

ESI Test Server 4.8 Installation Guide



ETS 4.8 Installation Guide

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Preface

Welcome to the *ESI Test Server 4.8 Installation Guide*. This guide provides the information you need to install, configure, and use the ESI Test Server (ETS).

ETS is an application that works as a reverse proxy web server capable of processing ESI tags. As a reverse proxy, ETS transparently receives web page requests from an end-user browser, forwards the request to another web server, and receives that web server's response. As an ESI processor, ETS processes ESI tags contained within the web page returned by the other web server, thereby letting you view and test ESI-enabled web page content before it is pushed to the Internet.

This guide serves two purposes. First, it provides a conceptual overview of ESI and ETS. Second, it provides step-by-step instructions for installing, configuring, using, and troubleshooting the ETS software.

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Audience

This guide will assist you in installing and configuring the ESI Test Server. It is intended for people who are responsible for viewing and testing ESI-enabled web page content, before it is pushed to the Internet. It is suggested that you have the following background:

- Basic understanding of web page authoring, HTML, and Edge Side Includes (ESI) tag syntax.
- Familiarity with web servers.

This guide assumes that your web pages already include ESI tags.

Related Publications

Related Akamai resources include the following documents, available to customers and resellers on the Akamai portal, <http://i.am.akamai.com>:

- The *EdgeSuite ESI Developers Guide* is the user manual for EdgeSuite ESI.
- *EdgeSuite Edge Transformations Service Overview* describes EdgeSuite's implementation of XSLT, which can be used in combination with ESI.
- The *EdgeSuite ESI/XSLT Development Tool* contains the procedures for running a debugger on both ESI and XSLT pages.
- The *EdgeSuite Configuration Guide* details the configuration and control options and parameters used for sites and objects in EdgeSuite, including ESI.
- *EdgeSuite Handling of Edge-Control & Other HTTP Headers*, a discussion of the use of HTTP request and response headers in the EdgeSuite environment.
- *Time-to-Live in Cache: Methods and Considerations*. This discusses the various methods for determining the caching properties of objects on Akamai EdgeSuite servers.

Additional Help

For additional information or assistance, contact your Akamai Representative, or:

Phone	877 425-2832
Internet	http://www.akamai.com
Email	ccare@akamai.com

ETS Overview

1

The ESI Test Server (ETS) is an application that works as a reverse proxy web server capable of processing ESI tags. As a reverse proxy, ETS transparently receives web page requests from an end-user browser, forwards the request to another web server, and receives that web server's response. As an ESI processor, ETS processes ESI tags contained within the web page returned by the other web server, thereby letting you view and test ESI-enabled web page content before it is pushed to the Internet.

Since ETS is designed to work with ESI-enabled content, this chapter provides an overview of both ESI and the ETS process.

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- Understanding Edge Side Includes • 10
 - Features • 10
- Building Documents with Dynamic Content • 11
 - Template and Fragments • 11
 - How ESI Delivers Dynamic Content • 12
 - ESI Example • 13
- ETS and ESI-Enabled Content • 15
 - ESI Features Not Implemented in ETS • 15

Understanding Edge Side Includes

EdgeSuite Edge Side Includes (ESI) provides for dynamically generating HTML pages at the edge of the Internet, near the end user.

The ESI language is an XML-based markup language that provides the tools to assemble the content dynamically on Akamai's network.

The ESI 1.0 specification is an open specification co-authored by Akamai and 14 other industry leaders, the purpose being to develop a uniform programming model to provide the ability to build dynamic pages at the edge of the internet, close to the end user. The Akamai EdgeSuite implementation of ESI extends the 1.0 specification in several key areas such as the use of variables and internal functions.

Features

EdgeSuite shares the same reliability, fault-tolerance, performance, and scalability found in Akamai's FreeFlow technology. ESI can improve site performance by caching the objects that comprise dynamically generated HTML pages at the edge of the Internet, close to the end user. ESI allows for dynamic content assembly at the edge.

As the content provider, you design and develop the business logic to form and assemble the pages, using the ESI language within your content development format.

The ESI language, which finds its point of departure in Server Side Includes (SSI) implemented in Apache and other Web servers, includes the following features:

- **Inclusion**—the central ESI feature is the ability to fetch and include files to comprise a Web page, with each file subject to its own configuration and control—its own specified time-to-live in cache, revalidation instructions, and so forth. Included documents can include ESI markup for further ESI processing. Currently, ESI supports the inclusions nested up to five levels.
- **Integration with Edge Transformations**—ESI can include fragments processed by the Edge Transformations Service, and beyond that, has the ability to create and pass variables and global params, specify an XSL stylesheet, and specify XSLT processing itself.
- **Environmental variables**—ESI supports the use of standard CGI environment variables such as cookie information and POST responses. These variables can be used inside ESI statements or outside of ESI blocks.
- **User-defined Variables**—ESI supports a range of user-defined variable types.
- **Functions**—ESI supports functions to perform various evaluations, for example, to set HTTP headers, set redirects, and create time stamps.
- **Conditional logic**—ESI supports conditional logic based on Boolean expressions and environmental variables comparisons.
- **Iteration**—ESI provides a logic to iterate through lists or dictionaries.
- **Secure Processing**—ESI supports a logic for SSL processing, automatically using secure processing for fragments if the template is secure.
- **Exception and error handling**—ESI allows you to specify alternative objects and default behavior such as serving default HTML in the event that an origin site or

document is not available. Further, it provides an explicit exception-handling statement. If a severe error is encountered while processing a document with ESI markup, the content returned to the end user can be specified in a “failure action” configuration option associated with the ESI document.

Building Documents with Dynamic Content

Template and Fragments

The basic structure you use to create dynamic content in ESI is a *template* page containing *HTML fragments*.

The template page consists of common elements such as logo, navigation bars, framework, and other “look and feel” elements of the page. The HTML fragments represent dynamic subsections of the page.

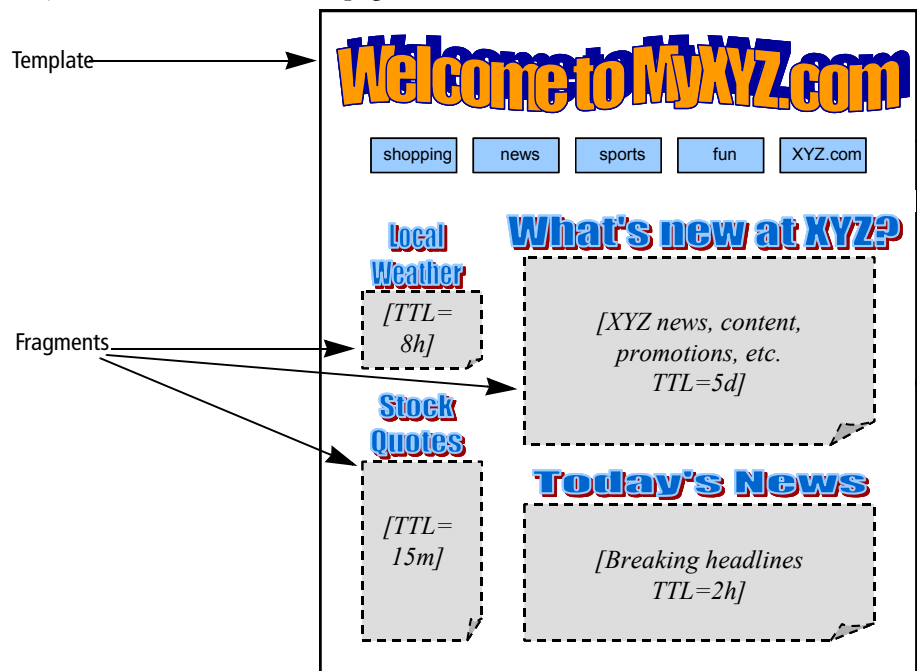


Figure 1. Template and HTML Fragments

The template is the file associated with the URL the end user requests. It is marked up with ESI language that tells EdgeSuite to fetch and include the HTML fragments. The fragments themselves are HTML- or XML-marked up files containing discrete text or other objects.

Each fragment is treated as its own separate object on the Akamai network—each with its own cacheability and access profiles set by way of headers or configuration files. You may want to cache the template for several days, but cache a particular fragment containing a story or ad for a matter of minutes or hours. You may want to set up particular fragments not to cache at all.

How ESI Delivers Dynamic Content

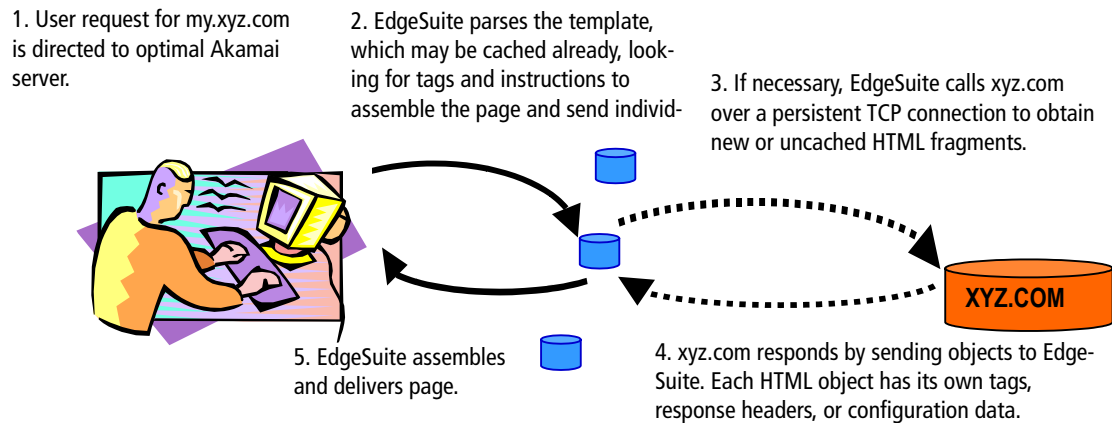


Figure 2. Edge Side Includes: How it Works

1. When the user requests the content page, EdgeSuite directs the request to the optimal (for the user) Akamai server.
2. The template page associated with the request may already be cached, since it may contain persistent, frequently used material. If the template isn't cached, EdgeSuite fetches it from xyz.com.
3. When EdgeSuite sees the ESI language markup in the template, it reads the tags and instructions, conditions, and variables.
4. EdgeSuite calls xyz.com to request or validate any fragments.
5. The origin, xyz.com, sends new objects back to EdgeSuite. Each object is an HTML fragment with its own associated configuration and header data, and it can ESI statement to include other fragments up to five nested levels.
6. EdgeSuite assembles and delivers the custom page to the user, and also caches appropriate objects for further use.

