

MICHIGAN STATE

U N I V E R S I T Y

Alpha Presentation

Cybersecurity Management System

The Capstone Experience

Team Aptiv

Dillon Brown

Wei Jiang

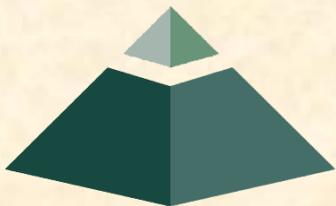
Clayton Peters

Ashtaan Rapanos

Winton Qian

Department of Computer Science and Engineering
Michigan State University

Spring 2018



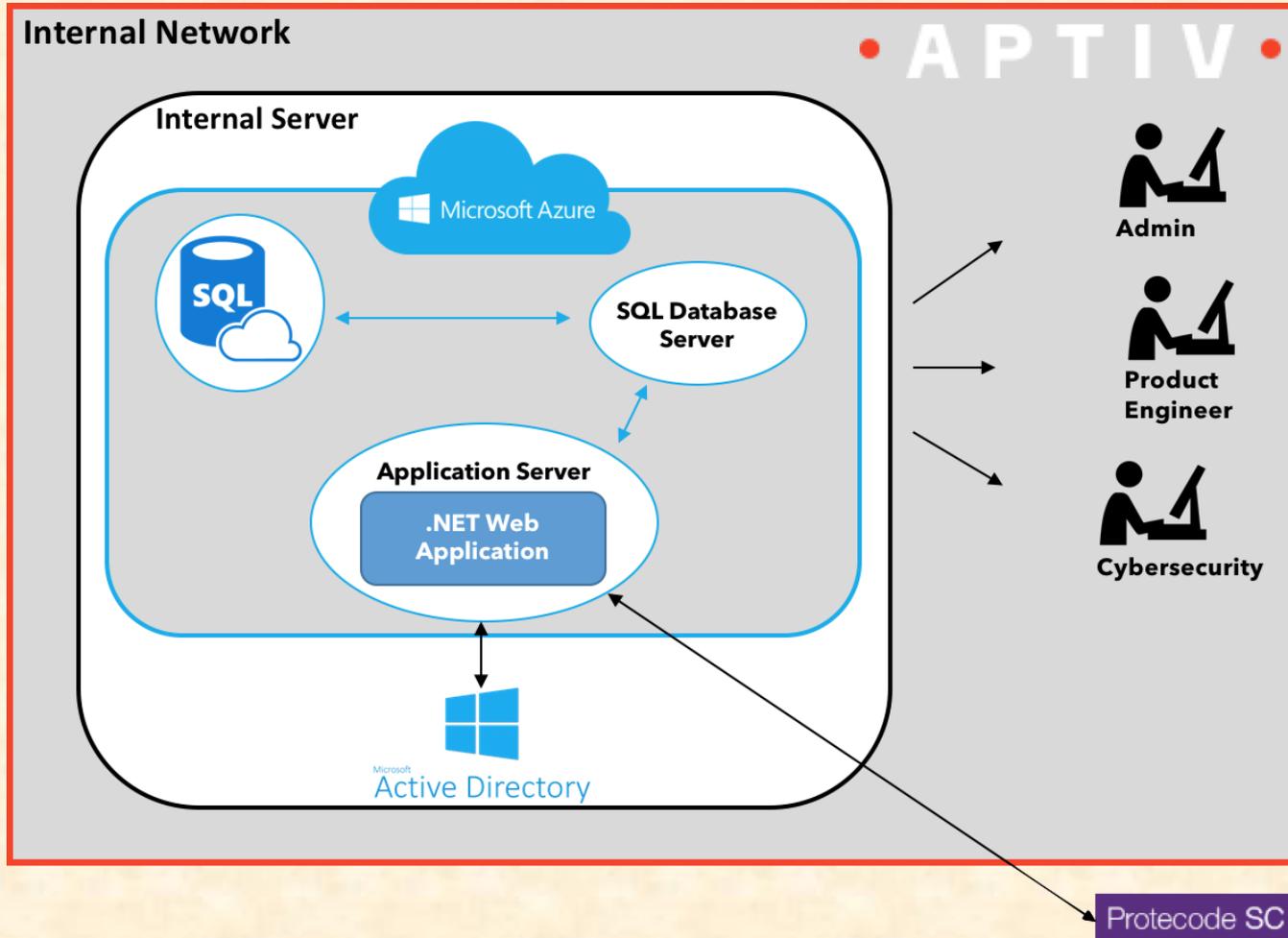
*From Students...
...to Professionals*

Project Overview

