Use HTTP providers with the Wowza Streaming Engine Java API

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HTTP providers are lightweight applications that provide an HTTP interface to information about Wowza Streaming Engine™ media server software instances. Wowza Streaming Engine ships with a handful of built-in HTTP providers; you can create custom providers as well. This article describes how HTTP providers are configured and lists the HTTP providers that come with Wowza Streaming Engine.

About HTTP providers

HTTP providers let you see information about Wowza Streaming Engine through an HTTP interface (web page). HTTP providers are configured on a per-port basis in `[install-dir]/conf/VHost.xml`. An individual HTTP provider can be protected by a user name and password. Multiple HTTP providers can be attached to a single port, and a specific HTTP provider can be selected based on a request filter.

Starting withWowza Streaming Engine 4.5.0, HTTP providers can host WebSocket sessions for sending asynchronous, bi-directional information to and from Wowza Streaming Engine.

HTTP provider configuration

In `VHost.xml`, each HTTP provider has three specified properties: `BaseClass`, `RequestFilters`, and `AuthenticationMethod`. For example:

```
Where:

- **BaseClass** is the fully qualified path of the class that overrides the `HTTPProvider2Base` class and implements the `IHTTPProvider` interface.
- **RequestFilters** is list of filters, separated by a pipe ( | ) character, that control when the provider is invoked, based on the HTTP request path. In this example, the request filter is...```
only invoked if the path string in the HTTP request URL starts with `serverinfo`, for example, `http://[wowza-ip-address]:8086/serverinfo`.

- **AuthenticationMethod** specifies the authentication method that’s used to control access to the HTTP provider. Valid values are `admin-digest` and `none`:
  - `admin-digest` uses a challenge/response system to authenticate users. Credentials are never sent in clear text. By default, user names and passwords for `admin-digest` authentication are stored in the `[install-dir]/conf/admin.password` file.
  - `none` allows all access to the provider.

**Note:** Starting in Wowza Streaming Engine 4.5.0, you can specify a custom location to store user names and passwords for `admin-digest` authentication. To do this, open the `[install-dir]/conf/VHost.xml` file in a text editor and then add the `passwordFile` property to the HTTP provider configuration. For example:

```xml
<property name="passwordFile">
  ${com.wowza.wms.context.VHostConfigHome}/conf/myPasswordFile.txt
</property>
```

---

**Built-in HTTP providers**

Wowza Streaming Engine includes these built-in HTTP providers in `VHost.xml`. 
<table>
<thead>
<tr>
<th>HTTP provider</th>
<th>Base Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTTPConnectionCountsXML</td>
<td>com.wowza.wms.http.HTTPConnectionCountsXML</td>
</tr>
<tr>
<td>HTTPConnectionInfo</td>
<td>com.wowza.wms.http.HTTPConnectionInfo</td>
</tr>
<tr>
<td>HTTPLiveStreamRecord</td>
<td>com.wowza.wms.livestreamrecord.http.HTTPLiveStreamRecord</td>
</tr>
<tr>
<td>HTTPProviderMediaList</td>
<td>com.wowza.wms.http.HTTPProviderMediaList</td>
</tr>
<tr>
<td>HTTPServerInfoXML</td>
<td>com.wowza.wms.http.HTTPServerInfoXML</td>
</tr>
<tr>
<td>HTTPStreamManager</td>
<td>com.wowza.wms.http.streammanager.HTTPStreamManager</td>
</tr>
<tr>
<td>HTTPTranscoderThumbnail</td>
<td>com.wowza.wms.http.HTTPTranscoderThumbnail</td>
</tr>
</tbody>
</table>
Custom HTTP providers

In addition to using Wowza Streaming Engine's built-in HTTP providers, you can create your own. For instructions and a basic example, see Create an HTTP provider with the Wowza Streaming Engine Java API.

More resources

- Wowza Streaming Engine Java API reference docs
- HTTP provider examples
- Create a WebSocket server with the Wowza Streaming Engine Java API