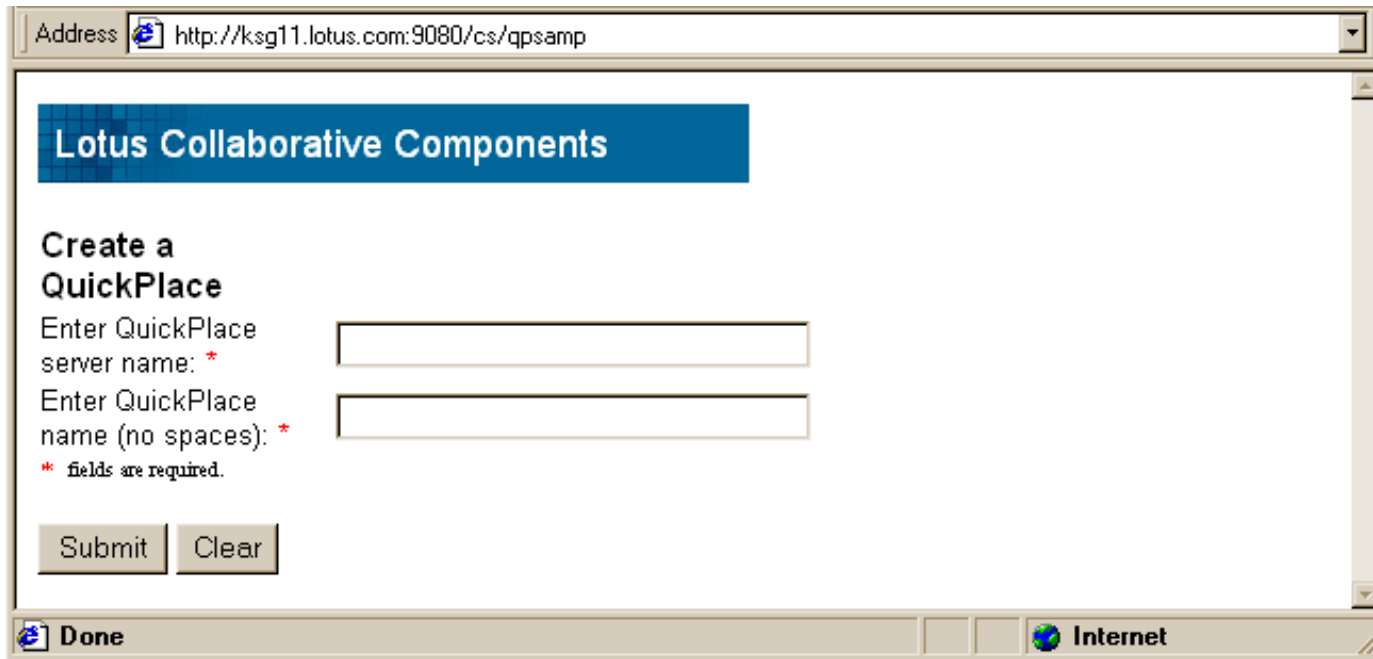
Below the input fields is a note: "* fields are required." At the bottom of the form are two buttons: "Submit" and "Clear". The browser's status bar at the bottom shows "Done" and "Internet".

QuickPlace Service

- Use: to create a new QuickPlace on specified server
 - ▶ QuickPlace does not have this API yet
- Requires code to be installed on QP server
- User must already have rights to create a QuickPlace
- QP 2.0.8, QP 2.6 "should" work

