

MICHIGAN STATE

U N I V E R S I T Y

Project Plan

Team Symantec

The Capstone Experience

Team Symantec

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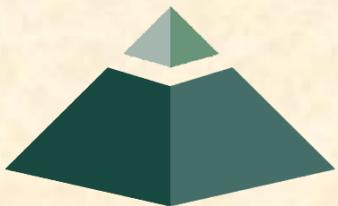
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Fall 2016



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

Functional Specifications

- For Developers
 - SDK's provide a layer of abstraction over the existing Symantec VIP SDK for seamless integration within apps
 - SDK's will handle SOAP calls and support leading web frameworks (Python, Ruby, Node.js)
- For Users
 - Multi-Factor authentication for login using Symantec VIP SDK
 - SMS , Voice, Push, 6-Digit Security Code
 - What you “have”, what you “know”, and what you “are”

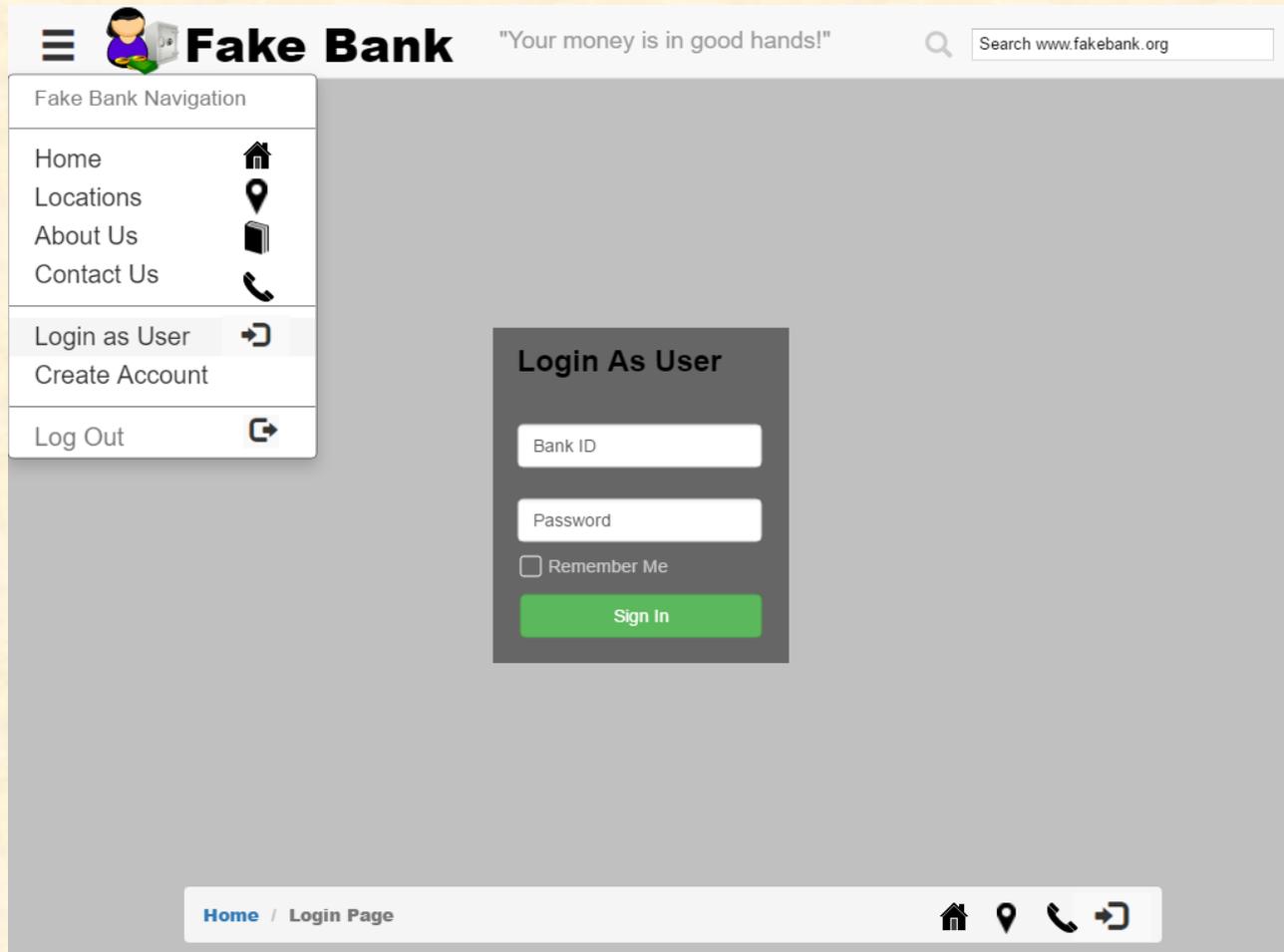


Design Specifications

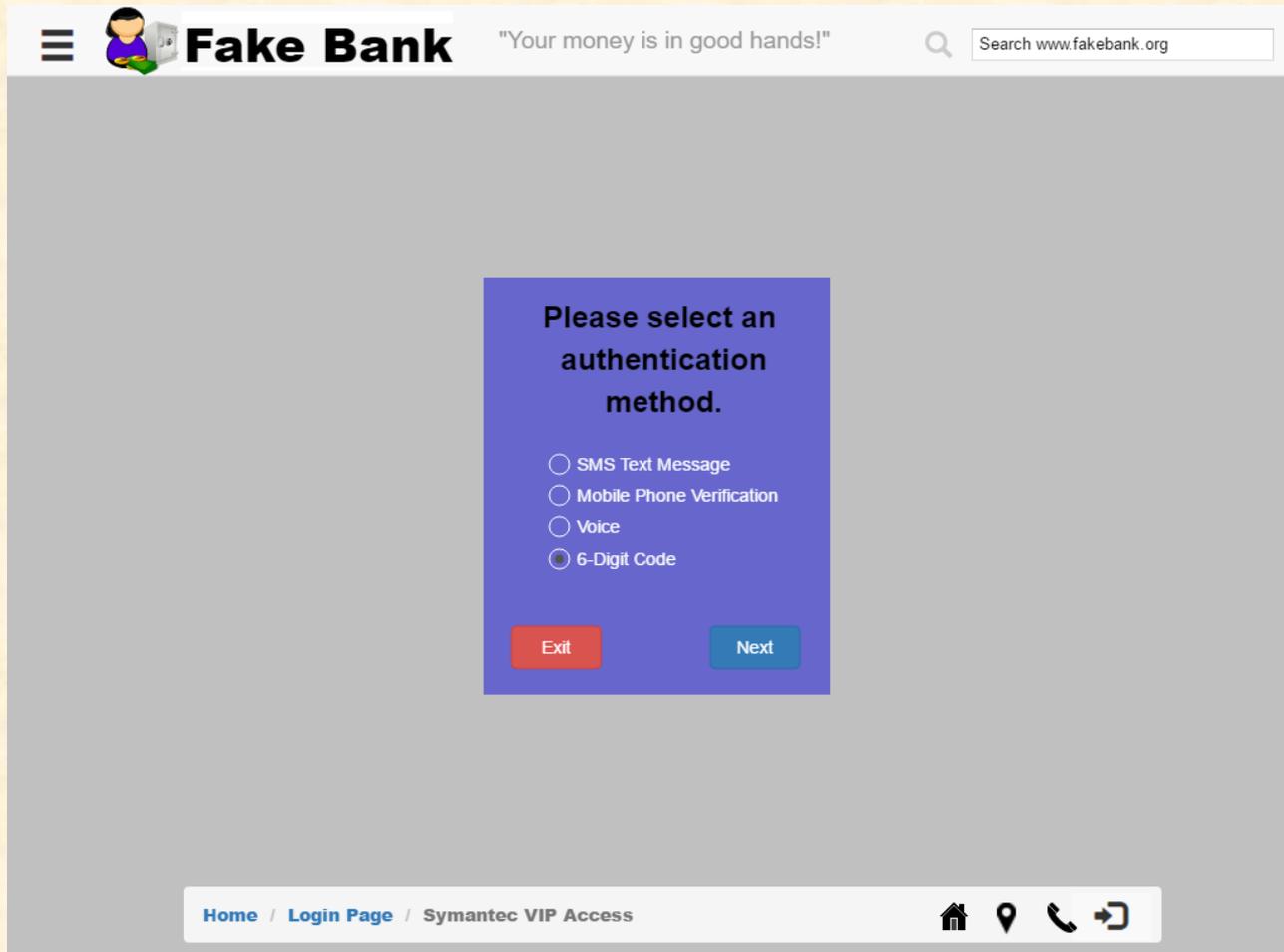
- Easily integrate Symantec VIP Services
- Developers download SDK and add to project
 - RubyGems.org for Ruby
 - PyPI for Python
 - NPM publishing for Node.js
- No user-interface for SDK
 - Sample apps to demonstrate use of SDK
 - Data secured using SDK for Multi-Factor authentication



