Protect 2014

Washington, D.C. September 8-11

Introduction to HP ArcSight ESM Web Services APIs

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#HPProtect

Agenda

Overview
- Some applications of APIs

ESM Web Services APIs
- Login Service
- Query Viewer Service
- Report Service

Examples
- REST
- SOAP

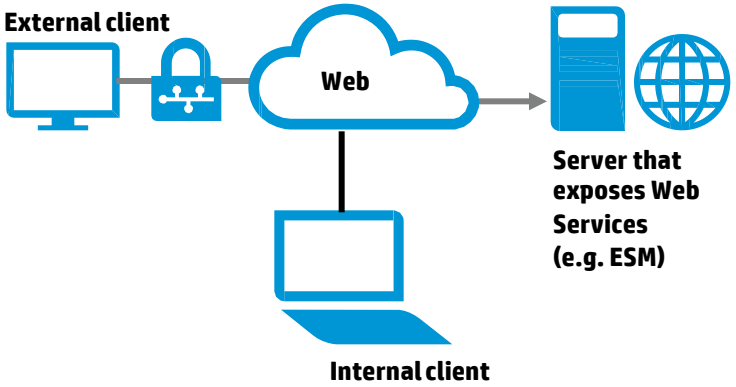
Q&A

Overview

Web Services APIs

What are web services?

Web services are typically application programming interfaces (API) or web APIs that can be accessed over a network, such as the Internet, and executed on a remote system hosting the requested services.



ESM Web Services APIs in practice

The idea is simple

Fetch your data out of ESM and apply it to your business use case

- **Risk Insight App**: Periodically fetch Asset Data from ESM and calculate scores
- **Custom Analytics**: Fetch event data and plot geo coordinates as a bubbles on a map
- **Command Line Utility**: Fetch event data from ESM and send it to standard output

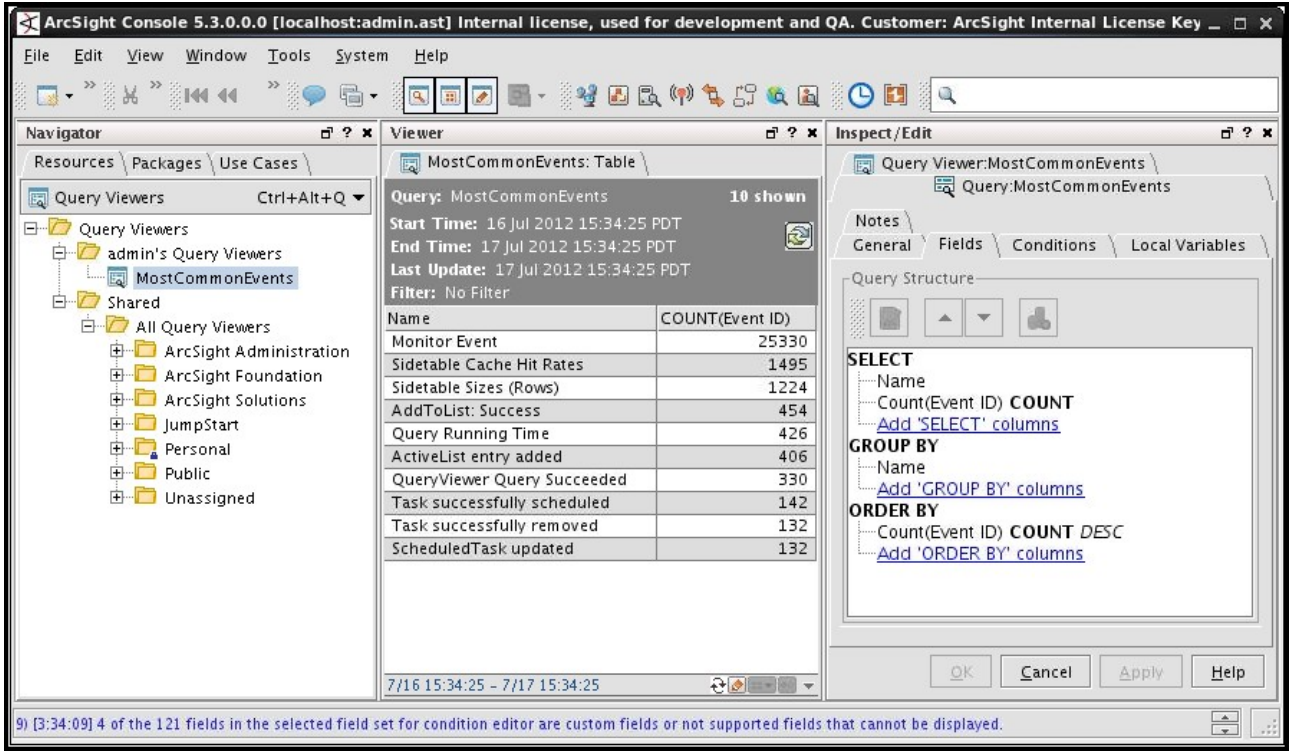
Got data?

