

# ***Onyx Email Accelerator***

## ***System Administrator and Setup Guide***



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## **About The Onyx Email Accelerator Documentation**

This document is written for the technology professional that is going to implement the Onyx Email Accelerator. This document assumes that the reader has knowledge of Onyx Employee Portal – Web Client, Onyx Enterprise Application Server and Microsoft.NET technologies.

## Providing Feedback about This Documentation

You can help the Onyx documentation team improve the Onyx Email Accelerator System Administrator Guide. Onyx is interested in hearing what you have to say about the technical documents that you received. We're especially interested in hearing your responses to the following questions, but feel free to email any type of feedback to us at [help@onyx.com](mailto:help@onyx.com)

- Overall, how would you rate the documentation?
- How much did the documents lend to your understanding of the product? Did it facilitate your configuration, and customization efforts?
- How could the guide be improved?
- Do you have any experiences that would be helpful to add to the documentation to avoid pitfalls?

## Contacting Onyx Product Support

If you have any questions regarding Onyx Email Accelerator, please contact Onyx Product Support. You can reach Onyx Product Support as follows:

- Email: [help@onyx.com](mailto:help@onyx.com)
- Phone: +1 (425) 451-8043, within the United States
- Phone: +44 (0) 1344 322 370, within Europe
- Phone: +61 (0) 2 9409 4300, within Australia
- Phone: +65 (0) 332 6880, within Singapore
- The World Wide Web: <http://customers.onyx.com> (For the fastest response to your support needs, we encourage you to use the Product Support page on our Web site.)

We check our email continuously during normal support hours. Should you choose to email us, we will respond to you shortly after your email is received. Onyx Software Corporation strives to provide you with the easiest and most efficient methods for getting support. Please pass on any comments and suggestions that you have regarding our application.

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# CHAPTER ONE

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## Overview

Organizations are leveraging personalized email as a preferred, cost-effective method of communicating with customers and building lasting relationships. It allows for greater personalization while providing faster feedback than traditional media such as direct mail. However, with the rise of unsolicited messages or “SPAM”, companies are struggling to get their messages delivered. The Onyx Email Accelerator, combined with the Onyx Employee Portal, provides organizations with a solution to be successful in a challenging marketing environment.

## Onyx Email Accelerator Features

| Onyx Email Accelerator Features          | Detail  |
|--|---|
| Advanced data querying and list building | <ul style="list-style-type: none"><li>• Leverage the power of List Manager to query Onyx and build targeted lists</li><li>• Exclude individuals who have chosen to opt out of mailings</li></ul>  |
| Email personalization                    | <ul style="list-style-type: none"><li>• Send emails from any user or mailbox within the organization</li><li>• Personalize the email body with first name, last name and company name</li><li>• Add personalized unsubscribe text and opt out URL</li></ul>                                       |
| Support for HTML formatted emails        | <ul style="list-style-type: none"><li>• Create professional looking emails with full HTML support</li><li>• Use any HTML editor to author the email content</li></ul>   |
| Email previewing and testing             | <ul style="list-style-type: none"><li>• Single click to preview an email</li><li>• Single click to send an email to one or more test recipients prior to executing the campaign</li></ul>   |
| Real-time response tracking              | <ul style="list-style-type: none"><li>• Integrated with the Onyx Campaign feature</li><li>• Campaign action tracks viewed or opened email</li><li>• Campaign action tracks opt-out</li><li>• Onyx Analytics can be used to track email campaign success and statistics</li></ul>                  |
| Email history                            | <ul style="list-style-type: none"><li>• A new Onyx table maintains a history of email recipients</li><li>• Email actions can be viewed on the standard Onyx History tab with other Campaign actions</li><li>• Onyx Analytics can be used to track email campaign success and statistics</li></ul> |
| Email templates                          | <ul style="list-style-type: none"><li>• 5 HTML templates come pre-packaged for easier setup</li></ul>   |



## **Onyx Email Accelerator Components**

There are four main components of the Onyx Email Accelerator. These are:

- Database objects
- OEP Web Pages
- Onyx Email Accelerator Client
- External (Tracking) Web Server

### **Database Objects**

The Onyx Email Accelerator requires new tables and stored procedures to support processes in the Onyx Enterprise Database. These processes include the encryption and decryption of email recipient information and the capture of email history.

### **OEP Web Pages**

The Onyx Email Accelerator is integrated with the OEP List Manager and Campaign features. List Manager is used to select a target audience and a new List Management bulk action sends the targeted list to the Onyx Email Accelerator client.

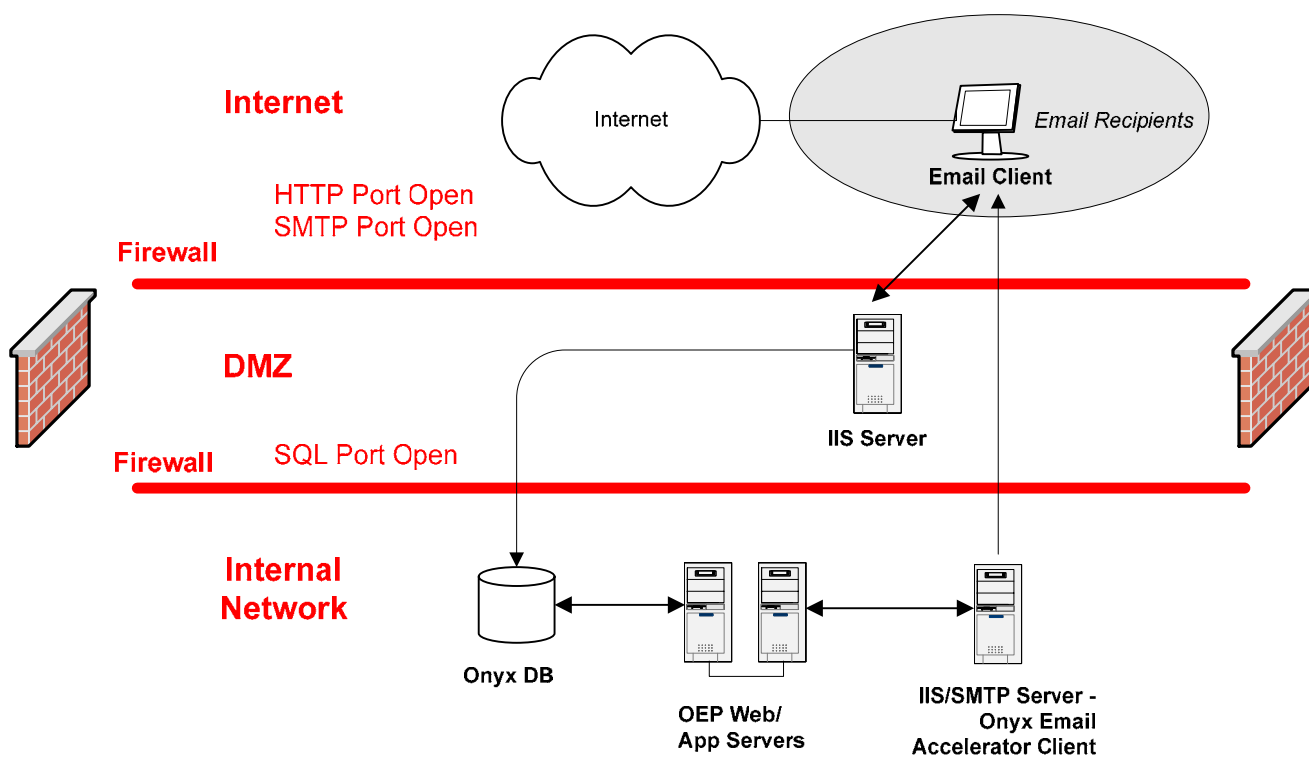
### **Onyx Email Accelerator client**

The Onyx Email Accelerator client resides on an internal IIS/SMTP web server. The Onyx Email Accelerator receives the list of email recipients and provides a user interface for configuring the email campaign. The email Sender, Subject, action to be taken when the email is viewed, opt-out options and actual HTML email content are configured on this user interface. The Onyx Email Accelerator provides the capability to preview and test the email and executes the bulk email campaign.

### **External (Tracking) Web Server**

The external web server tracks email recipient actions. The web server serves used in HTML emails hosts the TImage HTTP Handler which notes when a user has viewed an email, as well as Unsubscribe which handles user opt-out requests.

## Onyx Email Accelerator Architecture Diagram



## ***Onyx Email Accelerator CD Directory Structure***

The Onyx Email Accelerator CD contains the following folder structure:

- **Code:**
  - **OEP** – Contains the new and modified OEP web files.
  - **Onyx Email Accelerator** – Contains the Onyx Email Accelerator client files.
  - **SQL** – Contains a script to install the database components.
  - **TImage** – Contains the TImage component and configuration file.
  - **Unsubscribe** – Contains the Unsubscribe component and configuration file.
- **Documentation** – Contains the Onyx Email Accelerator SA Guide.
- **Sample Email Templates** – Contains five sample HTML email templates that illustrate formatting and design considerations when authoring HTML emails.

## CHAPTER TWO

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### ***Prerequisites & System Requirements***

This section provides software and hardware requirements for the Onyx Email Accelerator. Please review these requirements before installing the Onyx Email Accelerator.

#### **Servers**

Onyx recommends that you set up two servers for the Onyx Email Accelerator in addition to your existing OEP servers. The two servers require the following software:

##### **Onyx Email Accelerator Client Server**

- Windows 2000 or 2003 Server
- IIS and SMTP Services
- Internet Explorer 6.0

##### **External (Tracking) Web Server**

- Windows 2000 or 2003 Server
- Microsoft .NET Framework 1.1

#### **Installation Prerequisites**

- Your external web server can connect to your Onyx database.
- You are already running Onyx Employee Portal version 5.0 English.
- You are familiar and comfortable with adding and configuring virtual directories in IIS.
- Your external web server has the Microsoft .NET Framework 1.1 installed.

**TIP** If the Microsoft .NET Framework has not yet been installed on your server you can download and install it here:

<http://www.microsoft.com/downloads/details.aspx?FamilyID=262d25e3-f589-4842-8157-034d1e7cf3a3&DisplayLang=en>

Also, careful consideration must be made when installing any additional software onto an externally accessible web server. If you are not already familiar with the Microsoft .NET Framework or need in-depth information about the implications of installing the Framework, visit this site:

<http://www.microsoft.com/net/basics/framework.asp>

## CHAPTER THREE

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This chapter contains the following information:

- How to install and configure Onyx Email Accelerator
- Testing the Onyx Email Accelerator installation

### ***Installation Overview***

The Onyx Email Accelerator installation can be divided into four sections:

1. Database Installation – The database installation creates the new custom tables and stored procedures to support the Onyx Email Accelerator.
2. External Web Server Installation – This installation adds the tracking and opt-out/unsubscribe web components as well as any images used in your HTML emails.
3. Onyx Email Accelerator Client Installation – This installation installs the Onyx Email Accelerator client files and configures the new website in IIS.
4. Onyx Employee Portal Customization Installation – This installation customizes the OEP 5.0 web files to include the Onyx Email Accelerator integration with List Management.

### ***Part I. Database Installation***

**TIP** The Onyx Email Accelerator Client as well as the Tracking modules residing on the External Web Server will require a database user to access the Onyx Enterprise Database. If you do not have a user in the Public Group with access to the Onyx Enterprise Database, create one. This user will be used in the connection string set up for the Email Accelerator Client as well as the Tracking and Unsubscribe functionality described later.

### **Installation Instructions**

1. Open Query Analyzer and login to your Onyx database as ‘SA’ or other user with dbo privileges.
2. Execute the following script from the CD: **Code/SQL/AcceleratorBuildScript.sql**

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**Note:** Refer to Appendix A for a list of the database objects created during the installation.

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### ***Part II. External Web Server Installation***

The External Web Server installation includes the activities associated with configuring a new component called TImage which is responsible for tracking opened email messages that were sent with Onyx Email Accelerator. Using an HTTP Handler written with Microsoft .NET technology, TImage is designed to receive specially encoded GIF file requests to externally accessible web servers. TImage decodes this request, records the information in your Onyx database, then sends back to the user a blank GIF file to satisfy the initial request.

