Alexa Top Sites

Developer Guide

Alexa Top Sites: Developer Guide

Published 2006-November-09

Table of Contents

Introduction

Alexa Top Sites is a web service that provides lists of web sites, ordered by Alexa Traffic Rank. Using this web service, developers can page through lists of top sites and incorporate traffic data into their applications. The following documentation describes how to use the Alexa Top Sites Web Service.

This documentation includes the following sections:

- Making Requests

  The Making Requests Guide contains information about how to make requests to Alexa Top Sites Web Service. The guide has information about making Query and SOAP requests to this service.
- API Reference

  The API Reference contains details about the Alexa Top Sites Web Service, including the Actions, Response Groups, and other elements that make up the application programming interface (API).

In order to use the Alexa Top Sites web service, you must first sign up for an Amazon Web Services account, and then subscribe to the Alexa Top Sites web service. See the following links to sign up:

- Sign up for an Amazon Web Services account
- Subscribe to the Alexa Top Sites Web Service

AWS Request Authentication

Request authentication is the process by which AWS verifies that a request came from a registered developer and identifies the account to for billing.

AWS Accounts

To access Amazon web services, you must create an AWS account. AWS accounts are associated with Amazon.com accounts. To sign in to an AWS account, you can use your Amazon.com account e-mail and password.

Note

Note: After you have an AWS account you must still sign up individually for each web service you consume. To sign up for an Alexa web service, go to http://aws.amazon.com/alexa, click on the link for the service you are interested in, and then click on the "Sign up for Web Service" button on the service detail page.

Access Key Identifiers

Upon creation an AWS account is assigned an Access Key ID and a Secret Access Key. The Access Key ID is passed into a request in the AWSAccessKeyId parameter to identify the account responsible for the request. To protect from impersonation, the request sender signs the request using a hash calculated using the Secret Access Key. The Secret Access Key should never be shared with anyone.

Calculating Request Signatures

A request signature is calculated by concatenating the values of the Action parameter and the Timestamp and then calculating an RFC 2104-compliant HMAC-SHA1 hash, using the Secret Access Key as the key. The computed HMAC-SHA1 hash is passed in the Signature request parameter.

When a request is received, AWS verifies that the request signature is valid by computing an HMAC-SHA1 hash for the request, and then comparing the value of that hash with the value in the included in the request. If the values match, the identity of the sender is verified and the request is accepted. If the values do not match, the request is rejected.

Note

Note: Please see the code samples in the Resource Center for examples on how to sign requests using Java, C#, php, perl and ruby.

The following steps describe how to calculate the signature:

1. Calculate the Timestamp value in UTC time with format: yyyy-MM-ddTHH:mm:ss.fffZ. The Timestamp should passed in to the Timestamp parameter.
2. Concatenate the Action and the Timestamp values.
3. Create an RFC 2104 compliant HMAC-SHA1 hash on the Action+Timestamp string, using the Secret Access Key as the "key". For more information see: http://www.faqs.org/rfcs/rfc2104.html.
4. Base64 encode the hash.
5. If you are making a Query request (as opposed to a SOAP request) you must also URL encode the Signature. Note: The resulting Signature cannot contain any "+"'s. So, for example in C# you must use HttpUtility.UrlPathEncode instead of HttpUtility.UrlEncode.
6. Pass the computed signature in the Signature parameter of your request.

Authenticating Query Requests

Every request must contain authentication information to establish the identify of the principal making the request. In Query, the authentication information is put into HTTP parameters. The parameters needed for authentication are in the following table.

