



KENNESAW STATE
UNIVERSITY

<https://project.ocds.tech>

IT-7993 IT Capstone Project

ID: G01/W01-P4

Title: Owl Cyber Defense Systems

Sponsor: Dr. Ying Xie

April 23, 2024



Team Members: Scott Gilstrap, Stephanie Aguirre,
Chris Dunbar, Justin Place, Ryan LeBlanc



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Milestone-3 Presentation

April 23, 2024

Agenda:

Project overall outcome details

- Sprint 3 Milestone Goals and Objectives
- Sprint 3 Milestone Progress Summary
 - One-page Dashboard
 - Overall WBS: Timeline / Gantt Chart
- Sprint 3 Weekly Scrum Updates
- Sprint 3 Epic Task Discussions (all deliverables)
 - Overall WBS: Timeline / Gantt Chart
 - Team member deliverable presentations
 - WBS: Timeline / Gantt Chart for each Epic
 - Discussion with Empirical Evidence & Artifacts
- Time Tracking: Team and individual effort hours via person-hour burn-up pivot tables / charts / graphs associated with Sprint 3
- Review of project performance and takeaways
- Plans & reminders for the rest of the semester
 - C-Day, Department Presentation, Peer Evaluation, & Self-reflection (specific dates/times)

OCDS Team

-  • **Scott Gilstrap**
 - Project Manager / Team Leader / Scrum Master
 - OCDS VP of Project Management
-  • **Stephanie Aguirre**
 - Project Technical Writer / Instructor
 - OCDS VP of Learning and Development
-  • **Chris Dunbar**
 - Project Systems Administrator / Web Master
 - OCDS VP of Infrastructure and Web Development
-  • **Justin Place**
 - Project Senior Architect / AI Developer
 - OCDS VP of Development Operations
-  • **Ryan LeBlanc**
 - Project Senior Architect / AI Developer
 - OCDS VP of Product Development

Projects / KSU MSIT Capstone - Owl Cyber Defense Systems



Sprint 3 Goals & Objectives

Production Deployment & Release

Milestone 3 Goals

Strategic Objective:

Establish the OCDS cybersecurity business providing small businesses cost effective tools to increase their cybersecurity protection posture at an affordable rate

Sprint 3

Mar 26 – Apr 21, 2024

Operational Objectives

- Business Plan fully completed and published
- Company Policies published in Business Plan
- Project Website deployed and released into production with all documentation
- Company Website deployed and released into production
- Cyber Awareness Training Modules deployed and released into production on website
- IT Security Plan deployed and released into production on the website
- Proprietary Risk Assessment deployed and released into production on the website
- AI Security Chatbot deployed and released into production on the website
- Server Hardening Tool deployed and released into production
- SIEM Advanced Firewall and Log Analyzer deployed and released into production

Sprint 3 Milestone/Epic Progress Summary

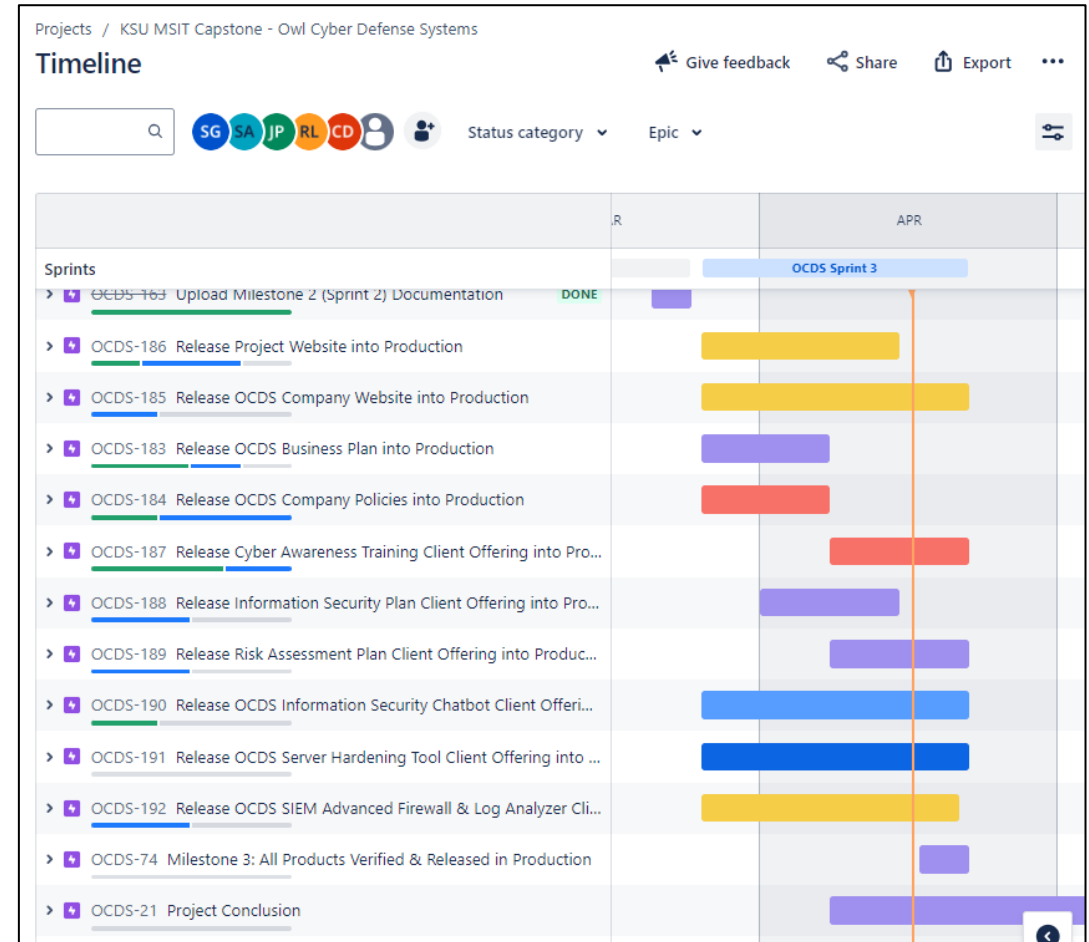
Sprint 1 Milestone Progress One-Slide Dashboard

