



## Sales & Technical Enablement Workshop

# Developing XPages - Part IV

## Lotus Channel Technical Sales



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Matthias Schneider  
IBM Corporation  
March 2010



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### 1 Time Estimates

The IT Professional should be able to complete this whole lab in 90 minutes.

### 2 Purpose

The Lotus Notes My Widgets feature enables end users to see and act on automatically recognized Live Text in their Notes (and – with some restrictions - iNotes) documents, including mail, using widgets created specifically for their use. For example, a Notes user can see a specially highlighted Live Text string (for example, a flight number) and instantly act on it (for example, look up a flight status) by opening a third-party flight status widget that is linked to that Live Text. My Widgets also enables power users and administrators to create and edit widgets, and deploy them to users to engage a Notes form, view, or document or third party services such as Eclipse plug-ins, Web pages, feeds, or Google Gadgets.

A widget is a tool that can consist of one or more components and actions. An action can optionally contain a wired content type and recognizer to define the Live Text pattern to act on and specifically how to act on that Live Text.



### 3 Description

The **My Widgets** feature is installed with Notes since 8.0.1.

Using available policy and preference settings, an administrator – you - can control which users could display **My Widgets** in their sidebar as well as various levels of access to **My Widgets** functionality. End users will typically not see **My Widgets** in their sidebar, yet still access widgets that are available when they act on Live Text in their (i)Notes documents.

In this section, you will transform our Scrapbook application into a set of widgets that could be used from both Notes and iNotes.

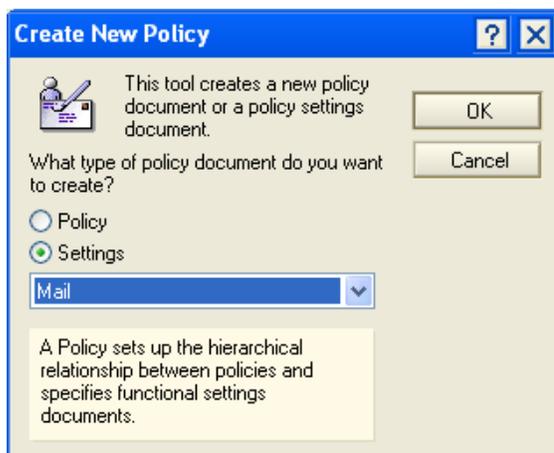
## 4 Detailed Steps

### Deploy the My Widgets Feature by Policy

1. If Domino has not been started, start it now.
2. Open Domino Administrator from the desktop icon and login as **Domino Admin/ibm** with password **passw0rd**.
3. Assure that you are connected to server **DOM85/ibm**.
4. Navigate to the **Configuration** tab. From the right-hand menu select **Policies > Create**.

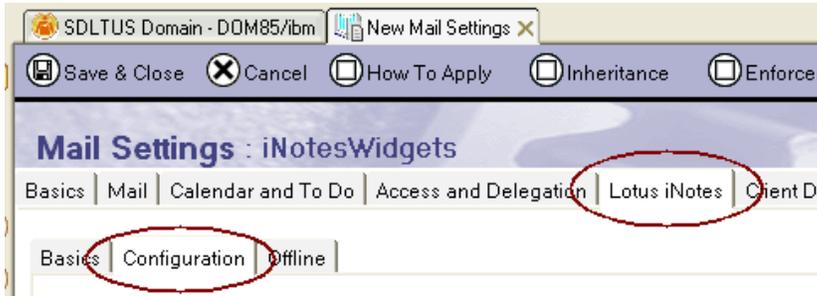


5. Create a new **Mail Settings** document.

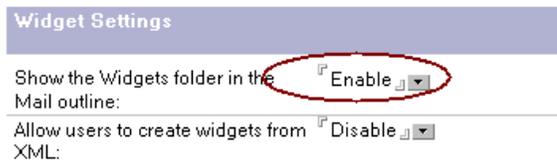




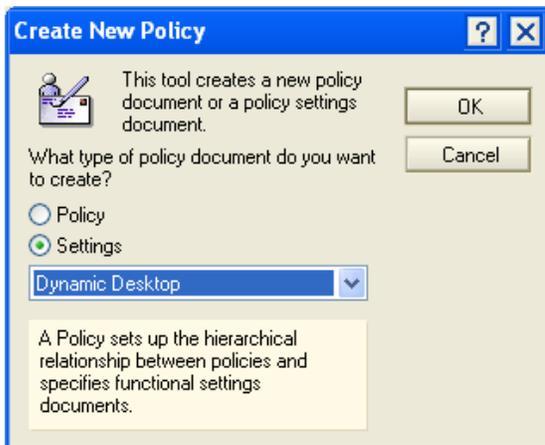
- Name the new Setting **iNotesWidgets**. Navigate to the **Lotus iNotes** tab and select **Configuration**.



- Navigate to the **Widget Settings**. Enable the **Show the Widgets folder in the Mail outline** option.



- Save and close the new document. Again, select **Policies > Create** to build a new **Dynamic Desktop** Settings document.





- Name the **Settings** document **Widgets**. Navigate to the **Widgets** tab and enforce the following settings (keep the defaults for all other options) on client side:

Widget catalog server: DOM85/ibm  
 Widget catalog application name: widgetcatalog.nsf



- Save and close the Settings document. Click on **Policy > Create** again to build a new **Policy**.





- Name the **explicit** Policy **/MyWidgets**. Select the **Widgets** Desktop and **iNotesWidgets** Mail Settings documents to assign.

**Policy : /MyWidgets**

Basics | Policy Assignment | Policy Precedence | Comm

**Basics**

Policy name: /MyWidgets

Policy type: Explicit

Description:

Category:

Setting Type	Setting Name
Registration:	
Setup:	
Archiving:	
Desktop:	Widgets
Security:	
Mail:	iNotesWidgets

- Save and close the Policy. Then, navigate to the **People & Groups** tab. Select **Groups** from the left-hand navigator and create a new group containing all users:

**Multi-purpose group**

Basics | Comments | Administration

**Basics**

Group name: All

Group type: Multi-purpose

Category:

Description:

Mail Domain:

Internet Address:

Auto Populate Method: None

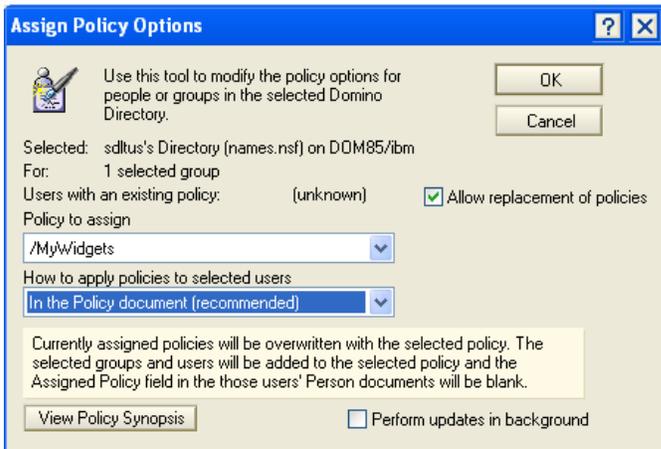
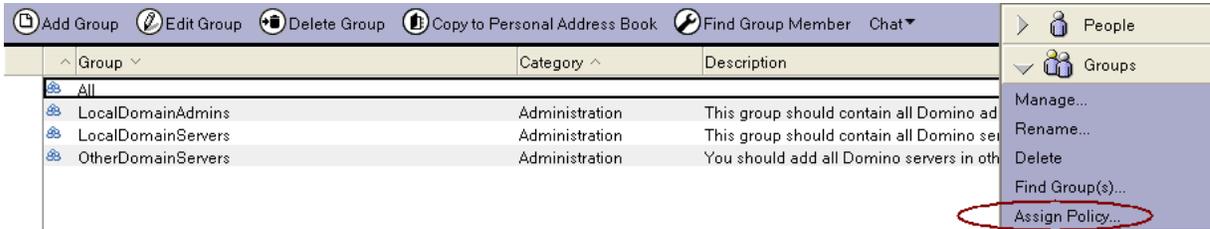
Members:

- Domino Admin/ibm
- Manisha Annam/ibm
- Lucas Chaney/ibm
- David Dewell/ibm
- Kerry Staples/ibm
- Austin Stroh/ibm

- Save and close the new group.



14. Assign the /MyWidgets policy to the All group:



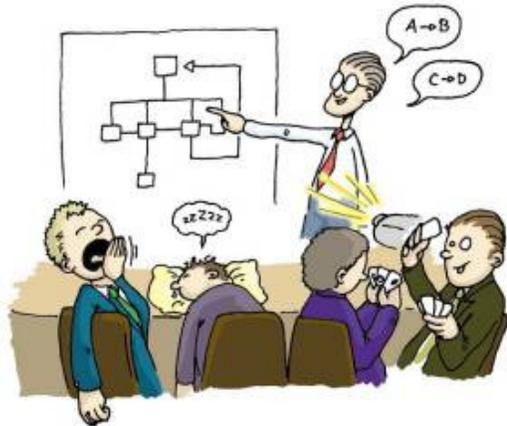
15. If a warning dialog comes up, click **Yes** to overwrite existing assignments.

16. Navigate to the Domino console. Run the following command:

```
tell adminp process mail policy
```



## Overview – Description of the next steps...



If you have reached this section, it's time for a short break. During the next five minutes, the instructor will provide a short summary of what we will do next – and why...

As a next step, we will modify our existing Scrapbook application, enabling it to run as a Web widget that could be called via Live Text. As the result, our application should open the corresponding profile for a user selected within a Notes document.



This requires our application to accept and process a person's name by either POST or GET request.

But - Although our **home** XPage is being rendered as a Web form, the Dojo technology used by XPages prohibits a "simple" form submit. Why?



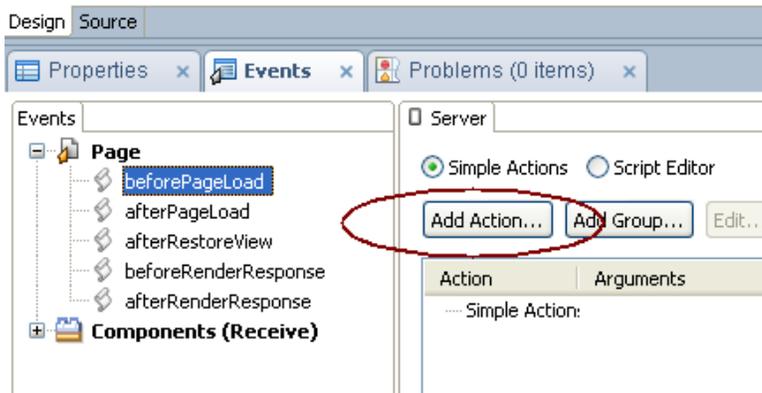
Simply said - Clicking the **Search** button does more than just POSTing the form. The two simple actions we implemented there generated tons of JavaScript code which is getting executed if you click the button. This code sets most of the data to post within the form dynamically (and does some more strange things) before sending it to the Domino server or Notes client.

Only posting the “static” form as usually triggered by Live Text wouldn’t have any result for our XPage – because of the missing (Dojo-initiated) data set within the form.

Therefore, we will extend our home XPage to also accept and process a simple GET request.

## Enable our Scrapbook Application to act as a Widget

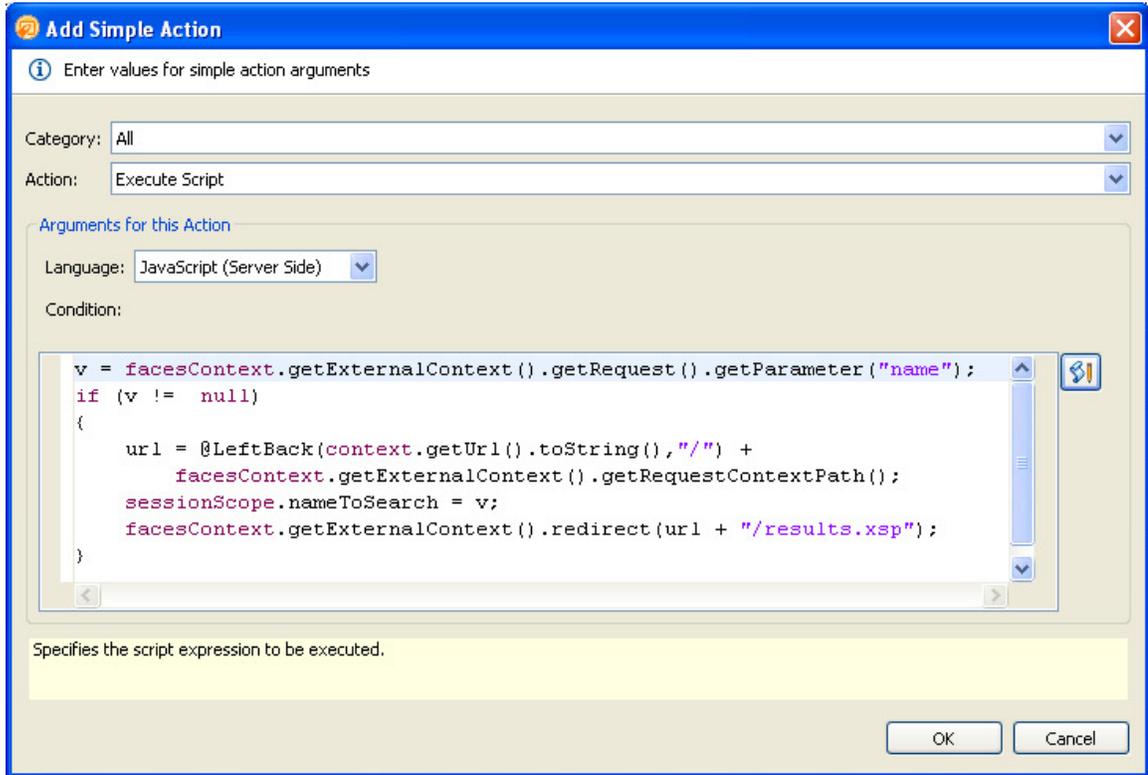
17. Open the Scrapbook application in Domino Designer. Open the **home** XPage.
18. Navigate to the **Events** tab. From the **Page** navigator, select **beforePageLoad** and click **Add Action**.