Prerequisites

- ESM Expertise: Intermediate – Advanced
  - Create the right content that needs to retrieved
- Knowhow of Web Services in general
  - Ability to write code for simple SOAP/REST clients

Use cases

Top 10 most common events



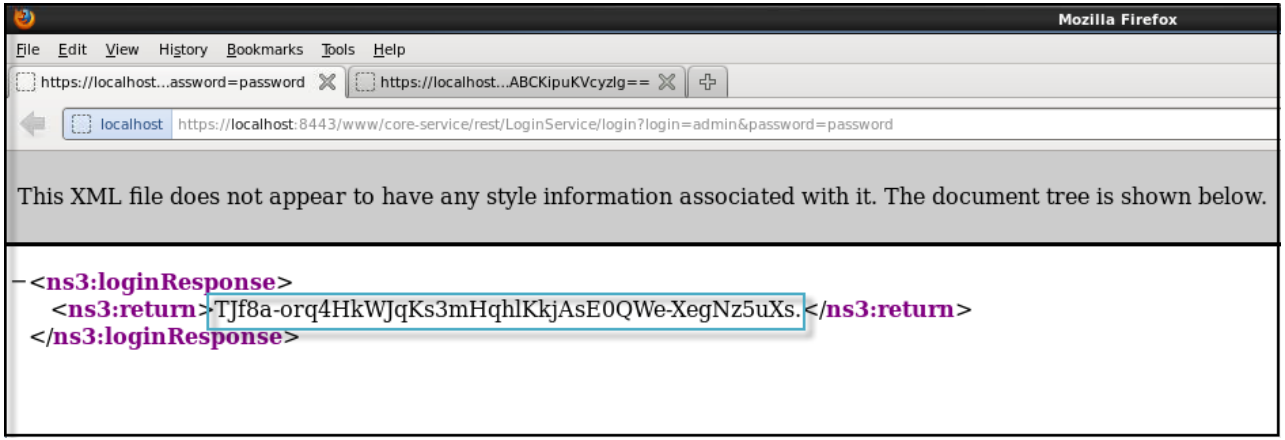
Fetch query viewer data

- Sample Query Viewer
- Fetch data
  - Using REST
  - Using SOAP

Use case 1

REST call to Login Service from a browser

https://localhost:8443/www/core-service/rest/LoginService/**login**?login=*admin*&password=*password*



Test the REST

- From the browser
- Invoke LoginService
  - Copy the *authToken*
- Invoke QueryViewerService
  - Pass the QueryViewer *ID*

