

MICHIGAN STATE

UNIVERSITY

Project Plan

Integrated Silent Dynamic Authentication through Symantec VIP The Capstone Experience

Team Symantec

Scott Binter

Tyler Erskine

James Mariani

Daniel Parlin

Christopher Perry

Department of Computer Science and Engineering
Michigan State University

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

Functional Specifications

- Mobile two factor authentication is NOT user friendly
 - Slow and clunky
- Implementation will be fast and seamless
 - No switching applications
 - Embedded
 - Six Digit Authentication Code
- Testing ease of VIP Integration for clients
 - Providing documentation

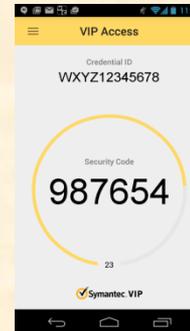
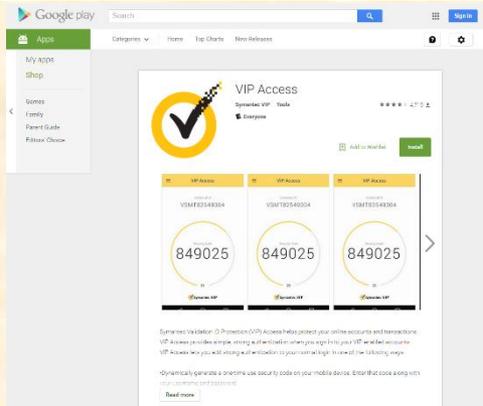


Design Specifications

- Example implementations
 - iOS
 - Android
 - Web App supporting push notifications
- Seamlessly swap between Symantec VIP enabled applications
- Configurable
 - Fingerprint scanning
 - Timeouts
 - Pins



Screen Mockup: Registration



A screenshot of the Symantec VIP Self-Service Portal registration form. The form is titled 'Register Your Credential' and includes the following fields and options:

- Credential Type:** VIP Credential
- Credential Name:** [Input field with value: 849025]
- Credential ID:** [Input field with value: WXYZ12345678]
- Security Code:** [Input field with value: 987654]

Below the input fields, there are three columns of options for credential types, each with a 'SELECT' button:

- Column 1:** VIP Security Token (Phone) with a 'SELECT' button.
- Column 2:** VIP Security Card (Phone) with a 'SELECT' button.
- Column 3:** VIP Access with a 'SELECT' button.

At the bottom of the form, there are 'Cancel' and 'Submit' buttons.



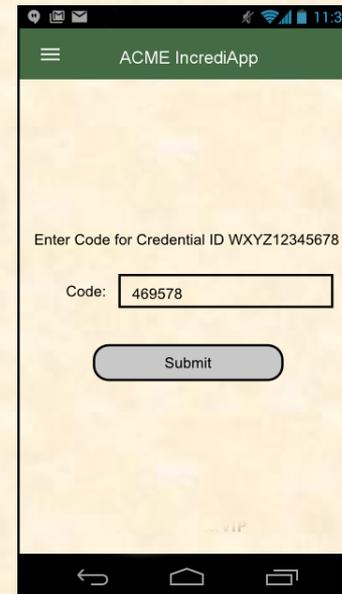
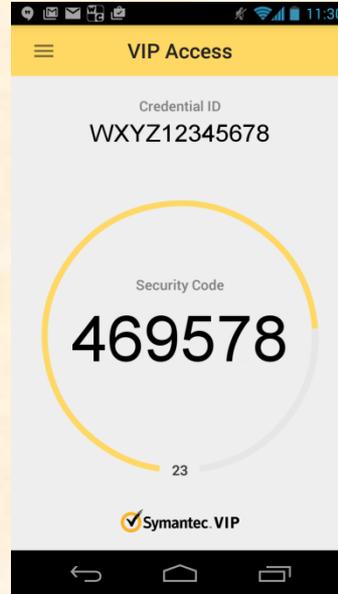
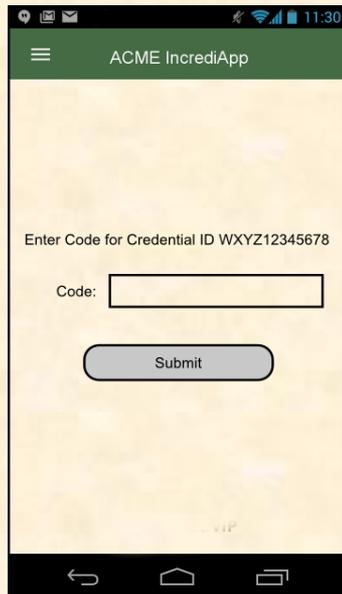
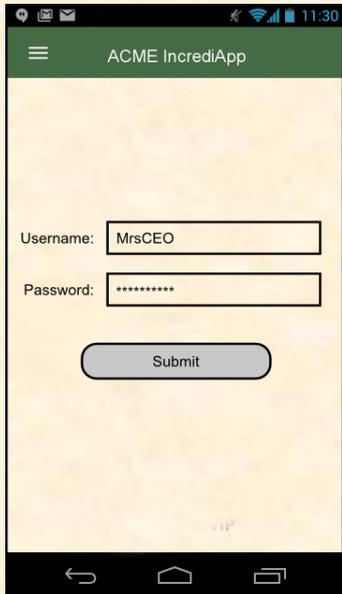
A screenshot of the Symantec VIP Self-Service Portal selection screen. The screen is titled 'Select Your Credential' and includes the following elements:

- Select Your Credential:** A heading followed by the instruction 'Select the type of credential you want to register.'
- Options:** Three main options are displayed with icons and 'SELECT' buttons:
 - VIP Credential:** Use a VIP mobile application or VIP security credential to securely access your organization's services.
 - SMS or Voice:** Use a security code from a text message or voice call to securely access your organization's services.
- Temporary Security Code:** A section with the instruction 'Get a temporary security code to access organization services.'

At the bottom of the page, there are links for 'Legal Notices', 'Privacy', and 'Responsibility', along with the Symantec logo and copyright information: '© 2011-2015 Symantec Corporation'.

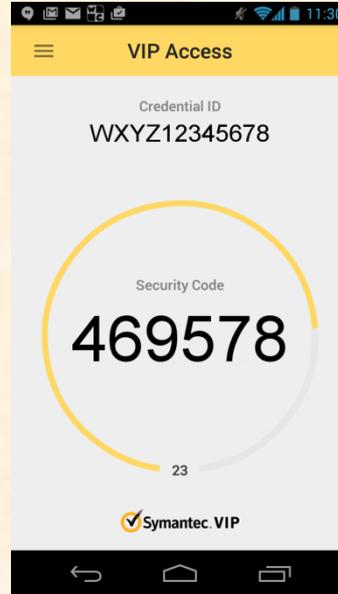
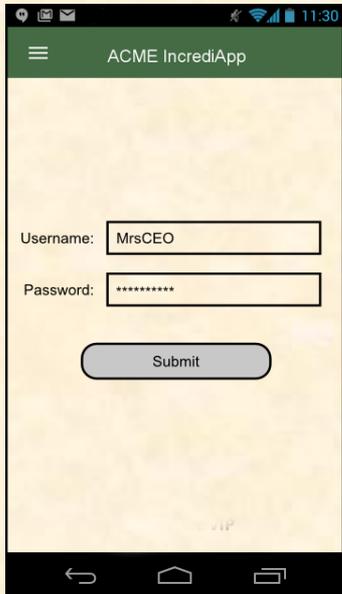


Screen Mockup: Existing Flow



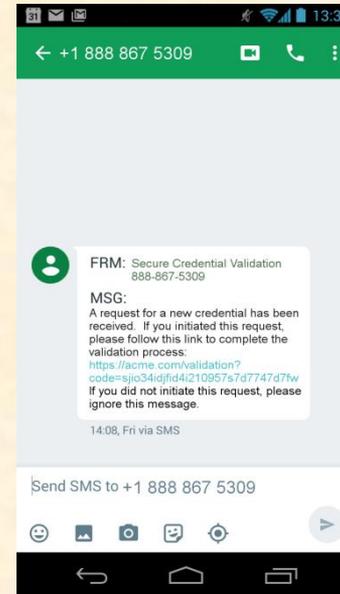
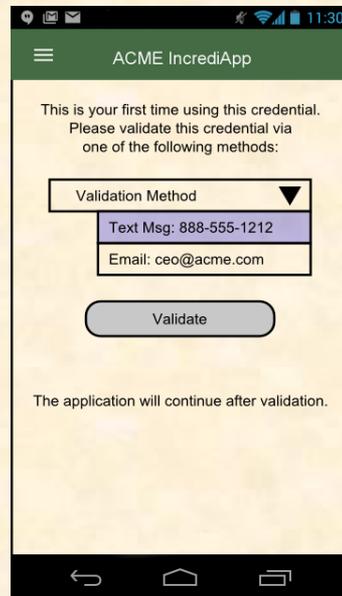
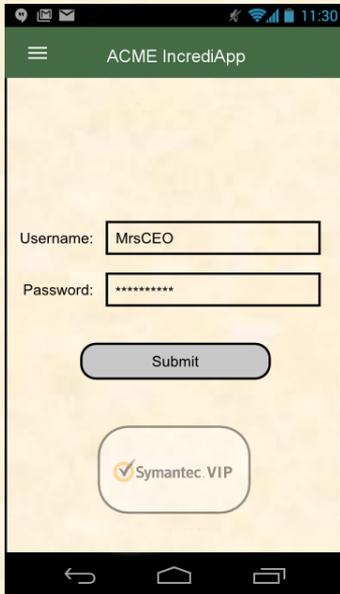
First Time Accessing Client Application