Parameter	Description
AWSAccessKeyId	Your AWS Access Key Id
Timestamp	This must be a dateTime (http://www.w3.org/TR/xmlschema-2/#dateTime) in the Coordinated Universal Time (Greenwich Mean Time) time zone, such as 2005-01-31T23:59:59.183Z. Authorization will fail if this timestamp is more than 15 minutes away from the clock on Top Sites servers.
Signature	The RFC 2104 HMAC-SHA1 digest (http://www.ietf.org/rfc/rfc2104.txt) of the concatenation of *[Action, such as 'TopSites']* + *[Timestamp]*, using your AWS Secret Access Key as the key. For example, in the following sample requests, the signature element would contain the HMAC-SHA1 digest of the value "TopSites2005-01-31T23:59:59.183Z": **Sample Query Request** `http://ats.amazonaws.com?Action=TopSites&AWSAccessKeyId=1234567890ABCDEFGHIJ&Timestamp=2005-01-31T23%3A59%3A59.183Z&ResponseGroup=Country&CountryCode=CN&Signature=[UrlEncoded HMAC-SHA1 digest of "TopSites2005-01-31T23:59:183Z"]` **URL Encoding.** The result of the SHA-1 hash is binary data. An encoding must be specified to include this in a Query request. Query requests should be Base64 encoded.However, as the results of Base64 encoding can contain characters that are not legal in a URL, such as plus signs (+),slashes (/), and equal signs (=), results for Query requests should be URL encoded, as specified in RFC 1738, section 2.2.

Warning
Don't forget to UrlEncode the timestamp parameter for Query requests.

Authenticating SOAP Requests Using HMAC-SHA1

Every non-anonymous request to an AWS service must contain authentication information to establish the identity of the principal making the request. In SOAP, the authentication information is put into the following elements of the SOAP request:

Every request must contain authentication information to establish the identify of the principal making the request. In SOAP, the authentication information is put into elements in the <Request> element. The parameters needed for authentication are in the following table.

Parameter	Description
AWSAccessKeyId	Your AWS Access Key Id
Timestamp	This must be a dateTime (http://www.w3.org/TR/xmlschema-2/#dateTime) in the Coordinated Universal Time (Greenwich Mean Time) time zone, such as 2005-01-31T23:59:59.183Z. Authorization will fail if this timestamp is more than 15 minutes away from the clock on topsites servers.

Signature	The RFC 2104 HMAC-SHA1 digest (http://www.ietf.org/rfc/rfc2104.txt) of the concatenation of *[Action, such as 'TopSites']* + *[Timestamp]*, using your AWS Secret Access Key as the key. For example, in the following sample requests, the signature element would contain the HMAC-SHA1 digest of the value "TopSites2005-01-31T23:59:59.183Z":
	Sample SOAP Request
	
	`<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/" xmlns:SOAP-ENC="http://schemas.xmlsoap.org/soap/encoding/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">`
	`<SOAP-ENV:Body>`
	`<m:TopSites xmlns:m="http://webservices.amazon.com/AlexaTopSites/2005-11-21">`
	`<m:Request>`
	`<m:Security>`
	`<m:AWSAccessKeyId>1234567890ABCDEFGHIJ</m:AWSAccessKeyId>`
	`<m:Signature>aGxMveHcJuDF3WoJaM5NGJydtiU=</m:Signature>`
	`<m:Timestamp>2006-09-07T23:43:31.000Z</m:Timestamp>`
	`</m:Security>`
	`<m:CountryCode>CN</m:CountryCode>`
	`<m:Count>2</m:Count>`
	`<m:ResponseGroup>Country</m:ResponseGroup>`
	`</m:Request>`
	`</m:TopSites>`
	`</SOAP-ENV:Body>`
	`</SOAP-ENV:Envelope>`

Parameter	Description
	URL Encoding. The result of the SHA-1 hash is binary data. An encoding must be specified to include this in a SOAP request. SOAP requests should be Base64 encoded.

Note

Due to different interpretations regarding how extra time precision should be dropped, .NET users should take care not to send overly specific time stamps. This can be accomplished by manually constructing DateTime objects with only millisecond precision.

Alexa Top Sites webservice Making Requests

Making requests. This chapter describes how to interact with the Alexa Top Sites Web Service, how to authenticate and send requests, and how to understand responses. There are two types of requests that can be use with the web service; Query and SOAP.

- Making Query Requests Query requests are HTTP GET requests where parameters are passed as HTTP parameters.
- Making SOAP Requests SOAP requests pass parameters in a SOAP envelope.

