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OpenX Ad Server

Build and maintain professional advertising solutions for your websites with OpenX Ad Server

Beginner's Guide

Murat Yilmaz

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BIRMINGHAM - MUMBAI



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No book is the product of just the author—he just happens to be the one with his name on the cover.

A number of people contributed to the success of this book, and it would take more space than I have to thank each one individually.

I would like to thank the entire Packt Publishing team. It was a great pleasure for me to work with you for the creation of such a highly qualified book.

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His desire to learn and share his knowledge has led to him being a regular reviewer of books from Packt such as *Joomla! 1.5 Multimedia*, *Joomla! With Flash*, *Joomla! 1.5 SEO*, *Magento Theme Design*, and *Symfony 1.3 web application development*.

Recently he has even published his own book, *Codeigniter 1.7*, that you can also find on Packt website. If you work with PHP take a look at it!

If you want to know more about him, you can check his site (www.joseargudo.com).

To my girlfriend, with all my love.

Mert Erkal is a young Internet entrepreneur from Istanbul, Turkey.

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I would like to thank the author, Murat Yilmaz, for his invitation to contribute in this excellent book. I also would like to thank Taci Yalcin, writer of *SosyalMarka.com* and co-founder of *Stradiji.com*, and my family for their patience and support.

*This book is dedicated to: my wife and my family who always love,
support by heart and encourage me for better*

Table of Contents

Preface	1
Chapter 1: Introduction and Installation of OpenX Ad Server	7
Basics of OpenX Ad Serving	8
Main features of OpenX Ad Server	11
System requirements	11
Installing OpenX	13
Downloading OpenX	13
Time for action – downloading OpenX	13
Uploading OpenX files	15
Time for action – uploading OpenX using cPanel file manager	15
Time for action – uploading OpenX using an FTP client	20
Setting file permissions	22
Time for action – setting file permissions	22
Creating a MySQL database and user	24
Time for action – creating a MySQL database and user	24
OpenX installation wizard	28
Time for action – using OpenX installation wizard	28
Summary	37
Chapter 2: Start Ad Serving with OpenX	39
Basic OpenX Ad serving steps diagram	40
Sample Amazon.com banner serving flowchart	40
Time for action – adding Amazon.com as an advertiser	41
Time for action – adding a campaign for Amazon.com	44
Time for action – adding a banner to Toys & Games Amazon campaign	46
Time for action – adding a website to OpenX	49
Time for action – adding a zone to the website	50

Time for action – linking the Amazon banner to the zone	52
Time for action – serving the banner on the website	53
Summary	57
Chapter 3: Advertisers and Campaigns	59
Advertisers	60
Adding an advertiser	60
Time for action – adding Apple as an advertiser	60
Campaigns	64
Inventory of a website	65
In-house versus paid campaigns	65
Campaign types in OpenX	65
Understanding campaign priorities	66
Campaign revenue information	67
Adding campaigns to an advertiser	68
Time for action – adding a contract type campaign for Apple	68
Time for action – adding a Contract (Exclusive) type campaign	78
Tips for efficient advertiser and campaign management	84
Tip 1: Using a consistent naming convention	84
Tip 2: Using duplicate campaign function	85
Tip 3: Filtering active campaigns	86
Tip 4: Guaranteeing campaign impressions on a zone	86
Summary	87
Chapter 4: Filling Campaigns with Banners	89
Banners	89
Understanding banner types	90
Local banners using webserver	90
Time for action – adding a local webserver banner to Apple Inc - Mac Devices campaign	90
Local banners using SQL	99
Local banners using webserver—advantages and disadvantages	99
Local banners using SQL—advantages and disadvantages	100
Generic HTML banners	100
Time for action – adding Google AdSense ads with OpenX	101
Generic HTML banners—advantages and disadvantages	109
Generic Text banners	109
Generic text banners—advantages and disadvantages	110
External banners	110
Time for action – adding an external banner type for Amazon	111
External banners—advantages and disadvantages	116
Targeting visitors with banner delivery options	116
Understanding geotargeting	116

Time for action – Amazon Halloween banner targeting US visitors	118
Summary	126
Chapter 5: Adding Websites and Zones	127
Websites and zones	128
Zone types	128
Adding websites and zones to OpenX	129
Time for action – adding a website to OpenX	129
Time for action – adding a banner type zone to website	131
Zone invocation code	133
Time for action – putting zone invocation code into our website	134
Time for action – linking a banner to a zone	138
Understanding zone probabilities	142
Scenario 1: Only one banner in the zone	142
Scenario 2: Two Remnant type banners from the same campaign	142
Scenario 3: Two Contract Banners and One Remnant Banner	143
Adding zones in Blogger and WordPress blogs	144
Time for action – adding zone invocation code to blogger	144
Time for action – adding zone invocation code to a WordPress blog	147
Understanding advanced zone properties	149
Time for action – setting advanced zone properties	150
Dynamic zone sizes	153
Time for action – applying dynamic zone sizes	153
Summary	156
Chapter 6: Taking Advantage of Channels	157
Site Source	158
Time for action – labeling zones with site source parameter	158
Channels	170
Website channel	171
Time for action – achieving targeting with website channels	172
Global channel	178
Time for action – adding a global channel	178
Summary	184
Chapter 7: OpenX Account Management	185
OpenX account types	185
Working with manager accounts	187
Time for action – adding a manager account	187
Working with advertiser accounts	196
Time for action – adding an advertiser account	196
Accounts and permissions chart	204
Summary	205

Chapter 8: User and Account Preferences	207
Changing OpenX name, e-mail, and password	207
Time for action – changing OpenX name, e-mail, and password	208
Banner preferences	211
Time for action – changing banner preferences	211
Time zone preferences	214
Time for action – changing time zone preferences	214
User logs	216
Time for action – checking user logs	216
Summary	219
Chapter 9: Upgrading OpenX	221
OpenX version	221
Time for action – checking OpenX for upgrades	222
Current OpenX files	223
Time for action – backing up OpenX files and database	223
New OpenX files	227
Time for action – downloading the latest OpenX files and uploading them to the server	227
Configuration file and banner images	231
Time for action – copying the configuration file and image banners	232
Update wizard	235
Time for action – running the upgrade wizard	236
Summary	247
Chapter 10: Using Reports and Statistics	249
Advertisers and campaigns statistics	249
Time for action – getting advertisers and campaign statistics	250
OpenX advanced reports	262
Advertising analysis report	262
Time for action – getting advertising analysis reports	262
Summary	267
Appendix: Pop Quiz Answers	269
Chapter 1	269
understanding system requirements	269
Chapter 2	269
understanding the basics	269
Chapter 3	270
understanding different campaign types	270
Chapter 4	270
understanding different banner types	270

Chapter 5	270
understanding banner zone linking	270
understanding dynamic zone sizes	271
Chapter 6	271
understanding channels	271
Chapter 7	272
understanding OpenX account management	272
Chapter 8	272
understanding user and account preferences	272
Chapter 9	273
understanding upgrading OpenX process	273
Chapter 10	273
understanding OpenX reports and statistics	273
Index	275

Preface

The amount of money made from websites depends on how we can effectively manage and optimize the advertisements. We can't just randomly add a bunch of banners to our websites and wait for them to make money in an optimized way.

Professional advertising management needs more functions. We should be tracking how advertisements perform and ensure that they are able to customize according to several visitor parameters such as geographic location. The advertisements shown to website visitors should be as relevant as they can be, according to the content of the web pages. We need a scalable-and easy-to-use ad server that is able to handle hundreds of campaigns at the same time on multiple websites, if necessary. It should be very easy to replace a banner on multiple websites with just a few clicks.

Most advertisers want to track how their advertisements perform and are able to make several changes to ongoing campaign banners at any time. A professional ad server should also provide such data-sharing capability to advertisers as well.

OpenX Ad Server is designed to provide these functions and much more.

OpenX is currently the market leader in the open source advertisement serving market, reaching over 150,000 websites worldwide and serving over 300 billion advertisements per month, and has proved to be a scalable, reliable, and efficient ad-serving platform for many years.

OpenX system uses a sophisticated tracking system for advertisers and publishers to get statistics and optimize campaigns from a central interface. It gives website publishers full control over their advertising needs.

In this book, we will have lots of real hands-on examples to help the reader understand the OpenX Ad Server system.

What this book covers

Chapter 1, Introduction and Installation of OpenX Ad Server introduces an example of an advertising campaign to provide you with the basic concepts of online advertising. This information will help you understand what you will achieve using OpenX Ad Server. It then shows us a step-by-step installation of OpenX Ad Server on a hosting by emphasizing the important points that we need to be careful with.

Chapter 2, Start Ad Serving with OpenX aims to start our first campaign and show the first banner as fast as we can by using the minimum settings of OpenX Ad Server. It will prepare you for the details of the OpenX Ad Server environment, which we will discuss one by one in further chapters. We will use a real banner example from Amazon.

Chapter 3, Advertisers and Campaigns defines an advertiser and several different campaign types. We will learn about several advertising and campaign terms including inventory, campaign types campaign priority values, revenue models, delivery capping and so on. The next steps are the applications of such terms in an OpenX Ad Server environment with hands-on examples. The chapter ends with tips about efficient campaign management. Throughout the chapter, we will use some fictitious Apple Inc. campaigns about Mac and iPhone.

Chapter 4, Filling Campaigns with Banners gives details of OpenX banner definitions, types of banners, advantages and disadvantages of using a certain banner type, and how they are processed. We will apply several examples about banners including serving Google Adsense banners in OpenX. We will learn about the vital aspect of banner serving, namely Geotargeting. We will learn how we can customize banner deliveries according to several factors. The chapter uses many examples on banner usage including an Apple Mac banner, Google Adsense, and Amazon Halloween banner for Geotargeting, and so on.

Chapter 5, Adding Websites and Zones explains, with the help of a diagram, a typical website and how advertisement spaces can be allocated in predefined zones. We learn about different OpenX zone types, adding websites and zones, getting zone invocation code inserting web pages, linking banners or campaigns to zones tracking zone probability screens, advanced zone type settings, and setting up dynamic zones that are ready to handle different sized banners. Finally, we will learn how we can serve the advertisements on popular blogging platforms such as WordPress and Blogger.

Chapter 6, Taking Advantage of Channels is all about how we can serve the advertisements via channels to provide more relevancy. We will learn how to set up Site Source zone parameter to differentiate the same zones according to site content. We will use channels to target advertisements on specific content pages by using very easy-to-understand examples. Finally, we will learn how we can target advertisements on a single website or multiple websites using global channels.

Chapter 7, OpenX Account Management explains how we can turn our OpenX Ad Server system into a multiuser management platform where website owners, ad agencies, direct advertisers can work at the same time on their own assets. We will learn how we can define accounts and assign users to these accounts, set permissions on the accounts, and the differences between advertiser, website, and manager accounts.

Chapter 8, User and Account Preferences explains how advanced settings on accounts will help us to customize ad server according to our needs. We will learn where we can change basic account information such as name, e-mail and password and how we can set default banner preferences, and time zone settings. We will end the chapter by learning how to audit the OpenX system. We will learn how to track the changes on the system made by users.

Chapter 9, Upgrading OpenX will help protect the security. We will learn where we can check the new versions of OpenX and how to upgrade to the latest version step-by-step. We will learn how we can export the currently used advertising data carefully into the upgraded version.

Chapter 10, Using Reports and Statistics provides every tool to efficiently analyze the performance of websites, website zones, advertisers, campaigns, and banners. We will learn how we can get such statistics online. Then, we will investigate how we can export the data into a spreadsheet such as in Excel and analyze it with a real example.

Appendix , Pop Quiz Answers contains the answers for the pop quiz questions.

Who this book is for

This book is suitable for website owners, bloggers, and advertisers who need to run a centralized, highly scalable advertising management solution for their websites and clients to optimize their online profits. The book doesn't require any advanced IT skills. Basic computer and IT skills are enough to be able to follow the book.

Conventions

In this book, you will find a number of styles of text that distinguish between different kinds of information. Here are some examples of these styles, and an explanation of their meaning.

Code words in text are shown as follows: "We added a global channel named as `gch_notebook`."

New terms and **important words** are shown in bold. Words that you see on the screen, in menus or dialog boxes for example, appear in our text like this: "Select **Site – Source** option from the delivery limitation list and then click on **Add** button".

 Warnings or important notes appear in a box like this.

 Tips and tricks appear like this.

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1

Introduction and Installation of OpenX Ad Server

Learning the essentials of online advertising with a sample will give you a very useful projection about what you can benefit using the OpenX Ad Server. It will provide you a strong foundation to get the most out of OpenX Ad Server main features.

As the majority of web hosting service providers do not have one-click installation for OpenX, we have to install OpenX on our own in most cases. Installing OpenX Ad Server is not a difficult task and follows a standard procedure just like other PHP and MySQL-based open source software. On the other hand, there are some important key points that we should be careful about:

In this chapter, we shall learn about:

- ◆ A brief introduction to OpenX Ad Server
- ◆ The system requirements needed to install OpenX Ad Server
- ◆ How to download and upload OpenX files to a web server
- ◆ How to set file and folder permissions
- ◆ How to create a MySQL database and user
- ◆ How to complete installation with the wizard

This chapter is suggested for reading even if you are a tech-savvy computer user, as you can eliminate the possible problems while installing OpenX Ad Server.

Basics of OpenX Ad Serving

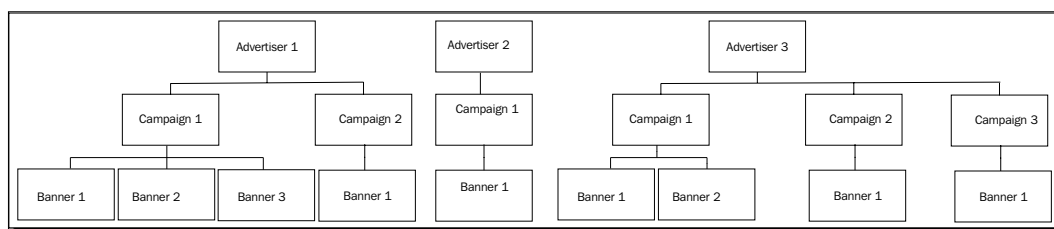
OpenX Ad Server system was designed to manage all aspects of an online advertising business efficiently. Here, we will briefly look at the main OpenX terms and their interaction with each other.

An advertiser is the person (people) or organization who owns the banners that you will display in your advertisement serving environment (blogs, websites, e-mail newsletters, and so on).

A campaign is a set of banners that is targeted to promote a service or product(s) typically.

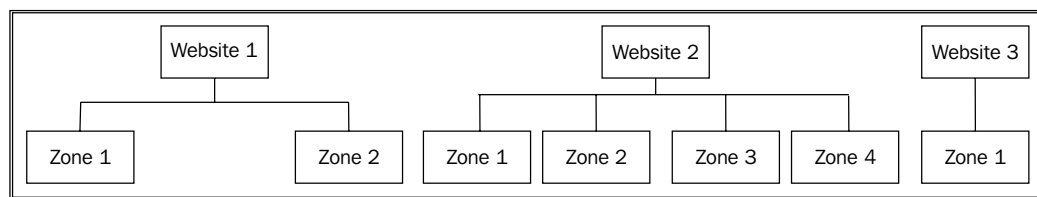
A banner is a creative content that will be displayed as an advertisement. The most common banner formats are images png, jpg, gif, animated gifs, text links, JavaScripts, Texts, HTML, and Flash (SWF) files.

An advertiser can have multiple campaigns and each campaign can have any number of banners inside. The following sample diagram shows the relationship among the terms—advertiser, campaign, and banner:

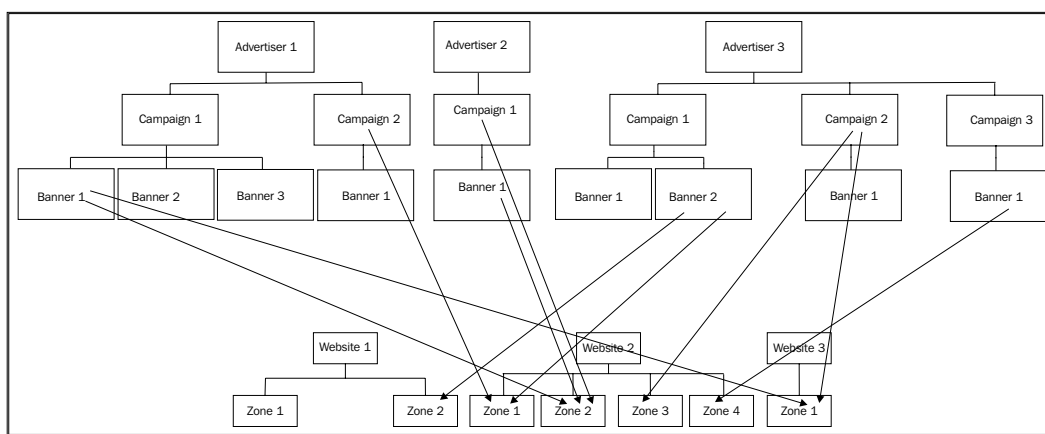


A **website** is the representation of publisher side on OpenX system where advertisements will be shown.

A **zone** is a predefined placeholder in a website to show banners. A website can have multiple zones.



Banners or campaigns can be connected to zones in OpenX Ad Server environment. Here is a sample connection diagram:



An ideal advertisement statement is the complete presentation of a banner using all the terms and target parameters.

For example, an iPhone case manufacturer (Fictitious Cases) wants to start a campaign for their latest leather case Model X on several blogs.

Now, let's define a sample ideal advertisement statement using several parameters.

The advertiser, Fictitious Cases wants to start iPhone Leather Case Model X campaign. The campaign will be activated next week on Monday at 10:00 automatically. The campaign will end in 120 days and banners will automatically expire from the system after 120 days. If the campaign reaches 10,000 clicks or 4,000,000 impressions before 120 days, the campaign will end up automatically as well as will not wait until the end date.

The banners will be shown on the top 728x90 pixel zone of gadget blog A, on the right 125x125 zone of the mobile phone review site B, and as a text link on the zone defined at the end of each blog post of site A.

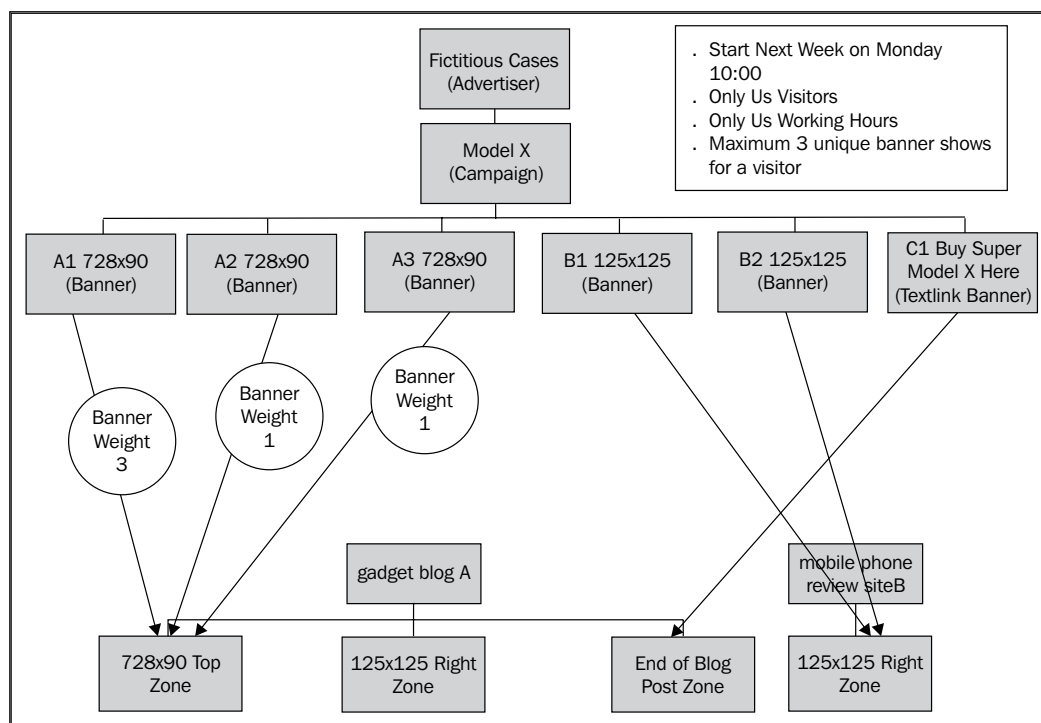
They have added three 728x90 banners namely A1, A2, and A3; two 125x125 banners namely B1 and B2; and one text link as «Buy Super Model X here» namely C1.

As the company is selling its cases to only US customers, the website visitors coming from other countries will not be able to see these ads, thus advertiser's inventory of clicks or impressions will not be spent. The banners in the campaign will be shown to website visitors only in US working hours.

The advertiser thinks that each visitor should only see a banner maximum of three times. So, if a banner reaches this impression count for a visitor, another banner will be shown instead. So, if the banner A1 is shown three times for a unique visitor, A2 or A3 will be shown on next impression.

The advertiser thinks that A1 banner is much appealing than A2 and A3, and sets a higher banner impression weight, 3 for A1, 1 for A2 and A3. So, A1 as three times more chances of being shown than the others.

The following diagram shows this Sample campaign:



OpenX Ad Server allows defining a detailed campaign like in this example. We will learn how to implement an example similar to this and more in OpenX system in further chapters and see how OpenX is the vital solution to manage an advertisement network.

Main features of OpenX Ad Server

The following are the main features of OpenX Ad Server:

- ◆ Free to use without any limitations
- ◆ Provides detailed statistics on vital advertising elements such as clicks, impressions, and so on
- ◆ Easy-to-use interface to compare advertisement performances and find under-functioning advertisements
- ◆ Easily place, replace, and pull out banners on multiple websites with a few clicks
- ◆ Advanced advertisement targeting according to country, date, IP Address, and so on
- ◆ Content targeting functions to show relevant advertisements automatically
- ◆ Well suits to sell advertisement space on blogs and websites
- ◆ Allows defining multiple logins for management to both publishers or advertisers with customizable user rights
- ◆ Online statistics and e-mail reporting
- ◆ Data is available to third party tools like Excel

System requirements

While the book is being written, the latest OpenX release is 2.8.3, and the system requirements are valid for this version. Previous versions may have the same or fewer requirements. We must download and install OpenX Ad Server on our own or on a shared web hosting solution. OpenX system runs on an Apache web server running with Linux. We will also need PHP and one of the supported database servers: MySQL or PostgreSQL. MySQL is the preferred database server as it is easier to manage and work more efficiently with OpenX. Some users suggested running OpenX on a Windows server with a PHP-enabled mode, but as it is not officially supported by OpenX and open to errors, we suggest following an ideal LAMP solution (Linux, Apache, MySQL, and PHP). The following table shows the requirements list for installing OpenX:

Linux	Linux is essential and standard to work with OpenX Ad Server. Some other Unix-based systems can also run OpenX Ad Server but are not supported officially.
-------	--

Apache server	An Apache server is required. The majority of modern web hosting solutions have the latest versions of Apache server, so it is not an issue.
PHP	As OpenX Ad Server is written in PHP language, it needs PHP installation. Although PHP version 5.2 or newer is recommended, 5.1.4 version or any greater version is also supported.
PHP settings and parameters	OpenX uses default PHP server settings, but as some server administrators change these settings, it is wise to check whether the following parameters are set before the installation process: ◆ <code>memory_limit</code> Minimum 128 MB at the root settings is required for 2.8.3 version. This is a must for OpenX installation and operation. Write to your web server technical support to be sure, as not many web hosts can provide this requirement as a default. ◆ <code>magic_quotes_runtime</code> Off. ◆ <code>safe_mode</code> Off. ◆ <code>register_argc_argv</code> Must be on if you want to run maintenance via command line. ◆ <code>file_uploads</code> Needs to be turned on to allow HTTP file uploads. ◆ <code>mysql, ZLib, FTP, GD, openssl</code> extensions These extensions are needed for several functions to operate correctly.

MySQL	It is the default OpenX Ad Server database. Although MySQL 5.0 is recommended, MySQL 4.1 and greater versions are also supported
SMTP Server	Required for sending reports by e-mail.

Installing OpenX

Make sure that your web hosting solution meets all the listed requirements before starting the installation steps. The easiest way of determining this is by sending the requirements list to web server technical support. We will complete installing OpenX using the following steps:

- ◆ Downloading OpenX from <http://openx.org>
- ◆ Uploading OpenX files to web host
- ◆ Creating MySQL database and a user for OpenX
- ◆ Using OpenX installation wizard
- ◆ Making first login to OpenX management interface

Now, let's start exploring each section in detail.

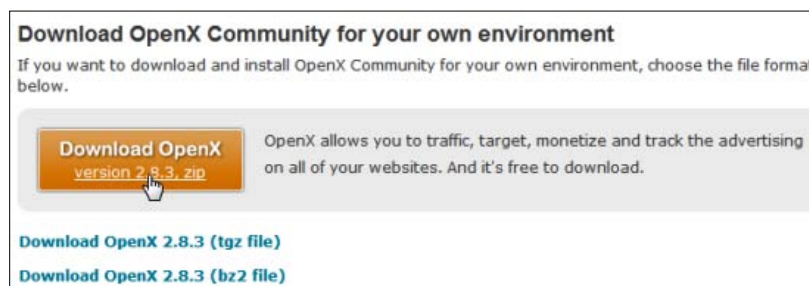
Downloading OpenX

Downloading the latest version of OpenX Ad Server is an easy and straightforward task. Let's see how we can achieve that.

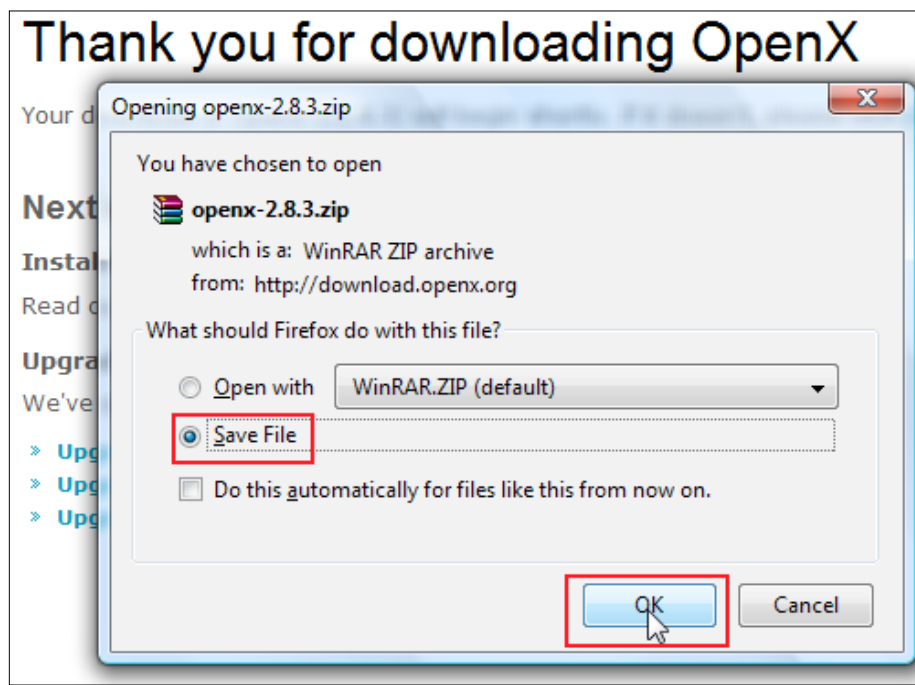
Time for action – downloading OpenX

In this section, we are going to download OpenX files.

1. Browse to the <http://www.openx.org/ad-server/download> link. This link will open a web page where we can choose one from three types of compressed files—zip, .tgz, and .bz2. The download page will look like this:



2. We have chosen default .zip file download option. On the next **Thank you for downloading OpenX page**, we save the file in the hard drive instead of opening with the built-in ZIP file support of Windows Vista or WinRAR.



What just happened?

We have downloaded the OpenX files in the form of a compressed file on our computer. Now, we are ready to upload the files to the web host.

Pop quiz – understanding system requirements

1. After you have asked your web hosting technical support to increase PHP `memory_limit` value in root settings to 128 MB, they replied that they have temporarily increased this value from 32 MB to 128 MB. You have installed OpenX 2.8.3 successfully and they have decreased `memory_limit` value to 32 MB again. Will newly installed OpenX 2.8.3 system continue to work?
 - a. Yes
 - b. No

2. Which of the following sets is required officially for OpenX Ad Server to install and work correctly?
- Windows Vista, SQL Server, .Net
 - Linux, Apache, MySQL, Perl
 - Linux, Apache, MySQL, PHP
 - Linux, Apache, SQL Server, PHP

Uploading OpenX files

There are two common methods for uploading files to a web host:

- **Using cPanel file manager utility**
Apply this method if you want to install OpenX on a subdirectory on your domain— for example, `http://yourwebsite.com/openx`
- **Using FTP client**
Apply this method if you want to install OpenX system on your root domain—for example, `http://yourwebsite.com`

We will explain both methods with examples.



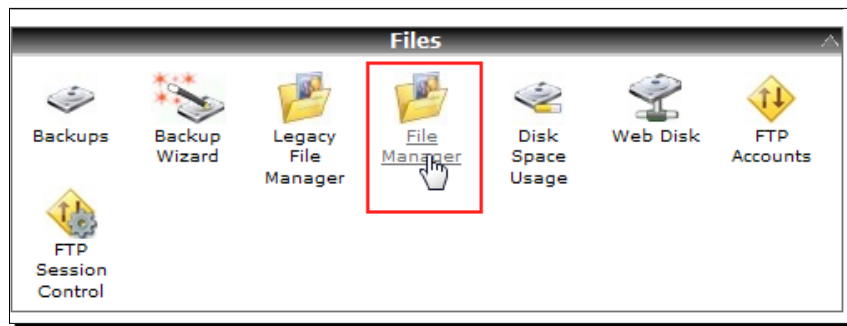
Installing OpenX on a subdirectory is a better option, as we can hide the installation from search engines and from people who browse to our site directly.

Decide which method to choose and apply one of the actions accordingly. Let's start with the suggested method.

Time for action – uploading OpenX using cPanel file manager

This is the first method of uploading OpenX files to web host. Many modern web hosting solutions include a control panel called as cPanel and we can use cPanel file manager utility to directly upload a ZIP file to web host and decompress the files there easily.

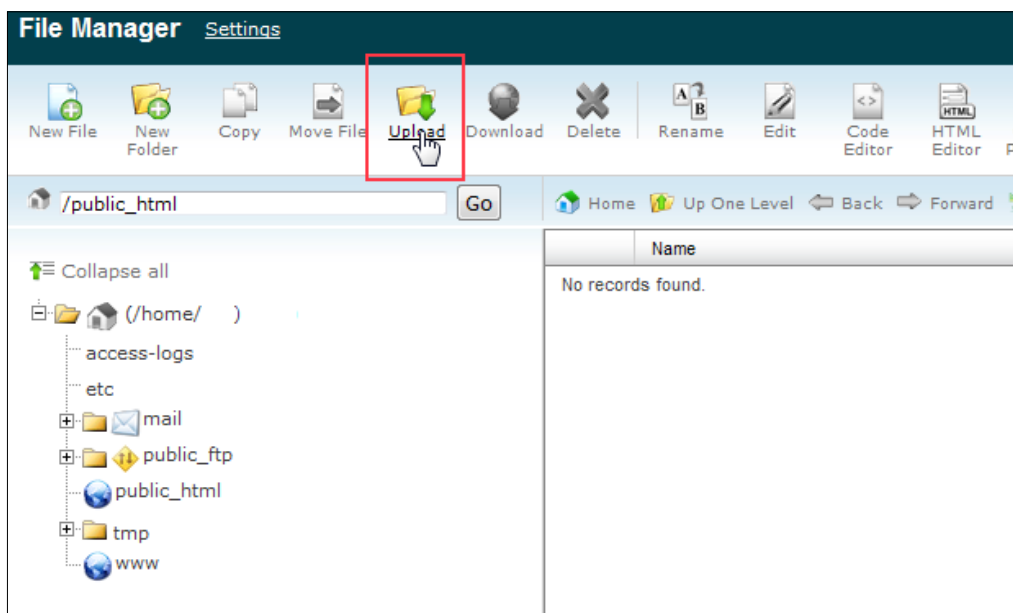
1. Open **File Manager** utility at cPanel.



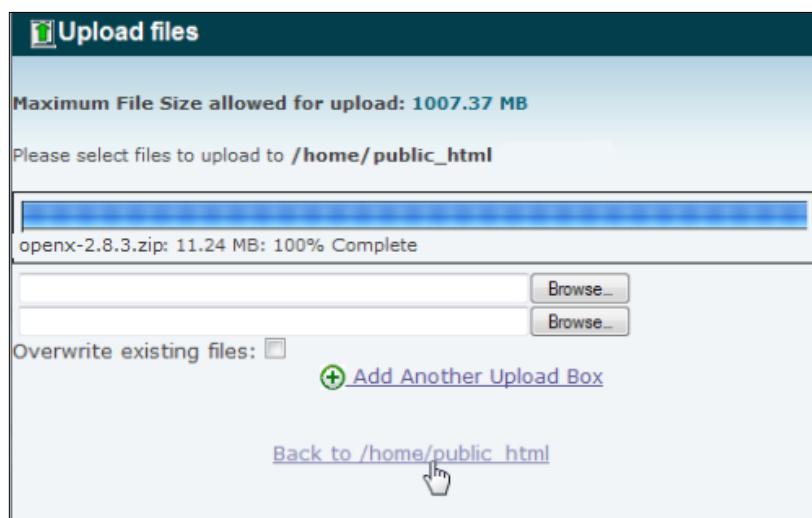
2. Web Root (public_html/www) is the default selection. Click on the **Go** button.



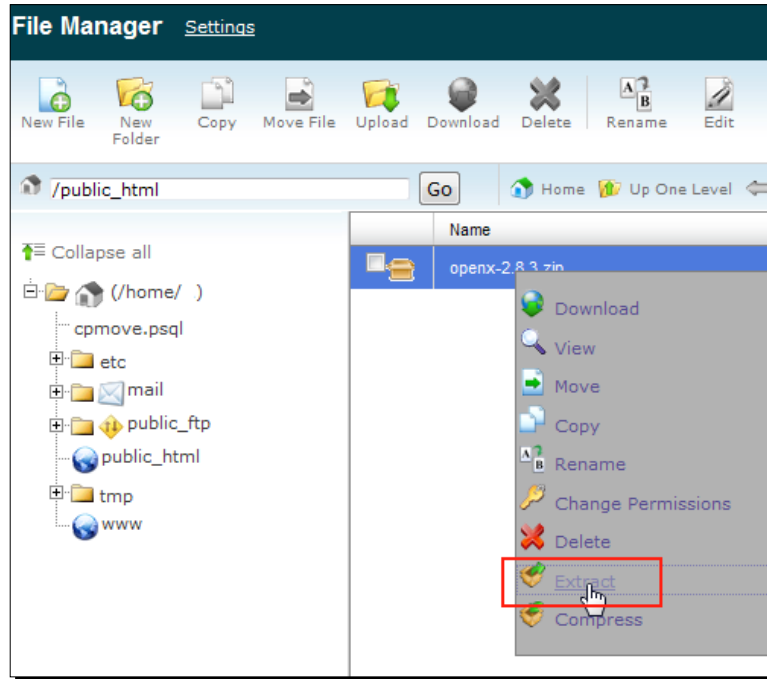
3. Click on the **Upload** link and choose OpenX zip file using the **Browse** button on the next screen.



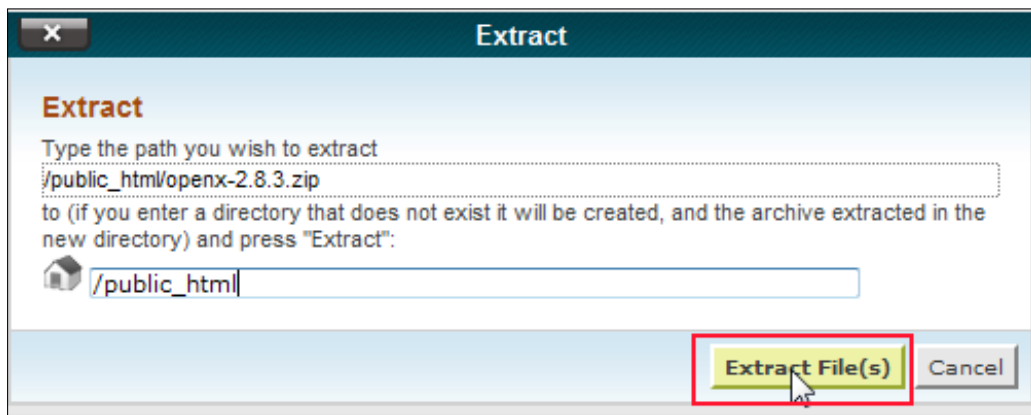
4. After the upload completes, return to the main cPanel **File Manager** screen.



5. Right-click on the file and select **Extract**.



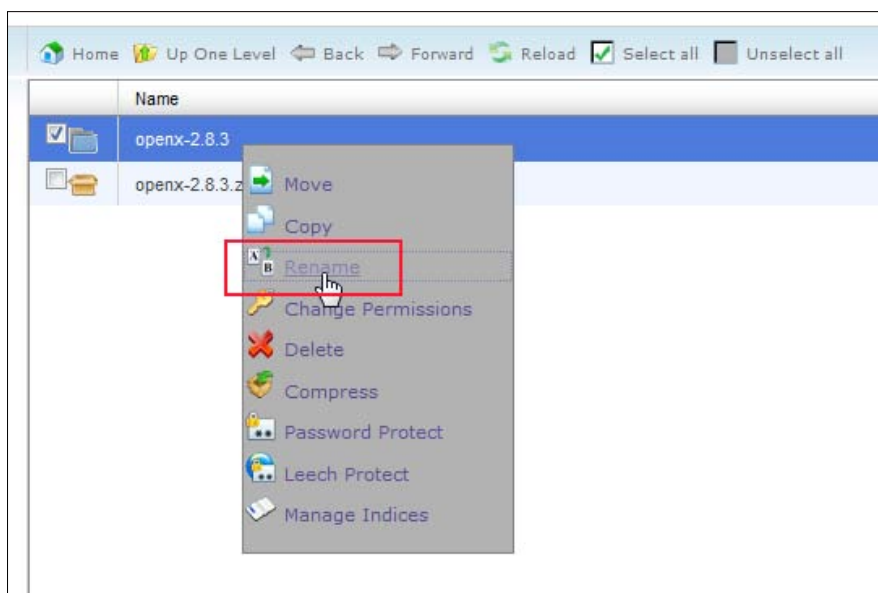
6. It will open a pop-up window. Just click **Extract File(s)** button to decompress ZIP file into the root web folder.



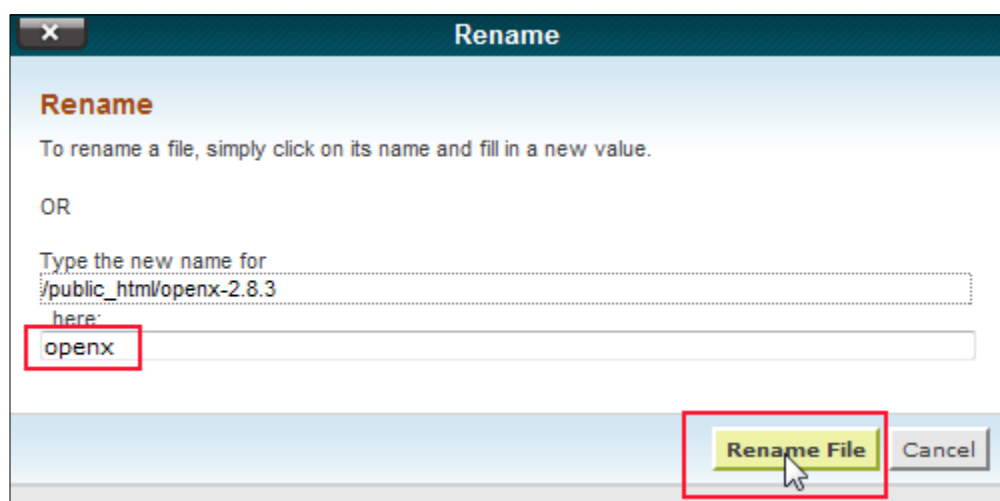
All files are extracted to a folder named `openx-2.8.3`. As a result, OpenX Ad Server will be reachable at `http://yourwebsite.com/openx-2.8.3`.

As it is not a good path name, it is better to rename the folder with something easier such as `openx` to reach at `http://yourwebsite.com/openx` once all installation steps are complete.

7. Right-click on folder name and choose **Rename** option.



8. Rename the file as `openx` as shown in the following screenshot:



What just happened?

OpenX files are now on the web host in a subdirectory. OpenX Ad Server will be reachable at <http://yourwebsite.com/openx> after completion of all the remaining installation steps.

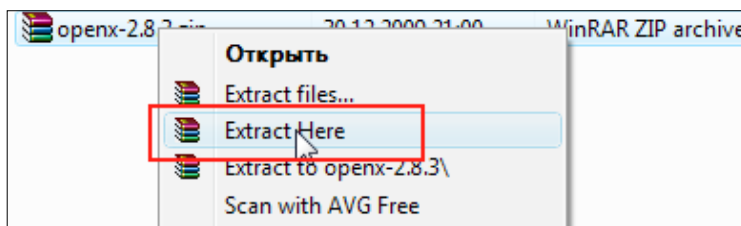


If you have already completed uploading OpenX files to a subdirectory using cPanel file manager tool already, skip the following action and continue reading setting file permissions.

Time for action – uploading OpenX using an FTP client

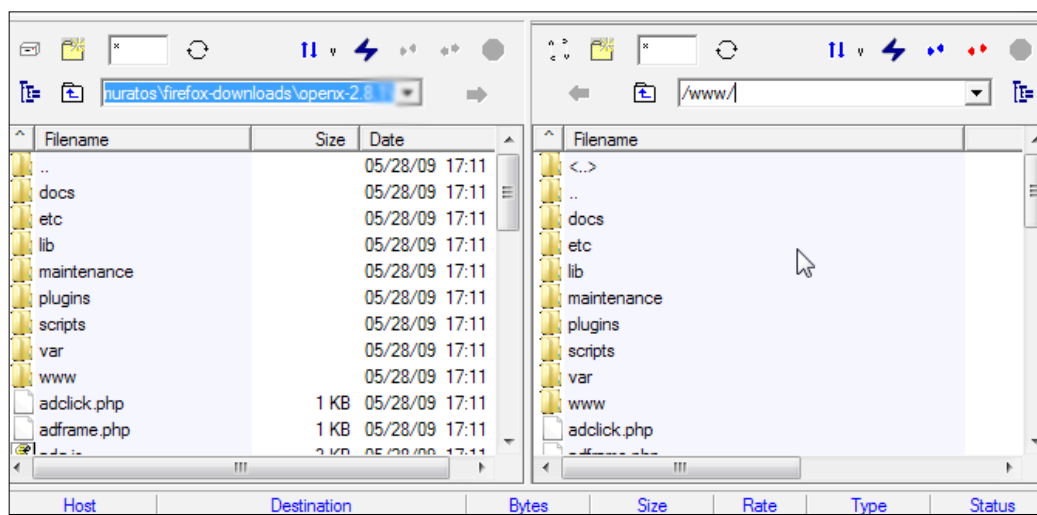
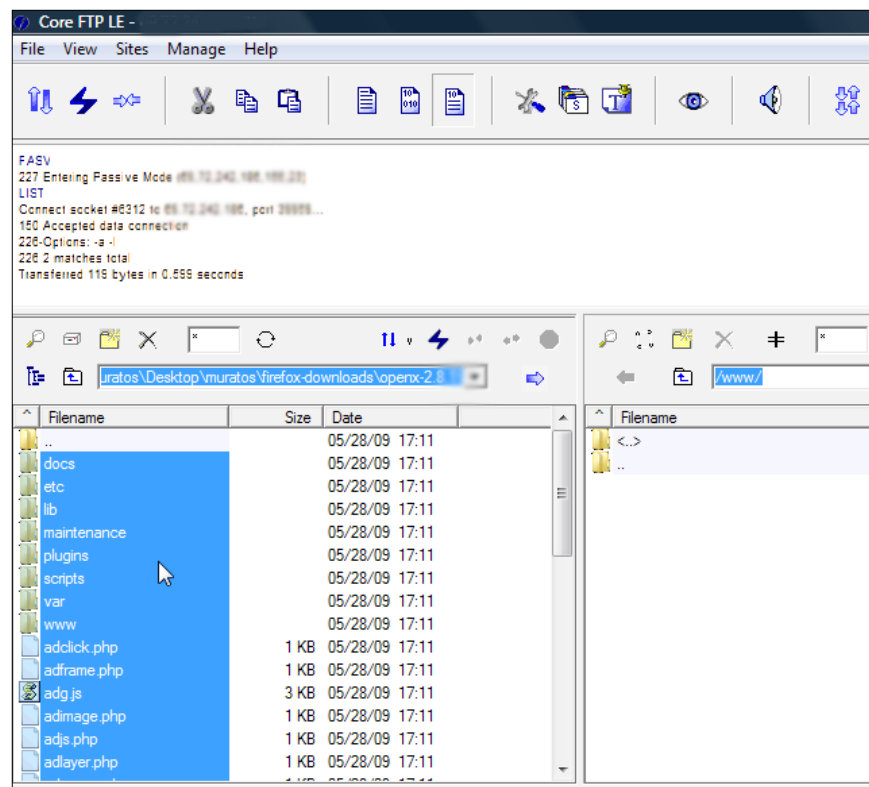
This is the second method of uploading files to a web server. In this section, we will learn how to decompress the OpenX files in a local folder and upload to the root of web server using an FTP Client.

1. Right-click on the previously downloaded OpenX file and click on **Extract Here** option.



As a result, we will have a folder named `openx-2.8.3` with the structured folders and files inside. Please note that the folder name will be different depending on the OpenX version we downloaded.

2. Upload the all files and subfolders in `openx-2.8.3` folder to the web host. We use a free FTP client software called as CoreFTP, which can be downloaded from <http://www.coreftp.com/>. Choose the all files and folders on the left pane and drag-and-drop into the right pane where the web root folder exists. In most cases, it is `/www` folder. The following screenshots show the process before dragging and dropping the files and after uploading the files to the website root:



4. Note that it is a time consuming process as there are many files in the OpenX system. Wait until all the files are uploaded to the web server.

What just happened?

We have uploaded all OpenX files and subfolders to web root. So, our OpenX system will be reachable at `http://yourwebsite.com` after completion of all installation steps.

Pop quiz – uploading OpenX files

Suppose that we have a very slow internet connection and want to install OpenX Ad Server on a web host without any possible interruptions on file transfer. Which upload method is more effective in terms of speed and reliability?

- a. Using an FTP client program
- b. Using cPanel file transfer utility

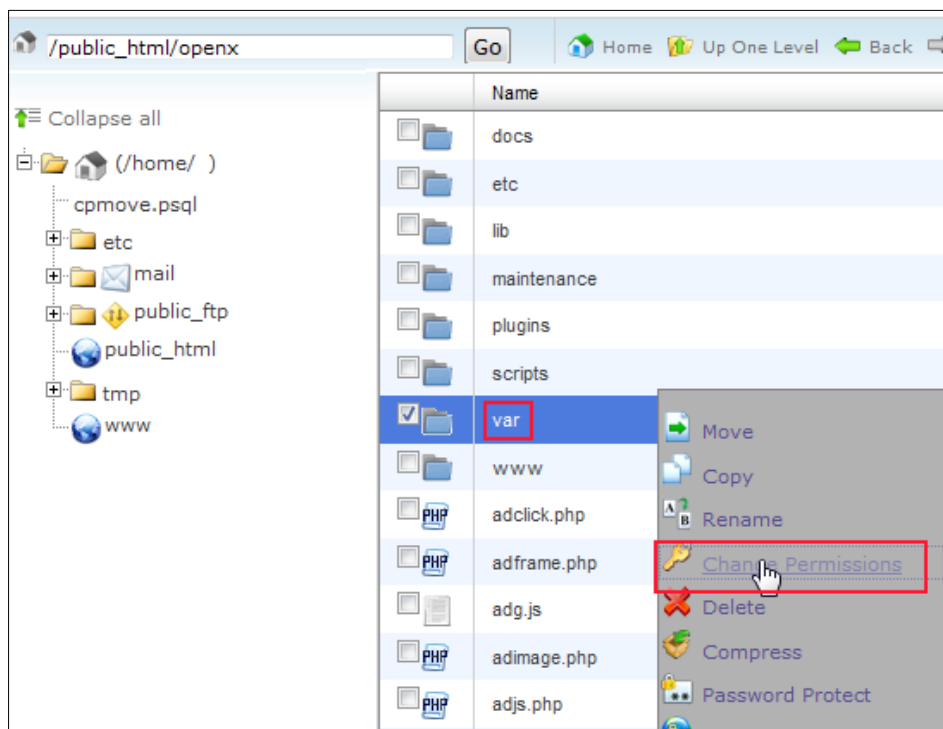
Setting file permissions

OpenX Ad Server system uses its several directories dynamically to create, change, and delete files when needed. Because of this, we have to be sure that correct file permissions are applied on these folders.

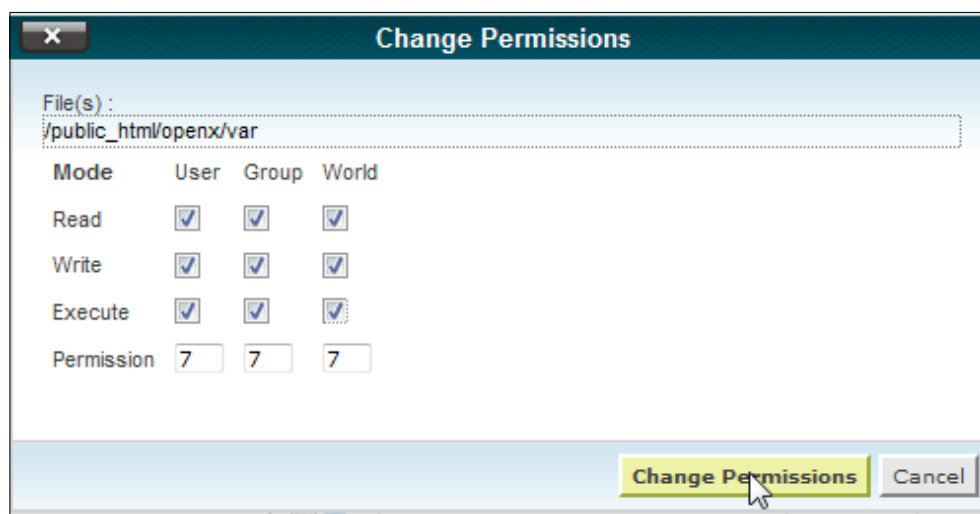
Time for action – setting file permissions

Now, let's see how we will set the permissions using cPanel file manager.

1. Open CPanel and browse to `/openx/var` folder where we have uploaded OpenX files. Right-click on the folder name and select **Change Permissions**.



2. Set permission level to **777** or select read, write, execute for all members (User, Group, World). Click on **Change Permissions** button.



3. We must repeat this process for all the folders listed next including subfolders:

- ❑ /openx/var
- ❑ /openx/var/cache
- ❑ /openx/var/plugins
- ❑ /openx/var/templates_compiled
- ❑ /openx/plugins
- ❑ /openx/www/admin/plugins
- ❑ /openx/www/images

What just happened?

We have set the necessary file and folder permissions to 777. It was needed for OpenX to install and operate correctly.

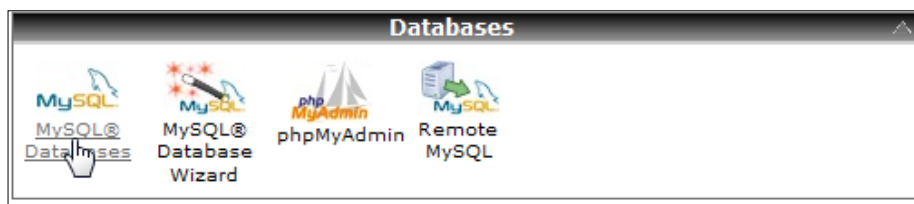
Creating a MySQL database and user

This step is needed for OpenX to connect and store all the data in a MySQL database. We will learn how to create a new database and user for this database. We will later use this information in OpenX installation wizard.

Time for action – creating a MySQL database and user

We will use MySQL Databases link on cPanel. Even though there can be slight differences on different versions, the main idea and flow is the same.

1. Click on **MySQL Databases** link on cPanel.



2. Enter a name for the database. Here, we named the database as openxdb. Then click on **Create Database** button.

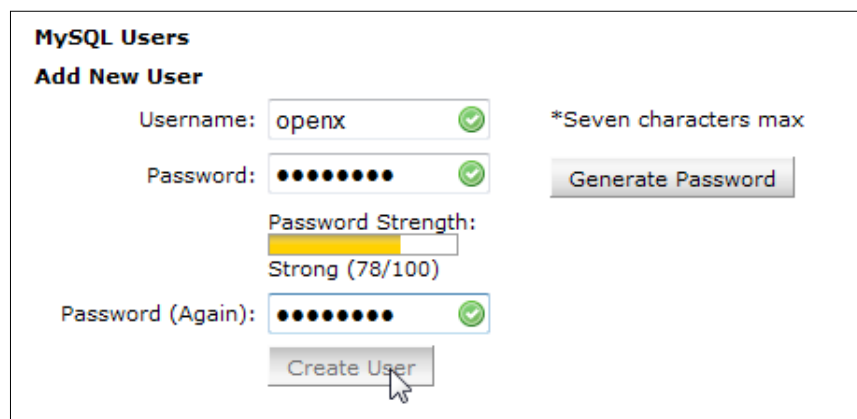


3. If we are on a shared hosting, a prefix will be added automatically to the name we provided. This is generally the username that we used to log in to the cPanel. So, your database name will be of the `username_databasename` format.



4. Take a note of the database name including the prefix.

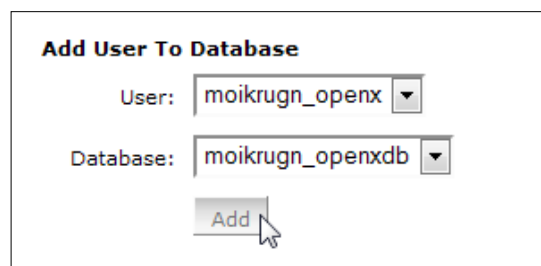
- Now, let's create a user and assign this user to our newly created database. We go back from the database creation result page and jump to **MySQL Users** section. Choose a **Username** and **Password**. Repeat the password in the last textbox and be sure that the password is not very easy to guess for security (preferably a mixture of letters and numbers). We have chosen openx as username. Click on **Create User** button after filling in all necessary textboxes.



The screenshot shows the 'MySQL Users' section with the 'Add New User' form. The 'Username' field contains 'openx' with a green checkmark. The 'Password' field contains seven dots with a green checkmark. A note '*Seven characters max' is displayed. A 'Generate Password' button is next to the password field. Below the password field is a 'Password Strength' indicator showing a yellow bar and the text 'Strong (78/100)'. The 'Password (Again)' field also contains seven dots with a green checkmark. A 'Create User' button is at the bottom, with a mouse cursor hovering over it.

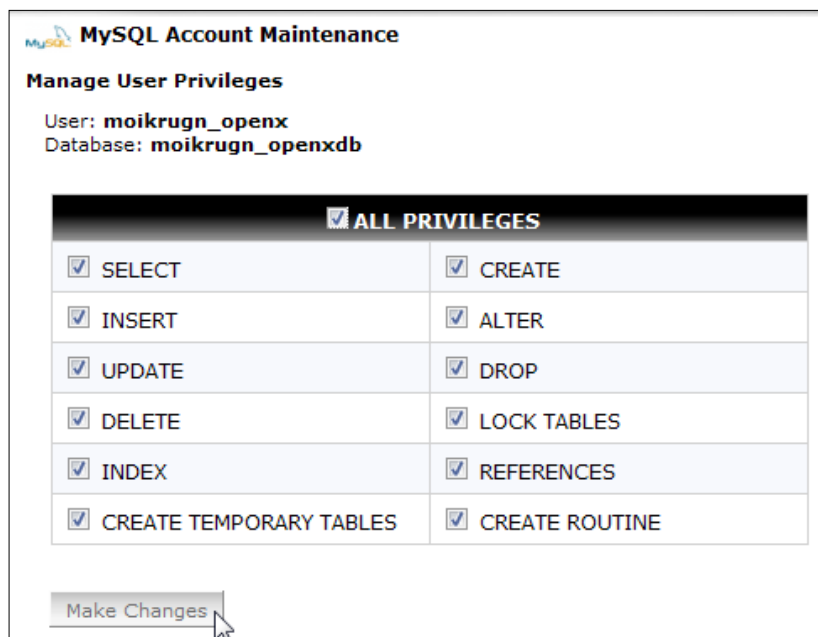
Please note that a prefix will be added to user as well. Take a note of the username.

- We need to add a user to database as the last step. Choose the newly created user and database for OpenX, then click on **Add** button.

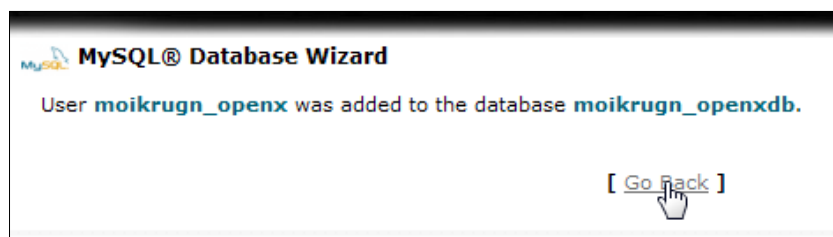


The screenshot shows the 'Add User To Database' form. The 'User' dropdown menu is set to 'moikrugn_openx'. The 'Database' dropdown menu is set to 'moikrugn_openxdb'. An 'Add' button is at the bottom, with a mouse cursor hovering over it.

- In this step, we are going to assign privileges to the user in the database. Check **All PRIVILEGES** option, then click on **Make Changes** button to give all privileges to the user.



8. The following screenshot shows the results page after clicking on **Make Changes** button:



What just happened?

We have seen how to prepare a database for OpenX Ad Server. The steps included:

- ◆ Choosing a name for the database
- ◆ Choosing a username and providing a secure password
- ◆ Adding user to the database
- ◆ Adding privileges to user for the database

Now, we are ready to continue our installation by using OpenX installation wizard.

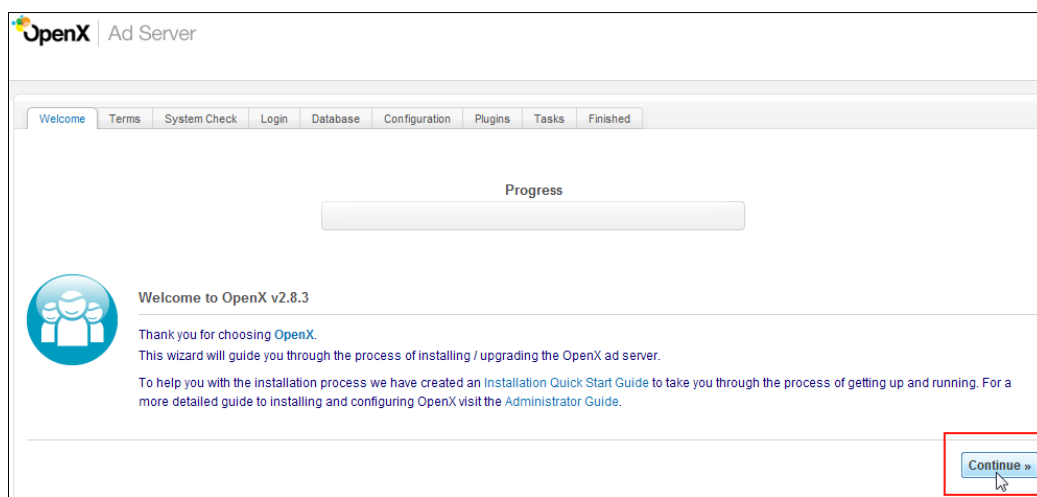
OpenX installation wizard

OpenX installation wizard is the last step before we complete the installation. It is very straightforward and OpenX installation wizard screens guide us very well.

Time for action – using OpenX installation wizard

Now, it is time to complete installation using OpenX Installation Wizard.

1. Let's browse to domain name where we put OpenX files. In our example, it is `http://yourwebsite.com/openx`. You should use your own OpenX path. We will be redirected to a "Welcome screen" automatically. Click on **Continue** to start.



2. Confirm the terms and privacy policy agreements. Click on **I Agree** button.

TERMS AND CONDITIONS OF USE

Version 2, June 1991

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51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA

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[Preamble](#)

The licenses for most software are designed to take away your freedom to share and change it. By

Terms retrieved from <http://www.openx.org/terms>

PRIVACY POLICY

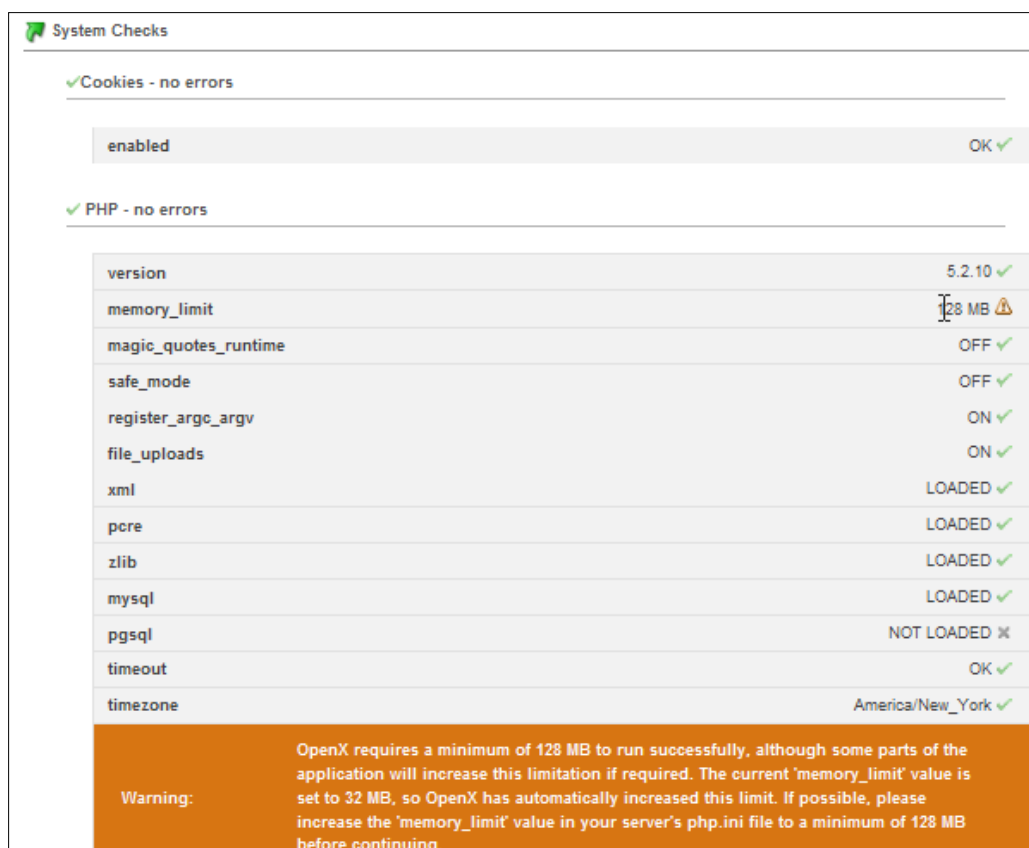
The "OpenX Software" is an open source ad serving software platform that allows website publishers to serve advertisements on their websites. The "OpenX Hosted Service" is a service provided by OpenX which allows website publishers to use the OpenX Software on OpenX-hosted servers. We prepared these OpenX Software Privacy Principles so website publishers that use the OpenX Software and the OpenX Hosted Service ("Publishers"), and end users of such Publishers' websites ("Users"), could learn more about information privacy in connection with the OpenX Software and OpenX Hosted Service.

Except as otherwise noted in these OpenX Software Privacy Principles, OpenX's data collection and

Privacy policy retrieved from <http://www.openx.org/privacy>

3. In this step, OpenX wizard is going to check system requirements automatically to ensure the integrity of the installation. The system check includes cookies, PHP settings, and file permissions.

