

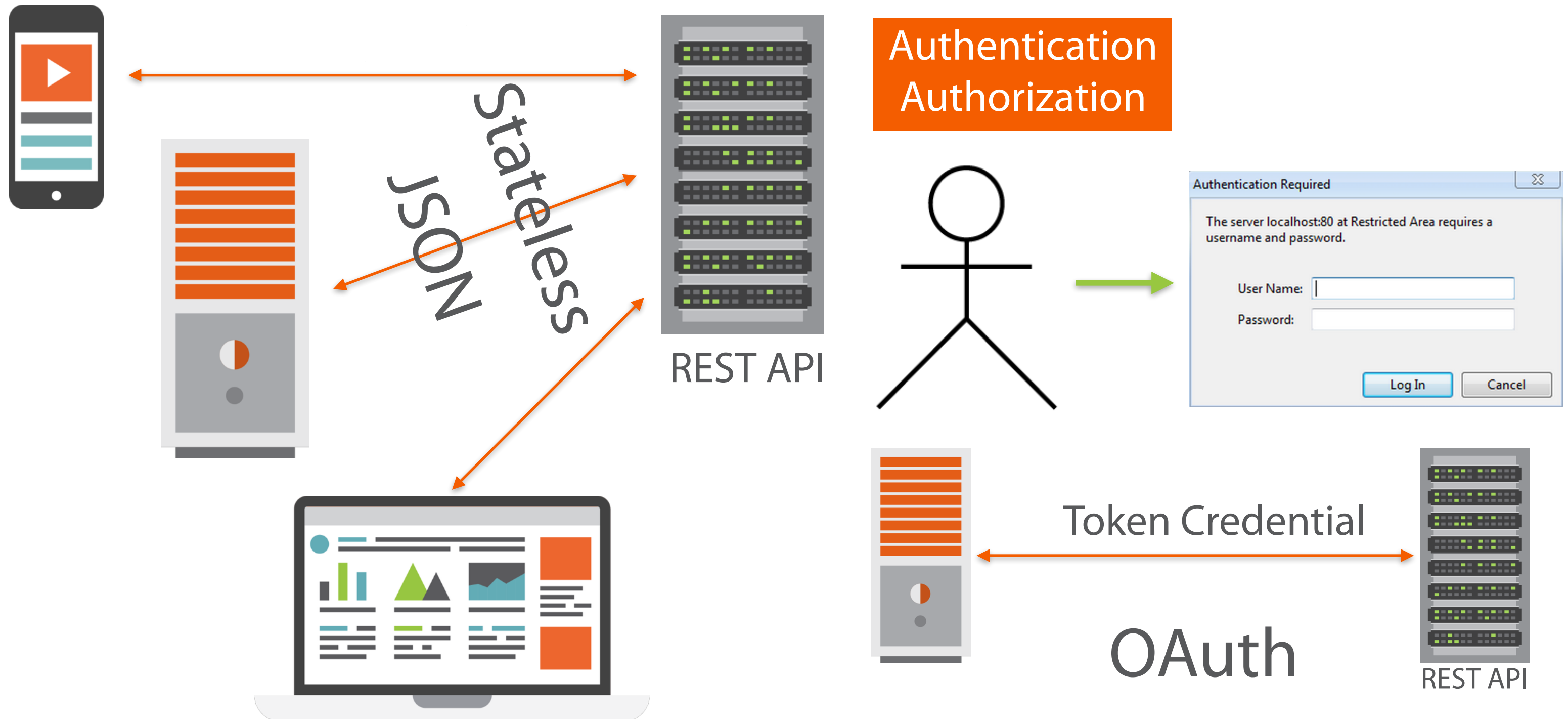
Beyond the Basics



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Securing a REST API



Authenticating with Spring Data REST

pom.xml

```
<dependency>
  <groupId>org.springframework.boot</groupId>
  <artifactId>spring-boot-starter-security</artifactId>
</dependency>
```

SecurityConfiguration.java

```
public class SecurityConfiguration extends WebSecurityConfigurerAdapter {
    @Autowired
    public void configureGlobal(
        AuthenticationManagerBuilder auth) throws Exception {
        auth
            .inMemoryAuthentication()
                .withUser("jimi").password("hendrix").roles("USER")
                .and()
                .withUser("admin").password("admin").roles("USER","ADMIN");
    }
}
```

Client Request

```
GET http://localhost:8080/api/mfgs
Authorization: Basic YWRtaW46YWRtaW4=
```

Authorization with Spring Data REST

SecurityConfiguration.java

```
@EnableGlobalMethodSecurity(prePostEnabled = true)
```

```
@PreAuthorize("hasRole('ROLE_ADMIN')")
```

- Spring EL
- Custom Security expressions

```
@Secured("ROLE_ADMIN")
```

Spring Data REST Validation Options

JPA Constraints

```
@NotNull  
@Min(10)  
@Max(100)  
@Size(min=2, max=20)  
...
```

Validator event

<i>BeforeCreateEvent</i>	<i>AfterCreateEvent</i>
<i>BeforeSaveEvent</i>	<i>AfterSaveEvent</i>
<i>BeforeLinkSaveEvent</i>	<i>AfterLinkSaveEvent</i>
<i>BeforeDeleteEvent</i>	<i>AfterDeleteEvent</i>

- Security authorization
- Auditing

<http://docs.oracle.com/javaee/6/tutorial/doc/gircz.html>

REST Hypermedia in Depth

Hypermedia in a REST API

Hypermedia provides a common way to understand and self describe an API by providing metadata and allowable state transitions for the requested resource.

REST Hypermedia in Depth

HAL

Hypertext Application Language

ALPS

Application-Level Profile Semantics

JSON Schema

links



- Self
- Manufacturer
- Model Type
- ...

- Model representation
 - Descriptors
- RESTful transitions
- Descriptors

- Model info
- Attributes
- Data types
- Links

application/hal+json

application/alps+json

application/schema+json

Summary

spring 

{ REST }



DATA

Security

Validation and events

Hypermedia