19. Add an **Execute Script** action containing the following code - you might want to copy it from **C:\MyLabFiles\C&P.doc**:

```

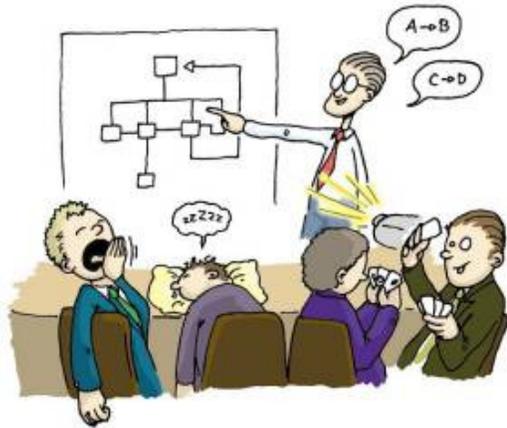
v = facesContext.getExternalContext().getRequest().getParameter("name");
if (v != null)
{
    url = @LeftBack(context.getUrl().toString(),"/") +
        facesContext.getExternalContext().getRequestContextPath();
    sessionScope.nameToSearch = v;
    facesContext.getExternalContext().redirect(url + "/results.xsp");
}
    
```



20. Save and close the **home** XPage.

21. Close Domino Designer and Lotus Notes, if opened.

## Add a Widget available to Lotus Notes Users

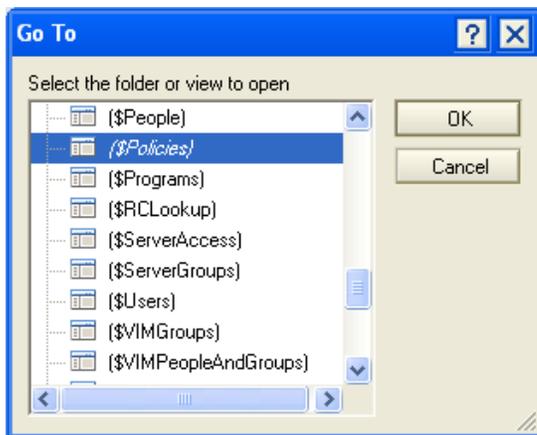


If you have reached this section, it's time for a short break. During the next five minutes, the instructor will provide a short summary of what we will do next – and why...

22. Start Lotus Notes and authenticate as **Domino Admin**.

**Note:** The following steps are only required in our lab scenario to assure that the policy is getting assigned.

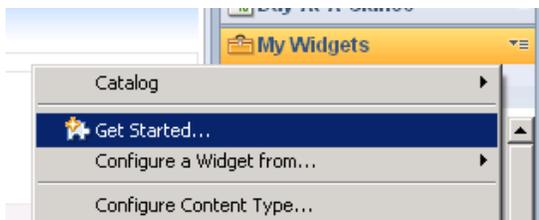
23. Open you local **names.nsf**.
24. By holding down the CTRL + SHIFT keys, select **View > Go To** from the main menu. Navigate to the **(\$Policies)** view:



25. Remove all exiting policies from the view.
26. Restart Lotus Notes.
27. Open the Lotus Notes preferences by selecting **File > Preferences**. Navigate to the **Widgets** tab and notice that the widget catalog information has been deployed. If not already done in a previous lab, enable the **Show Widget Toolbar and the My Widgets Sidebar panel** option.



28. Click **OK** to save the preferences.
29. Notice the **My Widgets** sidebar component. From the upper right component header menu, select **Get Started...**





30. Our widget will consume a Web Page, therefore select the **Web Page** option.

Where is the information you want to use to create your widget?

Notes View, Document, or Form

Web Page

Feed

Google Gadgets

Features and Plugins

31. Specify **http://notesdomino.dfw.ibm.com/XScrapbook.nsf/home.xsp** as our Web source. Click **Next >**.

• Start by opening the web page that contains the data (form).

Browse the Web

Web page by URL:

32. Specify a HTTP GET as the submit option of choice.

This Web Page: Build a widget from this web page (HTTP GET)

From a form on this web page: Build a widget from a form on this web page (HTTP POST)

33. You need to authenticate with the Domino Web Server. Provide your credentials and assure to enable the **Remember my password** box, then click **OK**.

Connect to notesdomino.dfw.ibm.com

User name:

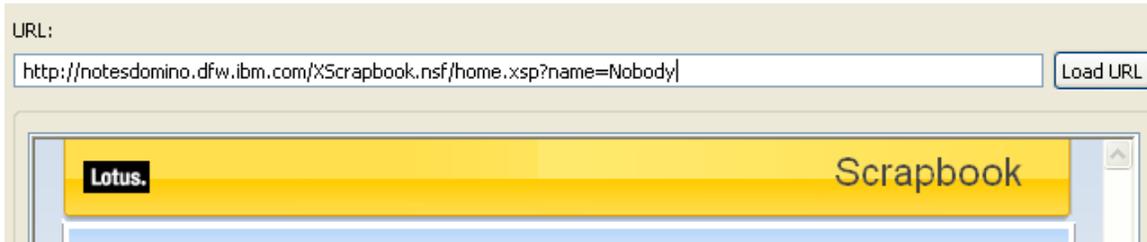
Password:

Remember my password



- 34. The **home** XPage is getting opened. Extend the URL of the XPage by the following QueryString parameter:

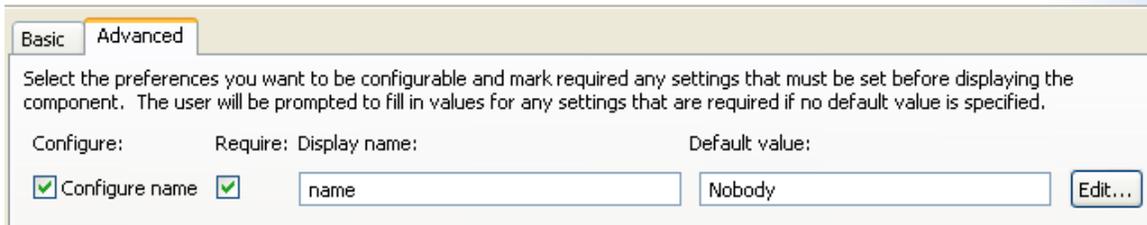
?name=Nobody



- 35. Notice: Do **not** click the **Load URL** button before selecting **Next >**.
- 36. From the **Configure a Widget** dialog, name the widget **Search Profile**, then navigate to the **Advanced** tab.
- 37. Enable the **Configure name** option and click **Next >**.