Screen Mockup: Existing Flow



Subsequent Client Application Accesses

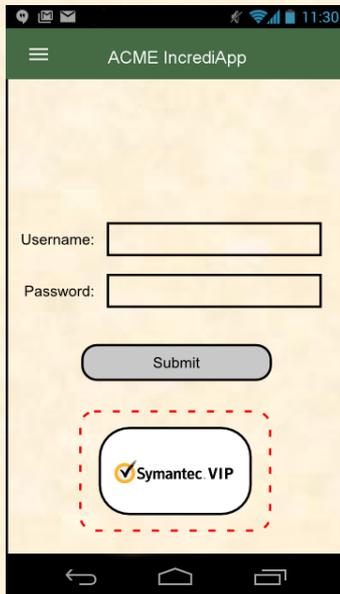
Screen Mockup: ISDA Flow



First Time Accessing Client Application



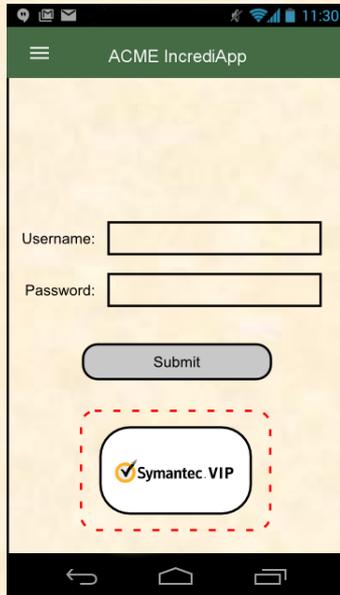
Screen Mockup: ISDA Flow



Subsequent Client Application Accesses



Screen Mockup: Switching Apps



Subsequent Client Application Accesses

Screen Mockup: Webapp Auth

Logo

Symantec VIP Test Suite
Enterprise Manager

Username

Password

Logo

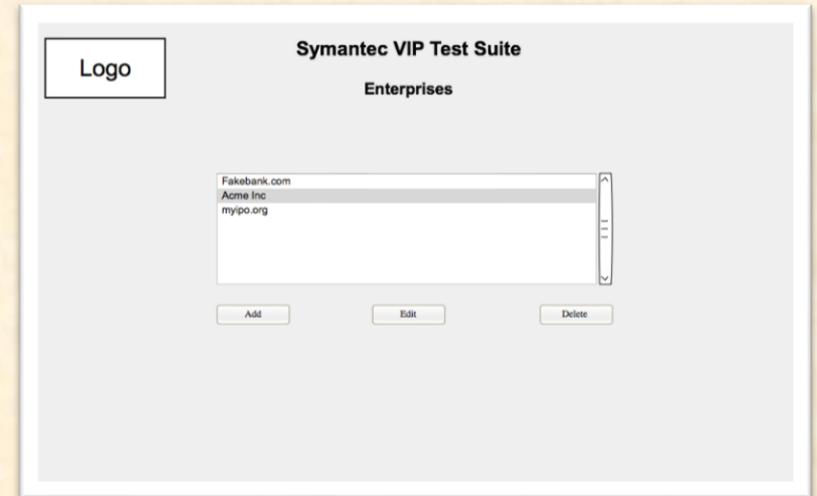
Symantec VIP Test Suite
Enterprise Manager

Spinner

Please wait for validation or choose another method...