Epic / Objective	Health	Target Date	Progress	Key Issues & Risks	GTG Action Plan	Leadership Assistance Requested
Release Project Website into Production	B	14-Apr-24	<ul style="list-style-type: none"> Successfully completed Project website with documentation. Project website is self designed/published and self hosted. 	NA	NA	NA
Release OCDS Company Website into Production	B	21-Apr-24	<ul style="list-style-type: none"> Successfully completed Company website with Products & Services. Project website is self designed/published and self hosted. 	NA	NA	NA
Release OCDS Business Plan into Production	B	14-Apr-24	<ul style="list-style-type: none"> Successfully completed Business Plan with all required content. The Business Plan is published & available via websites. 	NA	NA	NA
Release OCDS Company Policies into Production	B	14-Apr-24	<ul style="list-style-type: none"> Successfully completed the OCDS Company Policies. Company Policies are published & available via the Business Plan. 	NA	NA	NA
Release Cyber Awareness Training Client Offering into Production	B	14-Apr-24	<ul style="list-style-type: none"> Successfully completed Cyber Awareness Training Modules. All modules are published & available via websites. 	NA	NA	NA
Release Information Security Plan Client Offering into Production	B	07-Apr-24	<ul style="list-style-type: none"> Successfully completed the IT Security Planning Form Questionnaire. The IT Security Planning Form Questionnaire is available via website. 	NA	NA	NA
Release Risk Assessment Plan Client Offering into Production	B	23-Mar-24	<ul style="list-style-type: none"> Successfully Completed the proprietary Risk Assessment Questionnaire and Planning form. (Example: Scrappy Tax Service) 	NA	NA	NA
Release OCDS Information Security Chatbot Client Offering into Production	B	18-Mar-24	<ul style="list-style-type: none"> The OCDS Security Chatbot was successfully deployed and has learned the appropriate 800-53 security standards. 	NA	NA	NA
Release OCDS Server Hardening Tool Client Offering into Production	B	21-Mar-24	<ul style="list-style-type: none"> All VM supporting Infrastructure was successfully deployed. Successful STIG deployment of the OCDS Server Hardening Tool. 	NA	NA	NA
Release OCDS SIEM Advanced Firewall & Log Analyzer Client Offering into Production	B	19-Mar-24	<ul style="list-style-type: none"> Successful build out of supporting VM Infrastructure Successful SIEM tool configuration (Security Onion) & Deployment. 	NA	NA	NA

LEGEND	B Complete	G On Track	Y At Risk	R Delayed	H On-Hold/ Canceled	N Not Started
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Sprint 3 Milestone Progress Summary

- All Sprint 3 Epics are completed or on target for successful completion by due date.
- All tasks have been completed and/or addressed in a timely manner to be on track.
- Weekly Scrum meetings were conducted, and updates were logged appropriately.
- Project workload has been distributed evenly with each team member contributing appropriately.
- No issues or risks were encountered during Sprint 3
- No change request was required



Sprint 3 Weekly Scrum Updates

Project – Owl Cyber Defense Systems – Sprint 3

Data as of: 03/30/24

Project Manager	Project Objective	Start Date	End Date
Scott Gilstrap	Design and establish a first-class cybersecurity company offering world-class AI-enable proprietary cyber protections to meet today's robust cybersecurity requirements at a reasonable cost to the client.	01/16/24	05/05/24