ESI Example

Consider Example.com a media company, using its test server (`test.example.com`) to test its home page: `http://www.test.example.com/home.html`. The HTML for the page is as follows, with the ESI code highlighted in **bold**:

```
<HTML>
<HEAD <TITLE>Sample Web Page </TITLE></HEAD>
<BODY>
<H1 STYLE="text-align: left" ALIGN=LEFT>
<IMG SRC="header_company.gif" WIDTH="600" HEIGHT="100" BORDER="0"></H1>
<H1><FONT FACE="Comic Sans MS" COLOR="BLUE"><SPAN STYLE="font-size:
    18.0pt">

Welcome to Example Company</SPAN></FONT></H1> <BR>

<H2><FONT FACE="Comic Sans MS" COLOR="BLUE"><SPAN STYLE="font-weight:
normal;font-size: 14.0pt">Today's Headline News</SPAN></FONT></H2>

<esi:include src="todayshadlinenews.html"/>

<H2><FONT FACE="Comic Sans MS" COLOR="BLUE"><SPAN STYLE="font-weight:
normal;font-size: 14.0pt">Important Links</SPAN></FONT></H2>

<LI> <A HREF="products.html">All Example Products</A>
<LI> <A HREF="support.html">Example Support</A>
<LI> <A HREF="sales.html">Example Sales</A>

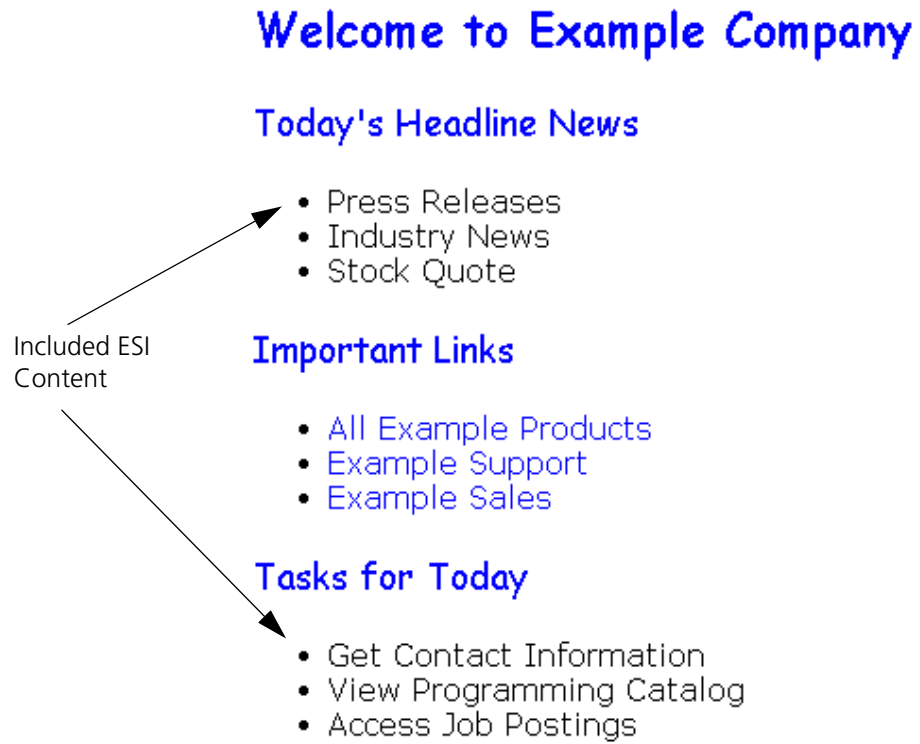
<H2> <FONT FACE="Comic Sans MS" COLOR="BLUE"><SPAN STYLE="font-weight:
normal;font-size: 14.0pt">Tasks for Today</SPAN></FONT></H2>

<esi:include src="tasks.html"/> <BR>

<P STYLE="text-align: left;" ALIGN=LEFT>
<IMG SRC="footer_company.gif" WIDTH="600" HEIGHT="60" BORDER="0">
</P>
</BODY>
</HTML>
```

In the test environment, the origin test server requests the above template page and then fetches and inserts the fragments, `todayshadlinenews.html` and `tasks.html`.

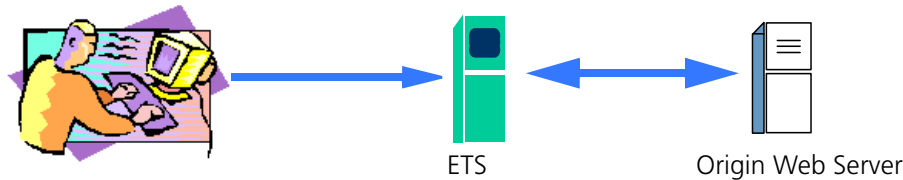
When the page is served to the end user, the fragments appear in the page at the insertion point.



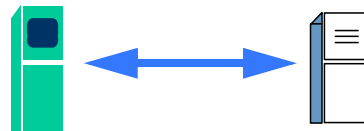
ETS and ESI-Enabled Content

ETS serves two key functions: it parses and processes the ESI markup, and it serves as a reverse proxy for the origin test server. To illustrate ETS.

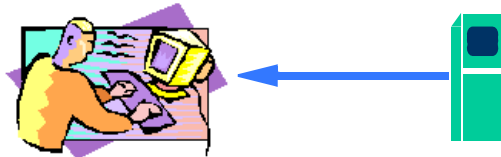
ETS is listening on the same port as the test origin. Request made for `home.html` is handled by ETS. **While ETS is shown as a separate server, it could in fact be on the same machine.**



ETS makes a request to the origin test server to retrieve template.



ETS then processes the ESI tags in `home.html` and retrieves fragments such as `tasks.html` and inserts them into the template.



ETS assembles the content and delivers the result back to the browser.

ETS is configured with the IP address and port for the origin test server, thus allowing it to transparently forward requests and retrieve content, without disruption to the origin test server or web browser functions.

ESI Features Not Implemented in ETS

ETS implements the EdgeSuite 4.8 ESI extensions, with the following exceptions:

- The Akamai custom variable, `TRAFFIC_INFO`, and custom-named variables representing values extracted from cookies or other elements, are not supported.
- Caching of template and fragments is not supported.
- The `maxwait` attribute is not supported.
- HTTPS origin servers are supported on Linux but not on Solaris or Windows.

Unix ETS Installation

2

Although the ESI Test Server (ETS) is bundled with programs that provide onscreen installation and configuration instructions, it is strongly recommended that you refer to this chapter for information about the various ETS installation and configuration options.

This chapter provides step-by-step instructions for installing and configuring ETS. It also provides detailed information for starting, stopping, restarting, reconfiguring, and removing ETS.

In This Chapter

- [Understanding Installation Requirements • 18](#)
- [Downloading the Executable Files • 18](#)
- [Installing ETS • 19](#)
- [Starting, Stopping, and Restarting ETS • 29](#)
- [Reconfiguring ETS • 29](#)
- [Uninstalling ETS • 29](#)

Understanding Installation Requirements

Apache ETS is a standard Apache server installation, plus an Apache module for ESI called `mod_esi`. The install program will install the standard Apache distribution and configure it to use `mod_esi`.

The Apache server is a readily available source code implementation of the HTTP web server. Additional information about the server can be found at <http://httpd.apache.org>.

ETS has been designed to work with all types of origin test servers, including Apache, IIS, and the Netscape/iPlanet servers.

To successfully use the ETS, your Unix-based machine requires the following:

Operating System	<ul style="list-style-type: none">• Linux with a 2.2 kernel or higher• Solaris 2.6 or higher
Disk Space	50 MB RAM
Memory	64 MB RAM

Downloading the Executable Files

The ETS installation files are only available as downloadable files.

You can download the files through the Akamai Developer Network (ADN), located at <http://developer.akamai.com>.

If you cannot access the ADN, or the executable file is not visible, contact your Akamai Account Manager.

Installing ETS

Standard installation of the ETS involves three main steps:

1. Extracting the installation files from the tar file.
2. Running the ETS installation program to copy all needed files to your machine.
3. Setting configuration parameters.

Step 1: Extracting the Installation Files

1. Copy the downloaded file to a directory where you want to extract the installation files. To extract the files, complete one of the following:

- a. For Linux: Type the following command:

```
# tar xzvf ETS_4.8.3.6_Linux.tar.gz
```

- b. For Solaris: Type the following commands:

```
# uncompress ETS_4.8.3.6_Solaris.tar.gz
tar xvf ETS_4.8.3.6_Solaris.tar
```

The installation files are extracted to the current directory.

Step 2: Running the Installation Program

1. Open a command prompt window.
2. From the directory that holds the extracted installation files, start the install program by typing:

```
# ./install
```

The License Agreement displays in the window.

3. Press Enter. The License section displays in the window.
4. Press Enter. The Restrictions section displays in the window.
5. Press Enter. The Warranty of Software section displays in the window.
6. Press Enter. The Limitation of Liability section displays in the window.
7. Press Enter. The Government End Users section displays in the window.
8. Press Enter. The Controlling Law and Severability section displays in the window.
9. Press Enter. The Complete Agreement section displays in the window.
10. Type **yes** to accept the terms of the End User License Agreement. (If you do not accept the terms, the install program will exit.)
11. You are asked where ETS should be installed. Type the path for the ETS installation directory. Complete one of the following options:
 - a. To accept the default, press Enter. The default is `[/usr/local/ETS]`.
 - b. To change the default, type the installation directory path and press Enter.

12. Go to *Step 3: Setting Configuration Parameters*.

Step 3: Setting Configuration Parameters

You must answer the following configuration questions to complete the ETS installation.