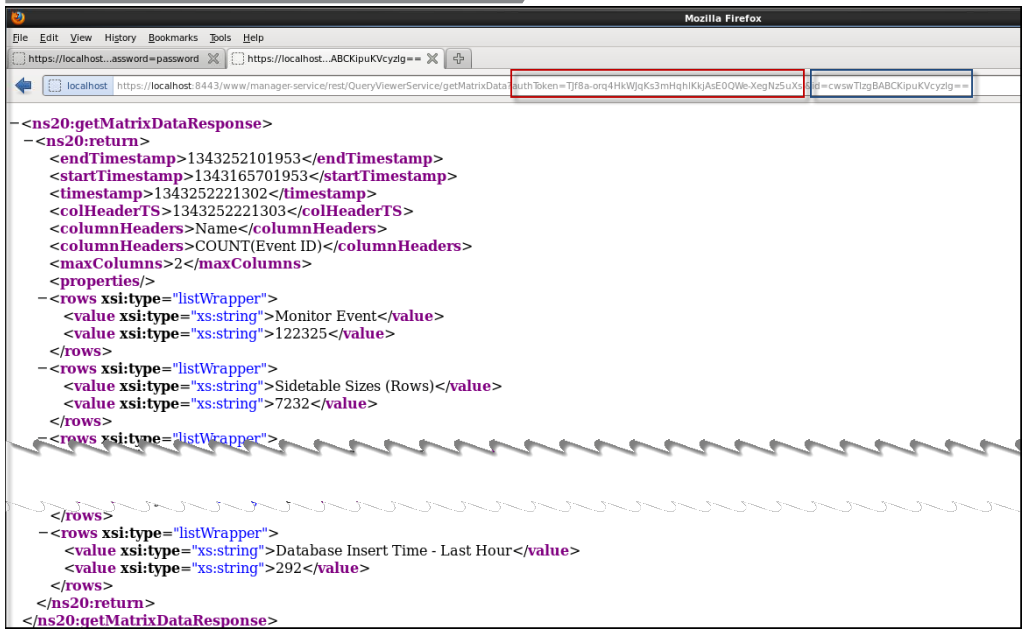
https://localhost:8443/www/manager-service/rest/QueryViewerService/getMatrixData?authToken=__&id=__

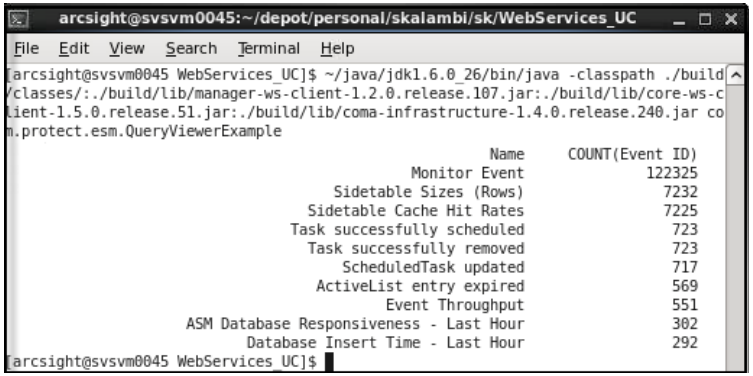
Use case 1

REST call to Query Viewer Service from a browser

https://localhost:8443/www/manager-service/rest/QueryViewerService/**getMatrixData**?authToken=__&id=__

QueryViewerService using REST





QueryViewerService using SOAP

Use case 2

SOAP example using the SDK : Login Service

```
// Set the Base URL
System.setProperty("com.arcsight.coma.client.ws.baseURL", "https://” + host + "/www/");    // localhost:8443

// Get the LoginService and login
LoginServiceClientFactory factory = new LoginServiceClientFactory();
LoginService service = factory.createClient();
String authToken = service.login(null, “admin”, “password”);  // This authToken is required in subsequent calls
```

Use case 2

SOAP example using the SDK : Query Viewer Service

```
// Get the QueryViewerService and get the data
QueryViewerServiceClientFactory factory = new QueryViewerServiceClientFactory ();
QueryViewerService service = factory.createClient();
MatrixData md = service.getMatrixData(authToken, "cwswTlzgBABCKipuKVcyzlg==");

// Get the Column Names
List<String> headers = md.getColumnHeaders();
int col = 0;
for (String header : headers) {
        System.out.printf((col++%2 == 0 ? "%60s" : "%20s\n"), header);
}

// Get the Data
List<ListWrapper> rows = md.getRows();
for (ListWrapper row : rows) {
        List value = row.getValue();
        for (Object obj : value) {
                System.out.printf((col++%2 == 0 ? "%60s" : "%20s\n"), obj);
        }
}
```