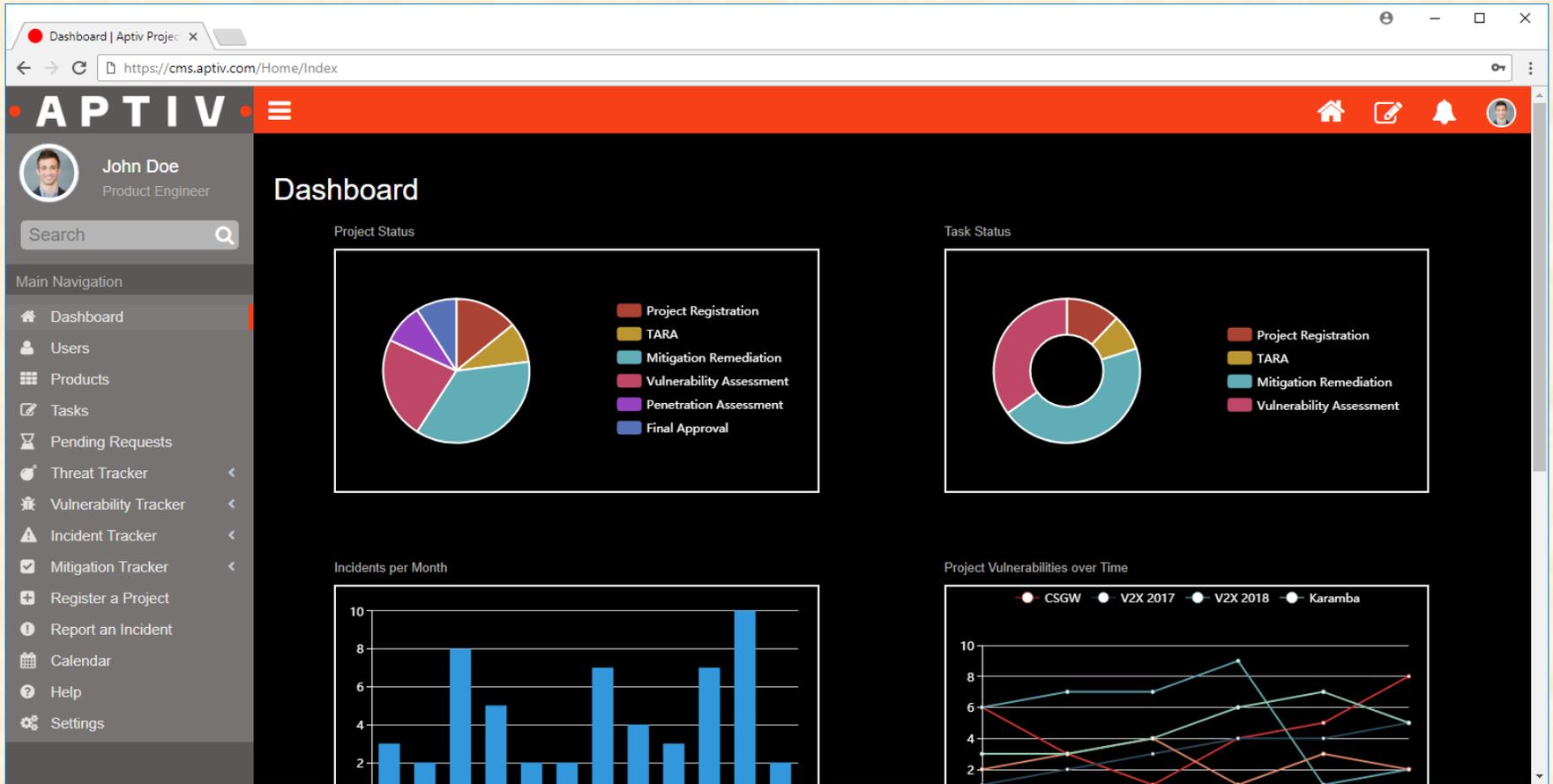
- Web application to help with automation and consolidation of Aptiv's product cybersecurity processes
- 4 Trackers for analysis and visualization of information collected by system
 - Threats/Risks
 - Vulnerabilities
 - Incidents
 - Mitigations
- Increase productivity and help communication by implementing request system, email alerts, notifications and task manager