For example, the following screenshot shows that `memory_limit` was automatically increased to **128 MB** from **32 MB** (which is minimum working requirement for OpenX to install and operate). It is very important that our web hosting service provider must have minimum 128 MB PHP `memory_limit` on the root or must allow user installed program (OpenX, in this case) to increase this value.



4. As file permissions have no errors, we can go to the next screen by clicking **Continue** button.

✓ File Permissions - no errors

/home/moikrugn/public_html/openx/var	OK ✓
/home/moikrugn/public_html/openx/var/cache	OK ✓
/home/moikrugn/public_html/openx/var/plugins	OK ✓
/home/moikrugn/public_html/openx/var/templates_compiled	OK ✓
/home/moikrugn/public_html/openx/plugins	OK ✓
/home/moikrugn/public_html/openx/www/admin/plugins	OK ✓
/home/moikrugn/public_html/openx/www/images	OK ✓

🚦 Application Check

No previous version of OpenX detected

« Go Back **Continue »**



If the system check finds any serious error, it will stop the installation temporarily and will not let us go further until we solve the problem. If this is the case, please check the requirements list section and file permission settings again carefully.

5. In this step, we will supply the database connection information to OpenX system. Choose **Database Type** as MySQL. As our MySQL database and PHP files operate on the same server, we do not need to fill in **Database Socket**, **Database Hostname**, and **Database Port Number** fields. Check **Use local socket connection** option.

Then, fill in **Database Username**, **Database Password**, and **Database Name** fields according to information we collected in database creation step. Leave default **Advanced Settings** unchanged. Then click on **Continue** to move to the next step.

Database Type: MySQL

☒ Use local socket connection

Database Socket:

Database Hostname: localhost

Database Port Number: 3306

Database Username *: moikrugn_openx

Database Password:

Database Name *: moikrugn_openxdb Database will be created if it does not exist

* Required field

Advanced Settings

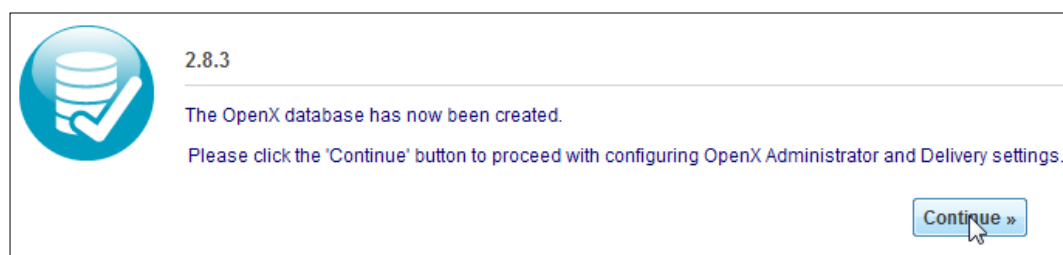
Table type: MyISAM

Table names prefix: ox_

* Required field

« Go Back Continue »

6. If the database information is correct, an OpenX database will be created and we will see message as shown in the following screenshot:



7. Click on **Continue** button to define administration parameters.
9. Just leave the default settings untouched in configuration checklist step and click on **Continue** button. These fields are automatically detected and filled in by the system.

Configuration settings

Web path	http(s)://yourwebsite.com/openx/www/admin
Delivery path	http://yourwebsite.com/openx/www/delivery
Images path	http://yourwebsite.com/openx/www/images
Delivery SSL path	https://yourwebsite.com/openx/www/delivery
Images SSL path	https://yourwebsite.com/openx/www/images
Images folder *	/home/public_html/openx/www/images

* Required field

Continue »

10. Now, it is time to define main administrator account that we will use to manage OpenX Ad Server.

Fill in the **Administrator Username** and **Administrator Password** fields. Enter a correct e-mail address in the **Administrator email Address** field. We have the option to use OpenX in another language. The default is English. And finally, choose **Timezone**.

It is important to choose the correct time zone as the delivery of the date-and time-dependent advertisements and delivery of reports will be made using this setting by OpenX Ad Server. **Continue** to move on to the next step.

Administrator Account

Administrator Username * administrator

Administrator Password *

Repeat Password *

Administrator email Address * admin@yourwebsite.com

Language Selection * English ▼

* Required field

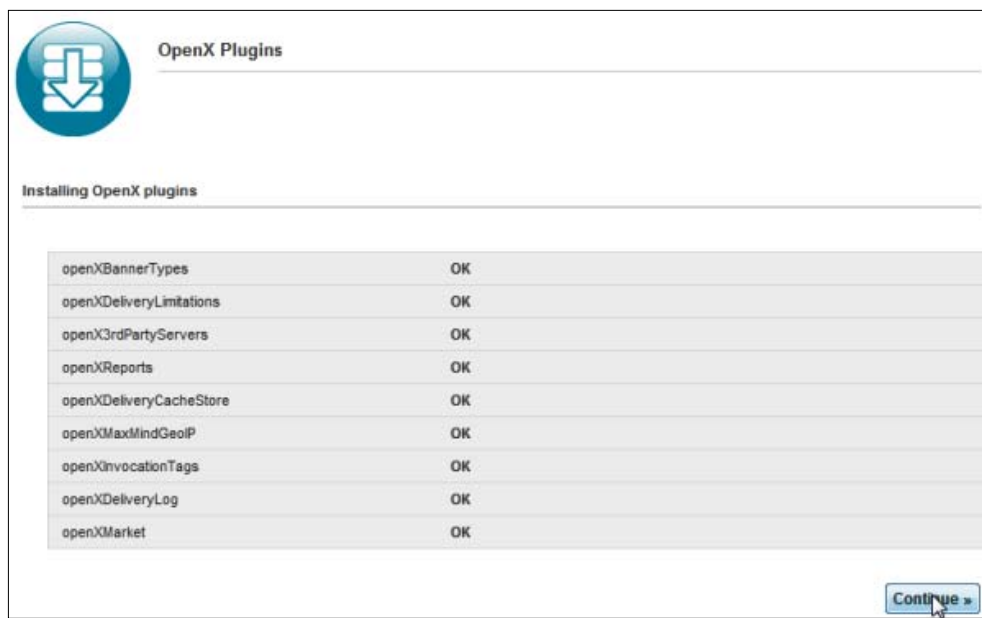
Preferences

Timezone * (GMT-0600) America/Chicago

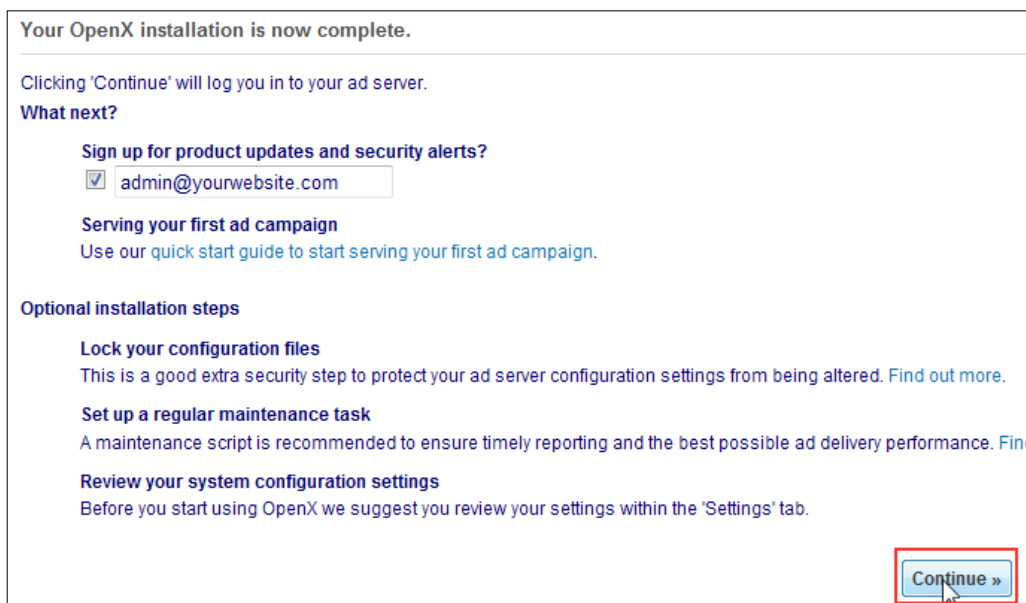
* Required field

« Go Back Continue »

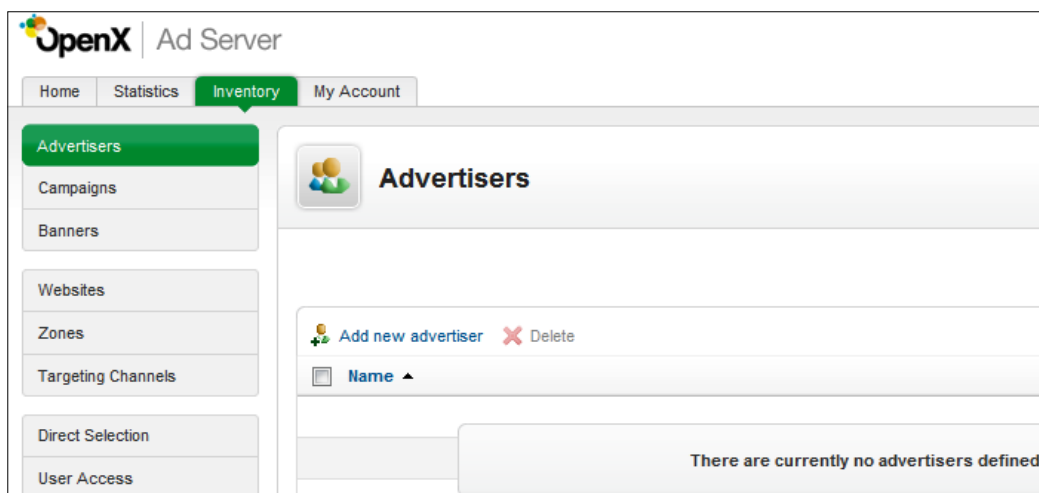
- 11.** In this step, several OpenX plugins will be installed one by one automatically. These plugins are the core elements of OpenX system. The following screenshot shows that all plugins are installed correctly. Click on **Continue** to move to the next step.



- 12.** Congratulations! OpenX installation is now complete. Optionally, we can join the OpenX newsletter list to get updates and security alerts. Just click on **Continue** to automatically log in and see the OpenX administration interface.



- 13.** If we see a screen like the following screenshot, it means that our OpenX installation is correct and we are ready to add an advertiser and a campaign to start working.



What just happened?

We have completed the installation using OpenX wizard. The steps included the approval of policy and terms agreement, system check (PHP settings, file permissions), providing database connection information, configuration settings, opening administrator account, selecting time zone, and installing core plugins.

We have now a working, but empty OpenX Ad Server. We will begin adding advertiser and campaigns in the next chapter.

Have a go hero – adding another OpenX Ad server instance

Now, it is time to test your skills in installing another instance of OpenX Ad Server at your local site <http://yourwebsite.com/openxtest>. Later, you can use this instance for testing purposes as well as for applying some new things on the original installation that we have completed together. Try to do the steps on your own without looking at the chapter sections at first. If difficulties occur, read again the required chapter sections.

Summary

It can be difficult to find a web hosting solution that suits the requirements for the latest OpenX version (2.8.3) as there is a high PHP `memory_limit` parameter (128 MB). Do a thorough search on Google with the phrases like OpenX hosting and so on, and e-mail host supports to ensure that they provide it. Using `OpenX.org` user forums can also help us to find the best OpenX web hosts.

In this chapter, we learned how to install OpenX on a web server.

Specifically, we covered:

- ◆ Requirements
- ◆ Downloading and uploading files
- ◆ Setting permissions
- ◆ Creating MySQL database and user
- ◆ Using installation wizard

We are ready to explore the OpenX Ad Server feature by defining an advertiser and a campaign in the next chapter.

2

Start Ad Serving with OpenX

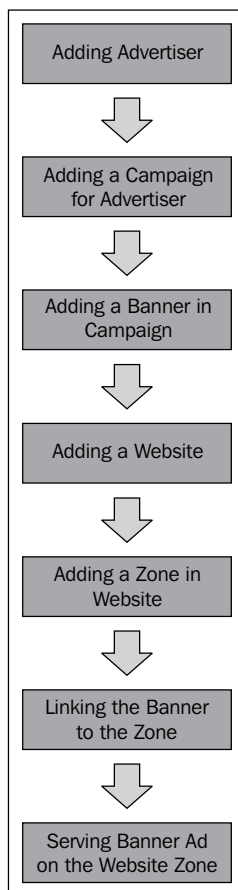
In this chapter, we will learn how to serve an advertisement on a web page to understand the very basics of OpenX without entering into much detail. Note that, all the details of advertisers, campaigns, banners, websites, and zones will be covered in their own chapters starting from the next chapter.

In this chapter we shall:

- ◆ Define an advertiser
- ◆ Create a campaign and banner
- ◆ Define a website and zone on this website
- ◆ Link the banner to this zone
- ◆ Serve this banner on this website zone by using a web page

Basic OpenX Ad serving steps diagram

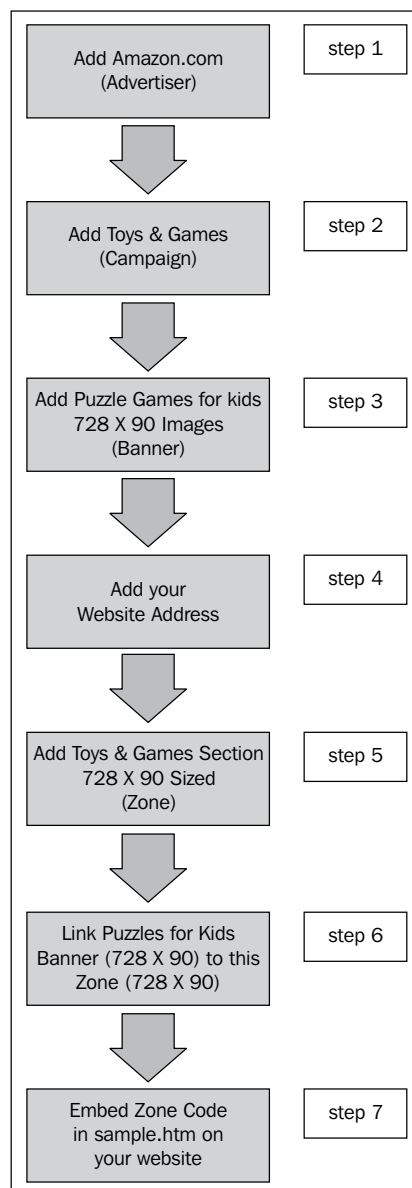
The following diagram shows the necessary steps for the completion of the serving an advertisement on a website using OpenX Ad Server:



Sample Amazon.com banner serving flowchart

In this scenario, we will start adding an Advertiser (Amazon). Then, we will create a Campaign (Amazon Toys & Games). We will add a Banner (Amazon Puzzle Games for Kids) to this campaign.

Then, we will define our sample website at OpenX. We will create a zone (Toys & Games Zone) for this website. The next step is to link a banner to this zone. Finally, we will complete serving advertisements by embedding the zone code to a page on the website and visiting this page through a browser.



Time for action – adding Amazon.com as an advertiser

In this section, we will learn how to add Amazon.com as an advertiser. As you may have probably heard, Amazon runs a very popular affiliate program that is called as Amazon Associates. You can earn commissions from each sale that results from the links and banners you placed on your website by using this program.



Read more about Amazon Associates program and register for free at <http://affiliate-program.amazon.com>.

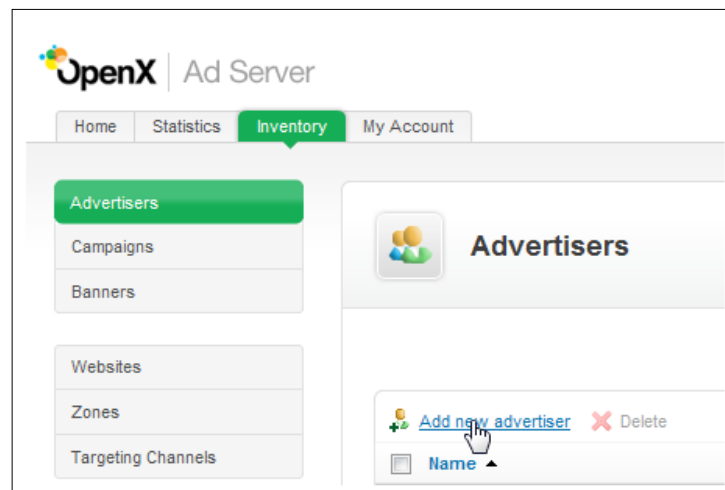
As the example will be a fictional one here, you don't essentially need to register at Amazon affiliate program before starting. The example will help you understand how to add any advertiser in a similar way.

1. Let's log in to OpenX **Authentication** panel. Use the **Username** and **Password** that we have created in Chapter 1.

The login page looks like this:



2. Click on **Inventory** tab at the top menu and then click on **Add new advertiser** link.



We are now in **Add new advertiser** page. Fill **Name**, **Contact**, and **Email** fields. You can type your own information for **Contact** and **Email** fields.

Basic information

Name *

Contact *

Email *

3. Leave other fields as they are, untouched with default settings.

Advertiser report

☒ Email when a campaign is automatically activated/deactivated

☐ Email campaign delivery reports

Number of days between campaign delivery reports

Miscellaneous

☐ Display only one banner from this advertiser on a web page

Comments

* denotes required field

4. Click **Save Changes** button to complete adding an advertiser.

What just happened?

We have learned how to add a new advertiser to OpenX.

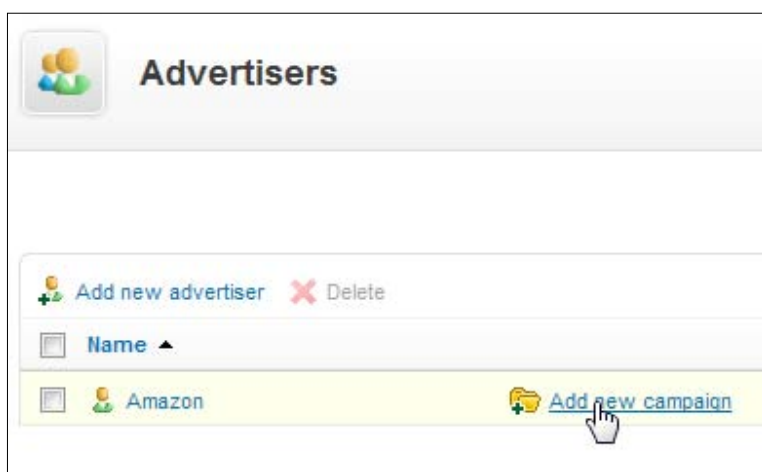
We have logged into OpenX management screen using the **administrator** user and provided the basic necessary fields: **Name**, **Contact**, and **Email**.

We will return to Advertisers topic in detail in Chapter 3, *Advertisers and Campaigns*.

Time for action – adding a campaign for Amazon.com

Now, let's add a simple campaign for Amazon.com.

1. Click on **Add new campaign** link near **Amazon** advertiser on **Advertisers** page.



2. Fill the **Name** field in as **Amazon – Toys & Games** and select **Contract (Exclusive)** option under it.

3. Leave **Date**, **Pricing**, and **Priority in relation to other campaign** sections to their default settings.

The screenshot shows a form with three main sections: **Date**, **Pricing**, and **Priority in relation to other campaigns**. In the **Date** section, 'Start date' has 'Start immediately' selected, and 'End date' has 'Don't expire' selected. The **Pricing** section shows 'Pricing model' set to 'CPM', 'Rate / Price' is empty, and 'Impressions' is set to '-'. The **Priority** section shows 'Set the campaign weight' set to '1'.

Date	
Start date	☒ Start immediately ☐ Set specific date
End date	☒ Don't expire ☐ Set specific date

Pricing	
Pricing model *	CPM
Rate / Price	
Impressions	- ☒ Unlimited

Priority in relation to other campaigns	
Set the campaign weight	1

4. Leave **Delivery capping per visitor** and **Miscellaneous** sections untouched as well.

The screenshot shows the **Delivery capping per visitor** and **Miscellaneous** sections. In the **Delivery capping per visitor** section, 'Limit campaign views to:' is set to 'in total', 'Limit campaign views to:' is set to 'per session', and 'Reset view counters after:' is set to '- hours - minutes - seconds'. The **Miscellaneous** section shows 'Miscellaneous' with 'Hide the advertiser and websites of this campaign.' and 'Companion positioning' checked. The 'Comments' field is empty. A 'Save Changes' button is at the bottom left, and a note '* denotes required field' is at the bottom right.

Delivery capping per visitor	
Limit campaign views to:	in total
Limit campaign views to:	per session
Reset view counters after:	- hours - minutes - seconds

Miscellaneous	
Miscellaneous	☒ Hide the advertiser and websites of this campaign. ☒ Companion positioning
Comments	

Save Changes

* denotes required field

5. Click on **Save Changes** button to complete adding Amazon - Toys & Games campaign.

What just happened?

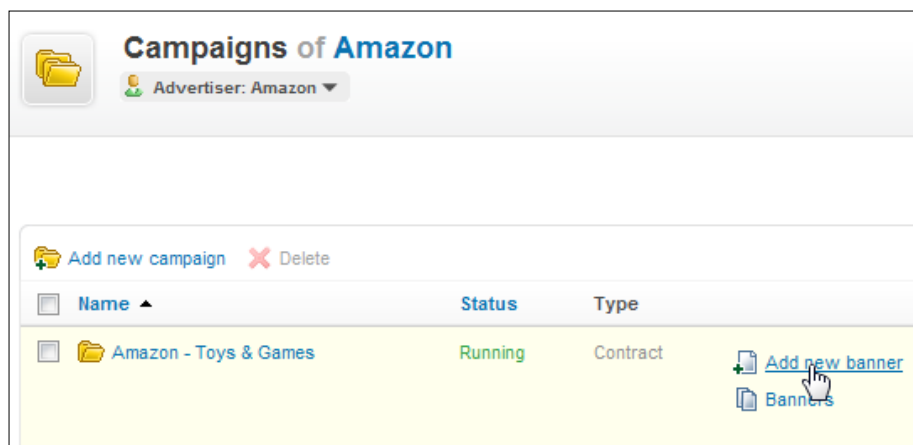
We have learned how to add a campaign for an advertiser using minimum requirements:

We used Name and Campaign type fields and ignored other fields as we will cover them in the next chapter.

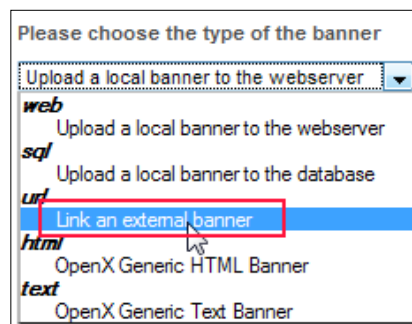
Time for action – adding a banner to Toys & Games Amazon campaign

Now, let's add a banner for our newly created campaign.

1. Click on **Add new banner** link on campaigns listings page.



2. Let's choose **Link an external banner** option.



3. Let's give a **Name** to our banner. Then, we should give the **Image URL** of our banner. We have used a real banner path here with a size of 728x90. Search in Google and find any image banner with the size of 728x90 and write the **Image URL** path.

Please choose the type of the banner

Link an external banner ▼

Basic information

Name *

 Link an external banner

Image URL (incl. http://)

4. We have used here a real Amazon banner with size 728x90 pixels.



5. Let's write a **Destination URL** where users will be sent when they click on the banner. In this example, we have used `http://amazon.com/toys` web address. Note that it is not the actual URL that the Amazon affiliate program uses.

 You should join Amazon associates affiliate program at `http://affiliate-program.amazon.com` to get real images and links.

6. Fill the **Size** field according to image size. In our example, it is **728** for **Width** and **90** for **Height**. Leave other fields untouched with their default settings and click on **Save changes** to complete adding the banner.

The screenshot shows the OpenX banner creation interface. It is divided into three main sections: 'Banner link', 'Banner display', and 'Additional data'. In the 'Banner link' section, the 'Destination URL (incl. http://)' field is filled with 'http://amazon.com/toys' and is highlighted with a red box. In the 'Banner display' section, the 'Size' field is highlighted with a red box; it contains two sub-fields: 'Width: 728' and 'Height: 90'. In the 'Additional data' section, the 'Weight' field is set to '1'. At the bottom left, the 'Save changes' button is highlighted with a red box. A small red asterisk and the text '* denotes required' are visible at the bottom right of the form.

What just happened?

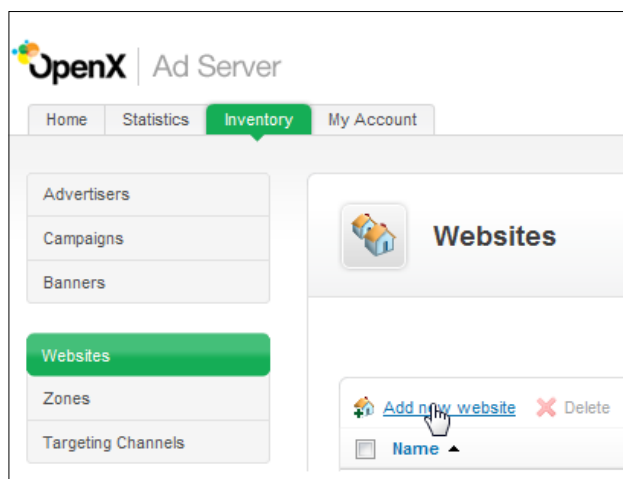
We have learned how to add a banner for our campaign.

Firstly, we provided a name for the banner and the URL path for the chosen image. We then provided a destination URL for the banner where the visitors will browse when they click on the banner. We also provided the size information of the image banner.

Time for action – adding a website to OpenX

In this section, we will add a website to OpenX Ad Server where the sample Amazon banner will be served which we have created previously.

1. Click on **Inventory** and then **Websites** link on the left side menu. After that, click on the **Add new website** link.



2. Let's fill in the **Website URL**, **Name**, **Contact**, and **Email** fields. Leave other fields in default settings and click on the **Save changes** button. Please be careful to provide the actual Website URL where you want to place the advertisement s. `http://yourwebsite.com` is used as an example here. You must provide the website address where you want to serve advertisements.

Basic information	
Website URL *	http://yourwebsite.com
Name *	yourwebsite.com
Contact *	Your info
Email *	youremail@yourwebsite.com
Category	- pick a category -
Country / Language	- pick a country - - pick a language -
Save changes	

* denotes required

We have now added a website to OpenX Ad Server.

What just happened?

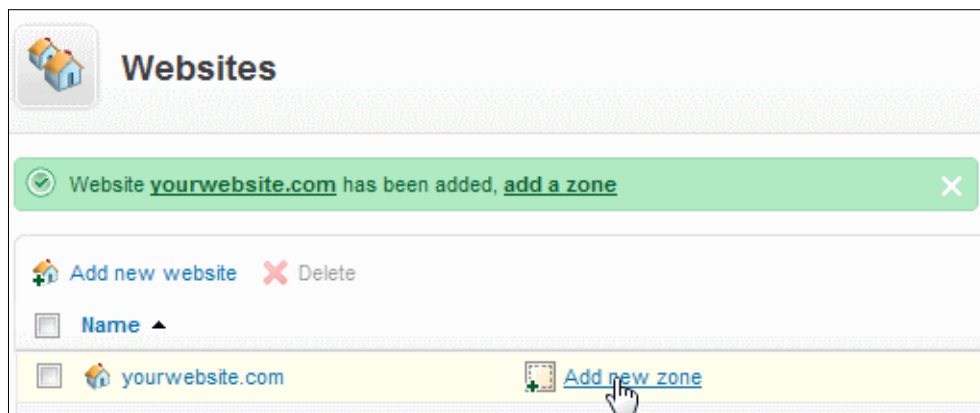
We have learned how to add a definition for our website where we want to serve OpenX ads.

The step required only four fields for website definition: Website URL, Name, Contact, and Email. As the other fields were optional, we just ignored them for now.

Time for action – adding a zone to the website

In this section, we will add a zone to the website.

1. Click on **Add new zone** link on websites screen near our newly defined website name. Note that your website name differs from this sample.



2. We only need to fill in the **Name** field and choose the **Size** that is exactly the size of the banner we have provided before. As our banner size is 728x90, we do the same for zone size. The fields highlighted with a red rectangular border in the following screenshot show these fields:

Basic information

Name *

Description

Category

Zone type

- ☒ Banner, Button or Rectangle
- ☐ Interstitial or Floating DHTML
- ☐ Text ad
- ☐ Email/Newsletter zone

Size

☐ Custom

☒ Width: Height:

Comments

* denotes required field

3. Click **Save Changes** button to complete adding a zone for the website.

What just happened?

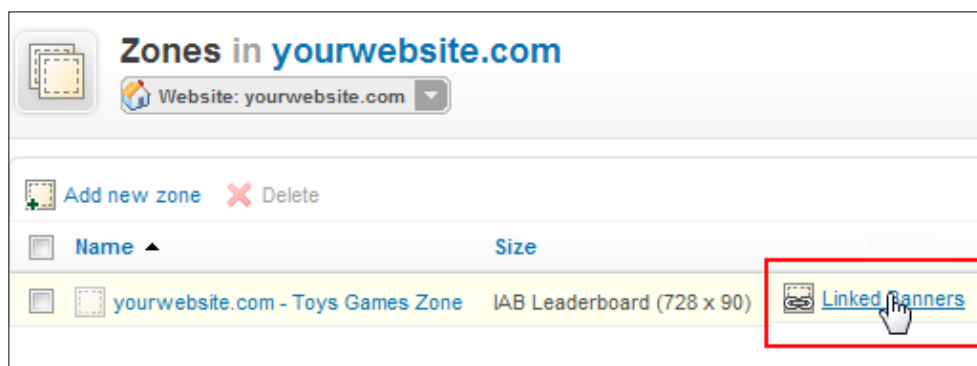
We have learned how to add a zone for the newly added website definition.

We defined a name for the zone and a size, which is the same size as the previously uploaded banner.

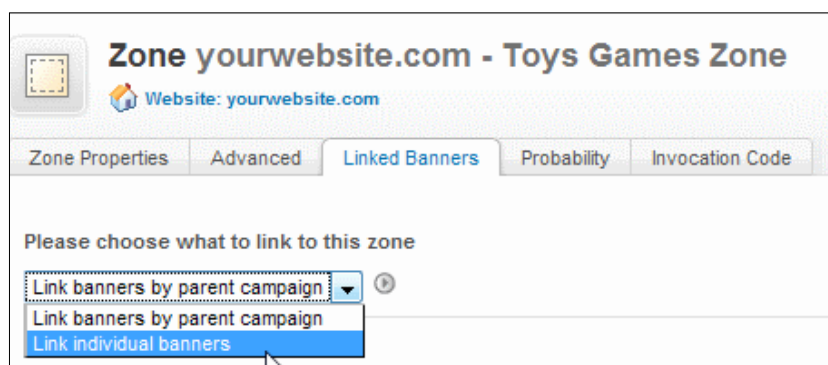
Time for action – linking the Amazon banner to the zone

In this section, we will link the banner to the newly created zone.

1. Click on the **Linked Banners** link near our zone definition.



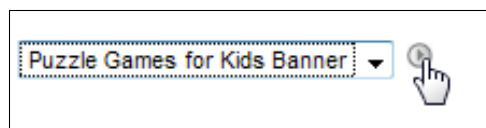
2. Select **Link individual banners** option.



3. Let's browse until we find our banner and let's choose it.



4. Click the small arrow near the banner name.



Now, we have completed linking the banner to our zone.

What just happened?

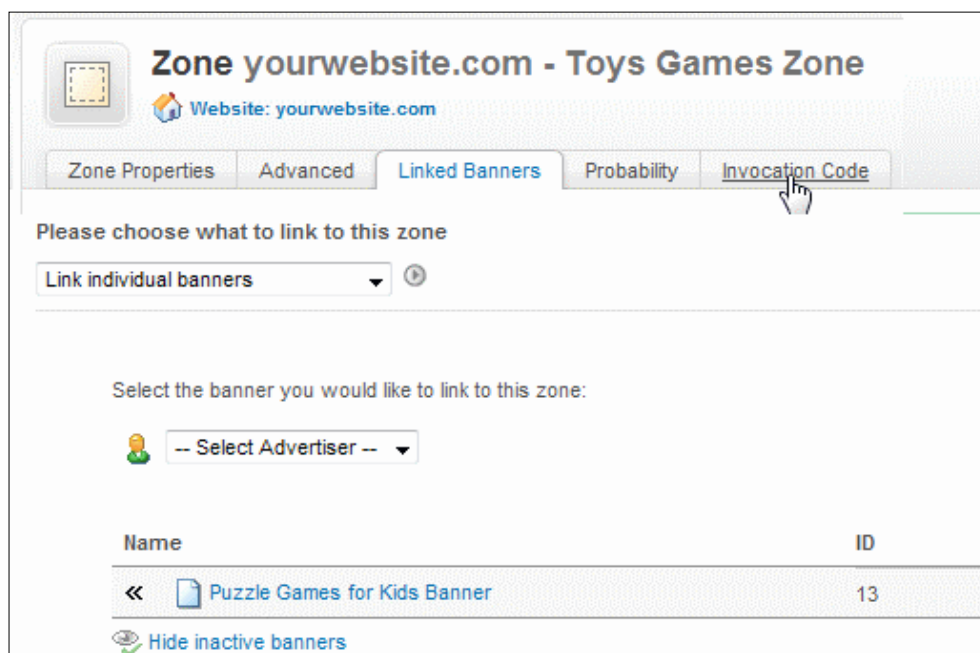
We have learned how to link a banner to a website zone.

We chose **Link individual banners** option, then browsed advertisers, campaign, and banners lists until we find and choose our banner from the list. Note that banner and zone sizes have to match in order to list the available banners in the linking screen.

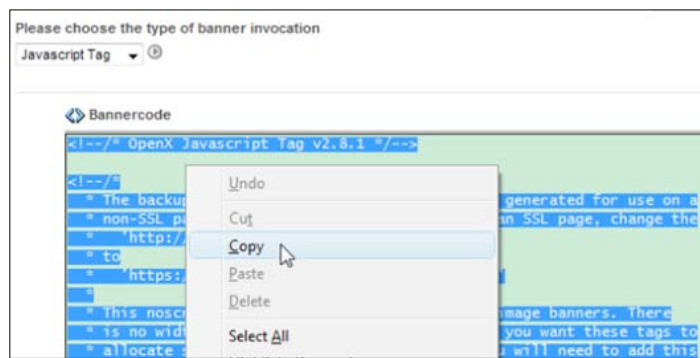
Time for action – serving the banner on the website

In this section, we will serve the **Puzzles Games for Kids banner** from the Toys & Games campaign of Amazon advertiser in a zone defined on a web page at our website.

1. Click on the **Invocation Code** link on **Zone Properties** page.



- Now, we are on the invocation code settings page. Notice that the **Javascript Tag** option and invocation **Bannercode** is automatically selected. If not, select **Javascript Tag** first and apply **Select All** on the code text. Right-click on the code and select **Copy**.



- It is now time to create or open a sample HTML file. We will need to paste this code on the section where we want the advertisements to appear. In this example, we opened `sample.htm` and pasted the code after the second paragraph of the HTML file.



What just happened?

We first saw how to copy and paste zone invocation code to a sample HTML file. We then uploaded this file to our website using a free FTP client named as Core FTP. We browsed to this page and have seen that our banner is there and being served.

We have successfully completed serving our first advertisement on a web page using the fastest way possible.

Pop quiz – understanding the basics

Which of the following statements are true?

1. We can't serve advertisements on our website without adding a zone activation code.
2. Image banner sizes and zone sizes don't have to be same.

Have a go hero – serving your own campaign banner

Now, it is your turn to test what you have learned so far.

- ◆ Think about another advertisement scenario and serve a banner on your website, but use a new zone and a new HTML file
- ◆ Try to achieve the whole process on your own by not looking at the steps
- ◆ If difficulties occur, re-read this chapter

Summary

In this chapter, we have gained a fundamental knowledge about how OpenX Ad Server works basically. We followed the fastest possible way to start serving an advertisement without entering the details of advertiser, campaign, and website settings.

Now, let's begin learning the details of OpenX Ad Server in the next chapter.

3

Advertisers and Campaigns

Understanding how advertisers need different campaign models is the key for learning OpenX Ad Server system. The OpenX system is designed to manage even the very detailed and sophisticated needs of a campaign to ensure success. This chapter is essential for the correct organization of advertisers and campaigns in an OpenX system.

In this chapter, we shall learn:

- ◆ How to add an advertiser and set report delivery options for each advertiser
- ◆ What the term Inventory means
- ◆ Differences between different campaign types (Contract, Contract-Exclusive and Remnant)
- ◆ How to set priorities for different campaigns and how they affect a campaign delivery
- ◆ The details of CPC, CPM, CPA, and Tenancy revenue models
- ◆ How to add a campaign using different campaign types
- ◆ What delivery capping and companion positioning are
- ◆ The tips for effective advertiser and campaign management

Advertisers

Advertisers are the companies or the people who are the owners of advertisements that are set to display on websites. A **Campaign** is a well-defined bunch of banners, text links, or any other advertising media to be delivered on the defined zones of websites according to several criteria. Advertisers can own more than one campaign on the OpenX system.

Adding an advertiser

The first step when using the OpenX system is to add an advertiser. We will not be able to create campaigns and banners unless we add an advertiser.

Time for action – adding Apple as an advertiser

Suppose, we have made a fictitious contract with Apple Inc. and will serve their ads about several devices such as iMac, iPhone, and many more on our website.

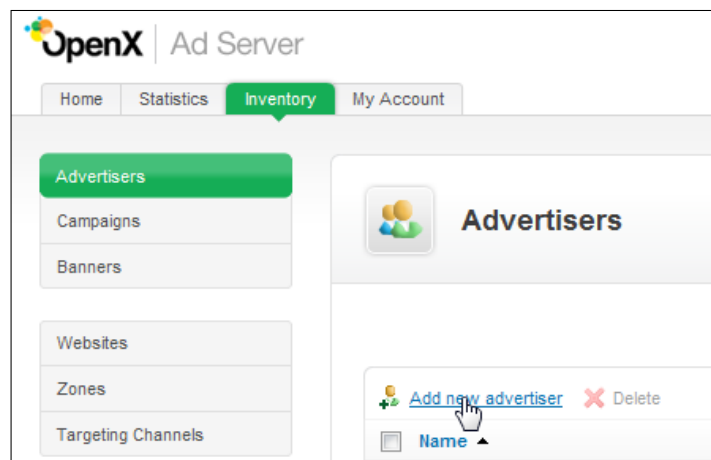
In this section, we are going to add Apple Inc. as a sample advertiser to OpenX Ad Server and set the basic parameters.

1. Let's log in to the OpenX administration panel. Use the username and password that we created in Chapter 1.

The login page looks like this:



2. Click on **Inventory** tab at the top menu, choose **Advertisers** submenu and then click on **Add new advertiser** link.



3. We are now in the **Add new Advertiser** page. Fill in the **Name**, **Contact**, and **Email** fields accordingly. Since this information will be used when the OpenX system sends reporting e-mails to the advertiser, it is important to correctly define these fields. We have filled details in the fields fictitiously for our example.

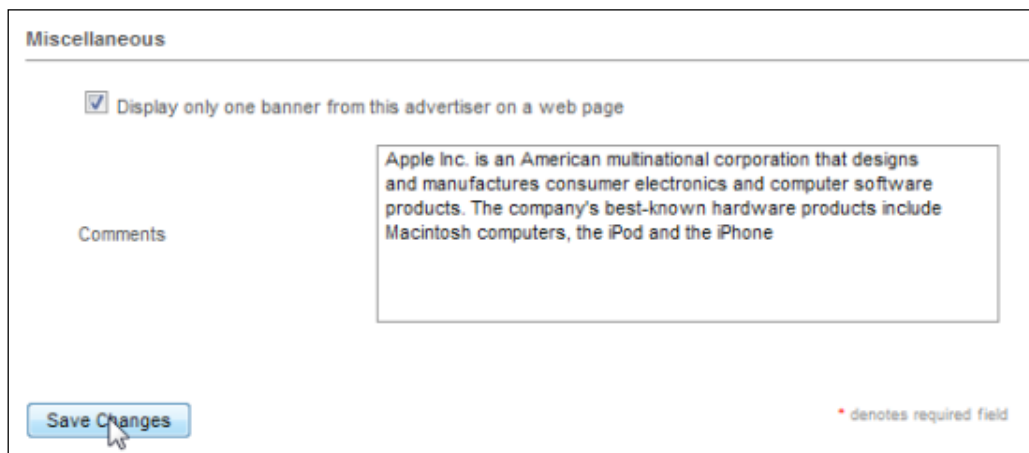
The screenshot shows the 'Add new advertiser' form. It has a header with a person icon and the title 'Add new advertiser'. Below the header is a button labeled 'Add new advertiser'. The form is divided into a section titled 'Basic information' which contains three input fields: 'Name *' with the value 'Apple Inc.', 'Contact *' with the value 'Steve Jobs', and 'Email *' with the value 'steve-jobs@apple.com'.

4. In the **Advertiser report** section, check **Email when a campaign is automatically activated/deactivated** option. Check **Email campaign delivery reports** option as well. Put **15** as a value for the **Number of days between campaign delivery reports** option.



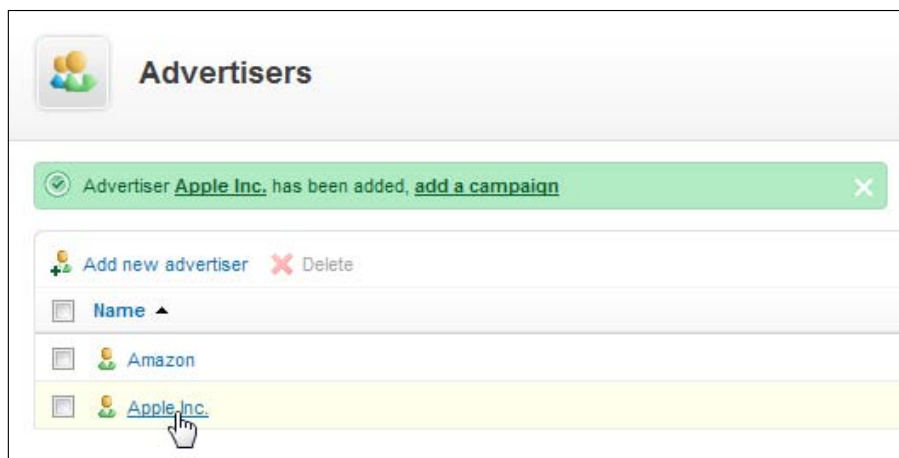
The screenshot shows a form titled "Advertiser report". It contains two checked checkboxes: "Email when a campaign is automatically activated/deactivated" and "Email campaign delivery reports". Below these, there is a label "Number of days between campaign delivery reports" followed by a text input field containing the value "15".

5. Check **Display only one banner from this advertiser on a web page** option. Let's write some additional comments in the **Comments** textbox about the advertiser. Click the **Save Changes** button to complete adding a new advertiser.



The screenshot shows a form titled "Miscellaneous". It contains a checked checkbox labeled "Display only one banner from this advertiser on a web page". Below this is a "Comments" section with a text area containing the text: "Apple Inc. is an American multinational corporation that designs and manufactures consumer electronics and computer software products. The company's best-known hardware products include Macintosh computers, the iPod and the iPhone". At the bottom left is a "Save Changes" button with a mouse cursor pointing at it. At the bottom right is a small red asterisk followed by the text "denotes required field".

6. We can change the information about an advertiser at any time just by clicking on its name on the advertiser list.



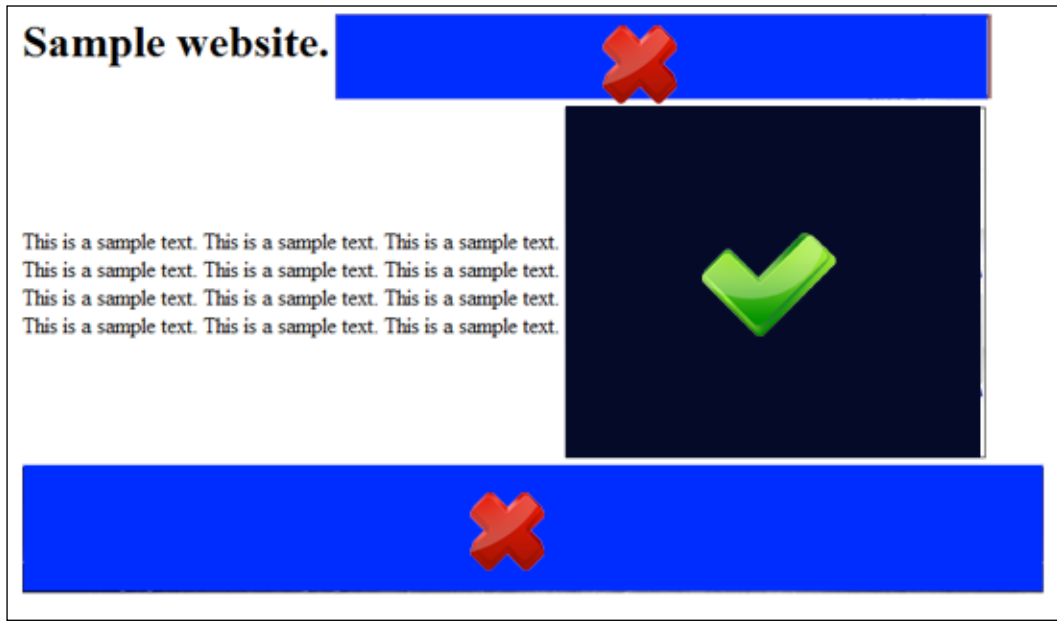
What just happened?

We have completed adding Apple Inc. as an advertiser to OpenX system. We have specifically covered:

- ◆ Logging in to OpenX system with the username administrator
- ◆ Opening **Add new advertiser** page
- ◆ We have filled in **basic information about the advertiser**. It is wise to give a fully descriptive advertiser name if we will work with many advertisers for ease of management
- ◆ We have taken advantage of the OpenX built-in advertiser report delivery system
 - Since we checked **Email when a campaign is automatically activated/deactivated option**, the advertiser will be reminded about the end of a campaign. This is especially useful for big advertisers who are dealing with tens or hundreds of campaigns at the same time and don't have enough time to track activation and deactivation of campaigns manually. We have checked **Email campaign delivery reports option** as well. It enables an advertiser to get e-mail reports about their campaigns at defined intervals. In our case, it was **15** days. It is useful, if we don't plan to give online access to an advertiser on our OpenX system but still send regular automatically generated reports to an advertiser about their campaigns.

- ◆ If we want to limit the impression of a banner on a page to only one banner for a specific advertiser at a time, we check **Display only one banner from this advertiser on a web page** option.

The following diagram shows a sample web page when this option was enabled. Notice that as the banner on the right side is shown (served), the top and the bottom banners will not be running **at the same time** from the same advertiser.



In another example, if we had shown a banner on the top, then the remaining zones would not show a banner from the same advertiser if this option was checked. Surely, these zones can be filled by the banners of other advertisers.

Finally, we have written some notes about the advertiser into **Comments** box and completed adding a new advertiser.

- We can click on an advertiser's name to edit it anytime we want and can change the settings

Campaigns

The first thing we should be clear about is the term "inventory of a website" before explaining the details of campaigns.

Inventory of a website

Inventory of a website is the total page views (impressions), that the website is getting over a certain time, usually calculated monthly. Thus, it shows the approximate ad serving capacity of a website for advertisers. For example, think of the potential of a website with an inventory of 10,000,000 monthly impressions for advertisers.



Impressions show how many times an advertisement (usually a banner) is shown on a web page/website.

Typically if an ad is only once used on a web page, it will be counted as 1.

If you put same ad twice on a page with different places, then impression will be 2 for each page impression.

Clicks show how many times visitors click on this ad.

Let's say a banner got 100 clicks for 1000 impressions for a week. Then, CTR (Click-through rate) would be $100/1000 = 10\%$

Surely, all these numbers are generally calculated in time frames such as daily, weekly, monthly and so on.

In-house versus paid campaigns

There are basically two types of campaigns for websites which are being used in online advertising.

In-house campaigns refer to the campaigns in which a website doesn't sell its inventory to advertisers directly. These campaigns cover usage of several affiliate marketing and online advertising programs to earn money. For example, using Commission Junction (CJ.com) advertisers and Google AdSense are two examples of popular in-house campaigns.

Paid campaigns are the campaigns that are sold to advertisers directly. For example, a mobile phone review site can sell its 20,000 monthly impressions (inventory) on the iPhone 3G section of the website to an online iPhone accessories shop for an advertising campaign.

Campaign types in OpenX

Before discussing campaign types, we should clearly understand what target types mean for the campaigns.

Target types are the conditions and limitations that will cause a campaign to automatically deactivate.

Let's look at the following examples:

- ◆ A campaign on a website with a target of 500 clicks and without an End Date. As a result, this campaign will run until all 500 clicks will be delivered.
- ◆ A campaign with a target of either 400 clicks or 100,000 impressions without an end date. The campaign will stop running when 400 clicks or 100,000 impressions have been reached.
- ◆ A campaign without any targets on clicks or impressions but with an End Date. This campaign will end automatically after End Date is reached.

OpenX supports both In-house and Paid campaigns but names them differently on its system.

There are 3 types of campaigns that we can define on the OpenX system.

- ◆ **Contract:**
This campaign type is suitable for Paid campaigns which we sell to advertisers directly with target types such as limits on time, impressions and so on.
- ◆ **Contract (Exclusive):**
This campaign is essentially similar to Contract type. The difference is that the Exclusive Contract will take all the impressions before all other campaign types. In other words, it is the most prioritized campaign type in OpenX.
- ◆ **Remnant:**
This campaign type is suitable for in-house ads that we run. A remnant campaign will be available only if there are no Contract and Contract (Exclusive) campaigns running for the same zones.

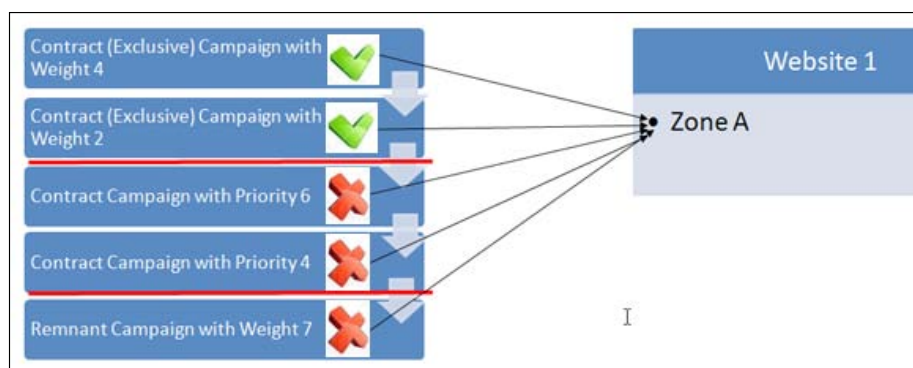
Understanding campaign priorities

Since multiple campaigns run at the same time on a typical OpenX Ad Server implementation, it is essential to understand how often they will be delivered. The OpenX system uses Campaign Weight and Priority Level naming to evaluate the banner impressions percentage of a campaign.

If there are Contract (Exclusive) campaigns for certain website zones, the others are neglected. If there are Contract campaigns, Remnant campaigns will not be delivered.

Each campaign type is prioritized only in its group. While Contract type gets **Priority Level** naming, Contract (Exclusive) and Remnant campaigns get Campaign **Weight** naming as a term for prioritization in its own group.

The following sample chart shows how OpenX basically decides which campaign to give priority, thus a percentage of total inventory impressions. Please, note that we assume **all campaigns target the same zone**.



The last three campaigns will not be served because of the running Contract (Exclusive) campaigns for this certain zone. So, a Remnant Campaign with Weight 7 cannot start if there is still an inventory for the other Contract (Exclusive) or Contract campaigns. In this specific example, only the first two Contract (Exclusive) campaigns will be delivered. If Contract (Exclusive) campaigns stop running, the other Contract type campaigns can start.

Campaign revenue information

Revenue types determine how the publisher will be paid by the advertiser as a result of serving advertisements.

Each campaign has to choose one of the four different revenue types in the OpenX system. Let's learn each revenue type with an example.

 Note that campaign revenue information is called Pricing Model in the OpenX environment.

- ◆ **CPC (Cost Per Click):** The most common online advertising revenue model is CPC. It shows how much an advertiser is willing to pay for a click on a banner in a certain campaign. Google AdSense is the most famous CPC advertising network. For example, an advertiser who will pay \$0.20 for a single banner click on a publisher website.

- ◆ **CPM (Cost Per Mille):** CPM defines how much an advertiser pays for 1000 ad impressions (not clicks). It is also widely used. If a publisher sells her/his 200,000 impressions inventory for \$5 CPM, she/he has the potential to earn $200,000 / 1,000 * 5 = \$1000$, if the website(s) can serve all the impressions for the campaign.
- ◆ **CPA (Cost Per Action):** An action is a result of visitor activity. For example, they can buy a book on advertiser's site after clicking a banner, sign up for a free newsletter or become member for an online paid service. CPA shows how much an advertiser will pay for the result of such actions. Let's give a concrete example. Think of an online dating website which pays \$10 to that the publisher for each new member the publisher sends them using a website.
- ◆ **Tenancy:** Some advertisers prefer to buy advertisement spots for their campaigns on a certain monthly fee without paying for CPC, CPA or CPM. Think of a marketing blogger who sells a space for the advertising of an e-book product for a monthly fee of \$100, no matter how many times the banner will be shown or how many times it will be clicked.

Because we have learned the basic terminology and uses, we can start adding a campaign to an advertiser.

Adding campaigns to an advertiser

We will now learn how to add each campaign type in detail with examples.

Time for action – adding a contract type campaign for Apple

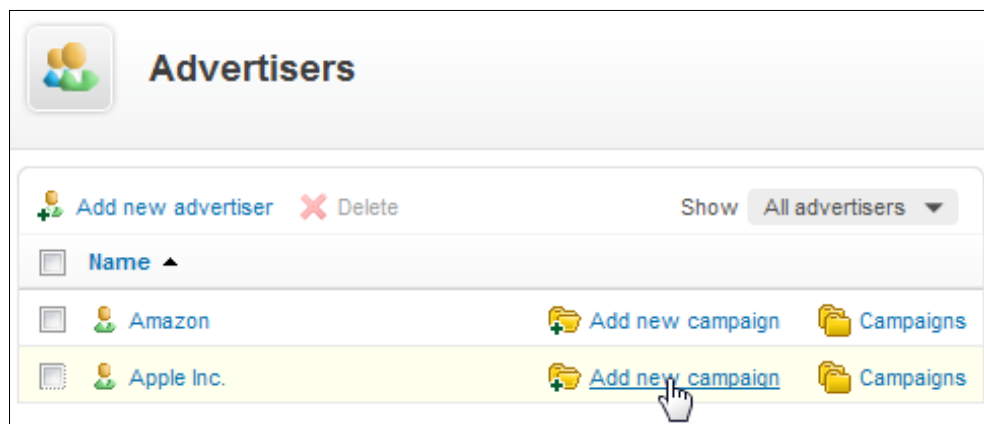
In this section, we will learn the most commonly used campaign type; Contract, which enables publishers to sell their inventory to advertisers with limitations on delivery.



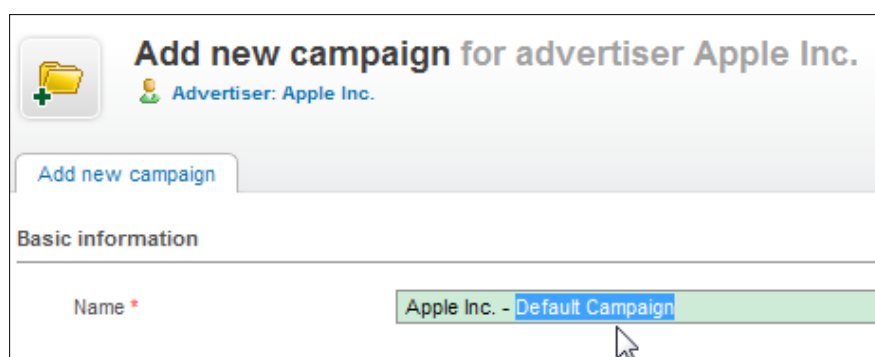
Please, read the *What Just Happened* section which immediately follows this section very carefully after you complete the following actions to understand all the details and tricks of Contract Type campaigns.

We will define a campaign for Apple Inc. which will be about different Mac devices.

1. Click on **Advertisers** on the left menu and then click **Add new campaign** near the Advertiser's Name.



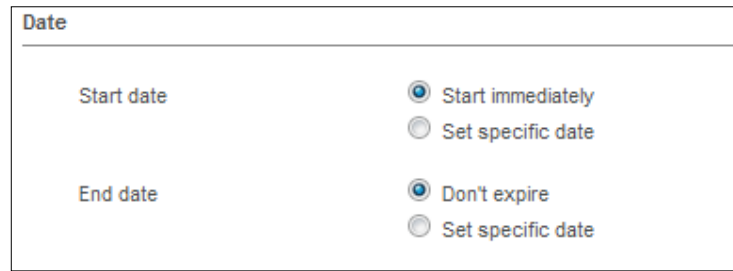
2. A default campaign name will be created by adding the text **Default Campaign** to the end of the advertiser's name.



3. Change the **Name** field to **Apple Inc. – Mac Devices** and then click the **Contract** option.

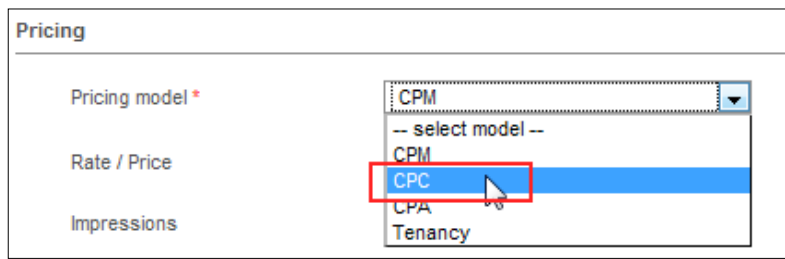
Basic information	
Name *	Apple Inc. - Mac Devices
Campaign type	☒ Contract This campaign is limited per day and is going to be delivered evenly until the end date or specified limit is met ☐ Contract (Exclusive) ☐ Remnant

4. Do not touch **Start date** and **End date** options in **Date** section.



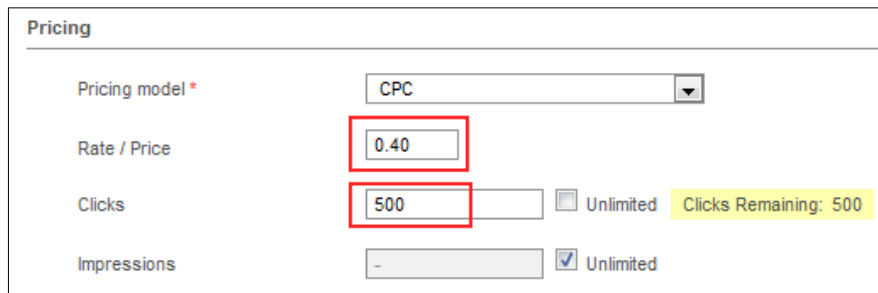
The screenshot shows the 'Date' section of an advertising interface. It contains two rows of options. The first row is for 'Start date' with two radio buttons: 'Start immediately' (selected) and 'Set specific date'. The second row is for 'End date' with two radio buttons: 'Don't expire' (selected) and 'Set specific date'.

5. Let's continue with the **Pricing** section. The **CPM** option is selected by default. Let's change it into the **CPC** Pricing model option.



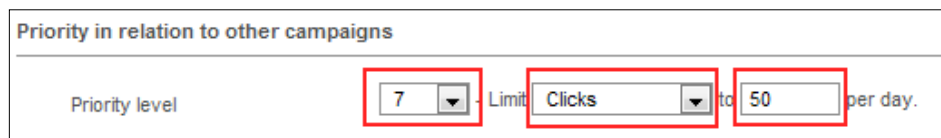
The screenshot shows the 'Pricing' section. The 'Pricing model *' dropdown menu is open, showing options: CPM, -- select model --, CPC (highlighted with a red box and a mouse cursor), CPA, and Tenancy. The 'Rate / Price' and 'Impressions' fields are visible but empty.

6. Fill in the other fields according to the following screenshot:



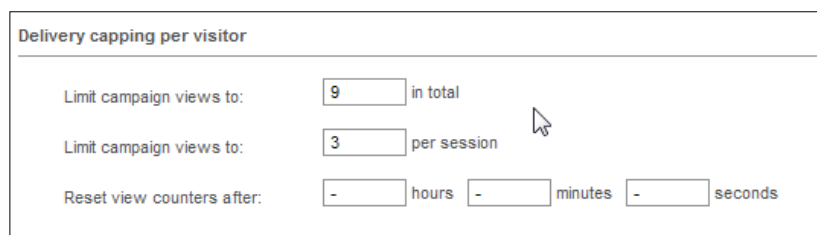
The screenshot shows the 'Pricing' section with the following fields filled out: 'Pricing model *' is set to 'CPC'; 'Rate / Price' is set to '0.40'; 'Clicks' is set to '500' (with a red box around the input field); 'Impressions' is set to '-'. There are checkboxes for 'Unlimited' next to 'Clicks' and 'Impressions'. A yellow box highlights 'Clicks Remaining: 500'.

7. We will now define **Priority in relation to other campaigns**. Fill the shown fields according to the following screenshot:



The screenshot shows the 'Priority in relation to other campaigns' section. It contains a 'Priority level' dropdown set to '7', a 'Limit' dropdown set to 'Clicks', and a 'to 50' input field. The text 'per day.' follows the input field.

8. Let's continue with **Delivery Capping per Visitor** section. Arrange the fields according to the following screenshot.



The screenshot shows a form titled "Delivery capping per visitor". It contains three rows of input fields. The first row is "Limit campaign views to:" followed by a text box containing "9" and the text "in total". The second row is "Limit campaign views to:" followed by a text box containing "3" and the text "per session". The third row is "Reset view counters after:" followed by three text boxes: the first contains "-", the second contains "hours", the third contains "-", followed by "minutes", the fourth contains "-", followed by "seconds". A mouse cursor is pointing at the "per session" text.

9. Let's finish adding a Contract campaign by filling in **Miscellaneous** options. Select both **Hide the advertiser and websites of this campaign** and **Companion positioning** options. Write some comments about the campaign in the **Comments** textbox and finally click on the **Save Changes** button:



The screenshot shows a form titled "Miscellaneous". It has two main sections. The first section is labeled "Miscellaneous" and contains two checkboxes, both of which are checked and highlighted with red boxes. The first checkbox is labeled "Hide the advertiser and websites of this campaign." and the second is labeled "Companion positioning". The second section is labeled "Comments" and contains a large text area with the text "This Mac campaign will include latest laptop models and their accessories." At the bottom left, there is a "Save Changes" button highlighted with a red box. At the bottom right, there is a small text " * denotes required".

What just happened?

We have completed the addition of a contract type campaign. Now, let's learn why we have chosen several options and investigate alternative Contract type definition possibilities. We will now review each action item.

In this campaign, you can see that we have chosen the CPC pricing model. However, there are other pricing models too. Let's now review each one of them.

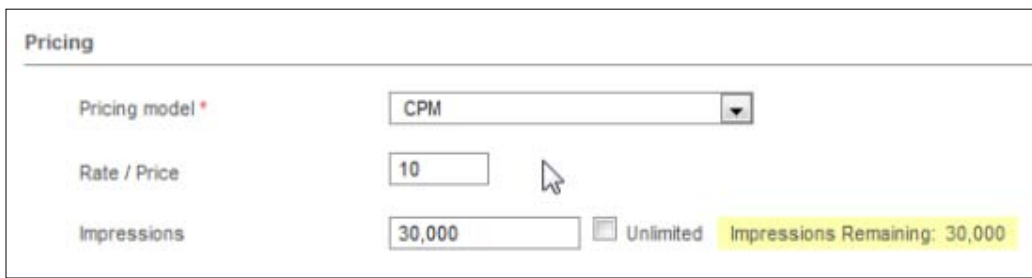
- ◆ **CPC Pricing model:** According to this setting, the publisher will earn **\$0.40** for each click. As there is a maximum of **500** clicks; the advertiser can earn a maximum of $\$0.40 \times 500 = \200 for the campaign. If 500 clicks are reached, the campaign will be deactivated automatically as well without looking at the **End date**.

