

VZW Developer Guidelines for VZAppZone Application Integration
VZAppZone (v1.4)
VERSION 1.0

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VZW Developer Guidelines for VZAppZone Application
Integration

Prepared For:
VAppZone 3rd Party Developers

Prepared By:
Maynard Exum

Revision History

Date	Revision Description	Version #	Author(s)
05-16-2008	Initial Draft	Draft-A	Maynard Exum
05-27-2008	Corrections from Marketing team review	Draft-B	Maynard Exum
09-26-2008	Corrections from Network team review	Draft-C	Maynard Exum
09-29-2008	Corrections from Legal review	1.0	Maynard Exum

1.0 Introduction

VZAppZone™ is the name given to the Free Verizon Wireless (VZW) Mobile Marketplace designed for use on advanced devices. The VZAppZone platform facilitates the discovery and delivery of products and services that are available on certain devices, and it customizes the user's experience based on his/her device capabilities. It comes preloaded with various contents, including real-time news and weather information. It also allows users to purchase add-on applications for their advanced devices, all from one convenient location. VZAppZone is a must for anyone who wants to get the most out of his/her advanced mobile device!

And for developers, VZAppZone is a fast, easy way to deliver your mobile application to the customer. With over 68 million customers on the Verizon Wireless network and growing, your application is sure to get the visibility it deserves.

The VZAppZone platform is designed to support a number of different converged devices having a variety of different operating systems, currently including the following:

- Windows Mobile OS
- RIM OS

(For a list of specific devices that support the VZAppZone platform, please see the following link: http://support.vzw.com/information/vzappzone_landing.html and view the “Compatible Devices” section.)

In addition to support for the discovery and download of applications, VZAppZone also offers the following features:

- An overview of the application including cost information, application size, a terms and conditions page for applications that require it, and support for an application preview image
- Assistance with previously purchased products (e.g. retrieval of registration keys and support for re-download of lost applications)
- Banner advertisements and articles which showcase a select subset of applications (You may contact Verizon Wireless directly to find out how to showcase your own application within VZAppZone.)

Included in the VZAppZone platform are a host of applications and other content from various sources, which shall consist of VZW branded applications, applications provided by 3rd Party developers, ringtones, wallpapers and more. The remainder of this document will focus on the process that 3rd party application developers must follow to integrate their applications with the VZAppZone platform.

1.1 Applicable Documents

A 3rd party application developer who wishes to upload an application onto the VZAppZone platform must do so by submitting the application through the VZW Developer’s website. This interface collects all of the information that is required by the VZAppZone platform to allow for pricing, review and publishing of an application so that it may be delivered to the customer. The following document will guide the developer through the process of using the VZW Developer’s website so that he/she may be able to submit an application to the VZAppZone platform.

#	Title	Version	Author	Last Updated	Document
1	VZAppZone_Application_Regi stration_Process_20080929.doc	1.0	Maynard Exum	09/29/2008	(See Attachments)

1.2 Purpose of the Document

This document has been written specifically for 3rd Party Developers and Content Providers of mobile applications for Verizon Wireless advanced devices to: 1. aid in the process of developing a new software application for the VZAppZone platform and 2. provide the list of requirements that apply to both new and existing applications to ensure a successful integration with the VZAppZone platform. The document will provide the required specifications for various contents where applicable; additionally, it will offer further details about VZAppZone and what a software developer should expect to see once his/her application has been uploaded onto the platform.

2.0 Catalog Design

The VZAppZone catalog is designed to allow a customer to easily discover applications that are available on his/her device. The landing page of the VZAppZone client is referred to as the “My Zone” tab. This page displays the customer’s PIM (Personal Information Manager) data (such as text messages, email, calendar entries and tasks), and personalized News and Weather information.

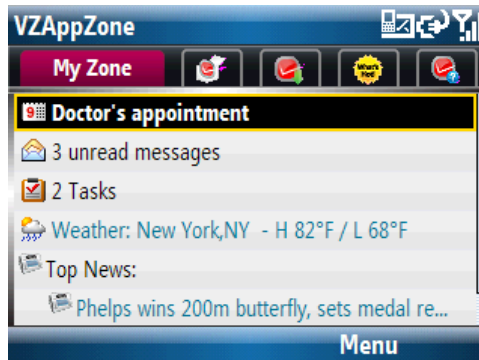


Figure 1: “My Zone” tab

The design also features a “My Content” tab where the customer may find pre-loaded applications, as well as those applications and content that the customer has already downloaded to his/her device. (The application developer should include with the application executable an icon of the application to be posted to this menu; but if no application icon is included, a default icon will be provided.) The customer may click directly on an icon from this page to start the application.