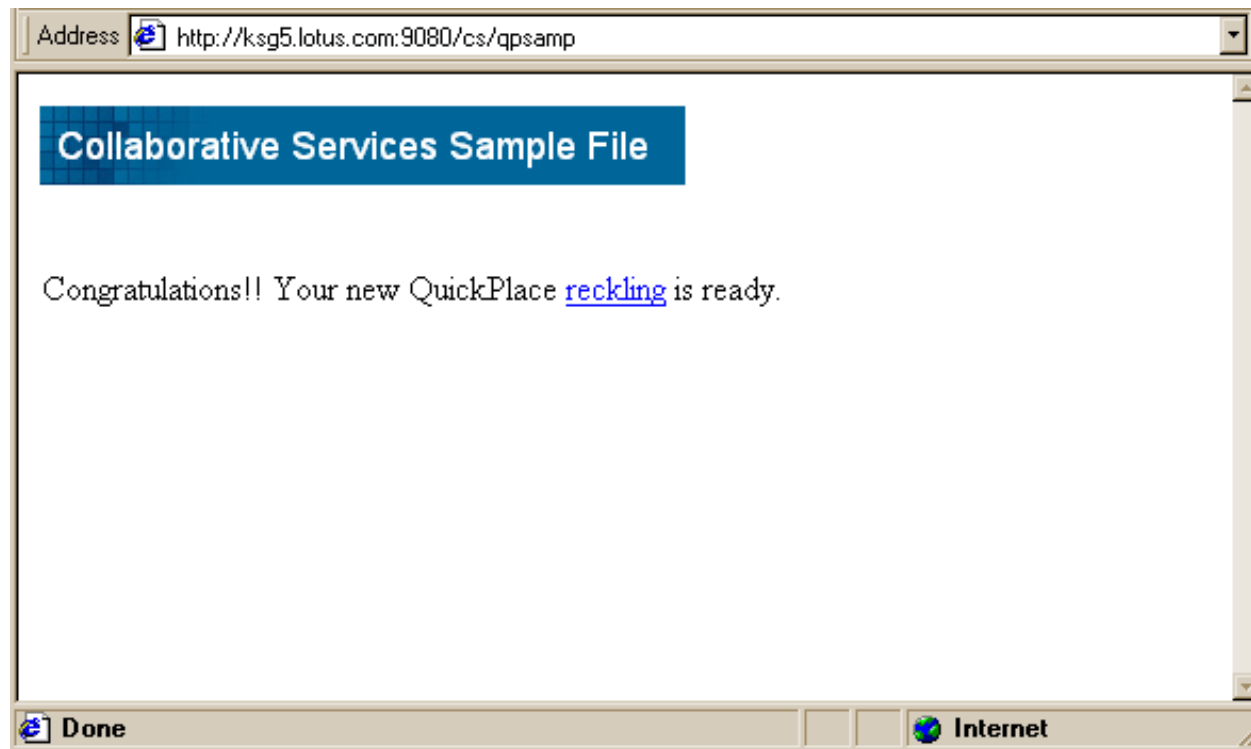
Sample QuickPlace Service

- Sample file:
- <http://server.name.com:9080/cs/qpsamp>



The screenshot shows a web browser window with the address bar containing `http://ksg11.lotus.com:9080/cs/qpsamp`. The page content includes a blue header with the text "Lotus Collaborative Components". Below this is a section titled "Create a QuickPlace" with two input fields: "Enter QuickPlace server name: *" and "Enter QuickPlace name (no spaces): *". A note below the fields states "* fields are required." At the bottom of the form are two buttons: "Submit" and "Clear". The browser's status bar at the bottom shows "Done" and "Internet".