Overall	Schedule	Budget	Scope	Resource
●	●	●	●	●

Key Accomplishments/Activities	Next Steps
<ul style="list-style-type: none"> ✓ Review all company policies and prepared them for production release ✓ Completed logic in PS to iterate through CSV file and run commands against system ✓ Updated .py to fix RTX Chatbot ✓ Took all VM snapshots (backup purposes) ✓ Setup logic to check registry DWord creation and appropriate entry ✓ Completed the IT Security Planning Questionnaire 	<ul style="list-style-type: none"> ✓ Release company policies into production ✓ Review Cyber awareness Training Modules ✓ Prepare training modules for production release ✓ Finish writing PS script to evaluate and change values against STIG for Windows ✓ Continue work on PS script and complete further testing on Windows VM ✓ Complete the Proprietary Risk Assessment Questionnaire ✓ Reconfigure the VM infrastructure and network cabling for the OCDS SIEM

Key Milestones	Start Date	End Date	% Complete
Planning & Designs Complete (Sprint 0)	01/19/24	01/25/24	100%
Planning & Designs Complete (Sprint 1)	01/25/24	02/25/24	100%
Development & Testing Complete (Sprint 2)	02/26/24	03/24/24	100%
Business Plan & Products Released to Production (Sprint 3)	03/18/24	04/21/24	25%

ID	Key Risk(s)	Description	Mitigation / Action Plan
No Data	None	N/A	N/A

ID	Key Issue(s)	Description	Mitigation / Action Plan
No Data	None	N/A	N/A



Week-1: 24 – 30 Mar 2024

LEGEND

● C	● G	● A	● R	● H	● N	● B
Complete	On Track	At Risk	Delayed	On Hold	Not Started	Cancelled

Project – Owl Cyber Defense Systems – Sprint 3

Data as of: 04/06/24

Project Manager	Project Objective	Start Date	End Date
Scott Gilstrap	Design and establish a first-class cybersecurity company offering world-class AI-enable proprietary cyber protections to meet today's robust cybersecurity requirements at a reasonable cost to the client.	01/16/24	05/05/24

Overall	Schedule	Budget	Scope	Resource
●	●	●	●	●

Key Accomplishments/Activities	Next Steps
<ul style="list-style-type: none"> ✓ Conducting troubleshooting of the script handling SCAP scanning/STIGing – determined the multiple registry changes are affecting VM performance ✓ Product & Services website configurations ✓ Training page website configurations ✓ Updated Team photos and BIOs for both websites ✓ Added appropriate STIG entries in script ✓ Completed section 1 of the Risk Assessment Planning Questionnaire 	<ul style="list-style-type: none"> ✓ Finish writing PS scripts to evaluate and change values against the STIGs for Windows ✓ Website configurations <ul style="list-style-type: none"> ✓ Product page & child pages ✓ Services page & child pages ✓ Training page and links to modules ✓ Team page content ✓ Visit physical data center to resolve network issue for SIEM VM ✓ Complete further STIG scripting for STIGing VMs ✓ Complete section 2 of Risk Assessment Planning Questionnaire

Key Milestones	Start Date	End Date	% Complete
Planning & Designs Complete (Sprint 0)	01/19/24	01/25/24	100%
Planning & Designs Complete (Sprint 1)	01/25/24	02/25/24	100%
Development & Testing Complete (Sprint 2)	02/26/24	03/24/24	100%
Business Plan & Products Released to Production (Sprint 3)	03/18/24	04/21/24	50%

ID	Key Risk(s)	Description	Mitigation / Action Plan
No Data	None	N/A	N/A

ID	Key Issue(s)	Description	Mitigation / Action Plan
No Data	None	N/A	N/A



Week-2: 31 Mar – 06 Apr 2024

LEGEND

● C	● G	● A	● R	● H	● N	● B
Complete	On Track	At Risk	Delayed	On Hold	Not Started	Cancelled

Project – Owl Cyber Defense Systems – Sprint 3

Data as of: 04/13/24

Project Manager	Project Objective	Start Date	End Date
Scott Gilstrap	Design and establish a first-class cybersecurity company offering world-class AI-enable proprietary cyber protections to meet today's robust cybersecurity requirements at a reasonable cost to the client.	01/16/24	05/05/24

Overall	Schedule	Budget	Scope	Resource
●	●	●	●	●

Key Accomplishments/Activities	Next Steps
<ul style="list-style-type: none"> ✓ Visited the physical data center – configured correct switch for spanning port (established mirroring) ✓ Connected SIEM VM to correctly configured port ✓ Identified critical error in SIEM VM ✓ Completed minor updates to Company and Project websites ✓ Completed section 3 of the Risk Assessment Planning Questionnaire 	<ul style="list-style-type: none"> ✓ Rebuild SIEM VM (again) to address critical error ✓ Complete section 4 of the Risk Assessment Planning Questionnaire ✓ Completing an example IT Security Assessment for client Scrappy Tax Service ✓ Update OCDS Security Chatbot ✓ Finalize all scripts