Also part of the External Web Server installation is Unsubscribe which is a collection of Active Server Pages written in VBScript. Unsubscribe is triggered when a user clicks on the “opt-out” link at the bottom of emails sent with the Onyx Email Accelerator. An encoded string is included in the unsubscribe request which is decoded and stored in the Onyx database. Unsubscribe also comes with a sample

landing page to confirm to the user that the opt-out request was successful. Use this sample as a starting point to customize the Unsubscribe look and feel to your corporate branding standards.

## TImage Installation Assumptions

The following instructions will make some assumptions about certain destination folders and virtual directory names based on commonly used defaults. **Your web server configuration may vary and you should adjust these instructions accordingly.** The following settings are assumed:

- The desired Virtual Directory Alias will be “TImage” and will be a virtual directory off the root directory of the web server (i.e. the final URL to access TImage will look something like <http://www.YourCompany.com/TImage>).
- The web server will be listed in Internet Information Services Manager as “Default Web Site.”
- The web server’s root content directory is located at **C:\Inetpub\wwwroot**

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**Note:** The installation steps for Windows Server 2000 and 2003 are very similar. Where 2000 differs significantly from 2003 it will be noted in the steps below. Most screen shots will be of Windows Server 2003.

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## TImage Installation Instructions

1. Copy the **TImage** folder and subfolders under the **Code\** folder on the CD into the **C:\Inetpub\wwwroot\** folder on the external web server. The **C:\Inetpub\wwwroot\TImage\** folder should now contain the following:
  - **bin** – Folder containing the compiled binaries for TImage.
  - **Images** – Folder containing any images that are to be served by TImage requests.
  - **Web.config** – File which contains the configuration information for the TImage application.
2. Open the **web.config** file in a text editor such as Notepad to make changes to the TImage settings. By default the web.config file will look like this:

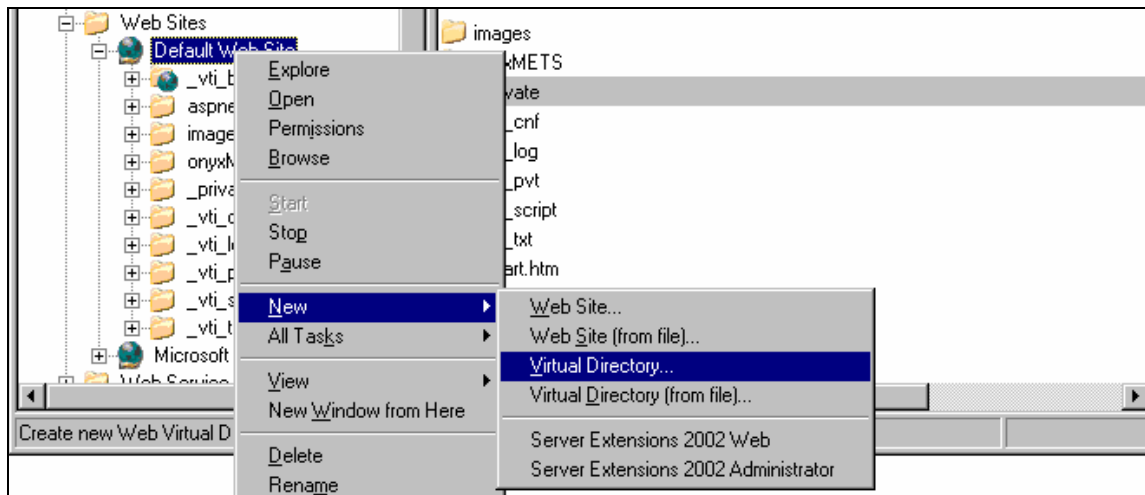
```
<configuration>
  <system.web>
    <customErrors mode="Off" />
    <httpHandlers>
      <add verb="*" path="*.gif"
type="ImageTrackerHandler.ImageHandler,ImageTrackerHandler" />
    </httpHandlers>
  </system.web>
  <appSettings>
    <add key="DBCONN_STRING" value="Data
Source=DATABASE_SERVER_NAME;Initial
Catalog=ONYX_DATABASE_NAME;User
ID=DATABASE_USER_NAME;Password=DATABASE_PASSWORD" />
    <add key="GIF_FILE" value="/timage/images/space.gif" />
    <add key="SITEID" value="1" />
  </appSettings>
</configuration>
```

The bold elements between the <appSettings></appSettings> tags are the settings used to configure TImage.

- Configure the following settings:

| Setting Name  | Description   |
|---------------|---|
| DBCONN_STRING | The connection string used to connect to your Onyx database server. Replace <b>DATABASE_SERVER_NAME</b> with the machine name of the Onyx database server. Replace <b>ONYX_DATABASE_NAME</b> with the name of your Onyx SQL database . Replace <b>DATABASE_USER_NAME</b> with the login name that will be used to access the Onyx database. Replace <b>DATABASE_PASSWORD</b> with the password to the above login account used to access the Onyx database. |
| GIF_FILE      | The location of the GIF image file that is to be served as the result of a TImage request. This setting must refer to the full web path of the image file starting from the webroot (i.e. the setting must always start with the “/” character).<br><br>If you are installing TImage folder in the root of your web folder you will not need to change this setting.  |
| SITEID        | The Onyx site id to connect to. Typically this is set to <b>1</b> .   |

- Using Internet Information Services Manager, browse to the Default Web Site and create a new virtual directory on your external web server as indicated in the screenshot below:



- Specify the alias name as **TImage** as indicated in the screenshot below. Be sure to note the Alias name chosen in this step. You will need this information to complete the Onyx Email Accelerator Client Installation (Part III, Step 3.):

**Virtual Directory Creation Wizard**

**Virtual Directory Alias**

Specify a short name, or alias, for this virtual directory.

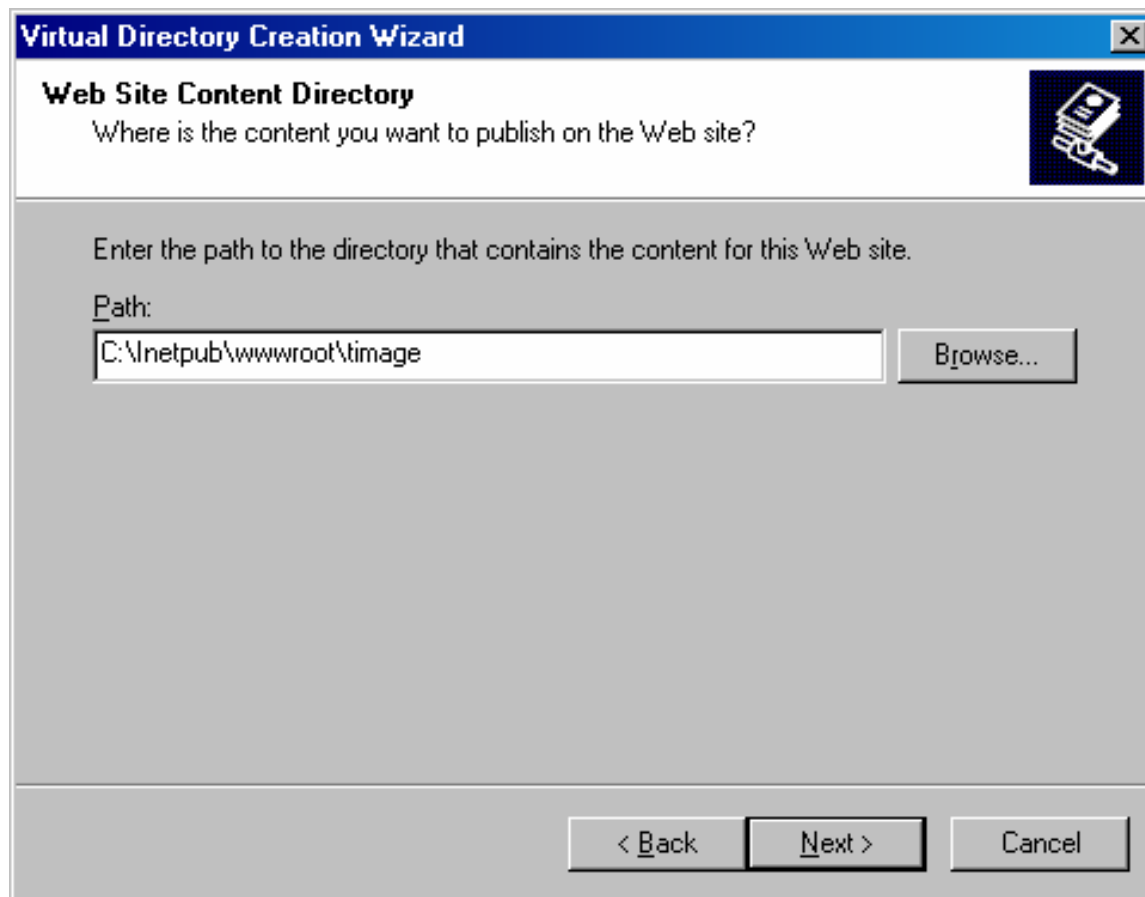
Type the alias you want to use to gain access to this Web virtual directory. Use the same naming conventions that you would for naming a directory.

Alias:

