PP03

Using Webservices in SAS® LSAF

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Abstract

Basic webservice authentication is handled using login and password. For a more robust and secure system this is not adviced and a different authentication process is preferred above username/ password.

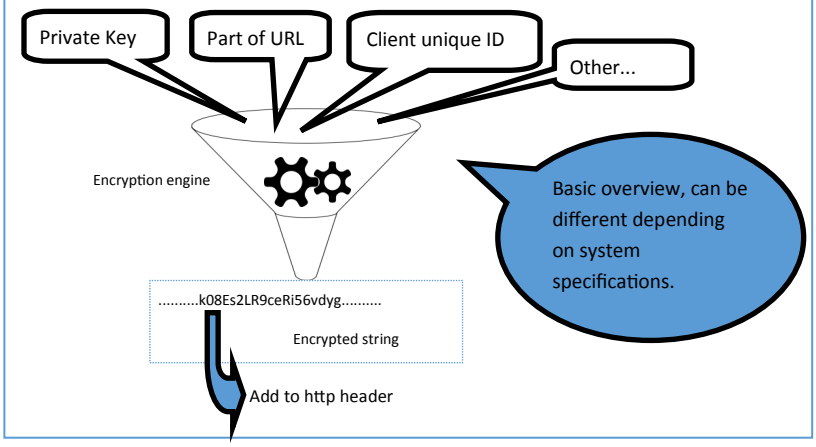
Basic

```
proc http
 proxyhost="webproxy.test.com"
 proxyport=1111
 out=retdata
 url='https://URL.com/WebServices/studies'
 method="get"
 webusername="usernameusernam"
 webpassword="xxxxxxxxxxxxxx" ;
run;
```

System to system

```
/* previous datastep to generate http
header containing signature (httphead) */
proc http
 proxyhost="webproxy.test.com"
 proxyport=1111
 out=retdata
 url='https://URL.com/WebServices/studies'
 headerin=httphead
 headerout=httpret
 method="get"
 ct="text/plain;charset=UTF-8";
run;
```

Signing process



System to system ...

For each service (URL) in a specific time period this request needs to be signed. It means that a signature is only valid for a period of time. This signature is captured in the header of the http request (`headerin`).

One of the components is a private key when you generate your signature. This private key needs to be store in a secure way that only those people/jobs have access when needed. In SAS® LSAF this can be performed by running the job by another user (run as job owner) where only the job owner has access to this private key.

Not all cryptographic packages are available in a standard SAS installation, but using Java(packages in a JAR file) this can be used to perform this task.

i.e.
```
options set = CLASSPATH "&_sasws_./rws.jar";
    in datastep: declare javaobj j ( "com.phuse.sdd.signwebservice"  );
```

Known packages are oAuth (i.e. Google®, Twitter®, etc…) and mAuth (Medidata®). Depending on the service different implementations are needed to handle the signature part.

In practise

Currently this approach is being used to integrate EDC data directly in SAS® LSAF using scheduled jobs. This enables end-users having their study data available and if needed additional validation processed can be launched/scheduled. The same job can manually be launched (database lock/interim analysis scenarios) when needed if the person has the required privileges in SAS® LSAF. Study team can follow-up their studies more closely by running their own SAS programs on the same EDC data. Other departments can use the same data for downstream business processes. One of the goals is also to lower the impact as much as possible on the EDC system(s) by only extracting the same data once.

Abbreviations

LSAF: SAS® Life Science Analytics Framework

EDC: electronic data capture

References

Show Off Your OAuth , Joseph Henry, SAS® Institute Inc.

SAS Support portal, SAS® Institute Inc.

Medidata Knowledge spaces: https://learn.mdsol.com

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