▶ **Note:** *If you press Enter without entering a value, the default is used. The default value appears in square brackets.*

▶ **Note:** *These instructions use the sample information illustrated in Figure 4.*

1. You are asked to identify the port on which ETS should listen. Normally, this is the same port on which the origin server listens. Complete one of the following options:
 - a. To accept the default, press Enter. The default is [80].
 - b. To change the default, type the port number and press Enter.
2. You are asked to provide the origin test server's hostname. Since ETS transparently forwards content requests to the origin test server, it needs to know which server to contact. ETS can be used with multiple origin servers. After configuring the first origin server (*Step 2* through *Step 6*), you are given the opportunity to configure additional servers. Complete one of the following options:
 - a. To accept the default, press Enter. The default is [localhost].
 - b. To change the default, type the origin test server's hostname and press Enter. For example, Figure 4 identifies the origin test server as `real-test.example.com`.
3. You are asked to provide the origin test server's port number, so that ETS can correctly forward requests. Complete one of the following options:
 - a. To accept the default, press Enter. The default is [81].
 - b. To change the default, type the port number and press Enter.
4. You are asked if you want to enable ESI Debugging (ESID), which provides a way to test, view, and debug web pages containing ESI code (see Chapter 4, *ETS Troubleshooting* for more information). Complete one of the following options:
 - a. To accept the default, press Enter. The default setting is [off].
 - b. To enable ESI Debugging, type **on** and press Enter.

5. You are asked if you want to enable GEO, which tests ESI content that uses the Akamai Edgescap service. Complete one of the following options:
 - a. To accept the default, press Enter. The default setting is [n].
 - b. To enable GEO, type **y** and press Enter.

The Current Configuration Settings menu displays in the window, as shown in the following example:

```
Current settings for origin host "localhost:
1) Origin host:      localhost
2) Origin port:     81
3) ESI Debugging (ESID): on
4) GEO settings:
   - georegion:      246
   - country code:   US
   - region code:    CA
   - city:           SANJOSE
   - dma:            807
   - pmsa:          7400
   - areacode:       408
   - county:        SANTA CLARA
   - fips:          06085
   - lat:           37.335
   - long:          121.8938
   - timezone:      PST
   - network type:  dialup
   -
a) Accept settings
d) Delete host
Please select an option to modify host settings, "a" to
accept settings or "d" to delete host [1|2|3|4|a|d]:
```

6. If all settings are correct, type **a** and press Enter.
7. You are asked if you want to configure additional hosts. Complete one of the following options:
 - a. To configure additional hosts, type **y** and complete *Step 2* through *Step 6*.
 - b. To not configure additional hosts, type **n**. The Main ETS Installation menu is displayed in the window, as shown in the following example:

```
Current settings for ETS to be written to /usr/local/ETS/
conf/http.conf
1) ETS port: 80
2) Install directory: /usr/local/ETS
3) Origin hosts:
   -localhost
   -foo.example.com
i) Install ETS
e) Exit without installing ETS
Please select an option to modify, "i" to install ETS or
"e" to exit [1|2|3|i|e]:
```

Step 4: Reconfiguring ETS (Optional)

The Main ETS Installation menu includes options that let you modify ETS configuration settings, before completing the installation process. This is an optional step, since you can also change configuration settings after installation.

There are six possible reconfigurations that can be completed before ETS is installed:

- “*Step 4(a): Modifying the ETS Port*” on page 22
- “*Step 4(b): Modifying ETS Install Directory*” on page 22
- “*Step 4(c): Modifying the Origin Host Name*” on page 23
- “*Step 4(d): Modifying the Origin Host Port*” on page 24
- “*Step 4(e): Modifying the ESID Setting*” on page 25
- “*Step 4(f) Modifying GEO Settings*” on page 26

Step 4(a): Modifying the ETS Port

1. On the Main ETS Installation menu: Type 1 and press Enter. The following information displays at the prompt:

```
ETS port: <port number>
```
2. Type the new port number at the prompt and press Enter. The Main ETS Installation menu displays in the window.
3. Complete one of the following options:
 - a. If no other changes are required, go to “*Step 5: Completing the Installation*” on page 28.
 - b. If other changes are required, go to the appropriate steps.

Step 4(b): Modifying ETS Install Directory

1. On the Main ETS Installation menu: Type 2 and press Enter. The following information displays at the prompt:

```
Install Directory: <path>
```
2. Type the new path at the prompt and press Enter. The Main ETS Installation menu displays in the window.
3. Complete one of the following options:
 - a. If no other changes are required, go to “*Step 5: Completing the Installation*” on page 28.
 - b. If other changes are required, go to the appropriate substeps.

Step 4(c): Modifying the Origin Host Name

1. On the Main ETS Installation menu: Type **3** and press Enter. The Main Origin Host Configuration menu displays in the window, as shown in the following example:

```
Configured origin hosts:
1)localhost
2)foo.example.com
+) Add a host
a) Accept changes
Please select a host to modify or delete, "+" to add a
host or "a" to accept changes[1|2|3|+|a]:
```

2. Type the number for the origin server whose configuration settings you want to modify. The Individual Origin Host Configuration menu displays in the window, as shown in the following example:

```
Current settings for origin host "localhost:
1) Origin host:      localhost
2) Origin port:     81
3) ESI Debugging (ESID): on
4) GEO settings:
   - georegion:      246
   - country code:   US
   - region code:    CA
   - city:           SANJOSE
   - dma:            807
   - pmsa:           7400
   - areacode:       408
   - county:         SANTACLARA
   - fips:           06085
   - lat:            37.335
   - long:           121.8938
   - timezone:       PST
   - network type:   dialup
   -
```

```
a) Accept settings
d) Delete host
Please select an option to modify host settings, "a" to
accept settings or "d" to delete host [1|2|3|4|a|d]:
```

3. Type **1** and press Enter. The window displays the following information at the prompt:

```
Origin host: <hostname>
```

4. Type the new host name at the prompt and press Enter. The Individual Origin Host Configuration menu is updated and displayed in the window.
5. Type **a** and press Enter to accept the settings. The Main Origin Host Configuration menu displays in the window.
6. Type **a** and press Enter to accept the changes. The Main ETS Installation menu displays in the window.

7. Complete one of the following options:
 - a. If no other changes are required, go to “*Step 5: Completing the Installation*” on page 28.
 - b. If other changes are required, go to the appropriate substeps.

Step 4(d): Modifying the Origin Host Port

1. On the Main ETS Installation menu: Type **3** and press Enter. The Main Origin Host Configuration menu displays in the window, as shown in the following example:

```
Configured origin hosts:
1)localhost
2)foo.example.com
+) Add a host
a) Accept changes
Please select a host to modify or delete,"+" to add a
host or "a" to accept changes[1|2|3|+|a]:
```

2. Type the number for the origin server whose configuration settings you want to modify. The Individual Origin Host Configuration menu displays in the window, as shown in the following example:

```
Current settings for origin host "localhost:
1) Origin host:      localhost
2) Origin port:     81
3) ESI Debugging (ESID): on
4) GEO settings:
  - georegion:      246
  - country code:   US
  - region code:    CA
  - city:           SANJOSE
  - dma:            807
  - pmsa:           7400
  - areacode:       408
  - county:         SANTA CLARA
  - fips:           06085
  - lat:            37.335
  - long:           121.8938
  - timezone:      PST
  - network type:   dialup
-
```

```
a) Accept settings
d) Delete host
```

```
Please select an option to modify host settings, "a" to
accept settings or "d" to delete host [1|2|3|4|a|d]:
```

3. Type **2** and press Enter. The window displays the following information at the prompt:

```
Origin port: <port number>
```

4. Type the new number at the prompt and press Enter. The Individual Origin Host Configuration menu is updated and displayed in the window.
5. Type **a** and press Enter to accept the settings. The Main Origin Host Configuration menu displays in the window.
6. Type **a** and press Enter to accept the changes. The Main ETS Installation menu displays in the window.
7. Complete one of the following options:
 - a. If no other changes are required, go to “*Step 5: Completing the Installation*” on page 28.
 - b. If other changes are required, go to the appropriate substeps.

Step 4(e): Modifying the ESID Setting

1. On the Main ETS Installation menu: Type **3** and press Enter. The Main Origin Host Configuration menu displays in the window, as shown in the following example:

```
Configured origin hosts:
1)localhost
2)foo.example.com
+) Add a host
a) Accept changes
Please select a host to modify or delete,"+" to add a
host or "a" to accept changes[1|2|3|+|a]:
```

2. Type the number for the origin server whose configuration settings you want to modify. The Individual Origin Host Configuration menu displays in the window, as shown in the following example:

```
Current settings for origin host "localhost:
1) Origin host:      localhost
2) Origin port:     81
3) ESI Debugging (ESID): on
4) GEO settings:
   - georegion:      246
   - country code:   US
   - region code:    CA
   - city:           SANJOSE
   - dma:            807
   - pmsa:           7400
   - areacode:       408
   - county:         SANTACLARA
   - fips:           06085
   - lat:            37.335
   - long:           121.8938
   - timezone:      PST
   - network type:   dialup
   -
a) Accept settings
d) Delete host
```

Please select an option to modify host settings, "a" to accept settings or "d" to delete host [1|2|3|4|a|d]:

3. Type **3** and press Enter. The window displays the following information at the prompt:

```
ESI Debugging (ESID): <status>
```
4. Type the new information at the prompt, using the following guidelines:
 - Type **on** to enable ESID.
 - Type **off** to disable ESID.
5. Type **a** and press Enter to accept the settings. The Main Origin Server Configuration menu displays in the window.
6. Type **a** and press Enter to accept the changes. The Main ETS Installation menu displays in the window.
7. Complete one of the following options:
 - a. If no other changes are required, go to *"Step 5: Completing the Installation"* on page 28.
 - b. If other changes are required, go to the appropriate steps.

Step 4(f) Modifying GEO Settings

1. On the Main ETS Installation menu: Type **3** and press Enter. The Main Origin Host Configuration menu displays in the window, as shown in the following example:

```
Configured origin hosts:
1)localhost
2)foo.example.com
+) Add a host
a) Accept changes
Please select a host to modify or delete,"+" to add a
host or "a" to accept changes[1|2|3|+|a]:
```

2. Type the number for the origin server whose configuration settings you want to modify. The Individual Origin Host Configuration menu displays in the window, as shown in the following example:

```
Current settings for origin host "localhost":
1) Origin host:      localhost
2) Origin port:     81
3) ESI Debugging (ESID): on
4) GEO settings:
   - georegion:      246
   - country code:   US
   - region code:    CA
   - city:           SANJOSE
   - dma:            807
   - pmsa:           7400
   - areacode:       408
   - county:        SANTA CLARA
```

```

- fips:                06085
- lat:                 37.335
- long:                121.8938
- timezone:           PST
- network type:       dialup
-

```

a) Accept settings

d) Delete host

Please select an option to modify host settings, "a" to accept settings or "d" to delete host [1|2|3|4|a|d]:

3. Type **4** and press Enter. The GEO settings display in the window, as shown in the following example:

```
GEO information for origin host "localhost":
```

```

1)georegion:    246
2)country code: US
3)region code:  CA
4)city:         SANJOSE
5)dma:          807
6)pmsa:         7400
7)areacode:    408
8)county:      SANTA CLARA
9)fips:         06085
10)lat:        37.335
11)long:       121.8938
12)timezone:   PST
13)network type: dialup

```

a) Accept settings

Please select an option to modify [1-13], or enter "a" to accept

4. Type the number for the GEO setting that you want to modify and press Enter. The selected information displays at the prompt. For example, if you typed 1 and pressed Enter, the following information displays at the prompt:

```
georegion: 246
```

5. Type the new information at the prompt and press Enter.
6. Type **a** and press Enter to accept the settings. The Main Origin Server Configuration menu displays in the window.
7. Type **a** to accept the changes and press Enter. The Main ETS Installation menu displays in the window.
8. Complete one of the following options:
 - a. If no other changes are required, go to *"Step 5: Completing the Installation"* on page 28.
 - b. If other changes are required, go to the appropriate steps.