Notice that we assume that we use USD currency for our system even though we only provided the price without the \$ sign.

 We could leave **Clicks** number as **Unlimited**. In that case, the campaign serving duration would depend on only the **End Date** parameter.

Let's also explain the alternative **Pricing model** definitions that we could choose.

- ◆ **CPM Pricing model:** According to the following **CPM** settings, the publisher can earn a maximum of $30,000 / 1,000 * 10 = \$300$ for this campaign. The campaign will be stopped if the campaign reaches its maximum impressions (in this case, it is 30,000 impressions) even though we set **End Date** as **Don't expire** in **Date** section previously.



Pricing	
Pricing model *	CPM
Rate / Price	10
Impressions	30,000 ☐ Unlimited Impressions Remaining: 30,000

- ◆ **CPA model: Cost per Action(CPA)** model is useful when an advertiser wants to pay only for some action of the banner visitor. It can be a sale or a sign up to a newsletter or trial offer, thus a conversion is needed for the advertiser.

According to the following example, the advertiser will pay **\$3** for the each occurrence of the action. The maximum number of **Conversions** is **1,000**. So, the publisher can earn up to \$3,000. Notice that we have defined a maximum value for the Clicks option. It means that the campaign will end regardless of the remaining conversions in the inventory if the **Clicks** number reaches **50,000**. The other case is also valid. If the campaign gets 1,000 conversions, the campaign will deactivate automatically regardless of how many clicks are left.



Some advertisers can set such multiple limits to control campaigns that get a lot of clicks but have a small number of conversions.

The screenshot shows a 'Pricing' form with the following fields and values:

Field	Value	Additional Info
Pricing model *	CPA	
Rate / Price	3	
Conversions	1,000	Unlimited (checkbox), Conversions Remaining: 1,000
Clicks	50,000	Unlimited (checkbox), Clicks Remaining: 50,000
Impressions	-	Unlimited (checkbox)

- ◆ **Tenancy Model:** This model is commonly used by bloggers and website owners who sell their inventory for a monthly fee regardless of how many impressions, clicks or conversions the campaign gets. In the following example, the campaign pays \$100 monthly:

The screenshot shows a 'Pricing' form with the following fields and values:

Field	Value
Pricing model *	Tenancy
Rate / Price	100

While changing the campaign types, we need to change the different settings that suit a particular campaign type. Let's now review each setting:

- ◆ **Priority level:** It defines how often the advertisements in a campaign will be delivered (impressions) in **comparison** to the other campaigns **in the same Contract type campaign group**. The Priority level can get a setting of 1 to 10; 1 being the lowest and 10 being the highest priority. The default is 5.

A campaign with a priority of 4 will have its banners shown two times more with a same type campaign priority of 2. The OpenX Ad Server system automatically optimizes priority-based deliveries with real-time calculations.

Look at the difference between the following sample screenshots, we have set **Priority Level to 7** and limited **daily clicks to 50**. The campaign stops delivery temporarily if 50 clicks are reached per day and it continues the next day by trying to reach 50 clicks again. If we had defined a CPC campaign with a maximum of 500 clicks, it would take a minimum of $500 / 50 = 10$ days to end this campaign automatically as a best case scenario. (If the campaign banners can achieve reaching the 50 clicks limit per day).

Date

Start date ☒ Start immediately ☐ Set specific date

End date ☒ Don't expire ☐ Set specific date

Pricing

Pricing model *

Rate / Price

Clicks ☐ Unlimited Clicks Remaining: 500

Impressions ☒ Unlimited

Priority in relation to other campaigns

Priority level - Limit to per day.

Let's look at the same example if we had set a specific date for the **End Date** field. Notice that the limit options disappeared below.

The reason behind this behavior is logical. As we set an end date and maximum clicks options, the OpenX system will use its built-in **automatic distribution** system to deliver clicks evenly for the remaining days in the campaign according to the End date.

Date

Start date ☒ Start immediately ☐ Set specific date

End date ☐ Don't expire ☒ Set specific date 30 October 2013

Pricing

Pricing model * CPC

Rate / Price 0.40

Clicks 500 ☐ Unlimited Clicks Remaining: 500

Impressions - ☒ Unlimited

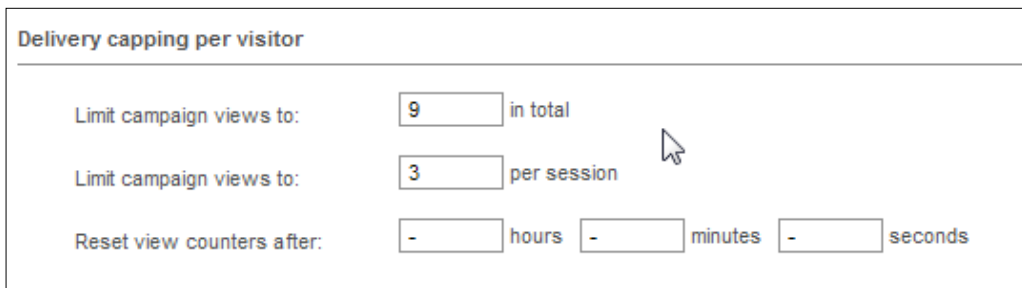
Priority in relation to other campaigns

Priority level 7

So, it needs careful planning when we play with the **End Date** and **Limit** options for campaigns. The OpenX Ad Server campaign screens dynamically change according to options that we choose. It helps us choose the correct campaign settings according to our needs.

- ◆ **Delivery capping per visitor:** This section can be an important setting for many advertisers. It is proven that website visitors are used to seeing the same banners multiple times over much time and even learn them visually and do not respond them. If a visitor didn't click on a banner even after it was shown many times, it is likely that they will never click on them because they are simply **not interested in that campaign**. To remedy this situation, OpenX introduces us a useful setting, called **Delivery capping per visitor**. Using this setting, we can control how many times a certain campaign ad will be shown to a visitor.

Let's look at the following specific situation again, which we have set previously:



Delivery capping per visitor			
Limit campaign views to:	9	in total	
Limit campaign views to:	3	per session	
Reset view counters after:	-	hours	- minutes - seconds

We have set **Limit campaign views to: 9 in total** and **Limit campaign views to 3 per session**. We didn't touch the **Reset view counters after** option.

OpenX Ad Server has the ability to track individual website visitors by using cookies (small text files which are saved on the user's temporary internet files). When a user opens a website, a session starts. When the user closes the website and the browser, the session ends.

Suppose that a visitor came to the website where our campaign banners were shown using a web browser and he/she browsed five pages there and has already seen three of the same or different banners from the **same** campaign. The fourth banner **will not be shown** from this campaign for the user session. It is possible that on the next day, a maximum of three banners will be shown to the visitor for another session (starting a web browser again). At the end, this visitor will not see any banners from this campaign after nine views as it is the total limit in our example.

If the user browser doesn't save the cookies information (cookies are disabled), OpenX neglects **Delivery capping per visitor** settings. If the visitor deletes the cookies after some time (it is generally done by clearing temporary files in browsers such as Firefox, Internet Explorer etc.) the Delivery cappings are reset to zero.

It is wise to use the **Reset view counters after** option if there are major changes in campaigns and visitors are expected to click on a new set of banners. For example, if we set 240 hours counter, the visitor delivery capping limits will be set to zero for every 10 days, thus increasing delivery chance for a certain visitor.

Delivery capping per visitor

Limit campaign views to: 9 in total

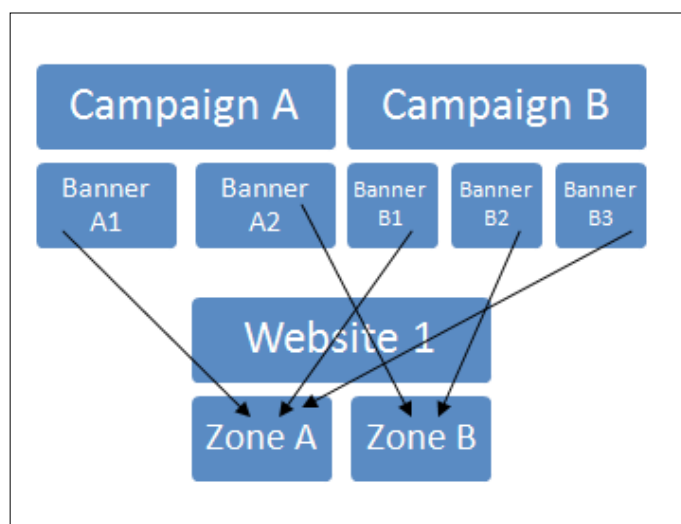
Limit campaign views to: 3 per session

Reset view counters after: 24 hours 0 minutes 0 seconds

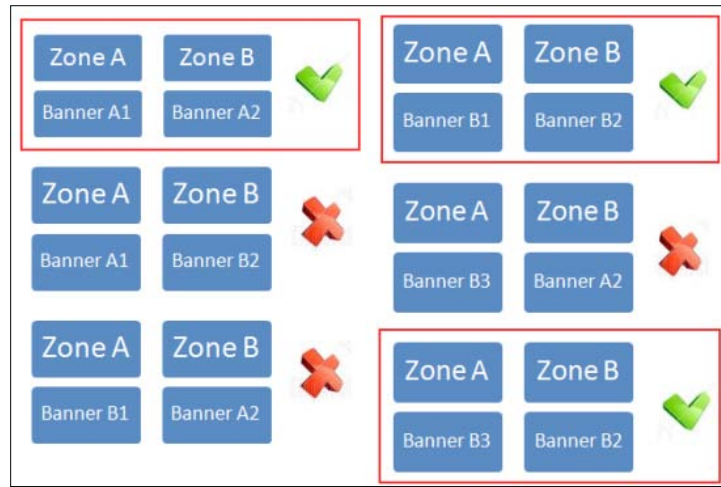
Hide the advertiser and websites of this campaign. This option is useful when we don't want certain user accounts, which were opened to get reports in the system, to know in which websites this campaign is running. It is useful to hide full pricing from advertiser. We will talk more about user accounts in Chapter 7.

- ◆ **Companion positioning:** This option is an interesting feature to discover further. This setting assures that if a banner from a campaign is shown on a page, all the remaining banners will be from the same campaign. This option is useful when an advertiser wants to run campaign banners exclusively on a page in all-or-nothing logic.

Let's give a concrete example. Assume that **Campaign A** has two banners; **A1** and **A2**. Another **Campaign B** has 3 banners; **B1**, **B2**, and **B3** and their targeting zones on a website are the following:



If we apply companion positioning on campaign A, all the possible banner outcomes for each zone on every impression of the web page would be;



Thus, banners from different campaigns cannot appear on the same page at the same time if we apply companion positioning.

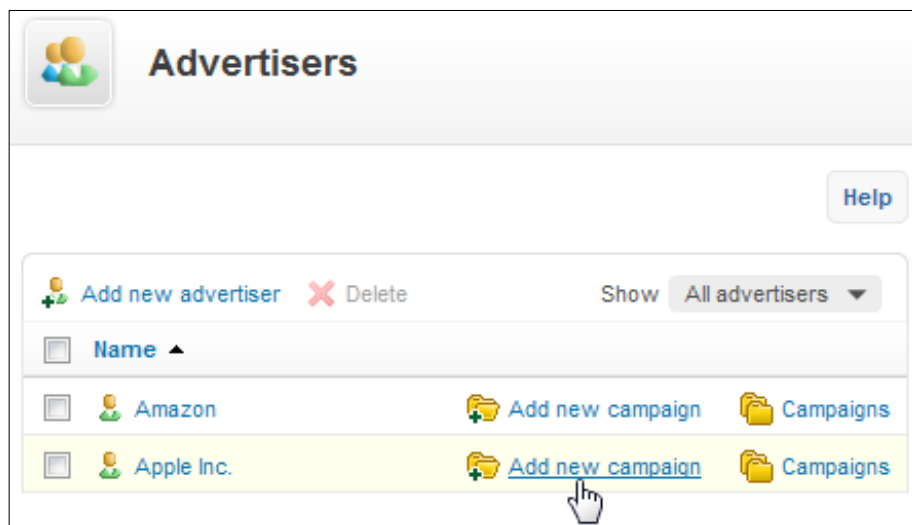
We will continue this example by adding a banner to **Apple Inc – Mac Devices** campaign in the next chapter. But before that, we should learn the differences between **Contract** and **Contract (Exclusive)** campaigns clearly. So, let's go with defining a **Contract (Exclusive)** Campaign.

Time for action – adding a Contract (Exclusive) type campaign

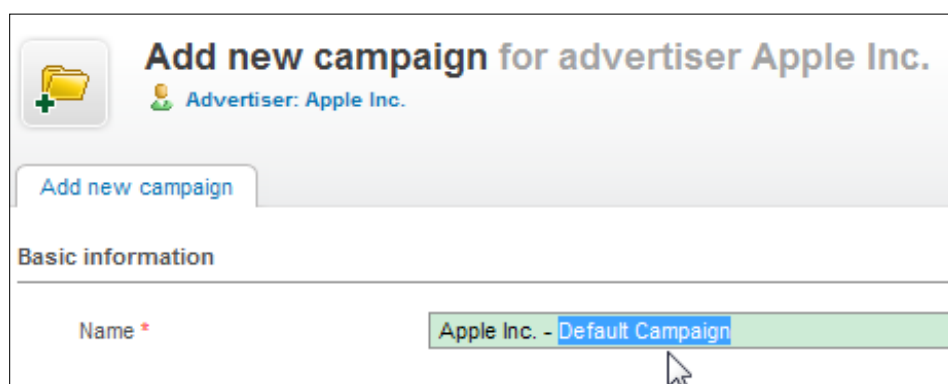
Contract (Exclusive) type gives the advertiser the most exclusive delivery of campaign as the name implies. As soon as we start a Contract (Exclusive) campaign and target to a zone, this campaign will have the priority to be shown on the zone, bypassing impressions of other Contract and Remnant type campaigns.

Now, let's learn how to add a Contract (Exclusive) type campaign by action.

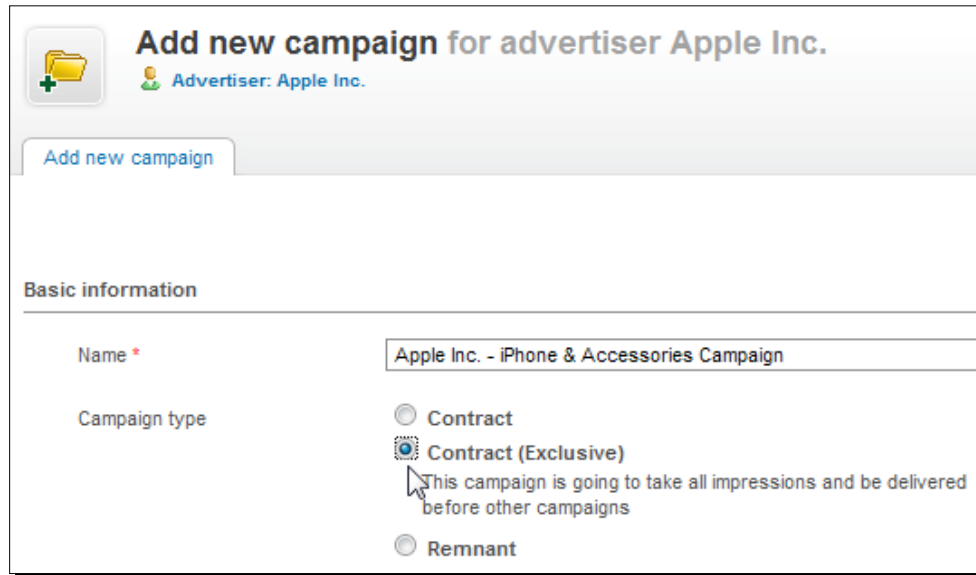
1. Click on **Advertisers** on the left-side menu and then click **Add new campaign** near the advertiser's name.



2. A default campaign name will be created by adding the text **Default Campaign** to the end of the advertiser's name.



3. Change the **Name** field according to the following screenshot and then click the **Contract (Exclusive)** option:



Add new campaign for advertiser Apple Inc.
Advertiser: Apple Inc.

[Add new campaign](#)

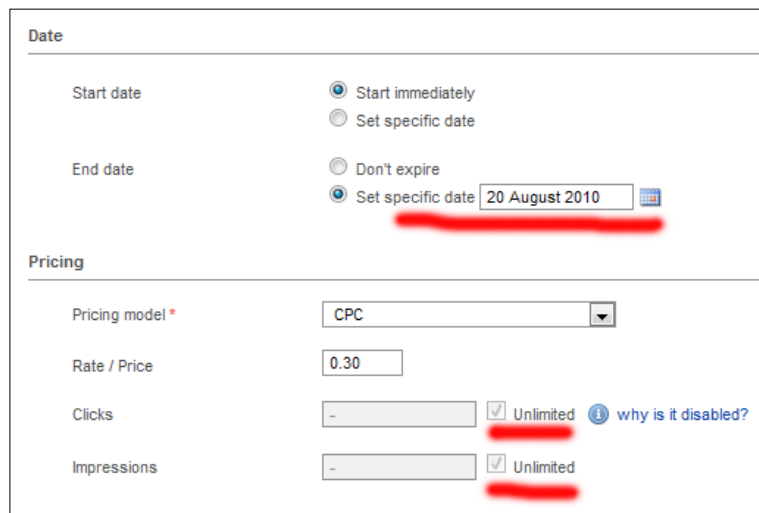
Basic information

Name *

Campaign type

- ☐ Contract
- ☒ **Contract (Exclusive)**
This campaign is going to take all impressions and be delivered before other campaigns
- ☐ Remnant

4. Fill the **Date** and **Pricing** sections according to the following screenshot. Choose **CPC** option and give a **Rate / Price** value of **0.30**. Notice that you cannot further edit **Clicks** and **Impressions** fields. They were set to **Unlimited**.



Date

Start date

- ☒ Start immediately
- ☐ Set specific date

End date

- ☐ Don't expire
- ☒ Set specific date

Pricing

Pricing model *

Rate / Price

Clicks ☒ Unlimited [why is it disabled?](#)

Impressions ☒ Unlimited

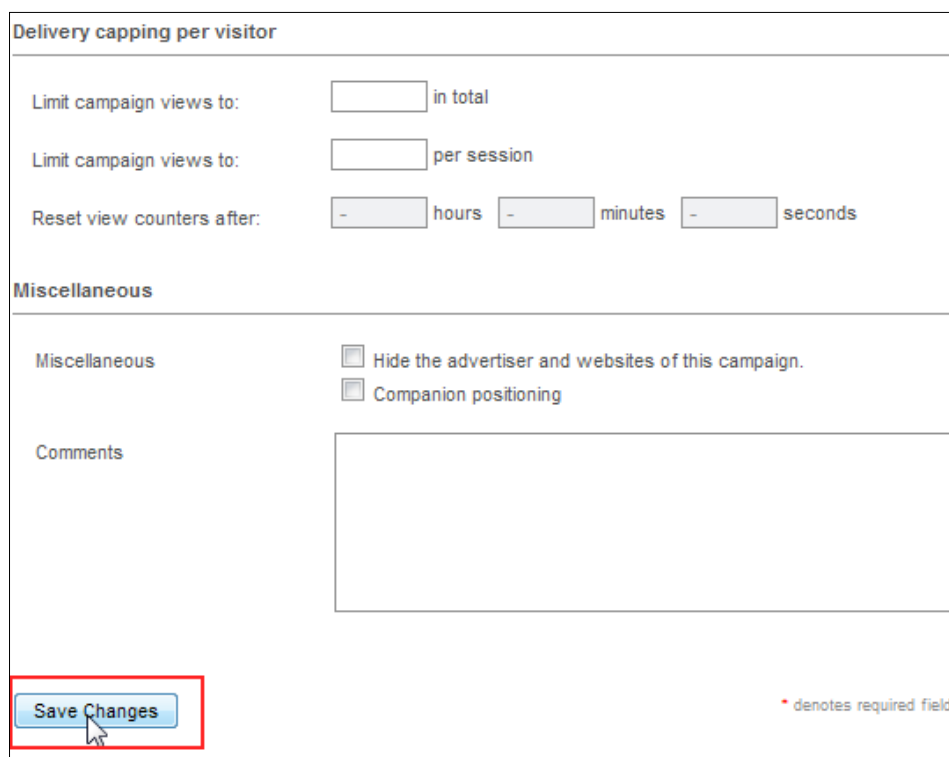
4. When we continue scrolling down on the **add a campaign** page after the Pricing section, we will see **Set the campaign weight** parameter. Write a value of **3** for the sample.



Priority in relation to other campaigns

Set the campaign weight

5. Ignore **Delivery capping per visitor** and **Miscellaneous** sections. Click **Save Changes** button to finish adding a Contract (Exclusive) campaign.



Delivery capping per visitor

Limit campaign views to: in total

Limit campaign views to: per session

Reset view counters after: hours minutes seconds

Miscellaneous

Miscellaneous ☐ Hide the advertiser and websites of this campaign.
☐ Companion positioning

Comments

Save Changes

* denotes required field

6. After clicking **Save Changes** button, we will return to the campaign listings page. Here we can see the basic details of a campaign on the right side for a quick review of each campaign.

Campaigns of Apple Inc.
Advertiser: Apple Inc.

Add new campaign Delete Show All campaigns

Name	Status	Type
Apple Inc. - iPhone & Accessories Campaign	Running	Contract
Apple Inc. - Mac Devices	Running	Contract

Impressions Booked Unlimited

Clicks Booked Unlimited

Conversions Booked Unlimited

Start date -

End date 20-08-2010

Priority Exclusive

Impressions Booked Unlimited

Clicks Booked 500

Conversions Booked Unlimited

Start date -

End date -

Priority High (7)

What just happened?

We have learned how to start Contract (Exclusive) campaigns to deliver all target types (impressions, clicks, conversions) as soon as possible by ignoring other campaign types such as Contract and Remnant.

We can start a campaign as soon as we add it or on a future date automatically. When we assign an **End Date** for a **Contract (Exclusive)** campaign, it is not allowed further defining of a target delivery limit such as Impressions, Clicks and so on is not allowed. We cannot set both an end date and target limits for an Exclusive campaign at the same time. It is a logical application by OpenX as we want to give exclusive priority to the campaign by not counting impressions using a specific end date or running the campaign until one of the assigned delivery limits (clicks, impressions, conversions) reached without a specific end date.

In the following sample screenshot for the latter case, we can see how we enabled **Clicks** and **Impressions** fields by not setting a specific **End Date**. Specifically, we sell the inventory for each click at **\$0.30 CPC** and the campaign will run until **500,000** impressions are delivered. Note that we didn't put a limitation on CPC as we want the campaign to get as many clicks while it is active for 5,00,000 banner impressions.

The screenshot shows a campaign configuration interface with two main sections: **Date** and **Pricing**.

Date Section:

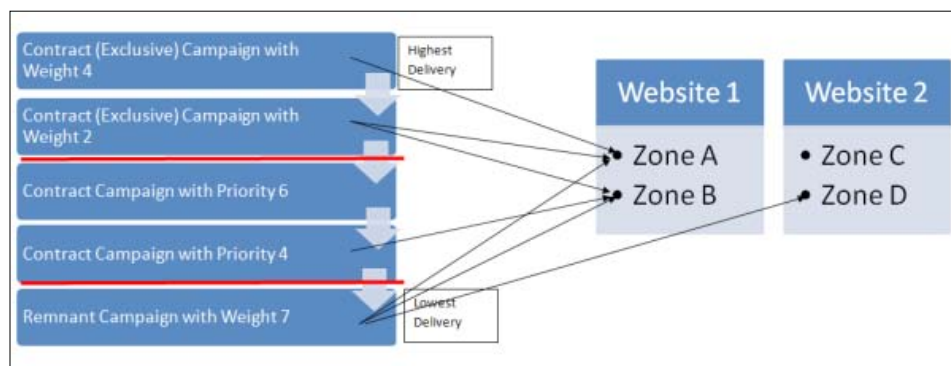
- Start date:** Radio buttons for "Start immediately" (selected) and "Set specific date".
- End date:** Radio buttons for "Don't expire" (selected) and "Set specific date". A link "why is it disabled?" is visible next to the "Set specific date" option.

Pricing Section:

- Pricing model *:** A dropdown menu set to "CPC".
- Rate / Price:** A text input field containing "0.30".
- Clicks:** A text input field containing "-", followed by a checked checkbox and the label "Unlimited".
- Impressions:** A text input field containing "500,000", followed by an unchecked checkbox and the label "Unlimited". A yellow highlight box contains the text "Impressions Remaining: 500,000".

Pop quiz – understanding different campaign types

Answer the following questions according to the following Campaign and Website Zone Diagram. It shows currently running campaigns and their targets:



1. For Zone C; as there are no campaigns targeting here, is it true that a blank space will be shown to visitors?
 - a. True
 - b. False
2. For Zone D; which of the following statements is (are) true?
 - a. All the campaign banners except the Remnant campaign will appear here
 - b. Banners from only the Remnant campaign will appear here
 - c. Even though Contract (Exclusive) Campaigns don't target this zone, they will appear here
3. For Zone B; which of the following statements is (are) true?
 - a. Contract (Exclusive) Campaign with Weight 2 has two times less delivery chance than Contract Campaign with Priority 4
 - b. Only Contract (Exclusive) Campaign with Weight 2 will appear here
 - c. Only Contract Campaign with Priority 4 will be delivered in this zone

Have a go hero – adding a Remnant type campaign

As we have learned about Contract (Exclusive) campaign type in detail, now it is time for a little challenge. Apply exactly the same steps of Contract (Exclusive) to create a Remnant type and try to understand the main difference between Contract (Exclusive) and Remnant types even though all the screen elements are the same.

Tips for efficient advertiser and campaign management

Try to apply the following tips whenever possible as a standard. They will help you manage advertisers and campaigns more effectively.

Tip 1: Using a consistent naming convention

Even though the OpenX system provides a great flexibility in usage and an easy management environment, we can face difficulties if the number of managed advertisers and campaigns increases to large numbers. So, a naming plan should be developed to apply all the elements in OpenX system, specifically for advertisers and campaigns as it is the topic of this chapter.

Avoid using shortcuts for advertisers, names. Suppose we have named Fictitious iPhone Case's advertiser as FIC. It would be difficult later to remember these shortcuts especially in the reports section, if there are similar advertiser shortcut names such as FIG, FHC, and so on. Then give full names instead.

We can put a shortcut before or after the advertiser name and campaign name convention to remind us which type of campaign it is, just by looking at its name.

To be specific, we could use CE for Contract (Exclusive), C for Contract and R for Remnant types.

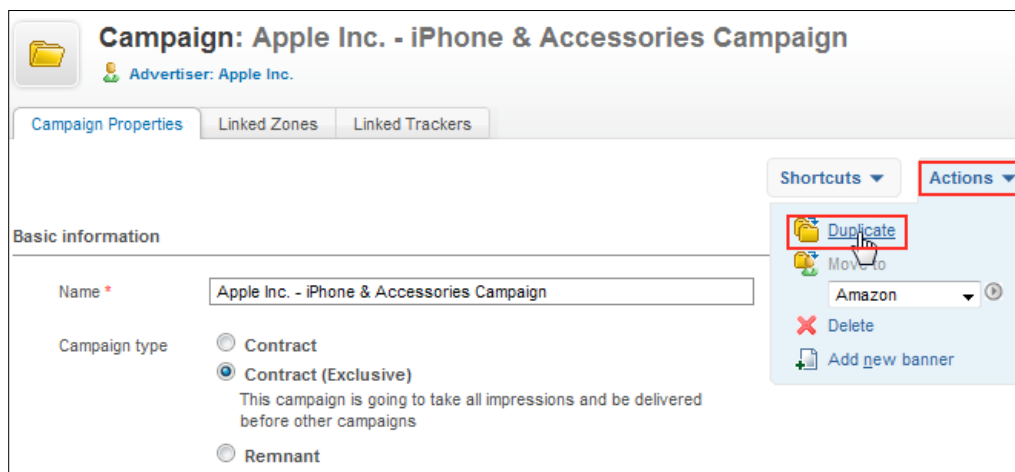
For Example, Campaign Names:

- ◆ Apple Inc. - iPhone Accessories – CE
- ◆ Apple Inc - iMacs with Savings – C
- ◆ Amazon.com - DVD – Adventure Blu-Ray - R

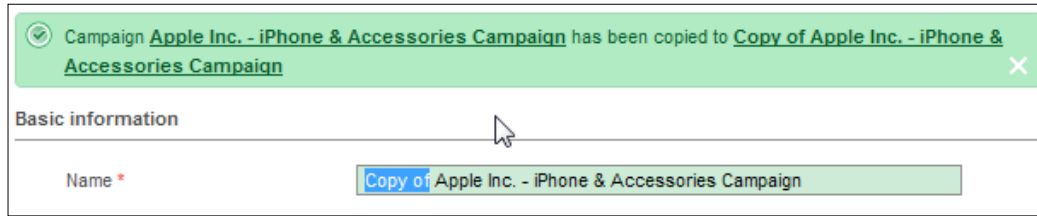
Tip 2: Using duplicate campaign function

This is quite a handy shortcut, if we want to start new campaigns for an advertiser with the same or similar settings.

Look at the **Actions** menu on the campaign listings page. There is a **Duplicate** link to create a new campaign with the same settings. Then we should make the required changes on the newly-created campaign including changing the campaign name.

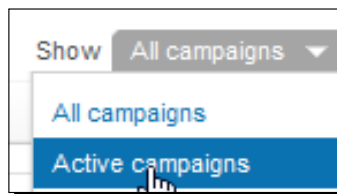


Note the text **Copy of** added before the newly-created campaign.



Tip 3: Filtering active campaigns

Suppose that we have 130 inactive and only 5 active campaigns in OpenX system. We don't want to delete inactive campaigns as it is possible that they will be restarted at a future date. To work easily with only 5 active campaigns, we can filter the listing by choosing the **Show Active campaigns** link on the top right side of campaign listings.



Tip 4: Guaranteeing campaign impressions on a zone

It is quite possible that a website zone will not display any banners at all in OpenX system and instead a blank space will be shown to the visitor, thus losing a valuable ad spot.

There are two reasons for this unfavorable situation:

- ◆ There are no campaigns which target this zone
- ◆ All campaigns which target this zone have expired or deactivated

To prevent this, we can use a Remnant campaign, which targets this zone with an End Date that is very far on such as a date on 2020. If there are Contract or Contract (Exclusive) campaigns for the zone, the Remnant campaign will not be shown. In the case of where there are no Contract or Contract Exclusive campaigns, this Remnant campaign will be shown until 2020 by guaranteeing impressions on the valuable advertisement space.

Summary

Managing campaigns effectively is a core part of OpenX Ad Server.

In this chapter, at first, we have learnt the essentials of online advertising: inventory and campaign types. Then, we have seen how to apply pricing models in these campaigns by emphasizing on the differences among them. We have then examined important subjects such as delivery capping per visitor and companion positioning.

In the next chapter, we will learn adding banners to campaigns and managing them in detail.

4

Filling Campaigns with Banners

Choosing the correct banner types and applying them in a standardized organization is essential in order to get high performance from OpenX Ad Server. This chapter teaches you all of the vital aspects of banner management in OpenX.

In this chapter, we shall learn about:

- ◆ Different types of banners in OpenX system
- ◆ How each banner type is processed differently
- ◆ The advantages and disadvantages of each banner type
- ◆ How to add a Google AdSense banner in OpenX
- ◆ The importance of geotargeting and how to apply it
- ◆ Defining different types of delivery limitations for banners

Banners

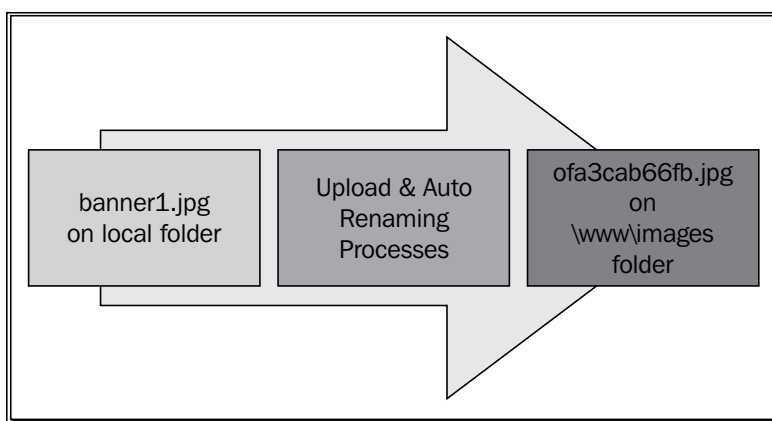
Banners are 'creative' for advertisements. They have many different formats including images (.jpg, .png), animated image files (.gif), Flash files (.swf), Textlinks, texts, HTML, and JavaScript, that help in displaying advertisement s. Banners are added to campaigns and shown in the zones of websites.

Understanding banner types

There are five different ways to add a banner to OpenX Ad Server 2.8.3 system. Let's review each of them and understand the differences.

Local banners using webserver

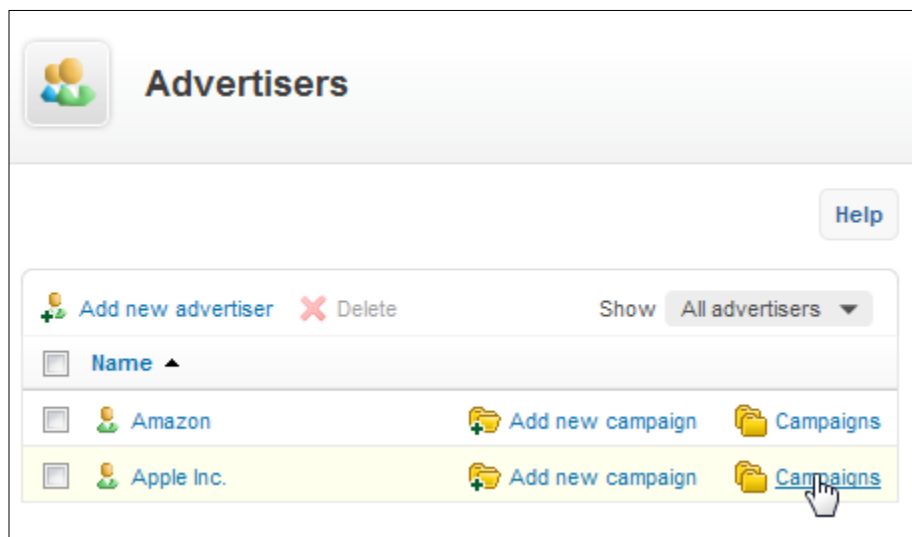
This is the most widely used banner type. It is used for image banner advertisements including .jpg, .gif, and .png files. Banners are individually uploaded to OpenX Ad Server and stored in a folder in the file system. The default storage folder is `/www/images/` where OpenX system is installed. When a banner is uploaded to OpenX system, it is automatically renamed to a random unique string to keep the banner names unique in OpenX Ad Server.



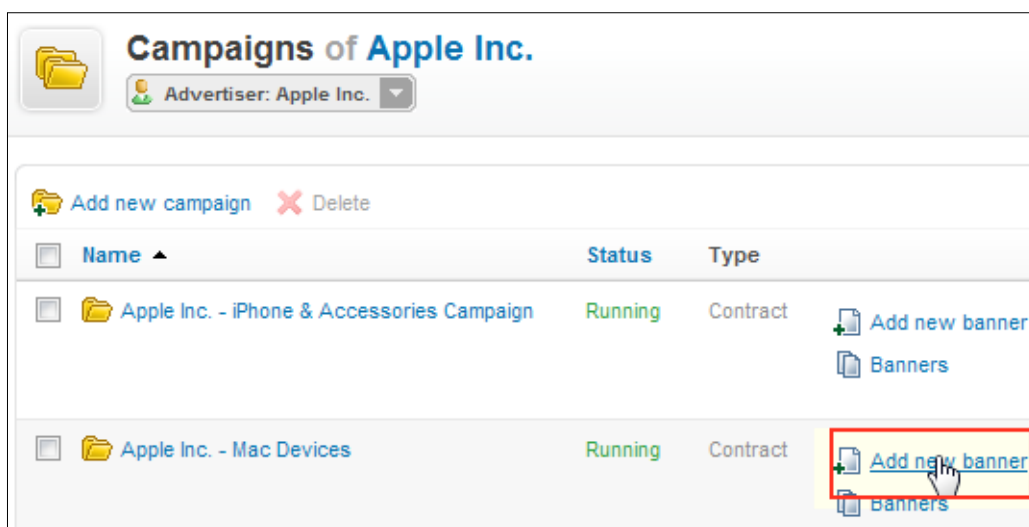
Time for action – adding a local webserver banner to Apple Inc - Mac Devices campaign

In this section, we will learn how to add one of the most popular banner types in OpenX Ad Server system—a local web server banner to our Apple Mac Devices Campaign example. This banner type is used when we want to store banner image files on our web server.

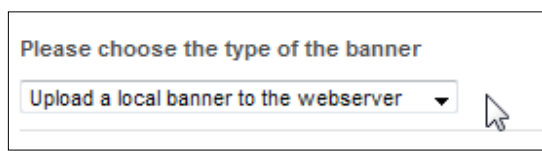
1. Click on the **Campaigns** link to see a list of all campaigns for an advertiser on the advertisers' listing page. In this special case, campaigns for Apple Inc.



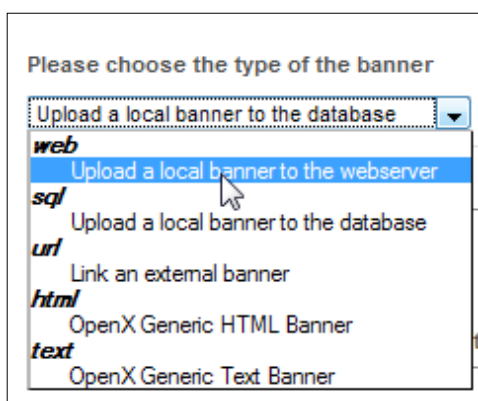
2. We will see all the campaigns for the advertiser. Click on **Add New banner** link for one of the campaigns. In this special case, we will add a new banner for **Apple Inc. – Mac Devices** campaign.



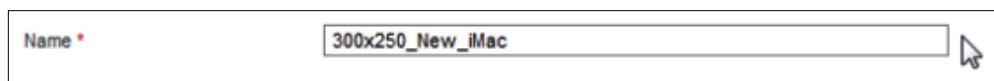
3. By default, **Upload a local banner to the webserver** banner type is selected automatically as in the following screenshot:



4. If it is not selected by default, select this banner type from the available banner type options.



5. Now, it is time to give a name to our banner. For our example, we have chosen to write **300x250_New_Mac**. Give the same name.



6. Let's upload the banner file to our webserver where the banner files will reside. Click on **Browse** button and choose the banner image file. Choose any image file you want with a size of 300 width and 250 height.
You can use Google (image search <http://images.google.com>) to find a banner of the necessary size easily.



Upload a local banner to the webserver - banner creative

Select the image you want to use for this banner

Browse...

In this example, we have used a real iMac banner that is of the size, 300x250.



7. Rename the image file you selected as 300x250 followed by `_New_iMac`.
8. The following screenshot shows what it will look like after we choose an image file:



Upload a local banner to the webserver - banner creative

Select the image you want to use for this banner

C:\banners\apple\mac\300x250 Browse...

9. Enter the destination URL where the visitors will be sent when they click on this banner. Notice the `http://` protocol string at the beginning of the string. Be careful to include this to open the correct URL on a web browser. Write `http://www.apple.com/imac` for **Destination URL**.

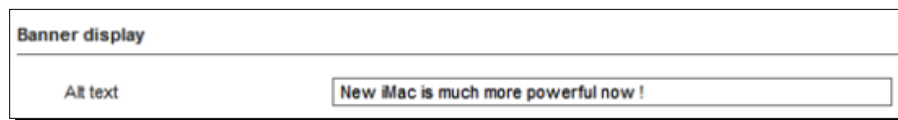
- 10.** Leave **Target** textbox blank.



The screenshot shows a form section titled "Banner link". It contains two input fields. The first field is labeled "Destination URL (incl. http://)" and contains the text "http://www.apple.com/imac". The second field is labeled "Target" and is empty. A mouse cursor is pointing at the "Target" field.

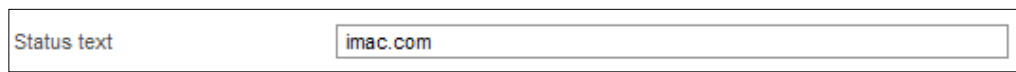
- 11.** In the **Banner display** section, we will provide extra information about how a banner will be shown on Internet browsers.

- 12.** Enter some text in the **Alt text** field.



The screenshot shows a form section titled "Banner display". It contains one input field labeled "Alt text" which contains the text "New iMac is much more powerful now !".

- 13.** Write `imac.com` in the **Status text** field.



The screenshot shows a form section with a single input field labeled "Status text" containing the text "imac.com".

- 14.** Type the following text in the **Text below image** field.



The screenshot shows a form section with a single input field labeled "Text below image" containing the text "Buy now at Apple.com Direct".

- 15.** Ignore the **Keywords** field in the **Additional Data** section. Give a **Weight** value for the banner as in the following screenshot.

We can enter additional comments (notes) about the banner in the **Comments** field. After completing all the fields, click on the **Save changes** button.

Additional data

Keywords

Weight

4

Comments

This banner has a high CTR at technology and gadget review related website zones.

Save changes

* denotes required field

- 16.** After we click on the **Save changes** button, we will see a screen similar to the following one. Note that the banner size is automatically calculated:

Banners in Apple Inc. - Mac Devices

Advertiser: Apple Inc. > Campaign: Apple Inc. - Mac Devices

Add new banner

Delete

Show All banners

Name ▲

300x250_New_iMac

Delivery

Deactivate

Size

Url

Weight

IAB Medium Rectangle (300 x 250)

http://www.apple.com/imac

4

17. Let's click on the banner name to edit our banner and look at the different sections.

300x250_New_iMac

Delivery

Deactivate

Size

Url

Weight

IAB Medi

http://www

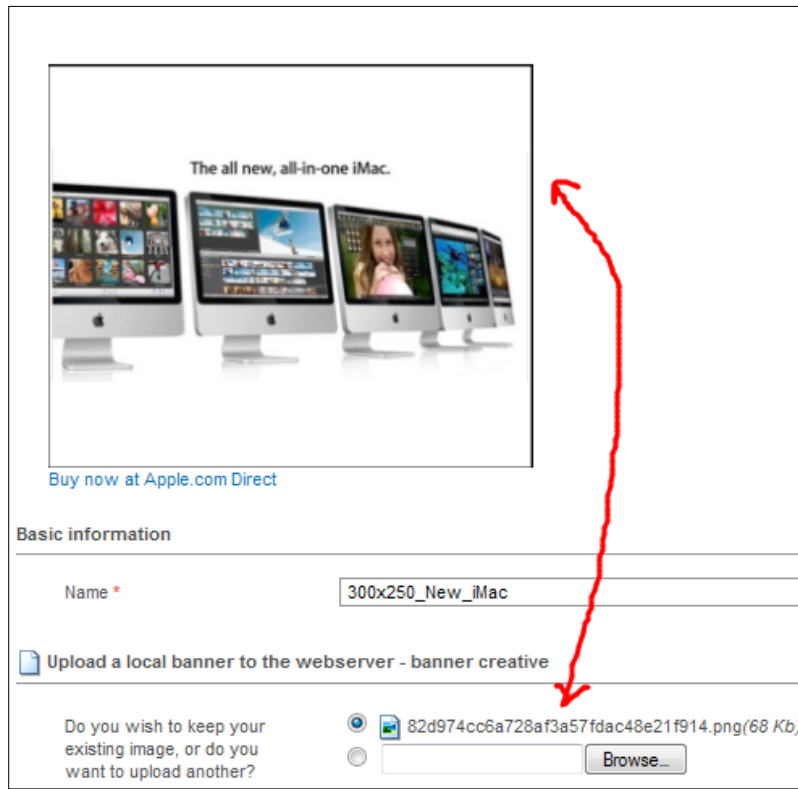
4

[95]

PACKT

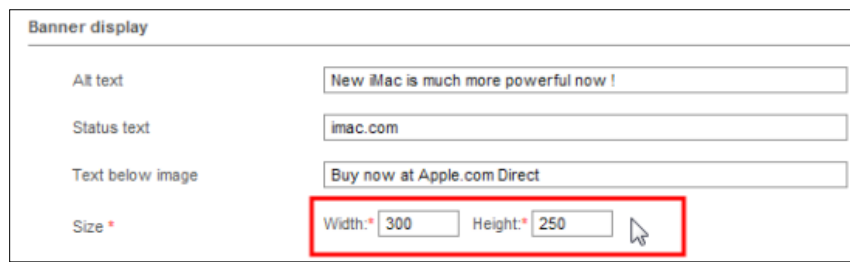
PUBLISHING

- 18.** First, we will see our correctly sized banner at the top. Note that OpenX Ad Server copied our banner to its own system and renamed the image file uniquely. This is shown in the following image:



The screenshot shows the OpenX Ad Server interface. At the top, there is a preview of a banner for the new iMac, featuring the text "The all new, all-in-one iMac." and a link "Buy now at Apple.com Direct". Below the preview is the "Basic information" section. The "Name" field is filled with "300x250_New_iMac". The "Upload a local banner to the webserver - banner creative" section shows a radio button selected for "Do you wish to keep your existing image, or do you want to upload another?". The file name "82d974cc6a728af3a57fdac48e21f914.png (68 Kb)" is displayed, and a "Browse..." button is visible. A red arrow points from the "Browse..." button to the "Basic information" section.

- 19.** Scroll down and note that **Size** fields appeared automatically.



The screenshot shows the "Banner display" section of the OpenX Ad Server interface. It contains several text input fields: "Alt text" with "New iMac is much more powerful now !", "Status text" with "imac.com", and "Text below image" with "Buy now at Apple.com Direct". The "Size" section is highlighted with a red box, showing "Width: 300" and "Height: 250".

What just happened?

We have learned how to add a local webserver banner on the OpenX system and how it will be saved on the OpenX Server using automatic image file renaming and size information.

We have followed a certain naming convention system for ease of management. Concatenation of banner size and short banner description would be an effective method.

Our 300x250_New_iMac followed this rule:

Note that we have also used a naming convention system for banner images and how we will store them on our local folders for easy management.

Sample Template:

`c:\banners\advertiser_name\campaign_name`

Banner Image: 300x250_New_iMac.jpg

Banner Folder: `c:\banners\apple\mac\`

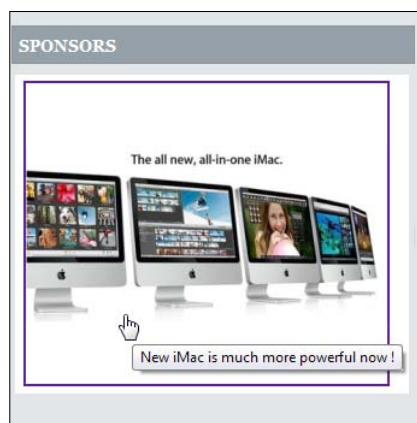
Note that uploaded banners will be renamed by OpenX server to a random unique string and they will be served from a certain directory in OpenX server. Local banner naming convention is just for easy management.



As Target parameter was an advanced option; we did not explain the details because this book is aimed at providing information at beginner level. For curious readers: search the **HTML Target Attribute** phrase on Google to learn the usage of Target parameter.

A small box will be opened under the cursor if text is provided. An alternate text, that is, Alt text, is used to give a tip when a visitor moves the cursor over the banner on the web browser.

The following screenshot shows the section where the sample banner is shown on a blog with **Alt text**:



If the **Alt text** field is left blank, nothing will be displayed if you hover your cursor over the banner on the web page.

Status text will be shown as target URL on the status bar of the web browser when the cursor is on the banner. Note that it is just a text shown on the status bar and doesn't affect the **Destination URL** that we have provided in one of the previous steps. Visitors will be redirected to Destination URL anyway.

Actually, many modern web browsers such as Firefox, Internet Explorer don't hide the actual URL even if we fill **Status text** field.

In any case, it is wise to hide the destination from visitors for other browsers if we are using affiliate links.



Text below image field can be used to provide a text under the banner to give extra information when the banner is displayed on the website zone. Note that this option only works with local image banner types. The following screenshot shows our banner with the Text below image field as we have provided:

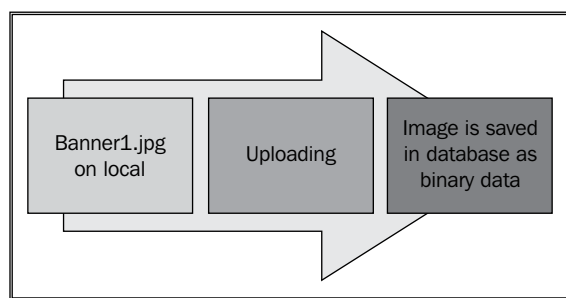


Weight shows the probability of a banner being displayed. For example, a banner with a weight of four will be delivered approximately two times more than another banner in the same campaign with a weight of two.

Note that we didn't provide size information for the uploaded banner. The reason is that OpenX Ad Server automatically recognizes the size information of the banners being uploaded to webserver as in our example.

Local banners using SQL

By using a Local SQL banner option, the banners are uploaded to the OpenX system individually as in local banners (webserver). The difference is that the banners are stored in the database as binary data instead of storing them in a folder.



Have a go hero – adding a local SQL type banner to OpenX

Now, add a local SQL type banner using **Upload a local banner to the database** option. You should notice that there are not many differences between Local SQL and Local webserver banner types except with regards to how the banner image is stored. Finally, read the following local banner type advantages and disadvantages section to strengthen your knowledge about both local banner types by knowing about their advantages and disadvantages.

Local banners using webserver—advantages and disadvantages

Let's first look at the advantages:

- ◆ As the files are stored locally on a hard drive on OpenX Ad Server file system, it is easy to reach them by direct access.
- ◆ There is no database access for individual banners. It gives a better performance result as compared to Local Banners (SQL) type banners, which are stored in MySQL database system.

Let's now move on to the disadvantages:

- ◆ It is necessary to back up \www\images folder regularly to protect the OpenX system against any errors on hard drives or data loss.
- ◆ As the image files are served from our server, it can bring bandwidth problems on large OpenX systems.

Local banners using SQL—advantages and disadvantages

Let's first look at the advantages:

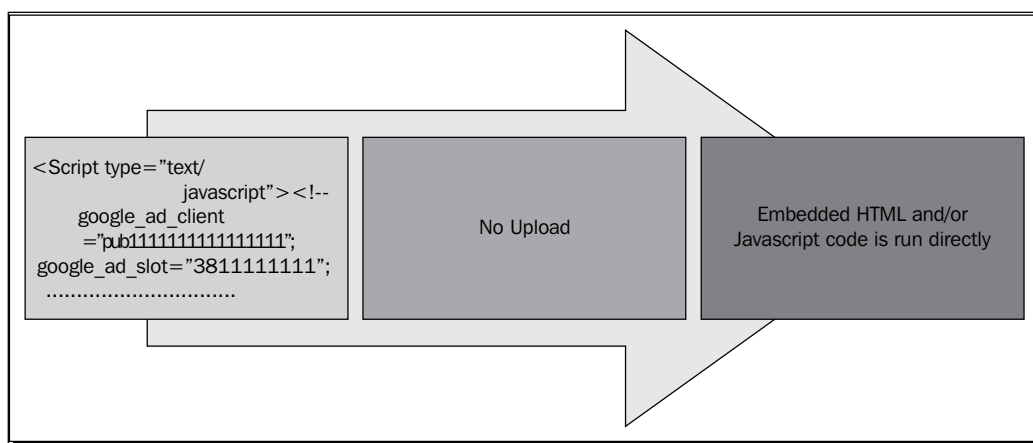
- ◆ Easy management and backups. We only need to take backups of OpenX system files and database. There are no image files to backup separately.

Let's now move on to the disadvantages:

- ◆ As the image files are stored in database system, the database can grow very quickly. It will result in performance problems in large systems, which is not recommended.
- ◆ We can't access individual image files directly as there are no images in a folder.

Generic HTML banners

This banner type is suitable for anything that is intended to be shown using HTML. This could be an HTML web form, multiple images, tables, JavaScript files, or even You Tube files. For example, Google AdSense code should be selected in OpenX system as a Generic HTML banner, as it uses JavaScript to be delivered. We will give an example on how to define Google AdSense code in OpenX Ad Server later in this chapter.



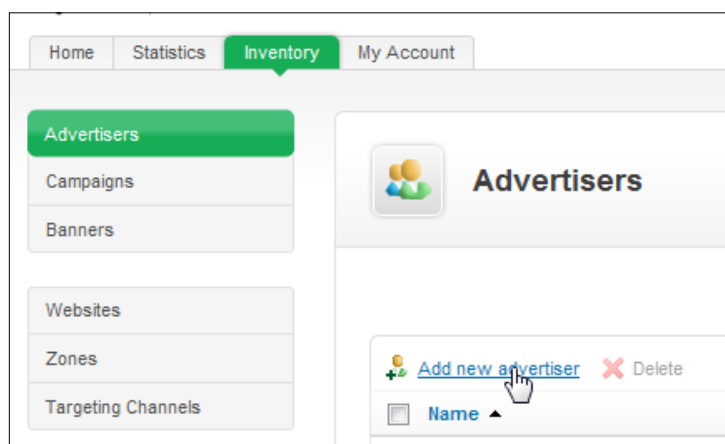
Time for action – adding Google AdSense ads with OpenX

In this section, we will learn how to add a Google AdSense code to OpenX system. We will add Google as an advertiser and start a Remnant type campaign, then we will add a sample banner using Generic HTML banner option. Note that this section assumes that you are already working with Google AdSense platform and know how to retrieve the Google AdSense code.

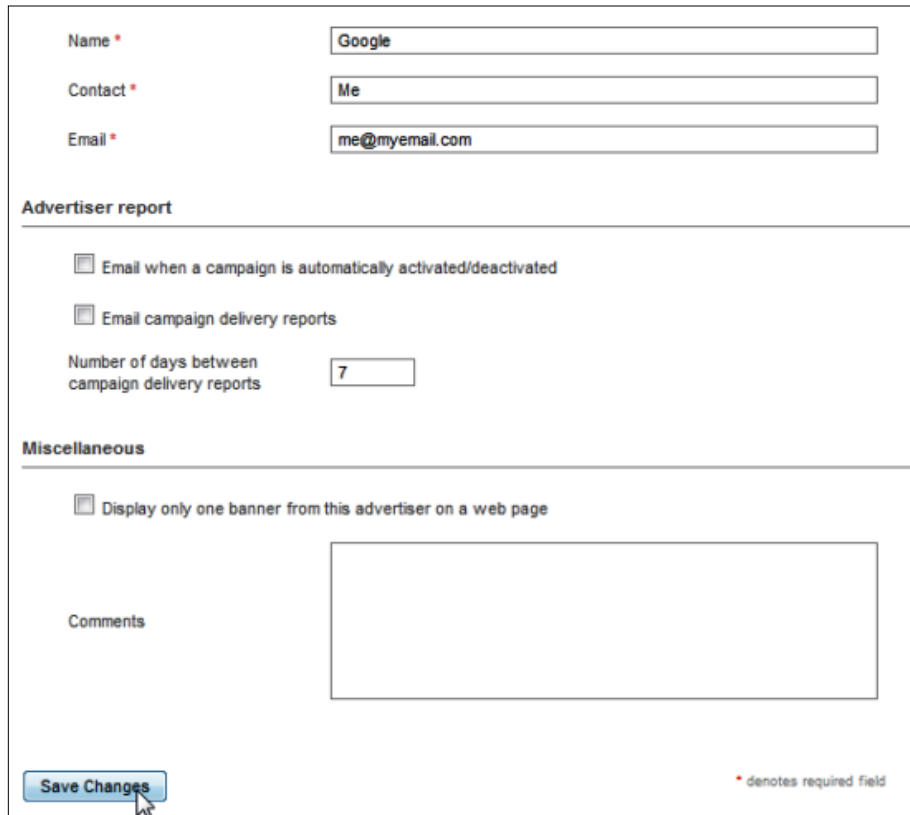


For new Google AdSense users: please refer to <http://www.google.com/adsense> for more information about the Google AdSense program.

1. On the Advertisers page, click on **Add new advertiser** link.



2. Fill the **Name**, **Contact**, and **Email** fields in a similar way to the following screenshot. Uncheck the options under **Advertiser report** section except the **Number of Days between the campaign delivery reports** field, leave this field the way it is. Click on the **Save Changes** button to complete adding Google as an advertiser.



The screenshot shows a web form for adding an advertiser. It has three input fields at the top: 'Name' with 'Google', 'Contact' with 'Me', and 'Email' with 'me@myemail.com'. Below these is a section titled 'Advertiser report' containing two unchecked checkboxes: 'Email when a campaign is automatically activated/deactivated' and 'Email campaign delivery reports'. There is also a field for 'Number of days between campaign delivery reports' with the value '7'. Below this is a 'Miscellaneous' section with one unchecked checkbox: 'Display only one banner from this advertiser on a web page'. At the bottom left is a 'Save Changes' button, and at the bottom right is a red asterisk with the text '* denotes required field'.

Google is listed in the advertisers section now. Click on **Add new campaign** link to continue.

3. The next step is to start a Remnant campaign, which will not have any end date or other limitations.

4. We will select **Remnant** campaign option and name the campaign as **Google – Adsense**. We don't need to change other fields. Leave **Date** options to their default value.

Add new campaign for advertiser Google
Advertiser: Google

Add new campaign

Basic information

Name *

Campaign type

☐ Contract

☐ Contract (Exclusive)

☒ Remnant
This is a standard campaign which can be constrained with either an end date or a specific limit

Date

Start date

☒ Start immediately

☐ Set specific date

End date

☒ Don't expire

☐ Set specific date

5. Keep the **Pricing** options to their default value.

Pricing

Pricing model *

CPM

Rate / Price

Impressions

-

☒ Unlimited

6. Leave **Priority in relation to other campaigns** and **Delivery capping per visitor** options to their default settings.

Priority in relation to other campaigns

Set the campaign weight

1

Delivery capping per visitor

Limit campaign views to:

in total

Limit campaign views to:

per session

Reset view counters after:

-

hours

-

minutes

-

seconds

7. Do not touch **Miscellaneous** section either. Click on the **Save Changes** button to finish adding Google – AdSense campaign.

Miscellaneous

Miscellaneous

☐ Hide the advertiser and websites of this campaign.

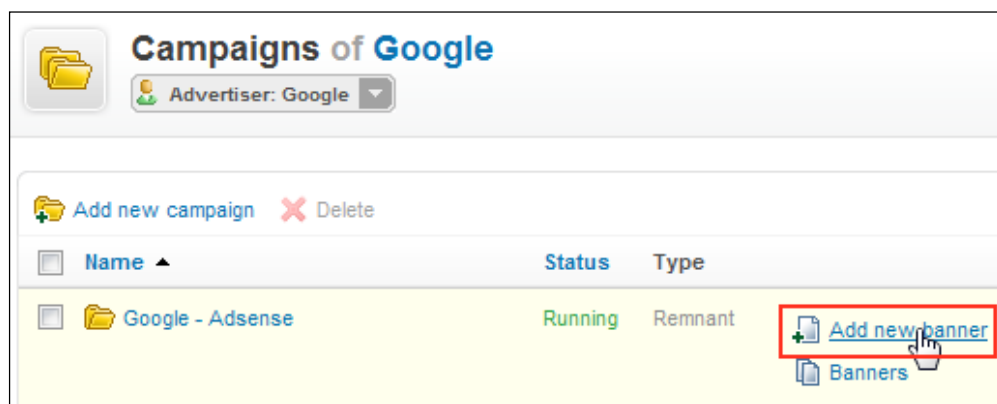
☐ Companion positioning

Comments

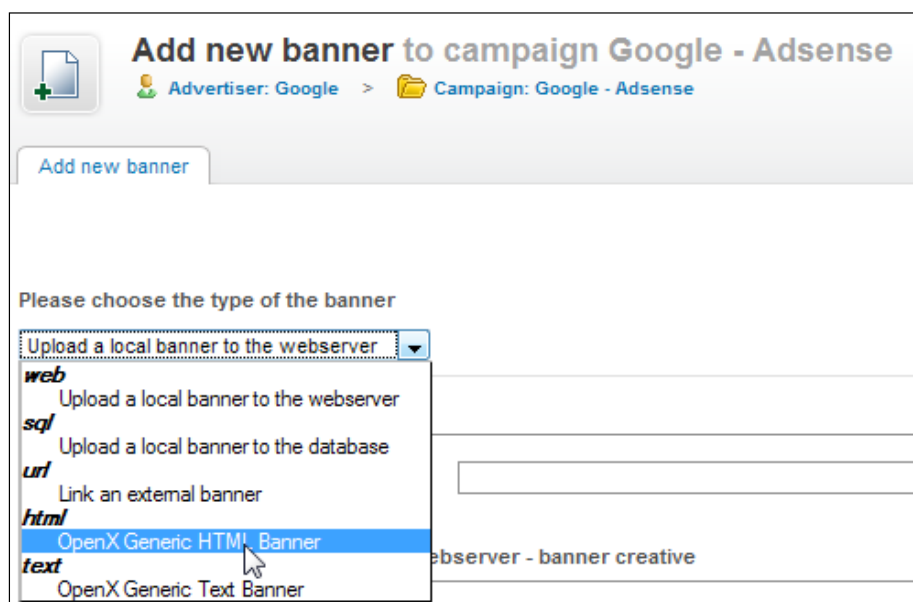
Save Changes

* denotes required field

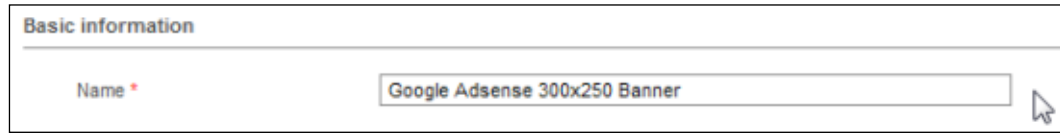
8. We will now continue by adding a Google AdSense 300x250 advertisement. Click on the **Add new banner** link.



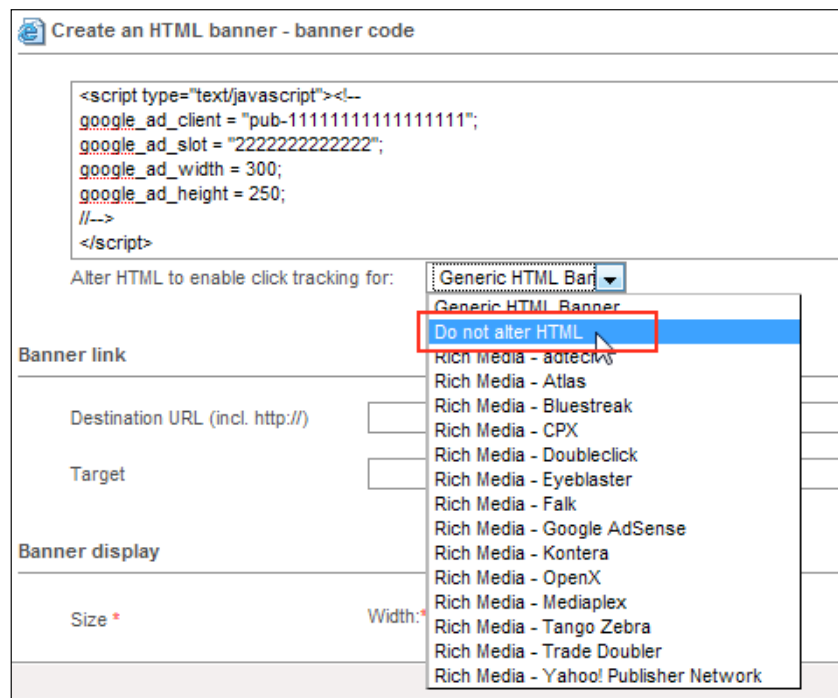
9. Choose **OpenX Generic HTML Banner** type option.