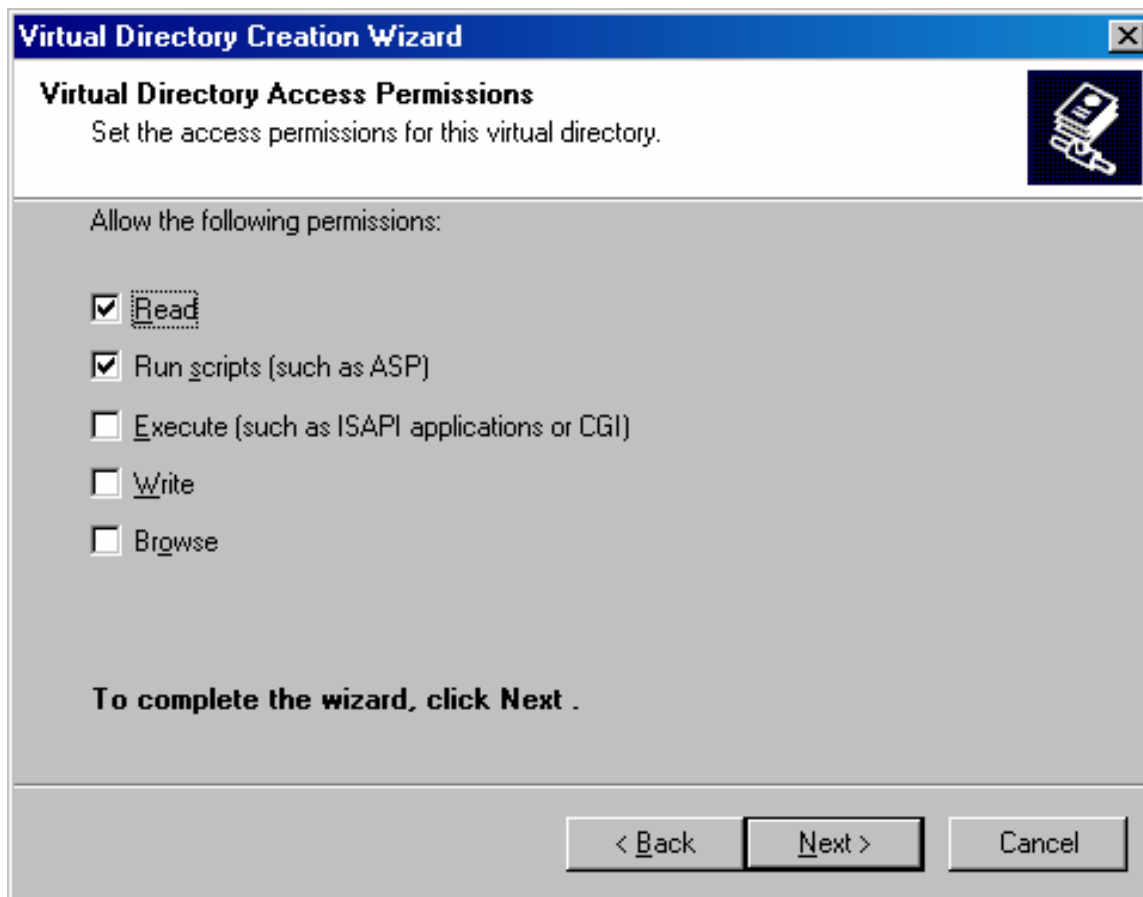
< Back   Next >   Cancel

6. Enter the path to where you copied the **TImage** folder on the web server as indicated in the screenshot below:

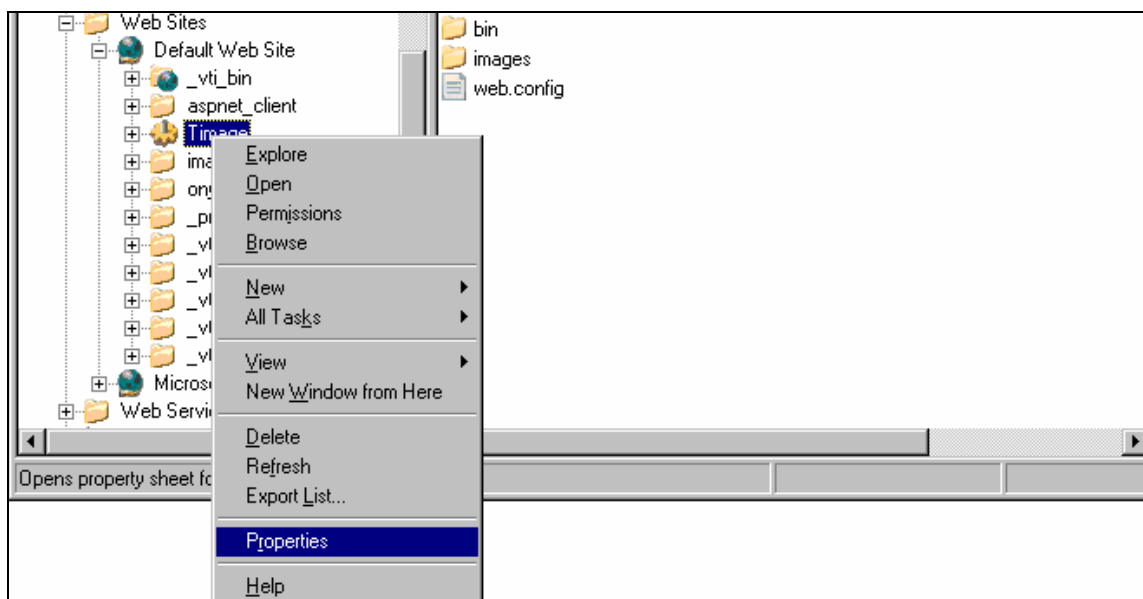




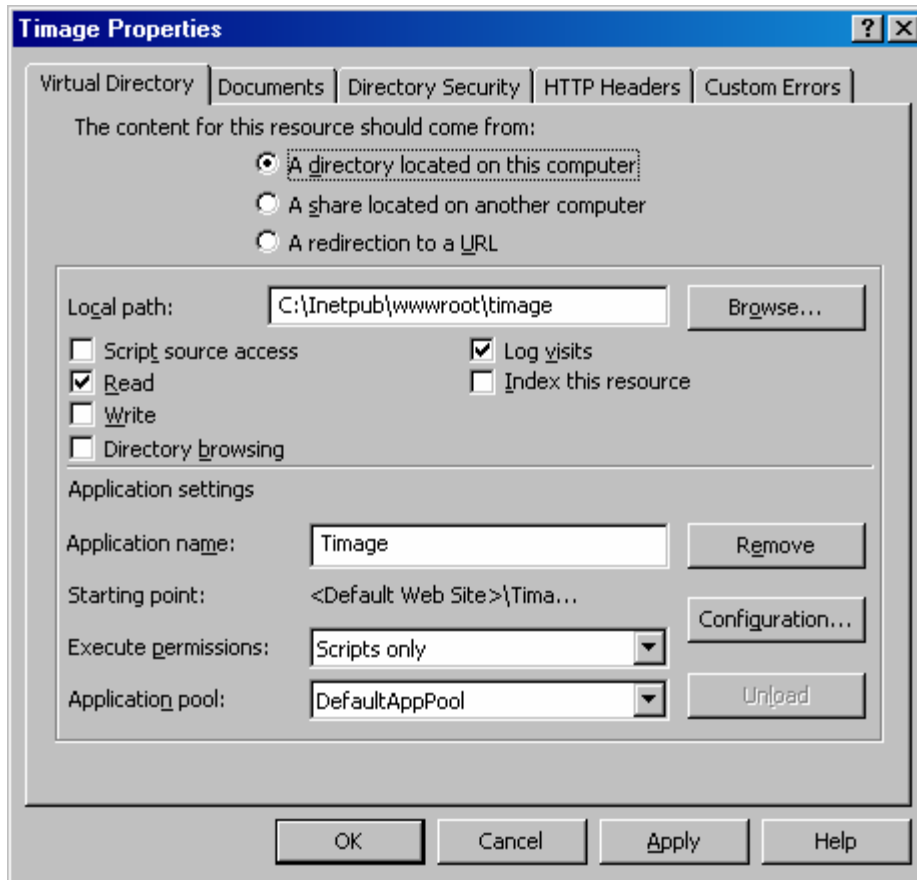
7. Set the permissions for the new virtual directory as indicated in the screenshot below:



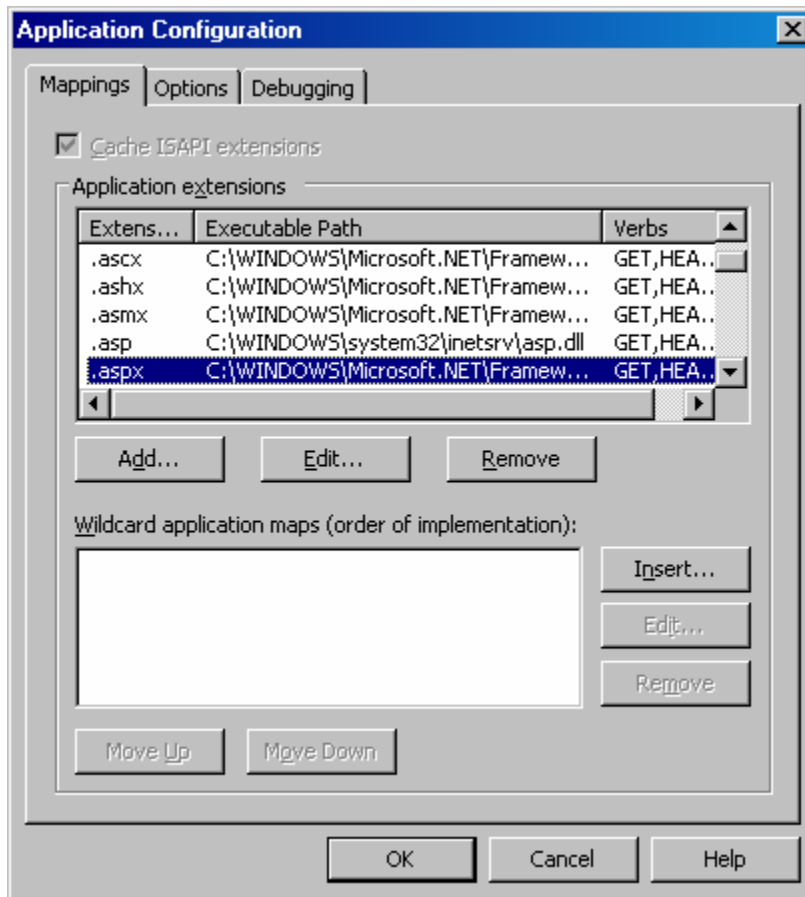
8. Once the virtual directory is created, right-click on the **TImage** virtual directory to adjust the properties as indicated in the screenshot below:



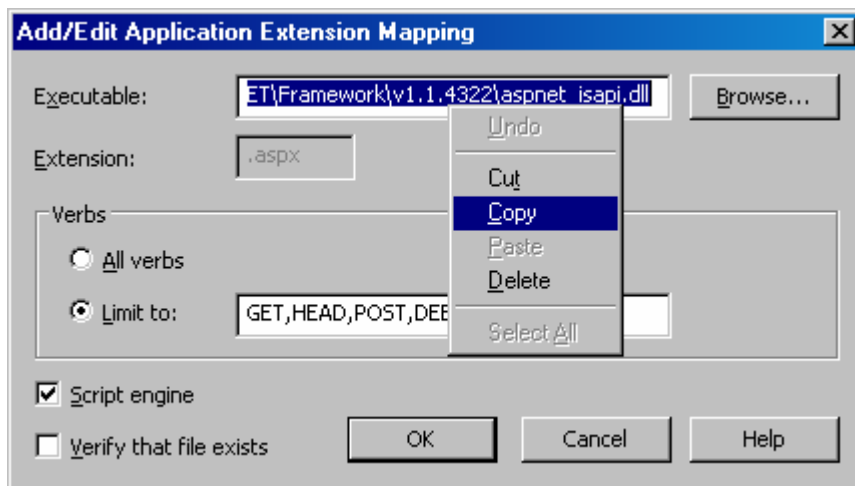
9. The below image of the **TImage** virtual directory properties shows the recommended settings.



10. Click on the **Configuration** button to set up the TImage application settings. In the Application Configuration you are going to configure TImage to execute requests for files ending with “.gif” the same way as “.aspx” files.
11. On the **Mappings** or **App Mappings** tab locate “.aspx” in the list of extensions. Highlight the “.aspx” entry then click the **Edit** button.



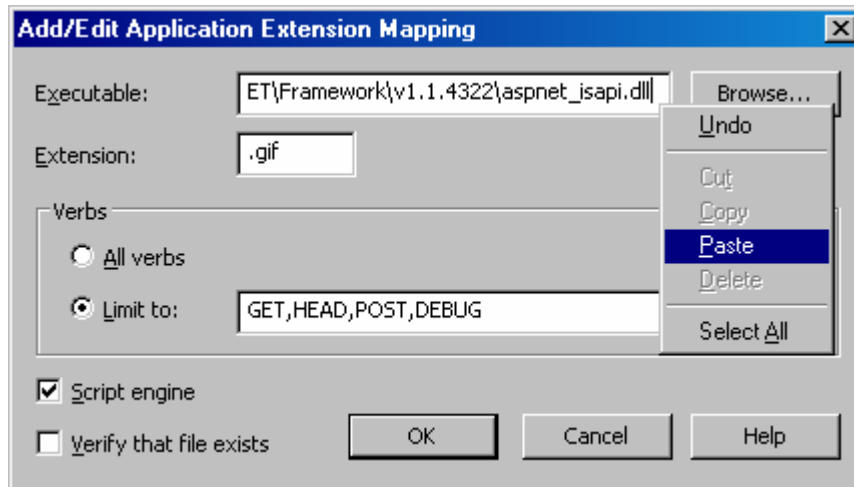
12. Highlight all the text in the **Executable** field from beginning to end, then right-click on the highlighted text and click **Copy**. Click **Cancel** to close this window and return to Application Configuration window above. In the Application Configuration window, click the **Add** button.