Key Milestones	Start Date	End Date	% Complete
Planning & Designs Complete (Sprint 0)	01/19/24	01/25/24	100%
Planning & Designs Complete (Sprint 1)	01/25/24	02/25/24	100%
Development & Testing Complete (Sprint 2)	02/26/24	03/24/24	100%
Business Plan & Products Released to Production (Sprint 3)	03/18/24	04/21/24	75%

ID	Key Risk(s)	Description	Mitigation / Action Plan
No Data	None	N/A	N/A

ID	Key Issue(s)	Description	Mitigation / Action Plan
No Data	None	N/A	N/A



Week 3: 07 – 13 Apr 2024

LEGEND

C	G	A	R	H	N	B
Complete	On Track	At Risk	Delayed	On Hold	Not Started	Cancelled

Project – Owl Cyber Defense Systems – Sprint 3

Data as of: 04/02/24

Project Manager	Project Objective	Start Date	End Date
Scott Gilstrap	Design and establish a first-class cybersecurity company offering world-class AI-enable proprietary cyber protections to meet today's robust cybersecurity requirements at a reasonable cost to the client.	01/16/24	05/05/24

Overall	Schedule	Budget	Scope	Resource
●	●	●	●	●

Key Accomplishments/Activities	Next Steps
<ul style="list-style-type: none"> ✓ Rebuilt SIEM VM to address critical error – issue resolved ✓ Completed section 4 of the Risk Assessment Planning Questionnaire ✓ Created example client reports for IT Security and Risk Assessment Plan ✓ Updated OCDS Security Chat with final datasets ✓ Completed all scripts for STIG and Chatbot learning ✓ Prepare red for Mielstone-3 presentation 	<ul style="list-style-type: none"> ✓ Review all deliverables for completion ✓ Meet as a team for final discussions ✓ Complete preparation for milestone-3 presentation ✓ Prepare final presentation ✓ Complete various evaluations and surveys ✓ Sprint 3 retrospective ✓ Identify project accomplishments, challenges, lessons learned, and opportunities for improvement

Key Milestones	Start Date	End Date	% Complete
Planning & Designs Complete (Sprint 0)	01/19/24	01/25/24	100%
Planning & Designs Complete (Sprint 1)	01/25/24	02/25/24	100%
Development & Testing Complete (Sprint 2)	02/26/24	03/24/24	100%
Business Plan & Products Released to Production (Sprint 3)	03/18/24	04/21/24	95%

