

MICHIGAN STATE

UNIVERSITY

Alpha Presentation

Secure Application Layer API Proxy

The Capstone Experience

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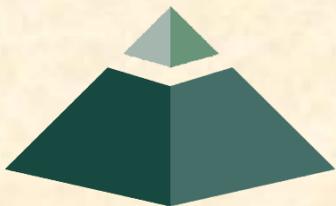
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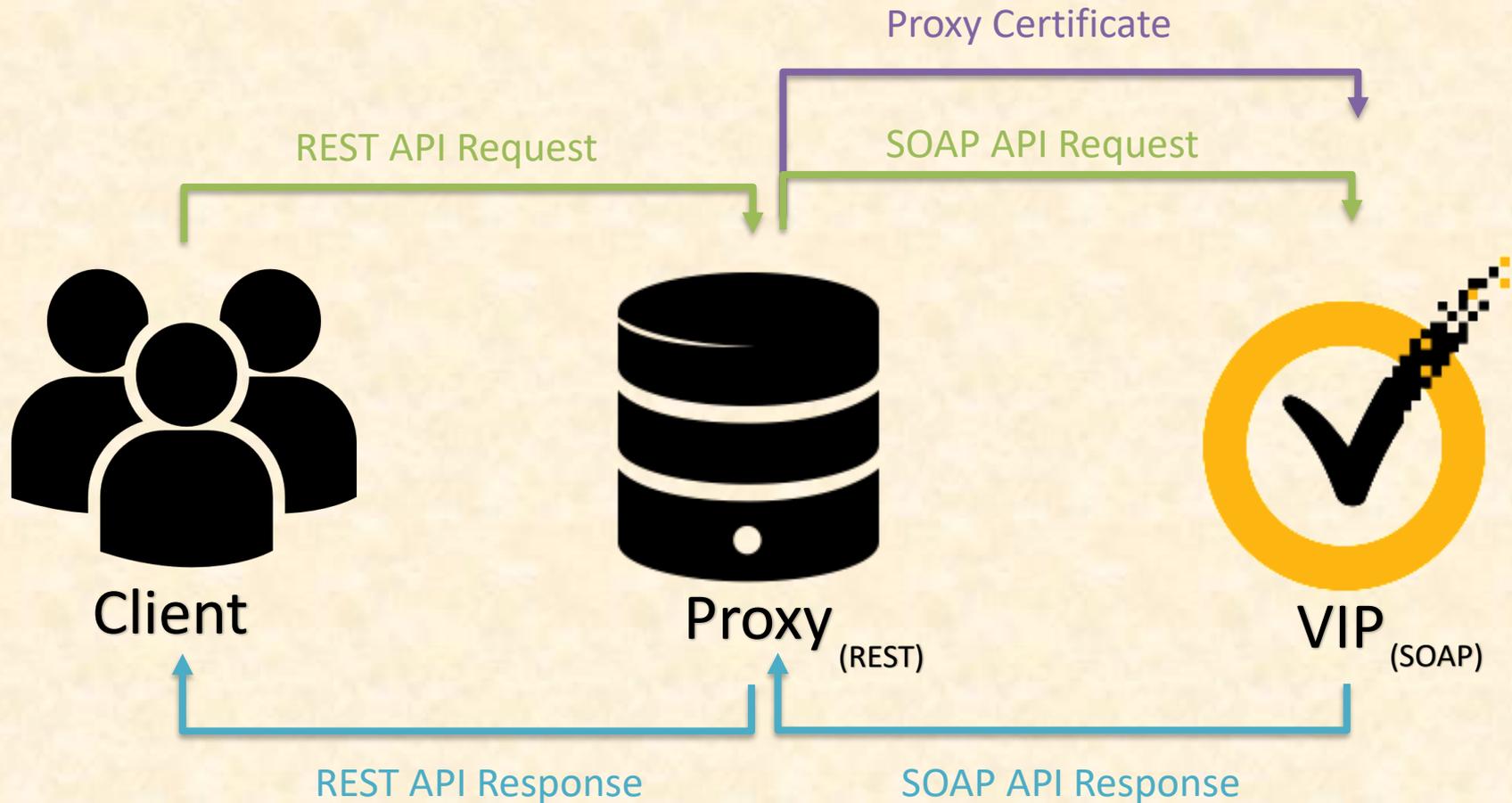


*From Students...
...to Professionals*

Project Overview

- Translation
 - Translate requests from REST to SOAP
 - Translate responses from SOAP to REST
- Authentication
 - Signed JSON Web Tokens
 - VIP Certificates
- Testing

System Architecture



Login Screen

App Login x

localhost:51088/login.html

Sign In

Username:

Password:

[Forgot your password?](#)

Enabled by:



Symantec.
Validation & ID Protection

[Sign In](#)

See [Help](#) for assistance.
If you don't have your sign-in information, contact your administrator.