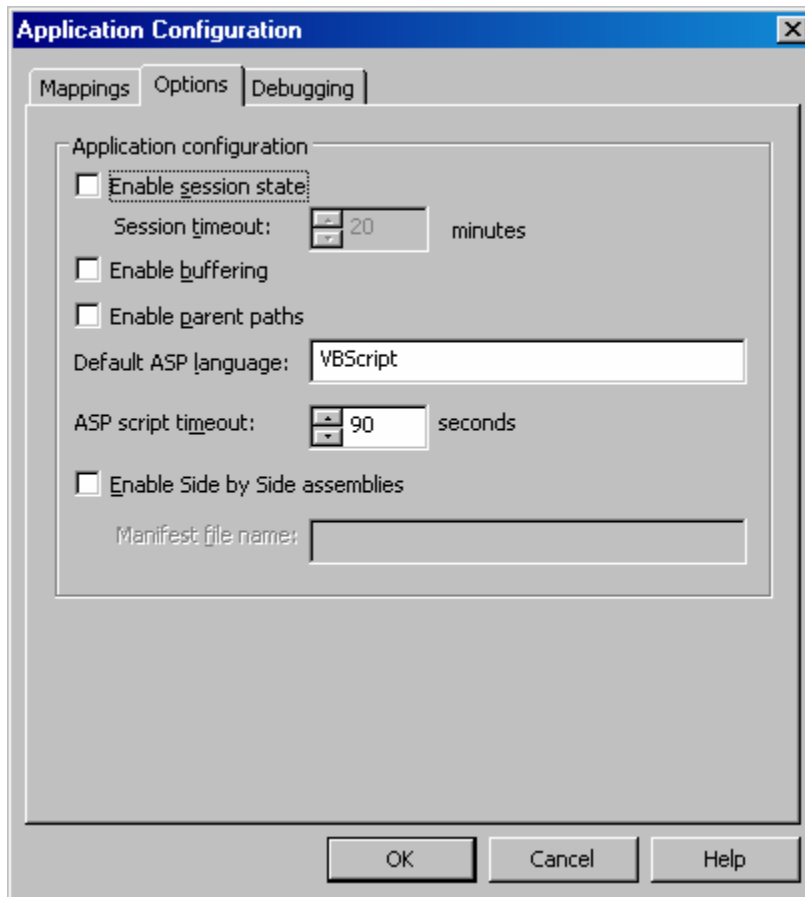
You should now see a blank Add/Edit Application Extension Mapping window.

13. Right-click the empty **Executable** field and click **Paste**. The field should now contain the text you copied from the **“.aspx”** extension’s **Executable** setting.

14. Enter “.gif” in the **Extension** field.
15. In the **Verbs** setting, select **Limit to** and enter “GET,HEAD,POST,DEBUG” in the field.
16. Check the **Script engine** box and ensure that the **Verify that file exists** box is unchecked.
17. When you are finished click **OK** in the Add/Edit Application Extension Mapping window to return to the Application Configuration window.

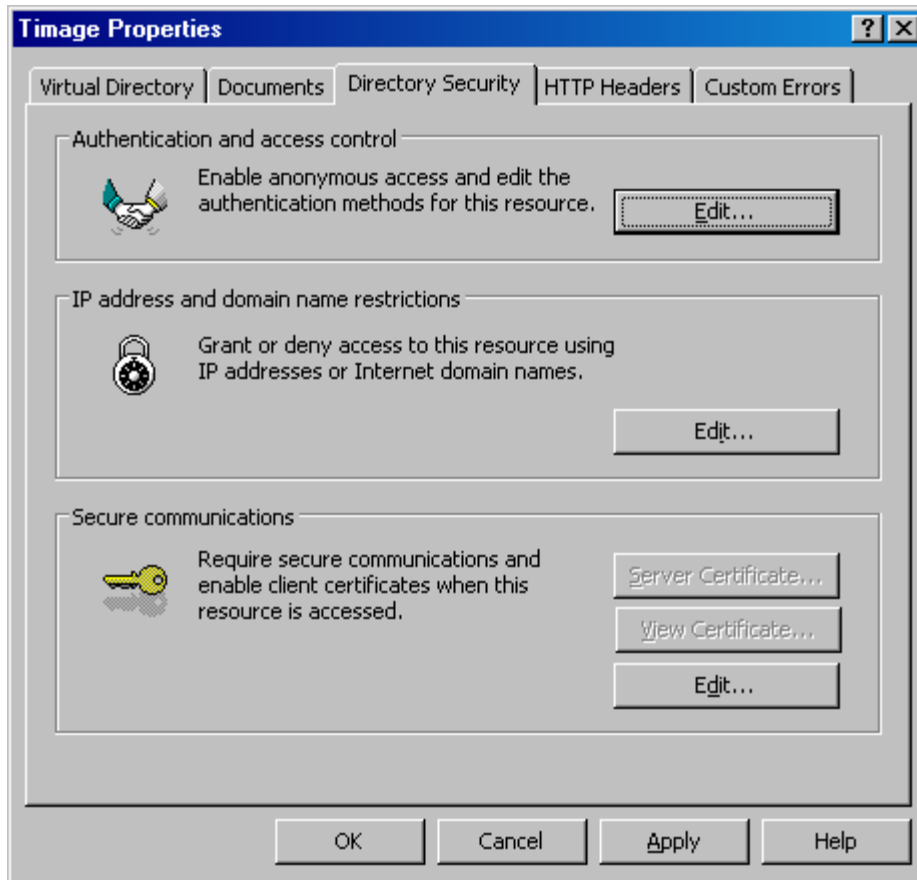


18. On the Application Configuration window click the **Options** or **App Options** tab.
19. **Enable session state**, **Enable buffering**, and **Enable parent paths** all need to be unchecked. The remaining settings can be left as-is.



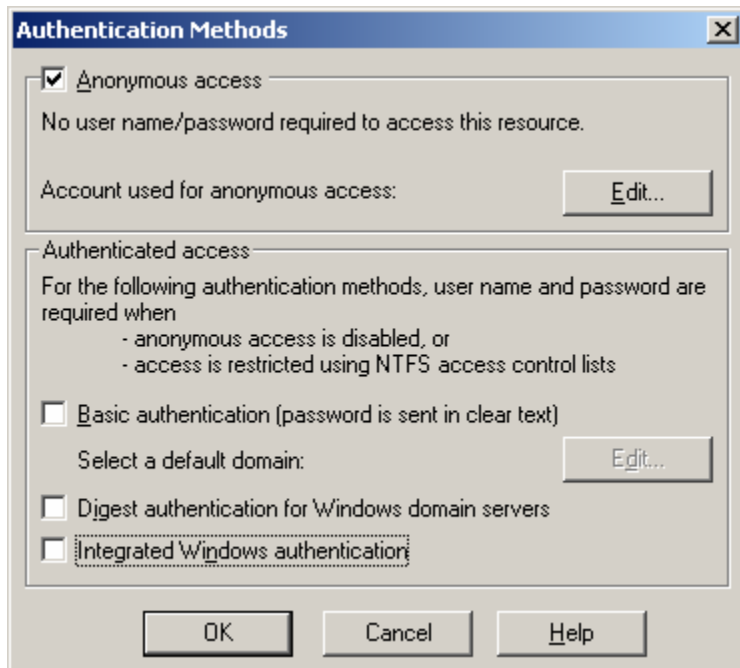
20. Click on **OK** to return to the TImage virtual directory properties window.

21. Next click on the **Directory Security** tab.

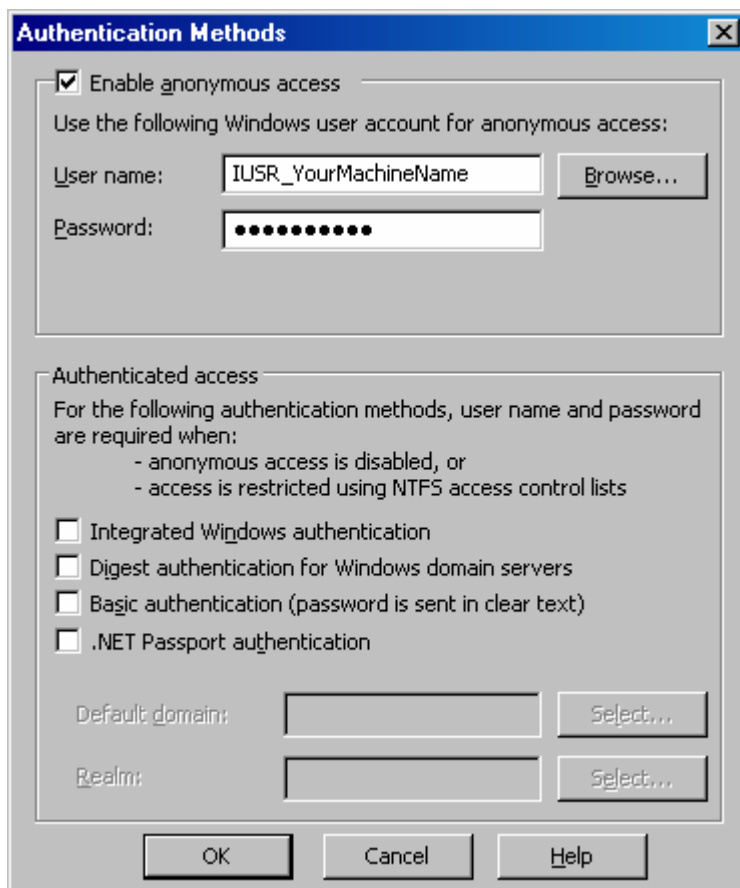


22. Click the **Edit** button to change the **Authentication and access control** settings. The most common deployment of TImage on an external web server calls for unrestricted anonymous access to the TImage virtual directory.

In Windows Server 2000, anonymous access is configured as follows:



In Windows Server 2003, unrestricted anonymous access is configured differently as indicated in the screenshot below. Do not change the **User name** on your machine to match the one in the sample screen below.





23. Click on **OK** to return to the TImage virtual directory properties window. Click **OK** again to finalize all the settings and complete your TImage installation.

## Unsubscribe Installation Assumptions

The following instructions will make some assumptions about certain destination folders and virtual directory names based on commonly used defaults. Your web server configuration may vary and you should adjust these instructions accordingly. The following settings are assumed:

- The desired Virtual Directory Alias will be named “Unsubscribe” and will be a virtual directory off the root directory of the web server (i.e. the final URL to access Unsubscribe will look something like **http://www.YourCompany.com/Unsubscribe**).
- The web server will be listed in Internet Information Services Manager as “Default Web Site.”
- The web server’s root content directory is located at “**C:\Inetpub\wwwroot**.”

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**Note:** The installation steps for Windows Server 2000 and 2003 are very similar. Images of the installation process are of Windows Server 2003. The Windows Server 2000 screens look nearly identical.

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## Unsubscribe Installation Instructions

1. Copy the **Unsubscribe** folder under the **Code\** folder on the CD into the **C:\Inetpub\wwwroot\** folder on the external web server. The **C:\Inetpub\wwwroot\Unsubscribe\** folder should now contain the following:
  - **adovbs.inc** – Standard database constants file.
  - **confirmation\_sample.asp** – File containing a fully-working sample of an unsubscribe confirmation page. Edit this file to customize the content and layout of your unsubscribe confirmations.
  - **default.asp** – The main application portion of Unsubscribe.
  - **unsubscribe.config** – XML file containing configuration information for the Unsubscribe application.
2. Open the **unsubscribe.config** file in a text editor such as Notepad to make changes to the Unsubscribe settings. By default the **unsubscribe.config** file will look like this:

```
<Configuration>
  <DatabaseConnectionString>
    Provider=SQLOLEDB.1;Password=DATABASE_PASSWORD;Persist Security
    Info=True;User ID=DATABASE_USER_NAME;Initial
    Catalog=ONYX_DATABASE_NAME;Data Source=DATABASE_SERVER_NAME
  </DatabaseConnectionString>
  <ErrorReportEmailAddress>
    EmailAddress@YourCompany.com
  </ErrorReportEmailAddress>
  <ConfirmationURL>
    http://www.YourCompany.com/unsubscribe/confirmation_sample.asp
  </ConfirmationURL>
  <iSiteID>
    1
  </iSiteID>
```

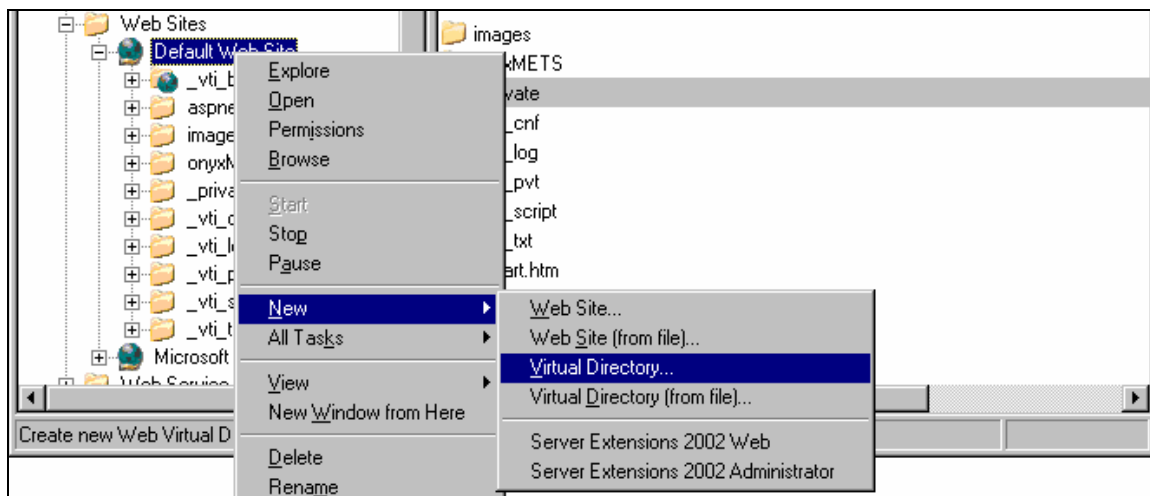
</Configuration>

The bold elements between the various tags are the settings that should be edited to configure your installation of Unsubscribe.