ID	Key Risk(s)	Description	Mitigation / Action Plan
No Data	None	N/A	N/A

ID	Key Issue(s)	Description	Mitigation / Action Plan
No Data	None	N/A	N/A



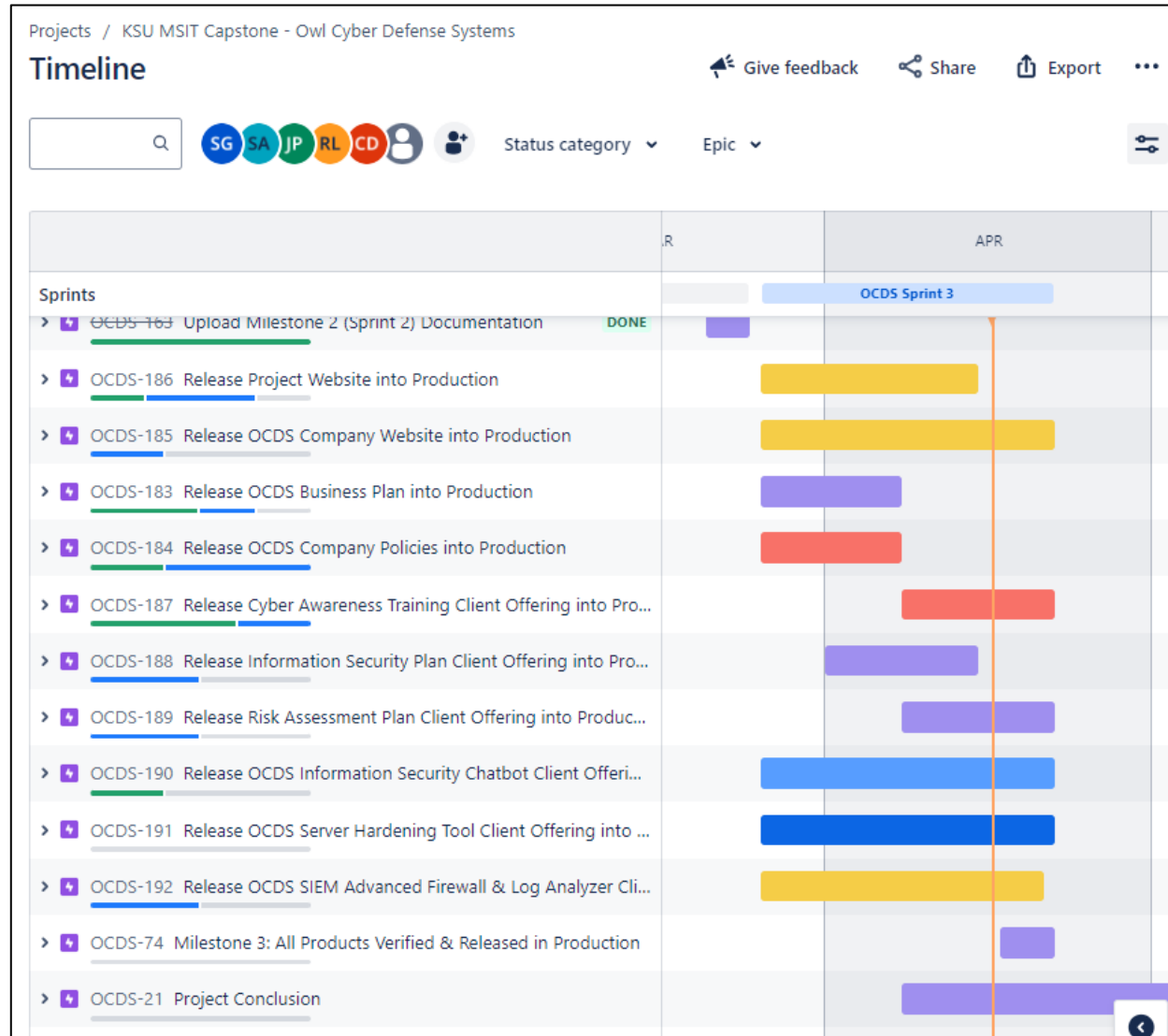
Week 4: 14 – 20 Apr 2024

LEGEND

● C	● G	● A	● R	● H	● N	● B
Complete	On Track	At Risk	Delayed	On Hold	Not Started	Cancelled

Sprint 3 Epic & Task Discussions

Overall WBS Epic Timeline for Sprint 3 Milestones