> **Note**
> It is worth noting that Query requests are generally easier to test and implement from scratch. SOAP requests are generally handled by libraries that can consume WSDL files; however depending on the SOAP library used your mileage may vary.

Making Query Requests to Alexa Top Sites

Some facts about Query requests:

- Query requests are simply HTTP GET requests (RFC2616).
- Service parameters are passed as simple HTTP parameters.
- Query requests can be tested on any browser.
- The response is in the HTTP response body and is in human readible XML format.
- Query requests support batching (sending more than one request at once).

Query Request Format

The Base URL. Every Query request to Alexa Top Sites web service begins with the following:

Base URL

```
http://ats.amazonaws.com
```

Request Parameters. The base URL is followed by a series of parameters that define the request. Parameters are separated from the base URL by a question mark (**?**) and each other by an ampersand (**&**) character. Each parameter consists of a key and a value, separated from each other by an equals sign (**=**). Note that parameters and their values are case-sensitive; for example, **`Action=TopSites`** works correctly, but **`Action=topsites`** produces an error. Also note that all HTTP parameters must be UrlEncoded. The following example shows a simple Query request that returns a topsites for a given Country.

Sample Request

```
http://ats.amazonaws.com?
                    AWSAccessKeyId=
                    [your AWSAccessKeyId]
                    &Timestamp=
                    [timestamp now, format as described in ht-
tp://www.w3.org/TR/xmlschema-2/#dateTime]
                    &Signature=
                    [signature calculated from request]
                    &ResponseGroup=
                    [desired response group, such as Country]
                    &Action=TopSites
                    &CountryCode=
                    [Country to get topsites for, such as CN]
```

Parameter Details. The parameters in the example are described in the following table:

Query Batch Request Format

Batch Requests. Batch requests are very similar to regular requests, except that it allows multiple service calls to be sent in one request. Batch requests save on HTTP turnaround time compared to making multiple individual service invocations. All parameters except the core AWS parameters (*`AWSAccessKeyId`*, *`Timestamp`*, *`Signature`*, *`Action`*) are batched according to the following rules.

- If a query request contains at least one parameter of the format `[ActionName].[integer].[ParameterName]`, it is a batched request. (example: `TopSites.1.CountryCode`).
- The numbers for the request params must be contiguous (i.e. if `TopSites.3.CountryCode` is present, `TopSites.1.CountryCode` and `TopSites.2.CountryCode` are required as well).
- To save on typing, batched requests are allowed to have shared parameters. These are the parameters that have the same value for all the batch sub-requests. Shared parameters have the form `[ActionName].Shared.[ParameterName]` (example: `TopSites.Shared.ResponseGroup`). Short-hand form of `Shared.[ParameterName]` is supported as well.
- Up to 5 service calls can be batched at a time in a single request. If more service calls are needed, they must be divided into multiple batch requests.
- All service calls within a single batch request must be of the same *`Action`* type. You cannot mix different actions in a single batch request.

Sample Batch Request #1. The following example shows a batch Query request that returns the topsites for the 3 given countries.

Sample Request

```
http://ats.amazonaws.com?
                    AWSAccessKeyId=
                    [your AWSAccessKeyId]
                    &Timestamp=
                    [timestamp now, format as described in ht-
tp://www.w3.org/TR/xmlschema-2/#dateTime]
                    &Signature=
                    [signature calculated from request]
                    &Action=TopSites
                    &TopSites.Shared.ResponseGroup=
                    Country
                    &TopSites.1.CountryCode=
                    [query #1]
                    &TopSites.2.CountryCode=
                    [query #2]
                    &TopSites.3.CountryCode=
                    [query #3]
```

Query Response Format

This section shows sample response data for both nonbatch and batch requests.

Sample Responses.