Sample QuickPlace Service

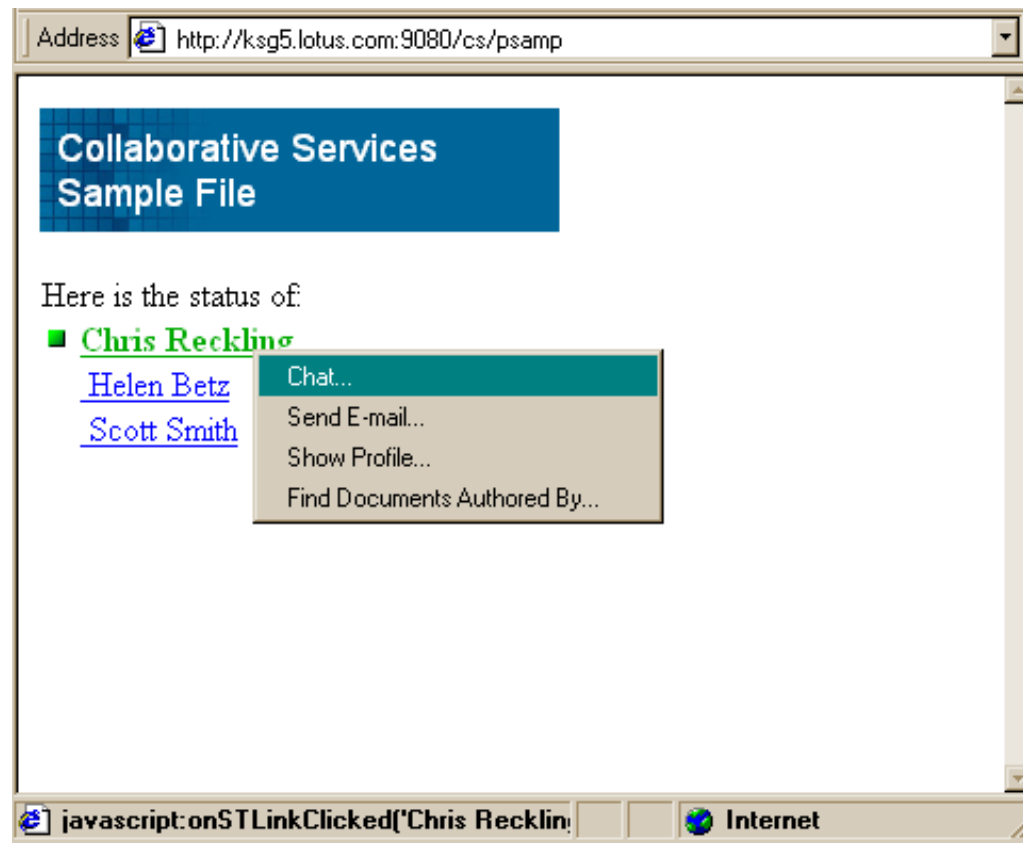


People Service

- Use: to add online awareness to person's name
- Easy to use JSP tag library
- Uses STlinks toolkit
- Uses the Menu service to create menu items for chat, e-mail, search, profiles
- 2 tags:
 - ▶ `<sametime:init/>`
 - used to log the user into Sametime server and set up the connection
 - not needed within a portlet because it's in the banner.jsp already
 - ▶ `<sametime:person>Name</sametime:person>`
 - used to create the awareness link on the name

Sample People Service

- Sample file:
- server.name.com:9080/cs/psamp



The Code Snippet

```
<table border="0" cellspacing="0" width="70%">
  <tr>
    <td>Here is the status of:</td><td></td>
  </tr>
  <sametime:peopleInit/>
  <% for(int i = 0; i < numNames; i++)
    {
      %>
  <tr>
    <td>
      <sametime:person><%=names[i]%></sametime:person>
    </td>
  </tr>
  <%
  }
  %>
</table>
```

Portlet Example

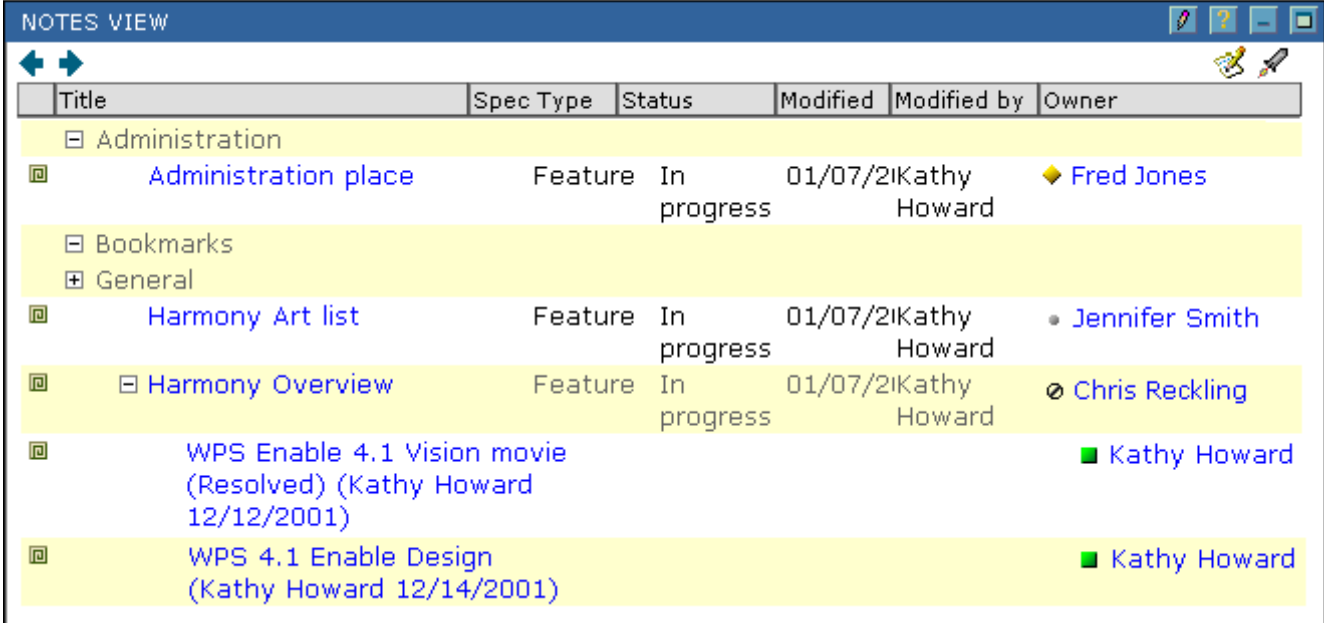
- How to add awareness to any portlet

Include in your JSP:

```
<%@ page language="java" import="com.lotus.cs.*,java.util.*"%>
```

```
<%@ taglib uri="/WEB-INF/tld/people.tld" prefix="sametime" %>
```

then use the <person> tag as in the example.