Step 5: Completing the Installation

1. Type `i` and press Enter. The following messages display in the window:

```
Installing ETS....  
Installing binary distribution  
into directory /local/usr/ETS....  
  
Copying the configuration script....  
  
ETS had successfully been started....  
  
Do you want to start the server? "y" or "n" [y]
```

2. Complete one of the following options:
 - a. To not start the server and apply the configuration script, type `n` and press Enter.
 - b. To accept the default and start the server, press Enter. ETS is started. and the following message displays in the window:

```
ETS has successfully been started....  
  
- To start ETS at a later time, use the command:  
/usr/local/ETS/bin/apachectl1 start  
  
- To restart ETS at a later time, use the command:  
/usr/local/ETS/bin/apachectl1 restart  
  
- To stop ETS, use the command:  
/usr/local/ETS/bin/apachectl1 stop  
  
- To reconfigure ETS, use the command:  
/usr/local/ETS/bin/ets_config
```

Starting, Stopping, and Restarting ETS

Since Apache ETS is a standard Apache installation configured to use `mod_esi`, administering ETS is the same as administering a normal Apache installation. (See <http://httpd.apache.org> for detailed information.)

- To start ETS, type the command:

```
# <directory>/bin/apachectl start
```
- To start ETS with HTTPS origins or clients, type the command:

```
# <directory>/bin/apachectl startssl
```
- To stop ETS, type the command:

```
# <directory>/bin/apachectl stop
```
- To restart ETS, run the command:

```
# <directory>/bin/apachectl restart
```

If ETS is unable to start, it will log the reason to the Apache error log in `<directory>/logs/error_log`. For example, if you installed ETS to `/usr/local/ETS`, then the log will be in `/usr/local/ETS/logs/error_log`.

Reconfiguring ETS

Refer to *Appendix A: ETS Reconfigurations* for detailed information.

Uninstalling ETS

To uninstall ETS, stop the server and remove the entire ETS installation by typing the following two commands:

```
# /usr/local/ETS/bin/apachectl stop  
# rm -rf /usr/local/ETS
```


Windows ETS Installation

3

Although the ESI Test Server (ETS) is bundled with programs that provide onscreen installation and configuration instructions, it is strongly recommended that you refer to this chapter for information about the various ETS installation and configuration options.

This chapter provides step-by-step instructions for installing and configuring ETS. It also provides detailed information for removing ETS.

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- Downloading the Executable Files • 33
- Installing ETS • 33
 - Step 1: Run the ETS installer • 34
 - Step 2: Accept License Agreement • 35
 - Step 3: Choose Destination Folder • 36
 - Step 4: Create ETS Web Site • 37
 - Step 5: Configure ETS • 38
 - Step 6: Review Settings • 40
 - Step 7: Complete Installation • 41
- Reconfiguring ETS • 41
- Uninstalling ETS • 41

Understanding Windows-Based ETS

ETS is installed on Windows machines as an ISAPI extension that acts as a reverse-proxy. It forwards web page requests to the origin server.

On Windows 2000 and Windows XP you must be running a server version of the operating system to have ETS listen on more than one port or to have ETS and the origin server on the same machine. Non-server versions of IIS only allow IIS to listen on one port at a time.

Figure 3 displays the Microsoft Management Console for a company whose default Web site is `www.example.com`, running on port 80.

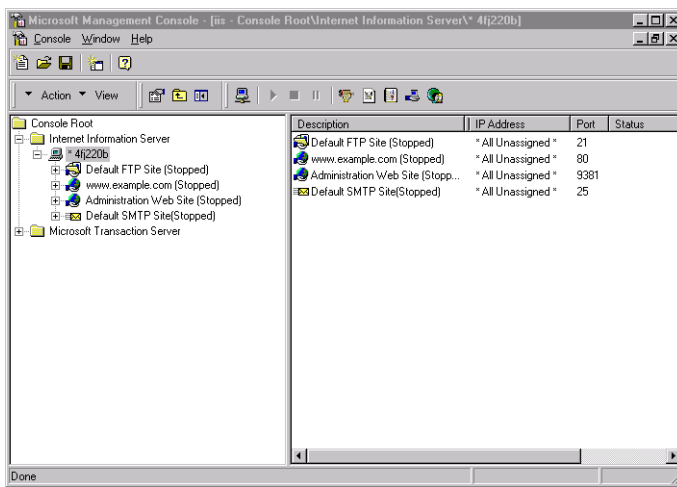


Figure 3. Origin Server on Port 80

Figure 4 displays the Microsoft Management Console after the origin server is moved to port 81, and ETS is running on port 80.

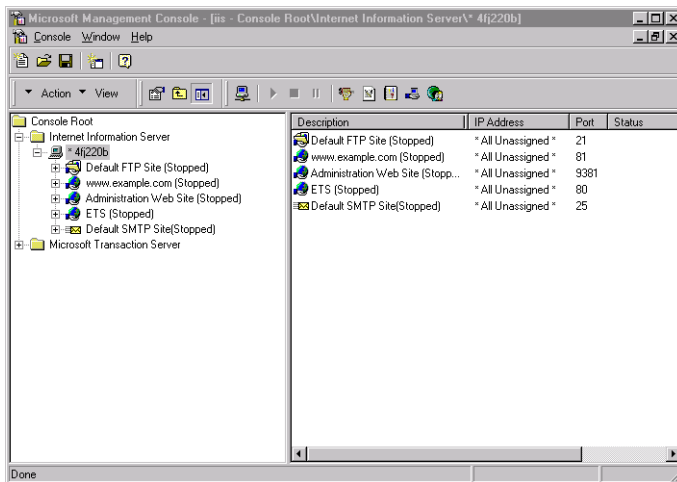


Figure 4. ETS on Port 80

Installation Requirements

To successfully use ETS, your Windows-based machine requires the following:

Operating System	<ul style="list-style-type: none">• Windows 2000, Windows XP or Windows NT 4.0 with Service Pack 6.0• IIS 4.0 or 5.0
Disk Space	50 MB RAM
Memory	64 MB RAM

Downloading the Executable Files

The ETS installation files are only available as downloadable files.

You can download the files through the Akamai Developer Network (ADN), located at <http://developer.akamai.com>.


If you cannot access the ADN, or the executable file is not visible, contact your Akamai Account Manager.

Installing ETS

Standard installation of the ETS involves seven sequential steps:

- *Step 1: Run the ETS installer*
- *Step 2: Accept License Agreement*
- *Step 3: Choose Destination Folder*
- *Step 4: Create ETS Web Site*
- *Step 5: Configure ETS*
- *Step 6: Review Settings*
- *Step 7: Complete Installation*

Step 1: Run the ETS installer

 **Note:** *It is recommended that you exit all Windows applications before proceeding with the installation procedures. Make sure that the Microsoft Management Console is not running.*

1. Go to the folder where you downloaded the `ETS.exe` file.
2. Double-click `ETS_4.8.1.4_Windows.exe`. The version information may vary, but the filename will be `ETS_NNNN_Windows.exe`, where NNNN is the version information. The InstallShield Wizard extracts the installation files to a temporary directory. The Welcome dialog opens.



Figure 5. Welcome

3. Click Next. The License Agreement dialog opens.
4. Go to “*Step 2: Accept License Agreement*” on page 35.

Step 2: Accept License Agreement

The License Agreement dialog lets you read the terms and conditions that apply to the use of ETS software. You must accept the License Agreement terms and conditions before ETS software can be installed.



Figure 6. License Agreement

1. Read the License Agreement. To view all the terms of the License Agreement, you may either use the scroll-bar located on the right-hand side of the dialog or press your computer's Page Down key.
2. Complete one of the following options:
 - a. Click Yes, if you accept the License Agreement terms. The Destination Folder dialog displays. Go to "Step 3: Choose Destination Folder" on page 36 to continue the installation process.
 - b. Click No, if you do not accept the License Agreement terms. A dialog displays, asking you to confirm that you want to discontinue the installation process. Click either Yes to exit or No to return to the License Agreement dialog.

Step 3: Choose Destination Folder

The Choose Destination Folder dialog lets you specify where ETS will be installed. The default Destination Folder is C:\ETS.

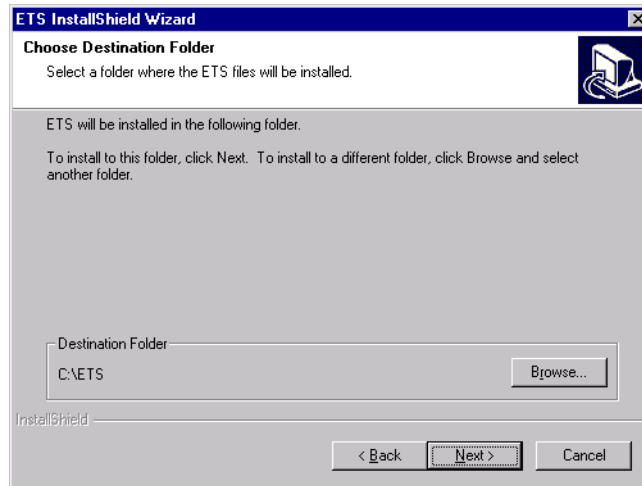


Figure 7. Destination Folder

1. Complete one of the following options:
 - a. Click Next to accept the default Destination Folder. The ETS Web site dialog displays. Go to “*Step 4: Create ETS Web Site*” on page 37 to continue the installation process.
 - b. Click Browse and select a drive and/or folder if you want to install ETS to a non-default Destination Folder. Click Next. The ETS Web site dialog displays. Go to “*Step 4: Create ETS Web Site*” on page 37 to continue the installation process.