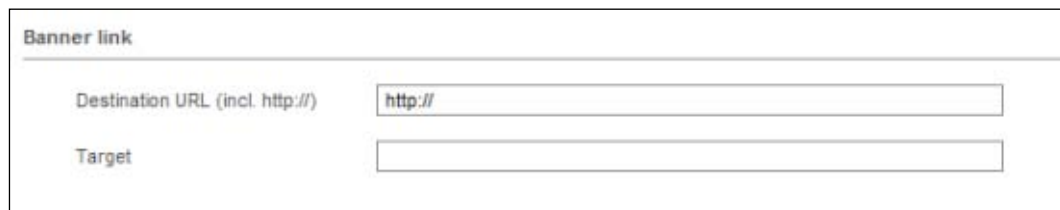
- 10.** Give an informative name for the banner as in the following example:



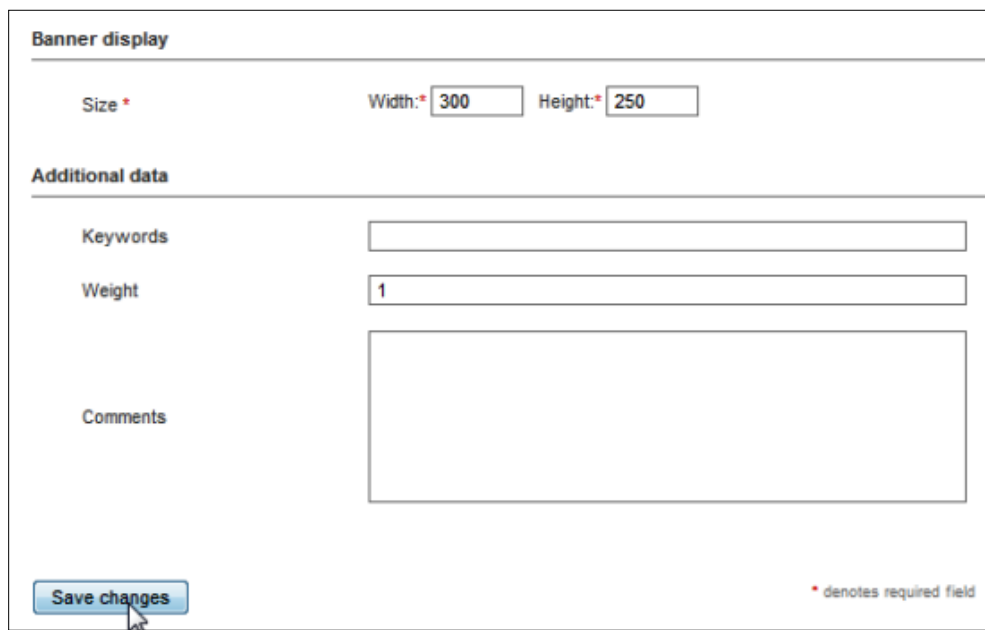
- 11.** Copy and paste Google AdSense code to the **Create an HTML banner - banner code** section and choose **Do not alter HTML** option.



- 12.** Leave the **Banner link** section to its default setting and move to **Banner display** section.

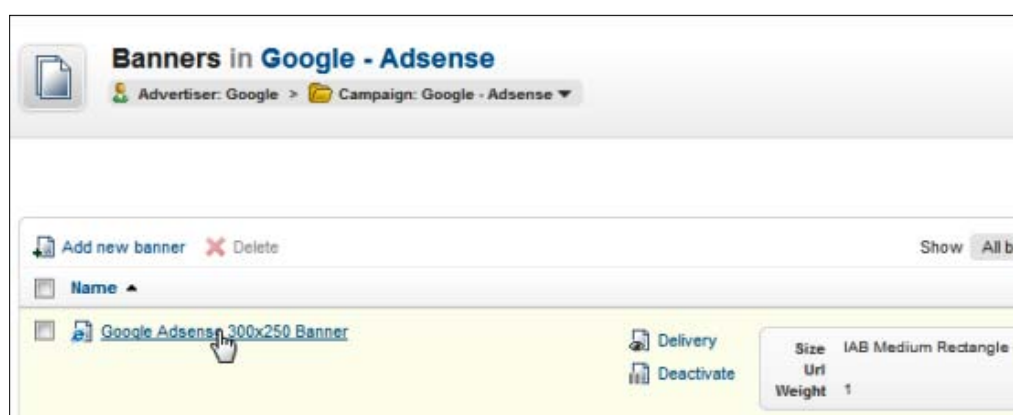


13. Fill the **Width** and **Height** fields for Google AdSense banner. Be careful to define the exact size of Google AdSense code that we paste. As we have chosen to use a 300x250 AdSense banner, we have set these fields accordingly to **300** and **250**.
14. Leave the **Additional data** section to its default setting. Click on the **Save changes** button at the end.

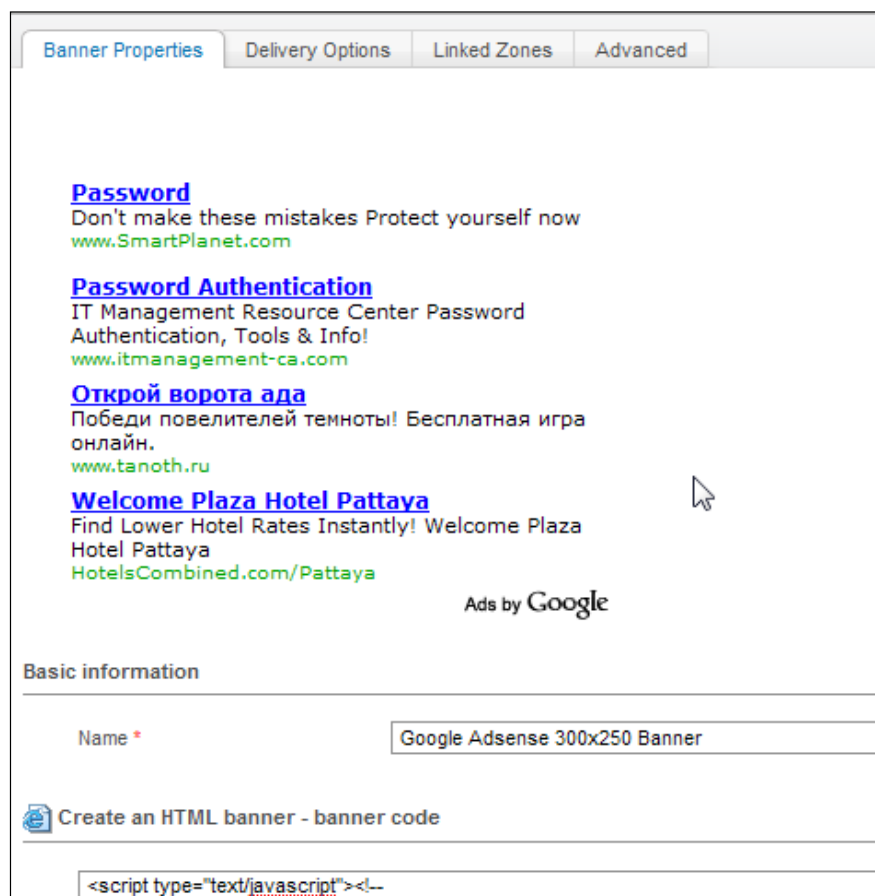


The screenshot shows the 'Banner display' section of the Google AdSense interface. It includes a 'Size' field with 'Width' and 'Height' sub-fields, both set to 300 and 250 respectively. Below this is the 'Additional data' section, which contains 'Keywords', 'Weight' (set to 1), and 'Comments' fields. A 'Save changes' button is at the bottom left, and a note '* denotes required field' is at the bottom right.

15. Our banner is created on OpenX system now. Let's click on the banner name to preview banner properties.



- 16.** Note that the Google AdSense banner will be displayed at the top of the banner properties screen for preview.



What just happened?

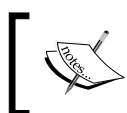
We have seen how to add a Google AdSense advertisement to OpenX Ad Server.

Note that we have written our e-mail address when defining Google as an advertiser, as we will run this advertiser's campaign in-house. Also note that we have unchecked the fields in the advertiser report section as it is better to keep track of reports of AdSense in Google's site.

We have added Google – AdSense as a Remnant type campaign. Note that Remnant campaigns run only if the Contract and Contract Exclusive campaigns, which target the same website zone, are not present. We can also start Google-AdSense as a Contract Exclusive campaign if it is our main income source and we don't use paid advertising for our inventory.

We have chosen especially Do not alter HTML option for Google AdSense ads. As Google is very careful about the changes on their AdSense code, it provides us a safer way to work with AdSense code on OpenX Ad Server.

Note that as using Google AdSense is not the topic of this book, we didn't additionally show how to generate AdSense code. We assumed that we already have it.



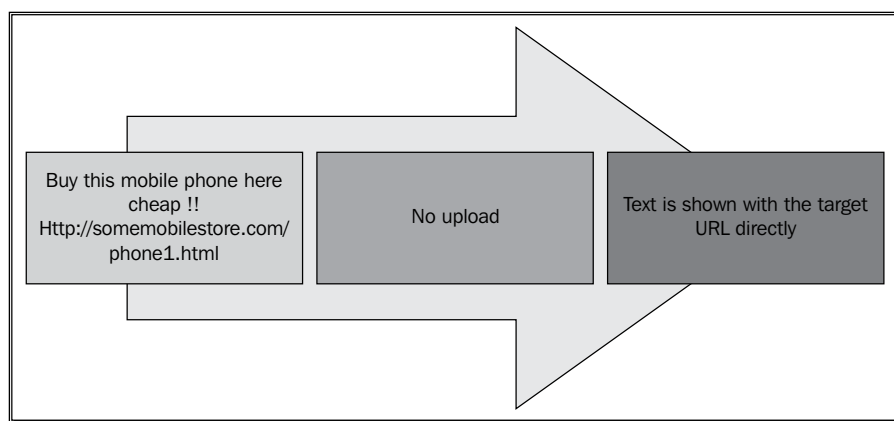
You should visit Google AdSense website at <http://www.google.com/adsense> for more information about registering with Google AdSense program and getting the advertisement codes.

Generic HTML banners—advantages and disadvantages

We now move on to the advantages and disadvantages of this banner type. The only advantage it has is that it is easy to define if the advertiser provides us with the HTML code. All we need to do is to correctly copy and paste the code in a textbox in the OpenX banner addition screen. The only disadvantage being the extra caution that we have to take while writing or pasting HTML code in OpenX system. A missing character can affect the correct delivery of banners—for example, an apostrophe or HTML tag closing bracket.

Generic Text banners

Generic Text banner type is suitable for anything that is intended to be shown as pure text. Simple text links are popular usages. Moreover, we could also write long paragraphs of text as advertisements.



Have a go hero – adding a generic text banner to OpenX

Now it is your turn to investigate more on Generic Text banners. Add a new Generic Text banner and learn what it looks like by editing the banner again.

Generic text banners—advantages and disadvantages

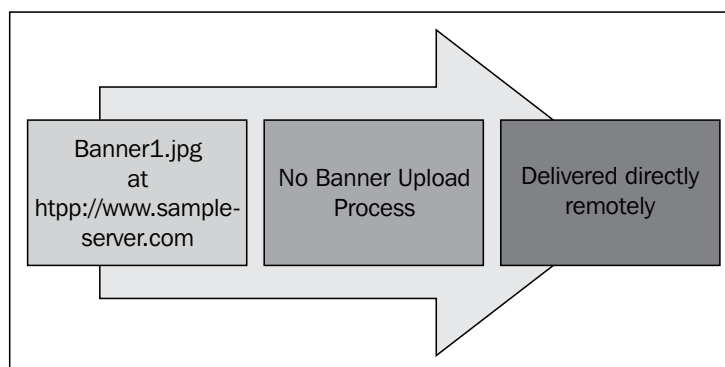
There is only one advantage of generic text banners which is the fact that it is easy to define them with no need for size definition or uploading/linking an image banner. All we need is to write a text and define a link for it.

However, there are following two disadvantages:

- ◆ We can't put HTML code in generic text banner. Even if we put HTML code it will be shown as regular text on the web pages.
- ◆ Generic text banners can only be linked to text ad zones. We will talk about zones in the next chapter in detail.

External banners

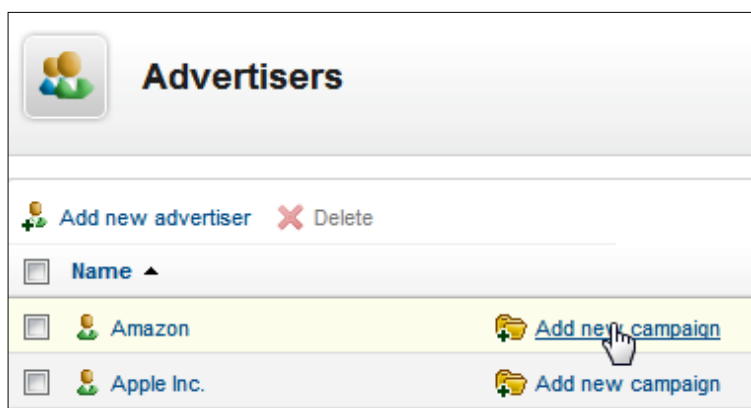
This banner type is suitable especially for the campaigns, where we use banners of affiliate networks. Simply, the image files are not stored in OpenX system. Instead, images are served directly from the image provider's web server.



Time for action – adding an external banner type for Amazon

In this section, we will start a fictitious Amazon Halloween holiday campaign and add an external type banner under it.

1. Let's start by adding a Contract (Exclusive) Halloween campaign to Amazon advertiser that we have already added in Chapter 2.
2. Open the **Advertisers** list and click on **Add new campaign** link near **Amazon**.



3. Enter **Amazon – Halloween** as campaign name and select **Campaign type** as **Contract (Exclusive)**.

Basic information

Name *

Amazon - Halloween

Campaign type

☐ Contract

☒ **Contract (Exclusive)**
This campaign is going to take all impressions and be delivered before other campaigns

☐ Remnant

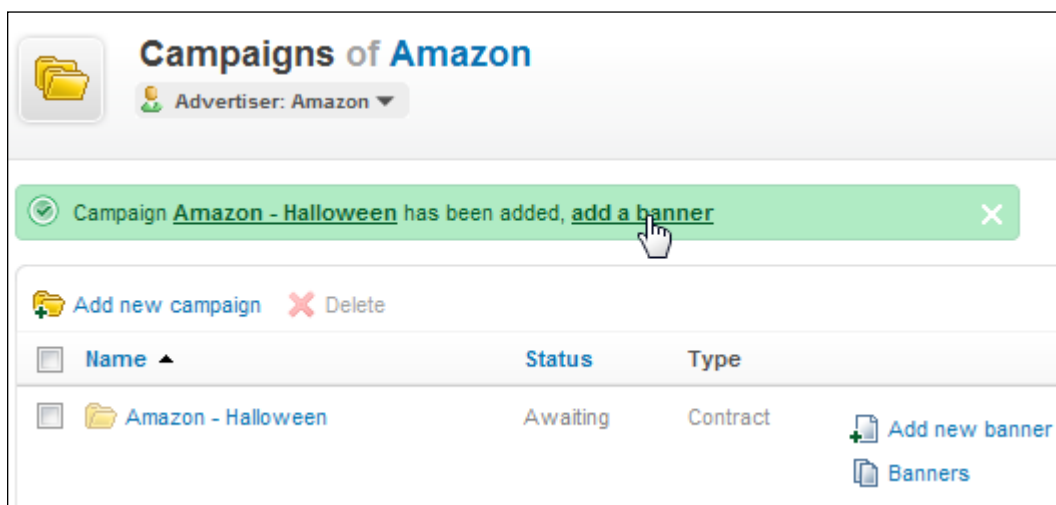
4. Fill in the **Start Date** and **End Date** fields according to the following screenshot:

The screenshot shows a 'Date' section with two rows. The first row is for 'Start date' and the second for 'End date'. Each row has two radio button options: 'Start immediately' and 'Set specific date'. The 'Set specific date' option is selected for both. Next to 'Set specific date' for 'Start date' is a text input field containing '01 October 2010' and a calendar icon. Similarly, next to 'Set specific date' for 'End date' is a text input field containing '31 October 2010' and a calendar icon.

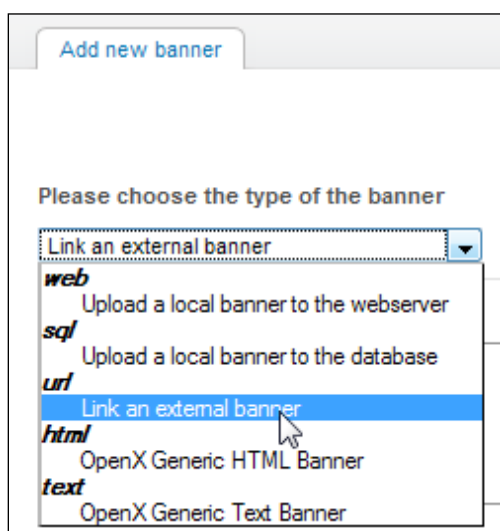
5. Leave all other fields to their default settings and click on the **Save Changes** button to finish adding the campaign.

The screenshot shows two sections: 'Pricing' and 'Miscellaneous'.
The 'Pricing' section includes:
- 'Pricing model *': A dropdown menu set to 'CPM'.
- 'Rate / Price': An empty text input field.
- 'Impressions': A text input field with a hyphen '-' and a checked checkbox labeled 'Unlimited' with a link 'why is it disabled?'.
The 'Priority in relation to other campaigns' section includes:
- 'Set the campaign weight': A text input field containing '1'.
The 'Delivery capping per visitor' section includes:
- 'Limit campaign views to:': Two text input fields, both containing '0', followed by 'in total' and 'per session'.
- 'Reset view counters after:': Three text input fields for 'hours', 'minutes', and 'seconds', each containing a hyphen '-'.
The 'Miscellaneous' section includes:
- 'Miscellaneous': Two checkboxes, 'Hide the advertiser and websites of this campaign.' and 'Companion positioning', both unchecked.
- 'Comments': A large empty text area.
At the bottom left is a 'Save Changes' button. At the bottom right is a small red asterisk with the text '* denotes required'.

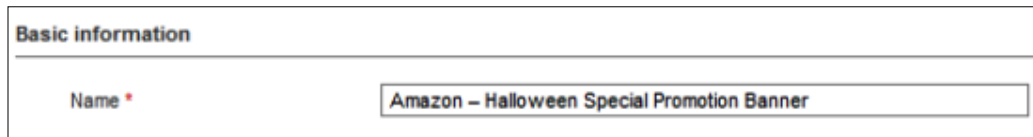
6. Let's add the special Halloween promotion banner to the Halloween campaign that we have just created on OpenX Ad Server. Choose **add a banner** in Campaign listings.



7. Let's choose **Link an external banner** option.



- 8.** Let's write **Amazon – Halloween Special Promotion Banner** for the **Name** field.



Basic information

Name *

- 9.** Provide an **Image URL** where our banner resides. Find any image that is the size of 468x60 on the Internet and copy and paste the image location.

In the following screenshot, we have used a fictitious image URL.

We could take the real Amazon banner image from the Amazon Associates Program website at <http://affiliate-program.amazon.com>.



Link an external banner

Image URL (incl. http://)

- 10.** Provide a **Destination URL** where visitors will be sent when they click on the banner. Provide any web address of your choice. Here again, the link is fictitious.

We could provide our real Amazon affiliate banner link, which we would take from Amazon Associates website banners section at <http://affiliate-program.amazon.com>.



Banner link

Destination URL (incl. http://)

Target

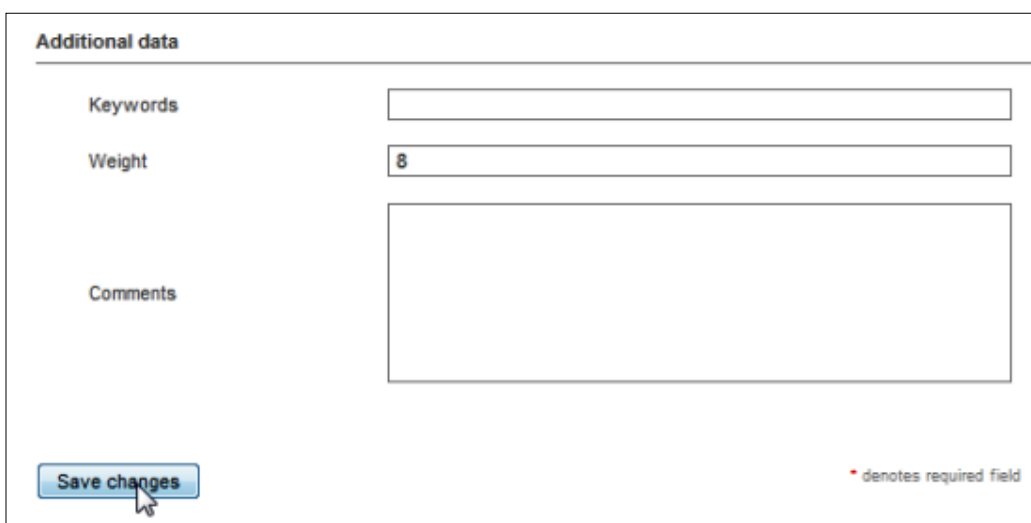
- 11.** Fill the **Alt text** field as in the following screenshot and fill the **Size** options as **468** and **60**:



Banner display

Alt text	
Status text	www.amazon.com
Text below image	
Size *	Width: 468 Height: 60

- 12.** Give a value of **8** to the **Weight** field. And finally, let's click on the **Save changes** button to create our banner.



Additional data

Keywords	
Weight	8
Comments	

* denotes required field

What just happened?

We have seen how to add an external type banner.

Specifically, we have covered the following steps:

- ◆ We have started a Contract (Exclusive) campaign and defined the start and end dates. We made this especially as our Halloween campaign is seasonal, and should have priority over other campaign types (Contract, Remnant).
- ◆ We have added an external type banner.

- ◆ We provided an alt text, which will be shown in a tip box when the visitor moves the mouse over the banner. The size was not automatically calculated as we didn't upload the banner to OpenX Ad Server. So, we have provided the size information manually for our banner.
- ◆ As we want this banner to appear dominantly over other banners of the same size, which will target the same zone on a website, we have given a high weight value of 8.

External banners—advantages and disadvantages

Let's see the advantages of External banners:

- ◆ There are no bandwidth problems, as the images are not served from our servers. This is the responsibility of the image provider.
- ◆ It is a very quick process to define an external banner as we deal only with the URL path of the image.

The following is the only disadvantage:

- ◆ As images are stored somewhere else, we don't have control over them in most cases if the image service doesn't give us some kind of FTP permission to manage image files. If an image is deleted by them or the image server goes down, our banner will not be shown.

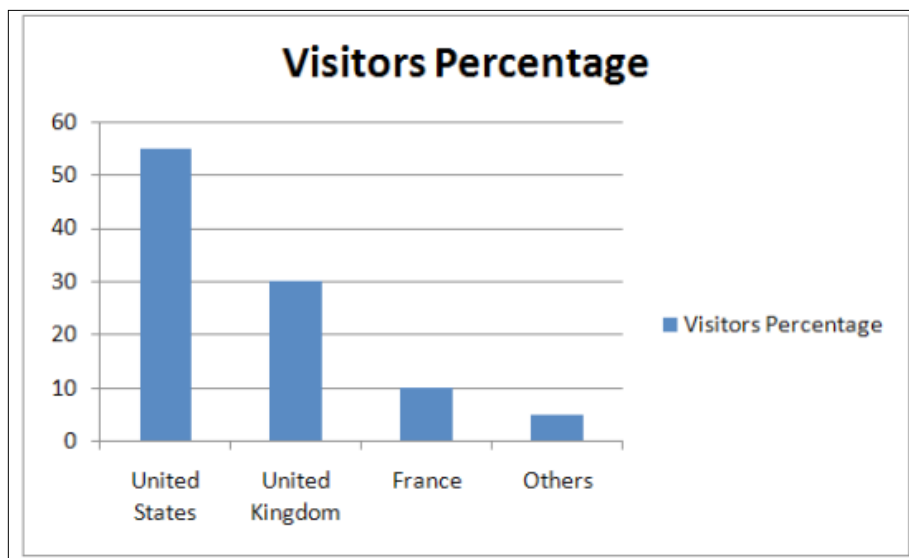
Targeting visitors with banner delivery options

OpenX Ad Server allows us to deliver banners according to several criteria including client, site, and time information, which is provided by the visitor to the OpenX system automatically.

For example, we can arrange our banner to be shown only to specific visitors originating from a specific country. For example, the USA or Canada, or to visitors on certain hours or days; or even to visitors, who use a Google Chrome browser, as an example. It is possible to block several IP addresses from seeing the advertisements.

Understanding geotargeting

Suppose that we have an electronics review website and we have affiliate links of `Amazon.com` for the devices that we review and earn commissions from each sale. We realize that our eCPM (Earnings for thousand banner impressions) is low in comparison to industry standards for the electronics market. After a brief investigation, we retrieve the following chart about the origin of our website visitors over the last six months:



Finally, we find that even though we send lots of visitors to the `Amazon.com` website from the UK and France, these visitors simply don't buy from `Amazon.com` or can't buy because items from the Amazon electronics department are only shipped to US states.

As a solution, we sign up for `Amazon.co.uk` and `Amazon.fr` affiliate programs as well and show the product banners according to the visitor's country of origin. So, a UK visitor sees only the link for the reviewed device, which targets them to the `Amazon.co.uk` website, while a French visitor sees the banners for the `Amazon.fr` website.

Showing banners according to the origin of the visitor is called geotargeting. It is very important to use this feature if we have a significant range of visitor countries in order to increase the profits. OpenX provides a free module for geotargeting at Continent and Country level.

There are modules prepared for OpenX to extend geotargeting on a smaller level such as State, City, Zip Code, and so on, but these are paid solutions and not the topic of our book.

We will now see how we can implement geotargeting at country level in this book.

Time for action – Amazon Halloween banner targeting US visitors

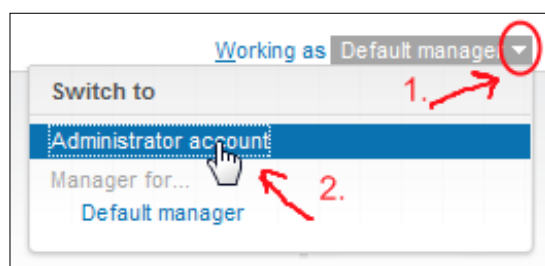
As you will remember, we had added a special Amazon Halloween campaign that would run only during the month of October. We had also added an external type banner for this campaign.

Let's now change this banner to target only the US visitors, and assure that it will be available between October 20 and October 30; and will be delivered only on the Halloween-related pages of our site.

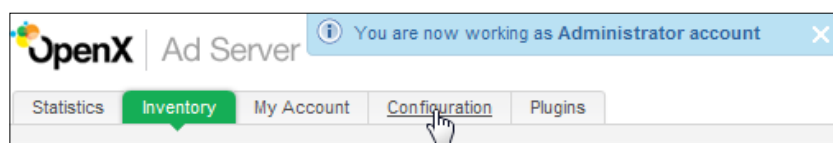
Let's assume that we have a site running at <http://www.yourwebsite.com> and we have a handful of Halloween-related pages using Halloween keyword in the page URL such as <http://www.yourwebsite.com/halloween-history.html> or <http://www.yourwebsite.com/best-halloween-party-supplies.html>, and so on.

We will learn how to implement such a campaign banner effectively using banner delivery options.

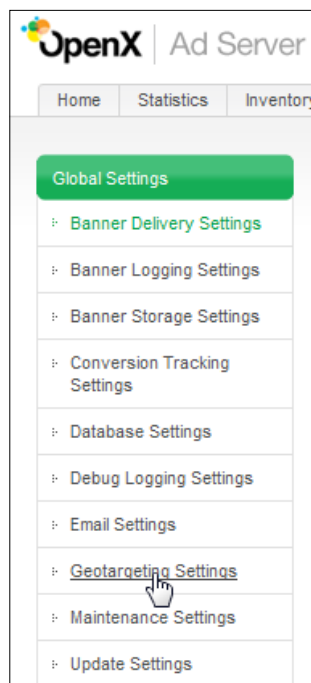
1. Click on the tiny arrow near the **Default manager** link on the top right of any OpenX page and switch to **Administrator account**.



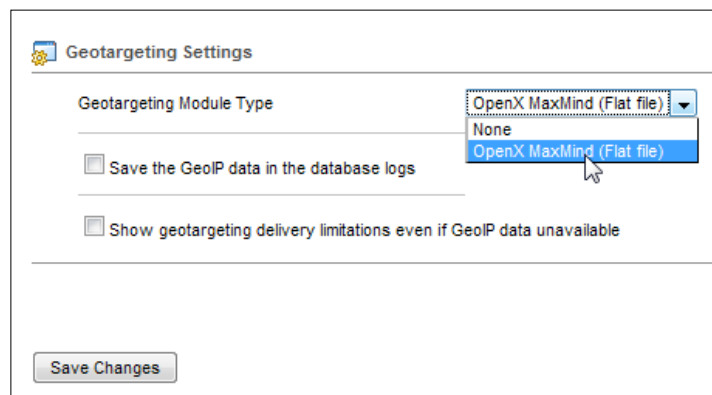
2. Then, click on the **Configuration** link on top menu.



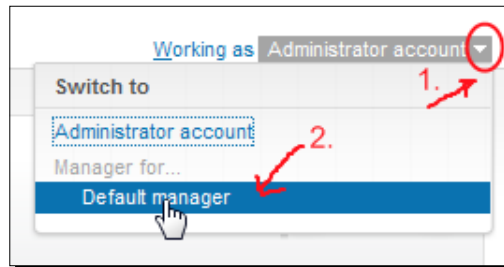
3. Click on the **Geotargeting Settings** option on the left-hand side OpenX menu.



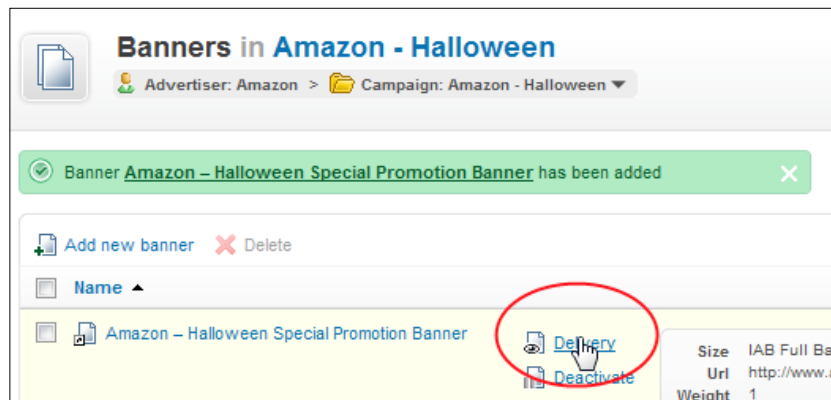
4. We have to be sure that **OpenX MaxMind (Flat file)** option is selected. If it is already selected, there is no need to change anything. If not, be sure to select this and click on **Save Changes**.



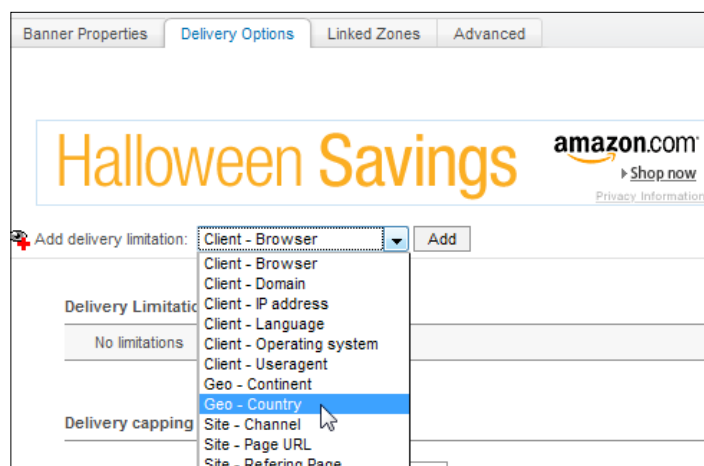
5. Now, let's return to **Default manager**.



6. Let's open Inventory and then select advertiser list, campaign list, and finally banner list under it. Click on the **Delivery** link near the banner.



7. Note that we see the preview of our banner there. Click on the **Add Delivery limitation** box and choose **Geo – Country** option, then click on the **Add** button.

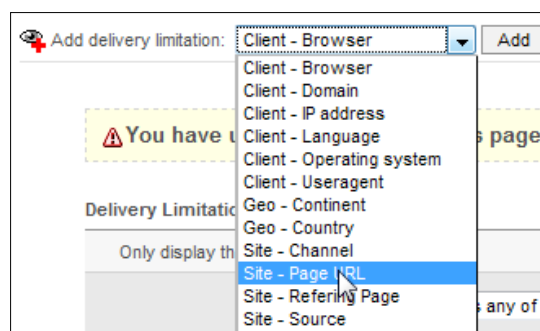


8. We will see the list of countries. Scroll down and select **United States**. Be sure that **Is any of** option is also selected.

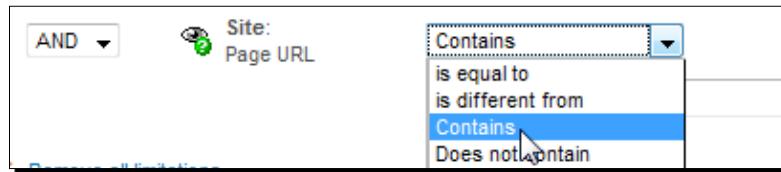


9. Now, let's continue adding other delivery limitations.

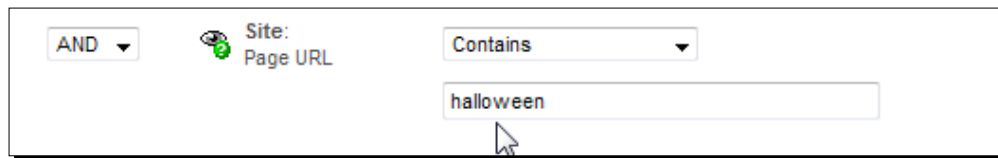
10. Select **Site – Page URL** option and click on the **Add** button.



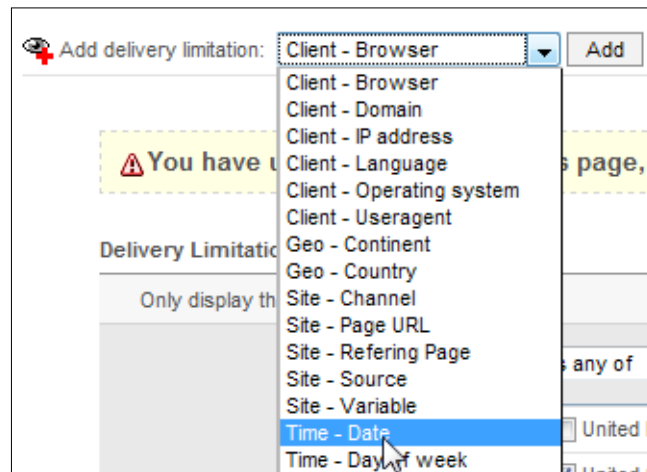
- 11.** Choose **Contains** options.



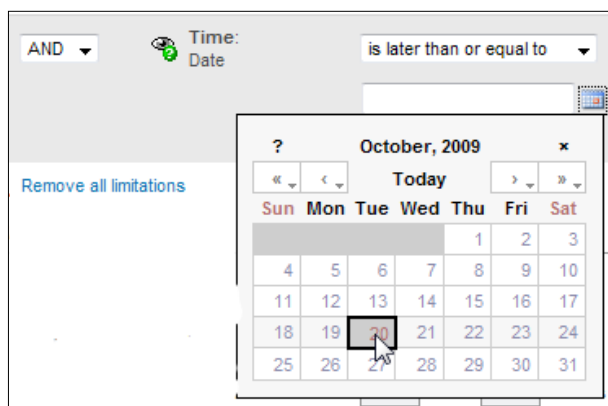
- 12.** Write **halloween** in the empty field under **Contains** text.



- 13.** We want our banner to be delivered only between the dates of 20th October and 30th October. Let's choose **Time – Date** and click on the **Add** button.



- 14.** The next step is to define the start date; **20 October 2009** is later than or equal to option.



- 15.** Let's add another **Time – Date** delivery limitation option and set the end date as **30 October 2009**. Do not forget to select the **is earlier than or equal to** option:



16. Here is the final screen with all the delivery limitations:

Delivery Limitations

Only display this banner when:

Geo: Country ☐ United Kingdom ☒ United States ☐ United States Minor Outlying Islands ☐ Uruguay

AND Site: Page URL Contains halloween

AND Time: Date is later than or equal to 20 October 2009

AND Time: Date is earlier than or equal to 30 October 2009

17. Ignore **Delivery capping per visitor** section for this banner. Now, we can click on the **Save Changes** button to finish defining the delivery settings.

Delivery capping per visitor

Limit banner views to: - in total

Limit banner views to: - per session

Reset view counters after: - hours - minutes - seconds

Save Changes

What just happened?

Before we started to set geotargeting for US visitors, we became assured that the geotargeting module is loaded on OpenX Ad Server.

We used Site: Page URL delivery option to include all pages with keyword "Halloween" in the URL like the following sample web addresses:

`http://www.yourwebsite.com/halloween-history.html`

`http://www.yourwebsite.com/best-halloween-party-supplies.html`
and, so on.

Now, our banner will be delivered to visitors who visit the web pages that have URLs containing Halloween text embedded within them.

Delivery capping per visitor for banners is similar to the ones in the campaign section that we have already covered in the previous chapter. So, we have just ignored it for this example.

Pop quiz– understanding different banner types

Suppose that we have a shared webhosting that gives us low bandwidth and little web space for files.

One of our clients asked us to start a few campaigns that will include tens of image banners in each campaign. They also explained that they can't serve the images from their own servers because of limited bandwidth there.

What is the best solution for us to start this client's campaigns with regards to this situation?

1. Use local SQL banner type and store the banners in our database .
2. Find an affordable image hosting solution, that gives very high bandwidth and upload the images there and use External Banner type by directly linking to the images .
3. Use local web server banner type and store the images locally in our shared webhosting .
4. Reject the advertiser and state that we can't fulfill their expectations .

Summary

In this chapter, we learned the different types of banners and how to add them on OpenX Ad Server according to several situations. We have seen how to add the very popular Google AdSense banner on OpenX. Following that, we learned what geotargeting is, and extended our knowledge using delivery limitations for banners.

Specifically, we covered:

- ◆ Different types of banners and how they are processed differently
- ◆ Advantages and disadvantages of banners
- ◆ Google AdSense and OpenX
- ◆ Geotargeting
- ◆ Delivery limitations for banners

In the next chapter, we will learn about adding websites and zones, linking our banners and campaigns and serving the ads on our websites. This will complete the essential chapters for running a completed OpenX system.

5

Adding Websites and Zones

OpenX Ad Server allows publishers and advertisers to manage multiple websites and its zones from a single interface. This increases the efficiency of overall campaign management, especially on large website networks.

In this chapter, we shall learn the following:

- ◆ What the zone types are and their differences
- ◆ How to add a website and a banner type zone
- ◆ About invocation code and how to apply on our web pages
- ◆ How to link banners to a zone
- ◆ Why zone probability screen is vital
- ◆ Several advanced zone type settings
- ◆ The importance of dynamic zone sizing
- ◆ How to add zone invocation codes to Blogger and WordPress

Websites and zones

A website can have multiple predefined sections to serve advertisements. Each section is called a zone in OpenX. A **zone** is simply a placeholder in a website that is allocated for advertisements. The following screenshot shows a typical web page with three zones, all serving banners:

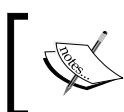


Zone types

There are four different types of zones in OpenX system and each is suitable for certain type of banners. The zone types are as follows:

- ◆ **Banner, button, or rectangle:** This is the most widely used zone type and suitable to show any creative types including images, JavaScript, HTML, and so on. We will investigate this zone type in detail in this chapter.

- ◆ **Text ad zone type:** This zone works only with text banners. Wherever you want to sell text links on your websites, you should use this zone.
- ◆ **Email/Newsletter zone:** Use this zone, if you want to send e-mails and newsletters to your site subscribers. This zone lets you embed individual advertisement banners in your e-mails.
- ◆ **Interstitial or floating DHTML:** This zone type is used to show floating-or popup-banners that have dynamic behaviors on the web browser such as appearing/disappearing after some time, moving with the cursor, and so on. As it is an advanced type, we will not cover it in this book.



If you are interested in this advanced topic, please search on Google with phrases such as "Interstitial Banners", "Floating DHTML", "Floating Banners", and so on.

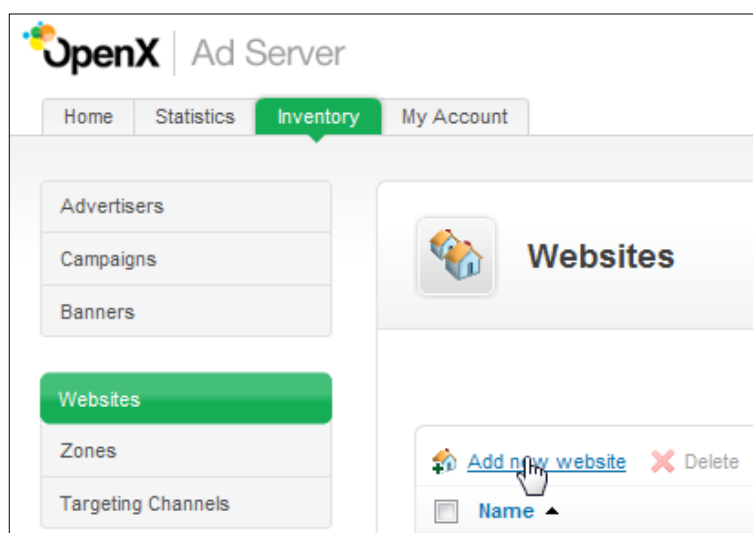
Adding websites and zones to OpenX

We will now learn how to add websites and zones to OpenX Ad Server by action.

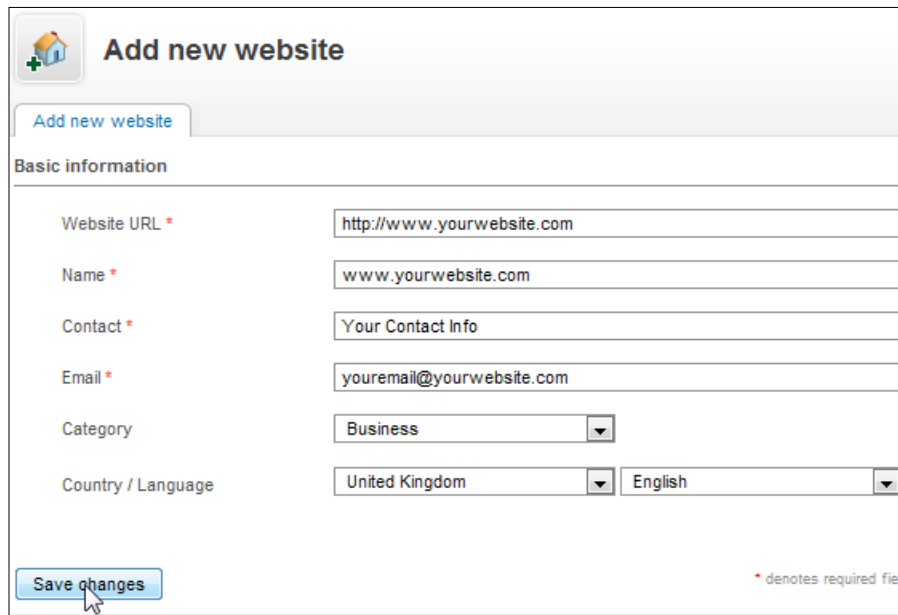
Time for action – adding a website to OpenX

In this section, we will learn how to add our first website where the banners will be displayed.

1. After a brief log in, click on **Inventory** | **Websites** | **Add new website** link.



2. Enter the **Website URL** and enter the name of your website in the **Name** field. Be sure that you write your actual website URL where you want to serve advertisements.
3. Fill **Contact** and **Email** fields similar to the following screenshot.
4. At the end, click on **Save changes** button to complete website addition process and return to websites' listings page.



The screenshot shows a web form titled "Add new website" with a house icon. Below the title is a tab labeled "Add new website". The form is divided into a "Basic information" section. It contains the following fields:

- Website URL *:
- Name *:
- Contact *:
- Email *:
- Category:
- Country / Language:

At the bottom left is a "Save changes" button. At the bottom right, a small note states "* denotes required field".

What just happened?

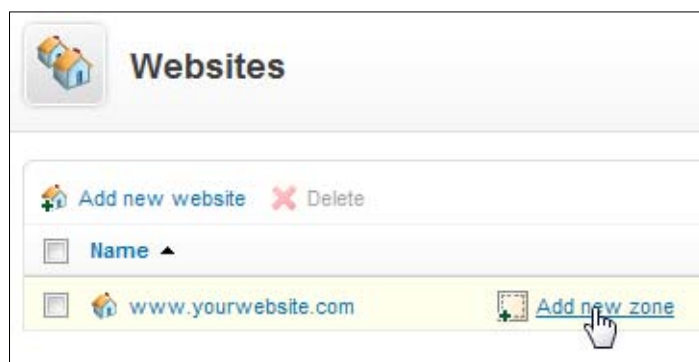
We have learned how to add a new website to OpenX with basic fields.

Optionally, we could also provide a category, country, and language information. Note that all the additional fields are purely for informative reasons and have no effect on the operation of OpenX.

Time for action – adding a banner type zone to website

In this section, we will learn how to add a banner type zone to a website.

1. On **Websites** listings page, click on **Add new zone** link.



2. On the next page, we begin with **Name** field. Note that the zone name field was automatically filled in as a combination of website name and the keyword **Default**.

Basic information	
Name *	www.yourwebsite.com - Default

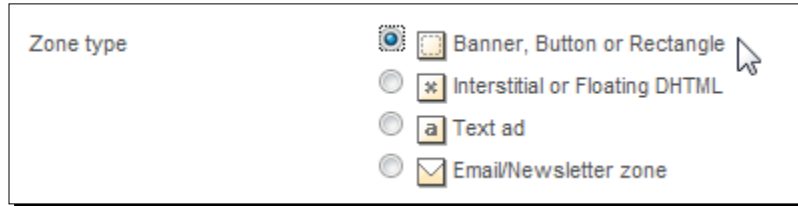
3. Fill in the **Name** field according to the following screenshot:

Basic information	
Name *	www.yourwebsite.com - Top 300x250 Global Zone

4. After filling in the **Name** field, write a description for the zone in the **Description** field.

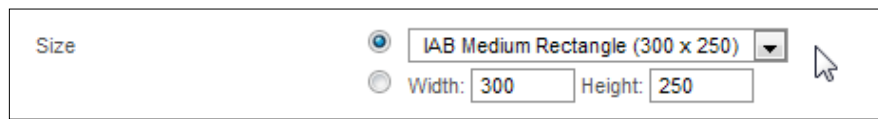
Description	This zone will be added to all pages on the website
Category	- pick a category -

5. Let's look at the **Zone type** option. The first option **Banner, Button or Rectangle** is selected by default. So, no need to change anything here.



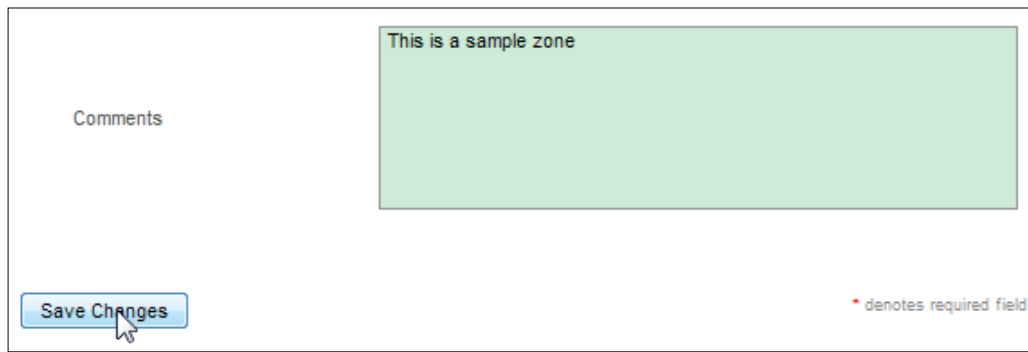
The screenshot shows a form titled "Zone type". It contains four radio button options, each with a small icon to its left: "Banner, Button or Rectangle" (selected with a blue dot), "Interstitial or Floating DHTML" (with a star icon), "Text ad" (with an 'a' icon), and "Email/Newsletter zone" (with an envelope icon). A mouse cursor is pointing at the first option.

6. The next step is to select the zone **Size**. Choose **IAB Medium Rectangle (300x250)** option.



The screenshot shows a form titled "Size". It has a radio button selected next to a dropdown menu showing "IAB Medium Rectangle (300 x 250)". Below this, there are two input fields: "Width: 300" and "Height: 250". A mouse cursor is pointing at the dropdown menu.

7. And then, provide some comments in the **Comments** textbox for the zone.
8. Finally, click on **Save Changes** button to finish adding a banner type zone to a website.



The screenshot shows a form with a "Comments" label on the left. To the right is a large green rectangular text area containing the text "This is a sample zone". At the bottom left is a blue "Save Changes" button with a mouse cursor clicking it. At the bottom right is a small red asterisk followed by the text "denotes required field".

What just happened?

We have seen how to add a banner zone type to a website.

Specifically, we have covered the following points:

- ◆ We have provided a descriptive name according to a common naming convention template. We have also provided location and zone-size information in name as well for informative purposes. We have used Global keyword at the end of the zone name to understand that the zone will be globally available on all pages of the website. We can understand this later by just looking at the zone name in the listings. Optionally, we added a description line for the zone.

The drop-down box provided us with all the standard **Interactive Advertising Bureau (IAB)** advertisement sizes. We have taken extra care to choose the correct size that we need for this zone. Remember that the zone and targeted banner sizes should match. We have chosen a 300x250 zone size here, so only 300x250 sized banners can be connected to this zone. Optionally, we could assign a customized value for the zone size, not included in IAB list.

- ◆ We filled in the comments section to remember extra information about a zone.

Have a go hero – creating another zone for the website

Now, create another 300x250 sized zone with similar settings without looking at the previous example. Try to give a descriptive name for the new zone.

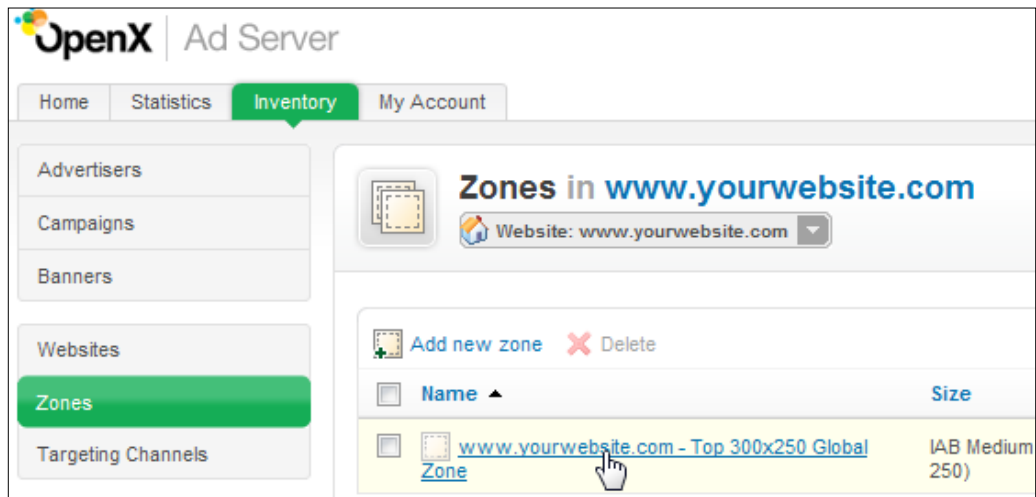
Zone invocation code

Advertisements are generated on a zone of a website by using a special code that is pasted into the HTML pages of the website. This code fetches a suitable advertisement from OpenX server when this web page is browsed by a visitor. There are several invocation code options, but we will cover only the most popular type. Now, let's see how we get this invocation code and paste it to our web page.

Time for action – putting zone invocation code into our website

In this section, we will learn how to generate, copy, and paste invocation code into a web page.

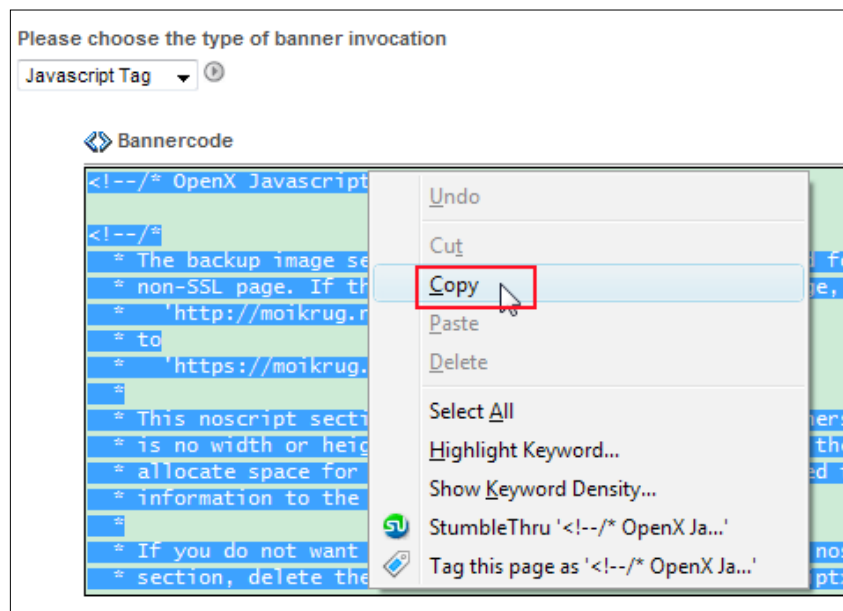
1. Click on the name of the zone on **Zones** listing page.



2. On the next page, we will see the **Zone properties**. On the top menu, click on **Invocation Code** tab.



Now, we are on the invocation code settings page. Note that **Javascript Tag** option and invocation **Bannercode** is automatically selected. If not, first select **JavaScript** Tag option and apply **Select All** on the code text. Right-click on the code and select **Copy**.



- It is now time to create or open a sample HTML file. We will need to paste this code into the section where we want the advertisements to appear. In this example, we opened `sample.htm` and pasted the code after the second paragraph of the HTML file. Do the same. Create a `sample.htm` file and paste the code somewhere near the beginning.

```

sample.htm
<html><body>

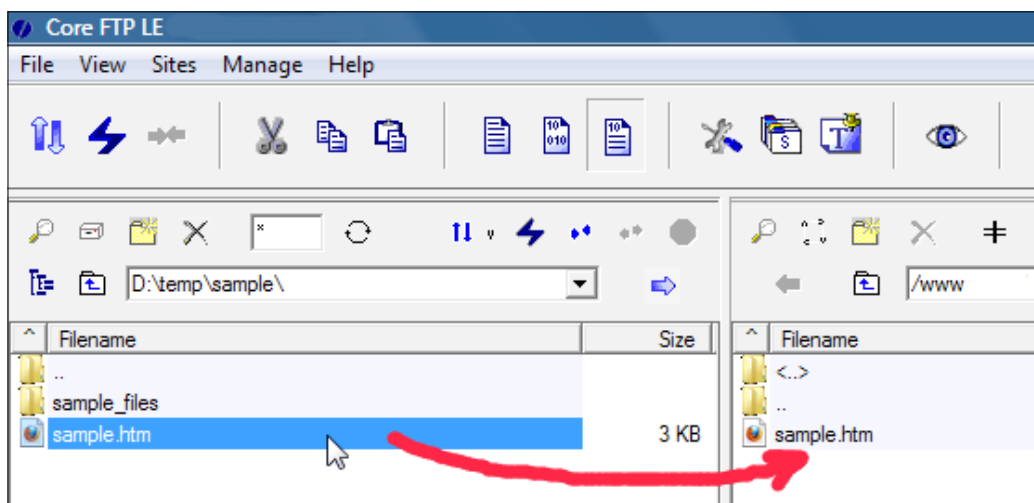
<p>
This is a sample HTML file content. This is a sample HTML file cont
content. This is a sample HTML file content.
This is a sample HTML file content. This is a sample HTML file cont
</p>

<!--/* openX Javascript Tag v2.8.2 */-->

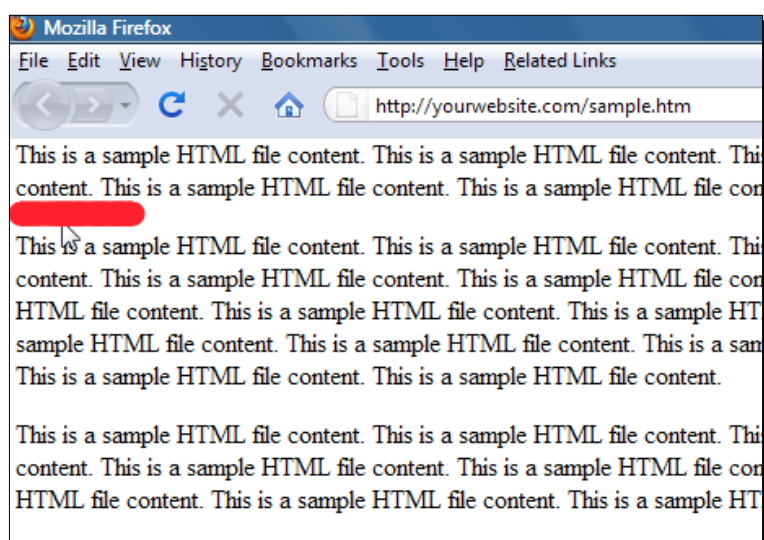
<!--/*
* The backup image section of this tag has been generated for use
* non-SSL page. If this tag is to be placed on an SSL page, change
* 'http://yourwebsite.com/openx/www/delivery/...'
* to
* 'https://yourwebsite.com/openx/www/delivery/...'
*
* This noscript section of this tag only shows image banners. The
* is no width or height in these banners, so if you want these ta
* allocate space for the ad before it shows, you will need to add
* information to the <img> tag.
*
* If you do not want to deal with the intricacies of the noscript
* section, delete the tag (from <noscript>.. to </noscript>). On
* average, the noscript tag is called from less than 1% of inter
* users.
*/-->

<script type='text/javascript'><!--//
var m3_u =
(location.protocol=='https:'?'https://yourwebsite.com/openx/www/de
om/openx/www/delivery/ajs.php');
var m3_r = Math.floor(Math.random()*999999999999);
if (!document.MAX_used) document.MAX_used = ',';
document.write("&lt;scr"+"ipt type='text/javascript' src='"+m3_u);
document.write ("?zoneid=1");
document.write ('&amp;cb=' + m3_r);
if (document.MAX_used != ',') document.write ("&amp;exclude=" +
document.write (document.charset ? '&amp; charset='+document.char
'&amp; charset='+document.charset : ''));
document.write ("&amp;loc=" + escape(window.location));
if (document.referrer) document.write ("&amp;referer=" + escape
if (document.context) document.write ("&amp;context=" + escape(docu
if (document.mmm_fo) document.write ("&amp;mmm_fo=1");
document.write ("&gt;&lt;/scr"+"ipt&gt;");
//]]&gt;--&gt;&lt;/script&gt;&lt;noscript&gt;&lt;a href='http://yourwebsite.com/openx/w
n=a1210b46&amp;cb=INSERT_RANDOM_NUMBER_HERE' target='_blank'&gt;&lt;img
src='http://yourwebsite.com/openx/www/delivery/avw.php?
zoneid=1&amp;cb=INSERT_RANDOM_NUMBER_HERE&amp;n=a1210b46' border='0
&lt;p&gt;This is a sample HTML file content. This is a sample HTML file c
content. This is a sample HTML file content. This is a sample HTML
This is a sample HTML file content. This is a sample HTML file cont
</pre>
</div>
<div data-bbox="477 838 517 852" data-label="Page-Footer">[ 136 ]</div>
<div data-bbox="128 937 243 985" data-label="Page-Footer">
<img alt="PACKT PUBLISHING logo" data-bbox="128 937 243 985"/>
</div>
```

- The next step is to upload the file to our web server. We can use an FTP client such as Core FTP.



- Let's now check how our page looks on the web server:



What just happened?

We have seen how to get zone invocation code and paste to the page where we want the advertisements to appear. Next, we have uploaded the file to web server and checked how it looked.

We have already covered the topic of uploading a file to a web server with an FTP client in the first chapter of the book. You should read the example again if any difficulties occur.

Note that the place where we have put our code looks empty in the browser. It was shown in the previous screenshot with a red area. The reason is that we didn't link any campaign or banners targeting this place. Let's do this now!

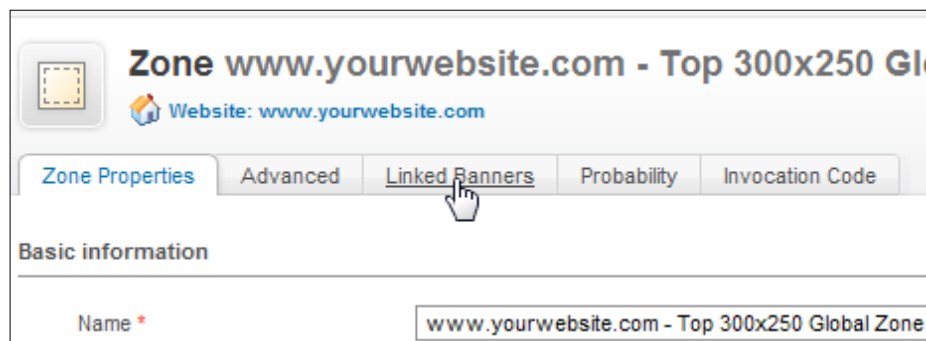


We can define as many zones as we want on a single HTML page. This way, we can deliver multiple advertisements on different positions of a web page.

Time for action – linking a banner to a zone

In this section, we will learn how to link a banner to a zone and check how the advertisement will appear on the website.

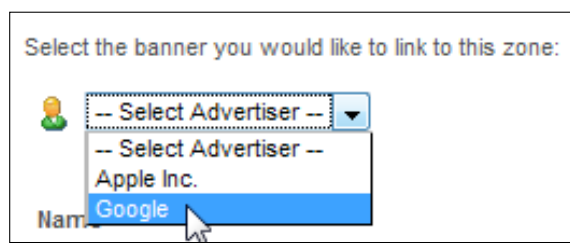
1. Click on **Linked Banners** tab on **Zone Properties** page.



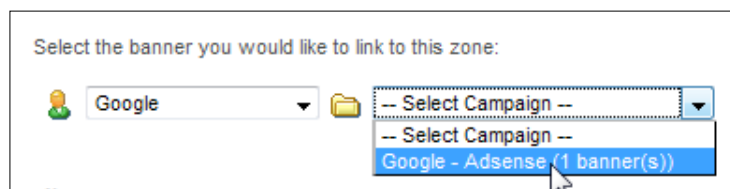
2. Select **Link individual banners** option for zone-linking section.



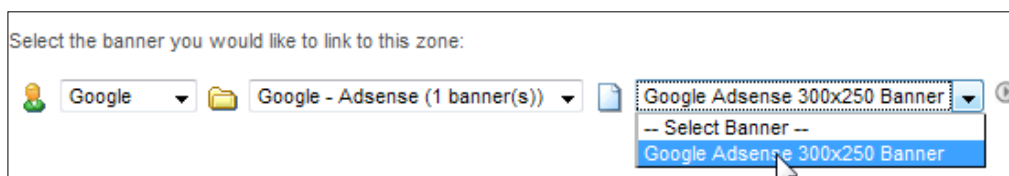
3. The next step is to browse advertiser, campaign, and banners sections until we find our banner. In this example, we have chosen **Google** from advertisers list.



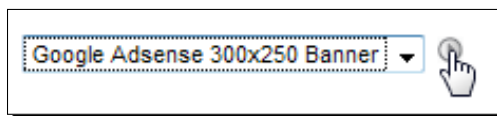
4. We have selected **Google – Adsense (1 banner(s))** campaign.