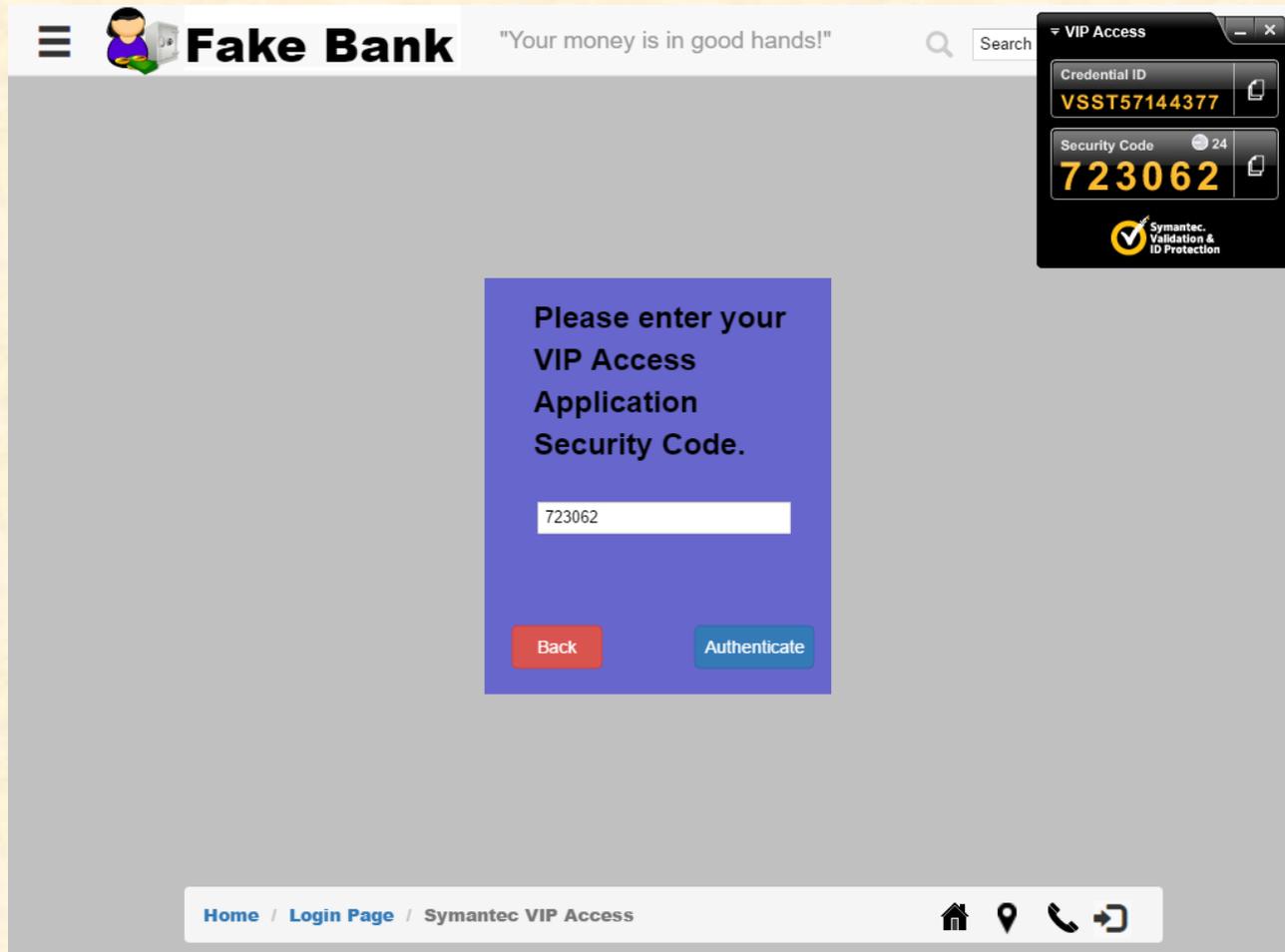
Screen Mockup: Sample Web App



Screen Mockup: Sample Web App



Screen Mockup: Sample Web App



Screen Mockup: Developer Integration

Search Gems...