Sample response for a request with no batching

The request

```
http://ats.amazonaws.com?AWSAccessKeyId=1234567890ABCDEFGHIJ
                            &Signature=1234567890abcdefghijABCDEFGH
                            &Timestamp=2006-01-01T00:00:00.000Z
                            &Action=TopSites
                            &ResponseGroup=Country
                            &CountryCode=CN
                            &Count=1
```

corresponding response:

```
<?xml version="1.0"?>
<aws:TopSitesResponse xmlns:aws="http://alexa.amazonaws.com/doc/2005-10-05/">
  <aws:Response>
    <aws:OperationRequest>
      <aws:RequestId>9ffc5e13-175e-4c7e-b33b-0efe3501d1f3</aws:RequestId>
    </aws:OperationRequest>
    <aws:TopSitesResult>
      <aws:Alexa>
        <aws:TopSites>
          <aws:List>
           <aws:CountryName>China</aws:CountryName>
           <aws:CountryCode>CN</aws:CountryCode>
           <aws:TotalSites>671496</aws:TotalSites>
           <aws:Sites>
             <aws:Site>
               <aws:DataUrl>baidu.com</aws:DataUrl>
               <aws:Country>
                 <aws:Rank>1</aws:Rank>
                 <aws:Reach>
                   <aws:PerMillion>358000</aws:PerMillion>
                 </aws:Reach>
                 <aws:PageViews>
                   <aws:PerMillion>77410</aws:PerMillion>
                   <aws:PerUser>11.5</aws:PerUser>
                 </aws:PageViews>
               </aws:Country>
               <aws:Global>
                 <aws:Rank>4</aws:Rank>
               </aws:Global>
             </aws:Site>
           </aws:Sites>
          </aws:List>
        </aws:TopSites>
      </aws:Alexa>
    </aws:TopSitesResult>
    <aws:ResponseStatus>
      <aws:StatusCode>Success</aws:StatusCode>
    </aws:ResponseStatus>
  </aws:Response>
</aws:TopSitesResponse>
```

Sample response for a request with batching

The request

```
http://ats.amazonaws.com?AWSAccessKeyId=1234567890ABCDEFGHIJ
                            &Signature=1234567890abcdefghijABCDEFGH
                            &Timestamp=2006-01-01T00:00:00.000Z
                            &Action=TopSites
                            &TopSites.Shared.ResponseGroup=Country
                            &TopSites.1.CountryCode=CN
                            &TopSites.2.CountryCode=IN
                            &TopSites.Shared.Count=1
```

corresponding response:

```
<?xml version="1.0"?>
<aws:TopSitesResponse xmlns:aws="http://alexa.amazonaws.com/doc/2005-10-05/">
```

```
<aws:Response>
 <aws:OperationRequest>
   <aws:RequestId>6fa8baa5-11ab-402c-a2fa-42976ad451fb</aws:RequestId>
 </aws:OperationRequest>
 <aws:TopSitesResult>
   <aws:Alexa>
     <aws:TopSites>
       <aws:List>
              <aws:CountryName>China</aws:CountryName>
              <aws:CountryCode>CN</aws:CountryCode>
         <aws:TotalSites>671496</aws:TotalSites>
              <aws:Sites>
           <aws:Site>
                       <aws:DataUrl>baidu.com</aws:DataUrl>
              <aws:Country>
                  <aws:Rank>1</aws:Rank>
                  <aws:Reach>
                    <aws:PerMillion>358000</aws:PerMillion>
                  </aws:Reach>
                  <aws:PageViews>
                    <aws:PerMillion>77410</aws:PerMillion>
                    <aws:PerUser>11.5</aws:PerUser>
                  </aws:PageViews>
              </aws:Country>
              <aws:Global>
                         <aws:Rank>4</aws:Rank>
              </aws:Global>
           </aws:Site>
         </aws:Sites>
      </aws:List>
    </aws:TopSites>
  </aws:Alexa>
 </aws:TopSitesResult>
 <aws:ResponseStatus>
        <aws:StatusCode>Success</aws:StatusCode>
 </aws:ResponseStatus>
</aws:Response>
<aws:Response>
  <aws:OperationRequest>
     <aws:RequestId>6fa8baa5-11ab-402c-a2fa-42976ad451fb</aws:RequestId>
  </aws:OperationRequest>
  <aws:TopSitesResult>
     <aws:Alexa>
       <aws:TopSites>
         <aws:List>
             <aws:CountryName>India</aws:CountryName>
                   <aws:CountryCode>IN</aws:CountryCode>
             <aws:TotalSites>283140</aws:TotalSites>
             <aws:Sites>
               <aws:Site>
                 <aws:DataUrl>yahoo.com</aws:DataUrl>
                 <aws:Country>
                   <aws:Rank>1</aws:Rank>
                   <aws:Reach>
                             <aws:PerMillion>629000</aws:PerMillion>
                   </aws:Reach>
                   <aws:PageViews>
                     <aws:PerMillion>182750</aws:PerMillion>
                     <aws:PerUser>20.8</aws:PerUser>
                   </aws:PageViews>
                 </aws:Country>
                 <aws:Global>
                   <aws:Rank>1</aws:Rank>
                 </aws:Global>
               </aws:Site>
             </aws:Sites>
           </aws:List>
         </aws:TopSites>
     </aws:Alexa>
   </aws:TopSitesResult>
  <aws:ResponseStatus>
```

```
            <aws:StatusCode>Success</aws:StatusCode>
   </aws:ResponseStatus>
 </aws:Response>
</aws:TopSitesResponse>
```