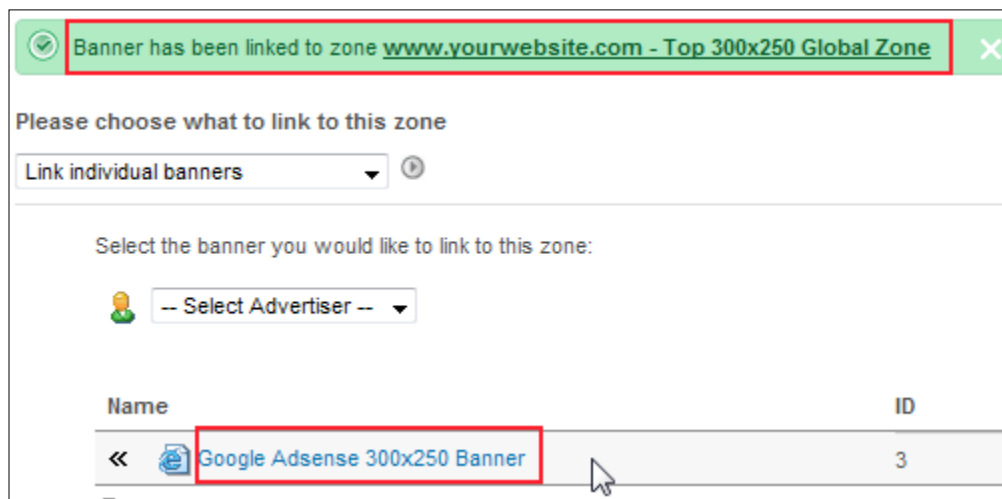
5. Then select **Google Adsense 300x250 Banner**.



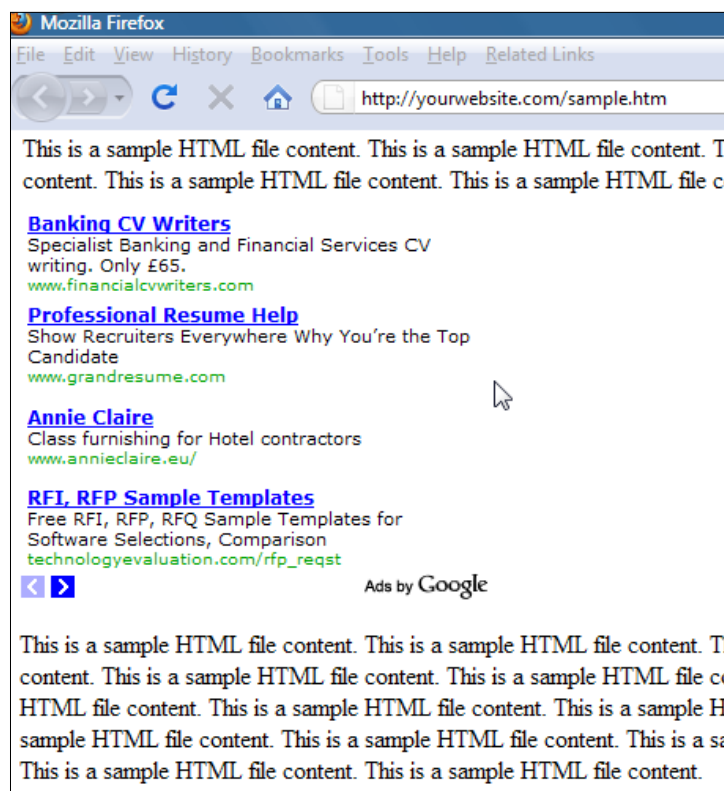
6. After selection, click on the tiny arrow on the right-hand side to complete linking 300x250 Adsense banner to 300x250 zone.



7. The banner is now linked to the zone, which is shown in the following screenshot:



8. Wait for around 10 minutes and browse into the website where you have uploaded the page with embedded zone code. Now, we see our banner is there and working.



What just happened?

We had initially learned how to link a banner to a web zone and then checked its appearance on the zone. Here we have seen how we could choose individual banners to link.

Note that we have waited for a while before checking our banner on the web page. The reason for this waiting time is that OpenX system caches all the banners and applies the changes at certain intervals.

Pop quiz – understanding banner zone linking

Decide whether the following statements are true:

1. We can add as many different zone invocation codes as we want on the same page of a website.

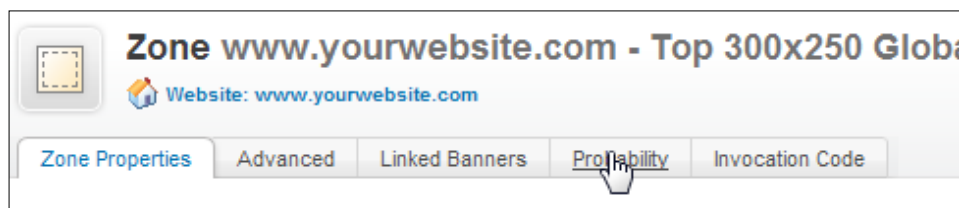
2. Several banners from multiple advertisers and campaigns with the size of 728x90 can be linked to any number of zones with the size of 728x90 on multiple websites.
3. If we link a campaign to a zone, all the banners inside the campaign will also be automatically linked to this zone.
4. A Google AdSense banner (300x250) and an Amazon image banner (300x250) can be both linked to a zone of 300x250.
5. We can link a 300x250 sized banner to the 350x250 sized zone.

Have a go hero – linking another Amazon banner to this zone

Now, start another sample Amazon campaign with a banner of the same size (300x250). Link to the same zone that we have just created. Let's understand zone probabilities now.

Understanding zone probabilities

Zone probabilities are the approximate percentages that tell us how many times the banners will be delivered. We will now learn how different campaigns, banner priorities, and weights affect the zone probabilities. The **probability** tab is used to see this information for a zone.



Scenario 1: Only one banner in the zone

The following screenshot shows a Remnant Google AdSense campaign that gets all the impressions, as it is the only banner in this zone, that is, it has 100 percent probability:

Remnant Advertisements:			
Name	ID	Probability	Weight
 Google AdSense 300x250 Banner	6	100.00% (100.00% of 100.00%)	3

Scenario 2: Two Remnant type banners from the same campaign

Look at the following fictitious scenario. Note that as the banners are from the same campaign, the only factor that affects the probability is the weight of individual banners:

Remnant Advertisements:			
Name	ID	Probability	Weight
 Banner B 300x250	17	66.67% (66.67% of 100.00%)	2
 Banner A 300x250	16	33.33% (33.33% of 100.00%)	1

Scenario 3: Two Contract Banners and One Remnant Banner

First of all, investigate the following fictitious zone probability screenshot and then read the explanation:

Contract Advertisements:			
Name	ID	Probability	Priority
 Banner B 300x250	9	66.60%	5/10
 Banner A 300x250	8	33.30%	5/10

Remnant Advertisements:			
Name	ID	Probability	Weight
 Banner C 300x250	6	0.10% (100.00% of 0.10%)	3

Priority is calculated as a combination of campaign and banner weights.

In this scenario, we have added two contract banners from the same campaign. So, the priorities of the banners are the same but individual banners compete with their own weight.

As the priority of the campaign is five for both banners, let's check individual weight of each banner.

  Banner A 300x250	 Delivery  Deactivate	Size IAB Me Url http://w Weight 1
  Banner B 300x250	 Delivery  Deactivate	Size IAB Me Url Weight 2

As you see, the second banner has a weight that is two times the weight of the first banner and it is the only factor that affects total probability. Remember that they are from the same campaign.

Finally, the remnant campaign is almost neglected and not delivered at all. It is an expected behavior. We know that remnant campaigns will be delivered only if there are no contract and contract (exclusive) campaigns on the same zone.

The 0.10 percent probability tells us that the remnant banner has a chance to be shown and will reach 100 percent delivery if both the upper contract banners reach their daily limit (let's say, 50 clicks a day).

Other options such as banner delivery limitations, capping per visitor and campaign positioning also affect the probabilities.

Note that probabilities are never fixed and they change over time according to delivery statistics. OpenX system tries to optimize the delivery of the banners and shows only approximations on the screen.

Adding zones in Blogger and WordPress blogs

It is very easy to define zones on popular blogging platforms such as Blogger and WordPress.

Putting zone invocation codes in templates make the advertisements globally available in all pages of blogs and we can effectively manage the campaigns on the blogs.

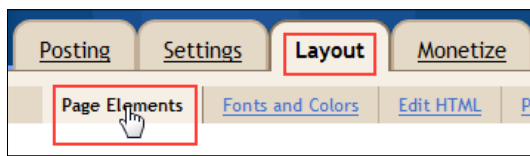
Time for action – adding zone invocation code to blogger

In this section, we will learn how to put zone invocation code to blogger using the gadgets.

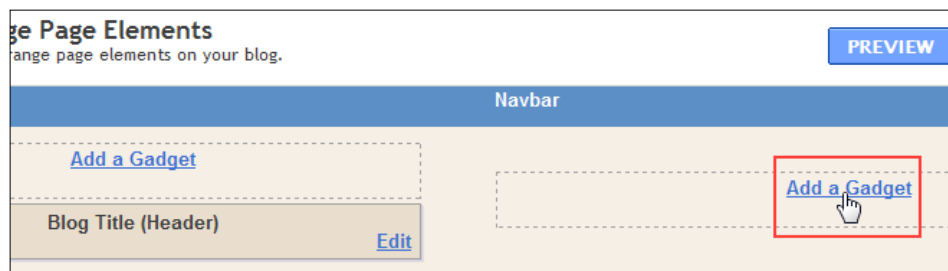


Blogger is a free blogging platform run by Google. We can register and open a blog easily on www.blogger.com

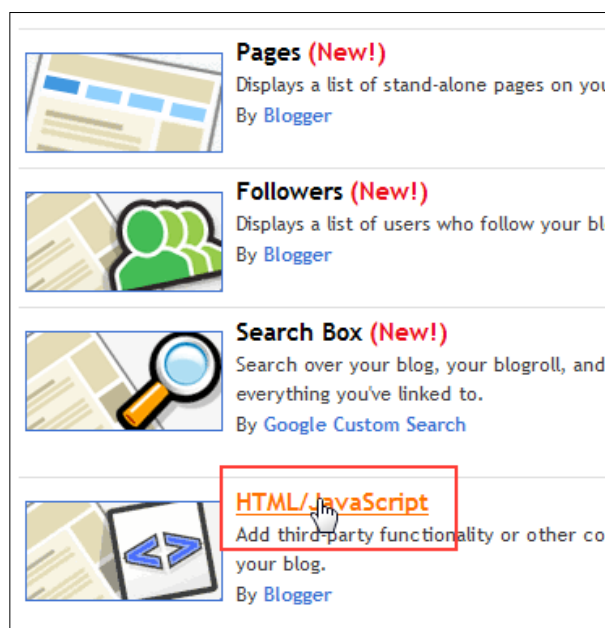
1. After we log into our Blogger account, let's browse into **Layout | Page Elements** screen.



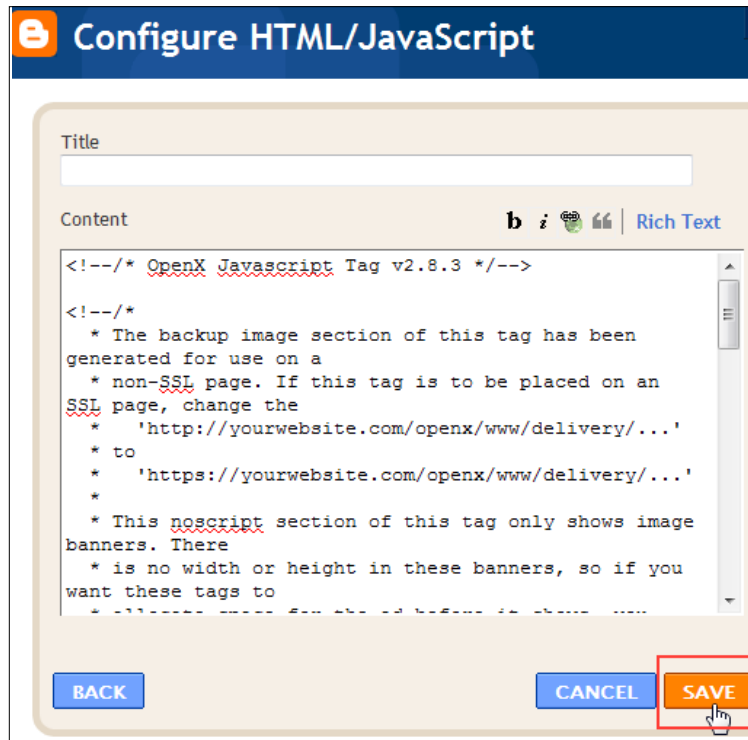
2. Let's choose one of the gadgets to add. Click on **Add a Gadget** link.



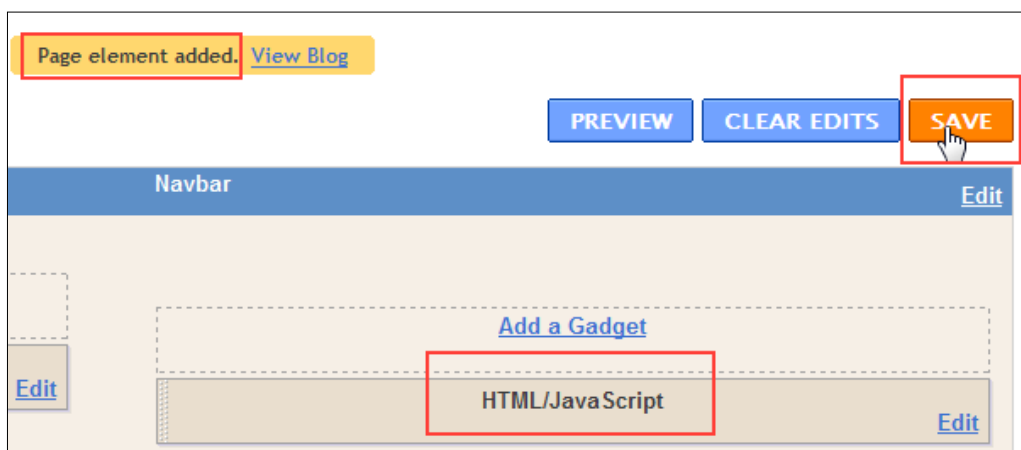
3. Click on **HTML/JavaScript** option from the list.



4. Paste the zone invocation code in the **Content** box and click on **SAVE** button.



5. We have now successfully added zone invocation code to the blogger as an HTML/JavaScript widget.



What just happened?

We have seen how to define and add zone codes to blogger. Now, the campaign advertisements that are linked to this zone will be delivered on this section of the blog. We can manage the advertisements on the blog without any change in blog template, by using just OpenX campaign management screens later.



We can add zone invocation code to blogger HTML template directly, as well. For example, you can embed zones into individual blog posts as a template.

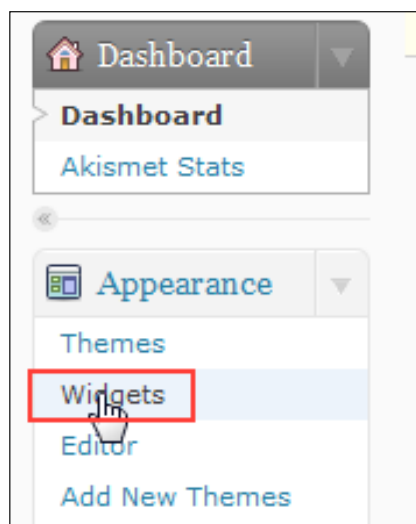
Time for action – adding zone invocation code to a WordPress blog

In this section, we will learn how to put zone invocation code into a WordPress installation using widgets.

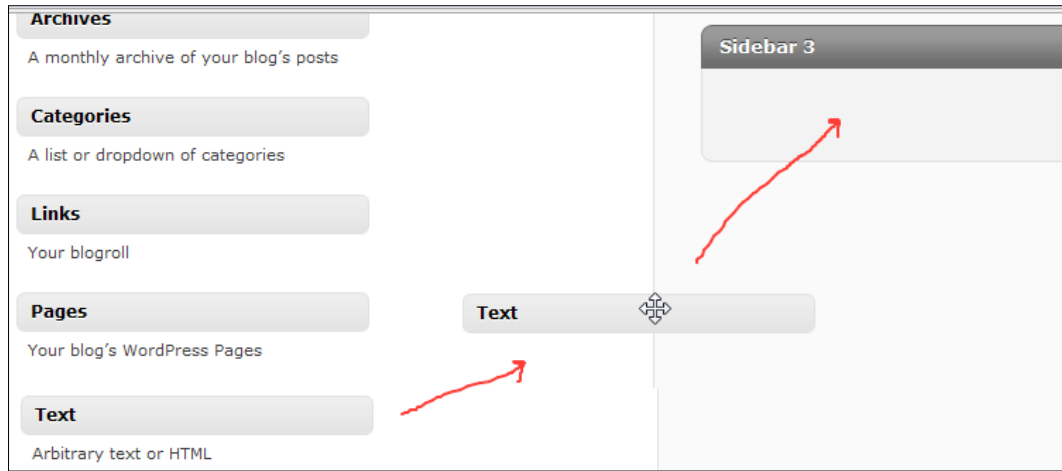


WordPress is one of the most popular free blogging tools on the Internet. You can download the latest WordPress files and install on your server at www.WordPress.org or start a free hosted blog at www.WordPress.com.

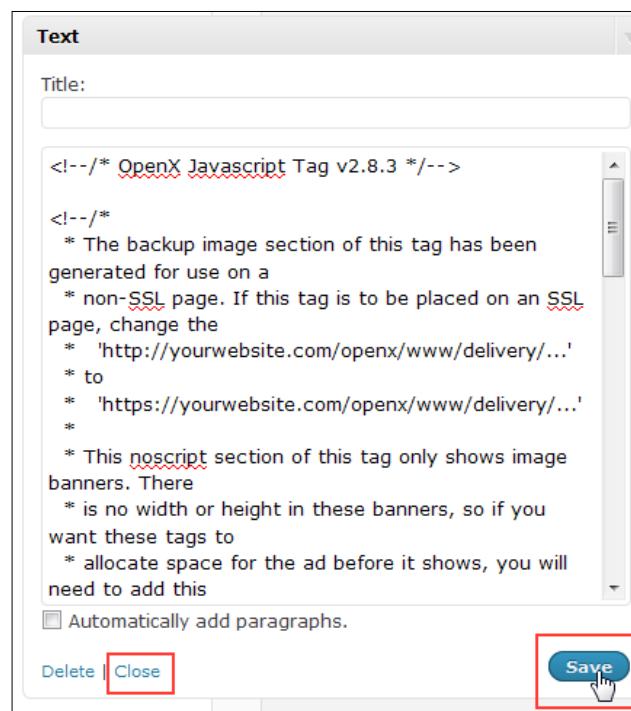
1. Let's log into our WordPress admin screen and browse into **Appearance | Widgets** menu.



2. Let's drag-and-drop **Text** widget element from the left to the **Sidebar 3** section on the right.



3. A new **Text** window will be opened. Let's paste the copied zone invocation text on this place and click on **Save** button. Then click on **Close**.



4. We have completed adding zone invocation code to a WordPress blog.



What just happened?

We have seen how to add a zone code to the WordPress blog. Once we have set up zones on our blog, we don't need to change them anymore. We can manage all campaigns for the zones using OpenX administration panel.



You can add zone invocation code to WordPress HTML templates directly using WordPress file editor for more control on where the advertisements should appear; such as embedding zones into individual blog posts.

Understanding advanced zone properties

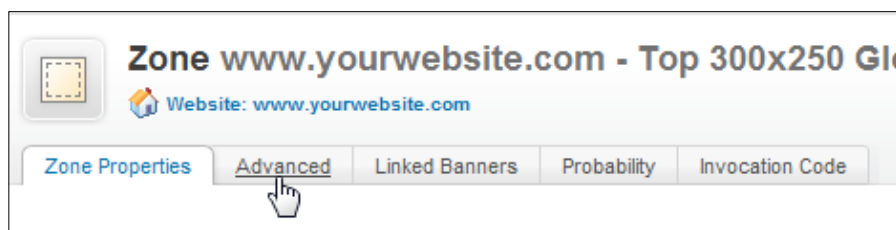
Advanced zone properties provides us useful extra control over how a zone will operate.

- ◆ **Zone chaining:** Zone chaining is a technique that helps us ensure that a zone is never empty, that is, it will always have at least a banner to display. If you didn't assign a remnant campaign for a zone, eventually a contract campaign will be totally delivered and the zone will not show any advertisements. To protect this situation on the zone level, we can instruct OpenX to get the banners from another zone if the original zone has no banners to show.
- ◆ **Delivery capping per visitor:** Delivery capping per visitor allows us to set a limit on how many times zone banners will be shown to a unique visitor. Actually, we don't need to use this setting except in extreme situations because it is better to set banner delivery capping per visitor as we have seen in previous chapter.
- ◆ **Zone appending:** Zone appending is useful if we want to deliver something globally before or after a banner in a zone, regardless of the source of the banner.

Time for action – setting advanced zone properties

In this section, we will do activities for zone chaining, delivery capping per visitor, and zone appending.

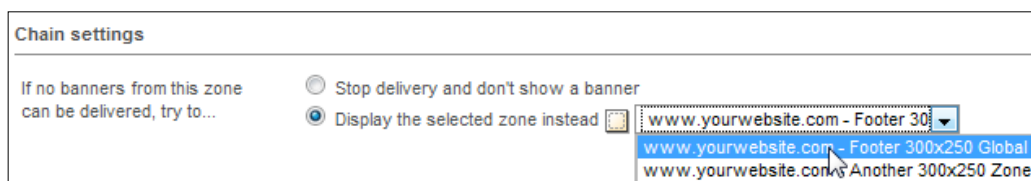
1. Click on the zone we have previously created in zone listings in order to open zone properties. Then click on the **Advanced** tab.



2. We are starting with **Chain settings**. The default setting is **Stop delivery and don't show a banner** when there are no banners to show for a zone.
3. Let's click on **Display the selected zone instead** option and select one of the available zones.



Note that we should have at least one zone in the same website with the same width and height values to make zone chaining available.



4. Enter **5** as a value for **Limit zone views to** option.

Delivery capping per visitor

Limit zone views to:

5

in total

Limit zone views to:

-

per session

Reset view counters after:

-

hours

-

minutes

-

seconds

5. Now, let's apply a simple zone appending. First check **Prepend/Append even if no banner delivered** option. Then, add the HTML shown in the screenshot as it is.

```
<a href="http://www.openx.org">OpenX Official Website</a>
```

6. Finally, click on **Save Changes** button to save advanced setting information

Append and prepend settings

☒ Prepend/Append even if no banner delivered

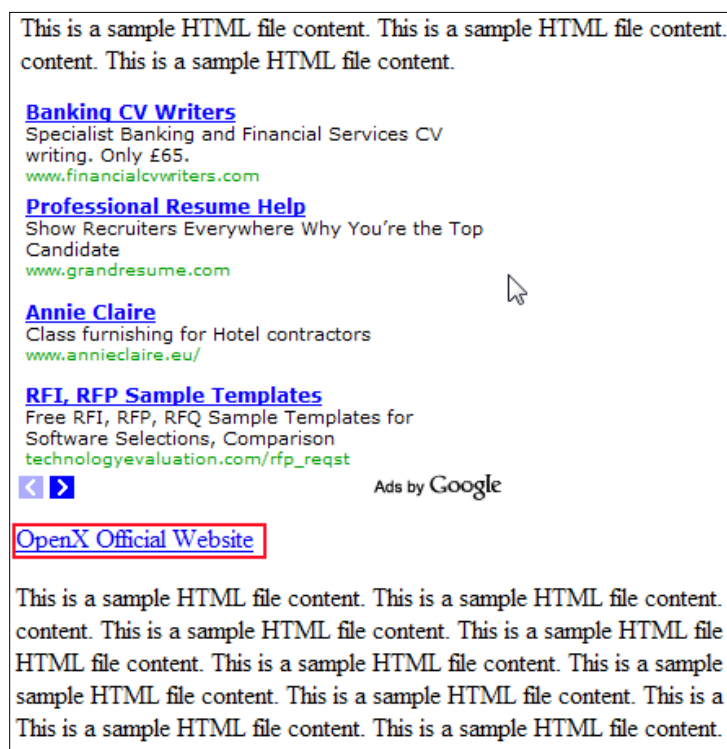
Always prepend the following HTML code to banners displayed by this zone

Always append the following HTML code to banners displayed by this zone

```
<a href="http://www.openx.org">OpenX Official Website</a>
```

Save Changes

7. Now, wait for some time and browse into same `sample.htm` file that we have previously uploaded. Look at the following screenshot to see how the appended HTML code will appear:



What just happened?

We have learned how to apply advanced settings for the zone. This included zone chaining, delivery capping per visitor, and zone appending.

Specifically we have covered the following in Time for action steps:

1. We have seen that it is wise to apply chain setting for inventory optimization and visual purposes on our sites.
2. We have noticed that only the same sized zones can be chained.

3. According to this setting, the banners from this zone will be shown to a visitor only five times and once the limit is reached, the zone must not show any more banners. But remember that we have set a zone chain previously and now OpenX will attempt to bring a banner from the chained zone for the sixth impression.
4. We have added a link to our website in HTML section, which will be displayed under the zone. Note that whatever the banner is, this HTML link will be shown for all times in this zone. As we have checked **Prepend/Append even if no banner delivered**, our HTML will be still shown even though there are no banners to deliver for the zone.

Dynamic zone sizes

There are times when we want to have a dynamically sized zone. Let's look at the following common scenario, which most publishers find difficult to solve.

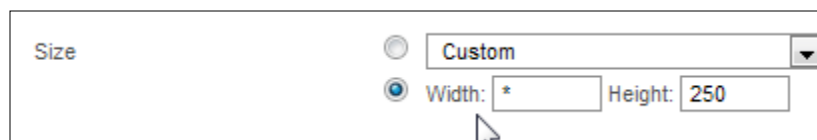
Suppose we have a zone at the top of our page, which is sized to 300x250 and is serving exactly 300x250 sized banners for some campaigns.

One day a new advertiser offers to put a 250x250 sized banner over this area. We know that zone and banner sizes should match, but we also don't want to reject the advertiser. The solution is to convert this zone to a dynamic zone that accepts both 300x250 and 250x250 banners. Let's learn how to achieve such an action.

Time for action – applying dynamic zone sizes

In this section, we will learn how to apply a dynamic zone to allow different sized banners.

1. Open **Zone Properties** screen and scroll down until you see the **Size** section.
2. Fill the **Width** and **Height** fields as shown in the following screenshot. Do not forget to click on **Save Changes** after changing width.



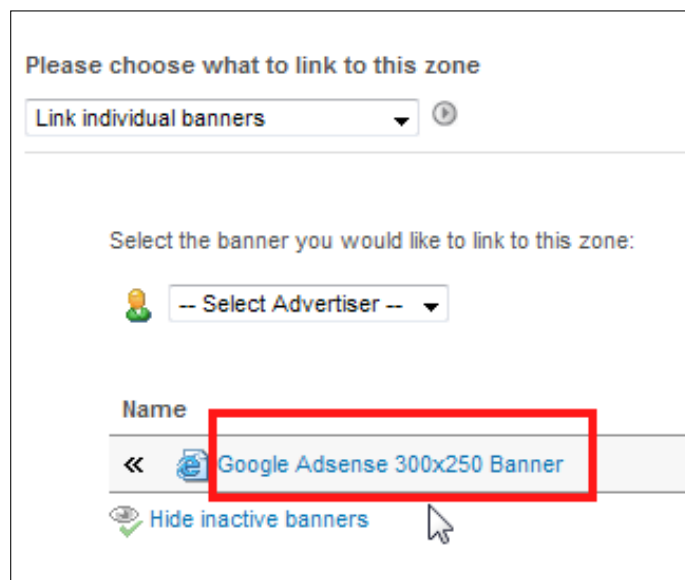
The screenshot shows the 'Size' section of the Zone Properties interface. It features two radio buttons: 'Fixed' (unselected) and 'Custom' (selected). To the right of the 'Custom' radio button is a dropdown menu currently displaying 'Custom'. Below the radio buttons, there are two input fields: 'Width:' followed by a text box containing an asterisk (*), and 'Height:' followed by a text box containing the number 250. A mouse cursor is visible pointing at the 'Width' text box.

3. Let's try to link a 250x250 and a 300x250 banner to this zone to test dynamic zone sizing.

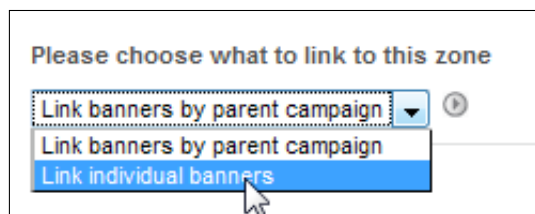
4. If you haven't done it yet, add a 250x250 banner to one of OpenX campaigns that already has a 300x250 banner. You can use Apple – Mac Devices campaign that we have previously created to add another banner. We assume that we have two such banners and continue with linking.
5. Click on **Linked Banners** tab on **Zone properties** screen.



6. We had already linked our 300x250 sized Google AdSense banner to this zone. We can see it in the listed screenshot:

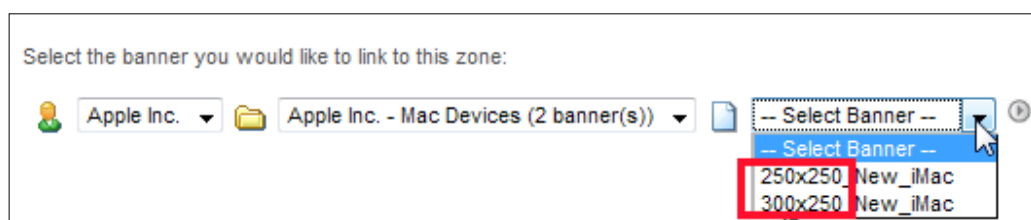


7. Let's select **Link individual banners** option.



8. Then, let's browse until we see all the suitable banners in **Apple – Mac Devices** campaign.

Note that our newly added 250x250 banner is listed together with the other 300x250 Mac banner on the campaign. We can link this banner to this zone as well. So, dynamic zone sizing works as expected.



What just happened?

We have seen how to solve fixed zone sizing problem using the dynamic zone sizing option. It lets us accept different sized banners for a zone.

Specifically for this example, we have applied * to the width of the zone and it allowed us to link different sized 300x250 and 250x250 banners.

Pop quiz – understanding dynamic zone sizes

Which of the following banners can be shown on a dynamically sized banner type zone with a width of * and height of 60? Check all that apply:

- a. A local SQL Banner with a size of 120x60
- b. An HTML banner with a size of 125x125
- c. An HTML banner with a size of 728x60
- d. A text link banner

Summary

In this chapter, we have completed serving advertisements on a website zone. It involved three important steps—Choosing the correct zone type according to our needs, putting invocation code correctly on a web page, and finally linking the banners to the needed zone. We have also seen how to effectively serve different sized banners to a zone. Dynamic zones enable publishers to become more flexible to the different advertisers' needs. Do not forget to check the zone probability screen occasionally to ensure that the needed banners are being delivered correctly.

In the next chapter, we will learn how we can target our zones according to content channels, which will make it simpler for us to serve relevant advertisements according to content.

6

Taking Advantage of Channels

Most advertisers seek content targeting on the websites for their advertisements to get more valuable click-through rates (as a result of relevant advertisements) and hence, more returns on advertisements. So, it is essential for publishers to define content-specific labeled zones on their websites to increase their advertising sales rates and so, in turn, their revenue.

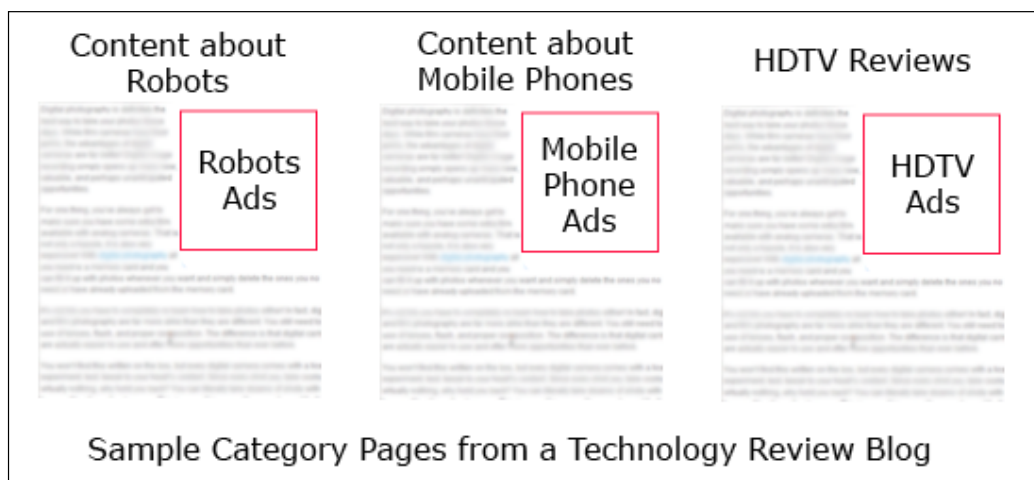
In this chapter, we shall learn:

- ◆ What Site Source parameter is and how it helps determine content identification for banners
- ◆ How to use Site Source parameter for banner and zone linking
- ◆ What channels are, their types, and their advantages over Site Source parameter
- ◆ How to use the website channel to achieve targeting
- ◆ How to use the global channel to understand multiple website content targeting

Site Source

A website zone can be labeled with a parameter called **Site Source**. It enables the advertisers to show banners according to this Site Source parameter which is used as a label for the content on the zone of a website.

Let's think about a technology review blog, which publishes articles about the latest devices and hi-tech innovations. Typically, ad spaces would be labeled according to blog categories such as robots, mobile phones, HDTVs, and so on. In the best case, the zones of this blog should show relevant ads.



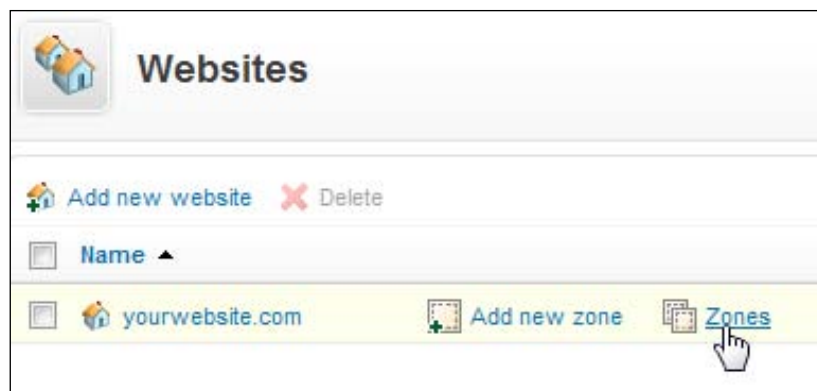
Now, let's see how we achieve such labeling with Site Source parameter.

Time for action – labeling zones with site source parameter

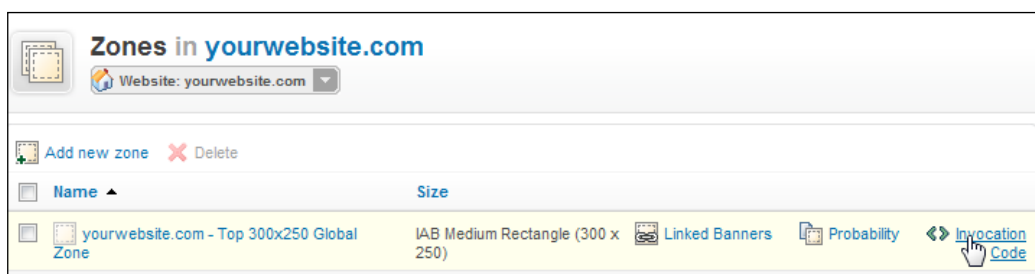
In this section, we will learn how to label a zone with Site Source parameter.

Suppose we have an electronics review website and we want to target a New iMac advertisement exclusively to a notebook reviews section. In other words, this banner should appear only on the targeted places of our site. Let's see now how we can accomplish this using Site Source parameter.

1. After you log in, click on **Inventory** and then **Websites** link on the left-hand side menu. Click on **Zones** link near `yourwebsite.com` website that we have created previously.



2. Click on the **Invocation Code** link to the right side of the screen.



3. In this page, you will first see the zone invocation code. Under the code, write notebook-reviews in the **Source** field under **Tag settings** section.

Please choose the type of banner invocation

Javascript Tag

Bannercode

```
<!--/* OpenX Javascript Tag v2.8.1 */-->
<!--/*
 * The backup image section of this tag has been generat
 * non-SSL page. If this tag is to be placed on an SSL p
 * 'http://moikrug.net/openx/www/delivery/...'
 * to
 * 'https://moikrug.net/openx/www/delivery/...'
 *
 * This noscript section of this tag only shows image ba
 * is no width or height in these banners, so if you wan
 * allocate space for the ad before it shows, you will r
 * information to the <img> tag.
 *
 * If you do not want to deal with the intricities of th
 * section, delete the tag (from <noscript>... to </noscr
 * remove the noscript tag is called from top to bot
```

Tag settings

Don't show the banner again on the same page ☐ Yes ☒ No

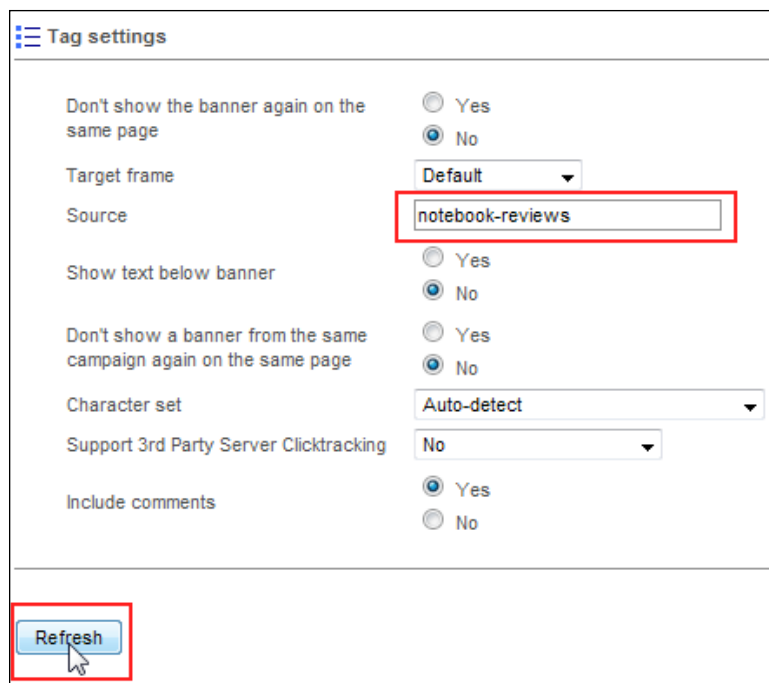
Target frame Default

Source notebook-reviews

Show text below banner ☐ Yes ☒ No

Don't show a banner from the same campaign again on the same page ☐ Yes ☒ No

4. Do not change the other fields. Then, click on **Refresh** button.



Tag settings

Don't show the banner again on the same page ☐ Yes ☒ No

Target frame Default

Source **notebook-reviews**

Show text below banner ☐ Yes ☒ No

Don't show a banner from the same campaign again on the same page ☐ Yes ☒ No

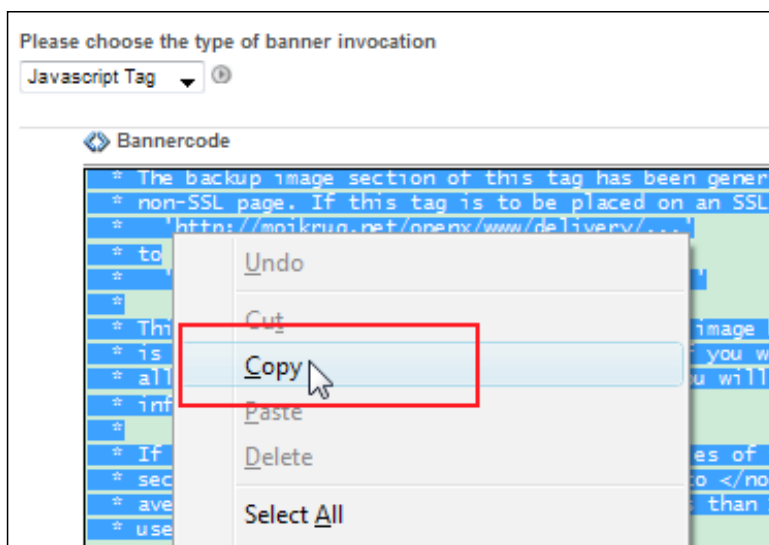
Character set Auto-detect

Support 3rd Party Server Clicktracking No

Include comments ☒ Yes ☐ No

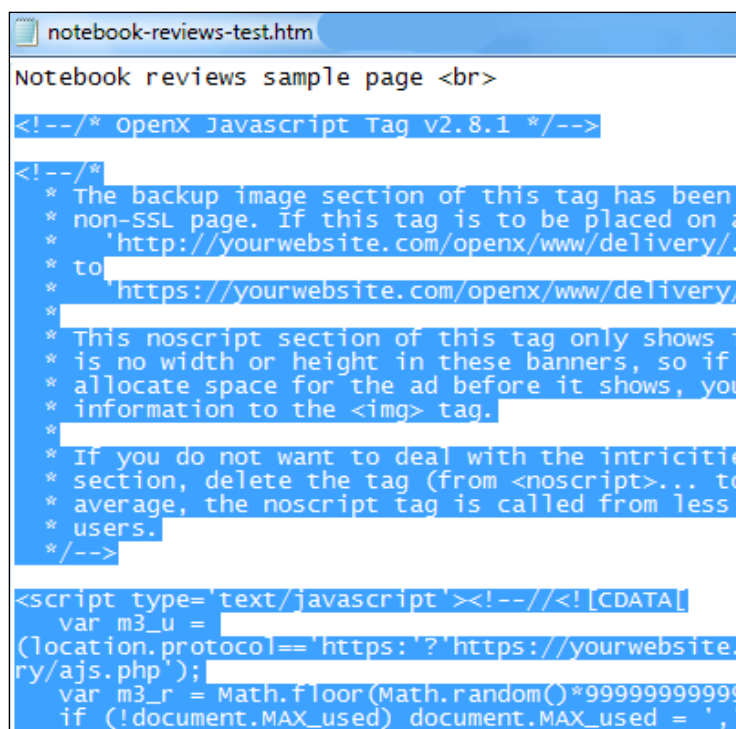
Refresh

5. The next step is to right-click on the refreshed, selected code and choose the **Copy** option.



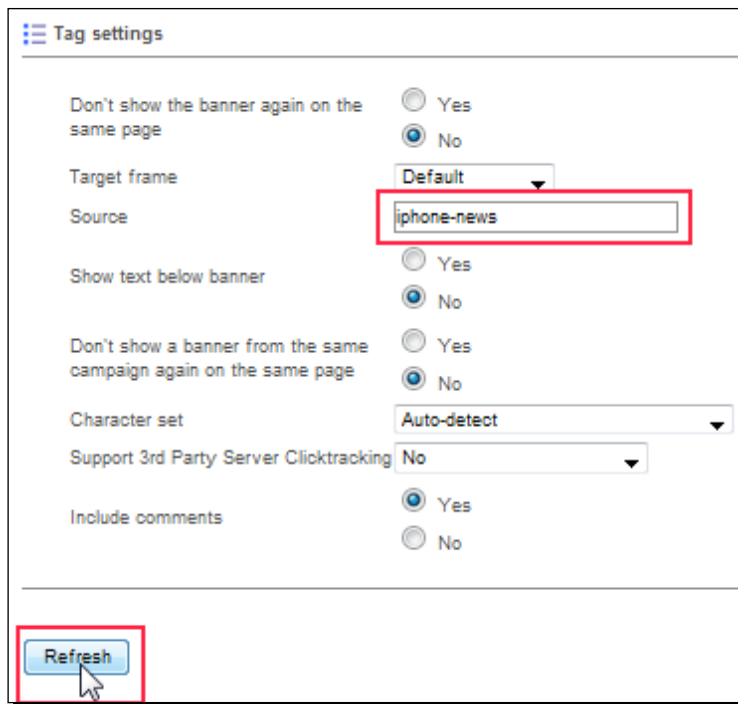
6. Create an HTML file on your computer and name the file as `notebook-reviews-test.htm`.
7. Edit the file with notepad and write the following one line HTML code
Notebook reviews sample page

Then paste the copied zone invocation code below it. Do not forget to save the HTML file after editing.
8. The following screenshot shows the edited `notebook-reviews-test.htm` file:



```
notebook-reviews-test.htm
Notebook reviews sample page <br>
<!--/* OpenX Javascript Tag v2.8.1 */-->
<!--/*
* The backup image section of this tag has been
* non-SSL page. If this tag is to be placed on a
* 'http://yourwebsite.com/openx/www/delivery/'.
* to
* 'https://yourwebsite.com/openx/www/delivery/
*
* This noscript section of this tag only shows i
* is no width or height in these banners, so if
* allocate space for the ad before it shows, you
* information to the <img> tag.
*
* If you do not want to deal with the intricitie
* section, delete the tag (from <noscript>... to
* average, the noscript tag is called from less
* users.
*/-->
<script type='text/javascript'><!--//<![CDATA[
var m3_u =
(location.protocol=='https:'?'https://yourwebsite.
ry/ajs.php');
var m3_r = Math.floor(Math.random()*999999999999);
if (!document.MAX_used) document.MAX_used = ',';
```

9. Return to OpenX screen and find the **Source** field again where you have written **notebook-reviews** as a text. Clear the text and write `iphone-news` this time.
10. Click on the **Refresh** button at the bottom of the page.



Tag settings

Don't show the banner again on the same page ☐ Yes ☒ No

Target frame Default

Source **iphone-news**

Show text below banner ☐ Yes ☒ No

Don't show a banner from the same campaign again on the same page ☐ Yes ☒ No

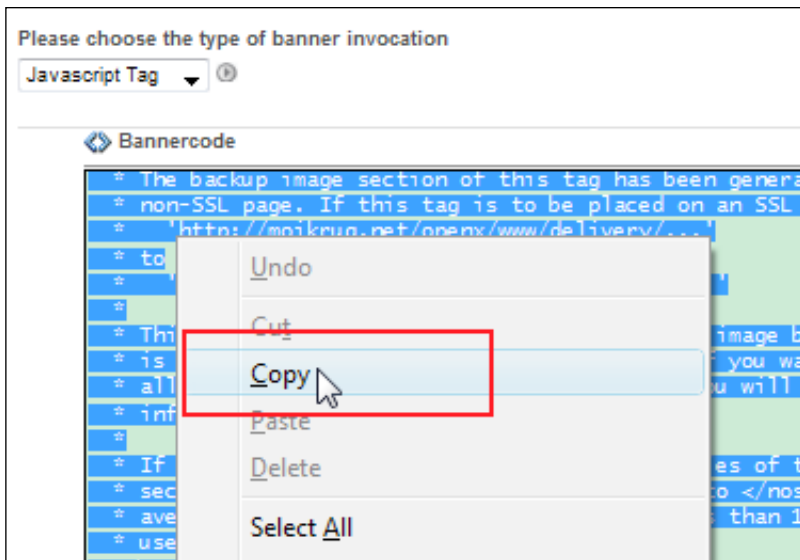
Character set Auto-detect

Support 3rd Party Server Clicktracking No

Include comments ☒ Yes ☐ No

Refresh

- 10.** The rest of the process is similar to the previous one. The next step is to right-click on the refreshed, selected code and copy the code.



Please choose the type of banner invocation

Javascript Tag

Bannercode

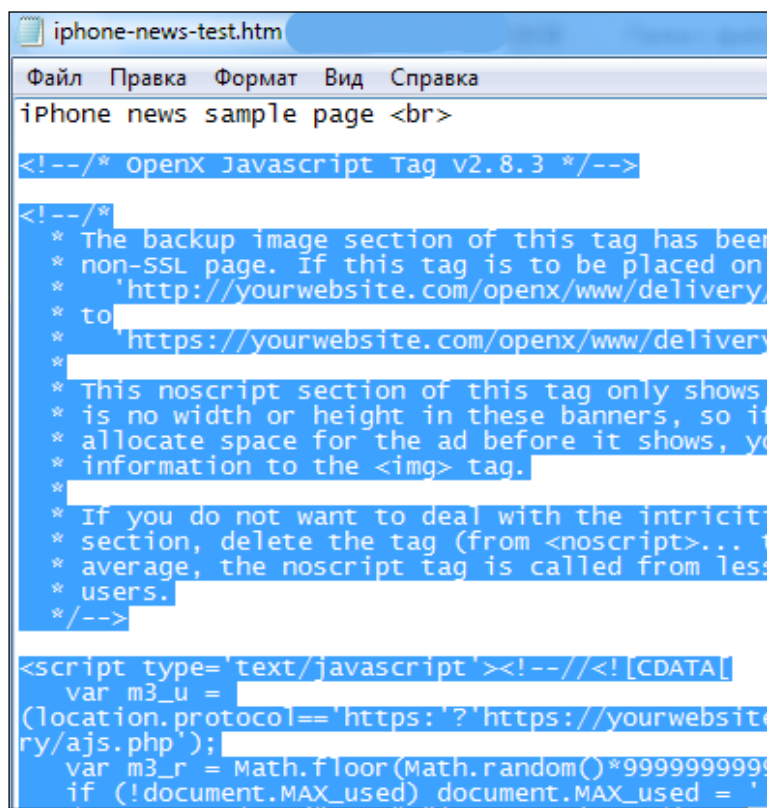
```
* The backup image section of this tag has been generated for a  
* non-SSL page. If this tag is to be placed on an SSL  
* page, please use the following URL:  
* http://moikrug.net/openx/www/delivery/...  
* to  
* This  
* is  
* all  
* inf  
* If  
* sec  
* ave  
* use
```

Undo
Cut
Copy
Paste
Delete
Select All

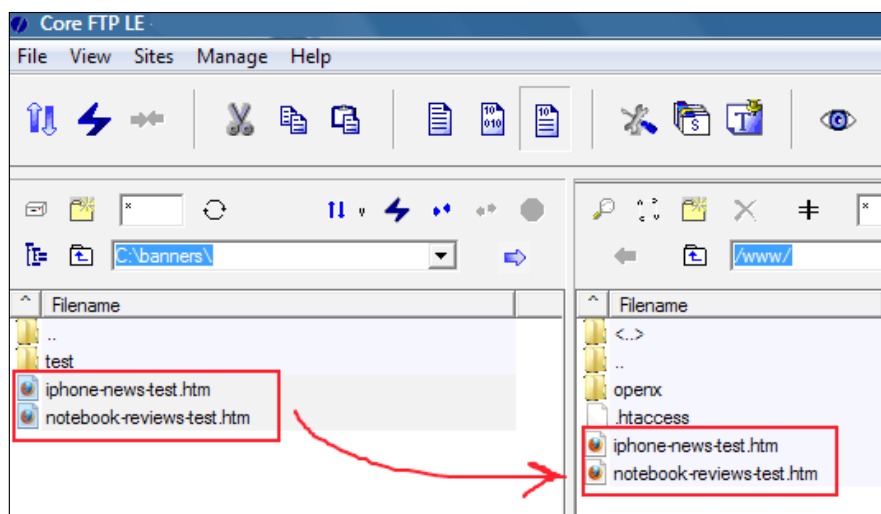
11. Create another HTML file on your computer and name the file as `iphone-news-test.htm`. Edit the file with notepad and write the following line of HTML code:

`iPhone News sample page <br>`

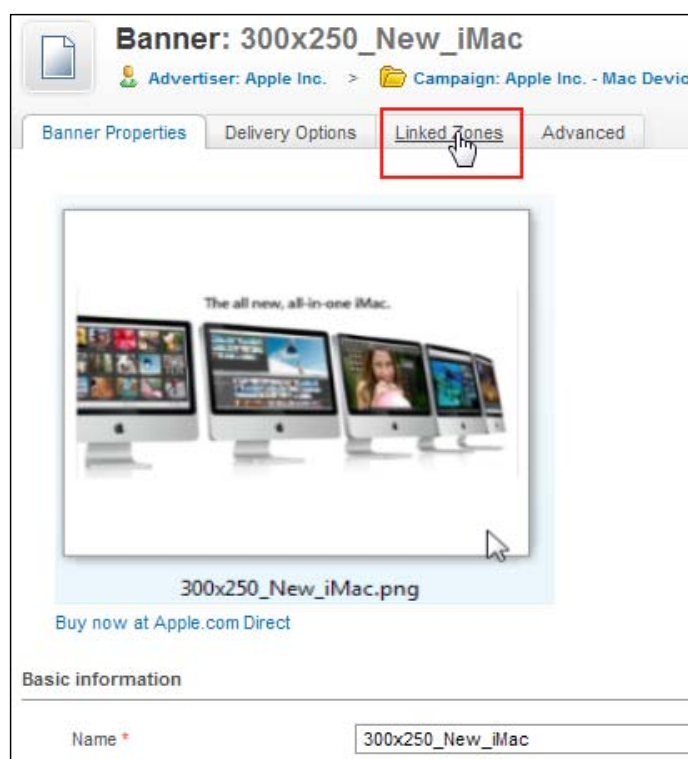
Now paste the newly copied zone invocation code below it. Do not forget to save the HTML file after editing. The following screenshot shows the edited `iphone-news-test.htm` file:



```
iphone-news-test.htm
Файл  Правка  Формат  Вид  Справка
iPhone news sample page <br>
<!--/* OpenX Javascript Tag v2.8.3 */-->
<!--/*
* The backup image section of this tag has been
* non-SSL page. If this tag is to be placed on
* 'http://yourwebsite.com/openx/www/delivery/
* to
* 'https://yourwebsite.com/openx/www/delivery/
*
* This noscript section of this tag only shows
* is no width or height in these banners, so it
* allocate space for the ad before it shows, y
* information to the <img> tag.
*
* If you do not want to deal with the intriciti
* section, delete the tag (from <noscript>...
* average, the noscript tag is called from less
* users.
*/-->
<script type='text/javascript'><!--//
var m3_u =
(location.protocol=='https:?'https://yourwebsite
ry/ajs.php');
var m3_r = Math.floor(Math.random()*999999999);
if (!document.MAX_used) document.MAX_used = '
</pre></div><div data-bbox="194 662 777 737" data-label="List-Group"><ol><li>12. The next step is to upload these two HTML files to our web server where we want to show the advertisements.</li><li>13. Use a free FTP client such as Core FTP (or cPanel file manager) and upload the files to the root folder of the web server.</li></ol></div><div data-bbox="477 838 517 852" data-label="Page-Footer"><hr/><p>[ 164 ]</p></div><div data-bbox="127 937 243 985" data-label="Page-Footer"><p><b>PACKT</b><br/>PUBLISHING</p></div>
```



- 14.** The next step is to link the previously added **300x250_New_iMac** banner. Let's browse in OpenX until we get to the **Banner Properties** page of this banner. Then click on the **Linked Zones** link on the top menu.



- 15.** Select **yourwebsite.com – Top 300x250 Global Zone** option and click on the **Save Changes** button.



- 16.** Wait for a few minutes and browse into the two HTML pages that we have uploaded before.
- 17.** The following screenshots show what you should end up seeing when you browse them. Let's look at the page at <http://yourwebsite.com/notebook-reviews-test.htm>:



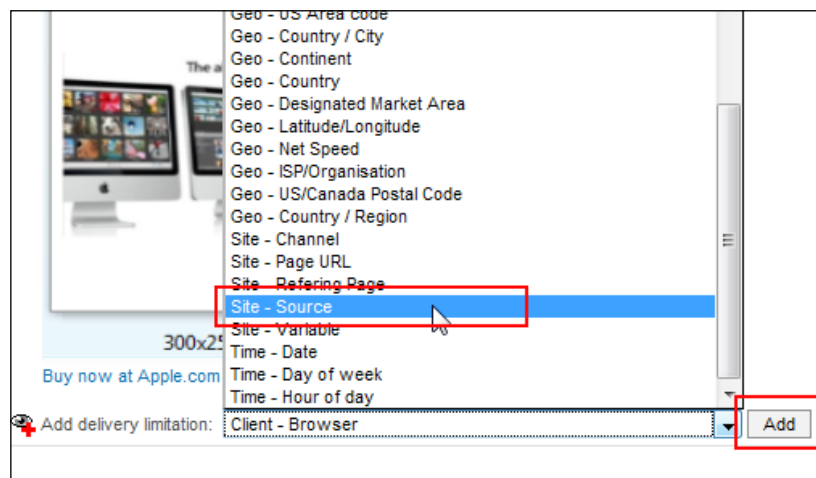
And the other sample page at <http://yourwebsite.com/iphone-news-test.htm>:



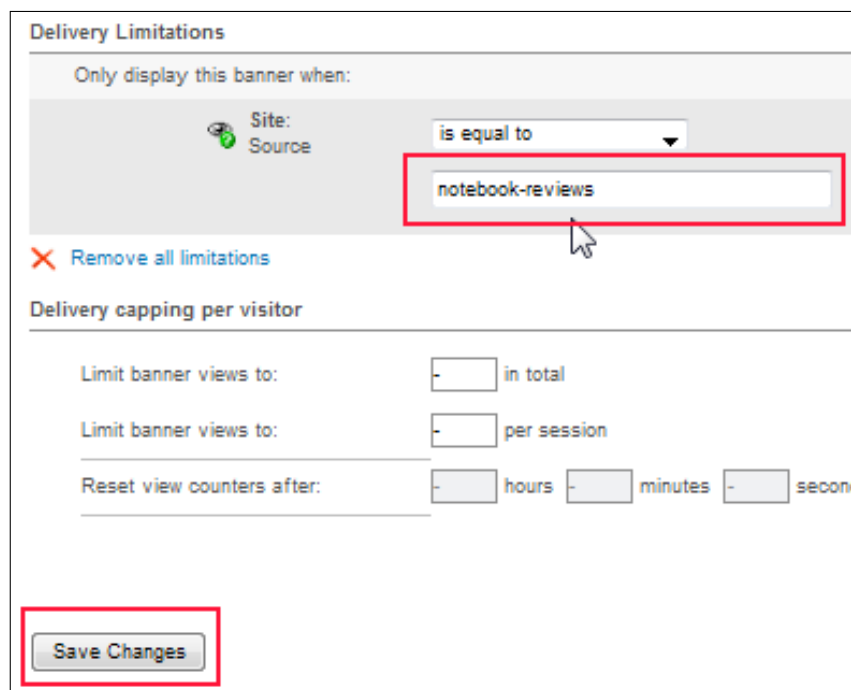
17. Now, let's return to the OpenX screen and let's click on **Delivery Options** menu link.



18. Let's choose **Site – Source** option in **Add delivery limitation** field and then click on **Add** button.



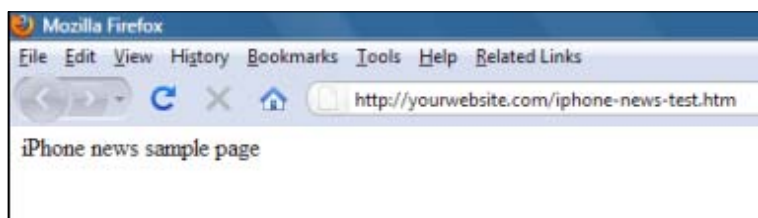
19. Write `notebook-reviews` for the **Site - Source** field as shown in the next screenshot. Do not forget to click on **Save Changes** button.



20. Wait for around five minutes and browse the two HTML pages again. We should see the pages like the following screenshots. The notebook reviews page continues to show the banner (<http://yourwebsite.com/notebook-reviews-test.htm>):



- 21.** On the other hand, the iPhone news page doesn't show the banner anymore (<http://yourwebsite.com/iphone-news-test.htm>):



What just happened?

We have learned how to apply Site Source parameter for targeting banners according to content type.

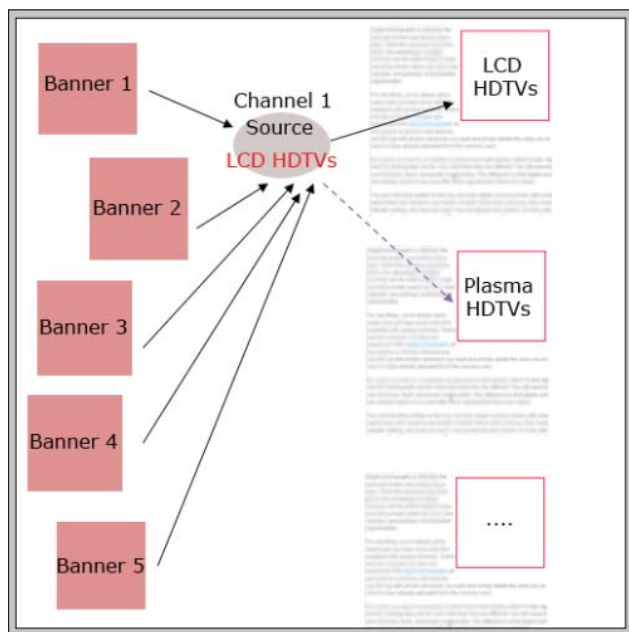
Specifically we have covered this in *Time for action* steps:

- ◆ As you may notice when we previewed two HTML files by a web browser; note that our banners appeared on both HTML pages that use `notebook-reviews` and `iphone-news` source parameters inside the invocation code. This is an expected behavior as we only linked the banners to the same zone without any targeting limitations according to the source parameter
- ◆ We then defined a delivery limitation for linking the banner to the zone. We stated that the banner should appear only when the targeted zone has Site Source parameter as `notebook_reviews`.
- ◆ When we browse both the HTML pages, we see that only `notebook-reviews-test.htm` shows the banner. It is an expected behavior because of the targeting with Site Source parameter as `notebook-reviews` in banner delivery limitation settings.

Channels

Although the Site Source parameter provides a great advantage to target zones according to content labels, it has a major drawback. Suppose that we work with tens, even hundreds of banners. It is quite possible that we could write a wrong Site – Source delivery limitation name mistakenly when defining delivery limitations. This results in the banner not being served at all because there is no such Site Source parameter on the zone! To protect such direct typing errors and better management, we use channels. We can think of channels as a middle pipe, connecting banners to target zones labeled with sources.

The following scenario shows that all five banners are linked to the zone of a website with a Site Source of LCD HDTVs, using a channel. All we need to do is change Channel 1 Site Source to Plasma HDTVs to link banners to the same zone with another Site Source value without modifying any of the banner delivery limitation properties.



There are two types of channels that we can use for content targeting:

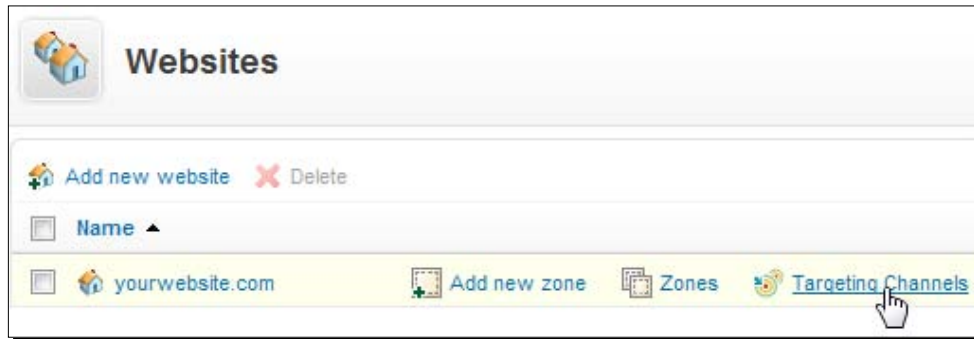
Website channel

These channels are defined for a website and are valid only for the zones of the defined website. Banners linked to a zone in the same website can use these channels, which means that you cannot bind banners on multiple website zones using a website channel. We will soon provide such global channel functionality, but before that, let's learn more about website channels.

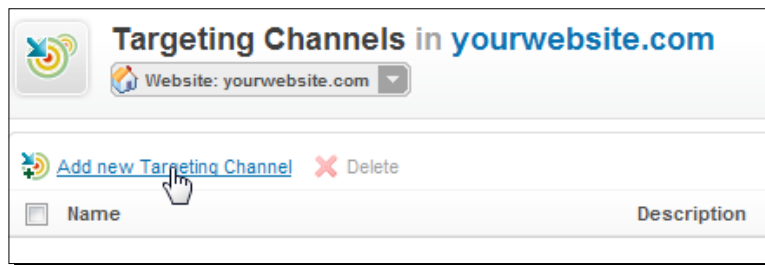
Time for action – achieving targeting with website channels

In this section, we will learn how to apply content advertising targeting using website channels.