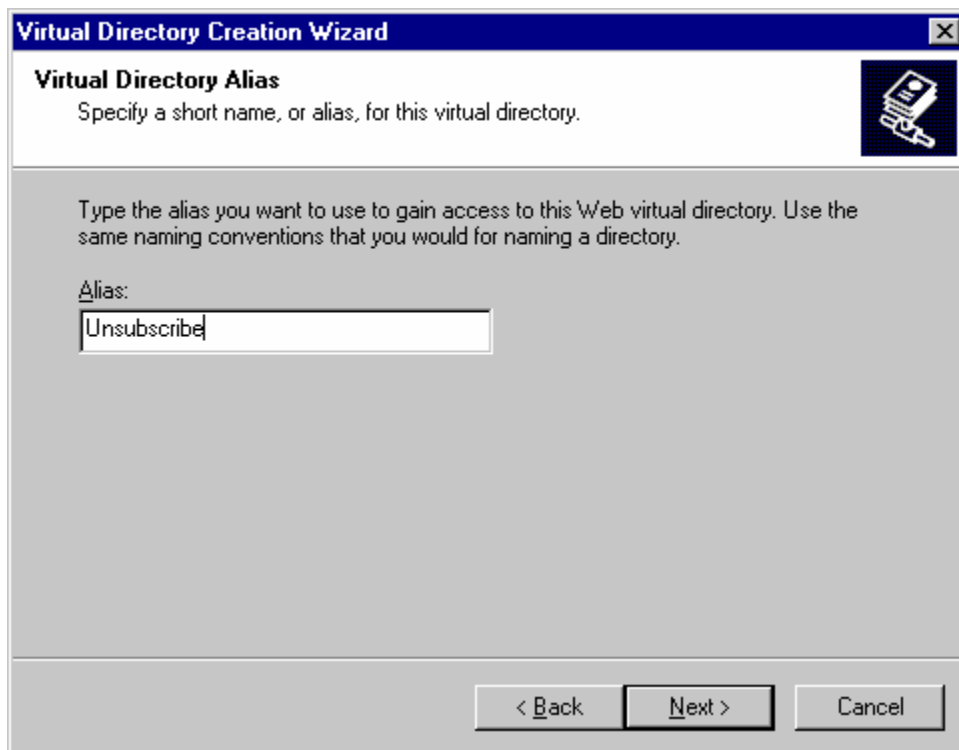
3. Configure the following settings:

| Setting Name             | Description   |
|--------------------------|---|
| DatabaseConnectionString | The connection string used to connect to your Onyx database server. Replace <b>DATABASE_SERVER_NAME</b> with the machine name of the Onyx database server. Replace <b>ONYX_DATABASE_NAME</b> with the name of your Onyx SQL database . Replace <b>DATABASE_USER_NAME</b> with the login name that will be used to access the Onyx database. Replace <b>DATABASE_PASSWORD</b> with the password to the above login account used to access the Onyx database. |
| ErrorReportEmailAddress  | While processing an unsubscribe request, if an error were to occur an email will be sent to this email address with as much information about the error and the user as possible. If this setting is left blank, no email will be sent.<br><br>It is highly recommended that this setting be completed with a valid internal email address so potential problems (i.e. loss of database connectivity) can be handled without losing unsubscribe requests.   |
| ConfirmationURL          | Full URL to the page which confirms that the user has been unsubscribed.  |
| SITEID                   | The Onyx site id to connect to. Typically this is set to 1.   |

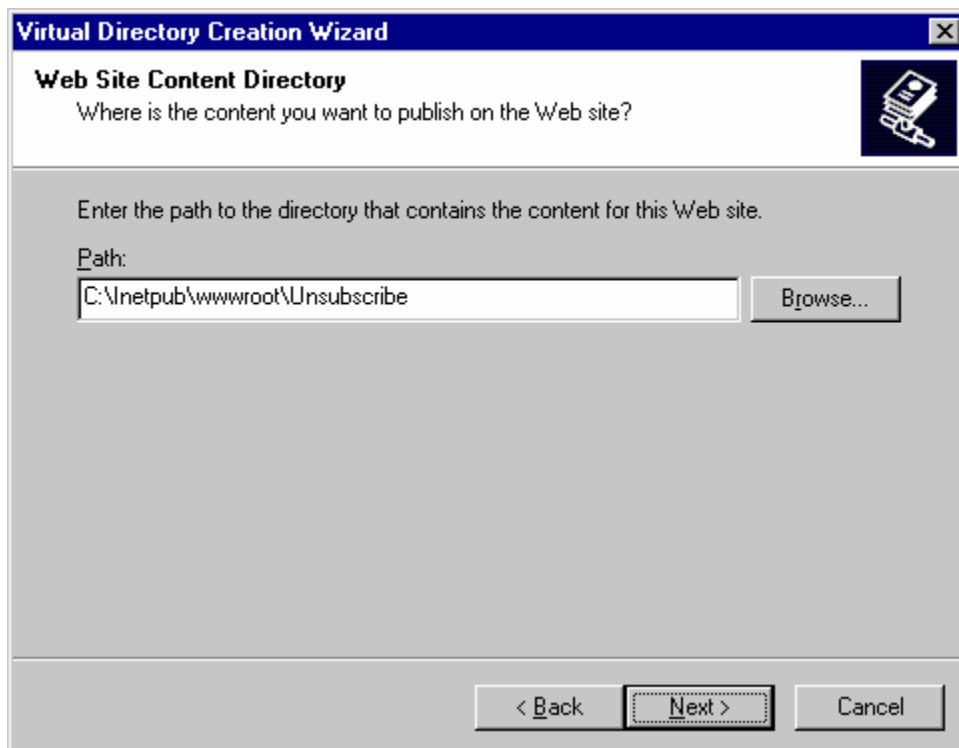
4. Using Internet Information Services (IIS) Manager, browse to the Default Web Site and create a new virtual directory as indicated in the screenshot below:



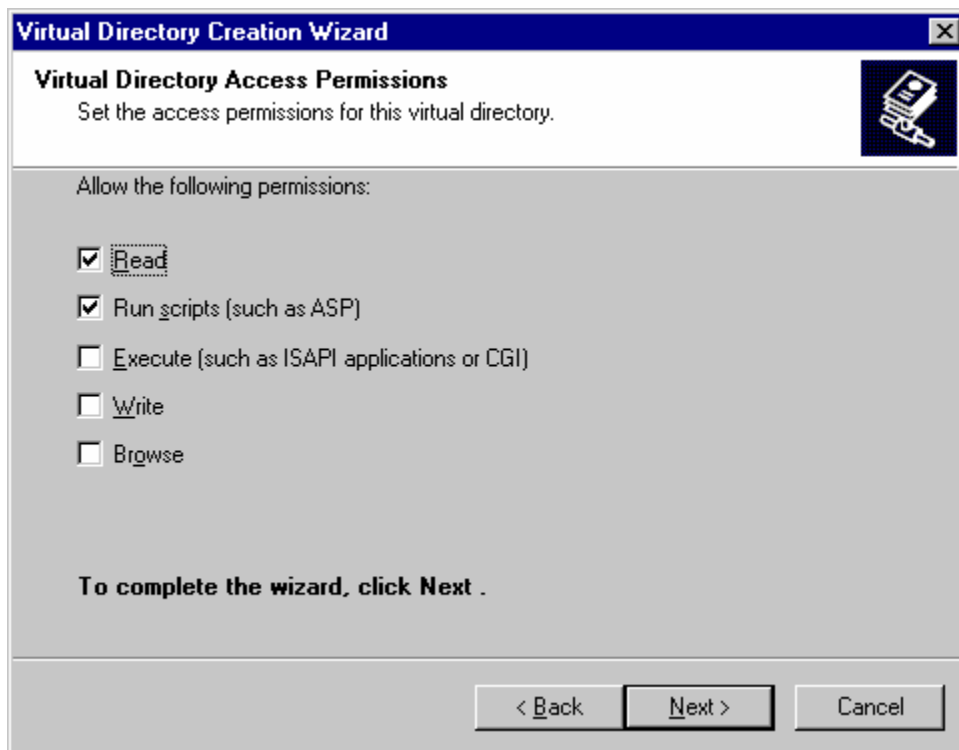
5. Specify the alias name as **Unsubscribe** as indicated in the screenshot below. Be sure to note the Alias name chosen in this step. You will need this information to complete the Onyx Email Accelerator Client Installation (Part III, Step 3.):



6. Enter the path to where you copied the **Unsubscribe** folder on the web server as indicated in the screenshot below:



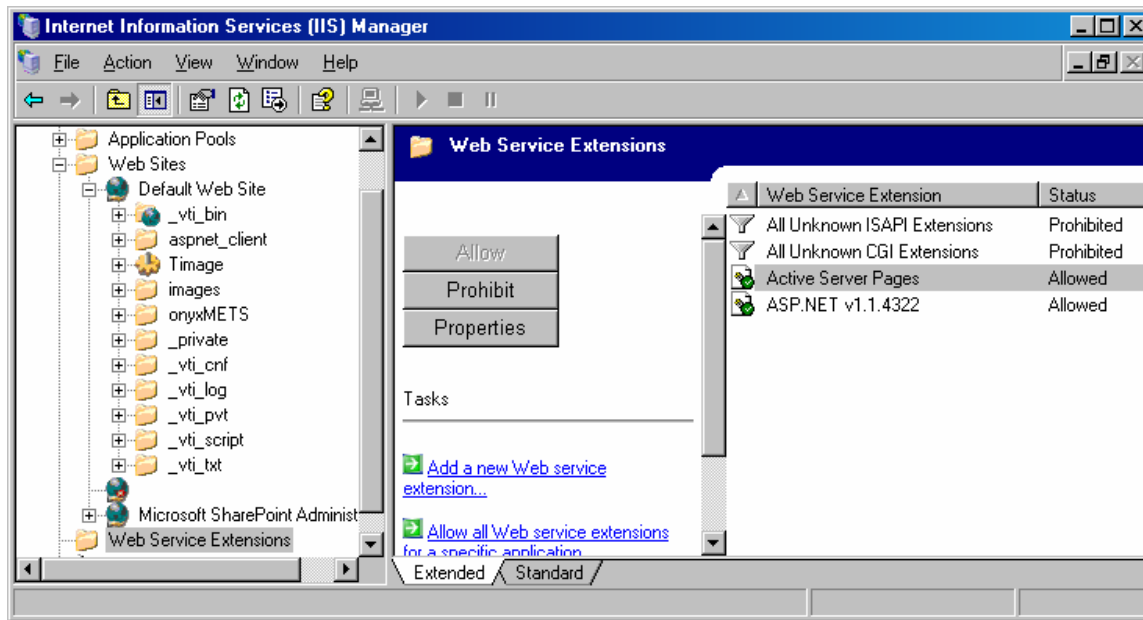
7. Set the permissions for the new virtual directory as indicated in the screenshot below:



8. Once the virtual directory is created, the default configuration settings should suffice for most installations.

### **Special Note About Internet Applications And Windows Server 2003**

Windows Server 2003 requires an additional step to ensure that Onyx Email Accelerator will function properly. On the external web server hosting Unsubscribe and TImage portions of the application, ensure that **Active Server Pages** and **ASP.NET** applications are allowed to execute. These settings are located in the Internet Information Services Manager under **Web Service Extensions**.



### Part III. Onyx Email Accelerator Client Installation

---

**Note:** We do not recommend that you place the Onyx Email Accelerator Client on the same web server as Onyx Employee Portal.