GEMS GUIDES CONTRIBUTE RYANRAMPAGE1

soteria 0.0.1

Previous version Next version

A gem for authentication with Symantec VIP

VERSIONS:

0.0.1 - September 13, 2016 (4 KB)
[Show all versions \(2 total\) →](#)

AUTHORS:

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OWNERS:

SHA 256 CHECKSUM:
53e0b74374b610fd9b85d9ecade7cdef68fa2215ae57c59228bf471ea1ca2d5e

TOTAL DOWNLOADS
132

FOR THIS VERSION
127

GEMFILE:
`gem 'soteria', '~>`

INSTALL:
`gem install soteria`

LICENSE:
MIT

REQUIRED RUBY VERSION:
>= 0

LINKS:

Download Command

Soteria gem on RubyGems.org



Screen Mockup: Developer Integration

```
jack_deters ~ ⚡ gem install soteria
Fetching: soteria-0.0.1.gem (100%)
Successfully installed soteria-0.0.1
Parsing documentation for soteria-0.0.1
Installing ri documentation for soteria-0.0.1
Done installing documentation for soteria after 0 seconds
1 gem installed
jack_deters ~ ⚡ irb
2.2.1 :001 > require 'soteria'
=> true
2.2.1 :002 > Soteria.why
Soteria the Goddess of security and deliverance.
=> nil
```

Ruby Shell use of Soteria gem

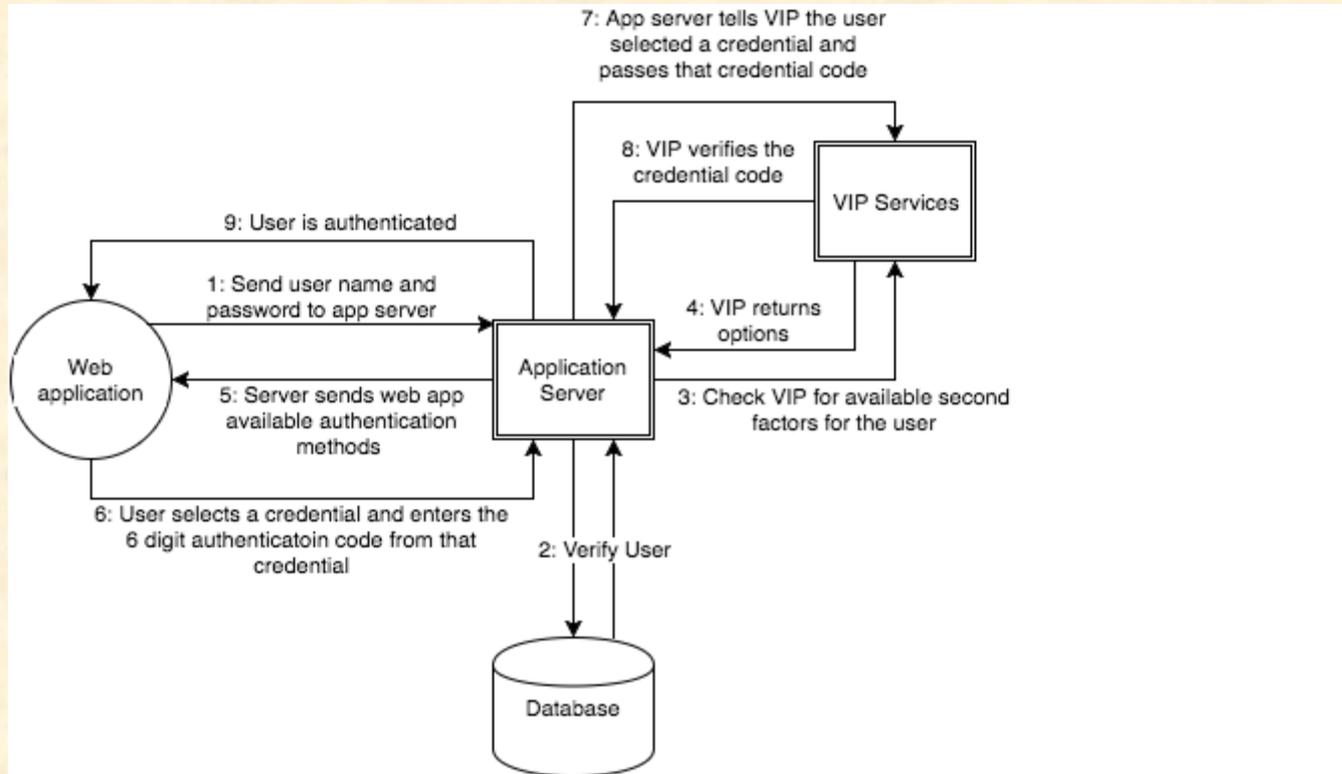


Technical Specifications

- Symantec VIP SDK & Symantec VIP Services
- Ruby 2.3.1, Python 3.5.2, and Javascript (Node.js v6.6.0)
- SOAP Web Services
- Options for Multi-Factor authentication