Entering One-Time Password (OTP)

OTP Verification

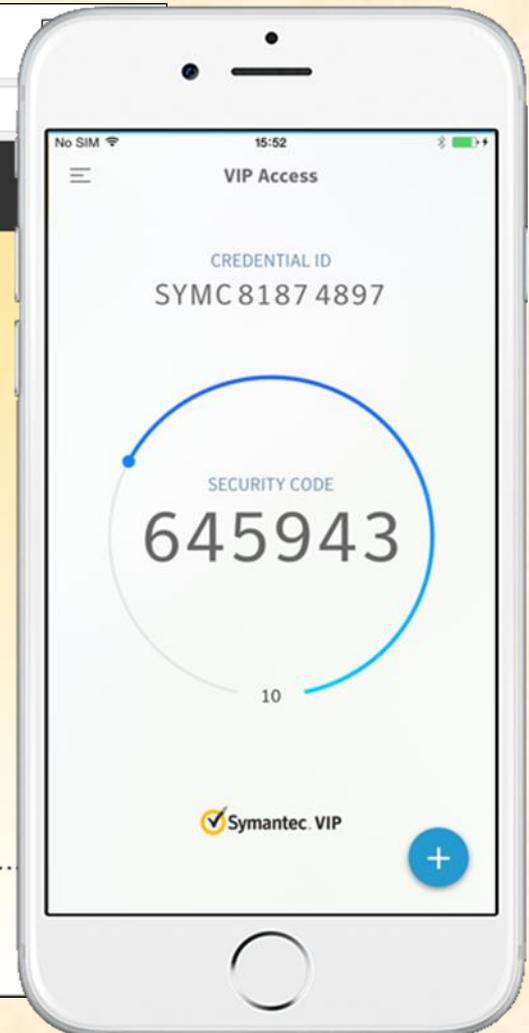
localhost/otp.html?email=

Security Code Verification

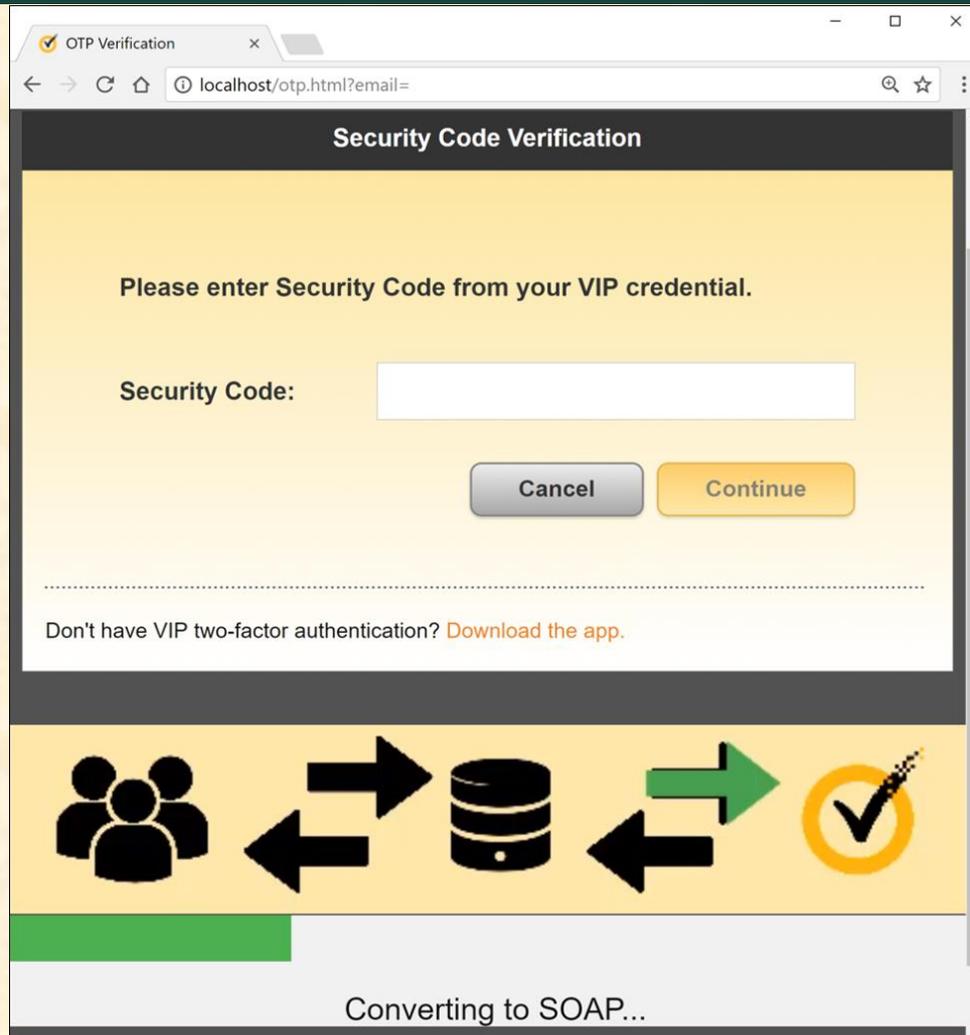
Please enter Security Code from your VIP credential.