Making SOAP Requests to Alexa Top Sites

You can interact with the web service using SOAP 1.1 over HTTP. The WSDL file, which describes the API in a machine-readable way, is available at: http://ats.amazonaws.com/doc/2005-11-21/AlexaTopSites.wsdl . The TopSites response schema is available at: http://ats.amazonaws.com/doc/2005-11-21/AlexaTopSites.xsd.

Most SOAP users will interact with the topsites webservice using a SOAP toolkit tailored for their language and development environment. Different toolkits will expose the API in different ways. Please refer to your specific toolkit documentation to understand how to use it. This section illustrates SOAP operations in a toolkit-independent way by exhibiting the XML requests and responses as they appear "on the wire."

WSDL Location and SOAP End Point

Your SOAP toolkit/library should be capable of creating SOAP requests based on the WSDL file. Here are the URLs for the WSDL file, schema file, and SOAP end point that your toolkit/library will need to know in order to consume the web service.

WSDL Location.

```
http://ats.amazonaws.com/doc/2005-11-21/AlexaTopSites.wsdl
```

Schema Location.

```
http://ats.amazonaws.com/doc/2005-11-21/AlexaTopSites.xsd
```

The SOAP End Point.

```
http://ats.amazonaws.com
```

Soap Request Format

Your soap toolkit is responsible for formatting and sending requests based on the provided WSDL. This section shows what SOAP requests look like "on the wire".

Sample Non-batch Request. This is a sample non-batch SOAP request. Notice that the parameters *`Signature`*, *`Timestamp`*, and *`AWSAccessKeyId`* are identical to those in Query requests. The *`Action`* parameter however is specified in the element name in the form of *`<[Action]>`*.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:SOAP-ENC="http://schemas.xmlsoap.org/soap/encoding/" xm-
```

```
lns:xsi="http://www.w3.org/2001/XMLSchema-instance" xm-
lns:xsd="http://www.w3.org/2001/XMLSchema">
        <SOAP-ENV:Body>
                <m:TopSites xm-
lns:m="http://webservices.amazon.com/AlexaTopSites/2005-11-21">
                        <m:Request>
                                <m:Security>
<m:AWSAccessKeyId>1234567890ABCDEFGHIJ</m:AWSAccessKeyId>
<m:Signature>aGxMveHcJuDF3WoJaM5NGJydtiU=</m:Signature>
<m:Timestamp>2006-09-07T23:43:31.000Z</m:Timestamp>
                                </m:Security>
                                <m:CountryCode>CN</m:CountryCode>
                                <m:Count>2</m:Count>
                                <m:ResponseGroup>Country</m:ResponseGroup>
                        </m:Request>
                </m:TopSites>
        </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