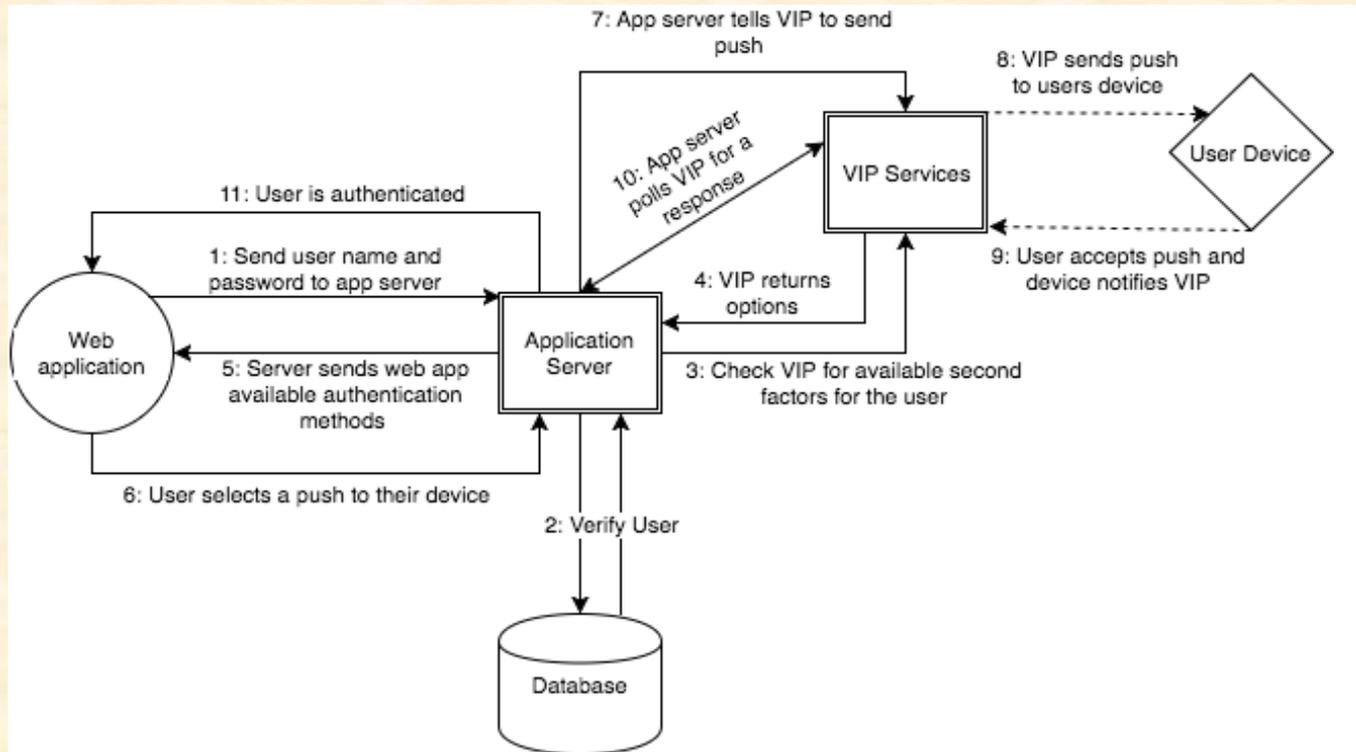
System Architecture



Authenticating a User via 6-digit Security Code



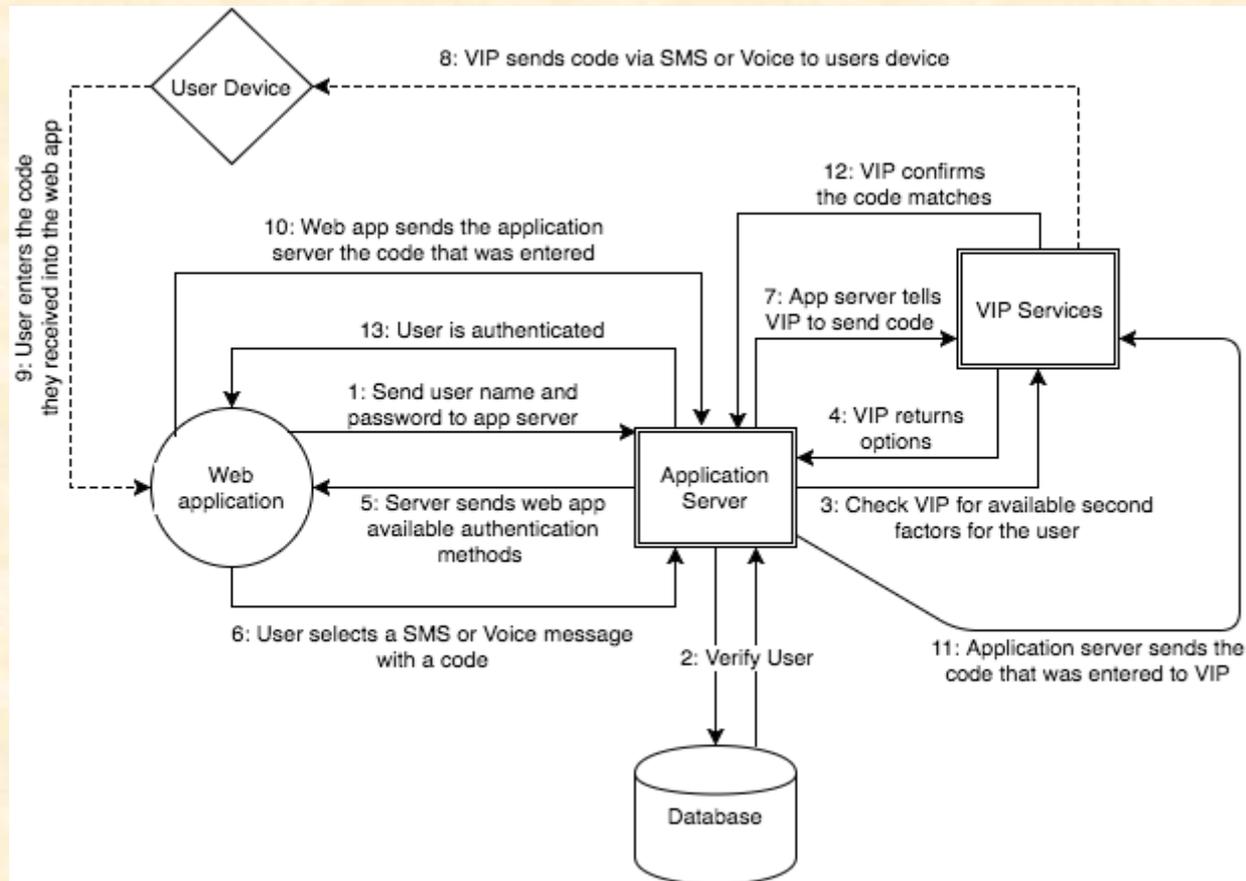
System Architecture



Authenticating a User via Push Verification



System Architecture



Authenticating a User via SMS/Voice



System Components

- Hardware Platforms
 - Application server
 - Database
- Software Platforms / Technologies
 - Symantec VIP SDK
 - Ruby 2.3.1, Python 3.5.3, and Javascript (Node.js v 6.6.0)
 - OSX El Capitan, Ubuntu 16.04, Windows 10
 - SOAP
 - RubyGems.org, PyPI, NPM



Testing

- Utilize unit tests for each platform with language's native frameworks:
 - Python
 - Ruby
 - Node.js
- User sample applications for integration testing:
 - Locally for development
 - Heroku for production
 - PostgreSQL



Risks

- Limited experience with core technologies
 - APIs are SOAP based which is an older technology
 - Spend time to learn these technologies and consult with Symantec experts
- Completing libraries for 3 frameworks
 - We will create libraries Node.js, Ruby and Python with limited experience
 - Will focus on finishing the Ruby gem/Python module then move to the other platforms
- Configuring a compatible development/testing server
 - Using the provided server equipment will require a lot of the limited time remaining to be configured properly and is prone to possible errors
 - Utilize an existing cloud environment for development/testing that supports our frameworks' needs
- Untimely access to VIP SDK and documentation
 - Major setback that will affect the project timeline significantly