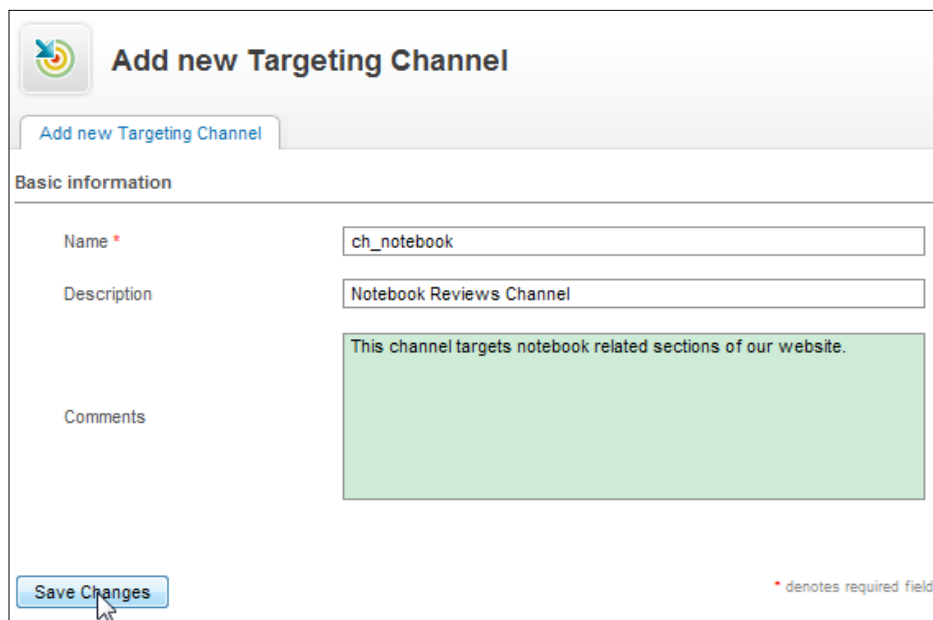
1. On **Websites** listings page, click on **Targeting Channels** link near the website.



2. Click on **Add new Targeting Channel** link.

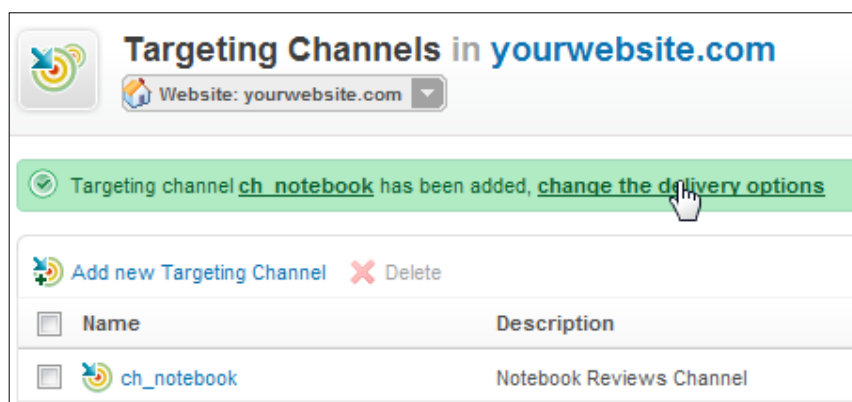


3. Fill in the following fields accordingly. Write `ch_notebook` in the **Name** field.



The screenshot shows a web form titled "Add new Targeting Channel". It has a tab labeled "Add new Targeting Channel". Under the "Basic information" section, there are three fields: "Name" (required, marked with an asterisk) containing "ch_notebook", "Description" containing "Notebook Reviews Channel", and "Comments" which is a large text area containing "This channel targets notebook related sections of our website." At the bottom left is a "Save Changes" button. At the bottom right, a small red asterisk indicates that fields with an asterisk are required.

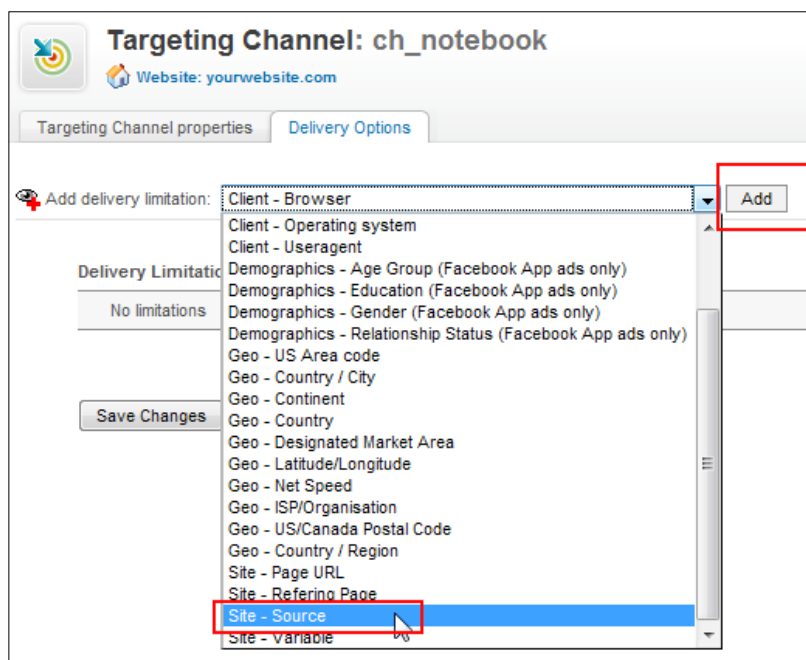
4. Now, we have added a targeting channel. Click on **change the delivery options** link to continue.



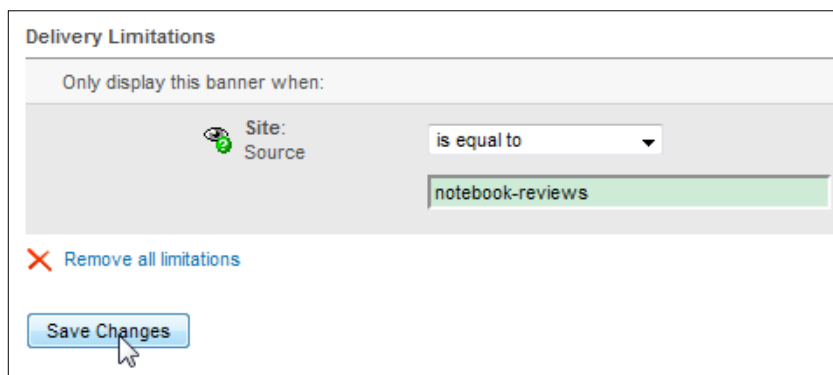
The screenshot shows a page titled "Targeting Channels in yourwebsite.com". It has a dropdown menu for "Website: yourwebsite.com". A green success message states: "Targeting channel **ch_notebook** has been added, [change the delivery options](#)". Below this, there is a table of targeting channels.

☐	Name	Description
☐	ch_notebook	Notebook Reviews Channel

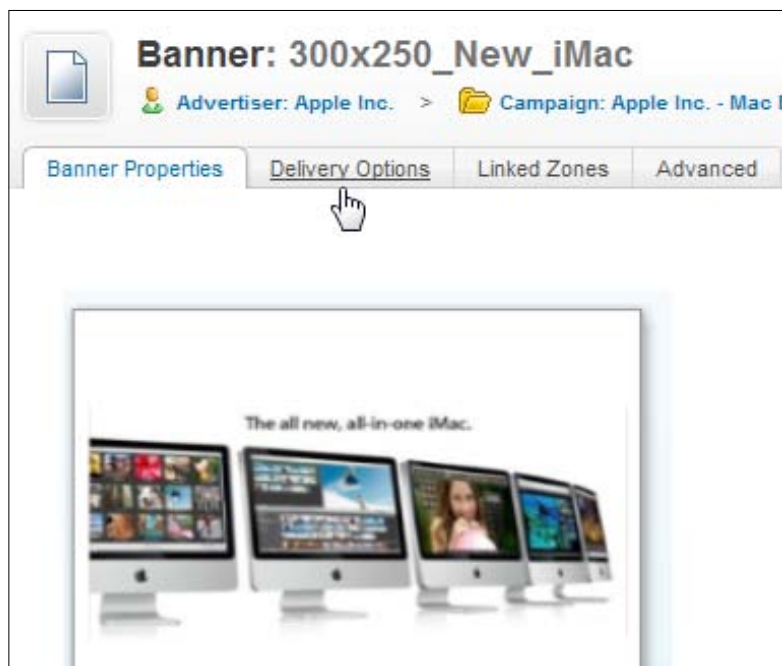
5. Select **Site – Source** from **Add delivery limitation** drop-down menu and click on **Add** button.



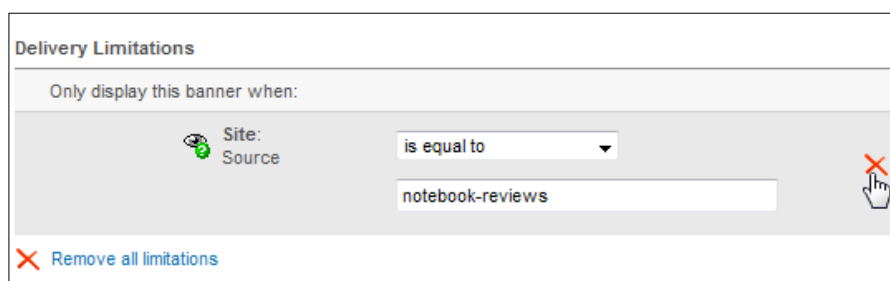
6. Write notebook-reviews for **Site – Source** field and click on **Save Changes** button.



7. Let's open 300x250_New_iMac banner properties page and click on **Delivery Options** link.



8. Click on the red cross near the **Site – Source** delivery limitation. The **Site: Source** option, which was previously added will now get deleted.



9. Now, select **Site – Channel** option from **Add delivery limitation** field and then click on **Add** button.



10. Then, select **ch_notebook** option from the available channels list and click on **Save Changes** button.

⚠ You have unsaved changes on this page, make sure you press "Save Changes" when finish

Delivery Limitations

Only display this banner when:

Site: Channel

Is any of

- ☒ ch_notebook ⓘ

✗ Remove all limitations

Delivery capping per visitor

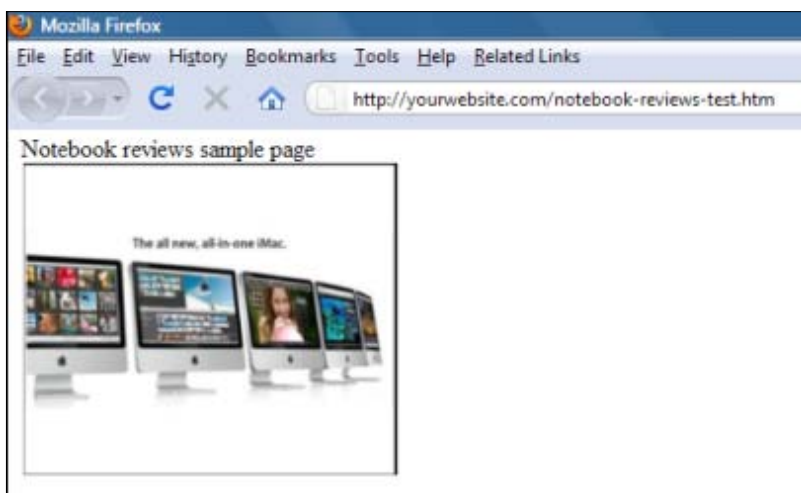
Limit banner views to: in total

Limit banner views to: per session

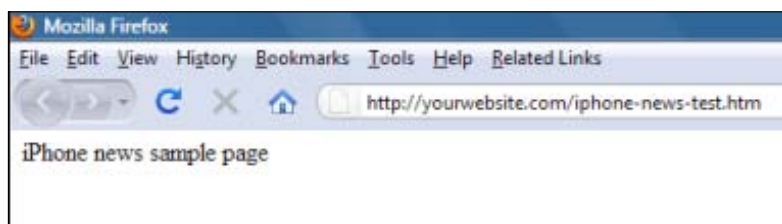
Reset view counters after: hours minutes seconds

Save Changes

- 11.** Let's now check the changes on the web pages. Wait for around five minutes and then browse them. Let's first look at the notebook-reviews test page, <http://yourwebsite.com/notebook-reviews-test.htm>.



12. Note that the banner has disappeared from the iPhone news test page, (<http://yourwebsite.com/iphone-news-test.htm>).



What just happened?

We have seen how to use a website channel type for content targeted ads.

Specifically, we have covered the following:

- ◆ We added a website channel for our zone and named it as `ch_notebook`. Note that we used `ch_` parameter to understand that it is a website channel.
- ◆ We connected this channel to the website zone labeled with `notebook_reviews` Site Source parameter.
- ◆ We have opened the delivery limitations screen for our banner. First, we deleted the old Site Source parameter for the banner. Second, we added `ch_notebook` to delivery limitations. This way, we also linked our banner to `notebook_reviews` labelled website zone indirectly.
- ◆ As the last step, we reviewed our sample web pages and observed that only `notebook-reviews-test.htm` page shows the banner as expected.

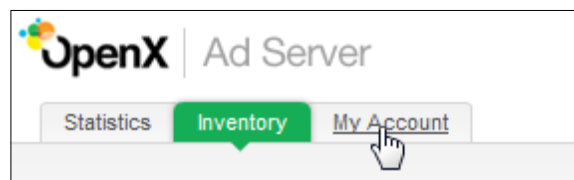
Global channel

This channel type can be used for any zones on any websites owned by a Manager account. This channel enables OpenX managers to link any banners to any zone without using direct banner zone linking.

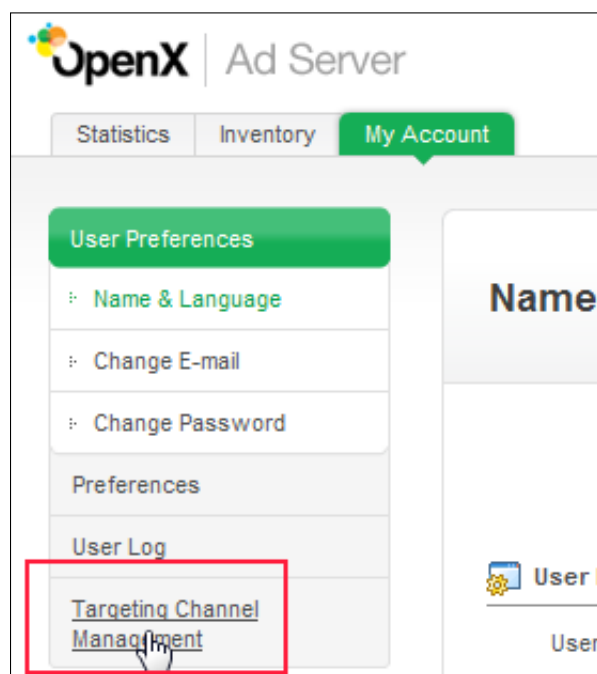
Time for action – adding a global channel

In this section, we will learn how to add a global channel for multiple website content targeting.

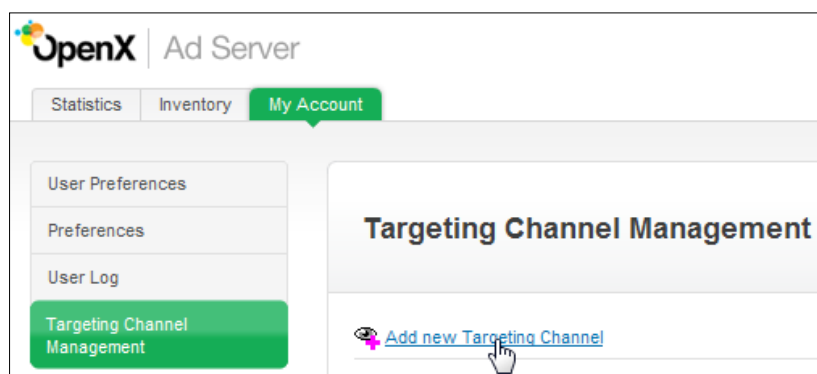
1. Click on **My Account** link near **Inventory** tab on the top OpenX menu.



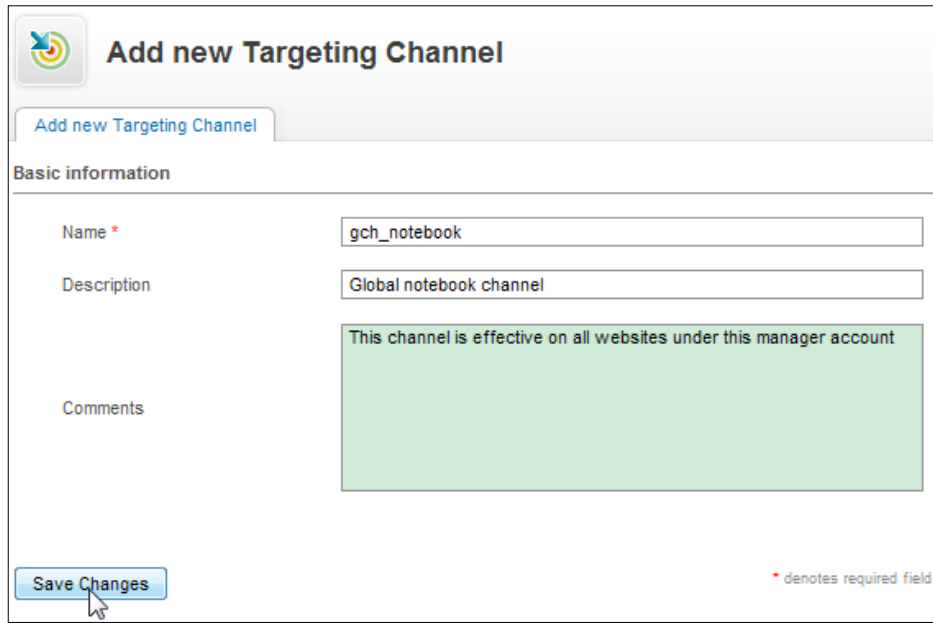
2. Click on **Targeting Channel Management** link under **User Preferences** menu.



3. Click on **Add new Targeting Channel** link.

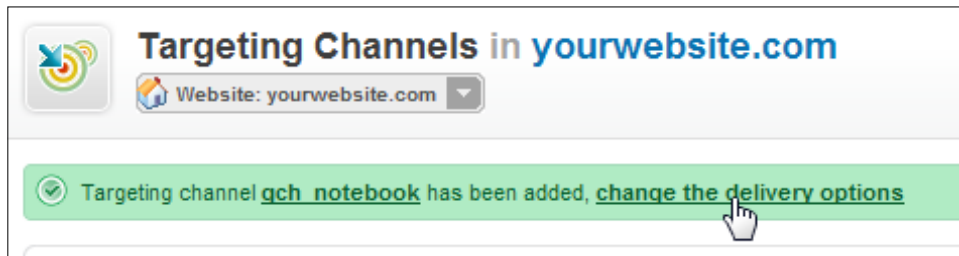


4. Fill in the **Name** field with `gch_notebook` as text and optionally other fields as shown in the following screenshot:

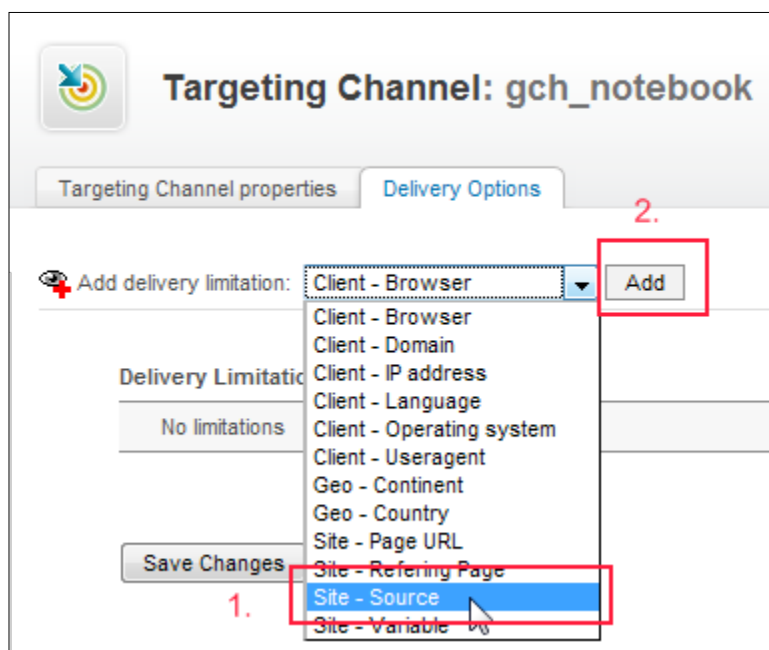


The screenshot shows a web form titled "Add new Targeting Channel". It has a tab labeled "Add new Targeting Channel". Under the "Basic information" section, there are three fields: "Name" (with a red asterisk), "Description", and "Comments". The "Name" field contains the text "gch_notebook". The "Description" field contains the text "Global notebook channel". The "Comments" field contains the text "This channel is effective on all websites under this manager account". At the bottom left is a "Save Changes" button. At the bottom right is a red asterisk followed by the text "denotes required field".

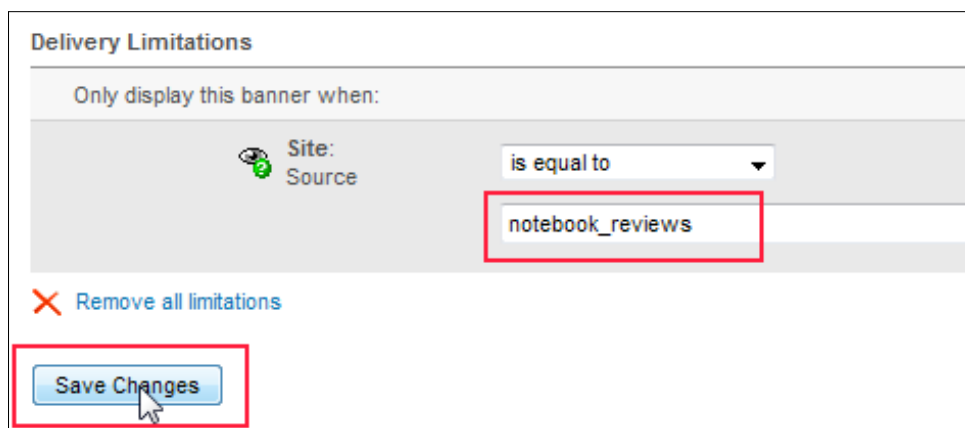
5. Click on **change the delivery options** link.



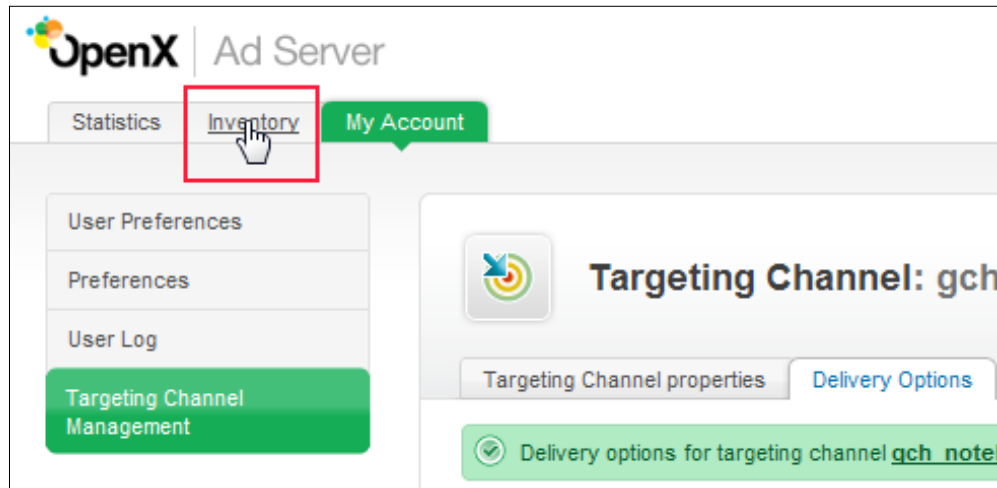
6. Select **Site – Source** option from the delivery limitation list and then click on **Add** button.



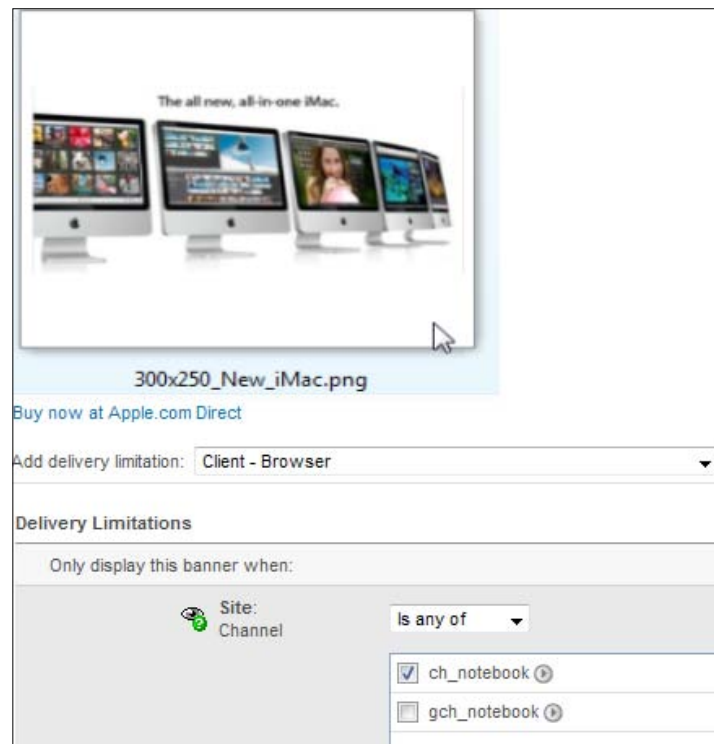
7. Write `notebook_reviews` for **Site – Source** field and then click on **Save Changes** button.



- Let's return to inventory screen by clicking on **Inventory** link on the top menu.



- Open New_iMac banner delivery options screen again. Note that newly added global channel is also available in the list.



What just happened?

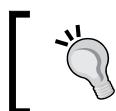
We have seen how to add a Global Channel type.

Specifically, we have covered the following:

- ◆ We opened my account link and then opened the targeting channel management screen. We added a global channel named as `gch_notebook`. Note that `gch_` prefix was used for the naming convention purpose and is a short name for global channel.
- ◆ We then declared the Site Source as `notebook_reviews` in the delivery limitation settings of the channel.
- ◆ Any zone in any website becomes available to banner linking in this account, if its Source parameter is defined as `notebook_reviews`. In other words, any banner which uses this global channel can be connected to these zones.
- ◆ Finally, we observed that `gch_notebook` is available in our banner delivery limitation settings. If you further investigate the other banners, you will see that `gch_notebook` channel is available for every banner irrespective of whether the banners are linked to a specific zone or not!.

Have a go hero – testing global channel behavior

Now, it is time to see whether you can achieve website content targeting using global channels for multiple websites. Create another website definition in OpenX and try to connect a banner to multiple websites, but to the same content zones, using the just created global channel.



If you don't have another website, you can still add the same website with a different name in OpenX Ad Server, but the zone invocation codes will be totally different.

Pop quiz – understanding channels

Decide whether the following statements are true or false:

- a. A zone invocation code can have only one Site Source parameter inside
- b. A banner can be connected to multiple content zones at the same time using more than one Site – Channel parameter
- c. Direct usage of Site Source parameter for banners is a wiser way of usage rather than using Site – Channels

- d. Channels can be limited according to Site Source parameter. It is not possible to add, let's say Geotargeting for a channel

Summary

A modern advertising solution needs to deliver advertisements according to the content of website sections. We have learnt how to build an easy-to-use content targeting system by using channels. If you have only a few websites, you can use a website channel. The common practice is to identify channels according to website categories. On the other hand; we have seen how the publishers who have many websites, can achieve easy targeting on multiple websites by using global channels. Using channels, you can clearly increase your advertising rates.

In the next chapter, we will learn using advanced account settings and the management of multiple accounts.

7

OpenX Account Management

OpenX account system perfectly provides a multiuser management service for ad serving business. This system enables advertisers, publishers, and advertising agency managers to work in one OpenX system exclusively with separate and personalized rights.

In this chapter, we shall learn:

- ◆ Account types and their differences
- ◆ Adding a manager account
- ◆ Different uses of manager account
- ◆ Adding an advertiser account
- ◆ Uses of advertiser account

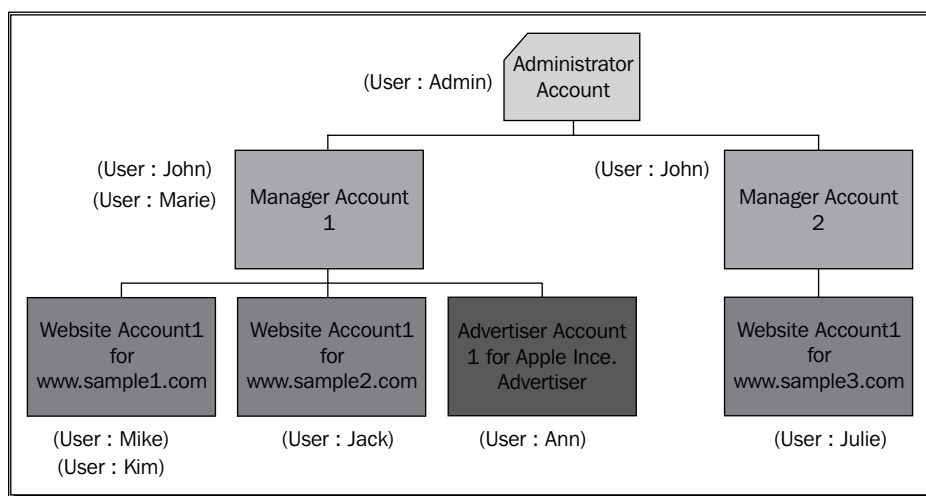
OpenX account types

There are four types of accounts that we can use in OpenX Ad Server. We can think of account type as similar to user roles, thus specifying permissions for several actions on a user login level. Each account type can have multiple users to log in and use OpenX environment.

- ◆ **Administrator account:**
Administrator account is the power user for an installed OpenX Ad Server system and has all the rights over advertisers, campaigns, banners, websites, and zones. Besides these rights, an administrator is able to change global settings and maintain them. An administrator account is created by default on OpenX Ad Server installation.

- ◆ **Manager account:**
A manager account has all the rights over the advertisers and websites that are created under its name. All manager accounts are separate and cannot access account management domains of others and global OpenX settings.
- ◆ **Website account:**
A website account is defined for a certain website by a manager account. A website account has the rights to create new zones and link banners to the zones under a certain website defined by the manager account.
- ◆ **Advertiser account:**
An advertiser account is also defined for a certain advertiser by a manager account. An advertiser account can view campaigns, activate/deactivate banners, and modify banners for a certain advertiser defined by the manager account.

The following diagram shows the relationship between different types of accounts:



According to the previous diagram, we can conclude the following facts about these users and their permissions:

- ◆ User John has rights on both manager accounts, so he can manage any advertiser and website on both manager accounts.
- ◆ As user Marie is not linked to Manager Account 2, she cannot access or have any information about—for example, `www.sample3.com`. On the other hand, she can manage `www.sample1.com` and `www.sample2.com`, Apple Inc advertiser, and any other items listed under Manager Account 1.

- ◆ Users Mike and Kim only can access `www.sample1.com` settings and change zones and link banners if permissions are provided by Users John or Marie.
- ◆ User Ann is only able to manage Apple Inc. advertiser and is not able to access any other websites or advertisers on both manager accounts.

As we already have a default administrator account upon installation, we will start with manager accounts and see how we can create a manager account.

Working with manager accounts

We will now learn how to define another manager account on OpenX Ad Server and will see why we need more than one manager account.

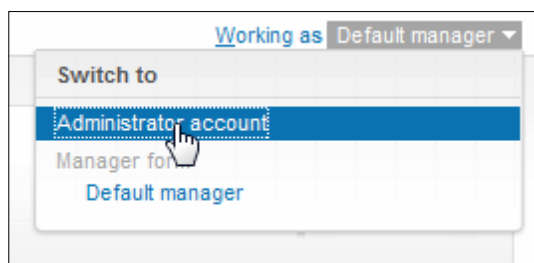
Time for action – adding a manager account

In this scenario, we suppose that another website network owner wants to use our OpenX Ad Server system for a monthly fee to serve advertisements on his/her website. He/she also wants to be able to add any number of advertisers and websites under his/her login that we will provide.

1. After you log in to OpenX Ad Server, click on the tiny arrow on the top rightmost menu to switch to **Administrator account**.



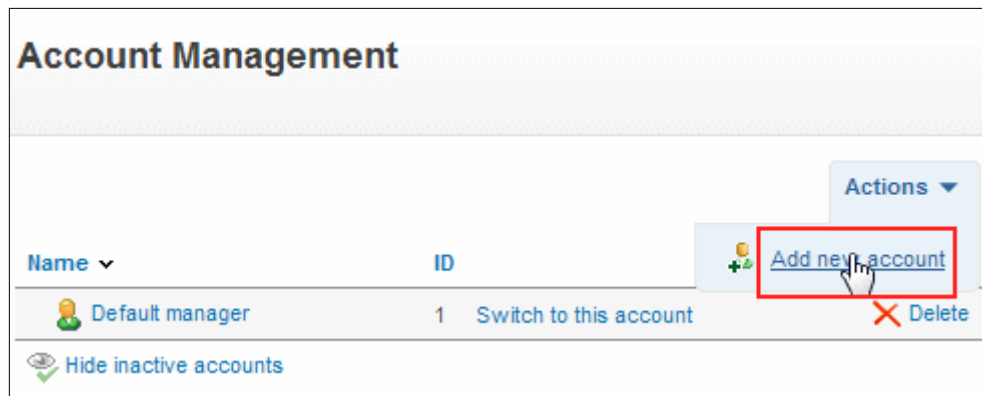
2. Click on **Administrator account** link.



3. Click on **Account Management** link under **Inventory** menu item if it has not been selected previously.



4. We can see that there is already one account listed. It is our **Default manager** account that was opened automatically upon installation. Now, let's open **Actions** menu and click on **Add new account** link.



5. Let's fill in **Name**, **Contact**, and **Email** fields accordingly. Then, click on **Save Changes** button.

Add new account

Add new account

Basic information

Name *	Manager Account 2
Contact *	Manager Account Contact 2
Email *	manageraccount2@openxguide.com

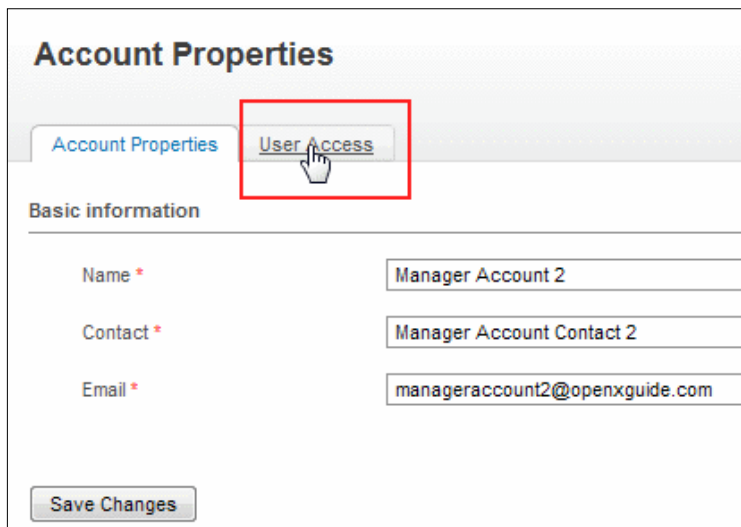
Save Changes

* denotes required field

6. We can see that a new account is created. Click on the account name **Manager Account 2**.

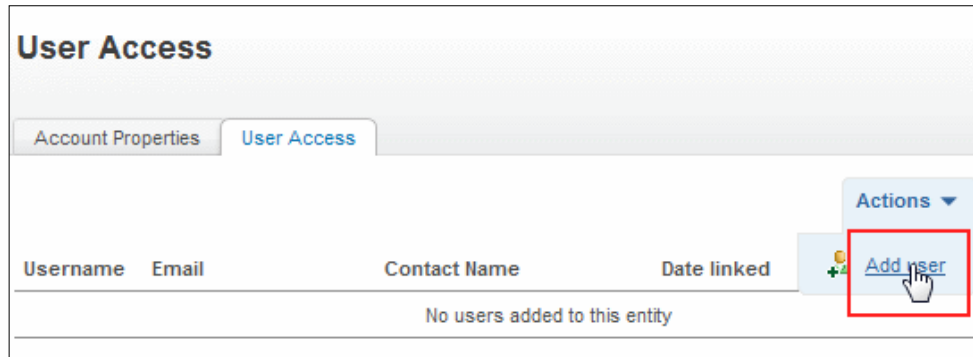
Account Management	
Name ▾	ID
 Default manager	1
 Manager Account 2	4
 Hide inactive accounts	

7. We are now on the **Account Properties** screen. Click on **User Access** link on the menu.



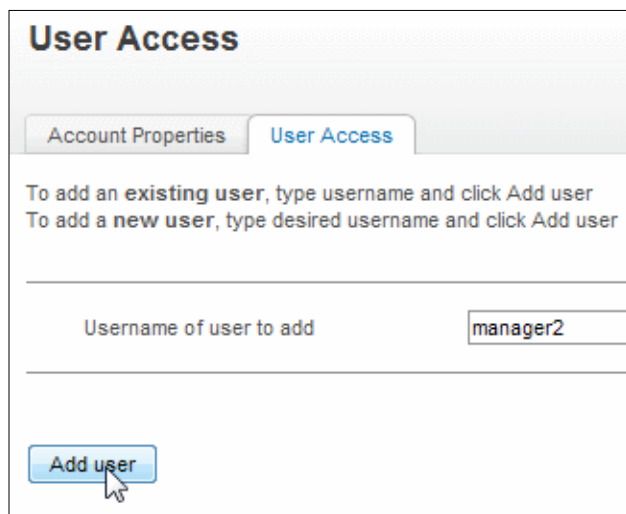
The screenshot shows the 'Account Properties' page. At the top, there are two tabs: 'Account Properties' and 'User Access'. The 'User Access' tab is highlighted with a red box, and a mouse cursor is pointing at it. Below the tabs, there is a section titled 'Basic information' with three input fields: 'Name *' (containing 'Manager Account 2'), 'Contact *' (containing 'Manager Account Contact 2'), and 'Email *' (containing 'manageraccount2@openxguide.com'). At the bottom left of this section is a 'Save Changes' button.

8. Click on the **Add user** link in **Actions** menu, appearing in the top right corner of the **User Access** screen, in order to add a new user under this account.



The screenshot shows the 'User Access' page. At the top, there are two tabs: 'Account Properties' and 'User Access'. The 'User Access' tab is active. Below the tabs, there is a table with columns: 'Username', 'Email', 'Contact Name', and 'Date linked'. The table is empty, and below it, it says 'No users added to this entity'. In the top right corner, there is an 'Actions' dropdown menu. The 'Add user' link is highlighted with a red box, and a mouse cursor is pointing at it.

9. Write **manager2** as username and click on **Add user** button.



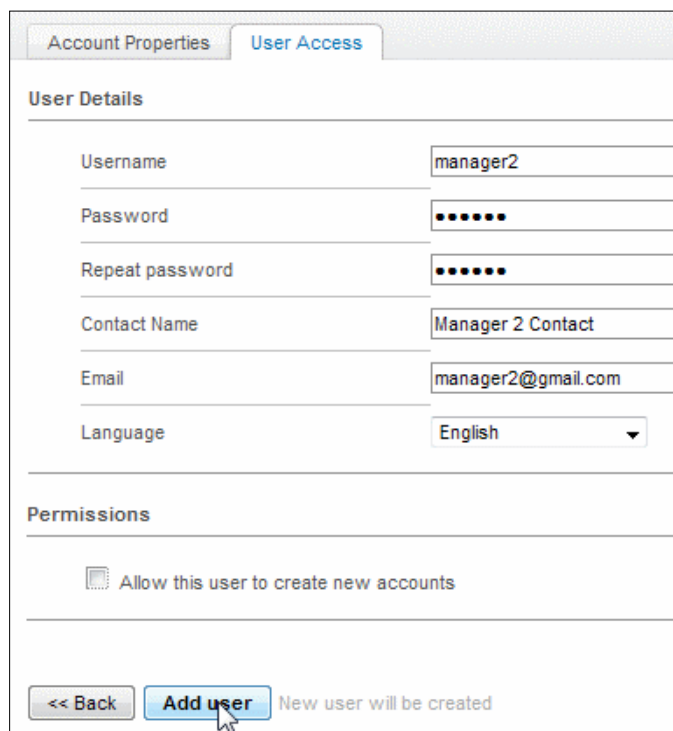
User Access

Account Properties User Access

To add an **existing user**, type username and click Add user
To add a **new user**, type desired username and click Add user

Username of user to add

- 10.** Fill in **Username**, **Password**, **Repeat password**, **Contact name**, **Email**, and **Language** fields. In **Permissions** section uncheck the **Allow this user to create new accounts** field. Then click the **Add user** button.



Account Properties User Access

User Details

Username

Password

Repeat password

Contact Name

Email

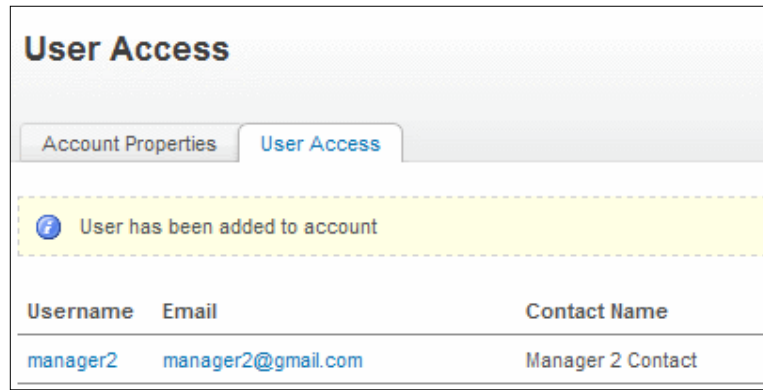
Language

Permissions

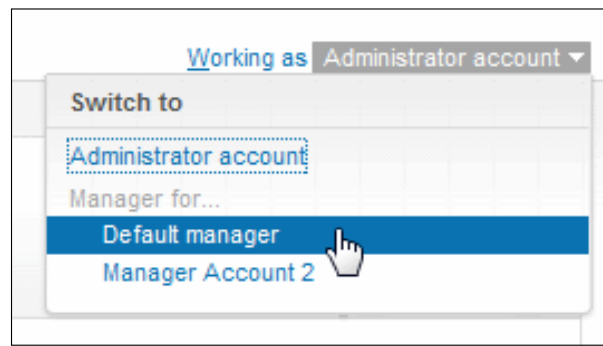
☐ Allow this user to create new accounts

<< Back New user will be created

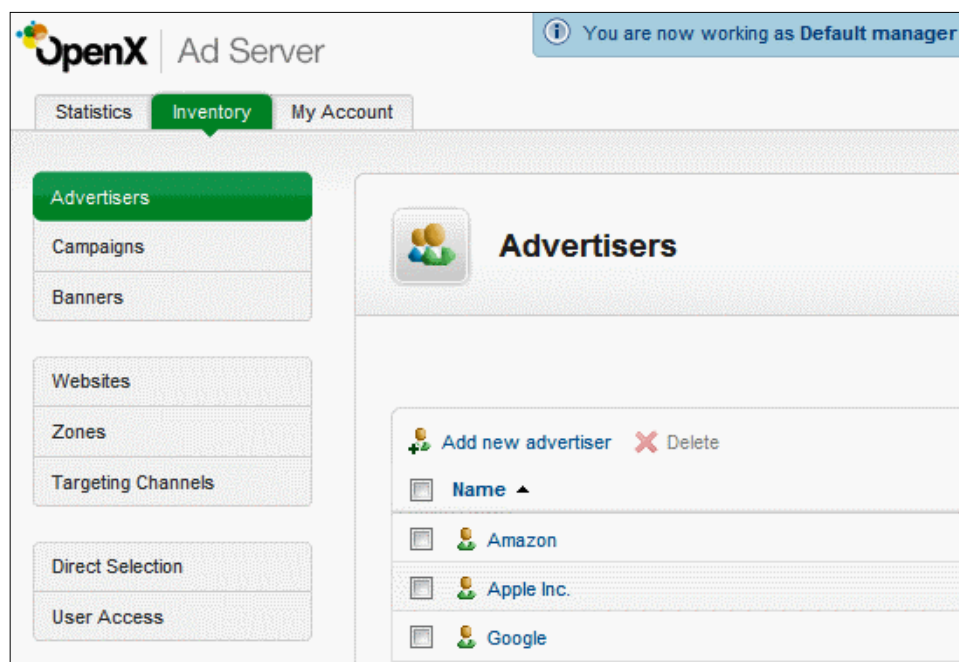
- 11.** The following screenshot shows the user that is added to the account:



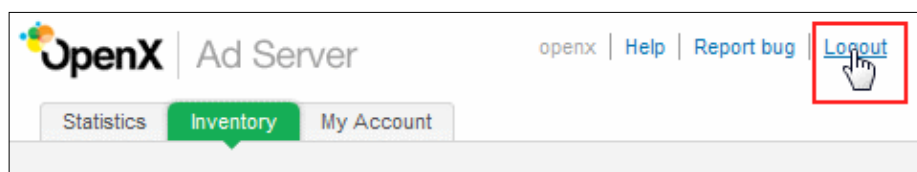
- 12.** Click on the tiny arrow in the top right menu to open and switch to **Default manager** account again.



- 13.** See that previously added advertisers are available under **Default manager** account as shown in the following screenshot:



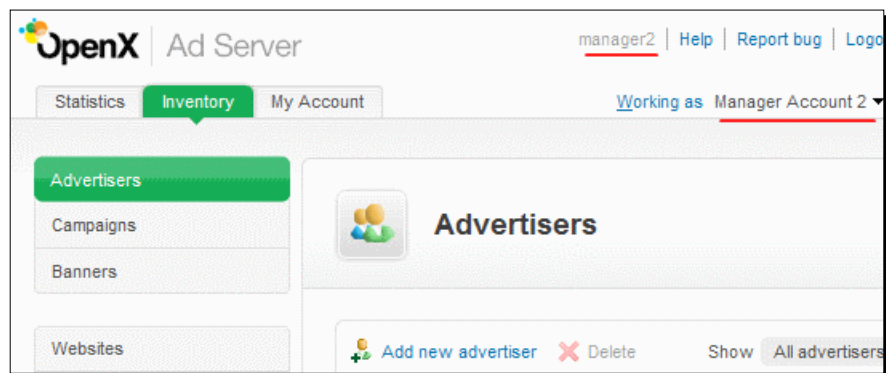
14. Click on **Logout** link on the top OpenX menu.



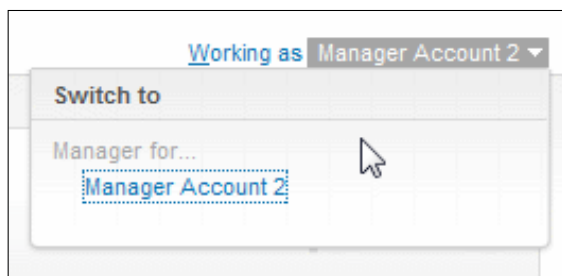
- 15.** Now, log in to OpenX using **manager2** with **Username** and the **Password** provided.



- 16.** You can see there are no advertisers listed under **manager2**.



- 17.** Click on the arrow in the top right OpenX menu to switch to another account, but you can see that only **Manager Account 2** is available and there is no administrator account listed.



What just happened?

We have learned how to add a manager account to allow another person to use our OpenX Ad Server environment.

In the previous procedure, we performed the following activities:

- ◆ We changed into administrator account. We added a manager account and named it as Manager Account 2.
- ◆ We have added a manager2 as a user under the Manager Account 2. Note that we didn't give permission to this user to be able to create additional users under this account.
- ◆ Remember that each account can have more than one user defined under it. You can think of accounts as similar to user groups. While a user carries the common properties of his/her account type, they can also get individual rights under the account type.
- ◆ We have seen that the administrator account can manage both default manager and Manager Account 2 accounts.
- ◆ We have changed into the default manager account and have seen that previously added advertisers are there. If we further investigate, we will see websites, zones, along with everything that we have previously created.
- ◆ As the final step, we have made logout from default OpenX admin user and made a login using manager2 user. This time, we have seen that that advertisers' screen was empty. This is normal, an expected behavior because every manager account can see and use only its working environment.
- ◆ We also noticed that the newly created manager account cannot reach to the administrator account now.
- ◆ Now, the manager2 user, being completely isolated from our default working area and others, is ready to use OpenX Ad Server. This user can now create any number of advertisers and websites, and can start ad serving on them. The other manager accounts will not see what this account is doing!

Working with advertiser accounts

We will now learn how to define an account and user on the advertiser level using the advertiser account type.

Time for action – adding an advertiser account

In this fictional scenario, we assume that we want to give rights to an Apple Inc. advertising specialist to be able to change the banners in the campaigns, and to activate and deactivate according to their wishes. He/she should not see any other advertisers and websites on the OpenX Ad Server system. Logically, we also don't want the specialist to be able to stop any campaigns without our knowledge as we have been paid for them! So, he/she must not have such permission.

1. Let's start entering the system with our default OpenX login that we have created upon installation.



OpenX | Ad Server

Authentication

Welcome to OpenX
Enter your username and password to log in

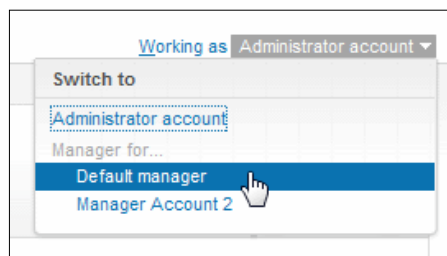
Username: administrator

Password:

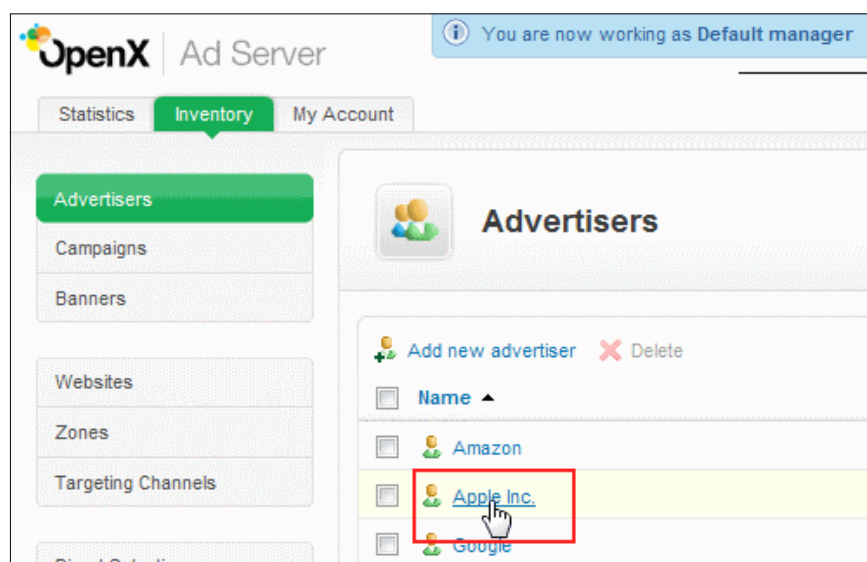
Login

[Forgot your password?](#)

2. Switch to **Default manager** account.



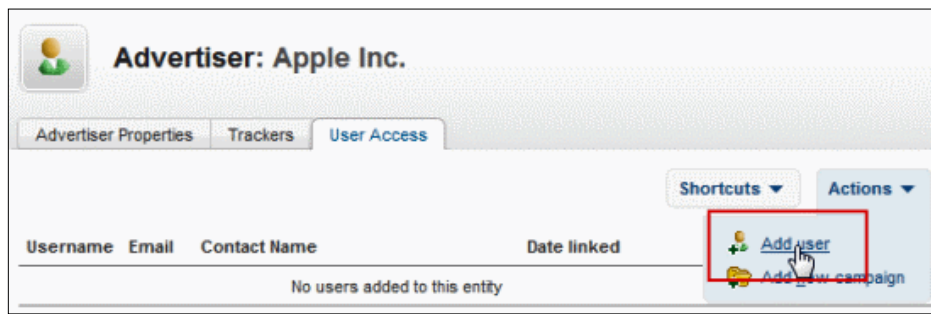
3. Click on **Apple Inc.** advertiser's name, or any other advertiser, if you haven't added this in the previous chapters.



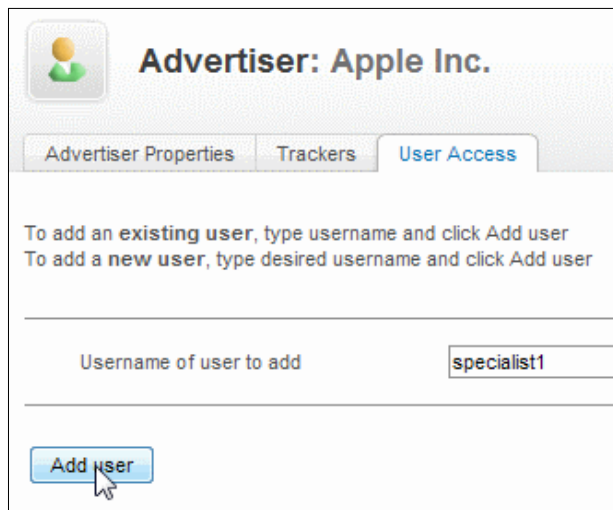
4. Click on the **User Access** link on **Advertiser Properties** screen.



5. Open the **Actions** menu on the top right corner and click on **Add user** link.



6. Write **specialist1** in the **Username of user to add** field on **User Access** screen and then click on **Add user** button.



Advertiser: Apple Inc.

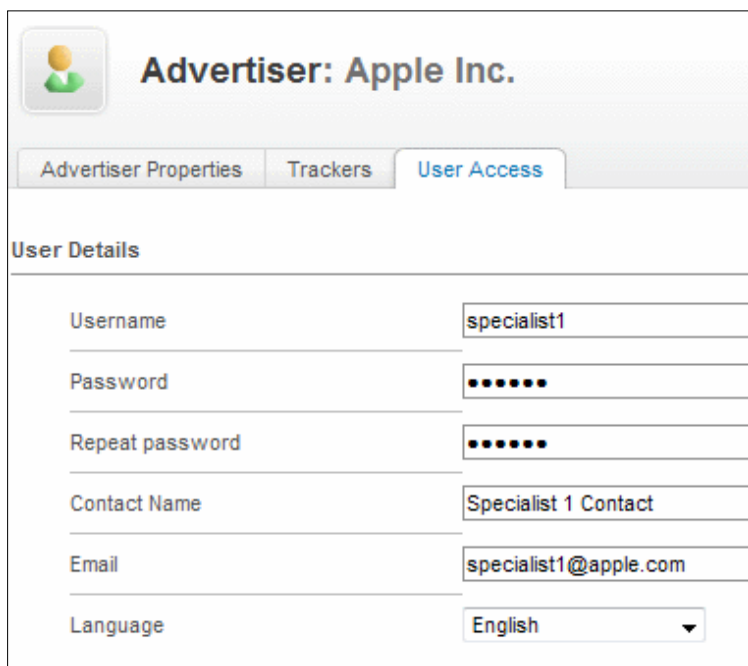
Advertiser Properties Trackers **User Access**

To add an **existing user**, type username and click Add user
To add a **new user**, type desired username and click Add user

Username of user to add

Add user

7. Fill in **Username**, **Password**, **Repeat password**, **Contact Name**, **Email**, and **Language** fields accordingly.



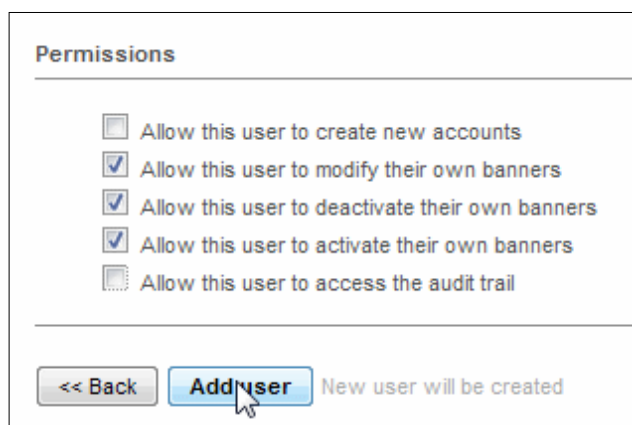
Advertiser: Apple Inc.

Advertiser Properties Trackers **User Access**

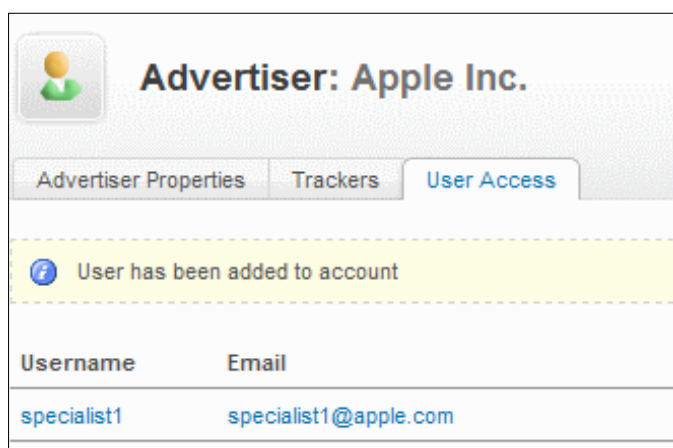
User Details

Username	specialist1
Password	
Repeat password	
Contact Name	Specialist 1 Contact
Email	specialist1@apple.com
Language	English

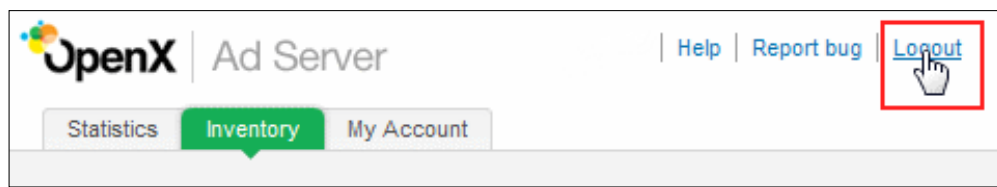
8. On the **Permissions** screen, uncheck **Allow this user to create new accounts** and **Allow this user to access the audit trail** options. Leave the other options checked at default settings. Click on the **Add user** button to complete adding the user.



9. The following screenshot shows the added **specialist1** user:



10. Log out from the OpenX Ad Server.



11. Log in to OpenX using **specialist1** user.



The screenshot shows the OpenX Ad Server Authentication page. At the top, there's a logo for OpenX Ad Server and a green 'Authentication' tab. Below this, a welcome message says 'Welcome to OpenX' and 'Enter your username and password to log in'. There's a graphic of a person at a computer with a refresh icon. The login form has two fields: 'Username' with the value 'specialist1' and 'Password' with masked characters. A 'Login' button is below the password field, and a 'Forgot your password?' link is at the bottom.

OpenX Ad Server

Authentication

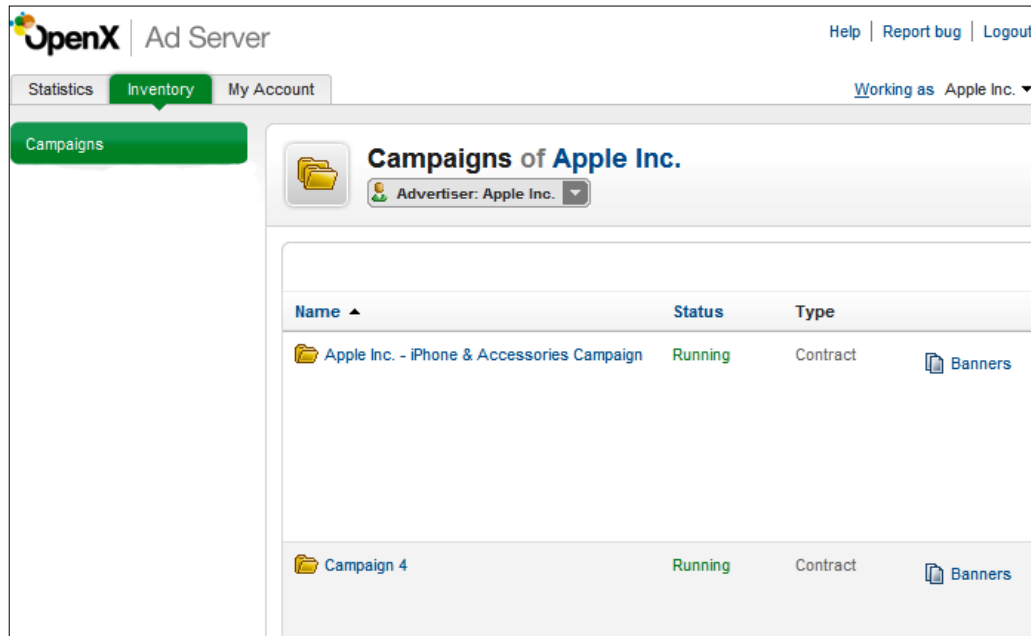
Welcome to OpenX
Enter your username and password to log in

Username:

Password:

[Forgot your password?](#)

You can see that Campaigns under Apple Inc. are listed as in the following screenshot:



The screenshot shows the OpenX Ad Server interface. At the top, there's a logo for OpenX Ad Server and links for 'Help', 'Report bug', and 'Logout'. Below this, there are tabs for 'Statistics', 'Inventory', and 'My Account'. A dropdown menu shows 'Working as Apple Inc.'. The main content area is titled 'Campaigns of Apple Inc.' and shows a list of campaigns. The first campaign is 'Apple Inc. - iPhone & Accessories Campaign' with a status of 'Running' and a type of 'Contract'. The second campaign is 'Campaign 4' with a status of 'Running' and a type of 'Contract'. Both campaigns have a 'Banners' icon next to them.

OpenX Ad Server

Help | Report bug | Logout

Statistics | Inventory | My Account

Working as Apple Inc. ▼

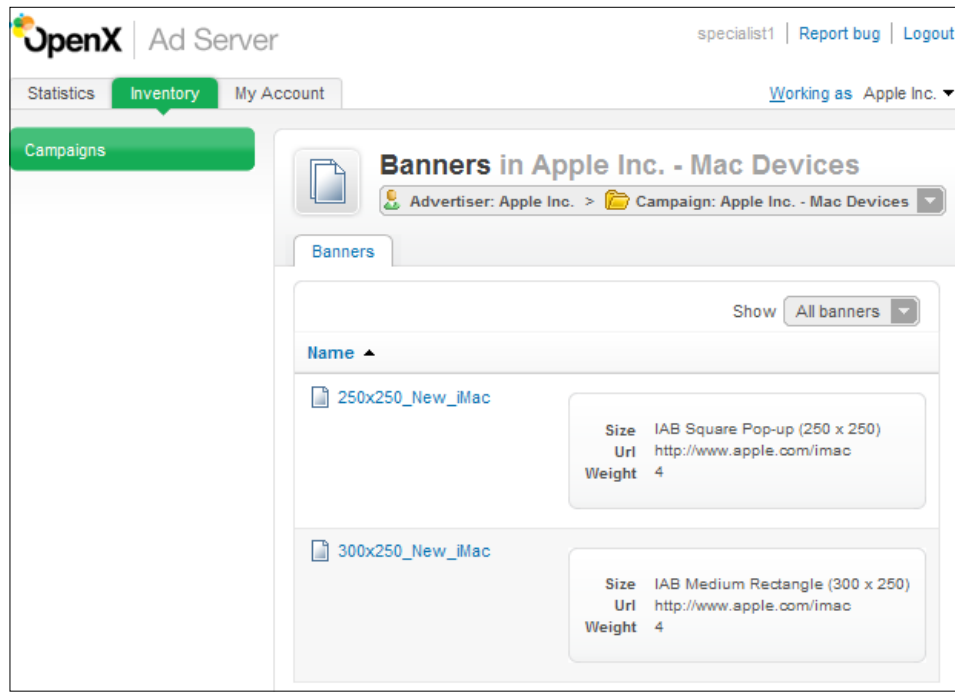
Campaigns

Campaigns of Apple Inc.