Sprint 3 Milestones have been completed or are on target to be completed by due date

Epic: Release Project Website into Production

Chris Dunbar



Release Project Website into Production

Projects / KSU MSIT Capstone - Owl Cyber Defense Systems

Timeline

Search SG SA JP RL CD Add people Status category Epic

APR

Sprints

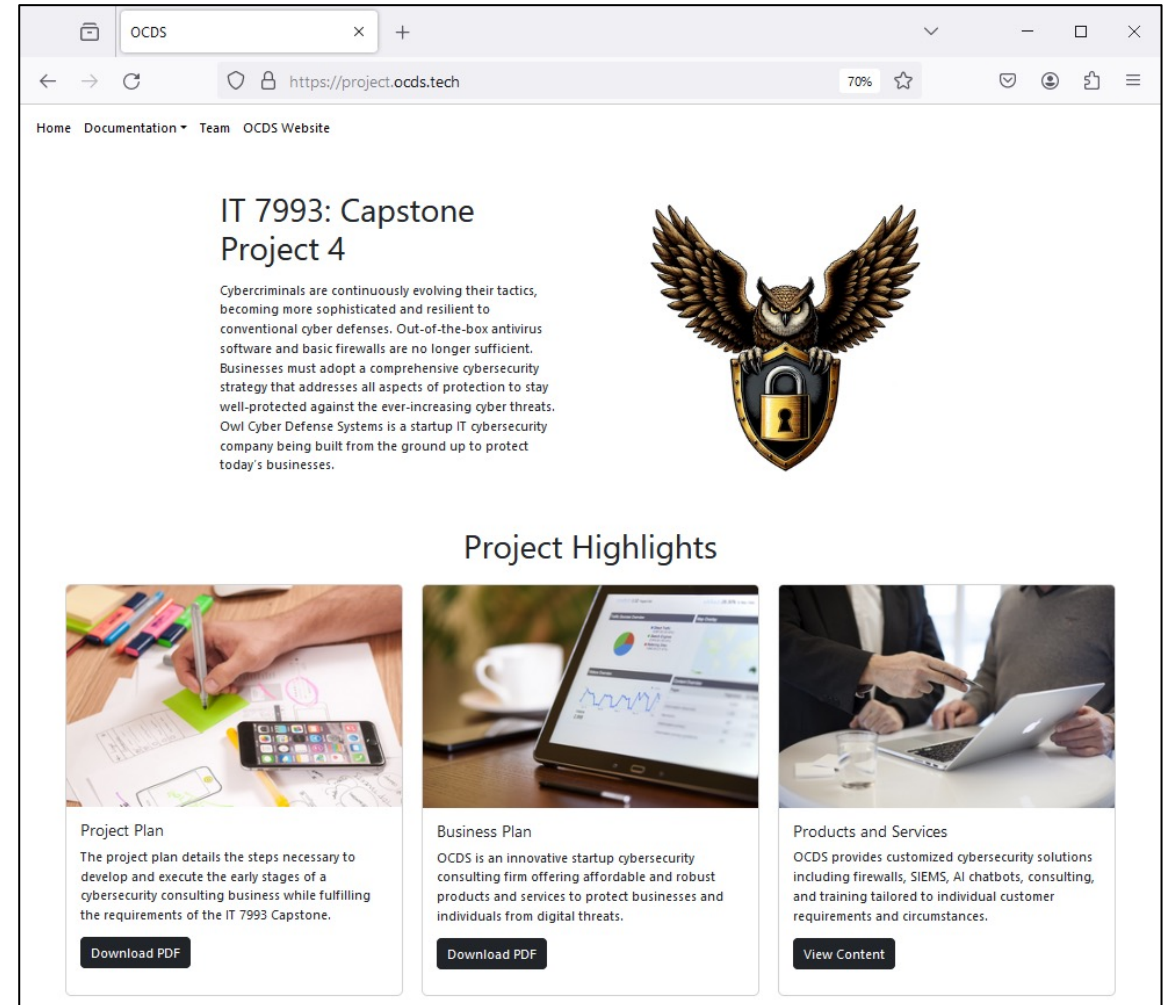
OCDS-186 Release Project Website into Production