---

#### Installation Instructions

1. Copy the **Code/OnyxEmailAccelerator** folder from the CD to the Internal Web Server you are using for the Onyx Email Accelerator client.
  - The folder **OnyxEmailAccelerator** should be placed in a location on your internal web server where it can be browsed via HTTP.
  - For simplicity, we suggest placing the folder off the root of a web site already configured on your server---wwwroot or another virtual web site is fine.
2. Make the **OnyxEmailAccelerator** a web application by performing the following steps:
  - Open Internet Information Services (IIS) Manager and locate the **OnyxEmailAccelerator** folder.
  - Right click on the **OnyxEmailAccelerator** folder and select **Properties**.
  - On the **Directory** tab, click the **Create** button under the Application Settings to create a Web Application.
    - Select the **Configuration** button that becomes available after you create your application.
    - Select the **App Options** tab in the new window, and make sure that the **Enable Session State** checkbox is de-selected.
    - Select **OK** to exit the 'Configuration' dialog boxes.
  - **Optional:** If you wish to enforce web security for the Onyx Email Accelerator Client:
    - Select the **Directory Security** tab
    - Click **Edit** under the Anonymous access and authentication control
    - De-select the **Anonymous Access** check box if selected

- Select the **Integrated Windows authentication** check box if not already selected. Security can now be enforced using Windows Authentication. You can prohibit access to the Onyx Email Accelerator by changing the file permissions on the OnyxEmailAccelerator folder.
- Select **OK** to exit.

**TIP:** Take note of the location of the Onyx Email Accelerator Client. It will be similar to <http://internalWebServer/OnyxEmailAccelerator/client.asp>. This URL will need to be entered into the /ListManager/lm\_results.js file during the Onyx Employee Portal Installation.

3. Configure the Onyx Email Accelerator Configuration File as follows:
  - Open up the \OnyxEmailAccelerator\AcceleratorClient.config file on your internal web server using Notepad or other text/XML editor.
  - Set the following configurable settings in **AcceleratorClient.config**:

| Configuration Setting    | What it Does   |
|--------------------------|--|
| DatabaseConnectionString | This is the connection to your OEP database. You should use a database user in the Public Group. For security reasons, do not use a DBO username/login.  |
| OptOutTex                | This is the 'default' text that will be inserted automatically under each of your HTML emails. You can edit this text per each email in the Accelerator Client.  |
| OptOutURL                | <p>The Opt-Out URL is the location of the unsubscribe functionality installed on your external web server during the external web server installation. This value is required if you are planning on using the Onyx Email Accelerator's real-time opt-out functionality. This value is derived from what was entered in the Unsubscribe Virtual Directory Alias above (Part II, Unsubscribe, Step 5).</p> <p>If left blank, the Onyx Email Accelerator will assume that a different Opt-Out functionality is being used (see Opt-Out Tracking Information in the Building the Email section below)</p> |
| TimageURL                | The T-Image URL is the location of the Tracking Image HTTP Module installed on your external web server during the external web server installation. This is a required value for tracking real-time user views of your email. This value is derived from what was entered in the TImage Virtual Directory Alias above (Part II, TImage, Step 5).  |
| iSiteID                  | The SiteID of your Onyx Installation.  |

## Part IV. Onyx Employee Portal Installation

The integration of the Onyx Email Accelerator with OEP requires the customization of some OEP web files and some new files. If you have not made any customizations to the files listed below, you can simply overwrite the existing OEP files with the files from the CD. If you need to manually merge the customized code into your existing OEP web files, you can find the Onyx Email Accelerator code by looking for comments in the new files on the CD. All customizations are bracketed with comment text labeled: ONYX EMAIL ACCELERATOR CUSTOMIZATION. Simply place the new code, with comments, into your existing files in the same place.

---

**Note:** It is strongly recommended that you make a backup copy of all of these files prior to proceeding.

---

## Installation Instructions

1. Modify the following files on your OEP website to include the Onyx Email Accelerator customizations. On the CD these files can be found under the **Code\OEP** folder:

| OEP File                                   | Customization  |
|--|--|
| /res/listmanager/lm_resultsres.vbi         | Added string resource for friendly name that shows up in Bulk Action Drop down list  |
| /listmanager/lm_bulkAction.xml             | Defines the new bulk action and for which 'views' the bulk action will be available. (Individual only, value of 1)   |
| /listmanager/lm_results.vbi                | Loads the friendly name defined in /res/listmanager/lm_resultsres.vbi and the view definition from /listmanager/lm_BulkAction.xml  |
| /listmanager/lm_results.js                 | Contains the code to be executed when bulk action first fires. File contains two calls to <b>jsDoMassEmailBulkAction()</b> ; as well as actual the <b>jsDoMassEmailBulkAction()</b> function, for a total of three customizations. |
| /listmanager/lm_main.vbi                   | Contains new supporting function called from /listmanager/lm_results.js. This function, <b>vbGenerateSQL()</b> , generates SQL code from List Management Query which is executed on /listmanager/BulkAction_MassEmailQueue.asp     |
| /listmanager/BulkAction_MassEmailQueue.asp | New file to be placed in the /listmanager/ directory.  |

2. Customize the /listmanager/lm\_results.js file

The **lm\_results.js** file requires that you fill in the location of the Onyx Email Accelerator installation. In the previous section, the Client was placed on an internal web server with SMTP services installed. The URL to navigate to the client should look something like this:

<http://internalwebserver/OnyxEmailAccelerator/client.asp>

Open the customized /listmanager/lm\_results.js file and look for the function '**jsDoMassEmailBulkAction()**'. This function has a variable called '**sClientLocation**'. Simply place the URL of your client installation into this value between the single quotes (') as shown below:

```
18  /*ONYX EMAIL ACCELERATOR CUSTOMIZATION*/
19  function jsDoMassEmailBulkAction() {
20      var sClientLocation = 'http://internalWebServer/OnyxEmailAccelerator/client.asp';
21      var xmlHttp = new ActiveXObject("Microsoft.XMLHTTP");
22      var sResponseCode;
23      var sStatusCode;
```





## Testing the Installation

Once Onyx Email Accelerator is installed and configured it is highly recommended that you send at least one test mail to yourself before you use the application to send to your customers.

---

**Note:** If you have questions while preparing your test email, you may want to skip ahead to ‘Using the Onyx Email Accelerator’ section in Chapter 3 below before continuing with your test.

---

## Prerequisites

- Complete the installation and configuration of all parts of the Onyx Email Accelerator.
- Ability to create new Individual Records in Onyx Employee Portal
- Ability to create a new Campaign.
- Access to an email account outside of your organization. An email account at HotMail, Yahoo Mail, or similar providers will suffice.

1. Create a new Individual Record in Onyx Employee Portal and make note of the IndividualID.

**Individual**

ID:

Prefix:

Gender: ☒ Male ☐ Female

First Name:

Middle Name:

Last Name:

Suffix:

Email:

URL:

**Address**

Address 1:

Address 2:

Address 3:

City:

State:

Postal Code:

Country:

Type:

☒ Valid ☐ Private

**Company**

Company:

Title:

Department:

**Telephone**

Business:  ☒ Primary

Pager:  ☐

Direct:  ☐

Fax:  ☐

Home:  ☐

Mobile:  ☐

Voice Mail:  ☐

**Details**

Status:

Source:

Type:

Subtype:

**User-Defined Fields**

Region:

Private Email: ☐

Birthday:

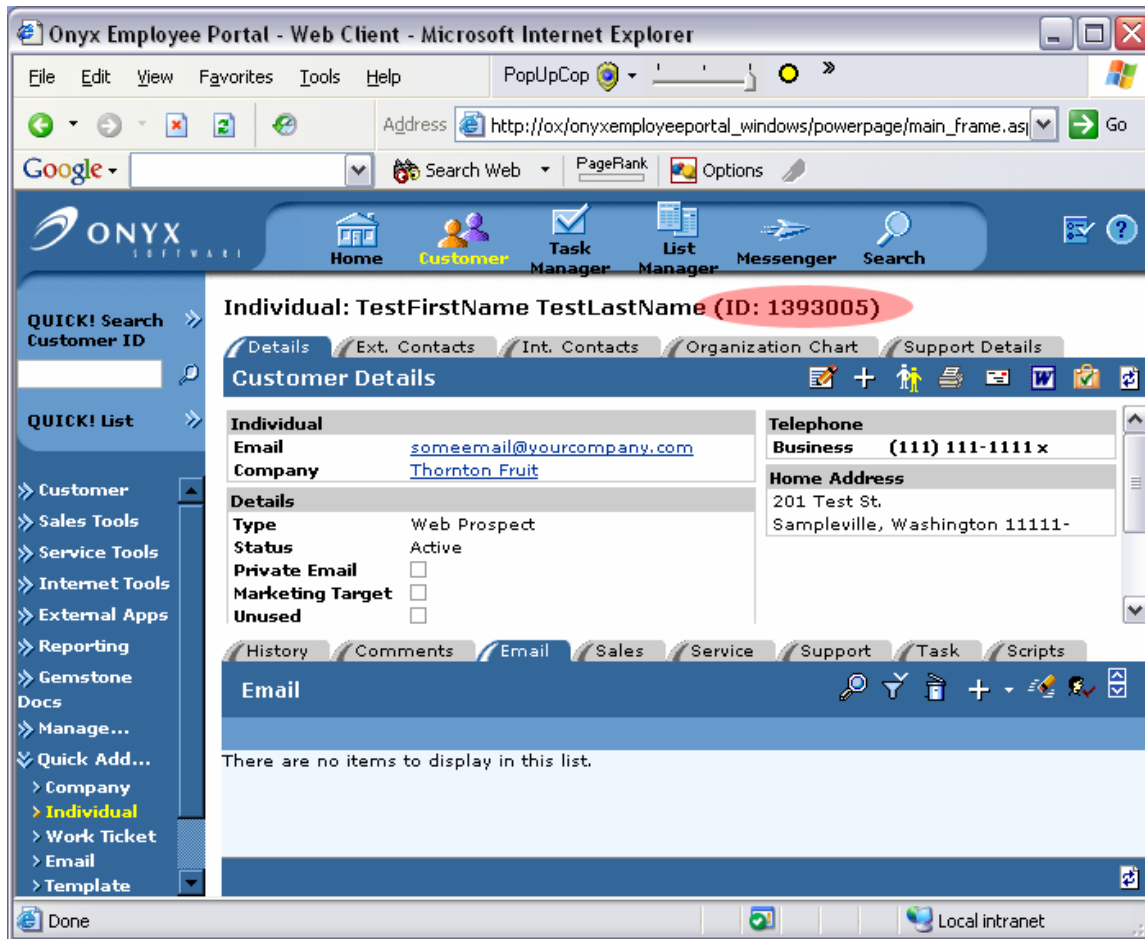
Marketing Target: ☐

ILS Pref.:

Unused:

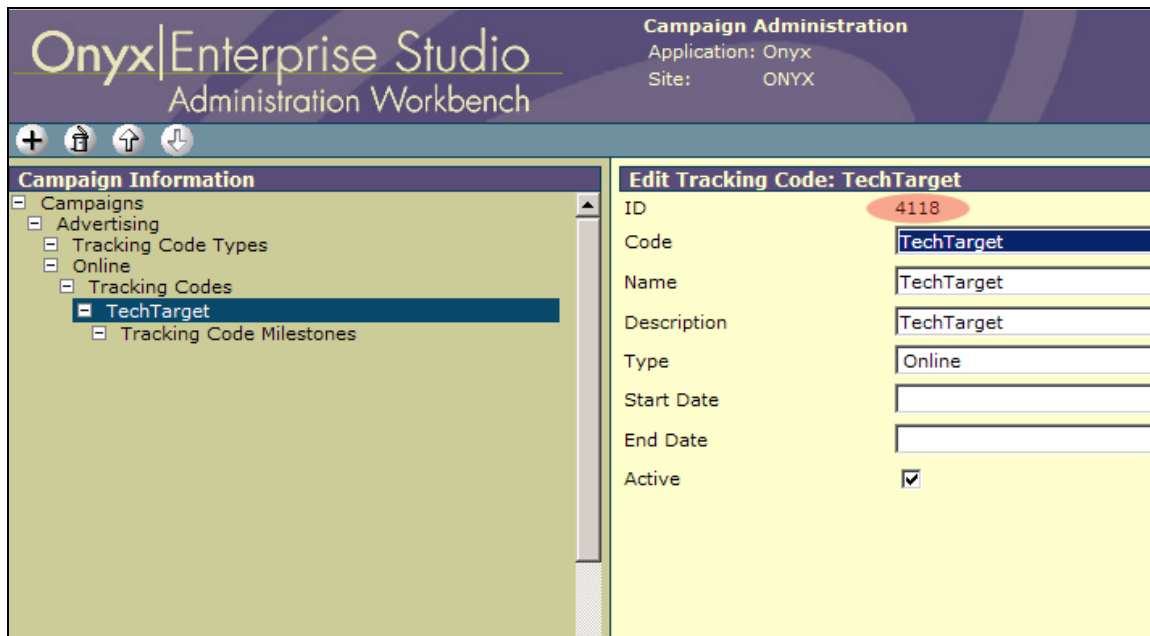
Unused:

Unused:



2. Use the Onyx Enterprise Studio Campaign Administration tool to create or view Tracking Codes and Milestone Actions. You will need a total of 4 IDs:
  - a. A Tracking Code ID for a viewed email.
  - b. A Milestone Action ID for a viewed email.
  - c. A Tracking Code ID for the Unsubscribe/Opt-out.
  - d. A Milestone Action ID for the Unsubscribe/Opt-out.

