ESI Test Server Installation Guide

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ESI Test Server Installation Guide

Contents

CHAPTER 1. About the ESI Test Server

Welcome to the *ESI Test Server 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-

Before using ETS, it is recommended that you have the following background:

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

Three Servers: Linux is Preferred Over Unix or Windows

Akamai has historically provided three flavors of the ETS server: Linux, Unix (for Solaris), and Windows. Linux is the one that provides the closest emulation of the production environment, a Linux environment which is then preferred for ESI testing. The use of the Solaris and Windows versions is not encouraged. They are documented here for those who already use them.

Key Document Resources

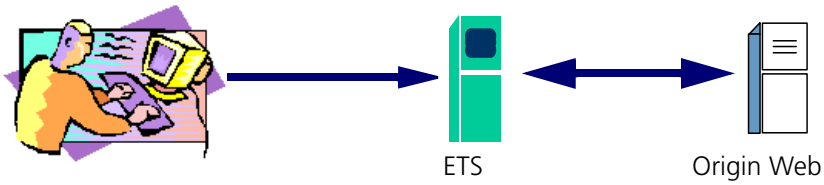
Akamai resources on using ESI and the other services referenced in this guide include the following documents, available to customers on EdgeControl at `https://www.control.akamai.com`.

- The *ESI Developers Guide* is the user manual for ESI. It provides an overview and detailed explanation of the ESI language usage.
- The *Edge Server Configuration Guide* details the configuration and control options and parameters used for sites and objects in ESI.
- The *ESI Development Tool* contains the information on the debugger (ESID)
- The *EdgeScape and EdgeScape Pro Users Guide* has information on the GEO (content targeting) data.
- *Edge Server Handling of Edge-Control & Other HTTP Headers,* a discussion of the use of HTTP request and response headers in the Akamai environment.
- *Time-to-Live in Cache: Methods and Considerations*. This discusses the various methods for determining caching properties of objects on Akamai edge servers.

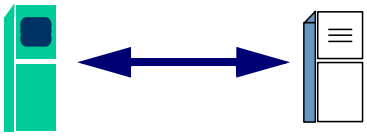
ETS and ESI-Enabled Content

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 illustrates ETS.

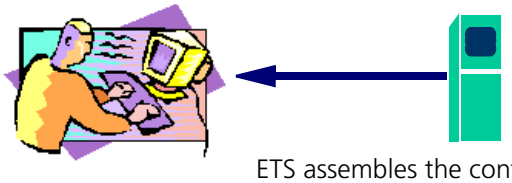
ETS is listening on the same port as the test origin. Request made for `home.html` is handled by ETS. **While ETS is shown as a separate server, it could in fact be on the same machine**.



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.

Edge Server Features Not Implemented in ETS

For specific information on differences between ETS and the current production version of ESI, please see the release notes that accompany the ETS software.

Generally, ETS does not implement ESI extensions that require gathering information from, or caching objects in, the live network, including the following:

- 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 and Solaris but not on Windows.

CHAPTER 2. Installing the Linux or Unix ETS

In This Chapter

This chapter provides instructions for installing and configuring ETS, as well as for starting, stopping, restarting, reconfiguring, and removing ETS.

Note: *The Solaris (Unix) version is no longer offered for download, and it is strongly encouraged to use the Linux version instead. The documentation remains for those who already have and use the Solaris version.*

Installation Requirements

To run ETS, the following is required:

Operating System	Linux with a 2.2 kernel or higher, OR Solaris 2.6 or higher
Disk Space	50 MB RAM
Memory	64 MB RAM

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.

After Initial Installation, Two Configuration Methods

The initial installation and configuration is menu driven. After initial installation, there are two different re-configuration methods you can use on ETS.

- Menu driven—the same menu used during installation, but accessed from the command line, using **`ets_config`** and called the "config command" method.
- Direct edit of the **`mod_esi`** module in the httpd.conf configuration file.

Certain configuration options are available **only** through modifying the mod_esi module. **BUT you need to exercise caution, because if you use the config command**

method and save the file AFTER you have edited the mod_esi, certain mod_esi configurations will be deleted. This is discussed on page 17.

Getting Started: Downloading the Executable Files

The ETS installation files are available as downloadable 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 representative.

Installing and Configuring ETS

Standard installation of the ETS involves the following 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.
4. (Optional) Additional configuration or modification before installation.
5. Completing installation.