System Architecture



Dashboard



Product Dashboard

The screenshot shows a web browser window displaying the APTIV Product Dashboard. The browser's address bar shows the URL `localhost:52572/Product/Index`. The dashboard features a dark theme with a prominent orange header bar. On the left, a sidebar identifies the user as John Doe, a Product Engineer, and provides a search bar and a main navigation menu. The main content area, titled "Products", displays five product cards: "Register Product", "498 0 Projects", "CSGW 3 Projects", "V2X 3 Projects", and "A90X 0 Projects". The bottom right corner of the dashboard includes the copyright notice "© 2018 - Aptiv Project Manager".

Product Name	Project Count
Register Product	0
498	0
CSGW	3
V2X	3
A90X	0



Project Dashboard

The screenshot displays the APTIV V2X Project Dashboard in a web browser. The browser's address bar shows the URL `localhost:52572/Product/Projects?name=V2X`. The dashboard features a dark theme with a prominent orange header bar containing the APTIV logo and a hamburger menu icon. On the right side of the header, there are icons for home, edit, notifications, and a user profile. The user profile section on the left identifies the user as John Doe, a Product Engineer, and includes a search bar. Below the search bar is a main navigation menu with the following items: Dashboard, Users, Products, Tasks, Pending Requests, Threat Tracker, Vulnerability Tracker, Incident Tracker, Mitigation Tracker, Register a Project, Report an Incident, Calendar, Help, and Settings. The main content area is titled "V2X" and contains four project cards: "Register Project" (with a plus icon), "V2X 2017" (Stage: Vulnerability Assessment), "V2X 2018" (Stage: Finalized), and "V2X FCA" (Stage: Project Registration). A copyright notice "© 2018 - Aptiv Project Manager" is located in the bottom right corner of the dashboard.



Project Page

APTIV

John Doe
Product Engineer

Search

Main Navigation

- Dashboard
- Users
- Products
- Tasks
- Pending Requests
- Threat Tracker
- Vulnerability Tracker
- Incident Tracker
- Mitigation Tracker
- Register a Project
- Report an Incident
- Calendar
- Help
- Settings

V2X 2017

Project Status: Vulnerability Assessment

Project Registration → TARA → Mitigation Remediation → Vulnerability Assessment → Penetration Assessment → Final Approval → Finalized

Recent Updates

- Add Jake to Project 15 minutes ago
- Vulnerability assessment on V2X_2017.zip completed 30 minutes ago
- V2X_2017.zip completed uploaded 35 minutes ago

[View More updates](#)

Project Modules

- Project Registration
- TARA
- Mitigation Remediation
- Vulnerability Assessment

Task Status

Donut chart showing task status: In Progress, New, Closed, Resolved.

Pending Requests

Request	Data
Upload data schematics for penetration assessment	2018-02-18
Upload firmware for penetration assessment	2018-02-18
Complete mitigation #23	2018-02-17

Tasks

#	Title	Priority
2	Type Report	High
3	Add Adam	Medium
1	Upload file	High
4	Search login	Medium



What's left to do?

- Implementation of trackers
- Two-way pending request system
- Emails and notifications
- Admin capabilities
- Task Manager interface
- Module pages
 - TARA
 - Penetration
 - Mitigation Remediation



Questions?

?

?

?

?

?

?

?

?

?