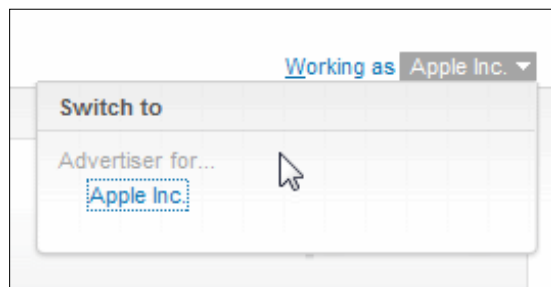
Advertiser: Apple Inc. ▼

Name ▲	Status	Type
Apple Inc. - iPhone & Accessories Campaign	Running	Contract
Campaign 4	Running	Contract

- 12.** Click on the **Banners** link for one of the campaigns and see the list of banners as in the following screenshot:



- 13.** Try switching to another account by clicking on the tiny arrow in the top right menu of OpenX.



What just happened?

We have learned how to add an advertiser account to provide access to certain advertisers for specialists.

We performed the following activities in the previous procedure:

- ◆ We switched to default manager account from administrator account.
- ◆ We have browsed until we can see the advertiser properties page of Apple Inc. Then we have clicked on the user access tab.
- ◆ We have then created the specialist1 user and have provided certain permissions. These included the ability to activate/deactive banners and change banner properties.
- ◆ We have logged out from the system and logged in using specialist1 user. We have seen the campaigns available under Apple Inc. Note that this user cannot start a new campaign, delete one, or deactivate one.
- ◆ Next, we have browsed banners listing under a campaign. Note that the user cannot add new banners or delete existing banners. The permission is limited to activate/deactivate and change banner properties. This behavior is great for controlling the campaigns for a manager account.

Have a go hero – adding a website account

Now, let's test our understanding of the account type system of OpenX. In this scenario, we want to allow a website owner to be able to create zones, take invocation code, and link available banners from the system solely for her/his website in the OpenX system. The new user must not be able to create any new website, advertiser, campaign, or banner. Carefully look at the **Website Properties** screen for a website to find **User Access** option.

Accounts and permissions chart

The following chart briefly shows all the permissions for the account types in the OpenX system:

ROLE	PERMISSIONS
Administrator	Server administrator rights: ◦ Create manager accounts ◦ Add users to manager accounts ◦ Can act as a manager ◦ Create other administrator users ◦ View Home and User log pages ◦ Manage global and maintenance settings ◦ Access to direct selection
Manager	Account manager rights: ◦ Create and manage advertisers and websites ◦ Add other manager accounts ◦ Add users to advertisers and websites ◦ View Home and User log pages ◦ Manage account preferences ◦ Access to channel management
Website	Website rights (if permitted): ◦ Create zones ◦ Link banners to zones ◦ Generate invocation code ◦ Link additional users to this account
Advertiser	Advertiser rights (if permitted): ◦ View campaigns ◦ Modify banners ◦ Activate campaigns ◦ Deactivate campaigns ◦ Link additional users to this account

Pop quiz – understanding OpenX account management

Decide whether the following statements are true or not:

- We are able to add a user on a campaign or banner level.
- If we delete a manager account using the administrator account, all websites, advertisers, channels, and other accounts defined under this manager account are deleted as well.

- c. If we delete a user linked to a manager account using the administrator account, all websites, advertisers, channels, and other accounts defined under this manager account are deleted as well.
- d. A user login can be linked to multiple accounts. For example, to a website account under a manager account 1 and an advertiser account under a manager account 2.

Summary

In this chapter, we have seen how we can take advantage of account types for providing multiple user access with permission levels on administrator, manager, website, and advertiser. By using different accounts, you can open your OpenX Ad Server system for the clients and for your in-house employees.

In the next chapter, we will learn how to change user and account properties, set banner preferences, and audit the OpenX Ad server to track changes made by different users.

8

User and Account Preferences

OpenX provides an additional preferences section to provide more control with regards to how an account will behave and show default settings.

In this chapter, we shall learn:

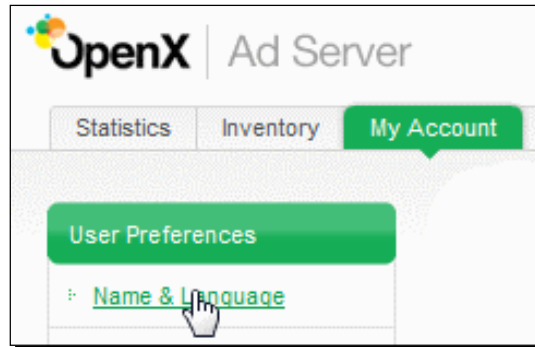
- ◆ Changing the name, e-mail, and password for a user
- ◆ Defining default banner preferences
- ◆ Changing the time zone for an account
- ◆ Checking user logs for auditing events and other users under an account

Changing OpenX name, e-mail, and password

We will now learn how to change the name, e-mail, and password of a user.

Time for action – changing OpenX name, e-mail, and password

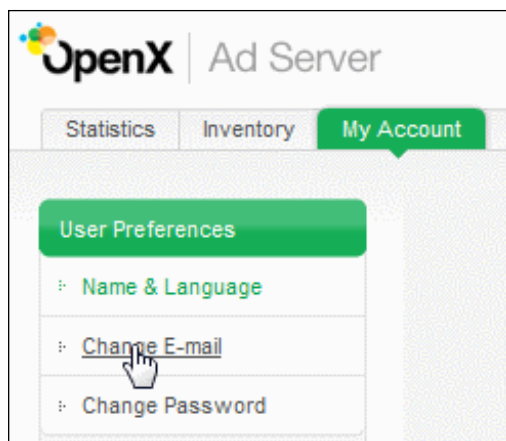
1. Click on **My Account**, then click on **Name & Language** under **User Preferences** menu.



2. Change **Full Name** according to your choice and click on **Save Changes** button.

A screenshot of the 'Name & Language' user preference form. The form has a title 'Name & Language' at the top. Below the title, there are two main sections: 'User Details' and 'Language'. The 'User Details' section contains three input fields: 'Username' (with the value 'openx'), 'Email address' (with the value 'admin@muratos.com'), and 'Full Name' (with the value 'Murat Yilmaz'). The 'Full Name' field is highlighted with a red rectangle. The 'Language' section contains a 'Language' dropdown menu with 'English' selected. At the bottom of the form, there is a 'Save Changes' button, which is highlighted with a blue box and a mouse cursor is pointing at it.

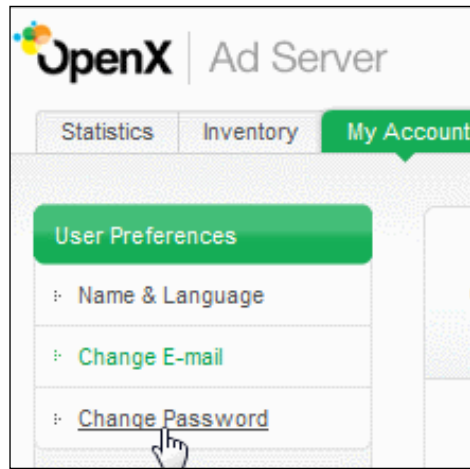
3. Click on **Change E-Mail** under **User Preferences** menu.



4. Provide your **Password** and the new **Email address** you want to associate with the username. Do not forget to click on **Save Changes**.

A screenshot of the 'Change E-mail' form in the OpenX Ad Server. The form has a title 'Change E-mail' at the top. Below the title, there is a section with a gear icon and the text 'Change E-mail'. The form contains several input fields: 'Username' with the value 'openx', 'Full Name' with the value 'Murat Yilmaz', 'Password' with a red asterisk and a masked input field, and 'Email address' with the value 'newemail@yourwebsite.com'. A red asterisk is also present next to the 'Password' label. At the bottom of the form, there is a 'Save Changes' button. A mouse cursor is pointing at the 'Save Changes' button.

5. Click on **Change Password** under **User Preferences** menu.



6. Type your **Current Password**, then **Choose a new password** and **Re-enter new password**. Click on **Save Changes** button.

A screenshot of the 'Change Password' form in the OpenX Ad Server. The form has a title 'Change Password' at the top. Below the title, there's a sub-header 'Change Password' with a gear icon. The form contains several input fields: 'Username' (filled with 'openx'), 'Full Name' (filled with 'Murat Yilmaz'), 'Email address' (filled with 'admin@muratos.com'), 'Current Password' (masked with dots), 'Choose a new password' (masked with dots), and 'Re-enter new password' (masked with dots). At the bottom left of the form, there is a blue 'Save Changes' button with a mouse cursor pointing at it.

What just happened?

We have learned how to change the name, e-mail, and password for an account on OpenX Ad Server.

Specifically, we have covered the following Time for Action steps:

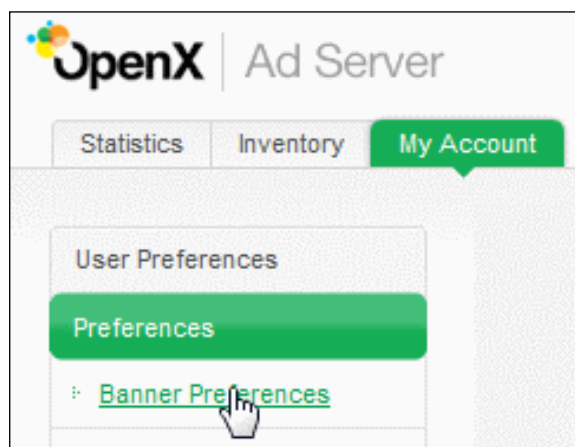
- ◆ We learned how to change the name for a user. Actually, we could also change the OpenX screens language for the user. OpenX supports a multi-language environment for many widely-used worldwide languages. It is a useful setting if you have a team of specialists from different countries.
- ◆ We have changed the e-mail of the user. Note that we have provided our current password as an extra security check before this change.
- ◆ We have changed our password. It required providing the old password for security and retyping the new password to prevent typing mistakes for the new password.

Banner preferences

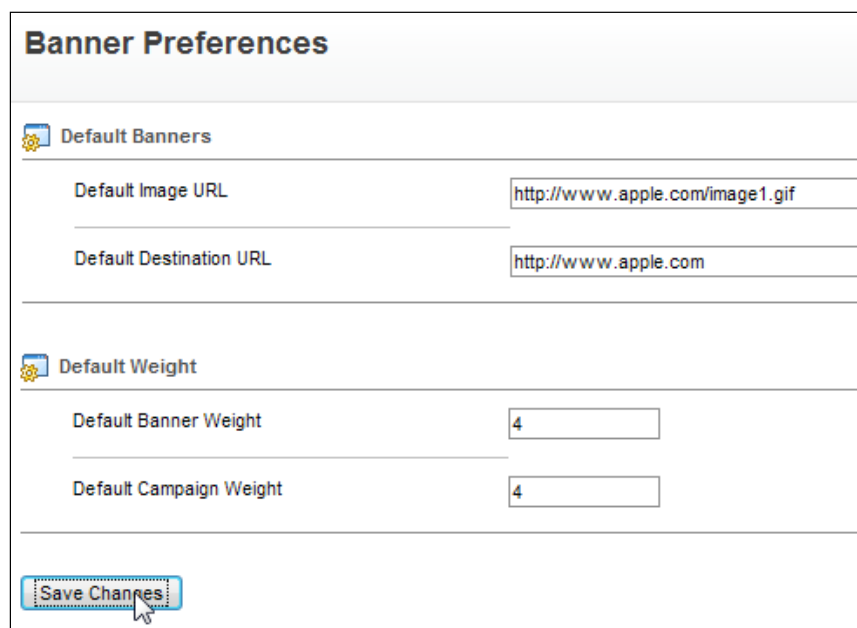
We will now learn how to define default banners and default weight values for the account. This way, we can guarantee that a default banner will be shown to visitors even if there are no banners to be delivered in the inventory.

Time for action – changing banner preferences

1. Click on **Banner Preferences** link under **Preferences** menu in **My Account** menu.

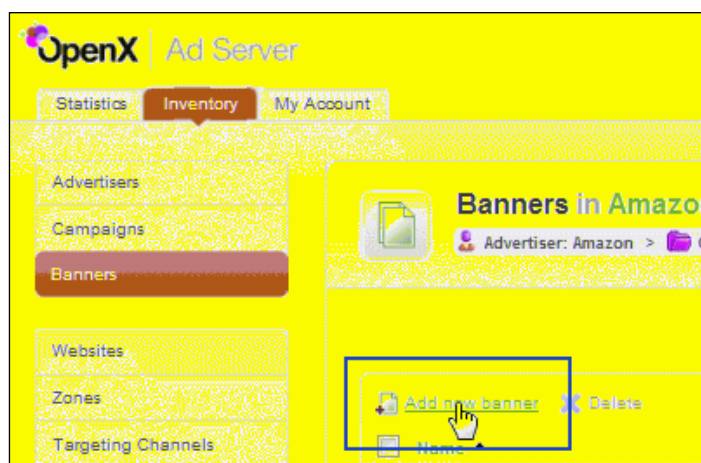


2. In **Default Banners** section, write **Default Image URL** and **Default Destination URL** of one of your banners in OpenX system.
3. In **Default Weight** section, write any number between 1 to 10 for both **Default Banner Weight** and **Default Campaign Weight** fields. Click on **Save Changes** button.



The screenshot shows the 'Banner Preferences' form in the OpenX interface. It is divided into two main sections: 'Default Banners' and 'Default Weight'. The 'Default Banners' section contains two text input fields: 'Default Image URL' with the value 'http://www.apple.com/image1.gif' and 'Default Destination URL' with the value 'http://www.apple.com'. The 'Default Weight' section contains two numeric input fields: 'Default Banner Weight' and 'Default Campaign Weight', both with the value '4'. At the bottom of the form is a 'Save Changes' button, which is highlighted with a blue dashed border and a mouse cursor pointing at it.

4. Go to **Banners** section and click on **Add new banner** link under any of the campaigns.



5. Scroll down on the banner screen. Note that **4** was written in **Weight** field as default.

Add new banner to campaign Amazon - Halloween

Advertiser: Amazon > Campaign: Amazon - Halloween

Add new banner

Link an external banner

Basic information

Name *

Link an external banner

Image URL (incl. http://) http://

Additional data

Keywords

Weight 4

Comments

What just happened?

We have learned how to change banner preferences for an account.

The default banners section is very useful to prevent visitors seeing blank pages when there are no banners to show. In this situation, the banner that we have defined here will be shown by default.

When a default weight has been chosen for a banner or campaign, all new banners and campaigns under this account will have default weight numbers according to these parameters.

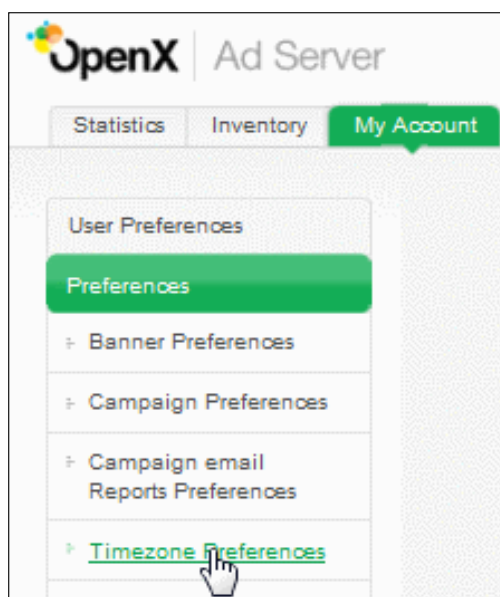
According to this example, all new campaigns and banners will have 4 as the default weight which can be changed by the user.

Time zone preferences

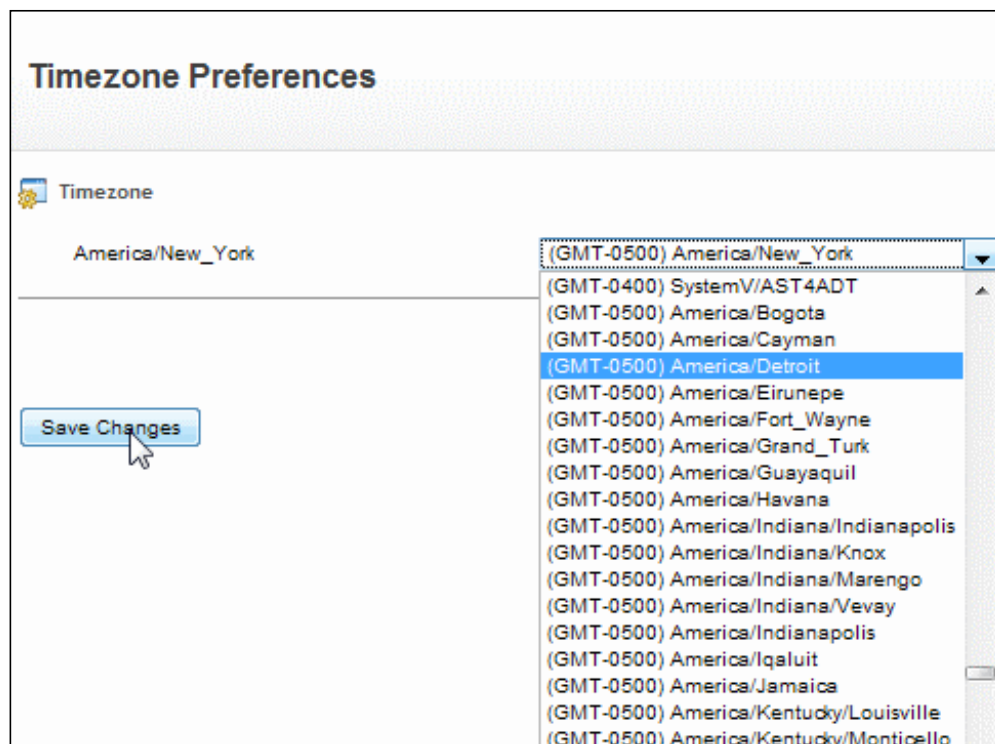
Selection of the time zone affects the delivery and reports of the campaigns and banners. So, it should be properly defined for each account.

Time for action – changing time zone preferences

1. Click on **Timezone Preferences** link under **Preferences** menu in **My Account** tab.



2. Select from available time zones and click on **Save Changes** button.



What just happened?

We have learned how to change **Time Zone Preferences** for an account. Note that different accounts can have different time zone settings. It indicates that all campaigns and banners under an account behave according to the selected time zone.

For example, let's suppose that the manager account defined GMT+3 as the time zone and he/she has a banner that works according to **Time-Hour of day** delivery limitation. If this delivery limitation is set to work 09:00 to 18:00, the OpenX system will use GMT+3 time zone setting as a reference.

If he/she wants to show this banner to visitors of another country, let's say A (let's say in GMT+1 time zone) in exactly the same hours in the local country time 09:00 to 18:00 then, it is necessary to define a delivery combination of Time and GeoTargeting—Country: 07:00 to 16:00 and Country A because of the two hour time difference.

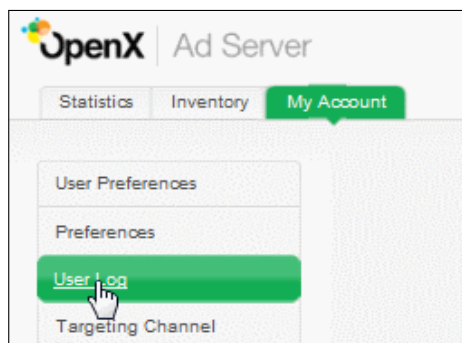
Another alternative solution is to open another account and set the time zone GMT + 1 and copy the banner exactly with 09:00 to 18:00 time limitation.

User logs

The user logs section is a handy tool to check what actions the users under an account are performing on the OpenX System. We can also track the changed history of any advertiser, campaign, banner, website, and zone.

Time for action – checking user logs

1. Click on **User Log** link under **My Account** menu.



We will see a screenshot similar to the following:

Filters

Advertiser

Select Advertiser

Website

Select Website

Date

All events

From

to

Clear

Timestamp ^

Event

15-01-2010, 09:04:28

administrator inserted Account User Association "Account #9 -> User #2"

 View

15-01-2010, 09:04:28

administrator inserted Account User Permission Association "Account #9 -> User #2 -> Permission #10"

 View

15-01-2010, 09:04:28

administrator inserted Account User Permission Association "Account #9 -> User #2 -> Permission #4"

 View

15-01-2010, 09:04:28

administrator inserted Account User Permission Association "Account #9 -> User #2 -> Permission #2"

 View

15-01-2010, 09:04:28

administrator inserted Account User Permission Association "Account #9 -> User #2 -> Permission #1"

 View

15-01-2010, 09:04:28

administrator inserted Account User Permission Association "Account #9 -> User #2 -> Permission #11"

 View

12-01-2010, 03:22:10

administrator inserted Zone "yourwebsite.com - Top 300x250 Global Zone" (#3) in Website (#2)

 View

12-01-2010, 02:49:39

administrator inserted Banner "Amazon - Halloween Special Promotion Banner" (#5) in Campaign (#7)

 View

12-01-2010, 02:49:39

administrator inserted Ad Zone Association "Ad #5 -> Zone #0" (#6)

 View

12-01-2010, 02:46:45

administrator inserted Campaign "Amazon - Halloween" (#7) in Advertiser (#3)

 View

2. Select an advertiser from the **Filters** list and view the details of any event.

Filters

Advertiser

Amazon

Select Campaign

Website

Select Website

Date

All events

From

to

Clear

Timestamp

Event

12-01-2010, 02:49:39

administrator inserted Banner "Amazon - Halloween Special Promotion Banner" (#5) in Campaign (#7)

 [View](#)

12-01-2010, 02:46:45

administrator inserted Campaign "Amazon - Halloween" (#7) in Advertiser (#3)

 [View](#)

12-01-2010, 02:12:06

administrator inserted Banner "Puzzle Games for Kids Banner" (#2) in Campaign (#3)

 [View](#)

12-01-2010, 02:08:15

administrator inserted Campaign "Amazon - Toys & Games" (#3) in Advertiser (#3)

 [View](#)

12-01-2010, 02:07:03

administrator inserted Client "Amazon" (#3)

 [View](#)

3. We should see the **Event Details** similar to the following screenshot:

Event Details	
ID	#5
Name	Amazon - Halloween Special Promotion Banner
Type	Banner
Action	inserted
Username	administrator
Event History	
Parameter	Value
bannerid	5
contenttype	gif
pluginversion	0
storagetype	url
filename	
imageurl	http://rcm-images.amazon.com/images/G/01/i
htmltemplate	
htmlcache	
width	468
height	60
weight	8
seq	0
target	
url	http://www.amazon.com/halloween-savings

What just happened?

We have learned how to audit users under an account using user logs. User logs also provide filters on advertisers, campaigns, and websites. We can further investigate user logs according to additional date filter.

Have a go hero – exploring user interface preferences

Now we have seen the most effective and widely used user and account preferences on the OpenX system.

Investigate preferences menu more on to find out other available preferences options and what additionally we can change on an user interface.

Pop quiz – understanding user and account preferences

Decide whether the following statements are true or false:

- a. All accounts on an OpenX server will be affected if we define a default banner image and destination URL under the administrator account in the banner preferences section.
- b. Each account can have different time zone preference values.
- c. A website or advertiser account can reach users', logs (Audit trail) if permission is given by a manager account.

Summary

We have seen that OpenX provides us with tools to differentiate the behavior of accounts using preferences. We have additionally learnt how to set different time zones for accounts and how to audit user changes and track what's going on in the system overall.

In the next chapter, we will learn about upgrading to the latest OpenX version.

9

Upgrading OpenX

It is wise to update the current OpenX environment to the latest version regularly. It helps us protect our system against security vulnerabilities and allows usage of new features. It is also possible that the new version will have several bug fixes and improvements related to speed.

In this chapter, we shall learn:

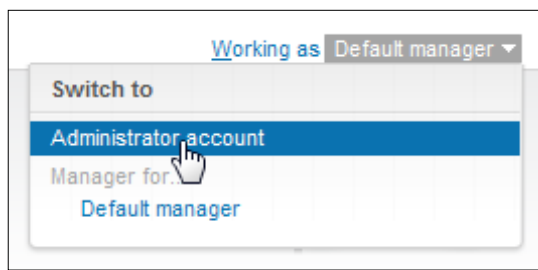
- Backing up the current OpenX system
- Downloading the latest OpenX version and uploading it to our server
- Copying configuration file and banner images for the upgrade
- Using upgrade wizard to complete upgrading process

OpenX version

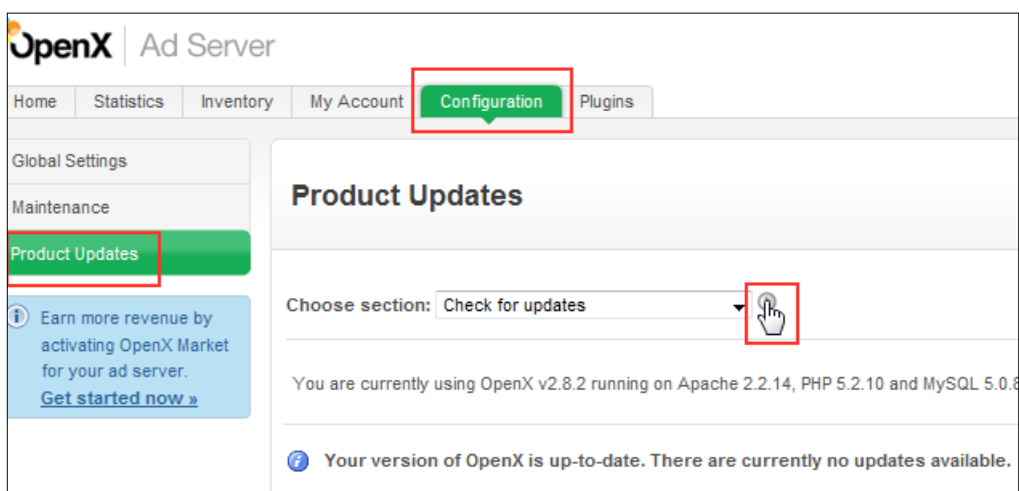
OpenX allows us to check on the administration panel, the new OpenX version releases. Let's now learn where to look for the latest upgrades.

Time for action – checking OpenX for upgrades

1. Let's switch to **Administrator account** as shown in the following screenshot:



2. Click on **Configuration** menu and then **Product Updates** link at the bottom of the left-side menu. Then, click on the tiny arrow near the **Check for updates** option.



You should also sometimes visit the official OpenX blog to know about the latest developments in OpenX and the advertising sector globally. OpenX blog is available at <http://blog.openx.org>.

What just happened?

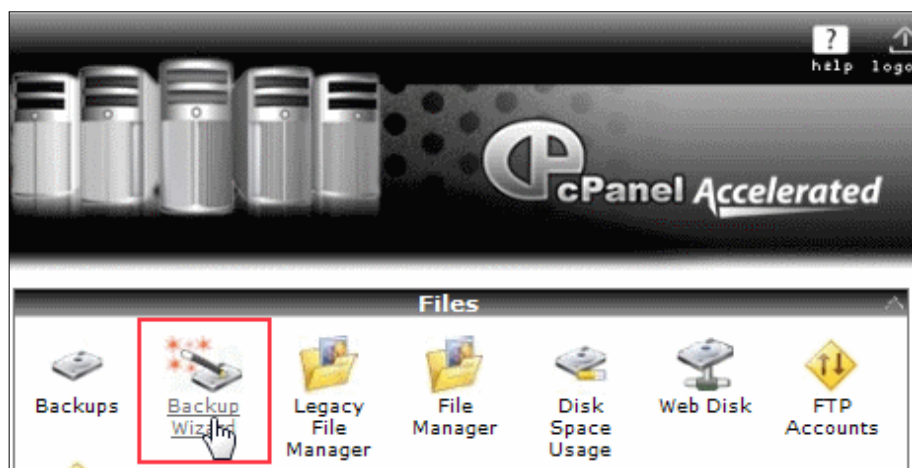
We have learned where we can check new OpenX version updates on the OpenX administration panel. If you have determined that OpenX system needs an upgrade, read the following section carefully.

Current OpenX files

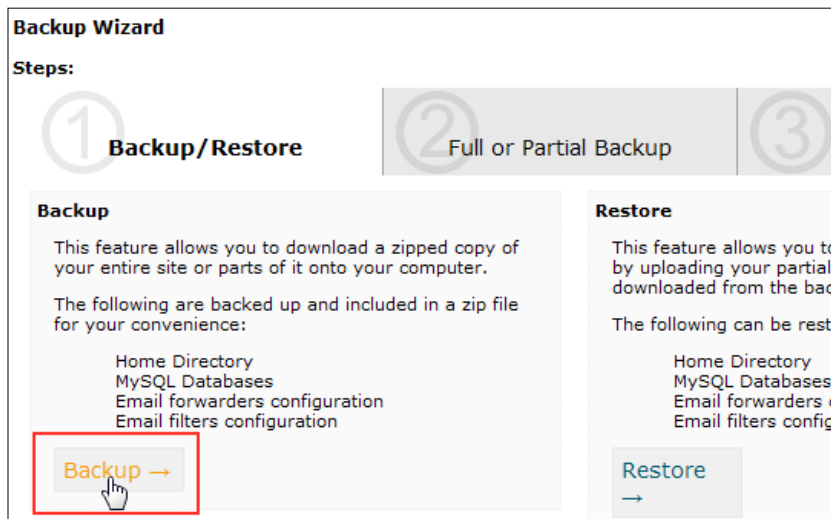
We will now learn how to back up necessary files and the database of the current OpenX system before starting an upgrade process.

Time for action – backing up OpenX files and database

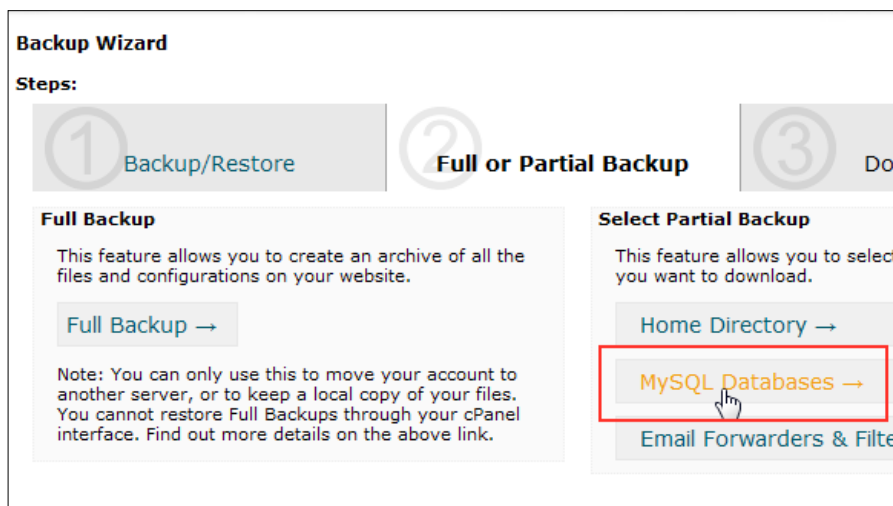
1. Open your cPanel screen, which your host provided for you. Click on **Backup Wizard** item under **Files** section.



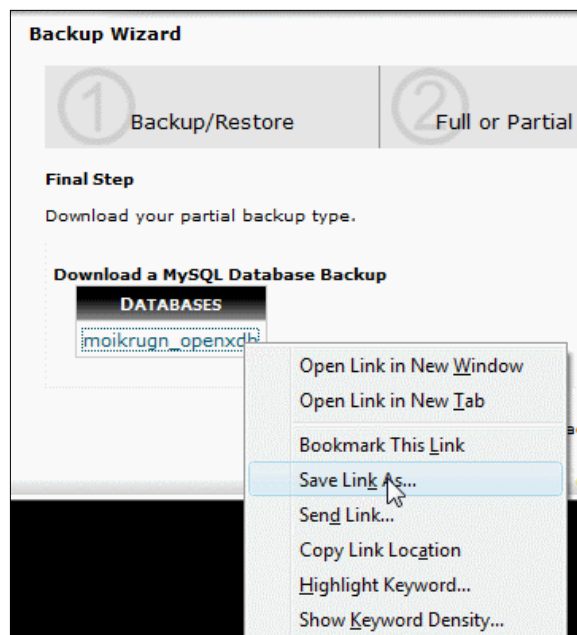
2. Click on **Backup** option on the next screen.



3. Click on **MySQL Databases** link under **Select Partial Backup** section.



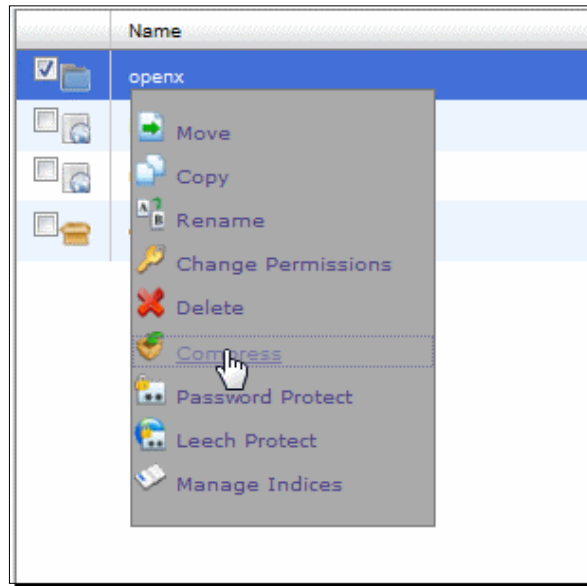
4. Our SQL backup is ready. Right-click on the filename and choose **Save Link As...** to save the backup file on your computer.



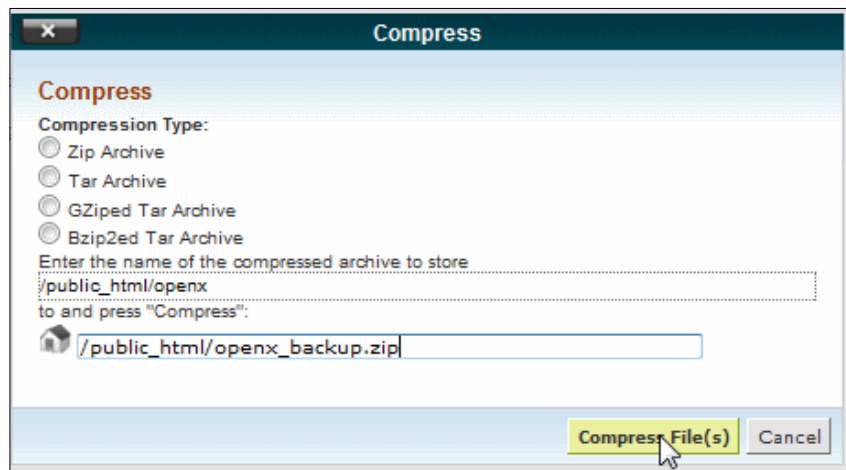
5. Open cPanel again and click on **File Manager** under **Files** menu.



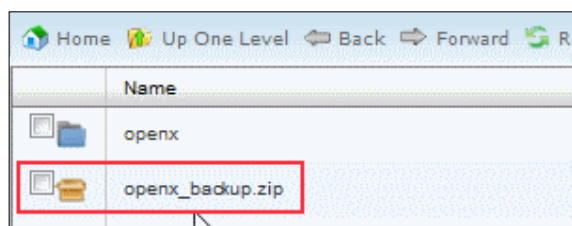
6. Browse until you find the current OpenX folder. Right-click on it and click on **Compress** option.



7. Change the name of the file that will be compressed, as `openx_backup.zip` and click on **Compress File(s)** button.



8. You can observe that `openx_backup.zip` file is now on the server. We can optionally download it to our local computer.



What just happened?

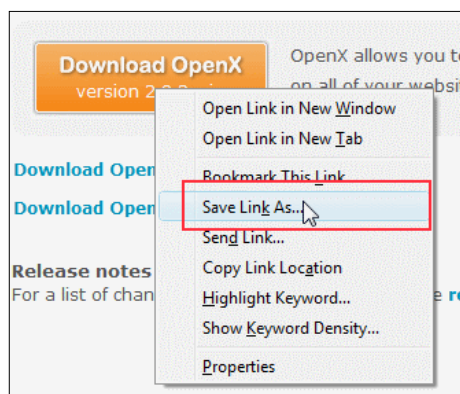
We have backed up the current OpenX database on our computer. We also copied the current OpenX file system as an archive backup file to our server. Never skip this step when you upgrade. In case of any errors during upgrade, we will have a chance to restore the original version.

New OpenX files

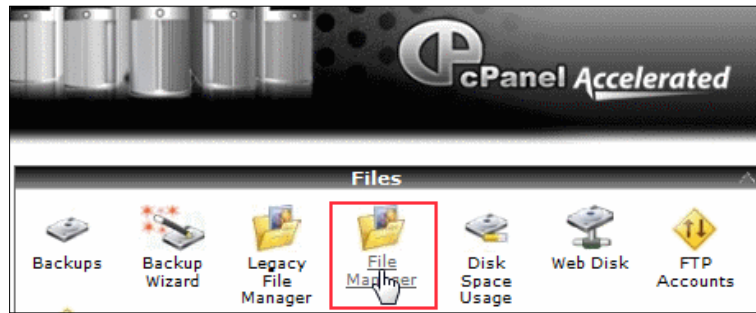
We will now learn how to download the latest version of OpenX and upload it to our server.

Time for action – downloading the latest OpenX files and uploading them to the server

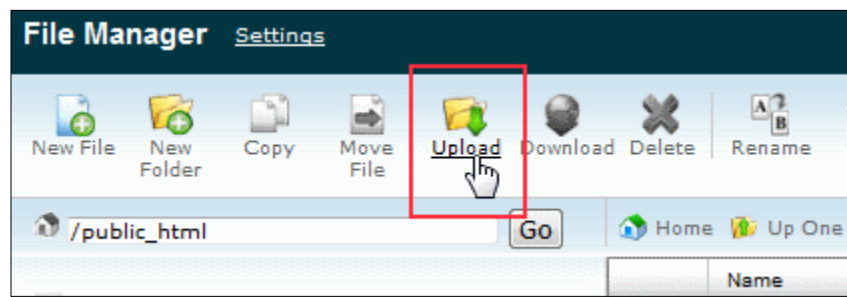
1. Let's browse to `http://www.openx.org/download` web address where we will always find the latest version. Right-click on the download link and choose **Save Link As...** to save the OpenX download file to the local computer.



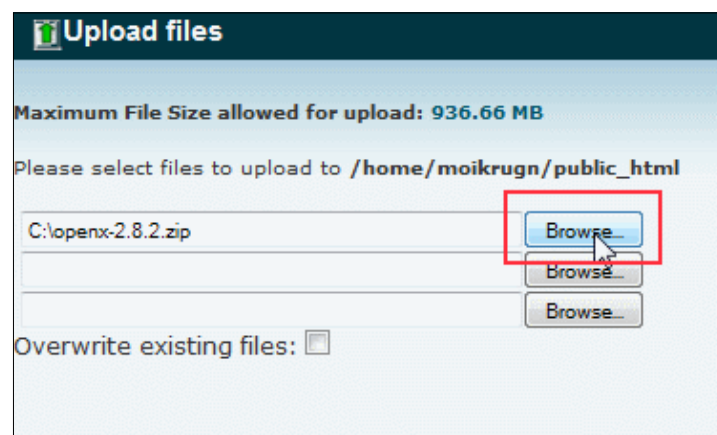
2. Open **File Manager** from cPanel.



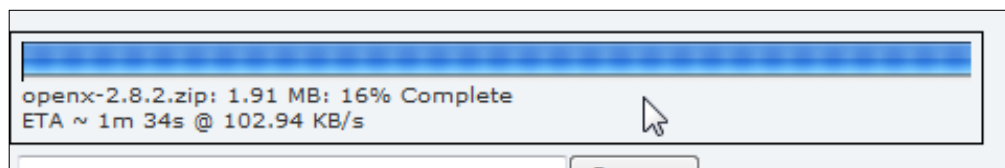
3. Click **Upload** link under **File Manager**.



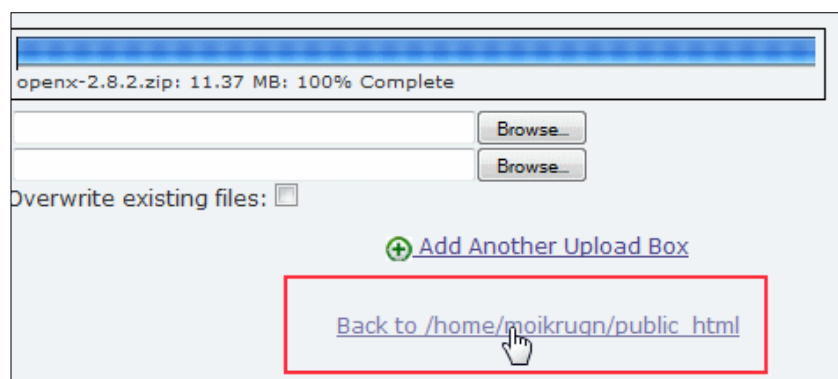
4. It will open a new window where we will choose the new OpenX file to upload.



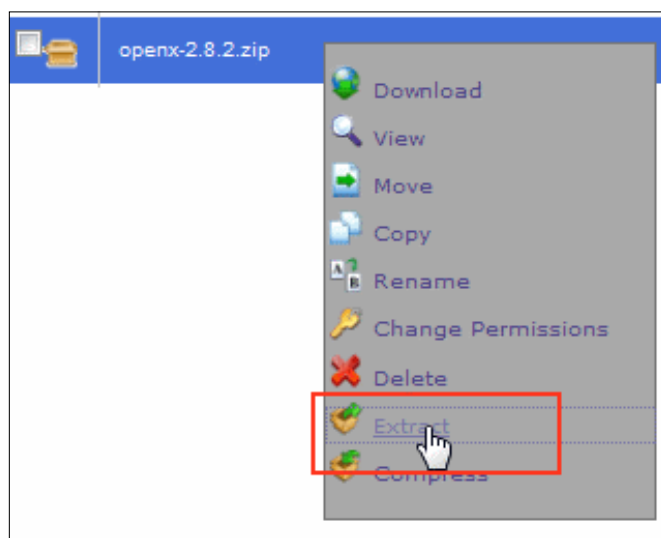
5. The upload will be automatically started. Wait while it is being uploaded.



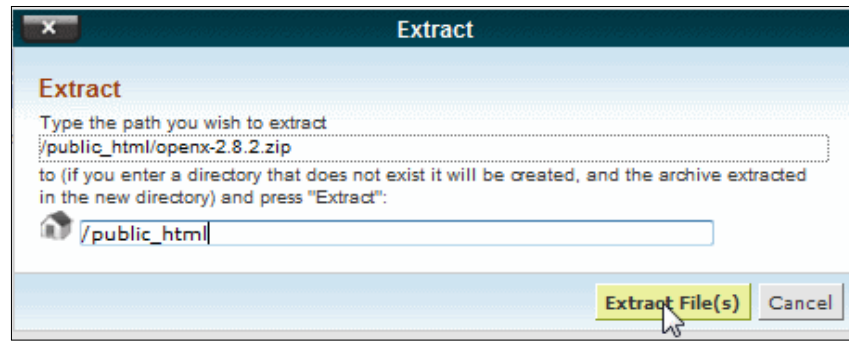
6. Return to **File Manager** screen after the upload is complete.



7. Right-click on the uploaded OpenX file and choose **Extract** from the menu.



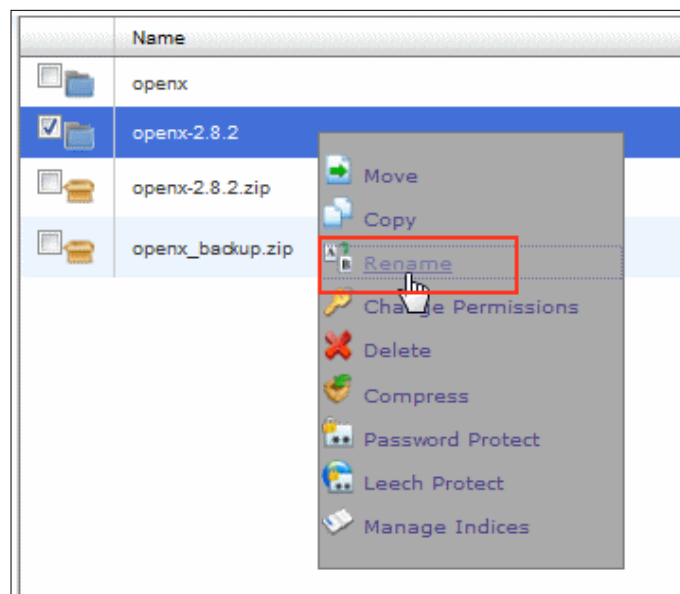
- Click on **Extract File(s)** button.



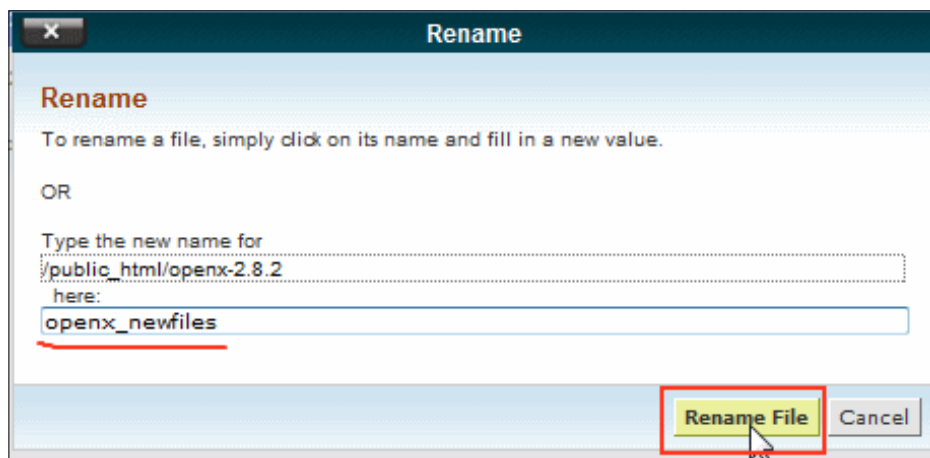
- Wait while the files are being extracted.



- Right-click on the new folder and click on **Rename** option.



11. Rename the folder with a descriptive name such as `openx_newfiles`.



What just happened?

We have learned where we need to check for updates. Then, we have downloaded the latest OpenX version to our computer as an archive. We have uploaded this archive file to our server using the cPanel file manager tool. We have extracted the file to its default folder. Finally, we have renamed the folder with a `_newfiles` suffix, which will remind us that these are the files of the new OpenX version.



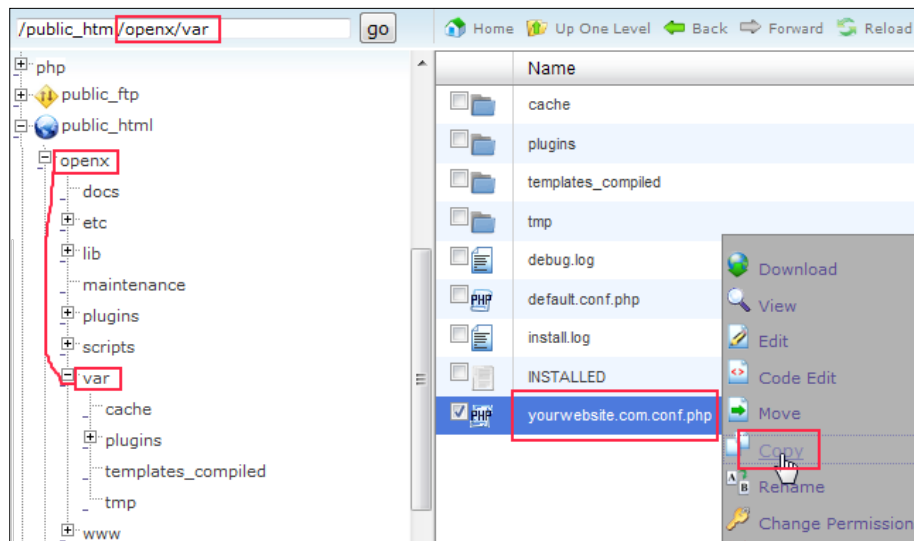
Another method for uploading files and renaming them is through the FTP client. If you prefer, you can get more information about uploading files to the server with CoreFTP Lite (free ftp client) in Chapter 1.

Configuration file and banner images

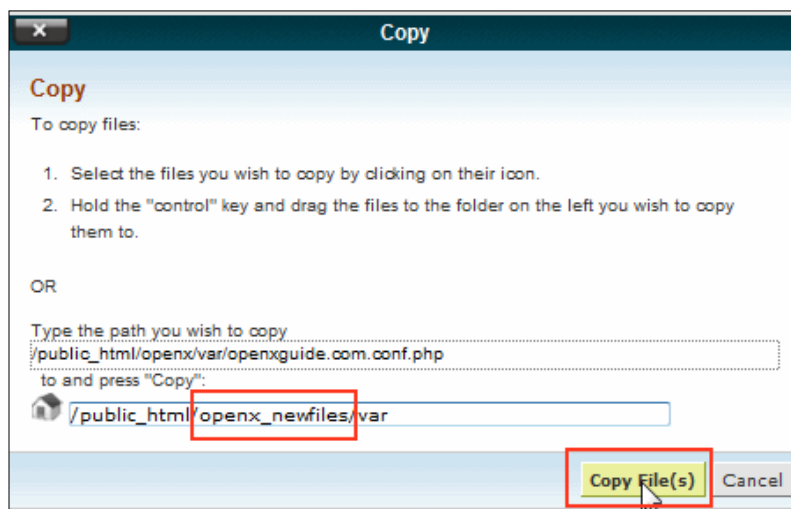
Before we start with an upgrade, we have to provide the current configuration file and banner images to the new OpenX system.

Time for action – copying the configuration file and image banners

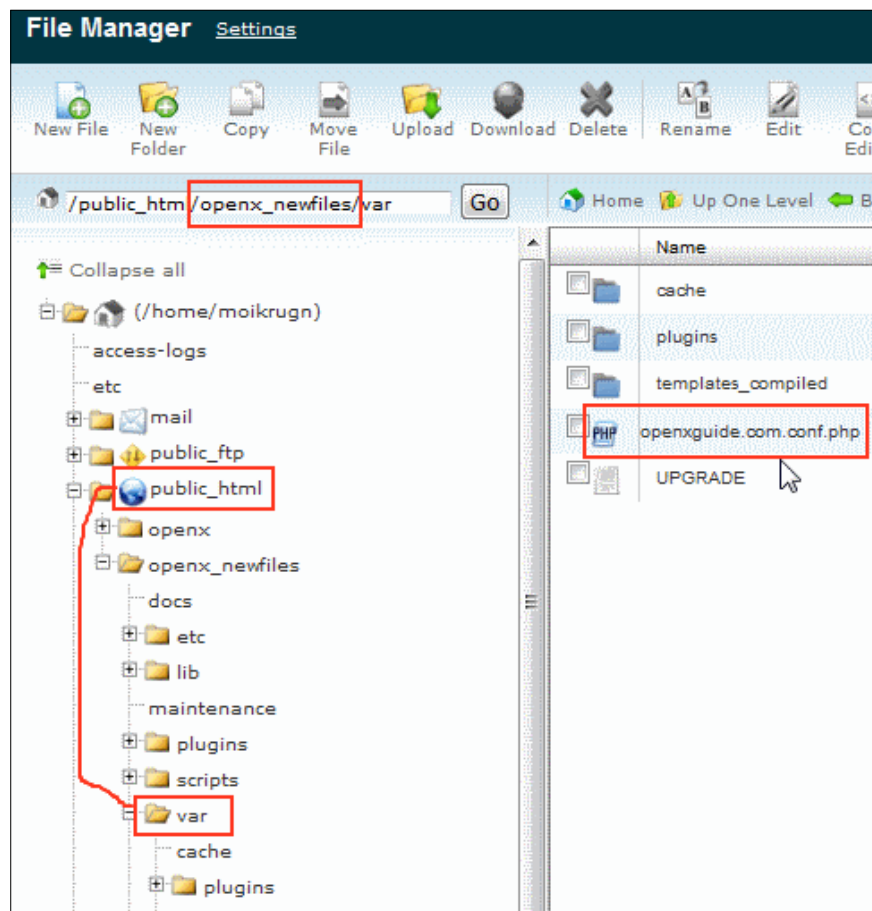
1. Browse into the current OpenX system and open `var` folder in it. We will see a file there similar to `yourwebsite.com.conf.php`. Find the file ending with `conf.php` suffix. Right-click on it and click on **Copy**.



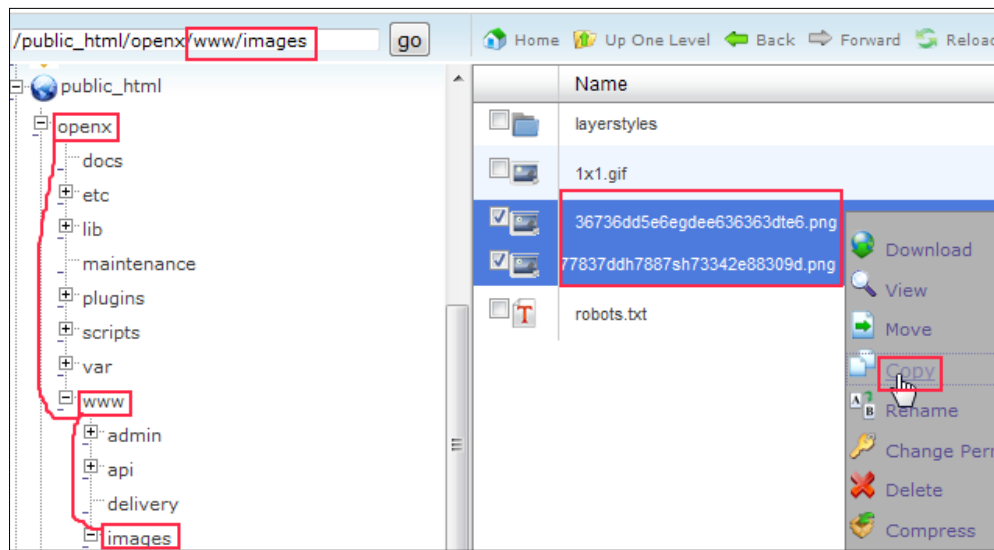
2. We will copy this file to new OpenX folder at `/openx_newfiles/var`. Click on **Copy File(s)** button. Look at the following screenshot:



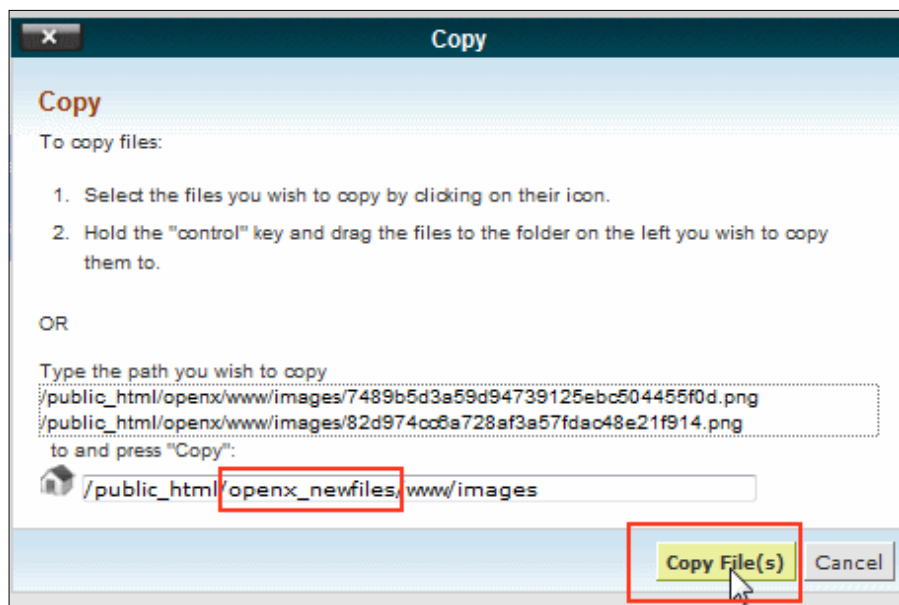
3. Be assured that the configuration file is copied to its new place.



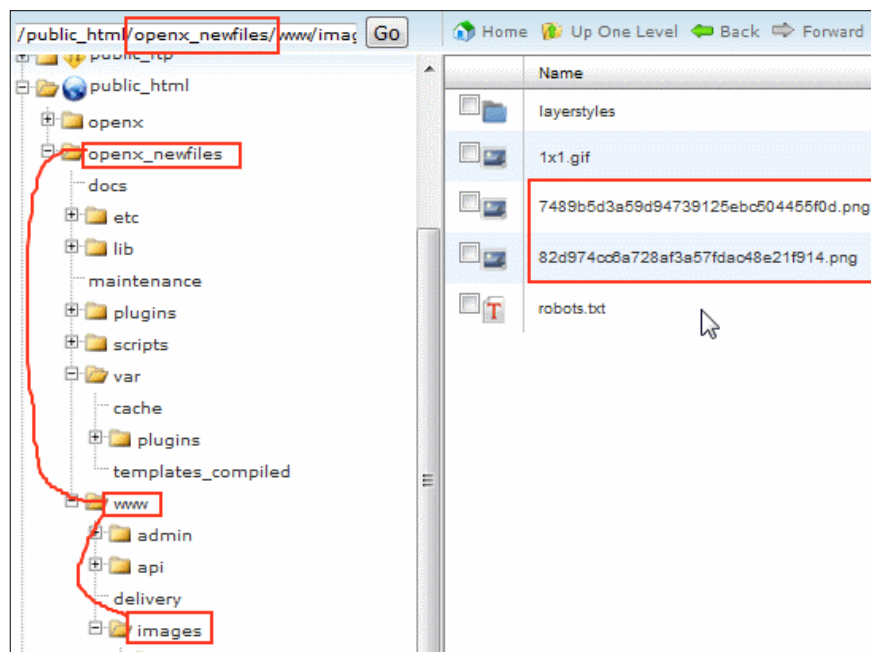
4. Browse to the current OpenX banner storage folder, that is at `/openx/www/images`. Select the banner image files and right-click on them. Then, click the **Copy** menu option.



5. Change the target path to new folder—`openx_newfiles/www/image`. Click on the **Copy File(s)** button.



6. Let's be sure that the copied images are now in their new location.



What just happened?

We first copied the configuration file to the new respective OpenX folder and became assured that the file is there. Finally, carried out a the similar process for banner images. Note that folder structures of both versions are the same.

Update wizard

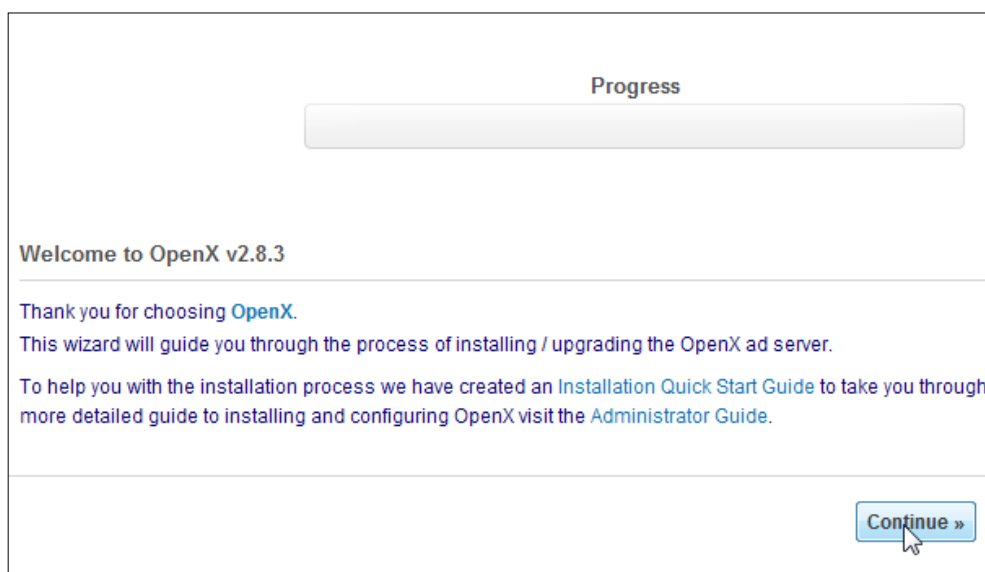
Update wizard automatically handles remaining upgrade steps. Now, let's see how to make use of it:

Time for action – running the upgrade wizard

1. Navigate to the URL where new OpenX directory resides—

`http://yourwebsite.com/openx_newfiles` in this case. Be sure that you are navigating to the correct URL, as `http://www.yourwebsite.com/openx_newfiles` and `http://yourwebsite.com/openx_newfiles` addresses are different to upgrade wizard. If `conf.php` file has website name (`www.yourwebsite.com`) with `www` prefix, we would navigate to `www.yourwebsite.com`

2. We will see a welcome screen at first. Click on **Continue** button.



3. Click on **I Agree** button for the information mentioned on **TERMS AND CONDITIONS OF USE** and **PRIVACY POLICY** screen.

TERMS AND CONDITIONS OF USE

[GNU GENERAL PUBLIC LICENSE](#)

Version 2, June 1991

Copyright (C) 1989, 1991 Free Software Foundation, Inc.
51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA

Everyone is permitted to copy and distribute verbatim copies
of this license document, but changing it is not allowed.

Terms retrieved from <http://www.openx.org/terms>

PRIVACY POLICY

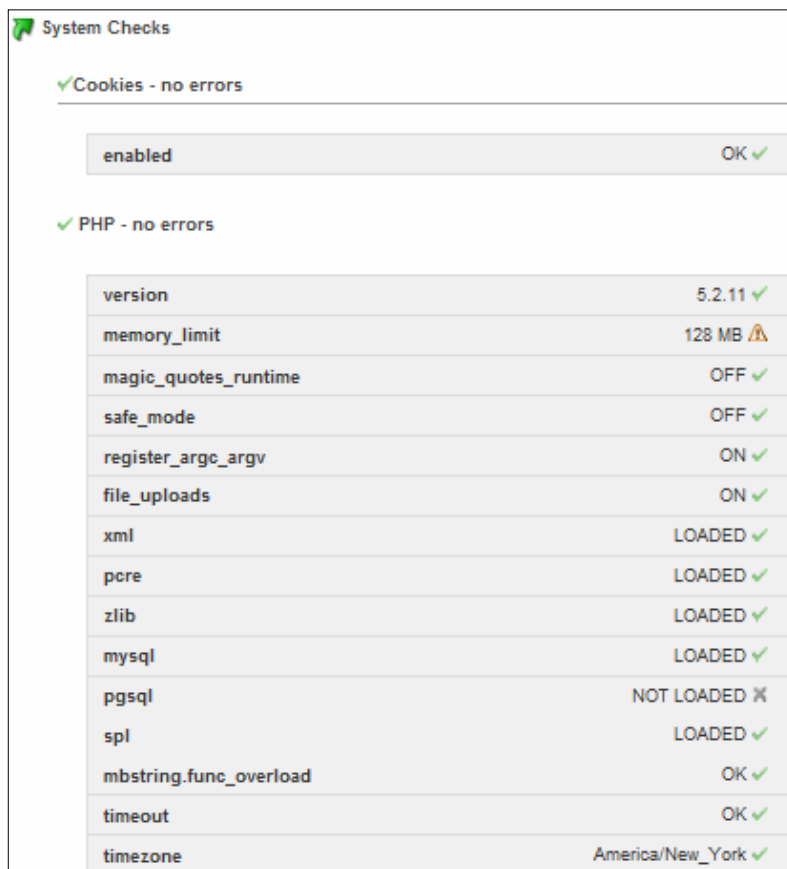
The "OpenX Software" is an open source ad serving software platform that allows website publishers to serve advertisement. "OpenX Hosted Service" is a service provided by OpenX which allows website publishers to use the OpenX Software on OpenX-hosted websites. OpenX Hosted Service Privacy Principles so website publishers that use the OpenX Software and the OpenX Hosted Service ("Publishers"), also could learn more about information privacy in connection with the OpenX Software and OpenX Hosted Service.