Caution: *The Destination Folder cannot be located on a remote drive.*

Step 4: Create ETS Web Site

ETS will be configured as a Web site that runs on a specific port. The ETS Web site dialog lets you specify the port.

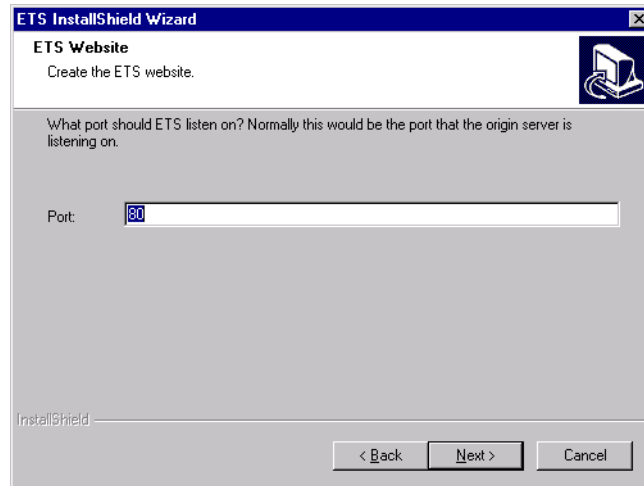


Figure 8. ETS Web site

Complete one of the following options:

- a. To accept the default port (80), click Next. The Configuration dialog opens. Go to “*Step 5: Configure ETS*” on page 38.
- b. To designate a different port, type the new port number in the Port field. Click Next. The Configuration dialog opens. Go to “*Step 5: Configure ETS*” on page 38.

Note: *It is recommended that ETS run on port 80, while the origin server runs on port 81 or another port. If the origin server is currently running on port 80, you will need to exit the ETS installation program, move the origin server to another port, then start the ETS installation process again.*

Step 5: Configure ETS

The Configuration dialog lets you specify whether to:

- Generate a new configuration file. Go to “*Generate New Configuration File*” on page 38 to continue the installation process.
- Use an existing configuration file. Go to “*Use Existing Configuration File*” on page 39 to continue the installation process.

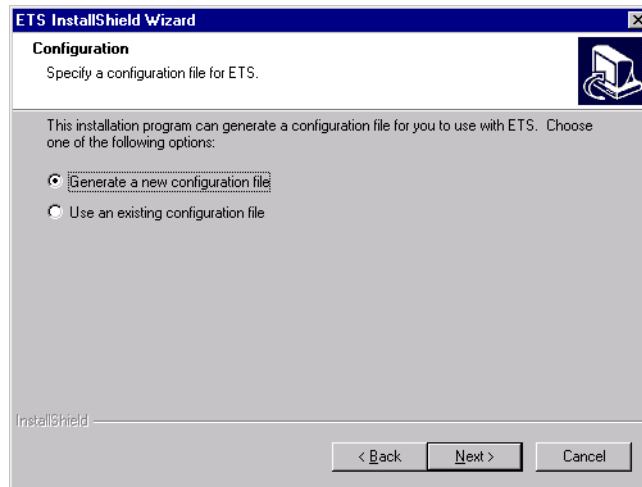


Figure 9. Configuration File Options

Generate New Configuration File

1. Select the radio button: Generate a new configuration file. The Origin Server dialog opens. ETS automatically acts as a reverse proxy that forwards web page requests to the origin server. The Origin Server dialog lets you specify where ETS should forward the requests.

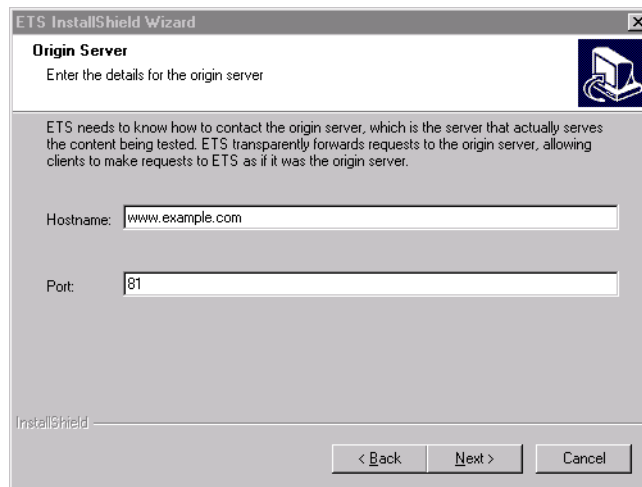


Figure 10. Origin Server

2. Type the origin server’s name in the Hostname field.

3. Type the origin server's port number in the Port field.
4. Click Next. The Save Configuration File As dialog opens.

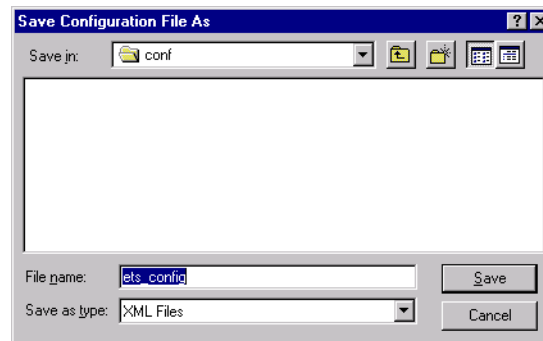


Figure 11. Save Configuration File

5. Type a descriptive name for the configuration file in the File Name field.
6. Click Save. The Start Copying Files dialog opens.
7. Go to “*Step 6: Review Settings*” on page 40.

Use Existing Configuration File

1. Select the radio button: Use an existing configuration file. The Choose Configuration File dialog opens.

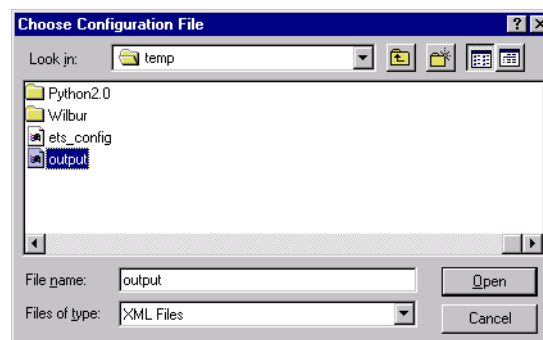


Figure 12. Choose Configuration File

2. Select the configuration file that you want to use.
3. Click Open. The Start Copying Files dialog opens.
4. Go to “*Step 6: Review Settings*” on page 40.

5. Click Next. The Save Configuration File As dialog opens.

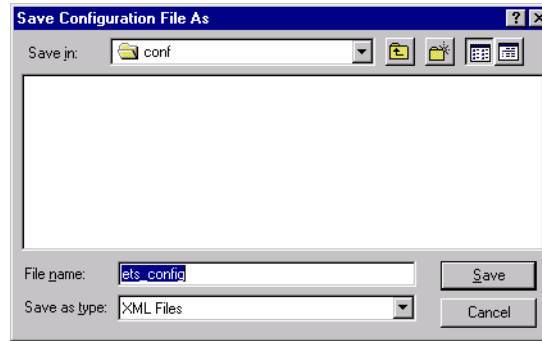


Figure 13. Save Configuration File

6. Type a descriptive name for the configuration file in the File Name field. Click Save. The Start Copying Files dialog opens.

Step 6: Review Settings

The Start Copying Files dialog lets you check the destination folder, ETS port, and configuration file paths before copying ETS files to your machine.

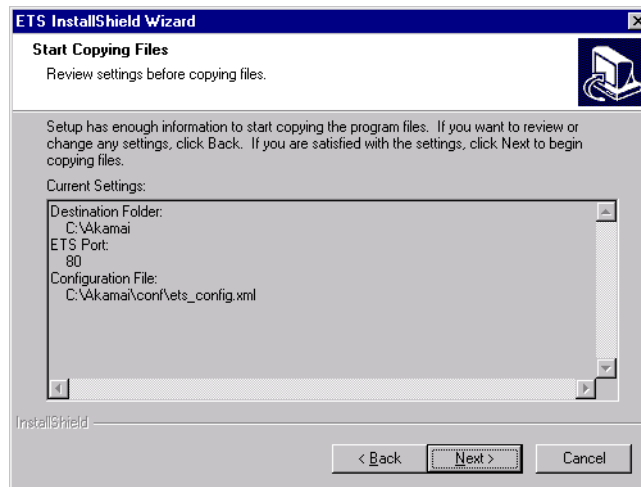


Figure 14. Review Settings

1. Read the information in the Review Settings dialog.
2. Complete one of the following options:
 - a. If the settings are correct, click Next. The ETS files are copied to your machine and the InstallShield Wizard Complete dialog opens.
 - b. If the settings are not correct, click Back to return to the appropriate dialog and correct the settings. Click through the dialogs until you return to the Start Copying Files dialog. Click Next. The ETS files are copied to your machine and the InstallShield Wizard Complete dialog opens.

Step 7: Complete Installation

The InstallShield Wizard Complete dialog lets you specify whether to restart IIS at this time. By default, the restart IIS option is pre-selected.



Caution: *You must restart IIS before the installation changes will take effect.*

1. (Optional) Click the checkbox: Restart IIS now.
2. Click Finish. IIS starts and you are ready to use ETS.

Reconfiguring ETS

Refer to *Appendix A: ETS Reconfigurations* for detailed information.

Uninstalling ETS

To uninstall ETS, you will need to run the ETS.exe file.