Title	Spec Type	Status	Modified	Modified by	Owner
Administration					
Administration place	Feature	In progress	01/07/21	Kathy Howard	Fred Jones
Bookmarks					
General					
Harmony Art list	Feature	In progress	01/07/21	Kathy Howard	Jennifer Smith
Harmony Overview	Feature	In progress	01/07/21	Kathy Howard	Chris Reckling
WPS Enable 4.1 Vision movie (Resolved) (Kathy Howard 12/12/2001)					Kathy Howard
WPS 4.1 Enable Design (Kathy Howard 12/14/2001)					Kathy Howard

Menu Service

- Use to provide an extensible pop-up menu in the portal
- Java applet and DHTML versions
- JSP tag library
 - ▶ `<menuinit />` loads applet, js libraries (needed once per page)
 - ▶ `<menucontext>`
 - ▶ `<menu menuName="menu1" menuID="menu1" >` sets up the menu
 - `<menuitem itemName="item 1" callbackFn="doSomething('item 1');" />`
 - one or more menu items
 - optional params: `enable=true/false show=true/false`
 - ▶ `<menudisplay contextName= menuName=>` displays the menu inline on a browser event, such as `onClick`.

Sample Menu Service - sets up 3 menus

```
<%@ taglib uri="/WEB-INF/tld/menu.tld" prefix="m" %>
...
<m:menuinit/>
<m:menucontext contextName="context1">
  <m:menu menuName="menu1" menuID="mymenu_1">
    <m:menuitem itemName="item 1" callbackFn="alert('item 1');" />
    <m:menuitem itemName="item 2" callbackFn="alert('item 2');" enable="<%=enabletest.toString()%>" />
    <m:menuitem itemName="item 3" callbackFn="alert('item 3');" enable="false" show="<%=showtest%>" />
  </m:menu>
  <m:menu menuName="menu2" menuID="mymenu_2">
    <m:menuitem itemName="item 4" callbackFn="launchWithParam();" />
  </m:menu>
</m:menucontext>

<m:menucontext contextName="context2">
  <m:menu menuName="menu1" menuID="mymenu_3">
    <m:menuitem itemName="item 5" callbackFn="alert('item 5');" />
  </m:menu>
</m:menucontext>
```

Sample Menu Service - shows the 3 menus

- using the <menudisplay> tag

```
<p><a href="javascript:void(0)"
  onclick=<m:menudisplay contextName="context1" menuName="menu1" />>menu1 in
context1</a> shown on click</p>
```

```
<p><a href="javascript:void(0)"
  onmouseover=<m:menudisplay contextName="context1" menuName="menu2"
paramName="testparam" paramValue="<%=testMessage%>" />>menu2 in context1</a> shown on
mouse over </p>
```

```
<p><a href="javascript:void(0)"
  onclick=<m:menudisplay contextName="context2" menuName="menu1" />>menu1 in
context2</a> shown on click</p>
```





Sample Menu Service - Results





Discovery Server Service

- Use: to find people, documents, K-map url, profiles
- Sample methods:
 - ▶ public HashMap[] findPeople
 - ▶ public HashMap[] findPlaces
 - ▶ public HashMap[] findDocuments
 - ▶ public HashMap[] getDocsCreatedByUser
 - ▶ public String getProfileURL
 - ▶ public String getKMapURL

LDS Example - Portlet

Lotus Discovery Search Results    

Search results for: everything about demo 

View: Documents People Last search: 11/15/2001 4:56pm 

Documents Displayed: 1 - 4 of 4

Score	Title	Date	Author	File Type
77	How to demo LRM V1.0 How to demo LRM 1.0 created by: Sara Weber on 21-Jun-00 When demoing LRM 1.0 it important to understand who you are demoing to. If they are Records Administrators they will want a demo which focus'es on the Adminstrative aspects of setting up t	1/10/01	Megan Moyer/CAM/Lotus	Lotus Notes
76	2000/01/14 ***HEADS UP*** New Sametime & LearningSpace Demo Environment IBM/LOTUS CONFIDENTIAL New Information The Details: New Sametime and LearningSpace Demo Environment in Cambridge TO: The Worldwide Salesforce Lotus IS e-business Services & Technologies and the Sametime & LearningSpace teams are proud to announce the ne	1/15/01	Philip Monson/CAM/Lotus	Lotus Notes
76	Calendaring & Scheduling for Rnext This is the Rnext C&S presentation that was given at Lotusphere 2001. It contains full speaker notes as well as an outline for a product demo. Please note that you will need to set up your demo data ahead of time, including a server, if you want to dem	7/27/01	Jill Jones/CAM/Lotus	Lotus Notes
76	getting DOLS to work in a demo environment getting DOLS to work in a demo environment	4/25/01	Matthew Engstrom/MSP/Lotus	Lotus Notes