Sample Batch Request. This is a sample batch SOAP request with three service calls. Also, note that the *`Signature`*, *`Timestamp`*, and *`AWSAccessKeyId`* parameters need only be in the first `<Request` element.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:SOAP-ENC="http://schemas.xmlsoap.org/soap/encoding/" xm-
lns:xsi="http://www.w3.org/2001/XMLSchema-instance" xm-
lns:xsd="http://www.w3.org/2001/XMLSchema">
        <SOAP-ENV:Body>
                <m:TopSites xm-
lns:m="http://webservices.amazon.com/AlexaTopSites/2005-11-21">
                        <m:Request>
                                <m:Security>
<m:AWSAccessKeyId>1234567890ABCDEFGHIJ</m:AWSAccessKeyId>
<m:Signature>aGxMveHcJuDF3WoJaM5NGJydtiU=</m:Signature>
<m:Timestamp>2006-09-07T23:43:31.000Z</m:Timestamp>
                                </m:Security>
                                <m:CountryCode>CN</m:CountryCode>
                                <m:Count>1</m:Count>
                                <m:ResponseGroup>Country</m:ResponseGroup>
                        </m:Request>
                        <m:Request>
                                <m:CityCode>500</m:CityCode>
                                <m:Count>1</m:Count>
                                <m:ResponseGroup>City</m:ResponseGroup>
                        </m:Request>
                </m:TopSites>
        </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

Parameter Details. The parameters in the example are described in the following table:

Soap Response Format

The SOAP response from the ATS service has a format specified by the schema file embedded in the WSDL file. As in SOAP requests, your SOAP toolkit should be able to consume the response data and present it programmatically to you.

Note

The text in red is meant to indicate portions of the response that can change depending on the request.

Sample Non-batch Response. This is a sample non-batch SOAP response.

```
<?xml version="1.0"?>
<SOAP-ENV:Envelope xm-
lns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
        <SOAP-ENV:Body>
                <m:TopSitesResponse xm-
lns:m="http://webservices.amazon.com/AlexaTopSites/2005-11-21">
                        <aws:Response xm-
lns:aws="http://alexa.amazonaws.com/doc/2005-10-05/">
                                <aws:OperationRequest>
<aws:RequestId>25a0730d-066f-4743-99db-11598cdb2d6a</aws:RequestId>
                                </aws:OperationRequest>
                                <aws:TopSitesResult>
                                  <aws:Alexa>
                                    <aws:TopSites>
                                      <aws:List>
<aws:CountryName>China</aws:CountryName>
                                        <aws:CountryCode>CN</aws:CountryCode>
<aws:TotalSites>671496</aws:TotalSites>
                                        <aws:Sites>
                                          <aws:Site>
<aws:DataUrl>baidu.com</aws:DataUrl>
                                            <aws:Country>
                                                    <aws:Rank>1</aws:Rank>
                                                <aws:Reach>
<aws:PerMillion>358000</aws:PerMillion>
                                                </aws:Reach>
                                                <aws:PageViews>
<aws:PerMillion>77410</aws:PerMillion>
<aws:PerUser>11.5</aws:PerUser>
                                                </aws:PageViews>
                                            </aws:Country>
                                            <aws:Global>
                                                <aws:Rank>4</aws:Rank>
                                            </aws:Global>
                                          </aws:Site>
                                        </aws:Sites>
                                      </aws:List>
                                    </aws:TopSites>
                                  </aws:Alexa>
                                </aws:TopSitesResult>
                                <m:ResponseStatus>
                                   <m:StatusCode>Success</m:StatusCode>
                                </m:ResponseStatus>
                        </aws:Response>
                </m:TopSitesResponse>
        </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

Sample Batch Response. This is a sample batch SOAP response.