Security Code:

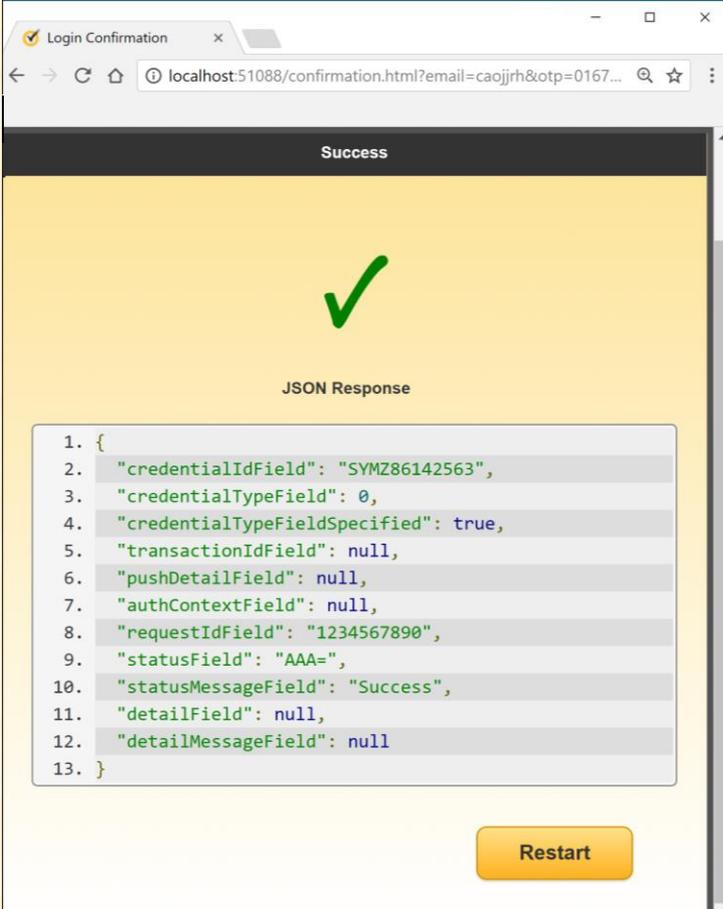
Don't have VIP two-factor authentication? [Download the app.](#)



Translation Process



Final JSON Body



The screenshot shows a web browser window titled "Login Confirmation" with the URL `localhost:51088/confirmation.html?email=caojjr&otp=0167...`. The page displays a "Success" message with a large green checkmark. Below the checkmark, the text "JSON Response" is shown, followed by a code block containing the following JSON:

```
1. {  
2.   "credentialIdField": "SYMZ86142563",  
3.   "credentialTypeField": 0,  
4.   "credentialTypeFieldSpecified": true,  
5.   "transactionIdField": null,  
6.   "pushDetailField": null,  
7.   "authContextField": null,  
8.   "requestIdField": "1234567890",  
9.   "statusField": "AAA=",  
10.  "statusMessageField": "Success",  
11.  "detailField": null,  
12.  "detailMessageField": null  
13. }
```

At the bottom right of the page, there is a yellow "Restart" button.



What's left to do?

- Endpoint translation
 - Finish developing endpoints
 - Document endpoints
- Client side authentication
- Testing
 - Automated integration tests
 - Automated performance testing
 - Unit testing



Questions?

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