An example of a Tracking Code ID:



**Onyx Enterprise Studio**  
Administration Workbench

**Campaign Administration**  
Application: Onyx  
Site: ONYX

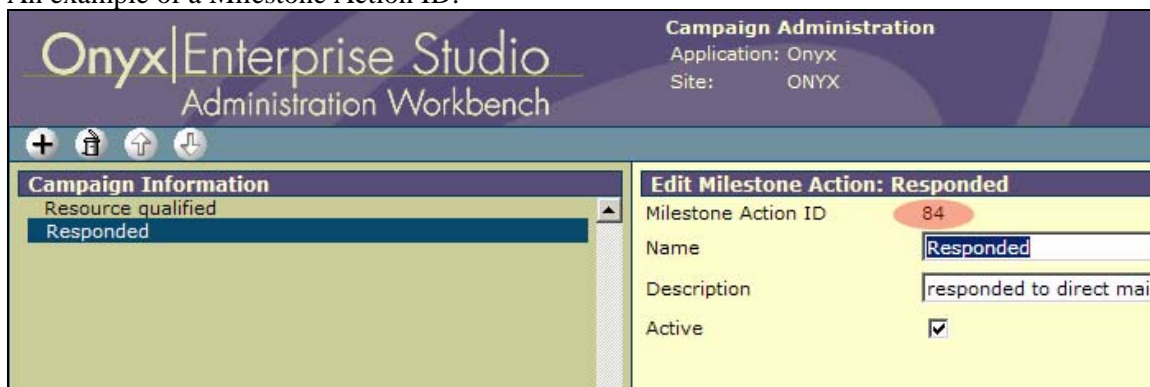
**Campaign Information**

- Campanigns
  - Advertising
    - Tracking Code Types
    - Online
      - Tracking Codes
        - TechTarget**
          - Tracking Code Milestones

**Edit Tracking Code: TechTarget**

|             |                                     |
|-------------|-------------------------------------|
| ID          | 4118                                |
| Code        | TechTarget                          |
| Name        | TechTarget                          |
| Description | TechTarget                          |
| Type        | Online                              |
| Start Date  |                                     |
| End Date    |                                     |
| Active      | <input checked="" type="checkbox"/> |

An example of a Milestone Action ID:



**Onyx Enterprise Studio**  
Administration Workbench

**Campaign Administration**  
Application: Onyx  
Site: ONYX

**Campaign Information**

- Resource qualified
  - Responded**

**Edit Milestone Action: Responded**

|                     |                                     |
|---------------------|-------------------------------------|
| Milestone Action ID | 84                                  |
| Name                | Responded                           |
| Description         | responded to direct mail            |
| Active              | <input checked="" type="checkbox"/> |

- Using Onyx Employee Portal, open List Manager and create a query that only returns the test Individual Record you created above.
- Send this one-record list to Onyx Email Accelerator using the bulk action drop down.
- Complete the fields required. Use the Tracking Code IDs and Milestone Action IDs in the **View-Email** and **Opt-Out** Tracking ID and Action ID fields.
- For email content you can create a simple HTML test or use one of the sample HTML templates included on the installation CD.
- When all fields are complete, click send.
- Log into your email client for the target email address. If your client does not automatically download the images in the HTML email, make sure to download the images manually following instructions in your email client.
- After you have opened the email, click on the unsubscribe link at the bottom. This should direct you to your web site where the Unsubscribe portion of the Onyx Email Accelerator resides. Once you see the confirmation screen, you're ready to verify that the campaigns were marked in Onyx.
- In Onyx Employee Portal open the test Individual Record you created earlier. View this individual record's campaign information to verify that the appropriate campaigns were set.

## CHAPTER THREE

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### *Using the Onyx Email Accelerator*

This chapter describes how to use the OEP and Onyx Email Accelerator to plan, execute and track email marketing campaigns.

### Configuring Campaigns

The OEP Campaign functionality is used by the Onyx Email Accelerator to track email recipient actions (view and/or unsubscribe). If you choose to leverage the tracking functionality, you will need to configure campaign tracking codes and actions for your email prior to executing the email campaign.

### Building the Target List

The OEP List Manager feature is used to build a target email distribution list. To build your list, open List Manager and select the **Individuals** view. Choose your list criteria from the available fields and run a search to return your recipient list. Select all results and choose the **Send Mass Email with Onyx Email Accelerator** bulk action to launch the Onyx Email Accelerator client.

Considerations:

1. The Onyx Email Accelerator can only be used to send emails to individuals. Make sure that you build your target list using the **Individuals** view in List Manager. If you build a target list using another view, the **Send Mass Email with Onyx Email Accelerator** bulk action will not appear.
2. Your List Manager query must be designed so that you can execute the **Send Mass Email with Onyx Email Accelerator** bulk action against the entire result set. If you attempt to check only a subset of the list and execute the **Send Mass Email with Onyx Email Accelerator** bulk action, you will be prohibited from launching the Onyx Email Accelerator client.
3. Ensure that you design your List Manager query to exclude individuals who have chosen to opt-out of all or specific email communications.

### Building the Email

After you've sent your targeted recipient list to the Onyx Email Accelerator client you are ready to set up the email. You will configure the following information for your email:

**To:** The **To** field is pre-populated with the first three individuals from your target list. A count of total email recipients is displayed beneath the third name. This count will match the count of individuals returned in your List Manager result set.

**From:** The **From** field is required and is used to indicate the sender of the email. You may specify any valid email address within your organization as the sender. The email address may be entered in either of the following two formats:

- **Friendly Name <Valid Email Address>**  
Jane Doe <janedoe@companyABC.com>  
**or**
- **Valid Email Address**  
janedoe@companyABC.com

**Subject:** The **Subject** field is optional and is used to specify the email subject.

**Email Tracking Information:** The **Email Tracking Information** section contains fields for tracking recipient view and opt-out email actions.

|   |  |  |
|---|--|--|
| <b>View-Email Tracking Information:</b><br><i>TrackingID and ActionID can be 0 if you do not wish to track 'viewed email'</i> | TrackingID: <input type="text" value="0"/> | ActionID: <input type="text" value="0"/> |
| <b>Opt-Out Tracking Information:</b><br><i>TrackingID and ActionID must be non-zero and valid</i>                             | TrackingID: <input type="text"/>           | ActionID: <input type="text"/>           |

**View-Email Tracking Information:** If you choose to track when a recipient views the email, enter a valid OEP campaign **TrackingID** and **ActionID** for this action. It is not required that you track when a recipient views the email and a value of 0 for these fields indicates that this action will not be tracked.

---

**Note:** In order for an email to be tracked, it is required that the user downloads the images from the public web server to execute the TImage HTTP Module. Some email clients do not download images by default.

---

**Opt-out Tracking Information:** Similar to the View-Email Tracking Information fields, the Opt-out Tracking fields are used to indicate the OEP campaign **TrackingID** and **ActionID** for a recipient Opt-Out action. This may be the same **TrackingID** and **ActionID** for every email your organization sends.

By default, the Opt-Out Tracking fields are required. These fields are used in conjunction with the **Opt-Out Text** and **Opt-Out URL** fields in the Opt-Out Configuration section for handling Opt-Out management. The only time these fields are not required is when you choose not to implement the real-time Opt-Out functionality (refer to the Opt-Out Configuration section for additional information).

**HTML Source / Message:** The **HTML Source / Message** box contains the email message content and is required. You may type the HTML email content directly into this box or more typically your email will be authored using an HTML editor (such as HomeSite or Visual Studio) and then copied into this field.

---

**Note:** Chapter Four contains a list of HTML email format and design tips.

---

## Merge Fields

Emails sent via the Onyx Email Accelerator may be personalized with a recipient's first name, last name and/or company name. This information is pulled from the Onyx database and merged into the body of the email. To specify one of the merged fields in your email, enter the appropriate merge code according to the table below:

| Field      | Merge Code (must be all caps) |
|------------|-------------------------------|
| First Name | <@FIRSTNAME@>                 |
| Last Name  | <@LASTNAME@>                  |
| Company    | <@COMPANY@>                   |

## Opt-out Configuration:

By law it is required that you offer your recipients a way to opt-out of any emails that you send so they can elect to not receive them in the future and the Onyx Email Accelerator is equipped to handle opt-outs. Onyx recommends using an Opt-out campaign that can be added to your List Management queries when creating a list of target recipients. This allows for a varying level of granularity depending on how you want to implement your opt-out business rules.

**Opt-Out Text:** The Opt-Out text field is required and allows you to specify the text that is included at the end of the email which allows users to unsubscribe from future emails. This text may be changed on a per email basis. By default, this field will be populated with the following generic text:

*We respect your privacy. If you do not wish to receive these emails in the future, please click here.*

**Opt-out URL:** The Opt-Out URL field is a read-only field that displays the Unsubscribe URL specified in the **AcceleratorClient.config** file (<OptOutURL>). When the Onyx Email Accelerator sends each email, the Opt-Out Text is automatically added to the bottom of your email with an encrypted URL (using the **TrackingID** and **Action ID** specified for Opt-Out Tracking) to your unsubscribe functionality on your external web server. Users will be able to opt-out in real time.

---

**Note:** We understand that there are many ways to implement an opt-out strategy. If the <OptOutURL> value in the **AcceleratorClient.config** file is empty or blank, the Onyx Email Accelerator will not implement the real-time opt-out functionality and the **TrackingID** and **ActionID** for the Opt-Out Tracking will not be required. The Opt-Out text field will allow you to enter HTML so that any desired Opt-Out implementation can be used.

---

**Email Preview & Testing:** The Onyx Email Accelerator provides the capability to preview and test your emails prior to campaign execution. Click on the **Preview** button to preview the email without sending it or enter a test email address and click on the **Send Preview Email** button to send the email to a test recipient.

---

**Note:** If your email contains merged fields (first name, last name or company name) the merged data will not show up when the email is previewed or tested.

---

## Sending the Email

When you are ready to send your email, click on the **Send Mass Email** button. A status bar that indicates execution progress will be displayed as well as the current batch ID that is being processed (*see Troubleshooting section below for explanation of iMailBatchID*). When execution is complete, a count of emails sent will be displayed, as well as a count of any invalid email addresses found during the process. Instructions on how to audit the invalid emails will be displayed as well.

## Tracking Email Actions

If you configure the Onyx Campaign functionality to track email actions for the email, you may track when email recipients view and/or unsubscribe from the mailing. These recipient actions will update the

appropriate OEP campaign tracking codes and actions on the recipient's OEP Individual record in real-time.