Administration and Setup

- Specify the servers in your environment in Administration
- STLinks installed on ST 2.5 server
- cs code installed to QP server

The screenshot shows the Administration and Setup interface for a Lotus environment. The interface is titled "RANDOM COMPANY X" and features a navigation menu with the following options: Administration, Portlets, Places, Members, Portal Settings (selected), Users and Groups, Security, and Content Management. Below the navigation menu, there are sub-sections: Global Settings, Companion Products, Themes and Skins, Log Files, and Search. The main content area is titled "Enable companion products" and contains the following settings:

- Lotus Discovery Server
Server: For example, server.domain.com

[Launch Discovery Server Administration](#)
- Lotus QuickPlace
Servers:

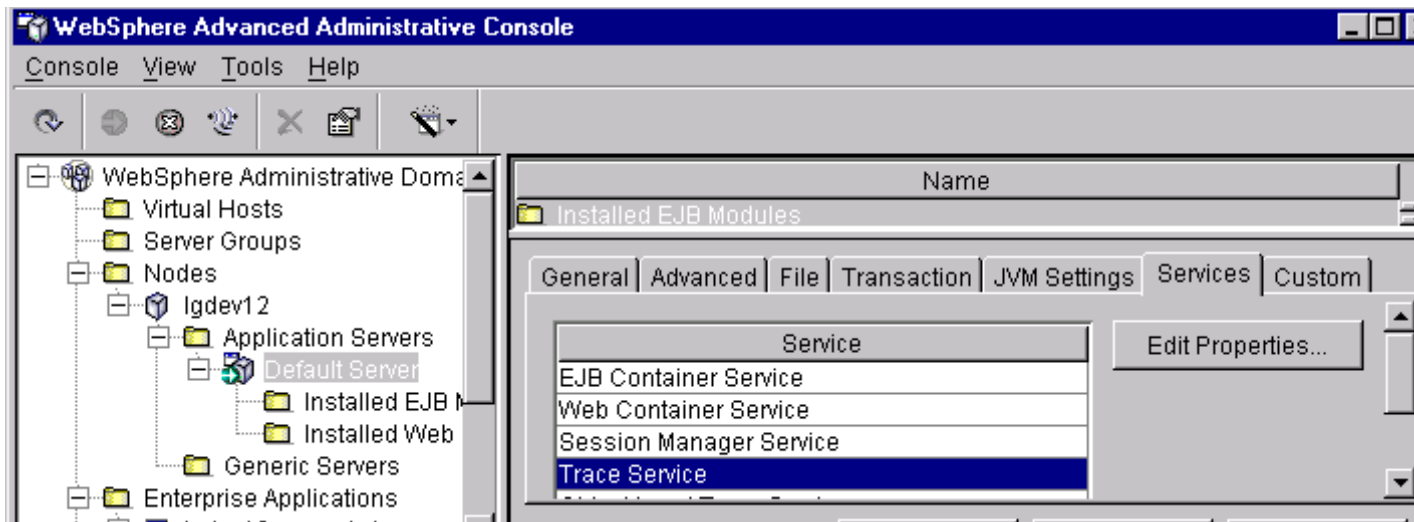
QPserver1.domain.com (SSL)	+ Add
QPserver2.domain.com (SSL)	X Remove
QPserver3.domain.com	
QPserver4.domain.com (SSL)	
- Lotus Sametime
Lotus Sametime is configured in hostAddress.xml

Domino Directory
Server: For example, server.domain.com

The interface also includes a "Save" button, a "Reset" button, and a "Help" button. The status bar at the bottom shows "Done" and "Internet".

Logging

- Uses JRAS for logging to the WebSphere Console or log files
- Error messages: Indicate a fatal error with the function.
- Warning messages: Indicate that the proper conditions do not exist to perform the service requested.
- Info messages: Indicate normal operation.
- Trace messages: For debugging purposes only. Inserted within the logic of the APIs to show important events.



Summary and Final Questions

- Start now using Collaborative Components
 - ▶ Especially useful for all apps is the People Service
- More services to come in the future
- Adds the plug and play collaborative capabilities to WP
- Questions?