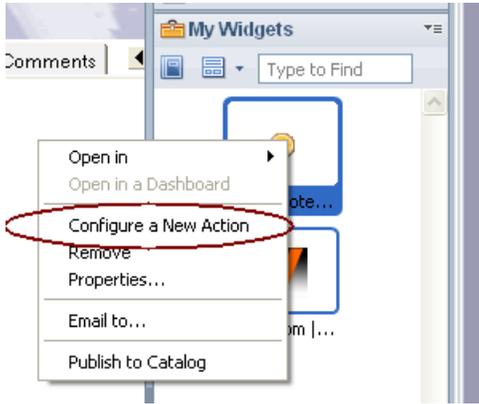
**Configure a Widget**

Enter a widget name. Click Advanced to make settings available for configuration and/or to define input values.

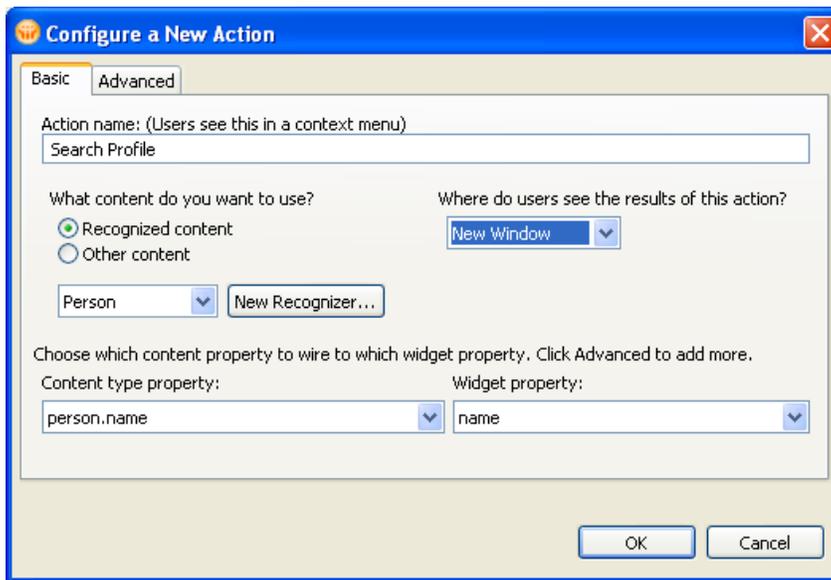


- 38. **Click Finish.**
- 39. The new widget has been added to the **My Widgets** sidebar component.

40. **Right-click** on the new widget, then select **Configure a New Action**.



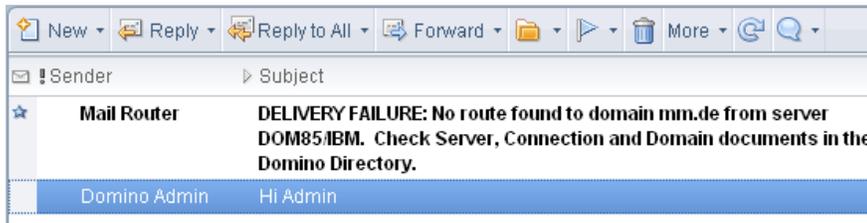
41. Select the **Person** recognizer and specify **person.name** as the type property. The results should be displayed in a **New Window**.



42. Click **OK**.



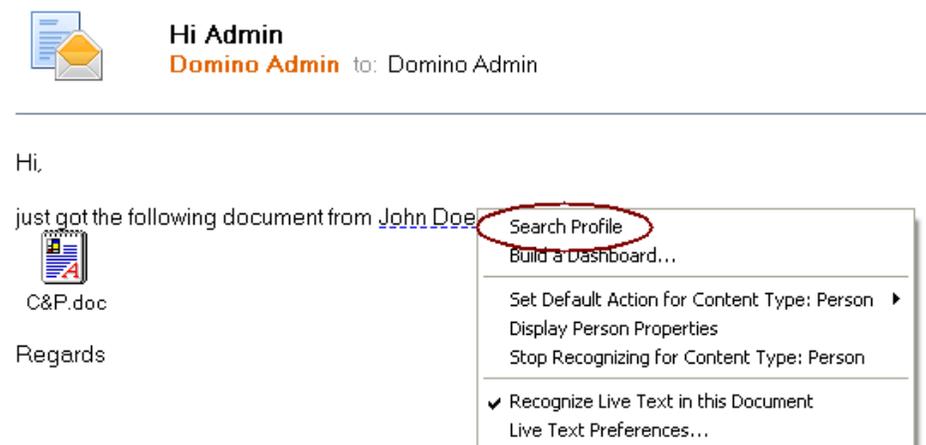
43. Navigate to your inbox. Open the mail we sent during the previous lab (Developing XPages - Part III):



44. After a couple of seconds, the name of the colleague – in this case John Doe - should be underlined:

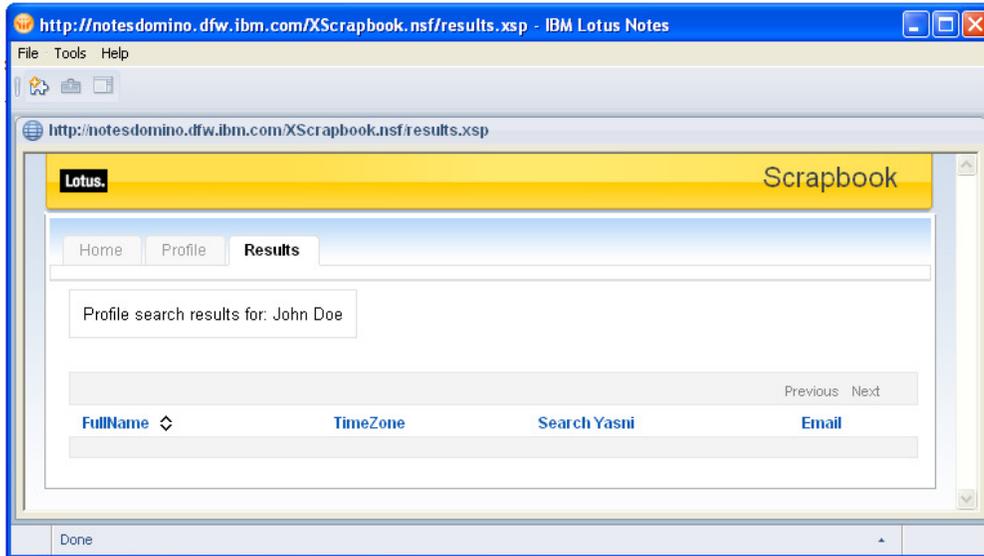


45. Click on the name and select the first menu item:

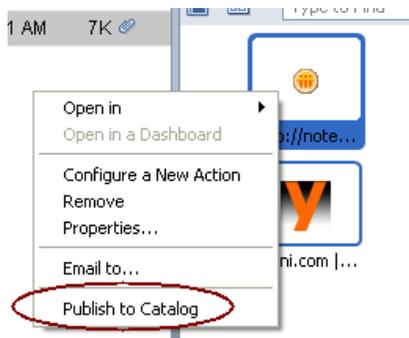




46. Your Scrapbook application comes up within a new window, showing the results page. Our search would not return any match if there is no profile available for this person:



47. If the search failed, create a new profile for – in this case – John Doe and try again.
48. In a last step, we will publish this newly created widget to our company's widget catalog. Therefore, **right-click** on the new widget and select **Publish to Catalog**.