```
<?xml version="1.0"?>
<SOAP-ENV:Envelope xm-
lns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
        <SOAP-ENV:Body>
                <m:TopSitesResponse xm-
```

```
lns:m="http://webservices.amazon.com/AlexaTopSites/2005-11-21">
                        <aws:Response xm-
lns:aws="http://alexa.amazonaws.com/doc/2005-10-05/">
                                <aws:OperationRequest>
<aws:RequestId>b64ee4f8-d013-4679-9876-eddec49dac89</aws:RequestId>
                                </aws:OperationRequest>
                                <aws:TopSitesResult>
                                        <aws:Alexa>
                                          <aws:TopSites>
                                            <aws:List>
<aws:CountryName>China</aws:CountryName>
<aws:CountryCode>CN</aws:CountryCode>
<aws:TotalSites>671496</aws:TotalSites>
                                                      <aws:Sites>
                                                         <aws:Site>
<aws:DataUrl>baidu.com</aws:DataUrl>
                                                         <aws:Country>
<aws:Rank>1</aws:Rank>
                                                              <aws:Reach>
<aws:PerMillion>358000</aws:PerMillion>
                                                              </aws:Reach>
                                                              <aws:PageViews>
<aws:PerMillion>77410</aws:PerMillion>
<aws:PerUser>11.5</aws:PerUser>
                                                              </aws:PageViews>
                                                          </aws:Country>
                                                          <aws:Global>
<aws:Rank>4</aws:Rank>
                                                             </aws:Global>
                                                        </aws:Site>
                                                      </aws:Sites>
                                                    </aws:List>
                                                  </aws:TopSites>
                                        </aws:Alexa>
                                </aws:TopSitesResult>
                                <m:ResponseStatus>
                                        <m:StatusCode>Success</m:StatusCode>
                                </m:ResponseStatus>
                        </aws:Response>
                        <aws:Response xm-
lns:aws="http://alexa.amazonaws.com/doc/2005-10-05/">
                                <aws:OperationRequest>
<aws:RequestId>b64ee4f8-d013-4679-9876-eddec49dac89</aws:RequestId>
                                </aws:OperationRequest>
                                <aws:TopSitesResult>
                                        <aws:Alexa>
                                          <aws:TopSites>
                                             <aws:List>
<aws:CityName>Portland-Auburn, ME, US</aws:CityName>
<aws:CityCode>500</aws:CityCode>
<aws:TotalSites>21772</aws:TotalSites>
                                                      <aws:Sites>
                                                        <aws:Site>
<aws:DataUrl>google.com</aws:DataUrl>
                                                          <aws:City>
<aws:Rank>1</aws:Rank>
                                                              <aws:Reach>
<aws:PerMillion>640000</aws:PerMillion>
                                                              </aws:Reach>
                                                              <aws:PageViews>
<aws:PerMillion>62000</aws:PerMillion>
<aws:PerUser>7.8</aws:PerUser>
                                                              </aws:PageViews>
                                                            </aws:City>
                                                          <aws:Global>
<aws:Rank>3</aws:Rank>
                                                          </aws:Global>
                                                        </aws:Site>
                                                      </aws:Sites>
                                                    </aws:List>
                                                  </aws:TopSites>
```

```
                                        </aws:Alexa>
                                    </aws:TopSitesResult>
                                    <m:ResponseStatus>
                                        <m:StatusCode>Success</m:StatusCode>
                                    </m:ResponseStatus>
                                </aws:Response>
                            </m:TopSitesResponse>
                        </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

SOAP Error Response

In SOAP, an error result is returned to the client as a SOAP fault, with the HTTP response code 500. If you do not receive a SOAP fault, then your request was successful. The SOAP fault code is comprised of a standard SOAP 1.1 fault code (either "Server" or "Client") concatenated with an ATS specific error code. For example: "Server.InternalError" or "Client.RequestExpired". The SOAP fault string element contains a generic, human readable error message in English. Finally, the SOAP fault detail element contains miscellaneous information relevant to the error.