Step 1: Extracting the Installation Files

1. Copy the downloaded file to a directory where you want to extract the installation files.
2. Extract the files to the current directory, using one of these commands. The actual ETS file name will depend on the version and operating system:
   - **Linux**

     ```
     # tar xzvf [ETS_filename]
     ```

   - **Solaris**

     ```
     # uncompress [ETS_filename.tar.gz]
     tar xvf [ETS_filename.tar]
     ```

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 to accept the License, Restrictions, and other sections of the agreement, then type **`yes`** to accept the terms.
4. You're asked where ETS should be installed. Complete one of the following options:

a. To accept the default, [**/usr/local/ETS]**, press Enter.

b. To change the default, type the installation directory path and press Enter.

Step 3: Setting Configuration Parameters

1. After setting the installation directory, you are asked to set configuration options.
1. Set the following options by pressing Enter to accept the default or entering a new value:

Option	Meaning	Default
ETS port	The port on which ETS should listen for requests. Normally, this is the same as the Origin Port—the port on which the origin server normally listens—the actual origin server port will be re-set to 81 by default.	80
Origin host	The origin test server hostname. Since ETS transparently forwards content requests to the origin test server, it must know which server to contact. There can be multiple origin servers; after configuring the first one, you can configure additional servers.	localhost
Origin port	The port on which the origin server listens.	81
Enable ESID (ESI Debugger)	The ESI Development Tool (aka, the Debugger, or ESID) provides a way to test, view, and debug web pages containing ESI code (see Chapter , *Troubleshooting* for more information)	Off
Enable GEO	This allows running EdgeScape (Content Targeting) data. For more information on EdgeScape, see the *EdgeScape and EdgeScape Pro Users Guide*.	n (no)

The Current Settings menu displays in the window. An 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]:
```

2. To accept the settings, type **a** and press Enter.
3. You are asked if you want to configure additional hosts:
   a. To configure additional hosts, type **y** and complete the options in Step 1.
   b. If you're done with configuration for now, type **n**. You'll see the **Main ETS Installation menu**, an example of which is shown here:

Main ETS Installation Menu

```
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]:
```

We'll refer to the above menu, the **Main ETS Installation menu**, frequently in the coming pages.

4. Do one of the following:
   - If you're ready to install, go to the steps shown under “Completing the Installation” on page 11.
   - If you want to review or reconfigure before installation, proceed to the following section. Note that you also can reconfigure after installation.

(Optional) Changing the Configuration Before Completing Installation

The Main ETS Installation menu shown in the previous step allows you to modify ETS configuration settings ***before*** completing the installation process. This is optional, and you can also change configuration settings after installation.

The steps that you follow are described under “Command Line Reconfiguration” on page 13. The only difference is that you don't need to open the Main ETS Installation menu from the command line because the menu is already available.

Also, you cannot modify the **mod_esi** module from this menu, which means that you this menu does not provide access to the additional configuration options available through using **mod_esi**. That must be by direct edit from the command line after initial installation. For more information, see page 17.

Completing the Installation

1. On the Main ETS Installation menu, 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:
   - If you do not want to start the server, type **n** and press Enter.
   - 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.`**

Command Line Reconfiguration

You can modify the Apache ETS after installation, using the **ets_config** command, or by manually editing the **mod_esi** module, the latter of which is discussed starting on page 17.

The **ets_config** command uses the same menu system as was used in installation, and can be used to modify the following:

- ETS Port Number
- Origin Host Name, Port, ESID status, and GEO settings.
- Adding or Deleting an Origin Host.

Using ets_config: Opening the Main Menus

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:

Main ETS Configuration Menu

```
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]:
```

From this menu you can modify the ETS port or you can type **2** to open a secondary menu, the Main Origin Hosts Configuration menu, to modify other settings.

The Main Origin Hosts Configuration menu looks like this example:

Main Origin Hosts Configuration Menu

```
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]:
```

3. *Modify the configuration as described in one of the following eight procedures listed in this chapter.*

4. When you're done, you are prompted to re-start the server: press Enter to restart, or type **n** and press Enter not to restart at this time.

Note that you must re-start the server to activate the new configuration settings.

Modifying the ETS Port Number

At the Main ETS Configuration Menu (see page 13):

1. Type **1** and press Enter.
2. Type the new port number and press Enter. The new configuration is displayed in the window.
3. Type **s** and press Enter.
4. Restart the server if you're ready to apply the change(s).

Modifying the Origin Hostname, Port, ESID, or GEO Settings

From the Main ETS Configuration Menu, type 2 to open the Main Origin Host Configuration menu (see page 13):

1. 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]:
```