49. Name the widget **Search Profile from Notes**, the save and close the document.

Save & Close

 **Search Profile**

Title:

Category:

Platform:

Content Type       Component

Recognizer       Plugin and Features

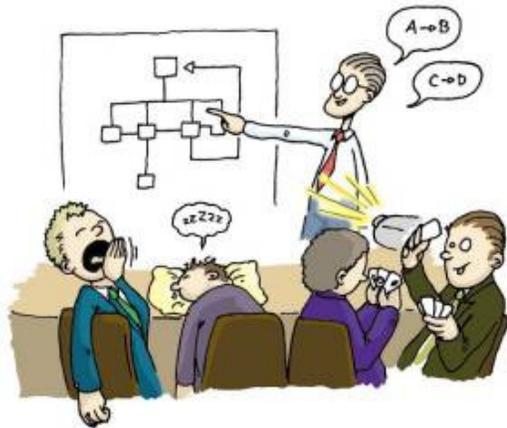
50. Your widget could now be downloaded and installed by other users.

Notes Widgets on DOM85/ibm

Open Add Widget to Catalog

Title	Created
S3SysAdmin mail-in DB - Inbox	04/23/2009
SavaCentral	04/10/2009
Scrapbook Widget for Notes users	01/14/2010
Sidebar Chart Plugin	02/09/2009
Sidebar Chart Plugin	02/10/2009
Sidebar Chart Plugin	03/26/2009
Simple MSN plug-in for Lotus Symphony	07/18/2009
Sirius	11/25/2008

## Add a Widget available to Lotus iNotes Users



If you have reached this section, it's time for a short break. During the next five minutes, the instructor will provide a short summary of what we will do next – and why...

Since 8.5, you can define a set of widgets that are integrated into the Lotus iNotes mail client, and you can specify the toolbox catalog and category names from which users can select and install their own widgets. These widgets display in the Widgets folder in the navigation pane. When a user launches a widget, it may optionally solicit some input within a dialog or from selected text on the page, and then eventually open an external Web page in a new tab or a new browser window. Users can enter any text that is required by the service (such as text to be translated by a translation service), and the application results or output is displayed.

Our next steps will demonstrate how to create and deploy a widget that leverages our Scrapbook application to an iNotes user.

Notice the following **Limitations (from 8.5 InfoCenter)**:

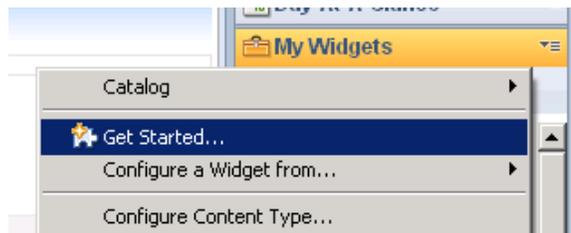
There are a number of limitations regarding the use of widgets with Lotus iNotes compared to the Notes client. These are listed below. Catalog widgets should be tested with Lotus iNotes to make sure that they work well on that platform prior to making them available to Lotus iNotes users. Catalog widgets are made available to Lotus iNotes users by adding "iNotes 8.5" to the platform field in the catalog document for the widget, and by including them in a category, or categories, specified in `inotes_config.xml`. Note that filtering widget catalog entries by platform type is relatively expensive from a server performance standpoint compared to filtering by category, so to maximize server performance, avoid including widgets that cannot support iNotes in the categories used to expose widgets to iNotes users.



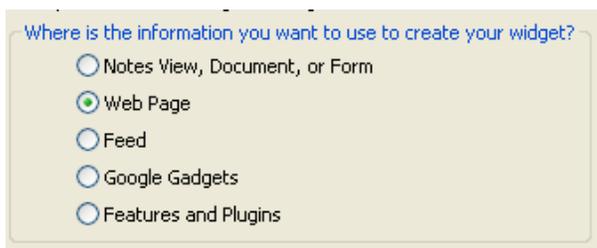
Following is a list of widget limitations when using widgets with Lotus iNotes:

- Only widget definitions (<palletItem> elements) with providerId="com.ibm.rcp.toolbox.web.provider.WebServicesPalletProvider" are supported at this time.
- The only supported output targets for a widget is a Lotus iNotes tab panel and a new browser window. The <actionType> element in the widget XML specifies the default output target. The sidebar and floating window targets are not supported. If the <actionType> element for the widget specifies an unsupported output target, then the output will be displayed in a Lotus iNotes tab panel. Note that the user can override the default output target by selecting the desired target in the Open context menu item for the widget..
- The only supported contentTypeId for <contextData> elements is content.textSelection.
- It is possible for users navigating a Web site within a tab panel in Lotus iNotes to click on a link that will navigate to a different top level browser page. Due to browser architecture, there is no way for Lotus iNotes to prevent this from occurring. It is best to avoid using tab panels with Web sites that contain such links and to open these Web pages in a new browser window instead.
- Lotus iNotes cannot detect selected text within a Web page that is displayed in a Lotus iNotes tab pane for the purpose of passing the selected text as an input parameter to a widget, if the Web page is served from a different server than Lotus iNotes.

51. From the **My Widgets** sidebar component header menu, select **Get Started...** again.



52. Our widget will consume a Web Page, therefore select the **Web Page** option.





53. Specify **http://notesdomino.dfw.ibm.com/XScrapbook.nsf/home.xsp** as our Web source. Click **Next >**.

• Start by opening the web page that contains the data (form).

Browse the Web

Web page by URL:

54. Specify a HTTP GET as the submit option of choice.

This Web Page: Build a widget from this web page (HTTP GET)

From a form on this web page: Build a widget from a form on this web page (HTTP POST)

55. You need to authenticate with the Domino Web Server. Provide your credentials and assure to enable the **Remember my password** box, then click **OK**.

