



# DR Hub Technology Update

## A Move from SOAP to Rest

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May 23, 2016

- What is SOAP? What is REST?

SOAP uses an XML based message created through a standard set of rules (the WSDL). - SOAP was a Microsoft creation.

REST - data is shipped or marshalled over HTTP in a stateless and message-less manner.

A client (your browser) can access a REST resource (service) over a predefined URL.

REST is stateless - your results are de-coupled from the resource. They will survive disconnects.

A sample request to retrieve a location using REST looks like this.

This can be typed into a browser client like Chrome or IE.

<http://drhub.pjm.com/drhub/download/locations?ID=61150>

The same SOAP request looks like this

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:mes="http://www.uisol.com/schema/drbiznet/2009/message" xmlns:mod="http://www.uisol.com/schema/drbiznet/2009/model">
  <soapenv:Header/>
  <soapenv:Body>
    <mes:InformationRequest>
      <mes:Header>
        <mes:Verb>get</mes:Verb>
        <mes:Noun>location</mes:Noun>
        <mes:Revision>001</mes:Revision>
        <mes:Source>456</mes:Source>
      </mes:Header>
      <mes:Request>
        <mes:ID>3040</mes:ID>
      </mes:Request>
    </mes:InformationRequest>
  </soapenv:Body>
</soapenv:Envelope>
```

- **Drivers for Moving to REST**
- REST is clean and lightweight. Gone are the complex headers and message wrappers we used in SOAP.
- Developer implementation is easy when compared to SOAP. The cost of adding new services is lowered.
- Setting up REST for the first time is more complex than SOAP, but adds scalability once the pattern is developed.
- REST has an easy learning curve, is fast and lightweight to use.

- How will REST impact my company?
- Users and Developers will benefit from the ease of implementation REST provides.
- Moving to REST will require changes to your current web service toolset.
- Many facilities already use REST for other services. Consuming REST services is easy for the technically not so savvy and seasoned developers.
- REST responses are not limited to XML. CSV, JSON and RSS are also supported.
- Added Plus – The JSON output has referential integrity and can be used for input into document databases like MongoDB.
- REST requests and responses can be consumed by most applications.
- So what does a REST response look like?



# Questions?