Except as otherwise noted in these OpenX Software Privacy Principles, OpenX's data collection and use practices for the OpenX Hosted Service.

1. [Information We Collect Specifically Through The OpenX Software and OpenX Hosted Service.](#)

Privacy policy retrieved from <http://www.openx.org/privacy>

4. OpenX upgrade wizard will make some system checks similar to the following screenshot:



5. Scroll down the screen. OpenX makes several file permission settings checks as well. At the bottom, we notice that upgrade wizard detected a previous version and informed us about the upgrade. Click on **Continue** button.

✓ File Permissions - no errors

/home/moikrugn/public_html/openx_newfiles/var	OK ✓
/home/moikrugn/public_html/openx_newfiles/var/cache	OK ✓
/home/moikrugn/public_html/openx_newfiles/var/plugins	OK ✓
/home/moikrugn/public_html/openx_newfiles/var/templates_compiled	OK ✓
/home/moikrugn/public_html/openx_newfiles/plugins	OK ✓
/home/moikrugn/public_html/openx_newfiles/www/admin/plugins	OK ✓
/home/moikrugn/public_html/openx/www/images	OK ✓

✓ Application Check

OpenX 2.8.1 detected
This version can be upgraded

« Go Back **Continue »**

6. In the **Administrator Login** screen that is shown next, OpenX asks us for the current administrator username and password if we haven't yet logged in to OpenX. Provide the current administrator information that is already in use. Click on **Continue**.

38%

 **Administrator Login**

In order to continue with the upgrade process, please enter your OpenX

✓ Administrator Account

Administrator Username * administrator

Administrator Password *

* Required field

« Go Back **Continue »**

7. On the next **Database Settings** screen, just click on **Continue** button.

Database Settings

Database Type: MySQL

☒ Use local socket connection

Database Socket:

Database Hostname: localhost

Database Port Number: 3306

Database Username *: openx

Database Password:

Database Name *: openxdb Database w

* Required field

Advanced Settings

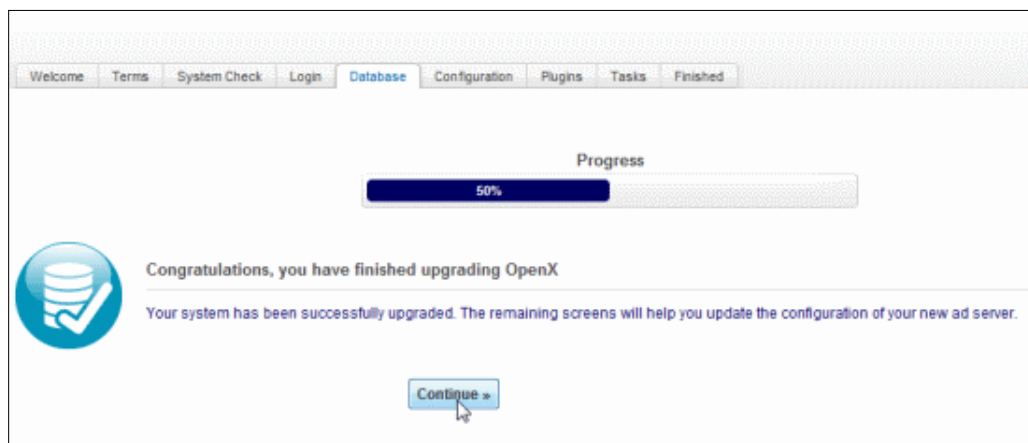
Table type: MyISAM

Table names prefix: ox_

* Required field

« Go Back Continue »

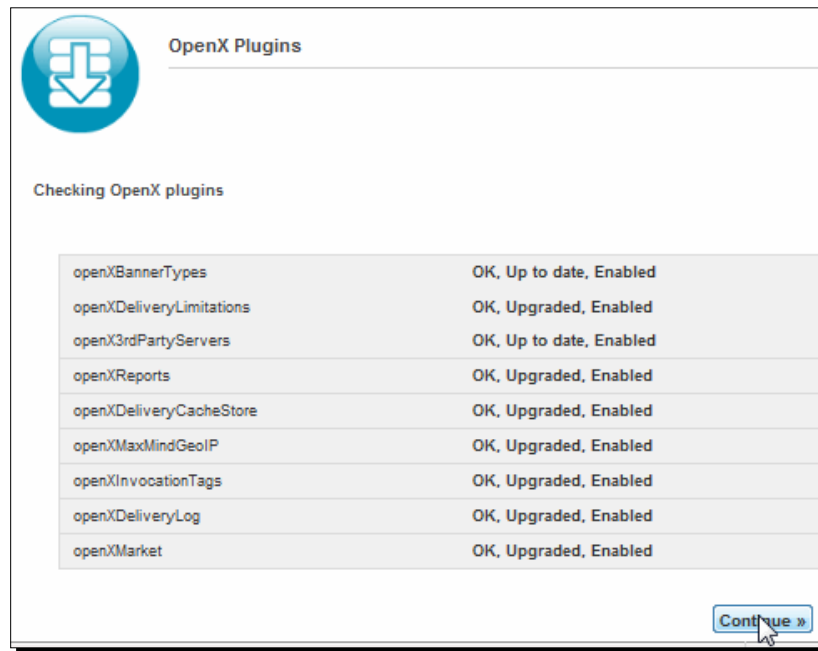
8. We will see a screen stating that OpenX main upgrade is complete. Click on **Continue** button to begin the upgrade of remaining configuration and plugin options.



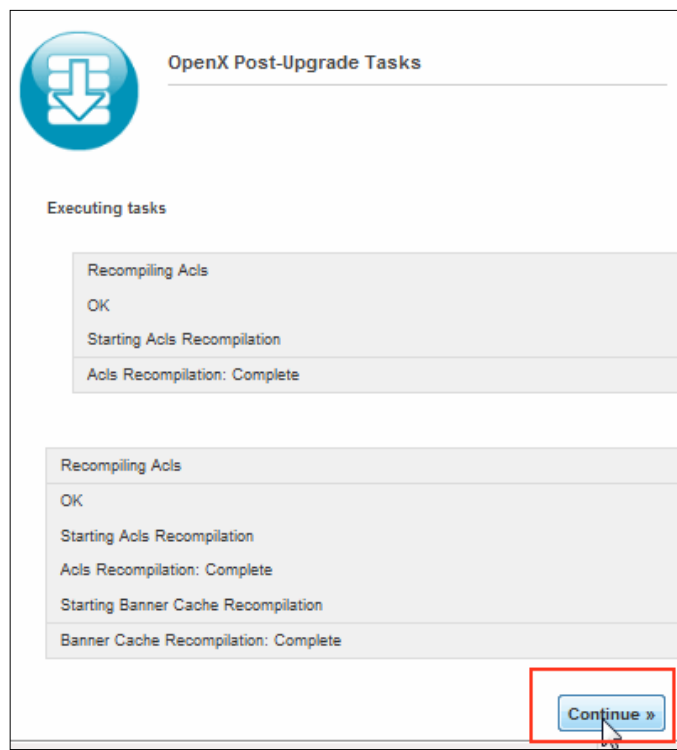
9. In the next **Configuration checklist** screen, do not change anything; just click on **Continue** button.

A screenshot of the 'Configuration checklist' screen. It features a blue circular icon with a wrench. The title is 'Configuration checklist' and the instruction is 'Please check the configuration settings below and make any required changes before proceeding'. The form is divided into two sections: 'Previous install' and 'Configuration settings'. The 'Previous install' section has a field for 'Path to previous OpenX installation *' with the value '/home/moikrugn/public_html/openx' and a 'Plugin files m' label. The 'Configuration settings' section has fields for 'Web path' (http(s)://moikrug.net/openx/www/admin), 'Delivery path' (http://moikrug.net/openx/www/delivery), 'Images path' (http://moikrug.net/openx/www/images), 'Delivery SSL path' (https://moikrug.net/openx/www/delivery), 'Images SSL path' (https://moikrug.net/openx/www/images), and 'Images folder *' (/home/moikrugn/public_html/openx/www/images). A red box highlights the 'Continue »' button at the bottom right.

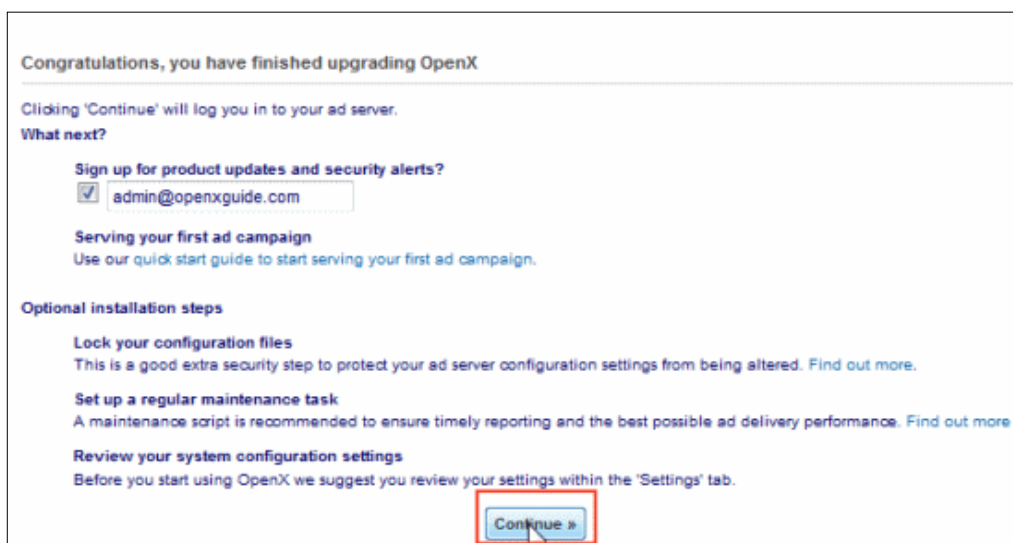
- 10.** OpenX upgrade wizard will now check new plugins and will upgrade the existing ones automatically. Then click on **Continue** button.



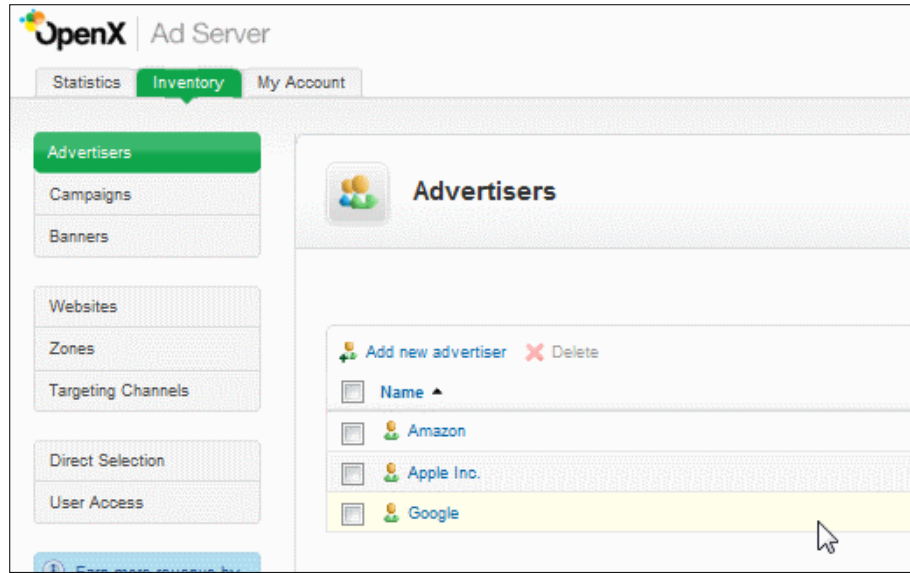
- 11.** OpenX automatically runs several tasks here. Just click on **Continue** button.



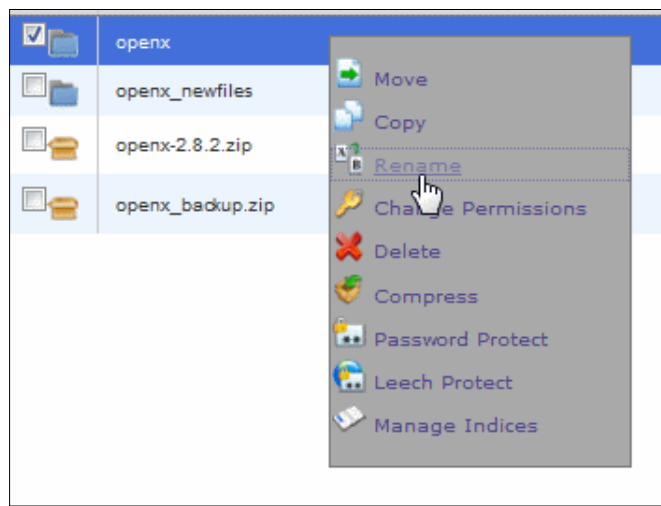
- 12.** We have finished upgrading OpenX configuration and database. Click on **Continue** button for the last time.



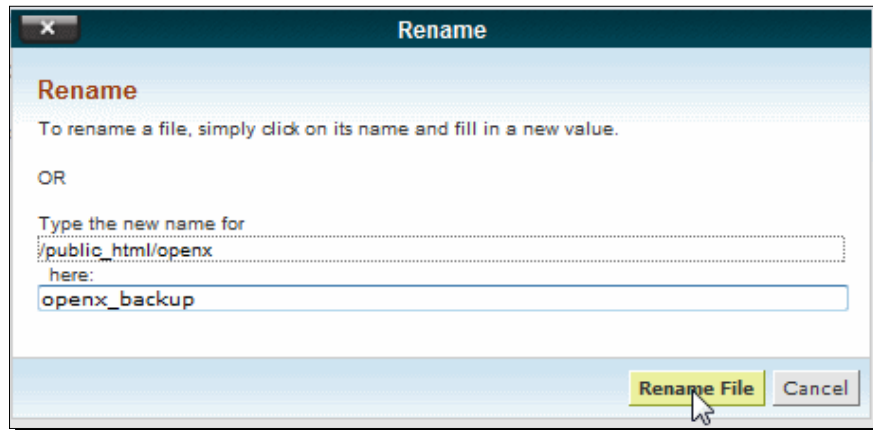
13. We are now in the OpenX management screen, but we have not finished yet.



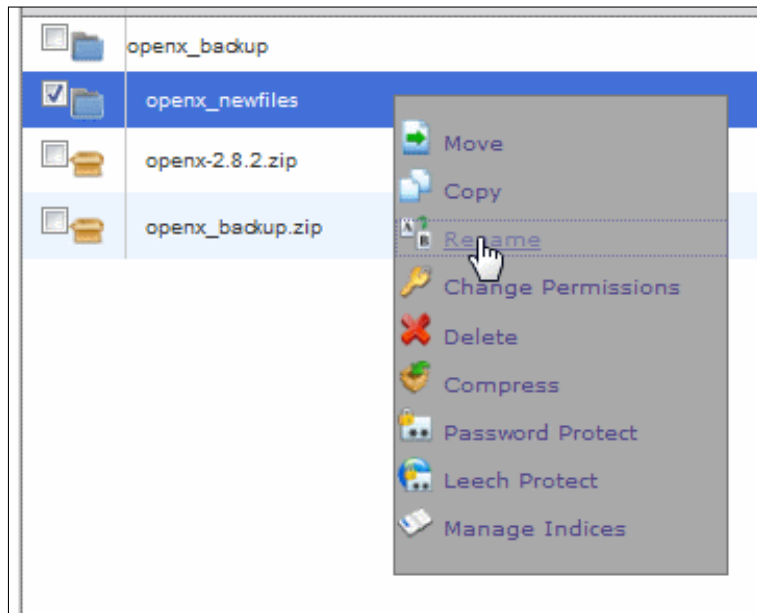
14. We will need to rename paths correctly as a final step. Open cPanel file manager screen again, right-click on `openx` folder, and choose **Rename** option.



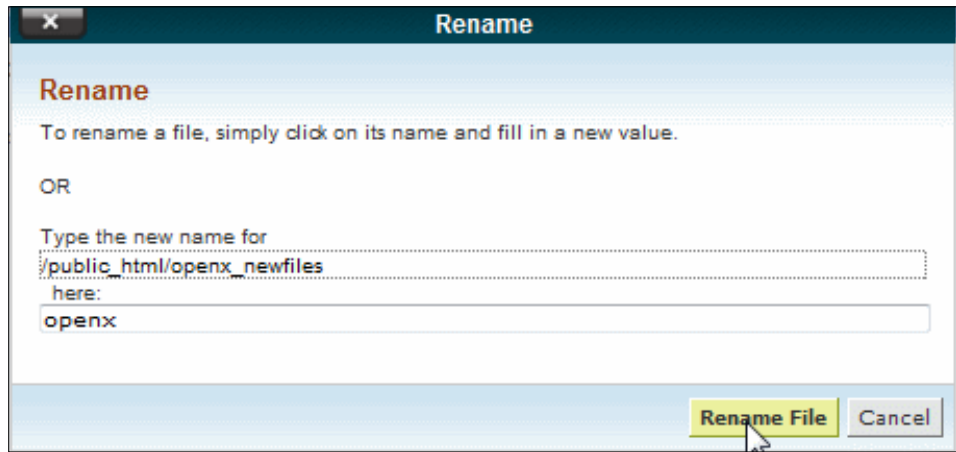
- 15.** Rename `openx` to `openx_backup` and click on **Rename File** button.



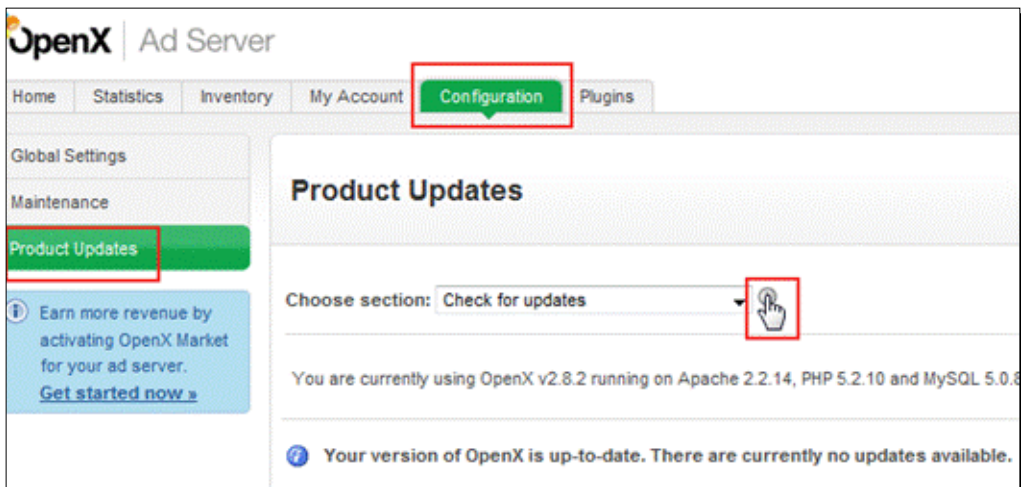
- 16.** Right-click on `openx_newfiles` folder and click on **Rename** option.



17. Change `openx_newfiles` name to `openx` and click on **Rename File** button.



18. Let's now check for the new updates from administrator account. Click on **Product Updates** link under **Configuration** menu.



What just happened?

We have started upgrade wizard. Only our administrator username and password were asked during this process. We simply clicked the **Continue** button until the end.

At the final step, we made the necessary path changes. We have renamed the old folder with `_backup` prefix. On the other hand, we have activated the new OpenX folder by removing the `_newfiles` suffix.

Have a go hero – the upgrading process: advanced features

Now, go and download the `conf.php` file on your computer and explore the content. In case you forget your MySQL database connection information for the OpenX installation, you can find this information in this file.

Pop quiz – understanding the process of upgrading OpenX

Suppose that we have completed the upgrade wizard successfully, but in the next step we have forgotten to rename old and new folder paths accordingly. Will the banners still be served on the website zones on to which they are linked?

Summary

We have seen that upgrading OpenX Ad Server is very similar to its installation. Moreover, we should be very careful on a few issues. These were correctly copying configuration file, banner image files to their new places and changing the installation locations. Do not forget to check for updates regularly. This will help you to avoid possible vulnerabilities on your system and taking advantage of future releases.

In the final chapter of the book, we will learn how to track statistics online, get special reports and analyze data on a spreadsheet.

10

Using Reports and Statistics

OpenX provides a very detailed and useful statistics and reports mechanism to evaluate the progress as well as performance of any campaign. OpenX reports and statistics tools have the ability to retrieve data on several groupings such as advertisers, campaigns, banners, websites, and zones.

In this chapter, we shall learn:

- How to view advertisers and campaign statistics
- How to export data to Excel for further analysis
- Types of advanced OpenX reports
- How to retrieve advertising analysis reports using Excel

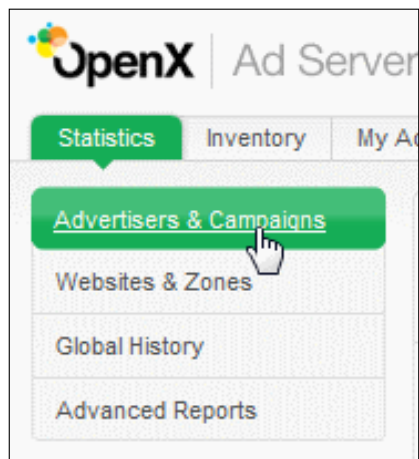
Advertisers and campaigns statistics

It is the default OpenX statistics type. It provides current statistics of all advertisers under an account. It is also possible to retrieve statistics according to start and end dates.

Time for action – getting advertisers and campaign statistics

Now, let's learn how to get the statistics for a certain advertiser and the campaigns under it. We will then see how to analyze them on a spreadsheet.

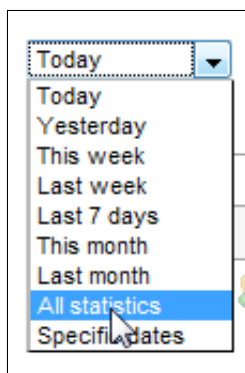
1. Click on **Statistics** menu item. **Advertisers & Campaigns** screen should automatically open. If not, click on **Advertisers & Campaigns** link.



2. Now, we should be able to see current date's statistics as a default for all the advertisers under an account. Note that following screenshots are from a real OpenX Ad Server implementation and do not necessarily have to match with your screens.

Today ▾	10 February 2010 	10 February 2010  	
Name	Impressions	Clicks	Click-Through Ratio
Total	3,333	14	0.42%
  Muratos	3,333	14	0.42%

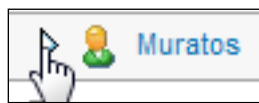
3. Let's view all the statistics for the advertiser, starting from the installation of OpenX Ad Server. Select **All statistics** option from the date list.



4. We can now see all of the statistics for the advertiser.

All statistics			
Name	Impressions	Clicks	Click-Through Ratio
Total	913,550	6,110	0.67%
▶  Muratos	913,550	6,110	0.67%

5. Click on tiny arrow near the advertiser name.



6. We can now see the all the campaigns statistics under the advertiser.

Name	Impressions	Clicks	Click-Through Ratio
Total	914,589	5,841	0.64%
▼ Muratos	914,589	5,841	0.64%
▶ C1 - Healthy Nutrition	817	10	1.22%
▶ RocketPro® - 30 Day Hardback Air	7,705	17	0.22%
▶ RocketPro® - 30 Day Total Drive	119	-	-
▶ WL - Healthy Complex Zip Subnet	602	1	0.17%
▶ RocketPro® - 30 Day Land Rover	2,034	7	0.34%
▶ Prostate	1,276	6	0.47%
▶ C1 - Specialized Designer DE	4,769	5	0.10%
▶ C1 - Any Credit Auto Loans	42	-	-
▶ WL - shuffles Tutor	1,660	68	4.10%
▶ Shreddy PE Target	3,566	10	0.28%
▶ motive - prostate	28,552	80	0.28%
▶ motive - prostate	1,630	1	0.06%
▶ Cholesterol	75,051	25	0.03%
▶ motive - date us	538	4	0.74%
▶ motive - date us	860	9	1.05%
▶ Mugsy	15	-	-
▶ Motive - Green Storage	36,938	116	0.31%
▶ KLM DE	2,376	1	0.04%
▶ Ringtone.com	464	2	0.43%
▶ Wall Street Journal	771	-	-

7. Click on the **Clicks** column.

Name	Impressions	Clicks	Click-Through Ratio
Total	914,589	5,841	0.64%
▼ Muratos	914,589	5,841	0.64%
▶ C1 - Healthy Nutrition	817	10	1.22%
▶ RocketPro® - 30 Day Hardback Air	7,705	17	0.22%
▶ RocketPro® - 30 Day Total Drive	119	-	-
▶ WL - Healthy Complex Zip Subnet	602	1	0.17%

8. You can note that the campaign's statistics are sorted accordingly:

Name	Impressions	Clicks 
Total	914,589	5,841
  Muratos	914,589	5,841
  Awareness Int	316,912	4,685
  Invisible Shield	192,773	435
  Chills Referral	111,280	146
  Motion - Green Marriage	36,938	116
  125x125 Ads	99,774	110
  motion - awareness	28,552	80
  Devotion Stone	7,831	76
  ML - education Tutor	1,660	68
  Clickbank	75,051	25
  RockwellPro - 100% Macbook Air	7,705	17
  Shady 10 Target	3,566	10
  CJ - Holiday Season	817	10

9. Click on the tiny arrow near one of the campaign names.

Name	Impressions	Clicks 
Total	914,589	5,841
  Muratos	914,589	5,841
  Awareness Int	316,912	4,685
  Invisible Shield	192,773	435
  Chills Referral	111,280	146
  Motion - Green Marriage	36,938	116
  125x125 Ads	99,774	110

- 10.** The following screenshot shows that the statistics of each banner under the campaign are listed according to the same criterion that is applied for sorting the campaign statistics:

Name	Impressions	Clicks	Click-Through Ratio
Total	914,589	5,841	0.64%
▼ Muratos	914,589	5,841	0.64%
▼ Advertisements	316,912	4,685	1.48%
Advertisement 120x600	93,876	2,933	3.12%
Advertisement 300 x 250	115,306	1,119	0.97%
Advertisement Live Chat 300x250	14,856	155	1.04%
Advertisement 728 x 90	24,678	141	0.57%
Advertisement 468x60	21,730	106	0.49%
Advertisement 468x60 Ad2	21,836	88	0.40%
Advertisement Live Chat 120x600	13,079	87	0.67%
Advertisement Side 125x125	5,457	26	0.48%
Advertisement Live Chat 728x90	3,945	15	0.38%
Advertisement 250 x 250	660	8	1.21%
Advertisement 734 x 60	708	6	0.85%
Advertisement Live Chat 468x60	781	1	0.13%
▶ Invalid Clicks	192,773	435	0.23%
▶ Other Referrals	111,280	146	0.13%

- 11.** Let's click on any banner.

Total	914,589	5,841
▼ Muratos	914,589	5,841
▼ Advertisements	316,912	4,685
Advertisement 120x600	93,876	2,933
Advertisement 300 x 250	115,306	1,119
Advertisement Live Chat 300x250	14,856	155
Advertisement 728 x 90	24,678	141

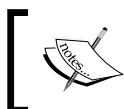
- 12.** We can now see the banner history on a daily basis sorted according to clicks. Let's sort it according to **Day** column as shown in the following screenshot:

Day	Impressions	Clicks ▾
11-08-2009	1,000	52
13-08-2009	410	34
01-10-2009	546	30
29-09-2009	550	29
27-09-2009	529	27
24-09-2009	548	27
17-07-2009	378	26
10-09-2009	445	26
22-07-2009	696	24
21-07-2009	753	24
30-09-2009	535	24
04-10-2009	499	24
06-10-2009	394	24

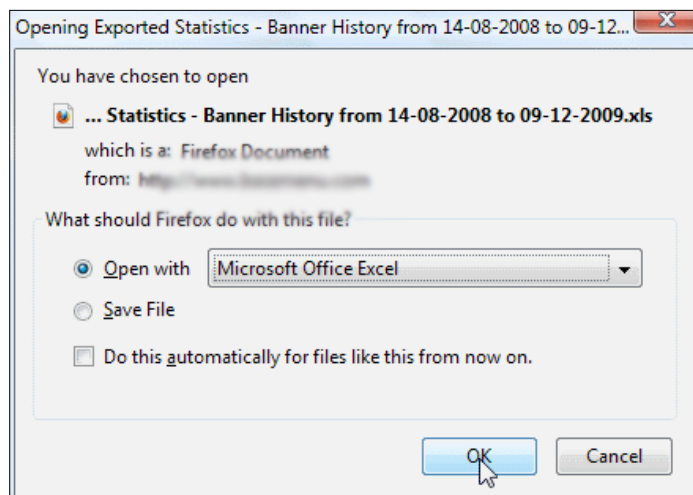
13. Let's click on **Export Statistics to Excel** link on the top of the statistics.

 Export Statistics to Excel			
Day ▾	Impressions	Clicks	Click-Through Ratio
31-10-2009	414	16	3.86%
30-10-2009	355	19	5.35%
29-10-2009	471	19	4.03%
28-10-2009	431	19	4.41%
27-10-2009	498	19	3.82%
26-10-2009	476	15	3.15%
25-10-2009	368	9	2.45%
24-10-2009	495	22	4.44%
23-10-2009	322	13	4.04%
22-10-2009	404	23	5.69%
21-10-2009	537	16	2.98%
20-10-2009	413	23	5.57%
19-10-2009	408	17	4.17%
18-10-2009	407	15	3.69%
17-10-2009	439	18	4.10%
16-10-2009	352	6	1.70%
15-10-2009	407	15	3.69%

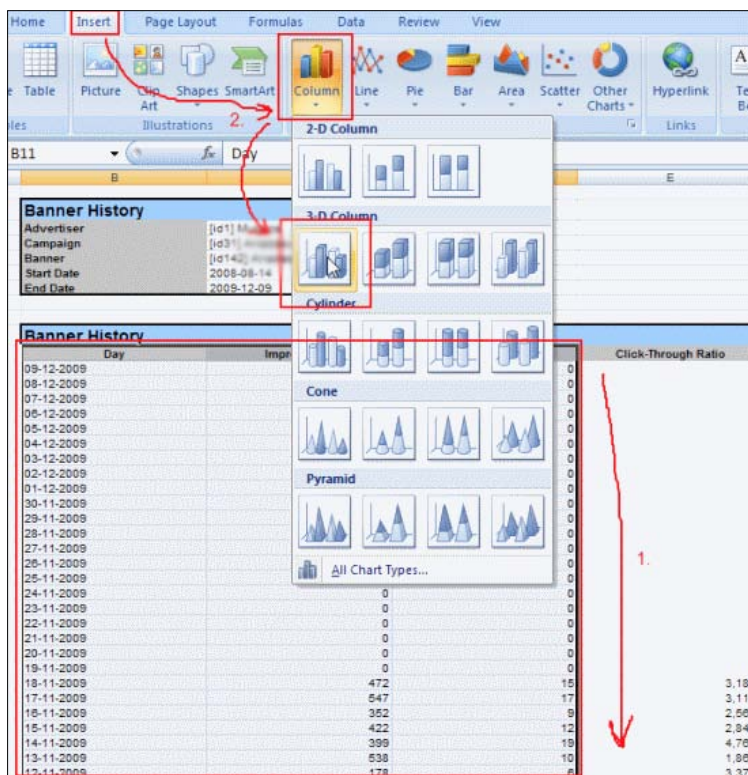
14. OpenX Ad Server automatically generated an Excel (.xls) file for us.
Let's open it with Excel.



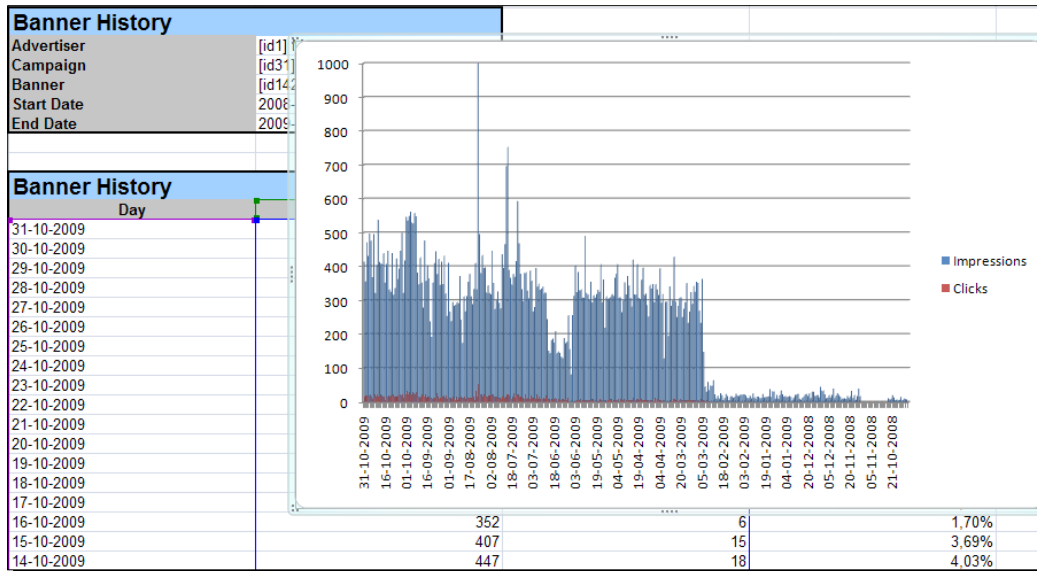
Alternatively, if you don't have MS Excel, you can download and use Open Office for free from www.openoffice.org. You can achieve everything in further examples using Open Office as well.



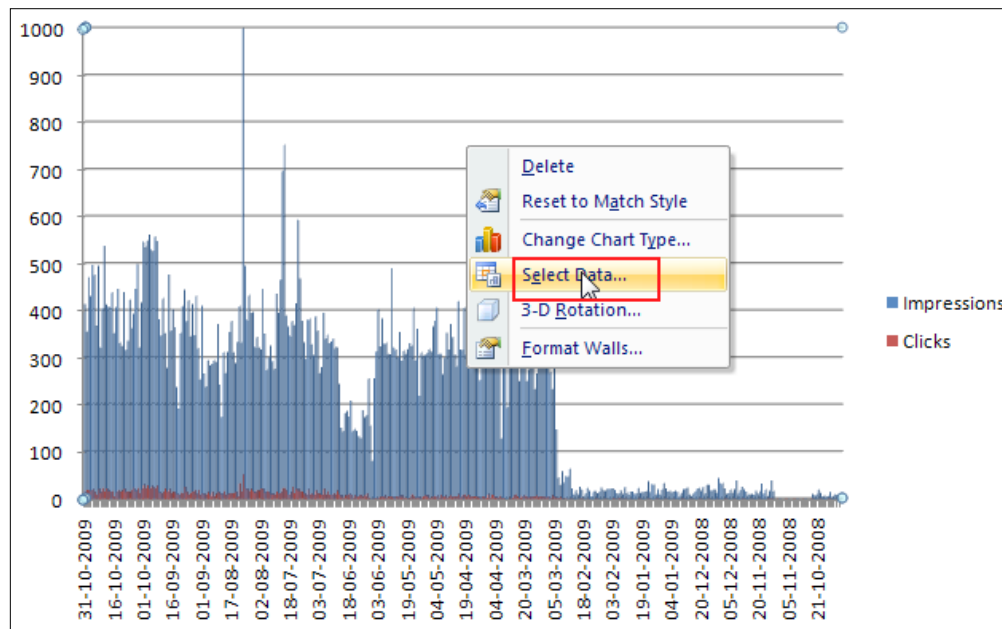
- 15.** Let's select three columns from the spreadsheet—**Day**, **Impressions**, and **Clicks** columns in the spreadsheet. Then, let's insert a chart by choosing **Insert | Column | 3-D Column**.



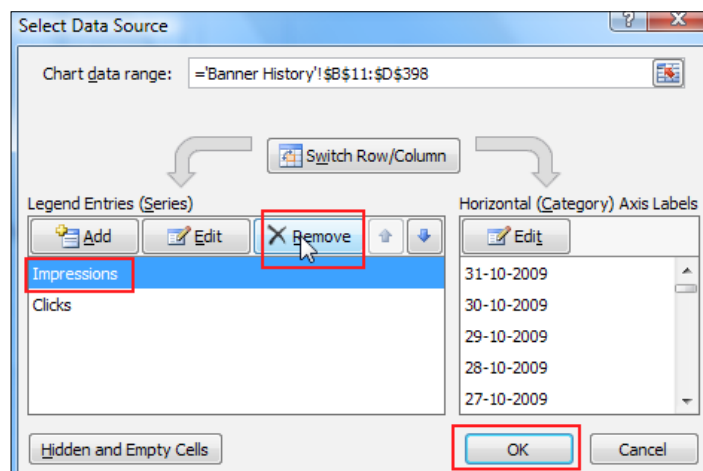
16. We can now see that a chart is created and shows the progress of clicks and impressions over a period of time.



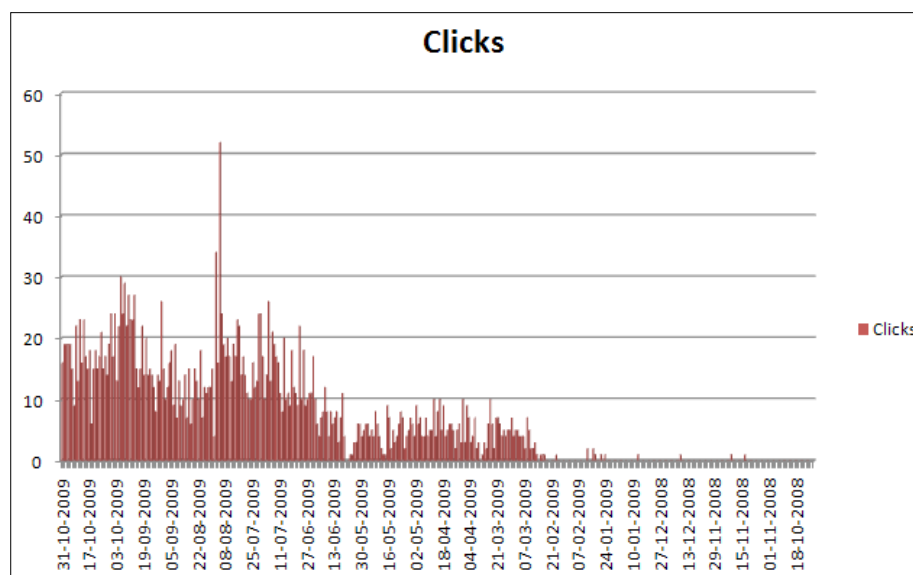
17. Let's see clicks progressing only by time. To achieve this, right-click on the chart and choose **Select Data...** option.



- 18.** Then choose **Impressions** column, click on **Remove** button, and Finally click on **OK** button to complete the process.



- 19.** We can now see only data pertaining to progress of number of clicks on the chart as shown in the following screenshot. Note that the **Days** row is decreasing over time. This is due to order of the data selected before the chart retrieval.



- 20.** Let's return to statistics screen and click on **Website Distribution** tab.



- 21.** Now, we can see how the statistics for the banner was distributed among the websites.

A screenshot of the 'Website Distribution' tab in the analytics interface. It shows a table with four columns: 'Name', 'Impressions', 'Clicks', and 'Click-Through Ratio'. The table lists several websites, including 'Blogspot', 'gmail.com', and 'Direct Selection'. Each website name has a small expandable arrow icon to its left.

Name	Impressions	Clicks	Click-Through Ratio
Total	93,876	2,933	3.12%
▶ Blogspot	86,056	2,829	3.29%
▶ gmail.com	1,703	40	2.35%
▶ Blogspot	3,169	33	1.04%
▶ Blogspot	1,726	23	1.33%
▶ Blogspot	312	6	1.92%
▶ Blogspot	92	2	2.17%
▶ Blogspot	85	-	-
Direct Selection	733	-	-

- 22.** Click on the tiny arrow near a website name and we can see how the statistics are distributed among the zones under the website.

Banner History Website Distribution Targeting Statistics		
All statistics ▾		
Name	Impressions	Clicks ▾
Total	93,876	2,933
▶ Blogspot Romania	86,056	2,829
▶ Blogspot Romania	1,703	40
▶ Blogspot Romania	877	22
▶ Blogspot Romania	826	18
▶ Blogspot Romania	3,169	33
▶ Blogspot Romania	1,726	23

What just happened?

We started with advertiser level statistics and progressed into banner level step by step. During this process, we learned how effective advertisers and campaigns statistics screens were, to see values such as impressions, clicks, and **CTR (Click-through rates)** for a certain period of time. After this, we have exported the statistics of a banner to Excel for making a simple analysis chart. Finally, we learned that it was possible to jump into website and zone statistics for any advertiser, campaign, or banner.

Have a go hero – exploring other statistics screens

As we already know how to get statistics for advertisers and campaigns, we are ready to further explore websites and zones and global history statistics. Let's find and investigate these sections under statistics menu until we learn what kind of additional statistics we can get from the OpenX Ad Server system.

OpenX advanced reports

Advanced reports section provides a more organized and easier way to analyze OpenX statistics to work further with MS Excel. There are three types of advanced analysis reports:

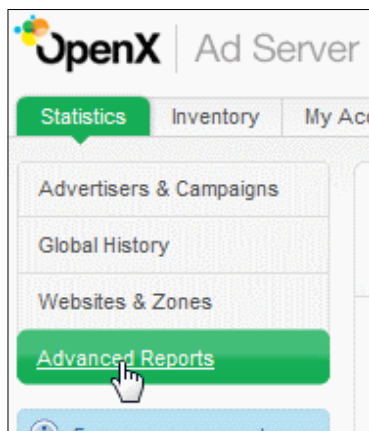
- ◆ **Advertising analysis report:** This report provides a breakdown of advertising statistics for a particular advertiser or publisher. The generated report has three sections—daily, campaign, and zone breakdowns.
- ◆ **Campaign analysis report:** This report type is suitable to analyze the details of a particular campaign. There are three breakdowns including day, banner, and zone.
- ◆ **Campaign delivery report:** This advanced report shows the delivery statistics of campaigns for a certain selected period. It also highlights the underperforming campaigns.

Advertising analysis report

Now let's learn how to retrieve one of the most useful analysis reports in OpenX.

Time for action – getting advertising analysis reports

1. Click on **Advanced Reports** link in **Statistics** menu.



2. Click on **Advertising Analysis Report** link in **Standard Reports** section.

Advanced Reports

Standard Reports

[Advertising Analysis Report](#)

This report shows a breakdown of advertising for a par

[Campaign Analysis Report](#)

This report shows a breakdown of advertising for a par

[Campaign Delivery Report](#)

This report shows delivery statistics for all campaigns v

3. Click on the **Generate** button, without changing any options.

 **Advertising Analysis Report**

This report shows a breakdown of advertising for a particular advertiser or publisher, by day, campaign, and

Period

Limitations

Worksheets

All statistics ▾

-- All advertisers -- ▾

-- All websites -- ▾

☒ Daily Breakdown

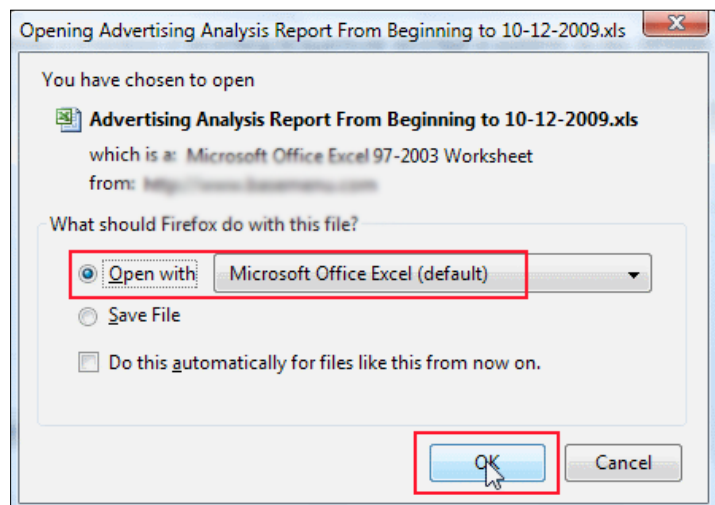
☒ Campaign Breakdown

☒ Zone Breakdown

Go back to report list

Generate

4. Choose **Open with Microsoft Office Excel (default)** and click on **OK** button.



5. We can see the **Daily Breakdown** tab selected by default.

Advertising Analysis Report			
Advertiser	All Advertisers		
Publisher	All Publishers		
Start Date	01-11-2009		
End Date	30-11-2009		
Daily Breakdown			
Day	Impressions	Clicks	
30-11-2009	3102	17	
29-11-2009	2820	26	
28-11-2009	2397	20	
27-11-2009	2536	7	
26-11-2009	2679	14	
25-11-2009	2687	8	
24-11-2009	2645	11	
23-11-2009	2788	13	
22-11-2009	2773	10	
21-11-2009	2596	12	
20-11-2009	2943	14	
19-11-2009	2961	7	
18-11-2009	3324	27	
17-11-2009	2760	27	
16-11-2009	2455	15	
15-11-2009	2399	23	
14-11-2009	2144	31	
13-11-2009	2553	15	
12-11-2009	1213	7	
11-11-2009	2089	27	
Daily Breakdown Campaign Breakdown Zone Breakdown			

6. Click on **Campaign Breakdown** tab to get the details of all campaigns.

Advertising Analysis Report				
Advertiser	All Advertisers			
Publisher	All Publishers			
Start Date	01-11-2009			
End Date	30-11-2009			
Campaign Breakdown				
Name	Impressions	Clicks	Click-Through Ratio	
Advertiser Inc	38239	496	1,30%	
Advertiser Inc	9144	10	0,11%	
C2 - My Credit Auto Loans	0	0	-	
C2 - Ashley Madison	0	0	-	
C2 - BookFinder	0	0	-	
C2 - Books OK	0	0	-	
C2 - FreeCredit Report	0	0	-	
C2 - Reunion	0	0	-	
C2 - Specialized Designer OK	0	0	-	
C2 - StudyNet	0	0	-	
Clickbank	12818	4	0,03%	
Deactivation Store	412	0	-	
Freebies	0	0	-	
CTA Leads	0	0	-	
Security Shield	12036	22	0,18%	
Ad-ID	0	0	-	
Ad - Education Tutor	0	0	-	
Ad - Play	0	0	-	
Ad - Quality Samples Zip Submit	0	0	-	
Ad - Review	0	0	-	

Daily Breakdown

Campaign Breakdown

Zone Breakdown

7. Finally, click on **Zone Breakdown** tab to see the statistics of all zones.

Advertising Analysis Report				
Advertiser	All Advertisers			
Publisher	All Publishers			
Start Date	01-11-2009			
End Date	30-11-2009			
Zone Breakdown				
Name	Impressions	Clicks	Click-Through Ratio	
antalya search result - 125x125 1	1632	1	0,06%	
antalya search result - 125x125 2	2084	0	-	
besttravelsandlogistics.com 125 125	987	2	0,20%	
besttravelsandlogistics.com 125 125	1244	0	-	
Blogspot.com - 125 125 1	115	0	-	
Blogspot.com - 125 125 2	117	0	-	
Blogspot at home top 125x90	0	0	-	
Blogspot cat home - right 120x600	0	0	-	
Blogspot DailyMusicPlay - 125 125 1	78	1	1,28%	
Blogspot DailyMusicPlay - 125 125 2	102	0	-	
Blogspot DailyMusicPlay - 300 250 c	104	0	-	
Blogspot default - 125x160	0	0	-	
Blogspot default - right 375x125	0	0	-	
Blogspot default 400x60 top	0	0	-	
Blogspot FriendRegularLessons - Di	0	0	-	
Blogspot FriendRegularLessons - Ri	0	0	-	
Blogspot FriendRegularLessons - Ri	0	0	-	
Blogspot FriendRegularLessons - To	0	0	-	
Blogspot GadgetStore - 125 125 1	192	0	-	
Blogspot GadgetStore - 125 125 2	202	0	-	

Advertising Analysis Report

Zone Breakdown

Campaign Breakdown

Zone Breakdown

What just happened?

We learned how to generate an advertising analysis report in a few steps. This helps us get very useful statistics to determine the daily progress, success rates of campaigns, and zones that are organized in separate Excel tabs for easy analysis.

Have a go hero – exploring other advanced report types

Now, go and examine other report types including campaign analysis report and campaign delivery report. Try to understand the differences between the report types.

Have a go hero – playing with statistics columns

Try to specify the columns you need for online statistics screen using the account preferences.

Pop quiz – understanding OpenX reports and statistics

Suppose we (as an account manager) opened an advertiser account user for one of the advertisers. Which of the following report types will be available for the new user?

1. Advertiser analysis report
2. Campaign analysis report
3. Campaign delivery report
4. All of the reports
5. None of the reports

Summary

In this chapter, we have learned how to use reports and online statistics to evaluate the performance of OpenX advertisers, campaigns, banners, websites, and zones.

We have specifically covered:

- ◆ Advertisers and campaigns statistics
- ◆ Exporting data to Excel for further analysis
- ◆ Types of advanced OpenX reports
- ◆ Getting advertising analysis reports in Excel

We have finished OpenX Ad Server Beginner's Guide. By completing this book, you should now have a strong foundation of how the online advertising business works and how you can achieve highly-qualified scalable advertising, serving implementations using OpenX Ad Server. Rereading the chapters that cover areas in which you have less experience and applying the examples in real world situations is a good idea. Do not be afraid of experimenting with new ideas either!

Pop Quiz Answers

Chapter 1

understanding system requirements

-
- | | |
|---|--|
| 1 | OpenX 2.8.3 requires 128 MB root <code>memory_limit</code> both for installation and operation. So, the correct answer is (b). No |
| 2 | OpenX operates on a LAMP environment which is correctly stated in answer (c). Linux, Apache, MySQL, PHP |
-

Chapter 2

understanding the basics

-
- | | |
|---|---|
| a | This is true as zones are placeholders on our web pages and we need to declare these zones by adding zone activation codes. |
| b | This is false as an image banner size and a zone size have to match each other. Otherwise, we will not be able to link them. |
-

Chapter 3

understanding different campaign types

-
- | | |
|---|---|
| 1 | True. We should have at least one campaign for active zones so that a blank space is not shown. The correct answer is (a) |
| 2 | (b) as only a remnant campaign targets to this zone. |
| 3 | (b) as Contract (Exclusive) campaigns take all the impressions for a targeted zone. a is false as each campaign type is prioritized according to its weight or priority setting in comparison to its own group. |
-

Chapter 4

understanding different banner types

-
- | | |
|---|--|
| 1 | (b) Using SQL Banner Type is not a good idea as the images will be stored in our database and served from our very limited webhosting in terms of space and bandwidth. It is the same for the local web server type as well. Surely, we don't want to reject the advertiser and lose money. There are many cheap affordable image hosting solutions around with very high bandwidth options. Using one of them will solve our problems of bandwidth and space. They can be useful for image management as well. |
|---|--|
-

Chapter 5

understanding banner zone linking

-
- | | |
|---|--|
| 1 | All statements are true except e . as banner and zone sizes have to match to achieve linking. |
|---|--|
-

understanding dynamic zone sizes

-
- | | |
|---|--|
| 1 | We can show all types of banners except text link on a banner type zone. Text link only can be shown on a text type zone. It eliminates the option d. b is also not valid as the height is 125 pixels. a and c options have the same height size with the zone and can be shown there even though they have different width values. So, the correct answer is (a) and (c) |
|---|--|
-

Chapter 6

understanding channels

-
- | | |
|---|---|
| a | It is true . Zone invocation code can hold only one Site – Source parameter. |
| b | It is true . A banner can use any number of channels at the same time. It enables banners to be connected to multiple content targets. For example, an mp3 player advertisement appearing on both an electronics review zone and a music album reviews zone. |
| c | No, it is false . Such usage is open to typing errors and hard to manage if you later change Zone Invocation codes, thus Site – Source parameter of the zones. |
| d | No, it is false . Channels can also hold any number of other delivery limitations. So, it is possible to have two targeted MP3 player zones, which are further channelled by Geotargeting and separately showing ads to US and non-US visitors. |
-

Chapter 7

understanding OpenX account management

-
- | | |
|---|---|
| a | It is a false statement. There are four types of accounts including administrator, manager, advertiser, and website. |
| b | It is true . All items under a manager account are deleted when this manager account is deleted. Thus, we should be very careful when playing with manager account settings. |
| c | No, it is false . The manager account will be still available under administrator account with all sub items of the manager account. Later, we can create a user to log in to this manager account. So, we can disallow access to any manager account without actually deleting the account by just deleting the user. |
| d | Yes, it is true . We can connect a certain user to as many types of accounts we need. |
-

Chapter 8

understanding user and account preferences

-
- | | |
|---|---|
| a | True. This way, we guarantee that visitors will never see a blank space when defined campaign banners are not being delivered due to limitations; it doesn't matter what the account, campaign, banner, website, or zone is. |
| b | True. It makes OpenX an excellent tool to deliver ads according to locally defined times on multiple user environments. |
| c | True. Manager accounts can provide advertiser and website users such functionality to audit their own changes only. |
-

Chapter 9

understanding upgrading OpenX process

-
- | | |
|---|--|
| 1 | No, as the zone invocation codes still have the old paths in HTML files on which they run, we always need to rename the new OpenX folder accordingly. This is essential. |
|---|--|
-

Chapter 10

understanding OpenX reports and statistics

-
- | | |
|---|---|
| 1 | Because the users of an advertiser account can only manage their own campaigns, they don't have access to the reports of all advertisers. So, advertiser analysis report is closed for them. Campaign delivery report is exclusively open for the administrator-or manager-account users. So, the correct answer is (b) . An advertiser-account user can only see his or her campaign analysis report. |
|---|---|
-

Index

A

account types, OpenX Ad Server

- administrator account 185
- advertiser account 186
- manager account 186
- permissions 204
- users, permissions 186
- website account 186

administrator account 185

advanced reports, OpenX

- advertising analysis report 262
- campaign analysis report 262
- campaign delivery report 262
- types 262

advanced zone properties

- about 149
- delivery capping per visitor 149
- setting 150-53
- zone appending 149
- zone chaining 149

advertiser account

- about 186
- adding 196-203

advertiser, management tips

- active campaigns, filtering 87
- campaign impressions, guarantying on zone 87
- consistent naming convention, using 85, 86
- duplicate campaign function, using 86, 87

advertisers

- about 60
- apple, adding 60-62
- management, tips 85

advertisers statistics 250-260

advertising analysis report 262

- getting 262-266

Amazon banner linking 142

Amazon.com, sample

- advertizer, adding as 41-44
- Amazon banner, linking to zone 52, 53
- banner, adding to Toys & Games Amazon campaign 46, 47
- banner serving flowchart 40
- banner, serving on website 53-55
- campaign, adding 44-46
- campaign banner, serving 56
- OpenX, website adding to 49, 50
- zone, adding to website 50, 51

answers, pop quiz 269-273

Apache server 12

B

banner

- linking, to zone 138-140

banner preferences

- about 211
- changing 211-213

banners

- about 89
- types 90

banners, types

- about 125
- external banners 110
- generic HTML banners 100
- generic text banners 109
- local banners, SQL used 99
- local banners, web server used 90

banner type zone

- adding, to website 131-133

banner zone linking 141

banner, zone type 128

blogger
 zone invocation code, adding 144-147
button, zone type 128

C

campaign analysis report 262
campaign delivery report 262
campaign revenue information 68
campaigns
 about 60, 64
 adding, to advertiser 69
 contract campaigns, adding to advertiser 69-71
 contract (exclusive) type campaign, adding to advertiser 79-83
 contract type campaign, adding for apple 69, 70, 71, 73
 In-house versus paid campaigns 65
 Inventory of a website 65
 management, tips 85
 priorities 67
 remnant type campaign, adding to advertiser 85
 target types 65
 types 67
 Weight parameter 82
campaigns, management tips
 active campaigns, filtering 87
 campaign impressions, guarantying on zone 87
 consistent naming convention, using 85, 86
 duplicate campaign function, using 86, 87
campaign statistics 250-260
campaigns, types
 contract 67
 contract (exclusive) 67
 remnant 67
channels
 about 170, 171
 global channel 178
 website channel 171
Companion positioning options 72
configuration file, OpenX system
 copying 232, 233
contract, campaigns type
 about 67
 adding, to advertiser 70, 71
 CPA model 73

 CPC Pricing model 73
 CPM Pricing model 73
 tenancy model 74
contract (exclusive), campaigns type
 about 67, 79
 adding, to advertiser 79-83
Core FTP 55
Cost Per Action. *See* CPA
Cost Per Click. *See* CPC
Cost Per Mille. *See* CPM
CPA 68
cPanel file manager
 used, for uploading OpenX 15-19
CPC 68
CPM 68
CTR (Click-through rates) 261

D

delivery capping per visitor 149
Delivery Capping per Visitor section 71
downloading, OpenX
 steps 13, 14
dynamic zone sizes
 about 153
 applying 153-155

E

email, zone type 129
external banners
 about 110
 adding, to Amazon 111-116
 advantages 116
 disadvantages 116

F

file permissions
 setting 22
floating HTML, zone type 129
FTP client
 used, for uploading OpenX 20-22

G

generic HTML banners
 about 100

- advantages 109
- disadvantages 109
- generic text banners**
 - adding, to OpenX 110
 - advantages 110
 - disadvantages 110
- geotargeting**
 - about 116, 117
 - amazon halloween banner, US visitors targeting 118-125
 - implementing 118-125
- global channel**
 - about 178
 - adding 178-183
 - behavior, testing 183
- Google AdSense ads**
 - adding, with OpenX 101-109

I

- image banners, OpenX system**
 - copying 234, 235
- In-house**
 - versus paid campaigns 65
- installation, OpenX**
 - file permissions, setting 22-24
 - MySQL database, creating 24, 25
 - MySQL user, creating 26, 27
 - OpenX, downloading 13, 14
 - OpenX files, uploading 15
 - OpenX files uploading, cPanel file manager used 15-19
 - OpenX files uploading, FTP client used 20, 22
 - wizard, using 28-36
- installation wizard, OpenX 28-36**
- Interactive Advertising Bureau (IAB) 133**
- interstitial, zone type 129**
- Inventory of a website 65**

L

- Linux 11**
- local banners**
 - local webserver, adding to Apple IncMac devices campaign 90-99
 - SQL used 100
 - SQL used, advantages 100
 - SQL used, disadvantages 100

- web server used 90
- web server used, advantages 99
- web server used, disadvantages 100

- local SQL banner**
 - adding, to OpenX 99

M

- manager account**
 - about 186
 - adding 187-194
- MySQL 13**
- MySQL database, OpenX**
 - creating 24, 25
- MySQL user, OpenX**
 - creating 26, 27

N

- newsletter, zone type 129**

O

- Open Office**
 - URL 256
- OpenX. *See also* OpenX Ad Server**
- OpenX**
 - account preferences 219
 - account system 185
 - advanced reports 262
 - advertiser, adding 60
 - advertising analysis report 262
 - advertising analysis report, getting 262-266
 - apple, adding as advertiser 60-62
 - banner preferences, changing 211-213
 - campaign analysis report 262
 - campaign delivery report 262
 - campaigns 64
 - campaigns, priorities 67
 - campaigns type, adding to advertiser 69
 - campaigns, types 65
 - contract (exclusive) type campaign, adding to advertiser 79-83
 - contract type campaign, adding to advertiser 69-71
 - downloading 13, 14
 - e-mail, changing 209
 - file permissions, setting 22, 23

- installation 13
- MySQL database, creating 24, 25
- MySQL user, creating 26, 27
- name, changing 208
- password, changing 210
- remnant type campaign, adding to advertiser 85
- reports and statistics 266
- time zone preferences, changing 214, 215
- user logs, checking 216-218
- user preferences 219
- website, adding 129, 130
- zone 128
- zone, types 128, 129

OpenX Ad Server

- account types 185, 186
- account types, permissions 204
- ad, serving in website 40
- advertiser account, adding 196-203
- Amazon banner, linking to zone 52, 53
- Amazon.com, adding as advertizer 41-44
- Amazon.com, sample 40
- answers, pop quiz 269-273
- banner, adding to Toys&Games Amazon campaign 46, 47
- banner, delivery reports 116
- banners, adding 90
- banners, delivery limitations 116
- banner, serving on website 53-55
- banners, types 90
- campaign, adding for Amazon.com 44-46
- external banners 110
- file uploading, Core FTP used 55
- generic HTML banners 100
- generic text banners, adding 110
- geotargeting 116, 117
- geotargeting, implementing 118-125
- Google AdSense ads, adding 101-109
- instance, adding 36
- local banners, SQL used 99
- local banners, web server used 90
- local banners, webserver used 90
- manager account, adding 187-194
- own campaign banner, serving 56
- system requirements 11
- website account, adding 203
- website, adding 50

- zone, adding to website 50, 51

OpenX Ad Server, system requirements

- Apache server 12
- Linux 11
- MySQL 13
- PHP 12
- PHP settings and parameters 12
- SMTP Server 13

OpenX files

- backing up 223-226
- latest version, downloading 227-231
- uploading, cPanel file manager used 15-19
- uploading, FTP client used 20-22
- uploading, ways 15

OpenX system

- configuration file, copying 232-234
- image banners, copying 232-235
- upgrade wizard, running 235-246
- zone 128
- zone, types 128

OpenX version

- about 221
- checking, for upgrades 222

P

paid campaigns

- versus In-house 65

PHP

- about 12
- settings and parameters 12

Pricing Model. *See* campaign revenue information

Priority level 67

R

remnant, campaigns type

- about 67
- adding, to advertiser 85

revenue type 68

S

Site Source

- about 158
- parameter, zones labeling with 158-168

SMTP Server 13

statistics

advertisers and campaigns 250-260

T

target types, campaigns

about 65
examples 65, 66

tenancy 68

text Ad, zone type 129

time zone preferences

changing 214, 215

U

upgrade wizard, OpenX system

running 235-246

user interface preferences

exploring 218

user logs

checking 216-218

V

visitors

targeting, banner delivery options used 116

W

website

adding, to OpenX 129, 130
banner type zone, adding 131-133
zone invocation code, adding 134-138

website account

about 186
adding 203

website channel

about 171
targeting, achieving 172-178

Weight parameter 82

WordPress blog

zone invocation code, adding 147-149

WordPress files

downloading, URL 147

Z

zone

about 128
advanced zone properties 149-153
Amazon banner linking 142
banner zone linking 138-140
dynamic zone sizes 153-155
probability 142
types 128

zone appending 149

zone chaining 149

zone invocation code

adding, to blogger 144-147
adding, to website 134-138
adding, to WordPress blog 147-149

zone, probability

about 142
only one banner in zone 142
scenarios 142
two Contract banners and one remnant
banner 143, 144
two remnant type banners from same
campaign 142

zone, types

banner, button or rectangle 128
email/newsletter zone 129
interstitial or floating DHTML 129
text Ad zone type 129



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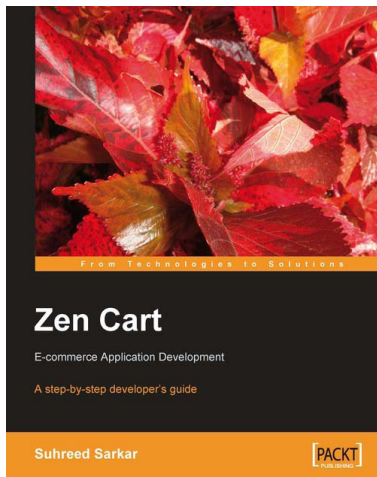
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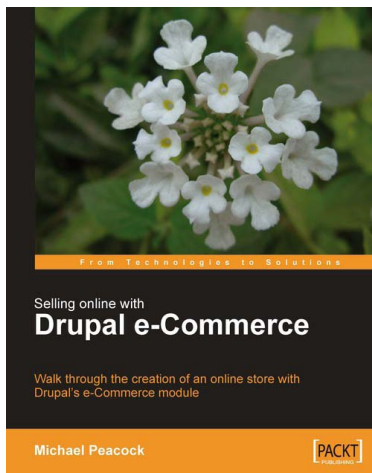
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