Screen Mockup: Switching Apps



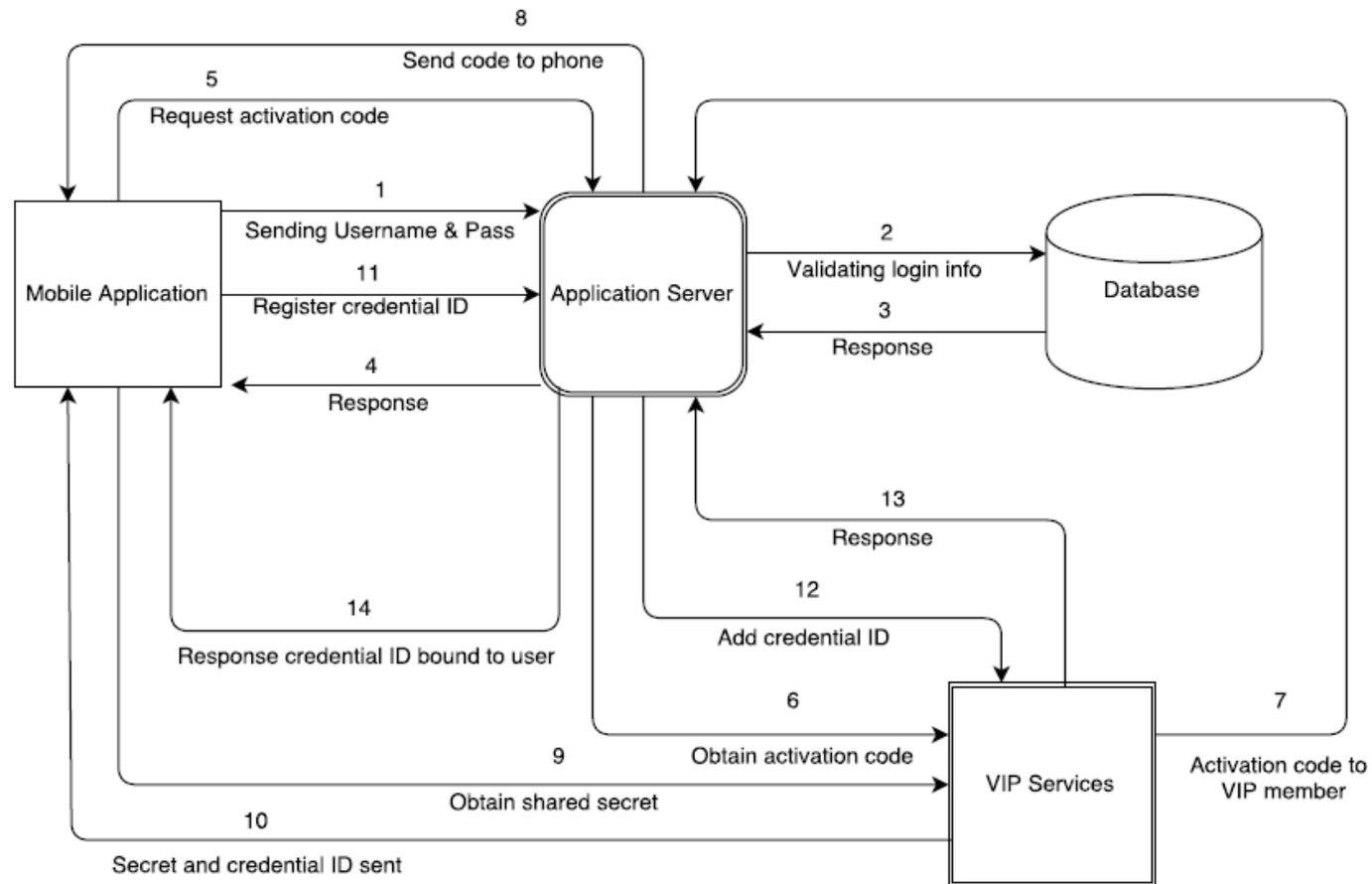
Technical Specifications

- App Server
 - Linux – Ubuntu 14.04.3
 - Glassfish – 4.1
 - MySQL – 5.5
- Symantec SDK
- App Development Tools
 - iOS - Swift
 - Android - Java
- Web App
 - J2EE

