Contents

[SharePoint 2013: Create a Windows Phone app to receive push notifications 2](#_Toc329688030)

[Description of the sample 2](#_Toc329688031)

[Prerequisites 2](#_Toc329688032)

[Key components of the sample 3](#_Toc329688033)

[Configure the sample 3](#_Toc329688034)

[Run and test the sample 3](#_Toc329688035)

[Troubleshooting 3](#_Toc329688036)

[Change log 4](#_Toc329688037)

[Related content 4](#_Toc329688038)

# SharePoint 2013: Create a Windows Phone app to receive push notifications

This documentation is preliminary and is subject to change.

Summary:  Create a Windows Phone app for receiving notifications from a SharePoint list.

Using the Microsoft Push Notification Service (MPNS), Windows Phone apps can receive notifications through the Internet of events triggered by SharePoint Server. The phone app doesn't have to poll the server for changes, for example, to the items in a list on which the phone app is based. The app can be registered to receive notifications from the server, and an event receiver can initiate a notification and send it to the receiving app for handling. The push notification is relayed to Windows Phone devices by MPNS.

An event relevant to a given phone app might occur (such as, for example, a list item being added to a list) when the app isn't running in the foreground on the phone (that is, when the app is tombstoned or closed). You could develop a background service on the phone with a periodic task that might check for changes to the list on the server, but this approach consumes resources (such as network bandwidth and battery power) on the phone. With MPNS and the components that support notifications built into the Windows Phone 7 OS, the phone itself can receive a notification relevant to the context of a given app—even when that app isn't running—and the user can be given the opportunity to start the relevant app in response to the notification. (For more information about push notifications, see [Push Notifications Overview for Windows Phone](http://msdn.microsoft.com/en-us/library/ff402558(VS.92).aspx).)

## Description of the sample

In this code sample, you create a Windows Phone app from the Windows Phone SharePoint List Application template, specifying a SharePoint list that has push notification enabled as the target list. You then develop a Notifications class for subscribing to push notifications, implementing handlers for notification events, and storing information related to notifications on the phone. You also add a XAML page to your app with controls to allow users to register or unregister for push notifications.

Tip



A job list and a push-notification list should be created on the server so that, if no errors occur, the developer can manually create the lists and still test the app part of the solution. You create a simple SharePoint list, named Jobs, that contains a job category, a description of a job, and the person to whom the job is assigned. Also, you create an auxiliary list, named Push Notification Results, for storing information related to notification requests sent to subscribing phones. For more information about creating notification lists, see **How to: Configure and use push notifications in SharePoint 2013 apps for Windows Phone**

## Prerequisites

This sample requires the following:

* Visual Studio 2010 Express with the SharePoint mobile templates
* An installation of SharePoint 2013 Preview, with administrative privileges
* A SharePoint list with push notifications enabled

Tip



For more information about creating a SharePoint list with notifications, see **How to: Configure and use push notifications in SharePoint 2013 apps for Windows Phone**.

## Key components of the sample

The sample contains the following:

* SPListAppForNotifications project, which contains the Notifications.cs and App.xaml.cs.
* Notifications.cs, which contains the class for managing subscriptions and received notifications.
* App.xaml.cs, which contains classes for managing push notifications. The App.xaml.cs file is autogenerated by the Windows Phone SharePoint List Application template. The App.xaml file represents the overall Windows app. The associated code-behind file, App.xaml.cs, includes procedural code to handle life-cycle events for the app. App.xaml.cs contains references to SharePoint Server and the list title.

## Configure the sample

Follow these steps to configure the sample.

1. Update the value of TargetSiteUrl in the App.xaml.cs file of the SPListAppNotifications solution with the URL of the home page of your SharePoint website.
2. Update the value of TargetListTitle in the App.xaml.cs file of the SPListAppNotifications solution with the title of the target SharePoint list.

## Run and test the sample

1. Choose the F5 key to build and run the app.

## Troubleshooting

The following table lists common configuration and environment errors that prevent the sample from running or deploying properly and how to solve them.

| Problem | Solution |
| --- | --- |
| While running the SharePoint List wizard from Visual Studio 2010 Express, an error may occur if developer does not have sufficient privilege on SharePoint site. | Give sufficient privilege to the user account with which developer is running the wizard. |
| Form-based authentication error. | Form-based authentication is not enabled by default. To enable basic form-based authentication for the web application, follow these steps.   * Navigate to Central Administration and ensure you have administrator rights on the server. * Under Application Management, choose Manage Web Applications. * Choose your web application (on which you have your SharePoint site, which you are accessing from your mobile app). * From the ribbon, choose Authentication Providers. * In the Authentication Provider dialog box, choose Default to edit the authentication. * In the Edit Authentication Model window under Claims Authentication Types, choose Basic Authentication. |

## Change log

| Version | Date |
| --- | --- |
| First version | July 16, 2012 |

## Related content

* **How to: Configure and use push notifications in SharePoint 2013 apps for Windows Phone**
* [Push Notifications Overview for Windows Phone](http://msdn.microsoft.com/en-us/library/ff402558(VS.92).aspx)
* [Push Notifications foe Windows Phone development](http://create.msdn.com/en-US/education/quickstarts/push_notifications)
* **Overview of Windows Phone SharePoint 2013 application templates in Visual Studio**
* **How to: Create a Windows Phone SharePoint 2013 list app**