Use case 2

Keep in mind

I found that I needed the following **static block** to trust the hostname

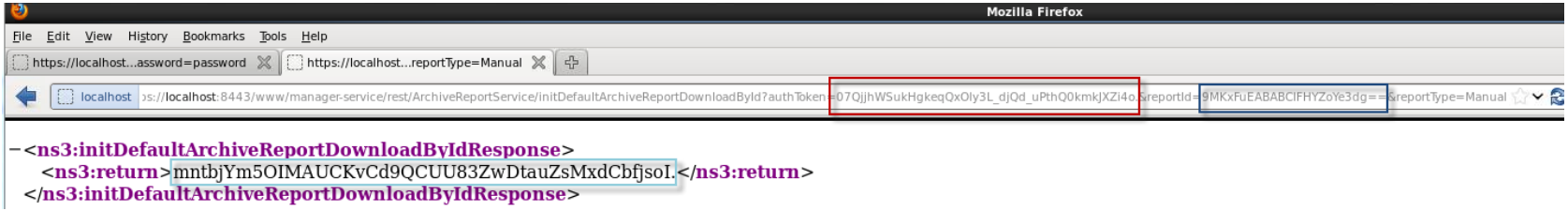
```
// Static Block

static  {
        HttpsURLConnection.setDefaultHostnameVerifier(new HostnameVerifier() {
                public boolean verify(String hostname, SSLSession session) {
                        // Make sure that hostname is valid
                        return true;
                }
        });
}
```

Use case 3

REST call to Archive Report Service

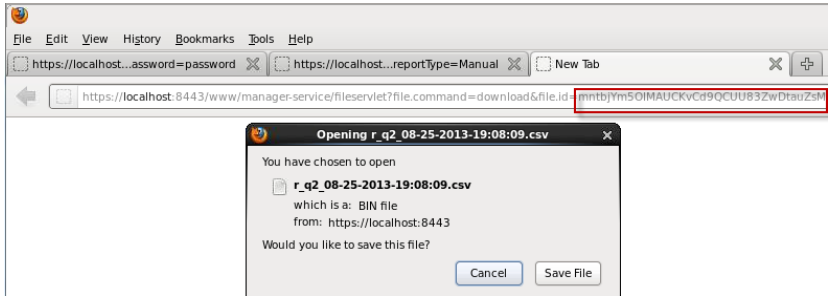
Step 1: Start the Report Generation

https://localhost:8443/www/manager-service/rest/ArchiveReportService/initDefaultArchiveReportDownloadById?authToken=_&reportId=_&reportType=Manual



Step 2: Get the Download ID and download the report

https://localhost:8443/www/manager-service/fileservlet?file.command=download&file.id=DOWNID



Required libraries and interesting observations

Tips from an end user

- Even though it's SOAP under the covers AXIS2 libraries didn't work
  - **manager-ws-client**-1.2.0.release.107.jar
  - **core-ws-client**-1.5.0.release.51.jar
  - **coma-infrastructure**-1.4.0.release.240.jar
- For now, the SOAP APIs can only be written in Java and using these libraries
- I was not able to get it to work with AXIS2 libraries in the CLASSPATH
  - Marshalling Errors
- Don't forget to implement a HostnameVerifier (by default it will NOT be a verified hostname)
- Documentation is available on Protect 724

Recap

Key takeaways

- REST – for simple use cases
- SOAP – For now, Java clients using the provided libraries
- GWT-RPC is also used by our UI team

Please give me your feedback

Session 3139 **Speaker** Shivdev Kalambi

Please fill out a survey.

Hand it to the door monitor on your way out.

Thank you for providing your feedback, which helps us enhance content for future events.

Thank you