For example, if your SOAP request includes a Timestamp parameter that is more than 15 minutes away from the clock on Top Sites servers, the body of the SOAP response contains a "RequestExpired" SOAP fault, which looks like:

```
<?xml version="1.0"?>
<SOAP-ENV:Envelope
xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:aws="http://webservices.amazon.com/AWSFault/2005-15-09">
 <SOAP-ENV:Body>
  <SOAP-ENV:Fault>
   <faultcode>aws:Client.RequestExpired</faultcode>
   <faultstring>Request has expired. Timestamp date is
2000-01-01T00:00:00.000Z</faultstring>
   <detail>
    <aws:RequestId
xm-
lns:aws="http://webservices.amazon.com/AWSFault/2005-15-09">21476789-748d-412
5-8a4a-f5addbdb0866
    </aws:RequestId>
   </detail>
  </SOAP-ENV:Fault>
 </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

Alexa Top Sites API Reference

This section contains details about Alexa Top Sites, including the Actions, Response Groups, and other elements that make up the application programming interface (API).

Each Action listed contains at least one sample request to help you get started. Use the sample requests as a starting point for developing your own requests. Keep in mind that you should substitute your own Access Key ID (*AWSAccessKeyId*) into the sample requests before using them.

Contents

Controlling Return Data with Response Groups

You can control how much and what kinds of data are returned in a response by specifying the *ResponseGroup* parameter.

```
http://ats.amazonaws.com?
    &AWSAccessKeyId=[your Access Key ID here]
    &Action=TopSites
    &CountryCode=CN
    &ResponseGroup=Country
    &Timestamp=[timestamp used in Signature]
    &Signature=[Signature calculated from request]
```

Note

Values for the *ResponseGroup* parameter should be separated by a comma, without any spaces between them. You may specify as many response groups as you want.

The *Country* response group returns a list of topsites for a given country. Please see TopSites Response Groups for a complete list of available response groups and what data each of them contains.

The following example uses the *ListCountries* response group to retrieve the list of countries, for which the topsites data is available.

```
http://ats.amazonaws.com?
    &AWSAccessKeyId=[your Access Key ID here]
    &Action=TopSites
    &ResponseGroup=ListCountries
    &Timestamp=[timestamp used in Signature]
    &Signature=[Signature calculated from request]
```

Actions

Definition. The *Action* parameter tells the Alexa Top Sites web service what operation to perform. In Query requests this parameter is specified like any other HTTP parameter. In SOAP requests the name of the first child element of the SOAP body determines the action. The following actions are currently supported :

- TopSites

TopSites Action

Description

The Alexa Top Sites Action provides lists of web sites ordered by Alexa Traffic Rank. A global list is available, as well as lists for individual countries.

Sample Request

Using Alexa Top Sites Action

The following TopSites example demonstrates how to make a Query request.

```
http://ats.amazonaws.com?
&Action=TopSites
&AWSAccessKeyId=[Your AWS Access Key ID]
&Signature=[signature]
&Timestamp=[timestamp used in signature]
&Start=[Number to start at]
&Count=[Number from 1 to 100]
&ResponseGroup=[Valid Response Group]
```

For more information on making signed requests, see Signing Requests

Request Parameters

The TopSites Action takes the following parameters. Required parameters must be provided for the request to succeed.

Name	Description	Type	Value
Action	Use the *Action* parameter to specify the name of the operation you would like to call. To access the TopSites action, set the *Action* parameter to **TopSites**.	Required	*TopSites*
CountryCode	Valid country code (A list of country codes is available from ListCountries ResponseGroup). A global list	Optional	

Name	Description	Type	Value
	of top sites is returned by default.		
CityCode	Valid city code (A list of city codes is available from ListCities ResponseGroup). A global list of top sites is returned by default.	Optional	
Start	Number of result at which to start. Used for paging through results. Default value is '1'.	Optional	Number to start at
Count	Number of results (maximum) per page to return. Default value is '10'. Maximum is '100'.	Optional	Number from 1 to 100
ResponseGroup	Any valid response group. See the Response Group section for valid options.	Required	Comma-separated list of response groups.

Response Groups

Response groups allow the user more control over what data is returned. By specifying one or more response groups when making the request, you can retrieve only the information you are interested in.

Response Group	Description
Country	Return a list of top sites for a given country.
City	Return a list of top sites for a given city.
ListCountries	Return a list of countries that have top sites.
ListCities	Return a list of cities that have top sites.