- OCDS-193 Finalize site layout **DONE**
- OCDS-194 Work with each team members to upload appropriate content **DONE**
- OCDS-195 Finalize site navigation **DONE**
- OCDS-196 Publish near-final draft to production **DONE**

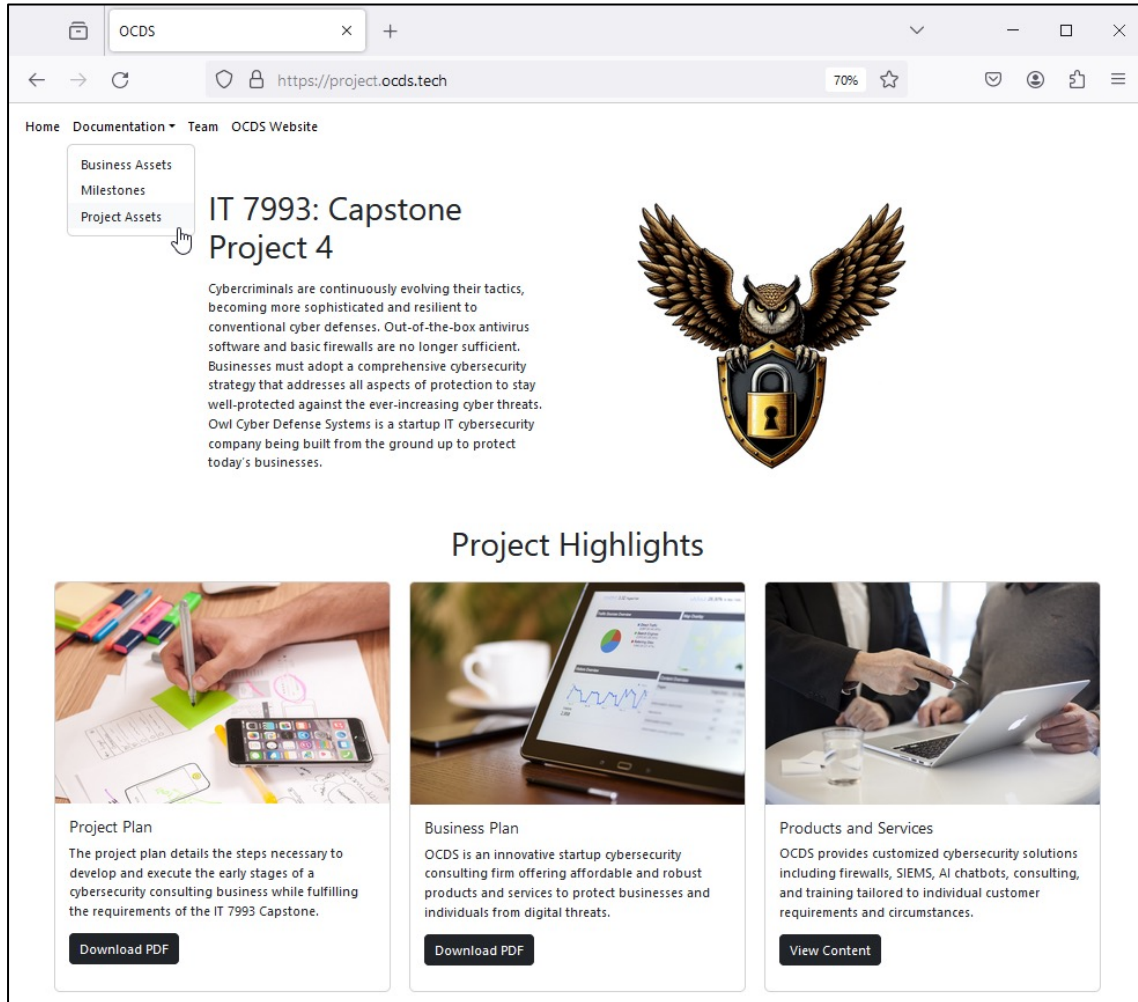
Complete/On Track

Release Project Website into Production

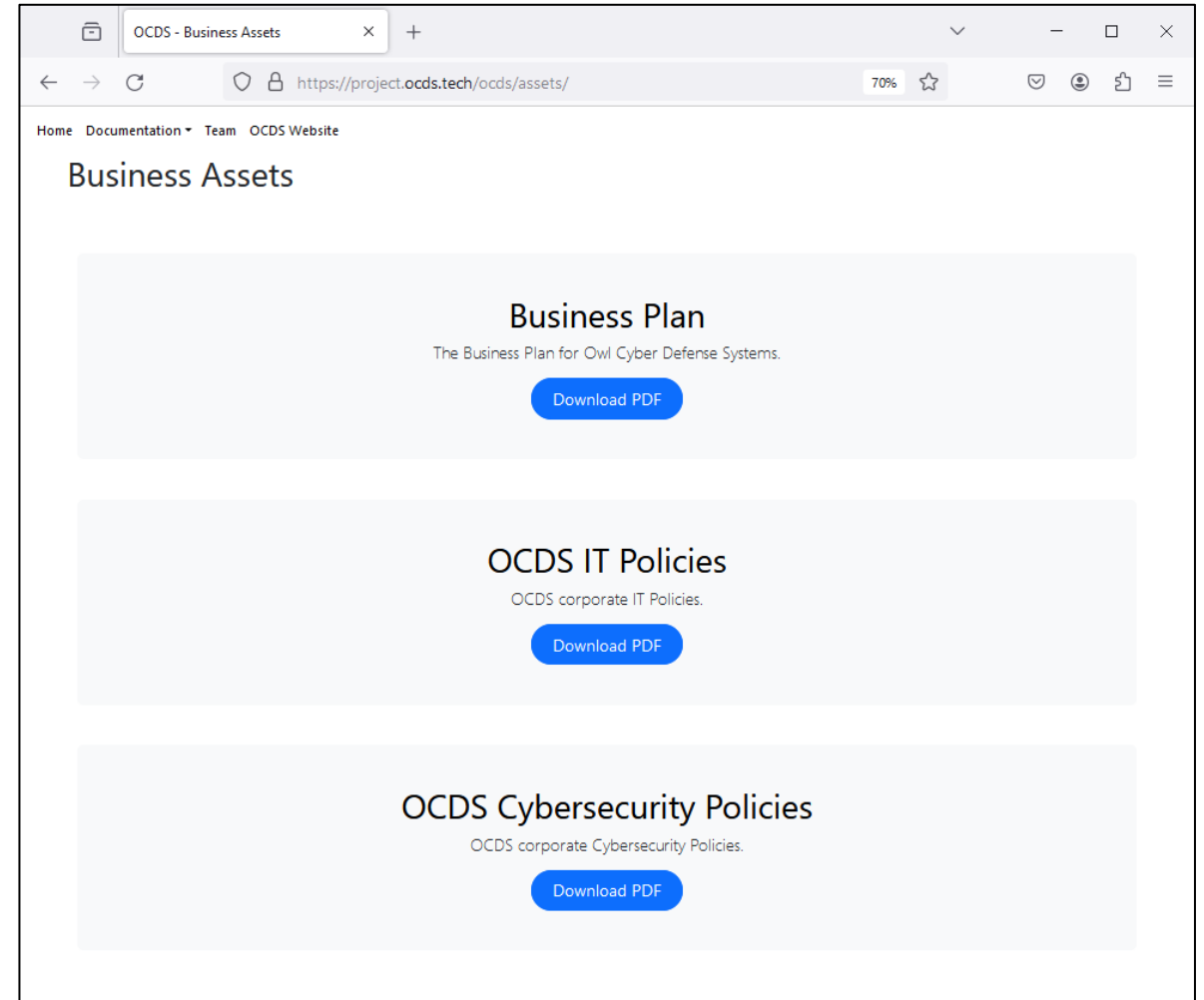
- Project website URL: <https://project.ocds.tech/>
- Hugo & Bootstrap
- **Home**
 - Project Plan Download
 - Business Plan Download
 - Products & Services
- **Documentation**
 - Business Assets
 - Milestones
 - Project Assets
- **Team** – Headshots with Bios
- Link to OCDS Company website