The following screenshot displays an example of how a **Viewed Email** recipient action would appear in OEP:

The screenshot shows the Onyx Employee Portal - Web Client interface in Microsoft Internet Explorer. The browser window title is "Onyx Employee Portal - Web Client - Microsoft Internet Explorer". The interface has a blue header with the Onyx Software logo and navigation links: Home, Customer, Task Manager, List Manager, Messenger, and Search. A left sidebar contains a "QUICK! Search Customer ID" field and a "QUICK! List" button. Below these are expandable menu items: Customer, PowerPage, Literature, Products, Surveys, Campaigns (highlighted), Web Usage, Attachments, Work Tickets, Summary, Sales Tools, Service Tools, Internet Tools, External Apps, Reporting, Gemstone Docs, Manage..., Quick Add..., and Diagnostics. The main content area displays "Individual: Daniel Ledrick (ID: 1251338)". Below this is a "Campaigns" table with columns: Campaign ID, Customer ID, Campaign Name, Tracking Code Name, and Tracking Code. A single row is visible with Campaign ID 3386450, Customer ID 1251338, Campaign Name Training Misc., Tracking Code Name OU Oct 2004 Tech eNewsletter, and Tracking Code 10062004OU Tech eNewslett. Below the campaigns table is a "Milestone History" table with columns: Name, Date, and Insert By. A single row is visible with Name Viewed or Opened Email, Date 10/06/2004, and Insert By Web. The bottom status bar shows "Done" and "Local intranet".

| Campaign ID | Customer ID | Campaign Name  | Tracking Code Name           | Tracking Code             |
|-------------|-------------|----------------|------------------------------|---------------------------|
| 3386450     | 1251338     | Training Misc. | OU Oct 2004 Tech eNewsletter | 10062004OU Tech eNewslett |

| Name                   | Date       | Insert By |
|------------------------|------------|-----------|
| Viewed or Opened Email | 10/06/2004 | Web       |

## CHAPTER FOUR

---

### *Sample HTML Templates*

Even if you know HTML well, sending HTML over email has its own set of limitations that a content developer should be aware of before sending messages to clients. To illustrate some of the best-practices in action, Onyx Email Accelerator includes five email templates for use as a learning tool, a starting point for your own emails, or as a working reference. Whether you use the templates or not, when you write HTML for email distribution, you always need to be aware of the differences this medium requires.

**Externally Available Resources** – One of the most important aspects of authoring HTML for email is to ensure that all images used in emails are on a publicly accessible web server. For example, if you open the **CEO Message** sample email template with a program like Notepad, you will see towards the top of the file this line:

```

```

This is generally how all your image references should look. The critical piece is the **src** portion of the **<img>** tag. The **src** must be the full URL to where the image is hosted starting with “**http://**”.

**Cascading Style Sheets vs. In-Line Styles** – Unfortunately, even if you make a cascading style sheet file available on a publicly available web server, many email clients will ignore the reference. Also, styles moved from an external .CSS file into the **<head></head>** portion of your HTML file also tend to be ignored by email clients. Consequently, to ensure that your email looks as good as possible on a variety of email clients you have to make heavy use of inline style attributes attached to tags like **<font>** **<span>** and **<a>**. All of the sample templates included use these in-line styles to format the HTML document.

**Plan For Image Blocking** – The best HTML layouts plan around having images blocked by some email clients and “gracefully degrade” in those circumstances by:

- Avoiding over reliance on image-heavy design.
- Not putting critical content in images.
- Checking what the design looks like both with and without images to ensure the content is still readable.

The **Invite** sample template includes a normal file and a version that simulates what the email would look like when viewed in an email client that blocks images.

The **BRIx** sample template is designed with no images whatsoever – its design will not be affected by image blocking.

### *HTML Email Format and Design Tips*

1. Avoid those fancy things your Web site designers love to do: cascading style sheets, over-reliance on images, and animation.



2. Avoid those fancy things print art directors love to do: reversed type, colored type for body copy, type smaller than 10 points, body copy justified on both sides, type wrapping around a graphic, etc.
3. Stick to the standard Web safe palette of 216 colors as much as possible. (See [http://www.w3schools.com/html/html\\_colors.asp](http://www.w3schools.com/html/html_colors.asp) for more information about the 216 cross-platform colors)
4. Your email should not be wider than 620 pixels.
5. Use HTML <UL> and <OL> tags for bulleted and numbered lists.
6. Keep the message size less than 40 kilobytes.
7. Don't waste precious above-the-fold HTML real estate on an enormous graphic such as a logo or product graphic. Content filters may assume that it's a message with adult content and will reject it.
8. Keep the design clean. Think postcard or billboard. Recipients may glance at your message for just a few seconds, most won't study it in detail. They are making a fast click-versus-delete decision, not a reasoned buying or other conversion decision.
9. Use your design to move them toward the click -- rely on your landing page to move them to the next stage in the conversion process. If you have more than one column, make it extremely obvious which is the most important, and which merely lists "housekeeping links."
10. Don't be afraid to include additional navigation links if you are a well-known brand site with many SKUs or stories. These links should not "fight" the main message, but they should be above the fold, usually on the right.

Testimonial: "Retail marketers worry that these 'housekeeping links' will distract a customer from the main 'sale' message. But we have found, overall, that response rates and conversion rates increase with these additional links."

Why? Because the main message may not be relevant to the recipient. Recipients may open the email and find that the subject isn't interesting, but the other links serve as a reminder of all the other possibilities you have to offer.

Consider testing alternate orders of these links from message to message rather than having the order set in stone the way it may be on your site.

11. Be picky about brand consistency. Use templates. Create a style guide and make sure people stick to it. This includes a standard, unchanging "from address" for all brand messages.

## Copywriting Tips to Increase Response

1. Be disciplined. It's tempting for marketers to toss every single product feature and benefit into an email. That can be overwhelming to recipients.

Testing has proven the opposite approach is more effective. Pick a single theme and stick to it. Prioritize. People don't read emails, they skim them. Your single theme should hit them over the head when they first open the email.

2. Keep your copy punchy and active. Avoid flowery language. Use a lot of bullets and verbs.
3. That said, avoid exclamation marks. That can be flag for spam content filters. Besides, overuse of exclamation marks can dilute your message.
4. If possible, test your copy against content filters prior to see which words may get your message stopped as spam.

Your landing page is a great place to use words such as "guaranteed," "savings," "free," and "survey" that often trigger spam filters if they are used in the body of your email itself. You may have to divide your copy to conquer.

5. Personalize all you can; readers will skim more slowly, paying more attention if you do.

## CHAPTER 5

---

### *Troubleshooting*

The Onyx Email Accelerator spans many systems and involves a few different technologies. This troubleshooting section offers a more in-depth technical discussion as to what is happening in the code.

### Problems hitting the 'Bulk Action' in List Manager

When the bulk action is executed, the query used to generate the list is sent to **/listmanager/BulkAction\_MassEmailQueue.asp** via the XMLHttp Object. This process is started from a custom function in **/listmanager/lm\_results.js**. If there are errors in processing **BulkAction\_MassEmailQueue.asp**, it is more than likely the result of the query that was passed. An IIS error will be returned to the calling function, and in response, the function will launch **bulkAction\_MassEmailError.htm** and write out the IIS response. This can be confusing because it will appear to be an error with the Onyx Email Accelerator Client, and not the process that is occurring on the OEP web server. However, by looking at the error description, it will be explicit as to what happened and where. If errors are returned on all bulk action submittals, make sure that the installation instructions were followed correctly and that the code in **/listmanager/BulkAction\_MassEmailQueue.asp** was not altered in any way. If an error occurs only on a particular query, please contact Onyx Support with information as to which query is causing the error.

### Unexpected Errors during Mass Email Process

The Onyx Email Accelerator was constructed to ensure that recipients are not sent duplicate mail and if an error occurs in the middle of a mass email batch, that it is possible to start the process from where the error occurred.

The entire process operates like this:

1. The Bulk Action in the Onyx Employee Portal creates a unique **iMailBatchID** and inserts all targeted recipients into table **SDtMassEmailQueue**.
2. When the queue table is filled, the unique **iMailBatchID** is returned and the Onyx Email Accelerator Client is launched with the **iMailBatchID** as a parameter. For instance, <http://internalwebserver/OnyxEmailAccelerator/client.asp?iMailBatchId=1>
3. When the Onyx Email Accelerator Client is submitted, a query is run to retrieve all users in table **SDtMassEmailQueue** with the unique **iMailBatchID** and NOT appearing in the **SDtMassEmailHistory** table for that unique **iMailBatchID**. This will be explained below.
4. A regular expression is executed for each email address before it is sent to confirm validity of the email address. If an email address is invalid, it is skipped and left in the queue.
5. After each email is sent, the user is added to the **SDtMassEmailHistory** table.
6. When the process completes successfully, clean up is performed. This entails moving all recipients that are in **SDtMassEmailQueue** and NOT in **SDtMassEmailHistory** to table **SDtMassEmailInvalids** and then removing all recipients for the **iMailBatchID** from **SDtMassEmailQueue**. Table **SDtMassEmailInvalids** can be queried with the appropriate **iMailBatchID** to clean up email address data if desired.
7. At the end of a successful process, all recipients for a particular batch are either in **SDtMassEmailHistory** OR **SDtMassEmailInvalids**. They will not appear in both.

If an error occurs during execution of sending the emails, you can see where the **SDtMassEmailHistory** table is keeping an accurate log of which recipients are sent email and which have not been processed. The 'clean up' job would not have been executed either. You can re-start your batch job by opening up a

browser and going to  
<http://internalwebserver/OnyxEmailAccelerator/client.asp?iMailBatchId=<YOURBATCHID>>. The  
**iMailBatchID** is displayed during execution of the email, so this type of recovery is possible.

The **SDtMassEmailInvalids** table should be queried occasionally to ensure that the email data in the system is as valid as possible.

## APPENDIX A

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### Database Components

#### Tables Installed

| Table Name           | Description   |
|----------------------|---|
| SDtMassEmailQueue    | <p>Table filled from <b>/listmanager/bulkAction_MassEmailQueue.asp</b> which is executed when the bulk action is selected in List Management.</p> <p>Queue is cleared after Onyx Email Accelerator Client completes <i>successfully</i>. If there is a problem in the middle of execution, the Queue will contain recipient individualIDs that have not been sent emails. Executing the client again with the same <b>iMailBatchID</b> will continue execution (refer to Chapter 5 – Troubleshooting for additional information).</p> |
| SDtMassEmailHistory  | Table is filled during execution of Onyx Email Accelerator Client. Each entry in the <b>SDtMassEmailHistory</b> was sent an email.  |
| SDtMassEmailInvalids | Table is filled after <i>successful</i> completion of the Onyx Email Accelerator Client. If any emails encountered in the process were empty, null, or invalid, they will be placed here. A warning message will be displayed in the Onyx Email Accelerator Client window disclosing how many email addresses were invalid (refer to Chapter 5 – Troubleshooting for additional information).   |

#### Stored Procedures Installed

| Stored Procedure Name   | Description   |
|-------------------------|---|
| SDpcgValidateEmailQueue | Queries <b>SDtMassEmailQueue</b> to validate that passed in <b>iMailBatchID</b> is valid, and returns number of recipients in batch as well as first three recipient's names to be displayed in client.   |
| SDpcgGetEmailQueue      | Returns record set of targeted recipients in <b>SDtMassEmailQueue</b> to the Onyx Email Accelerator Client for processing.  |
| SDpcgEncryptEmailData   | Encrypts the <b>TrackingID</b> , <b>ActionID</b> and <b>IndividualID</b> and returns merge data for each email.   |
| SDpcgDecryptEmailData   | Decrypts the <b>TrackingID</b> , <b>ActionID</b> and <b>IndividualID</b> from the past-in encoded string.   |
| SDpcuSentEmail          | Updates the <b>SDtMassEmailHistory</b> table when each recipient is emailed.  |
| SDpcdProcessedEmail     | Handles the completion process of the Onyx Email Accelerator by clearing out <b>SDtMassEmailQueue</b> and placing all invalid emails into the <b>SDtMassEmailInvalids</b> table.  |
| SDpsiCampaign           | Executes insertion/update of Campaign via the <b>TrackingID</b> and <b>ActionID</b> on the Individual Record. Used by both the TImage HTTP Module and Unsubscribe functionality. Procedure executes core OEP stored procedures: <b>wbospsiCustomerCampaign</b> and <b>wbospsiCustomerCampaignAction</b> . |

