






MSRS Roadmap

As of February 20, 2019

Product - Action Required	Deadline	Who May Be Affected
<p>MSRS - Update processes to use basic authentication</p> 	<p>March 13</p> 	<p>All MSRS Users. Change is required for continued use of browserless.</p> 

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Browserless Authentication	Production: Jan 24		Remove Compatibility Mode Production: Mar 13									
SUMA Functionality	Production: Jan 24											

Legend

- Start Date
- End Date



- Production on January 24th
- MSRS has been running in “Compatibility Mode” since 1/24
 - Old and New (Basic Authentication) authentication requests are valid
 - PJM will be removing Compatibility Mode on 3/13
 - Only New authentication requests will be valid
 - Non-complying members must update their processes for browserless requests
 - Filetransfer.jar will no longer work
 - Username/Password in URL will no longer work

- Email mss@pjm.com with questions/comments
- FAQs
 - <https://pjm.com/-/media/markets-ops/settlements/msrs/msrs-suma-browserless-authentication-faqs.ashx?la=en>
- December, 2018 MSS
 - <https://pjm.com/-/media/committees-groups/subcommittees/mss/20181213/20181213-item-01a-basic-authentication-and-suma-functionality.ashx>
- January, 2019 Tech Change Forum
 - <https://pjm.com/-/media/committees-groups/forums/tech-change/20190115/20190115-item-04g-product-roadmap-msrs.ashx>
- MSRS Browserless Basic Authentication Examples:
 - <https://pjm.com/-/media/markets-ops/settlements/msrs/coding-examples-for-browserless-http-get.ashx?la=en>

Browserless Basic Authentication Technical Details

- The MSRS browserless reporting interface requires username and password in the URL. Example:

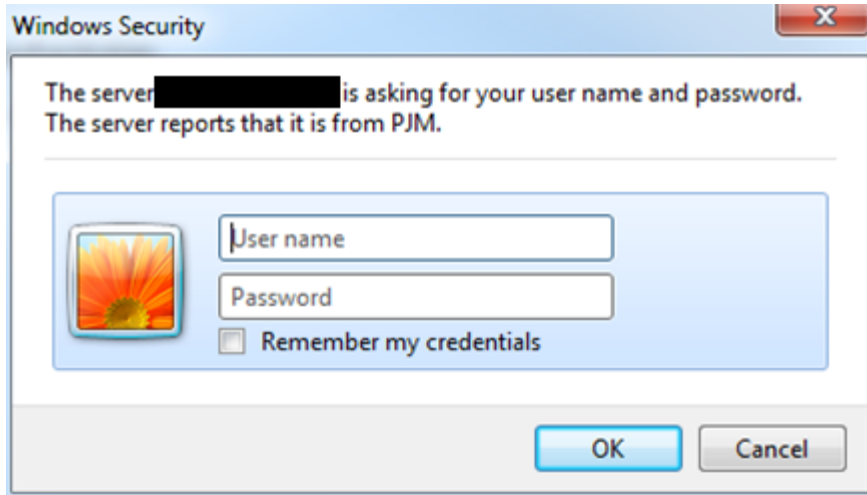
<https://msrs.pjm.com/msrs/browserless.do?report=billingreport&version=L&format=C&start=08/01/2018&stop=08/31/2018&username=YourUsername&password=YourPassword>

- Current format fully encrypted via HTTPS in transport
- However -- deprecated practice due to security issues
 - Any visible passwords create a risk

- Browserless requests must change to post credentials using basic authentication
- The filetransfer.jar interface will no longer work for MSRS
 - This will no longer work:** `java -cp oreilly.jar;filetransfer.jar; com.pjm.FileTransfer debug=true username="YourUsername" password="YourPassword" app=msrs action=download format=x version=l report="Billing" start=01/01/2012 stop=01/31/2012 result="billing.csv"`
- Easy replacements for filetransfer.jar include curl and wget, available on both Windows and Linux
- PJM also provides examples in Java 8 and Python 3

Browser Popup (IE, Chrome, Firefox)

Java Code Snippet



```
String webURL = "https://msrstrain.pjm.com/msrs/browserless.do?report=arrtargetcredits&version=L&format=C&start=08/01/2018&stop=08/30/2018";
String username = "MyUsername";
String password = "MyPassword";

String authString = username + ":" + password;
String basicAuth = "Basic " + javax.xml.bind.DatatypeConverter.printBase64Binary(authString.getBytes());

URL url = new URL(webURL);
HttpsURLConnection urlConnection = (HttpsURLConnection)url.openConnection();
urlConnection.setRequestProperty("Authorization", basicAuth);

BufferedReader responseBuffer = new BufferedReader(new InputStreamReader(
    urlConnection.getInputStream()));

String reportOutput;

System.out.println("*** Report Request ***");
while ((reportOutput = responseBuffer.readLine()) != null) {
    System.out.println(reportOutput);
}
System.out.println("*** END ***");
```

Command Line using curl

```
$ curl -u MyUsername "https://msrs.pjm.com/msrs/browserless.do?report=billingreport&version=L&format=C&start=08/01/2018&stop=08/31/2018"
Enter host password for user 'MyUsername':
```

Full examples can be found [here](#)

PJM.com → Markets & Operations → Billing, Settlements & Credit → MSRS Reports Documentation

- No change to user interface logins from PJM.com and PJM Tools
- Browserless documentation is currently up to date on pjm.com
- Implemented with Single User Multi-Account (SUMA) changes to allow users to make changes for both at the same time

Impact	Action Required	Outage
User Interface	n/a	n/a
Browserless	Members will need to update their processes to use basic authentication	1 hour



Product Details

[Market Settlements Reporting System](#) (MSRS) is a tool used by market participants to retrieve market settlements reports and monthly billing statements.

Key Product Features

- 200+ settlement reports
- Provide settlement and billing details
- Viewable in the browser
- CSV and XML download capability