2. Type the number for the setting you want to modify:

To Modify...	Do this...
Origin Host Name	Type **1** and press Enter. When the name is displayed, type the new host name and press Enter.
Origin Port	Type **2** and press Enter. When the port number is displayed, type the new number and press Enter.
ESID Status	Type **3** and press Enter. When the ESID status is displayed, type **on** or **off** and press Enter.
GEO Settings	Type **4** and press Enter. When the GEO settings are displayed, 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 georegion information displays at the prompt. Type the new information at the prompt and press Enter. Repeat the process if you want to change other settings.

After you modify any of these settings, the Individual Origin Host Configuration menu is updated and displayed.

3. At the Individual Host Configuration menu, type **a** and press Enter to accept the settings. The Main Origin Host Configuration menu displays in the window.
4. Type **a** and press Enter to accept the changes. The Main ETS Configuration menu displays in the window.
5. Type **s** and press Enter to save the changes.
6. Restart the server if you're ready to apply the change(s).

Adding an Origin Host

From the Main ETS Configuration Menu, type 2 to open the Main Origin Host Configuration menu (see page 13):

1. Type **+** and press Enter.
2. Type the new information at the prompt and press Enter.
3. Type **a** and press Enter to accept the settings. The Main Origin Server Configuration menu displays.
4. Type **a** and press Enter to accept the changes. The Main ETS Configuration menu displays in the window.
5. Type **s** and press Enter to save the changes.
6. Restart the server if you're ready to apply the change(s).

Deleting an Origin Host

From the Main ETS Configuration Menu, type 2 to open the Main Origin Host Configuration menu (see page 13):

1. Type the number for the origin server you want to delete.
   For example, type **2** to delete the origin host listed as 2). 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]:
```

2. Type **d** and press Enter. The Main Origin Server Configuration menu displays in the window.
3. Type **a** and press Enter to accept the settings. The Main Origin Server Configuration menu displays.
4. Type **a** and press Enter to accept the changes. The Main ETS Configuration menu displays in the window.
5. Type **s** and press Enter to save the changes.
6. Restart the server if you’re ready to apply the change(s).

mod_esi Reconfiguration

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 by default is located in the **/usr/local/ETS/config** directory. 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
    <Directory proxy:*>
        Order allow,deny
        Allow from all
    </Directory>
</IfModule>
```

Additional information about **httpd.conf** can be found at http://httpd.apache.org.

The following configuration options can be modified by directly editing **httpd.conf**. Note that there are more options available using **mod_esi** than are available using the Using the **ets_config** program will delete any setting you have for certain tags, as indicated in the list starting with the HostHeader.

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`**.

WARNING! **Using ets_config—the menu-driven configuration application—program will delete any setting you have for these tags. The configuration tags below can only be modified by directly editing httpd.conf.**

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. **Warning**: Using **`ets_config`**—the menu-driven configuration application—program will settings for this tag. It can modified only by direct edit of **`httpd.conf`**.

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"`**. **Warning**: Using **`ets_config`**—the menu-driven configuration application—program will settings for this tag. It can modified only by direct edit of **`httpd.conf`**.

CacheParseTrees. This directive enable the caching of ESI parse tree in ETS. Caching these trees can reduce the time necessary for processing ESI pages. The caching is controlled by the **`ParseTreeMaxage`** and **`ParseTreeCacheSize`** directives. The value can be either **`On`** or **`Off`**, with a default of **`Off`**. **Warning**: Using **`ets_config`**—the menu-driven configuration application—program will settings for this tag. It can modified only by direct edit of **`httpd.conf`**.

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. **Warning**: Using **`ets_config`**—the menu-driven configuration application—program will settings for this tag. It can modified only by direct edit of **`httpd.conf`**. **Warning**: Using **`ets_config`**—the menu-driven configuration application—program will settings for this tag. It can modified only by direct edit of **`httpd.conf`**.

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. **Warning**: Using **`ets_config`**—the menu-driven configuration application—program will settings for this tag. It can modified only by direct edit of **`httpd.conf`**.

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`**. **Warning**: Using **`ets_config`**—the menu-driven configuration application—program will settings for this tag. It can modified only by direct edit of **`httpd.conf`**.