1. Run ETS.exe. The Welcome dialog opens.

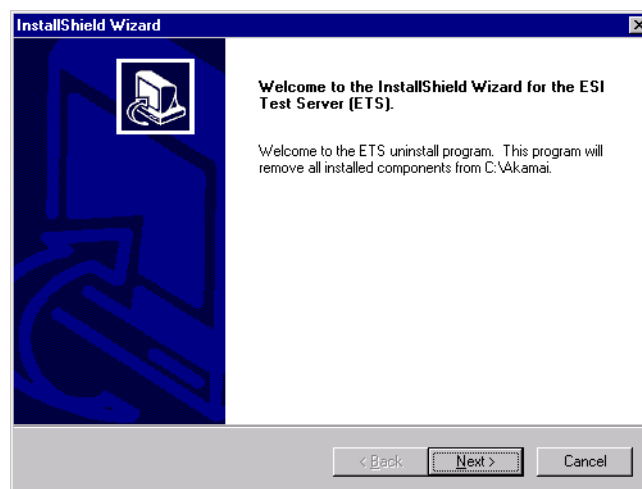


Figure 15. Uninstall Welcome

2. Click Next. The Confirmation dialog opens.

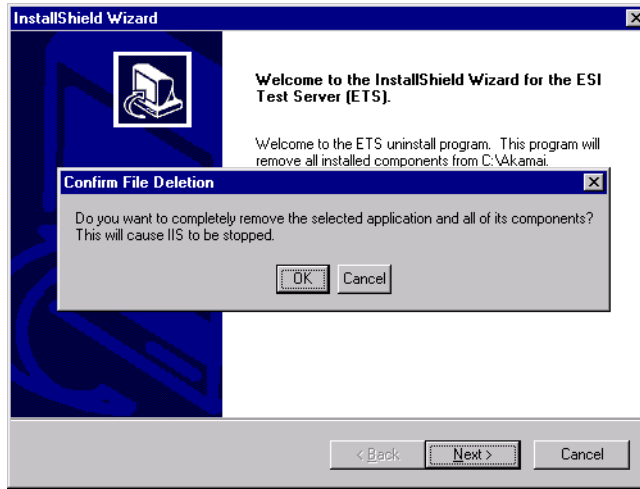


Figure 16. Uninstall Confirmation

3. Click OK. The Uninstall Complete dialog opens. The Uninstall Complete dialog lets you specify whether to restart IIS at this time. By default, the restart IIS option is pre-selected.

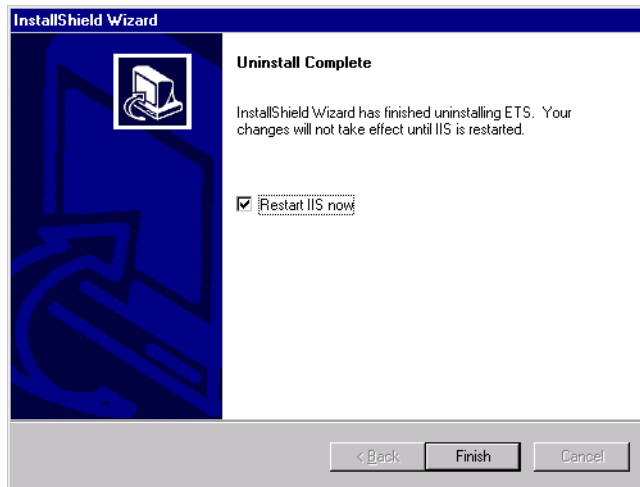


Figure 17. Uninstall Complete



Caution: *You must restart IIS before the installation changes will take effect.*

4. (Optional) Click the checkbox: Restart IIS now.
5. Click Finish. IIS starts and ETS is deleted from your machine.

ETS Troubleshooting

4

The ESI Development Tool (ESID) lets you test, view, and debug web pages containing ESI code. After the ESI Debugging option is set to on, the ESI debugging information can be viewed in the web page source code.

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Common Issues

Some common ETS issues are described in this section. These issues include:

- ESI-enabled content not assembled.
- 500 Internal Server Error
- Unable to start ETS

ESI-Enabled Content Not Assembled. The ESID tool lets you test, view, and debug web pages containing ESI code. After the ESI Debugging option is enabled, the ESI debugging information can be viewed in the web page source code. If the ESID is not enabled, then the web page source will not display ESI-enabled content.

Refer to the steps in “*Modifying Origin Host ESID*” on page 54 for specific instructions on enabling the ESID tool.

ESID can also be enabled for each request, by setting an HTTP cookie in the request made to ETS. If a cookie with this format: "Cookie: Akamai-EncDebug" is sent in the request, ESID will be enabled for that request only.

500 Internal Server Error. Occasionally, a 500 Internal Server Error is returned to the client due to incorrect ESI syntax. The incorrect ESI syntax results when the ESID tool is not enabled.

Refer to the steps in “*Modifying Origin Host ESID*” on page 54 for specific instructions on enabling the ESID tool.

Unable To Start ETS. The install program or the `ets_config` program may report that ETS was unable to start. This is usually caused by a problem with the configuration of ETS. The most common configuration problem is starting ETS on a port that is already in use. To correct the problem, reconfigure ETS to run on an unused port.

JavaScript Problems. When ETS debugging is enabled, some pages that use JavaScript may not work correctly. ETS Adds its debugging information inside SCRIPT tags, which breaks some javascript. ETS debugging is only intended to show the results of ESI processing on a page, and may not be completely transparent. Once any ESI issues are resolved debugging should be turned off.

Windows Setup Issues. On Windows ETS should always be set up the same as the origin server it is replacing. If ETS and the test origin server are sharing a machine, ETS should listen on port 80 and the test origin server should listen on another port.

ETS Reconfigurations

A

Apache ETS is a standard Apache installation configured to use `mod_esi`, which is the Apache module that processes ESI tags. The `mod_esi` configuration information is specified in the Apache config file (`httpd.conf`), which is located in the `/usr/local/ETS/config` directory. You can edit the following configuration values:

- Origin server hostname and port
- Log level and filename
- ESI Debugging (ESID) status
- GEO information
- ESI metadata
- Other special settings

You can modify the Apache ETS after installation, using a `config` command, manually changing the `mod_esi` module, or in the case of Windows ETS, using the Administration Web site.

This appendix provides detailed information about reconfiguring Apache ETS, after installation is complete.

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config Command Reconfigurations

The `config` command can be used to modify both the Unix or Windows ETS configuration file. Eight reconfigurations can be completed using the `/usr/local/ETS/bin/ets_config` command. They are:

- *Modifying the ETS Port Number*
- *Modifying the Origin Hostname*
- *Adding an Origin Host*
- *Deleting an Origin Host*
- *Modifying the Origin Host Port*
- *Modifying Origin Host ESID*
- *Modifying Origin Host GEO Settings*
- *Deleting an Origin Host Server*

Modifying the ETS Port Number

1. Open a command prompt window.
2. Type the following command:

```
# <directory>/bin ets_config
```

where `<directory>` is the path to the ETS installation. For example, if `/usr/local/ETS/bin` is the directory, then you reconfigure ETS by typing:


```
# /usr/local/ETS/bin/ets_config
```

The Main ETS Configuration Menu displays in the window, as shown in the following example:

```
Current settings for ETS found in /usr/local/ETS/conf/
http.conf
1) ETS port: 80
2) Origin hosts:
   -localhost
   -foo.example.com
s) Save changes and exit
e) Exit without saving changes
Please select an option to modify, "s" to save changes or
"e" to exit without saving [1|2|3|s|e]:
```

3. Type **1** and press Enter.
4. Type the new port number and press Enter. The new configuration is displayed in the window.
5. Type **s** and press Enter.
6. You are asked if you want to restart the server. Complete one of the following options:

- a. To restart the server, press Enter.
- b. To not restart the server at this time, type **n** and press Enter.

 **Note:** You must re-start the server to activate the new configuration settings.

Modifying the Origin Hostname

1. Open a command prompt window.
2. Type the following command:

```
# <directory>/bin ets_config
```

where <directory> is the path to the ETS installation. For example, if /usr/local/ETS/bin is the directory, then you reconfigure ETS by typing:

```
# /usr/local/ETS/bin/ets_config
```

The Main ETS Configuration Menu displays in the window, as shown in the following example:

```
Current settings for ETS found in /usr/local/ETS/conf/
http.conf
1) ETS port: 80
2) Origin hosts:
   -localhost
   -foo.example.com
s) Save changes and exit
e) Exit without saving changes
Please select an option to modify, "s" to save changes or
"e" to exit without saving [1|2|3|s|e]:
```

3. Type **2** and press Enter. The Main Origin Host Configuration menu displays in the window, as shown in the following example:

```
Configured origin hosts:
1)localhost
2)foo.example.com
+) Add a host
a) Accept changes
Please select a host to modify or delete, "+" to add a
host or "a" to accept changes[1|2|3|+|a]:
```

4. Type the number for the origin server whose configuration settings you want to modify. The Individual Origin Host Configuration menu displays in the window, as shown in the following example:

```
Current settings for origin host "localhost":
1) Origin host:      localhost
2) Origin port:     81
3) ESI Debugging (ESID): on
4) GEO settings:
   - georegion:      246
   - country code:   US
   - region code:    CA
```

```
- city:                SANJOSE
- dma:                807
- pmsa:              7400
- areacode:          408
- county:            SANTA CLARA
- fips:              06085
- lat:               37.335
- long:              121.8938
- timezone:          PST
- network type:      dialup
-
```

a) Accept settings


d) Delete host

Please select an option to modify host settings, "a" to accept settings or "d" to delete host [1|2|3|4|a|d]:

5. Type **1** and press Enter. The window displays the following information at the prompt:

```
Origin host: <hostname>
```

6. Type the new host name at the prompt and press Enter. The Individual Origin Host Configuration menu is updated and displayed in the window.
7. Type **a** and press Enter to accept the settings. The Main Origin Host Configuration menu displays in the window.
8. Type **a** and press Enter to accept the changes. The Main ETS Configuration menu displays in the window.
9. Type **s** and press Enter to save the changes.
10. You are asked if you want to restart the server. Complete one of the following options:
 - a. To restart the server, press Enter.
 - b. To not restart the server at this time, type **n** and press Enter.

 **Note:** You must re-start the server to activate the new configuration settings.

Adding an Origin Host

1. Open a command prompt window.
2. Type the following command:

```
# <directory>/bin ets_config
```

where <directory> is the path to the ETS installation. For example, if /usr/local/ETS/bin is the directory, then you reconfigure ETS by typing:

```
# /usr/local/ETS/bin/ets_config
```

The Main ETS Configuration Menu displays in the window, as shown in the following example:

```
Current settings for ETS found in /usr/local/ETS/conf/
```

```

http.conf
1) ETS port: 80
2) Origin hosts:
-localhost
-foo.example.com
s) Save changes and exit
e) Exit without saving changes
Please select an option to modify, "s" to save changes or
"e" to exit without saving [1|2|3|s|e]:

```


3. Type **2** and press Enter. The Main Origin Host Configuration menu displays in the window, as shown in the following example:

```

Configured origin hosts:
1)localhost
2)foo.example.com
+) Add a host
a) Accept changes
Please select a host to modify or delete, "+" to add a
host or "a" to accept changes[1|2|3|+|a]:

```

4. Type **+** and press Enter.
5. Type the new information at the prompt and press Enter.
6. Type **a** and press Enter to accept the settings. The Main Origin Server Configuration menu displays.
7. Type **a** and press Enter to accept the changes. The Main ETS Configuration menu displays in the window.
8. Type **s** and press Enter to save the changes.
9. You are asked if you want to restart the server. Complete one of the following options:
 - a. To restart the server, press Enter.
 - b. To not restart the server at this time, type **n** and press Enter.