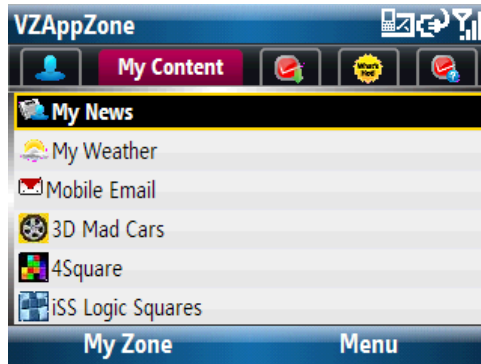


Figure 2: “My Content” tab

Additionally, there is a purchase catalog where the customer may discover new applications for his/her device, a showcase catalog which highlights some of the new and exciting applications that are available, and a help center menu which provides information about the device and the VZAppZone application, among other useful tools.

2.1 Purchase Catalog

The “Get Content” tab is the place where customers will go to purchase an application or other content for his/her device. The platform can bill all purchases directly to the customer’s Verizon Wireless account, so there is no need for the customer to worry about entering credit card information.



Figure 3: “Get Content” tab

To quickly guide customers through the menu and to a selected application, application entries will be listed under suitable category names within the “Get Content” tab. The category names are as follows:

Application/Content Categories
Entertainment
Games
Multimedia
Personal Productivity
Security
Travel
Utilities
Ringtones
Wallpaper

Table 1: Application & Content Category Names

The “Games” category will also contain the following subcategories:

“Games” Subcategories
Action
Card
Casino
Classics
Puzzle
Sports
Strategy
Trivia
Word

Table 2: Subcategory Names of “Games” category

The application provider will select the appropriate category (and subcategory, if applicable) under which the application should be found. There will also be “Best Sellers” and “Recommended” categories; the entries of these will be determined based on previous sales performance and other criteria.

2.1.1 Application Description:

When the user clicks the application title, he/she will be presented the application description page which includes the application title / vendor information, the price of the application, size of the file, and a review of the application. The “Buy Options” button presents the customer with the different pricing options that are available for the application. (See the VZW Developer’s website for the various pricing options that are available.)



Figure 4: Example of an Application Description page

The text on the Application Description page should be provided by the application provider and will give the customer a brief description of what the application does. The application description will be no more than 500 characters in length.

In addition to the pricing options, this page also presents a “Preview” button. Assuming that a preview image is available for the application, this button will be linked to that image to give the customer a glimpse of the application. (If no image is available for a particular application, then the “Preview” button will remain grayed out.) Below is an example of what a preview image will look like on the platform.



Figure 5: Example of a preview image

From this page, the customer may continue on to the pricing options or simply exit the preview and go back to the previous page. The preview image specifications are as follows:

Preview Image (optional – but, recommended)

File Type: .png

Image Size: (see size details by device in Table 3 below)

Device	Preview Image Size (W x H)
Motorola Q	140 x 140
Motorola Q9m	140 x 140
Motorola Q9c	140 x 140
HTC SMT5800VW	140 x 140
HTC XV6800	140 x 140
BlackBerry 8130	140 x 140
BlackBerry 8330	140 x 140
BlackBerry 8830	140 x 140
Samsung i760	140 x 140

Table 3: Preview Image size requirements by device

2.1.2 Double Opt-in Message

An optional double opt-in screen may be used to present additional information to the user about the application. This screen may be used to present Terms & Conditions, to describe some limitation or to share some other essential details that have not yet been stated about the application. The double opt-in message will contain up to 256 characters of text.

2.2 Showcase Catalog

The “What’s Hot” menu showcases applications and services to give them maximum visibility on the VZAppZone platform. By providing a direct link to the application purchase page, this catalog is intended to give a select few applications an additional entry point, and as a result increased traffic. A content provider may want to showcase an item that is coming soon, or just draw special attention to an existing application.

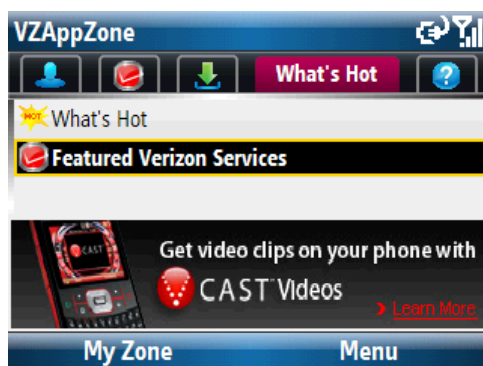


Figure 6: “What’s Hot” tab

Within the “What’s Hot” tab, there will be support for a banner advertisement, a showcase article, and an article image which will highlight the main points of the application. To find out how to showcase your application on the VZAppZone platform, you may contact the VZAppZone Content Manager (VZAppZone.Admin@VerizonWireless.com).

2.3 Support Center

The last tab on the VZAppZone client is the “Support Center” tab.



Figure 7: “Support Center” tab

This tab includes several self help features, including support for the re-download of an application that has already been purchased (and perhaps has been accidentally removed from the device). This menu also maintains a quick look-up table which holds all activation keys associated with applications that have previously been downloaded. This way, activation keys are always handy when the customer needs them.