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. **Warning**: Using **`ets_config`**—the menu-driven configuration application—program will settings for this tag. It can modified only by direct edit of **`httpd.conf`**.

DCAProcessing. This directive allows you to determine what DCA processor to use for containers and fragments. **Warning**: Using **`ets_config`**—the menu-driven configuration application—program will settings for this tag. It can modified only by direct edit of **`httpd.conf`**.

The format is:

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

The **`dcaType`** can be one of these: **esi, akamaizer, noop**. These represent the processor types: **`ESI`**, 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#\""
```

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.

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
```

CHAPTER 3. Installing the Windows ETS

In This Chapter

This chapter provides instructions for installing and configuring ETS, as well as for starting, stopping, restarting, reconfiguring, and removing ETS.

Note: *The Windows version is no longer offered for download, and it is strongly encouraged to use the Linux version instead. The documentation remains for those who already have and use the Windows version.*

About the Windows ETS

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

It runs on Windows 2000 or Windows XP, and 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.

Basic installation involves setting up ETS to run on port 80 while moving the origin server host port to 81. It is highly recommended that if the origin is currently set to port 80 that you move it to 81 before you begin this installation.

Figure 1 displays the Microsoft Management Console for a company whose default Web site is www.example.com, running on port 80.

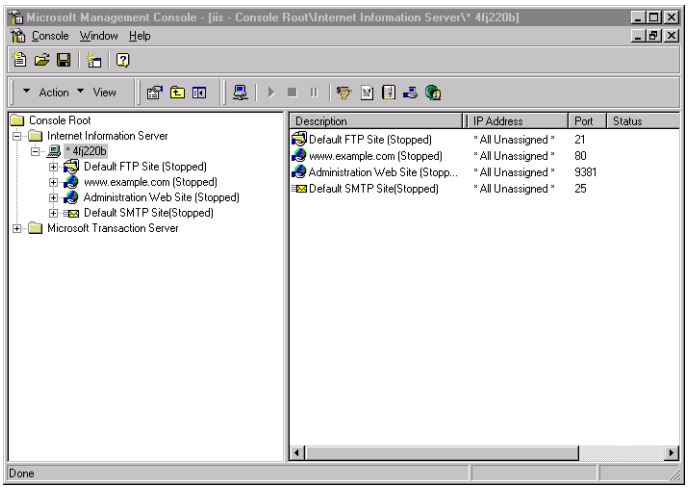


Figure 1. Origin Server on Port 80

Figure 2 displays the Microsoft Management Console after the origin server is moved to port 81, and ETS is running on port 80.

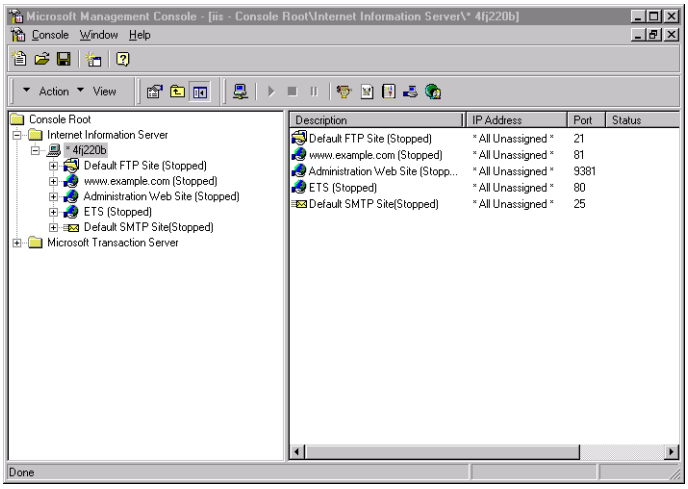


Figure 2. ETS on Port 80

Installation Requirements

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

Operating System	Windows 2000, XP or 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 files are available as downloadable 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 representative.

Running the ETS installer

It is recommended that you exit all Windows applications before proceeding with the installation procedures. Also, the Microsoft Management Console should not be running.

1. Open the folder where you downloaded the `ETS.exe` file.
2. Double-click **`[filename.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.

3. After accepting the license agreement, you'll be asked to choose a destination folder—the ETS installation directory. The default is C:\ETS, but you can choose or create another folder.

   NOTE: The installation folder cannot be located on a remote drive.

ETS Port

4. Specify the ETS Port.
   The ETS is configured as a Web site that runs on a specific port specified in the following setup.