 **Note:** *You must re-start the server to activate the new configuration settings.*

Deleting an Origin Host

1. Open a command prompt window.
2. Type the following command:

```
# <directory>/bin ets_config
```

where <directory> is the path to the ETS installation. For example, if /usr/local/ETS/bin is the directory, then you reconfigure ETS by typing:

```
# /usr/local/ETS/bin/ets_config
```

The Main ETS Configuration Menu displays in the window, as shown in the following example:

```
Current settings for ETS found in /usr/local/ETS/conf/
http.conf
1) ETS port: 80
2) Origin hosts:
-localhost
-foo.example.com
s) Save changes and exit
e) Exit without saving changes
Please select an option to modify, "s" to save changes or
"e" to exit without saving [1|2|3|s|e]:
```

3. Type **2** and press Enter. The Main Origin Host Configuration menu displays in the window, as shown in the following example:

```
Configured origin hosts:
1)localhost
2)foo.example.com
+) Add a host
a) Accept changes
Please select a host to modify or delete, "+" to add a
host or "a" to accept changes[1|2|3|+|a]:
```


4. Type the number for the origin server whose configuration settings you want to modify. The Individual Origin Host Configuration menu displays in the window, as shown in the following example:

```
Current settings for origin host "localhost":
1) Origin host:      localhost
2) Origin port:     81
3) ESI Debugging (ESID): on
4) GEO settings:
   - georegion:      246
   - country code:   US
   - region code:    CA
   - city:           SANJOSE
   - dma:            807
   - pmsa:           7400
   - areacode:       408
   - county:        SANTA CLARA
   - fips:           06085
   - lat:            37.335
   - long:           121.8938
   - timezone:      PST
   - network type:   dialup
-
a) Accept settings
d) Delete host
Please select an option to modify host settings, "a" to
accept settings or "d" to delete host [1|2|3|4|a|d]:
```

5. Type **d** and press Enter. The Main Origin Server Configuration menu displays in the window.
6. Type **a** and press Enter to accept the settings. The Main Origin Server

Configuration menu displays.

7. Type **a** and press Enter to accept the changes. The Main ETS Configuration menu displays in the window.
8. Type **s** and press Enter to save the changes.
9. You are asked if you want to restart the server. Complete one of the following options:
 - a. To restart the server, press Enter.
 - b. To not restart the server at this time, type **n** and press Enter.

 **Note:** *You must re-start the server to activate the new configuration settings.*

Modifying the Origin Host Port

1. Open a command prompt window.
2. Type the following command:

```
# <directory>/bin ets_config
```

where <directory> is the path to the ETS installation. For example, if /usr/local/ETS/bin is the directory, then you reconfigure ETS by typing:

```
# /usr/local/ETS/bin/ets_config
```

The Main ETS Configuration Menu displays in the window, as shown in the following example:

```
Current settings for ETS found in /usr/local/ETS/conf/
http.conf
1) ETS port: 80
2) Origin hosts:
-localhost
-foo.example.com
s) Save changes and exit
e) Exit without saving changes
Please select an option to modify, "s" to save changes or
"e" to exit without saving [1|2|3|s|e]:
```

3. Type 2 and press Enter. The Main Origin Host Configuration menu displays in the window, as shown in the following example:

```
Configured origin hosts:
1)localhost
2)foo.example.com
+) Add a host
a) Accept changes
Please select a host to modify or delete, "+" to add a
host or "a" to accept changes[1|2|3|+|a]:
```

4. Type the number for the origin server whose configuration settings you want to modify. The Individual Origin Host Configuration menu displays in the window, as shown in the following example:

```
Current settings for origin host "localhost":
1) Origin host:      localhost
2) Origin port:     81
3) ESI Debugging (ESID): on
4) GEO settings:
  - georegion:      246
  - country code:   US
  - region code:    CA
  - city:           SANJOSE
  - dma:            807
  - pmsa:           7400
  - areacode:       408
  - county:        SANTA CLARA
  - fips:           06085
  - lat:            37.335
```

```
- long:          121.8938
- timezone:     PST
- network type: dialup
-
```


- a) Accept settings
- d) Delete host

Please select an option to modify host settings, "a" to accept settings or "d" to delete host [1|2|3|4|a|d]:

5. Type **2** and press Enter. The following information displays at the prompt:

Origin port: <port number>

6. Type the new information at the prompt and press Enter.
7. Type **a** and press Enter to accept the settings. The Main Origin Server Configuration menu displays.
8. Type **a** and press Enter to accept the changes. The Main ETS Configuration menu displays in the window.
9. Type **s** and press Enter to save the changes.
10. You are asked if you want to restart the server. Complete one of the following options:
 - a. To restart the server, press Enter.
 - b. To not restart the server at this time, type **n** and press Enter.

 **Note:** *You must re-start the server to activate the new configuration settings.*

Modifying Origin Host ESID

1. Open a command prompt window.
2. Type the following command:

```
# <directory>/bin ets_config
```

where <directory> is the path to the ETS installation. For example, if /usr/local/ETS/bin is the directory, then you reconfigure ETS by typing:

```
# /usr/local/ETS/bin/ets_config
```

The Main ETS Configuration Menu displays in the window, as shown in the following example:

```
Current settings for ETS found in /usr/local/ETS/conf/
http.conf
1) ETS port: 80
2) Origin hosts:
-localhost
-foo.example.com
s) Save changes and exit
e) Exit without saving changes
Please select an option to modify, "s" to save changes or
"e" to exit without saving [1|2|3|s|e]:
```

3. Type 2 and press Enter. The Main Origin Host Configuration menu displays in the window, as shown in the following example:

```
Configured origin hosts:
1)localhost
2)foo.example.com
+) Add a host
a) Accept changes
Please select a host to modify or delete, "+" to add a
host or "a" to accept changes[1|2|3|+|a]:
```

4. Type the number for the origin server whose configuration settings you want to modify. The Individual Origin Host Configuration menu displays in the window, as shown in the following example:

```
Current settings for origin host "localhost":
1) Origin host:      localhost
2) Origin port:     81
3) ESI Debugging (ESID): on
4) GEO settings:
  - georegion:      246
  - country code:   US
  - region code:    CA
  - city:           SANJOSE
  - dma:            807
  - pmsa:           7400
  - areacode:       408
  - county:         SANTA CLARA
  - fips:           06085
  - lat:            37.335
```

```

- long:                121.8938
- timezone:           PST
- network type:       dialup
-

```


- a) Accept settings
- d) Delete host

Please select an option to modify host settings, "a" to accept settings or "d" to delete host [1|2|3|4|a|d]:

5. Type **3** and press Enter. The following information displays at the prompt:

```
ESI Debugging (ESID): <status>
```

6. Type the new information at the prompt, using the following guidelines:
 - Type **on** to enable ESID.
 - Type **off** to disable ESID.
7. Type **a** and press Enter to accept the settings. The Main Origin Server Configuration menu displays in the window.
8. Type **a** and press Enter to accept the changes. The Main ETS Configuration menu displays in the window.
9. Type **s** and press Enter to save the changes.
10. You are asked if you want to restart the server. Complete one of the following options:
 - a. To restart the server, press Enter.
 - b. To not restart the server at this time, type **n** and press Enter.

 **Note:** *You must re-start the server to activate the new configuration settings.*

Modifying Origin Host GEO Settings

1. Open a command prompt window.
2. Type the following command:

```
# <directory>/bin ets_config
```

where <directory> is the path to the ETS installation. For example, if /usr/local/ETS/bin is the directory, then you reconfigure ETS by typing:

```
# /usr/local/ETS/bin/ets_config
```

The Main ETS Configuration Menu displays in the window, as shown in the following example:

```
Current settings for ETS found in /usr/local/ETS/conf/
http.conf
1) ETS port: 80
2) Origin hosts:
-localhost
-foo.example.com
s) Save changes and exit
e) Exit without saving changes
Please select an option to modify, "s" to save changes or
"e" to exit without saving [1|2|3|s|e]:
```

3. Type 2 and press Enter. The Main Origin Host Configuration menu displays in the window, as shown in the following example:

```
Configured origin hosts:
1)localhost
2)foo.example.com
+) Add a host
a) Accept changes
Please select a host to modify or delete, "+" to add a
host or "a" to accept changes[1|2|3|+|a]:
```

4. Type the number for the origin server whose configuration settings you want to modify. The Individual Origin Host Configuration menu displays in the window, as shown in the following example:

```
Current settings for origin host "localhost":
1) Origin host:      localhost
2) Origin port:     81
3) ESI Debugging (ESID): on
4) GEO settings:
  - georegion:      246
  - country code:   US
  - region code:    CA
  - city:           SANJOSE
  - dma:            807
  - pmsa:           7400
  - areacode:       408
  - county:        SANTA CLARA
  - fips:           06085
  - lat:            37.335
```

```
- long:          121.8938
- timezone:     PST
- network type: dialup
-
```

- a) Accept settings
- d) Delete host

Please select an option to modify host settings, "a" to accept settings or "d" to delete host [1|2|3|4|a|d]:


5. Type **4** and press Enter. The GEO settings display in the window, as shown in the following example:

```
GEO information for origin host "localhost":
1)georegion:    246
2)country code: US
3)region code:  CA
4)city:        SANJOSE
5)dma:         807
6)pmsa:        7400
7)areacode:    408
8)county:      SANTA CLARA
9)fips:        06085
10)lat:        37.335
11)long:       121.8938
12)timezone:   PST
13)network type: dialup
a) Accept settings
Please select an option to modify [1-13], or enter "a" to accept
```

6. Type the number for the GEO setting that you want to modify and press Enter. The selected information displays at the prompt. For example, if you typed 1 and pressed Enter, the following information displays at the prompt:

```
georegion: 246
```

7. Type the new information at the prompt and press Enter.
8. Type **a** and press Enter to accept the settings. The Main Origin Server Configuration menu displays in the window.
9. Type **a** to accept the changes and press Enter. The Main ETS Configuration menu displays in the window.
10. Type **s** and press Enter to save the changes.
11. You are asked if you want to restart the server. Complete one of the following options:
 - a. To restart the server, press Enter.
 - b. To not restart the server at this time, type **n** and press Enter.