3.0 CAB/JAR File Development & Testing

The following is a list of requirements and recommendations for the development of any application .cab or .jar file that is to be hosted by the VZAppZone server. These requirements should be reviewed prior to developing an application for the VZAppZone platform to ensure that any application downloaded from the server interacts with the platform as expected and provides a pleasing experience for the user. Application developers should adhere strictly to these requirements, as well as the guidelines provided by each respective device OS for the development of an application on that environment, in order to gain approval to load an application onto the VZAppZone platform. Where possible, the developer should also consider following the recommendations, also given below, in order to provide the best overall user experience; however, depending on the application specifications and functionality, adherence to these items may be decided on a case-by-case basis.

Applications to be discovered and downloaded on VZAppZone version 1.4 should conform to the following rules to reduce potential issues with installation:

Windows Mobile Requirements:

- Vendor name listed in the cabinet (.cab) file should be the same as what is expected to be published into the VZAppZone catalog.

- Application must be packaged as a cabinet (.cab) file. In some instances, when executable (.exe) files are requested for download, this causes problems on the OS Installer.
- Applications that are plug-in only are not supported. Plug-ins are applications that show:
 - In the “Home Screen” on Smartphone or Windows Mobile Standard devices.
 - In the “Today” Screen on Pocket PC or Windows Mobile Professional devices
- Application main executable (.exe) should have a version string set, so that VZAppZone may use it for upgrade use cases. **(The Assembly Version property in Figure 8 identifies where the version string may be set.)**

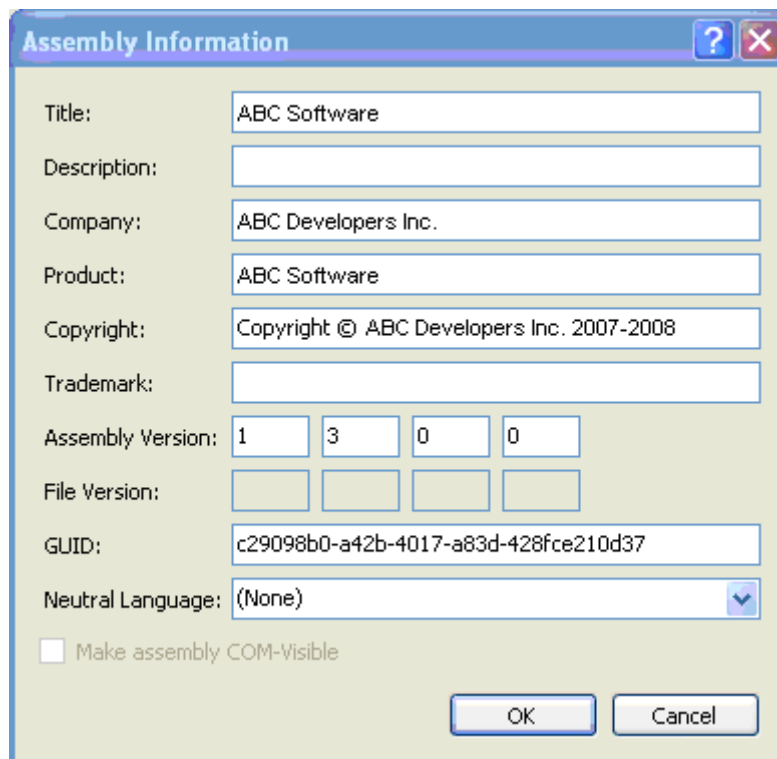


Figure 8: Assembly Information window for CAB files. (This shows where the developer must set the Name, Vendor Information & Version in Visual Studio 2005.)

- Application must have a shortcut in the Start folder. Shortcut link (.lnk) file must be of the standard Windows Mobile format.
- Application should use the available or higher version of Microsoft .NET CF 2.0 instead of looking to downgrade to a lower version. If the application were to downgrade .NET to a lower version, VZAppZone would not be able to operate correctly.

RIM Requirements:

- Application should be packaged as JAD / COD files.

General Requirements:

- Application executable (.exe) must include an icon whose pixel color in location (0, 0) will be used as the transparent color.
- Application must NOT require any command line parameter to launch.
- Application should adhere to the operating system uninstall process and should remove the application completely from the device during an uninstall procedure.
- Application should NOT include multiple executables to launch an application. If multiple executables are required for proper functioning of the application the icon presented to the user in the main menu or under program folder must point to the executable that will launch the application.

General Recommendations:

- Application installation time should not take more than 3 minutes.
- Application should install in the main memory of the phone as opposed to installing on the secondary memory like the SD Card. (VZappZone provides the user with the ability to launch the application; and, if the SD card on which the application resides is not inserted, then this function will fail.)
- Application should install under the program files folder of the device as is normal practice and is a default setting on Windows Mobile devices. (i.e. under “\Program Files”)
- Application install process should not require reboot unless absolutely necessary for application to function correctly.

The .cab or .jar file (the actual application) must be submitted with other application content. (All applications must undergo basic functionality testing, as well as OTA verification tests. Additionally, for those applications that are network touching, Verizon Wireless will require additional testing to verify that the application’s interaction with the Verizon Wireless network is carried out in a reasonable manner.) Once Verizon Wireless certifies the application, it may be sent to the VZAppZone content manager to be published on the platform.