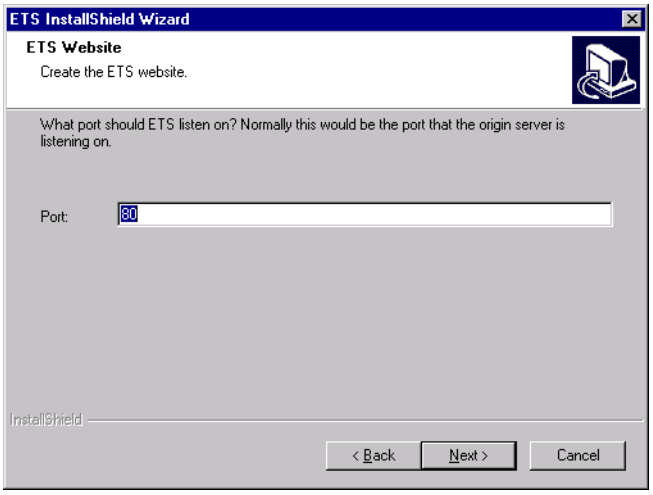


Figure 3. ETS Web site

It is recommended that ETS run on port 80 while setting the origin server to run 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.

After you click Next, the Configuration Dialog appears. An example:

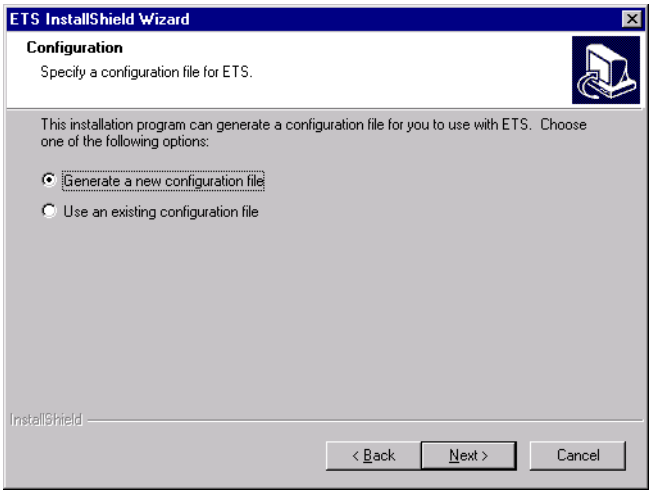


Figure 4. Choosing New or Existing Configuration File

New or Existing Configuration File

5. Choose whether to create a new configuration file or use an existing one.

   You can use an existing file if you're updating to a new ETS version or re-installing, and you already have a configuration file you want to use. Otherwise, you'd generate a new one. Both option involve the process of copying the files while providing for your review of the settings.

Generating a New Configuration File—Setting the Origin Server Name and Port

Origin Server Name and Port

If you choose to generate a new configuration file, you'll set the origin server name (Hostname) and port for the origin server. The Origin Server dialog lets you specify where ETS should forward the requests. Once done, you'll save the configuration file and go on to "Review Settings" on page 24

Use Existing Configuration File

Should you choose to use an existing configuration file, you'll browse and choose the file, review the settings as discussed on page, and then save the file as another file name.

Review Settings

6. Review the settings.

Whether you chose to use a new or existing configuration file, the Start Copying Files dialog lets you check the destination folder, ETS port, and configuration file paths before copying ETS files to your machine

Completing the Installation

7. Restart IIS

   You can choose to wait until later, but IIS must be re-started for the configuration to take effect.

Reconfiguring and Fine Tuning

If you need to modify the ETS setup, 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:

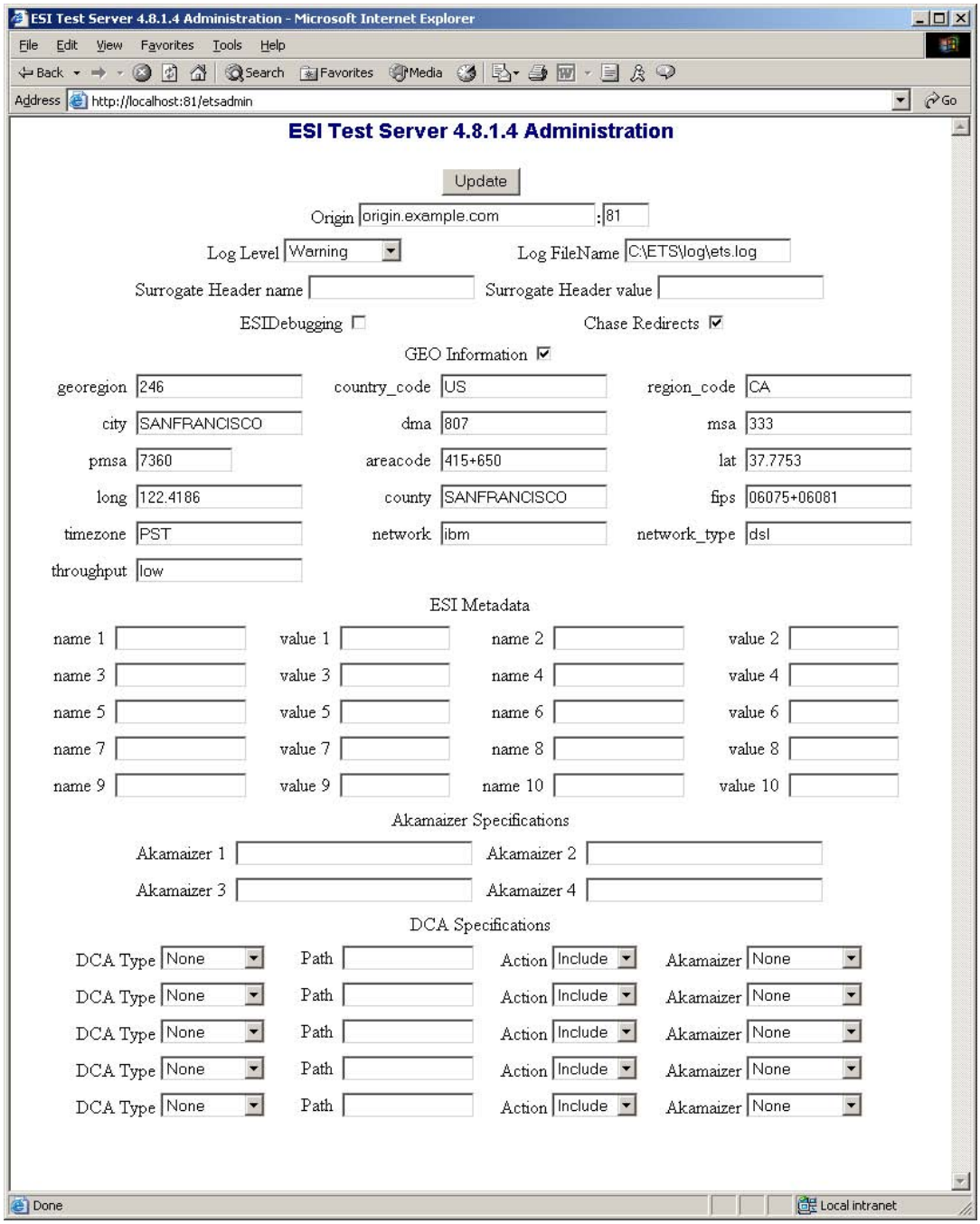


Figure 5. ETS Administration Web Site

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 Development Tool (the Debugger) to get a debug report on responses. See "Troubleshooting" on page 27 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 18 for more information about this option.
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 19 for more information about this option, and consult your Akamai representative for further information.

Uninstalling ETS

To uninstall ETS, run the ETS.exe file. An uninstall dialog will open that allows you to remove ETS from your machine.

CHAPTER 4. Troubleshooting

Use ESID, aka the Debugger

The ESI Development Tool (ESID) lets you test, view, and debug web pages containing ESI code. To use it, you need to set the ESID configuration value to On in the ETS configuration. After the option is set to on, the ESI debugging information can be viewed in the web page source code.

You should turn ESID on and off as needed, because it can slow the display and interfere with some non-ESI processing. That is, once any ESI issues are resolved, debugging should be turned off.

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

This and other instructions, and descriptions of what ESID reports, see the user guide, the *ESI Development Tool*.

Common Issues

ESI-Enabled Content Not Assembled

This can be from any number of reasons, including syntax errors. Use the Debugger (ESID) to examine why the ESI content is not being assembled.

500 Internal Server Error

Occasionally, a 500 Internal Server Error is returned to the client due to incorrect ESI syntax. Once again, use ESID to fine the line(s) with the syntax errors.

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. If you're having problems with JavaScript pages, turn off ESID and try again.

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.

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.