 **Note:** You must re-start the server to activate the new configuration settings.

Deleting an Origin Host Server

1. Open a command prompt window.
2. Type the following command:

```
# <directory>/ ets_config
```

where <directory> is the path to the ETS installation. For example, if /usr/local/ETS/bin is the directory, then you start ETS by typing:

```
# /usr/local/ETS/bin/ets_config
```

You can now reconfigure any of your ETS settings. The current settings display, as shown in the following example:

```
Current settings for ETS to be written to /usr/local/ETS/
conf/http.conf
1) ETS port: 80
2) Install directory: /usr/local/ETS
3) Origin hosts:
-localhost
-localhost
-foo.example.com
i) Install ETS
e) Exit without installing ETS
Please select an option to modify, "i" to install ETS or
"e" to exit [1|2|3|i|e]:
```

3. Type **3** and press Enter. The Origin Host Configuration menu displays in the window, as shown in the following example:

```
Configured origin hosts:
1)localhost
2)localhost
3)foo.example.com
+) Add a host
a) Accept changes
Please select a host to modify or delete,"+" to add a
host or "a" to accept changes[1|2|3|+|a]:
```

4. Type the number for the origin host server that you want to delete and press Enter. The Current Settings menu displays in the window, as shown in the following example:

```
Current settings for origin host "localhost":
1) Origin host:      localhost
2) Origin port:     81
3) ESI Debugging (ESID): on
4) GEO settings: None
a) Accept settings
d) Delete host
Please select an option to modify host settings, "a" to
accept settings or "d" to delete host [1|2|3|4|a|d]:
```

5. Type **d** and press Enter. The Origin Host Configuration menu displays in the window, as shown in the following example:

```
Configured origin hosts:
1)localhost
2)localhost
3)foo.example.com
+) Add a host
a) Accept changes
Please select a host to modify or delete, "+" to add a
host or "a" to accept changes[1|2|3|+|a]:
```

6. Type **a** and press Enter. The main ETS menu displays in the window, as shown in the following example:

```
Current settings for ETS to be written to /usr/local/ETS/
conf/http.conf
1) ETS port: 80
2) Install directory: /usr/local/ETS
3) Origin hosts:
-localhost
-localhost
-foo.example.com
i) Install ETS
e) Exit without installing ETS
Please select an option to modify, "i" to install ETS or
"e" to exit [1|2|3|i|e]:
```

7. Type **i** and press Enter.

mod_esi Reconfigurations

These directives can be manually modified through the `mod_esi` module:

Accept-ESI. The `Accept-ESI` directive configures ETS to add the indicated value for the Accept-ESi header to the request sent to the origin server.

<Directory proxy:*>. The `<Directory proxy:*>` section is used to set access permissions. See the Apache documentation for more information.

ESIDebugging. The `ESIDebugging` directives configures the ESID tool so that it is either `On` or `Off`.)

ESILogging. The `ESILogging` directive allows information about the containers and fragments that ETS processes to be logged in the Apache `error_log` file. This information can be useful for debugging ETS problems.

MetaData. The `MetaData` directive configures the specified metadata value. Only metadata values with `On/Off`, numeric, or simple string values are supported. Since ETS only processes ESI and does not cache any page requests or responses, metadata affecting page caching will have no effect. Only metadata that influences dynamic content assembly will have an effect.

ProxyPass. The `ProxyPass` directive configures the Apache server to work as a reverse proxy, allowing it to forward requests to the origin test server. The first `ProxyPass` argument is always `'/'`, while the second argument is the origin test server's hostname. In the example, the origin test server's hostname is `real-test.example.com`, while its port is `80`.

 **Note:** *The `ESIDebugging` and `ProxyPass` directives can also be modified through the `config` command. See “[config Command Reconfigurations](#)” on page 46.)*

HostHeader. This directive allows you to set a specific host header on container and fragment requests to the origin. This value can be any valid host header value.

SurrogateHeader. This directive allows you to specify the value for the `Surrogate-Capability` sent to the origin server. The format is `"SurrogateHeader name value"`. The actual header sent will be constructed by wrapping the surrogate header value with `akam="value"`. If the header name is `"Surrogate-Capability"` and the value is `"ESI/1.0"` the resulting header will be `"Surrogate-Capability: akam="ESI/1.0"`.

CacheParseTrees. This directive enable the caching of ESI and XSLT parse trees in ETS. Caching these trees can reduce the time necessary for processing ESI and XSLT pages. The caching is controlled by the `ParseTreeMaxage` and `ParseTreeCacheSize` directives. The value can be either `On` or `Off`, with a default of `Off`.

ParseTreeMaxage. This directive determines the maximum age, in seconds, of cached parse trees. The default is 120 seconds. The value is a number of seconds.

ParseTreeCacheSize. This directive determines the size of the parse tree cache.

Large parse tree caches can consume considerable memory. The default is 200 elements. The value is a number of elements.

ChaseRedirects. This directive allows ETS to automatically chase HTTP redirects (301 or 302 result codes.) If this directive is enabled ETS will follow redirects up to MaxRedirectCount times, after which a 404 will be returned. The value can be either On or Off, with a default of Off.

MaxRedirectCount. This directive determines the maximum number of times ETS will follow a redirect result before returning a 404. The default is five times. The value is an integer.

DCAProcessing. This directive allows you to determine what DCA processor to use for containers and fragments. The format is:

```
DCAProcessing dcaType {include|exclude} url
```

The dcaType can be one of these: **esi**, **xslt**, **akamaizer**, **noop**. These represent the processor types: ESI, XSLT, the EdgeAkamaizer, or None.

The include or exclude indicates whether to include the specified url in the URLs processed by that processor, or to exclude it. The url should not include the protocol, host or port, but may include '*' to match zero to many characters.

Include/exclude statements are processed in the order they are found in the configuration file until a match is found.

Each statement is checked at most once for a url. If an include statement matches the url, the processor type is set to the indicated type. If a subsequent exclude matches the url the processor is reset to the default, and checking the include and exclude statements continues. If at the end no processor matches the include/exclude statements the url is determined based on the rules from the older ESI versions, with the default being ESI processing.

Here is a sample set of rules:

```
DCAProcessing noop include "/" # default to noop
DCAProcessing noop exclude "/files/esi*" # exclude files/esi from
noop
DCAProcessing esi include "/files/esi*" # include files/esi in esi
processing
DCAProcessing esi exclude "/files/esi/akamaizer*" # include files/
esi from noop
DCAProcessing akamaizer include "/files/esi/akamaizer*" # include
files/esi in esi processing
```

The EdgeAkamaizer replacements are by a tag, dca-akamaizer-tag-filter. Multiple instances of this filter will be chained in the same way the standard metadata works. The format of the tag is slightly different from the standard metadata format, to make reading the ETS config file clearer. Here is the format:

```
Metadata dca-akamaizer-tag-filter "type=typestr tags=tagnames
regex=regex"
```

A sample:

```
Metadata dca-akamaizer-tag-filter "type=\"include\" tags=\"img/
src\" regex=\"#(.*)#$1#\""
```

Appendix A: ETS Reconfigurations

Note that the quotes inside the filter specification need to be escaped with slashes to prevent them from being interpreted when the configuration file is read by ETS.

The ETS-specific portion of the Apache server `httpd.conf` file is similar to the following example:

```
#
# ESI module #directives
#
<IfModule mod_esi.c>
    ProxyPass / http://real-test.example.com:80/
    ESIDebugging off
    ESILogging off
    Accept-Esi 1.0
    MetaData dca-max-output-size 20000
    MetaData dca-disable-function-errors on
    MetaData dca-disable-xslt-document-fn off
    <Directory proxy:*>
        Order allow,deny
        Allow from all
    </Directory>
</IfModule>
```

Additional information about `httpd.conf` can be found at <http://httpd.apache.org>.

Administration Web Site Reconfigurations

This section applies only to ETS running in a Windows environment. It is recommended that you use the ETS Administration Web site—rather than a text editor—to edit the ETS configuration file. An example of this site:

ESI Test Server 4.8.1.4 Administration

Update

Origin :

Log Level Log FileName

Surrogate Header name Surrogate Header value

ESIDebugging Chase Redirects

GEO Information

georegion country_code region_code

city dma msa

pmsa areacode lat

long county fips

timezone network network_type

throughput

ESI Metadata

name 1 value 1 name 2 value 2

name 3 value 3 name 4 value 4

name 5 value 5 name 6 value 6

name 7 value 7 name 8 value 8

name 9 value 9 name 10 value 10

Akamaizer Specifications

Akamaizer 1 Akamaizer 2

Akamaizer 3 Akamaizer 4

DCA Specifications

DCA Type Path Action Akamaizer

DCA Type Path Action Akamaizer

DCA Type Path Action Akamaizer

DCA Type Path Action Akamaizer

DCA Type Path Action Akamaizer

Figure 18. ETS Administration Web Site

Modifying the ETS Configuration

To change the configuration,

1. Accessed the ETS Administration Web Site by browser using a URL that conforms to the following format:

```
http://<hostname:port>/etsadmin
```

2. Change the settings, then click the **Update** button. It is *not* be necessary to stop and restart your web server to complete the changes.

The settings you can change on this site are as follows:

- **Origin server host and port:** The server and port ETS will contact to request templates and fragments.
- **Log Level:** The level of logging ETS will use to create its log file. The settings are, in order of increasing verbosity: None, Error, Warning, Informational, Debugging
- **Log File Name:** The file name ETS is to use for its error logging.
- **ESI Debugging:** Enables the ESI & XSLT Development Tool (the Debugger) to get a debug report on responses. See “ETS Troubleshooting” on page 43 for more information.
- **Chase Redirects:** Specifies whether ETS will chase redirects (302 and 301 return codes) when fetching templates and fragments.
- **Surrogate Header name and value:** Specifies data necessary to set up ETS’s use of the Surrogate-Capability header. See page 60.
- **GEO Information:** These data are described in the *EdgeScape and EdgeScape Pro User Guide*.
- **Metadata:** Up to ten metadata settings can be specified. Consult your Akamai representative for information using these fields.
- **Akamaizer Specifications:** up to four specifications for the EdgeAkamaizer may be specified. Consult your Akamai representative for information on this feature
- **DCA Specifications:** Allows users to determine how ESI processes specific templates and fragments. See page 61, and consult your Akamai representative for further information.

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