Connect to notesdomino.dfw.ibm.com

User name: Domino Admin

Password: [masked]

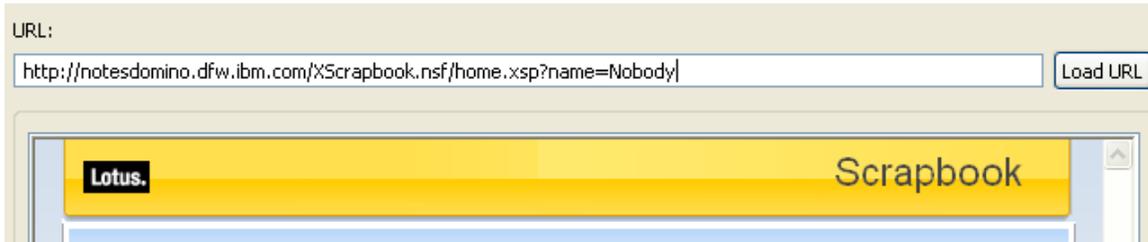
Remember my password

OK Cancel



56. The **home** XPage is getting opened. Extend the URL of the XPage by the following QueryString parameter:

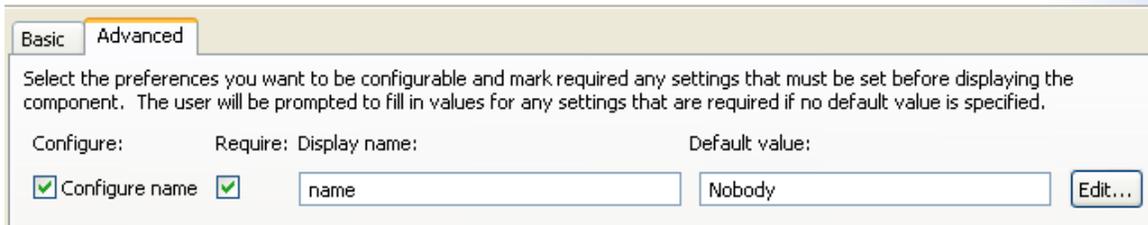
?name=Nobody



57. Notice: Do **not** click the **Load URL** button before selecting **Next >**.
58. From the **Configure a Widget** dialog, name the widget **Search Profile (iNotes)**, then navigate to the **Advanced** tab.
59. Enable the **Configure name** option and click **Next >**.

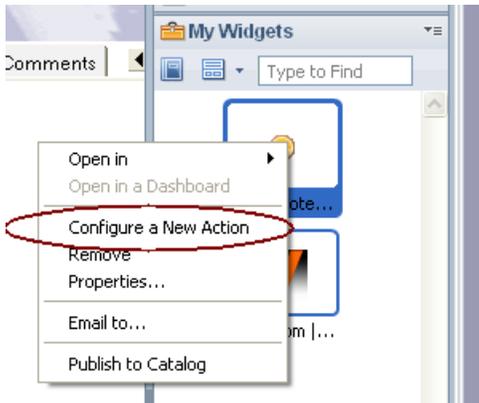
**Configure a Widget**

Enter a widget name. Click Advanced to make settings available for configuration and/or to define input values.

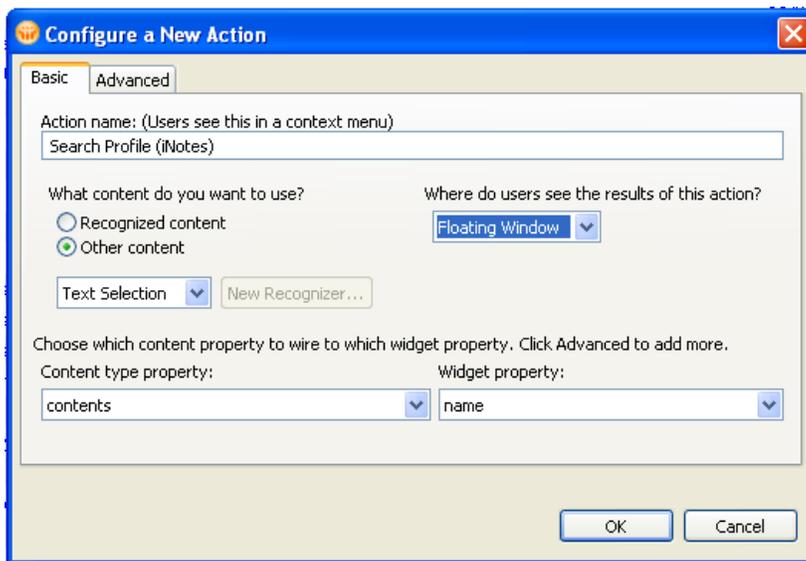


60. **Click Finish.**
61. The new Widget has been added to the **My Widgets** sidebar component.

62. **Right-click** on the new widget, then select **Configure a New Action**.



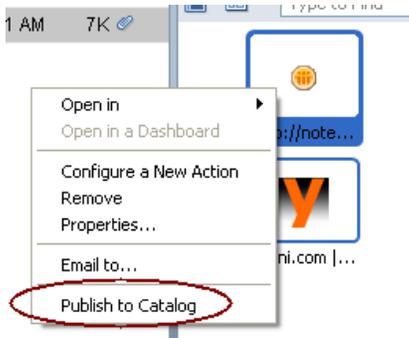
63. Select the **Text Selection** recognizer and specify **contents** as the type property. The results should be displayed in a **Floating Window**.



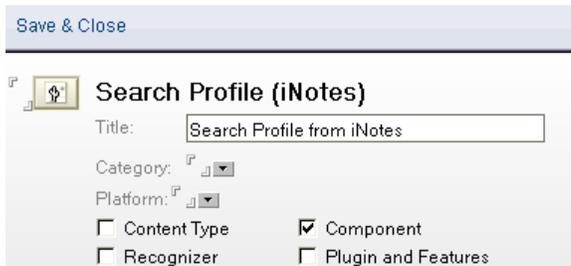
64. Click **OK**.



65. In a last step, we will publish this newly created widget to our company's widget catalog. Therefore, **right-click** on the new widget and select **Publish to Catalog**.