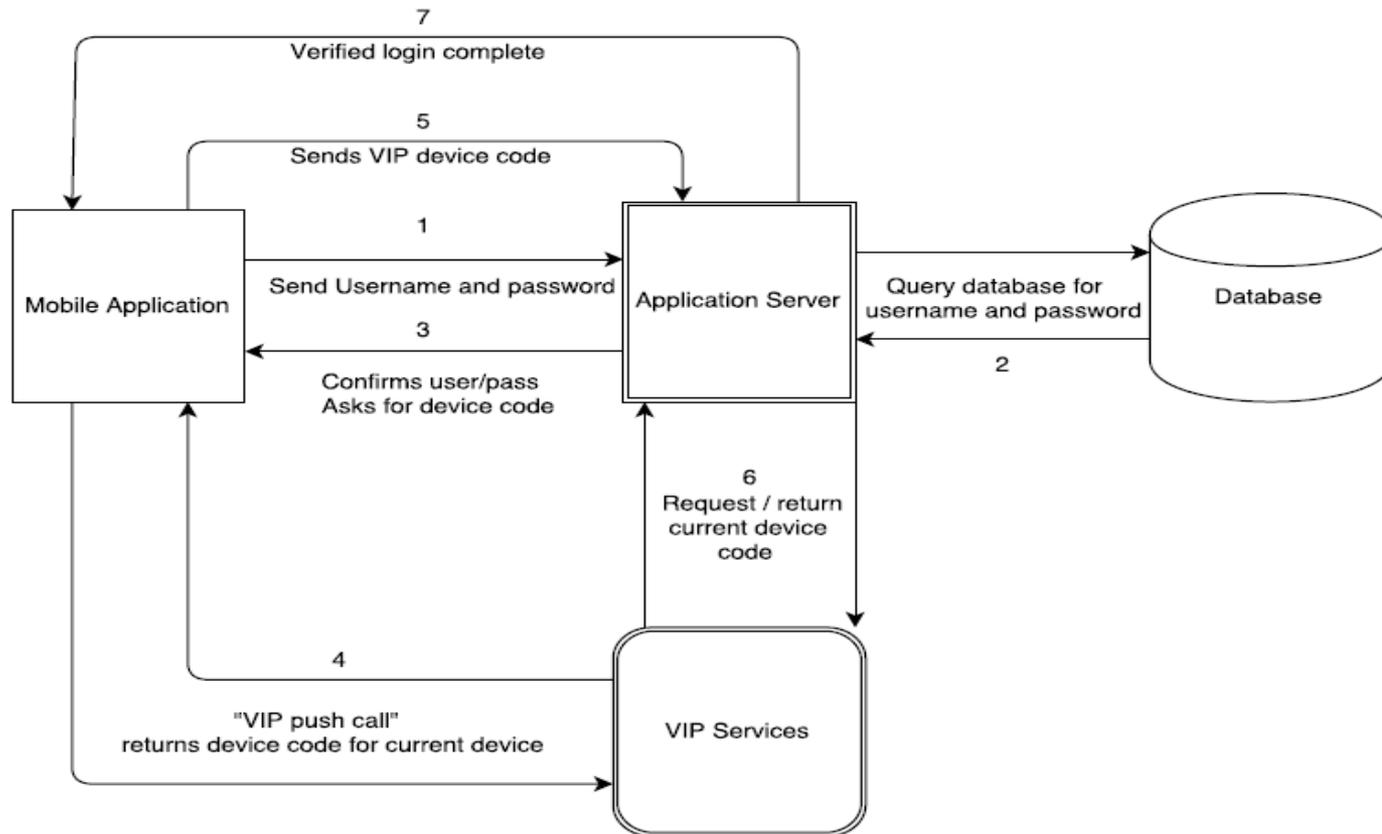


System Architecture

Provisioning a Mobile Credential



System Architecture



Authenticating a Mobile Device



System Components

- Hardware Platforms
 - Android Devices
 - iOS Devices
 - Dell Rack Mounted Server
- Software Platforms / Technologies
 - Symantec SDK
 - Linux Server
 - Java/Swift



Testing

- Unit Testing
 - Built into Xcode for iOS application
 - Use Junit for Android and web applications
- User Testing
 - First-time login
 - Regular login
 - Mobile application switching
 - Push notifications for web authentication
- Demonstrations to client



Risks

- Integrating Symantec VIP SDK into our Application
 - Complications may arise during the integration of Symantec's SDK
 - Refer to provided documentation and request assistance from client
- API Documentation References Older Development Software
 - Provided documentation was written for Eclipse and may not be compatible
 - iOS documented example code written in Objective C
 - Workarounds may need to be found or development software changed
- No iOS experience on team
 - Become familiar with Swift
- Inability to integrate biometric authentication into application
 - Client specified a stretch goal of using biometric authentication
 - Project specifications may have to be adjusted
- No experience with mobile listener services
- Pre-authorized switching between applications