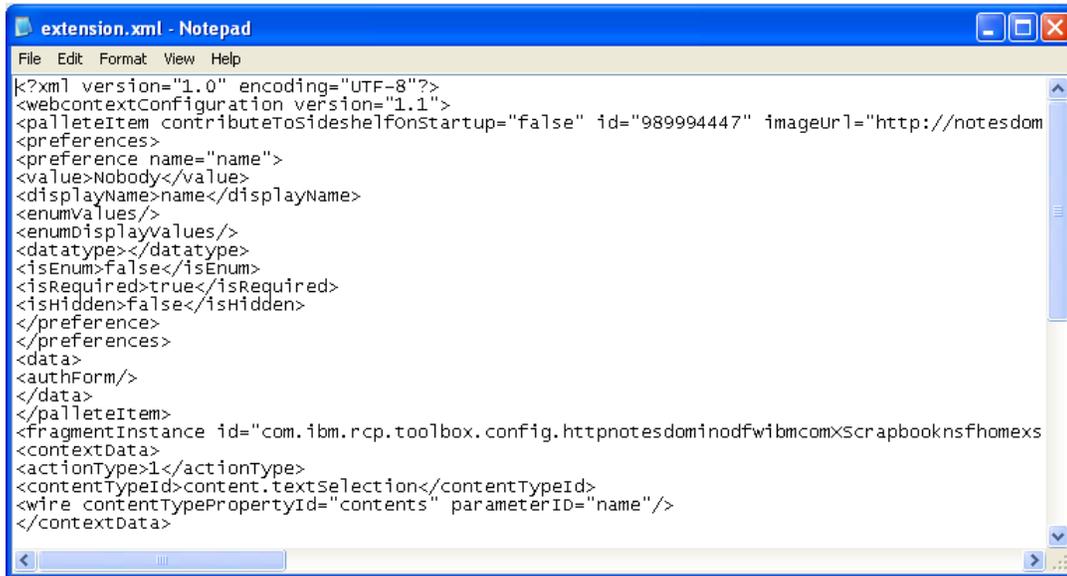


66. Name the widget **Search Profile from iNotes**, the save and close the document.

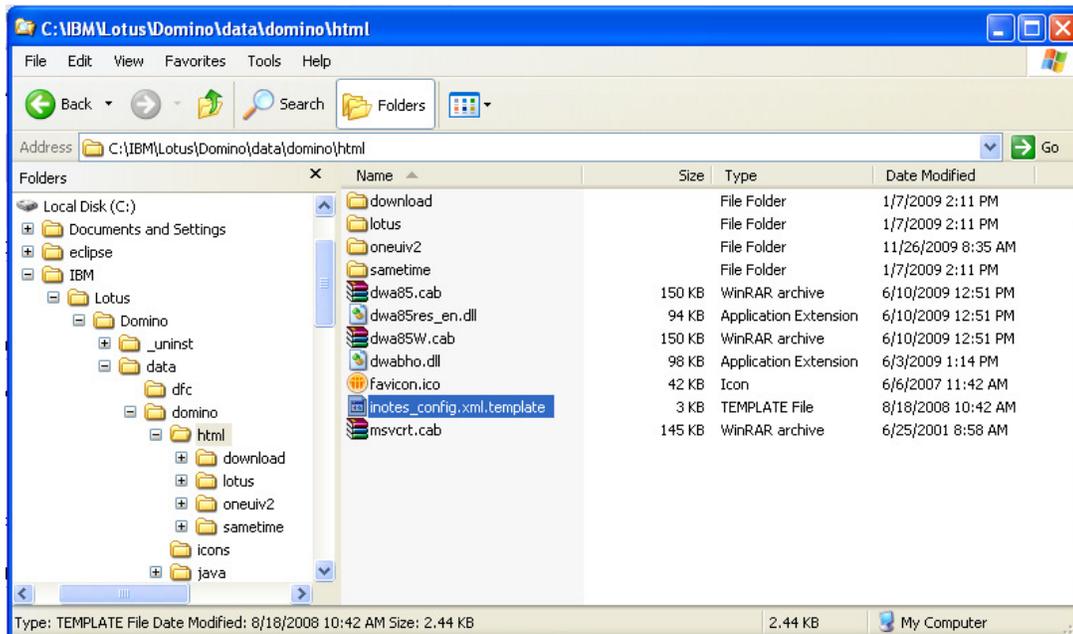




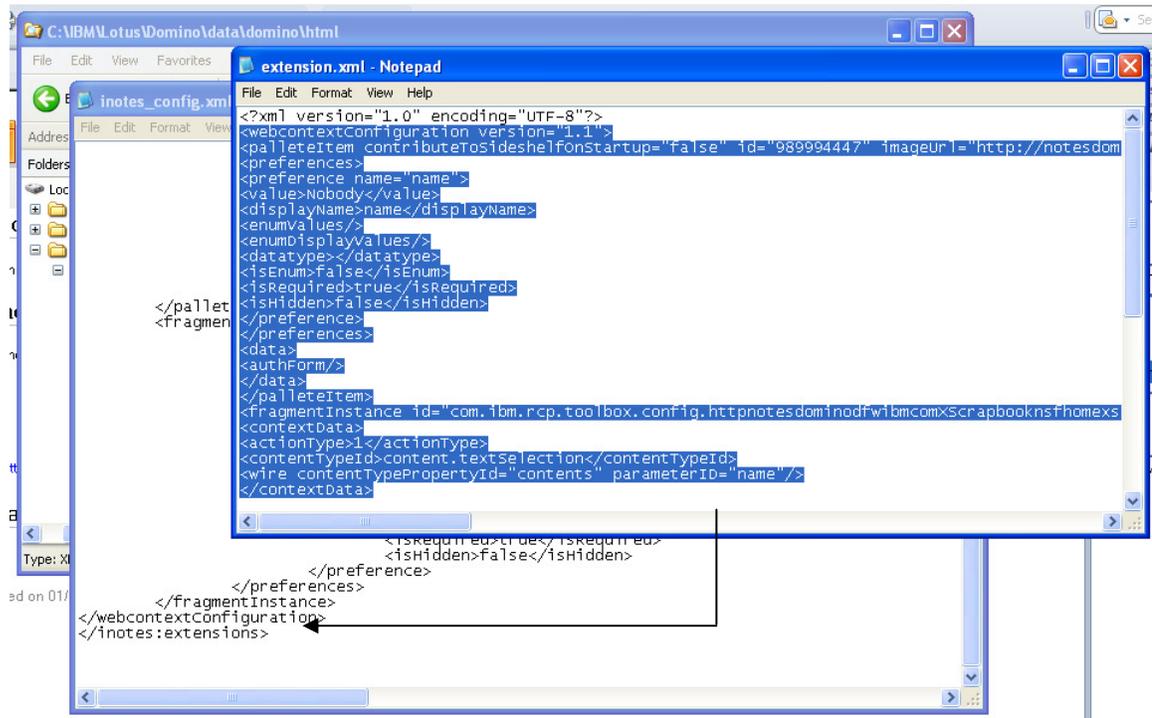
67. Navigate to the **Attachment** section within the document. Open the **extension.xml** file in a text editor such as Notepad.



68. Open the Windows Explorer and navigate to your Lotus Domino installation directory, usually **C:\IBM\Lotus\Domino**. Within the **data\domino\html** subdirectory, find the file **inotes\_config.xml.template**.



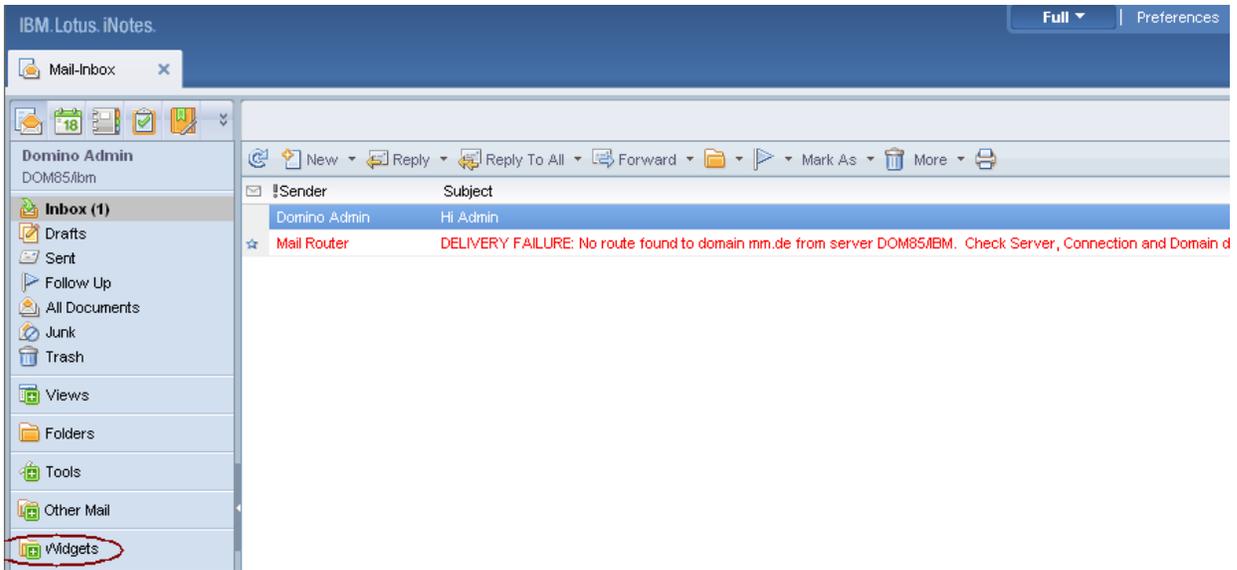
69. Copy the template into a new file **inotes\_config.xml**. Open this file in another Notepad window.
70. From the **extension.xml** window, copy all the code – except the first line – and insert it into the **inotes\_config.xml** before the closing **</inotes:extensions>** tag:



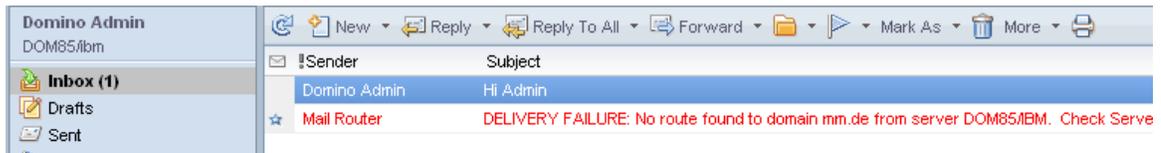
71. **Save and close the inotes\_config.xml**. Afterwards, restart your Domino server.
72. If Domino is up and running again, open your Browser client and navigate to <http://notesdomino.dfw.ibm.com/mail/dadmin.nsf>.



73. After authentication, you should see a **Widgets** section within the left-hand navigator.

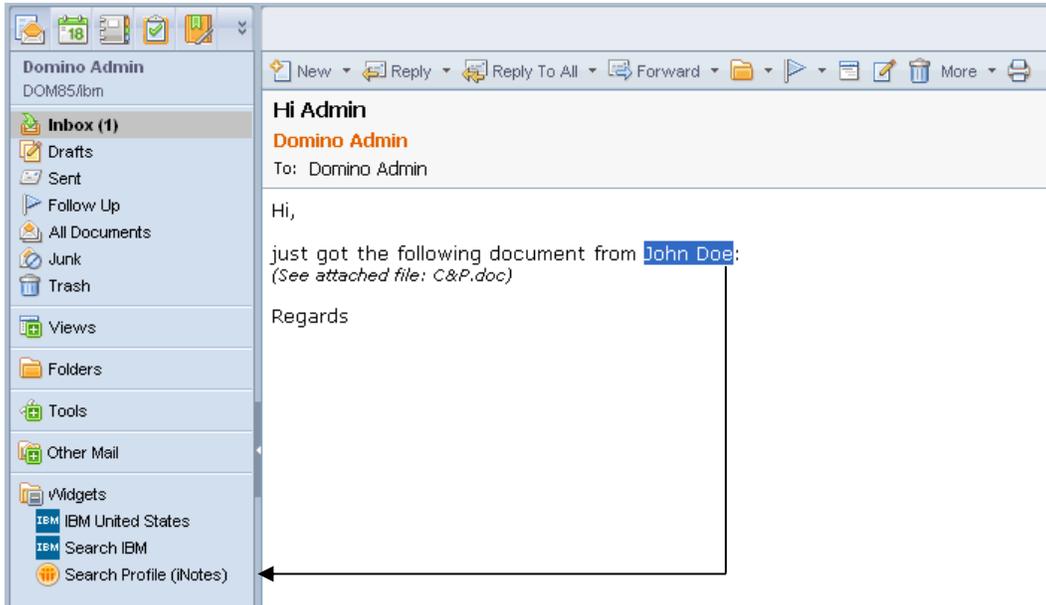


74. Navigate to your inbox. Open the mail we sent during the previous lab (Developing XPages - Part III):

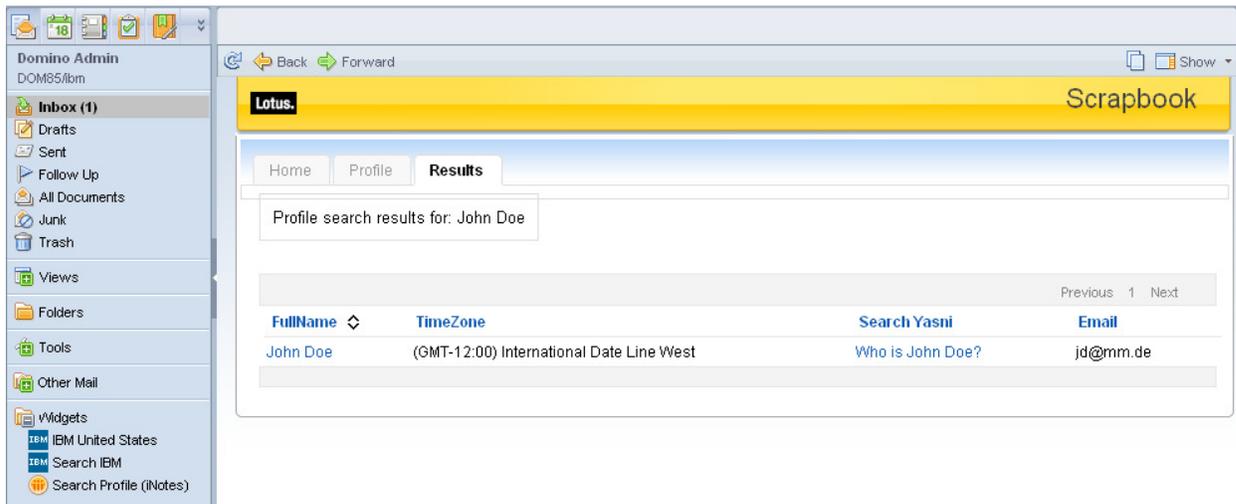




75. Select the name of the colleague (in this case John Doe), then expand the **Widgets** tab and click on **Search Profile (iNotes)**.



76. As the result, the profile search should open the corresponding document.





## 5 Summary

Congratulations! You have finished the Lab!

In this lab, you have successfully used the new Lotus Notes My Widgets feature to:

- Enable your XPage application to accept Live Text as the trigger for search requests
- Configure a Web Page widget based on your Scrapbook application
- Configure the widget for Live Text within Lotus Notes
- Configure a Web Page widget based on your Scrapbook application that could be used to leverage and extend the iNotes client capabilities
- Share widgets via the catalog

You also learned how to configure iNotes widgets by implementing policies and modifying the iNotes widget configuration file to deploy the widget to your iNotes clients.