CD Release Project Website into Production

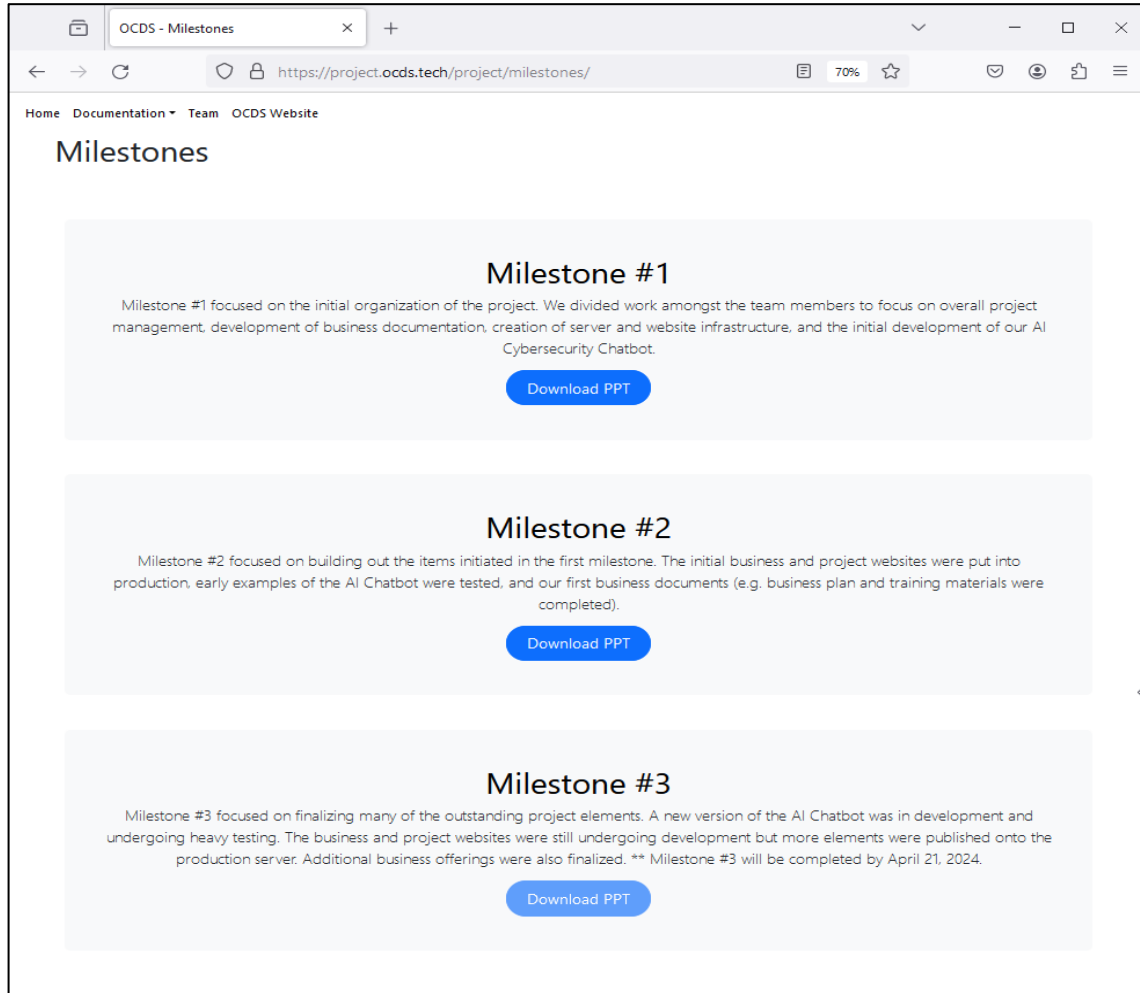


The screenshot shows the OCDS website home page. The browser address bar displays "https://project.ocds.tech". The navigation menu includes "Home", "Documentation", "Team", and "OCDS Website". A dropdown menu is open under "Documentation", showing "Business Assets", "Milestones", and "Project Assets". The main content area features a large owl logo with a shield and a padlock, titled "IT 7993: Capstone Project 4". Below the logo is a paragraph of text: "Cybercriminals are continuously evolving their tactics, becoming more sophisticated and resilient to conventional cyber defenses. Out-of-the-box antivirus software and basic firewalls are no longer sufficient. Businesses must adopt a comprehensive cybersecurity strategy that addresses all aspects of protection to stay well-protected against the ever-increasing cyber threats. Owl Cyber Defense Systems is a startup IT cybersecurity company being built from the ground up to protect today's businesses." Below this is a "Project Highlights" section with three cards: "Project Plan" (with a "Download PDF" button), "Business Plan" (with a "Download PDF" button), and "Products and Services" (with a "View Content" button).



The screenshot shows the "Business Assets" page of the OCDS website. The browser address bar displays "https://project.ocds.tech/ocds/assets/". The navigation menu includes "Home", "Documentation", "Team", and "OCDS Website". The main content area is titled "Business Assets" and features three large light blue boxes, each with a title, a subtitle, and a "Download PDF" button: "Business Plan" (The Business Plan for Owl Cyber Defense Systems), "OCDS IT Policies" (OCDS corporate IT Policies), and "OCDS Cybersecurity Policies" (OCDS corporate Cybersecurity Policies).

Release Project Website into Production



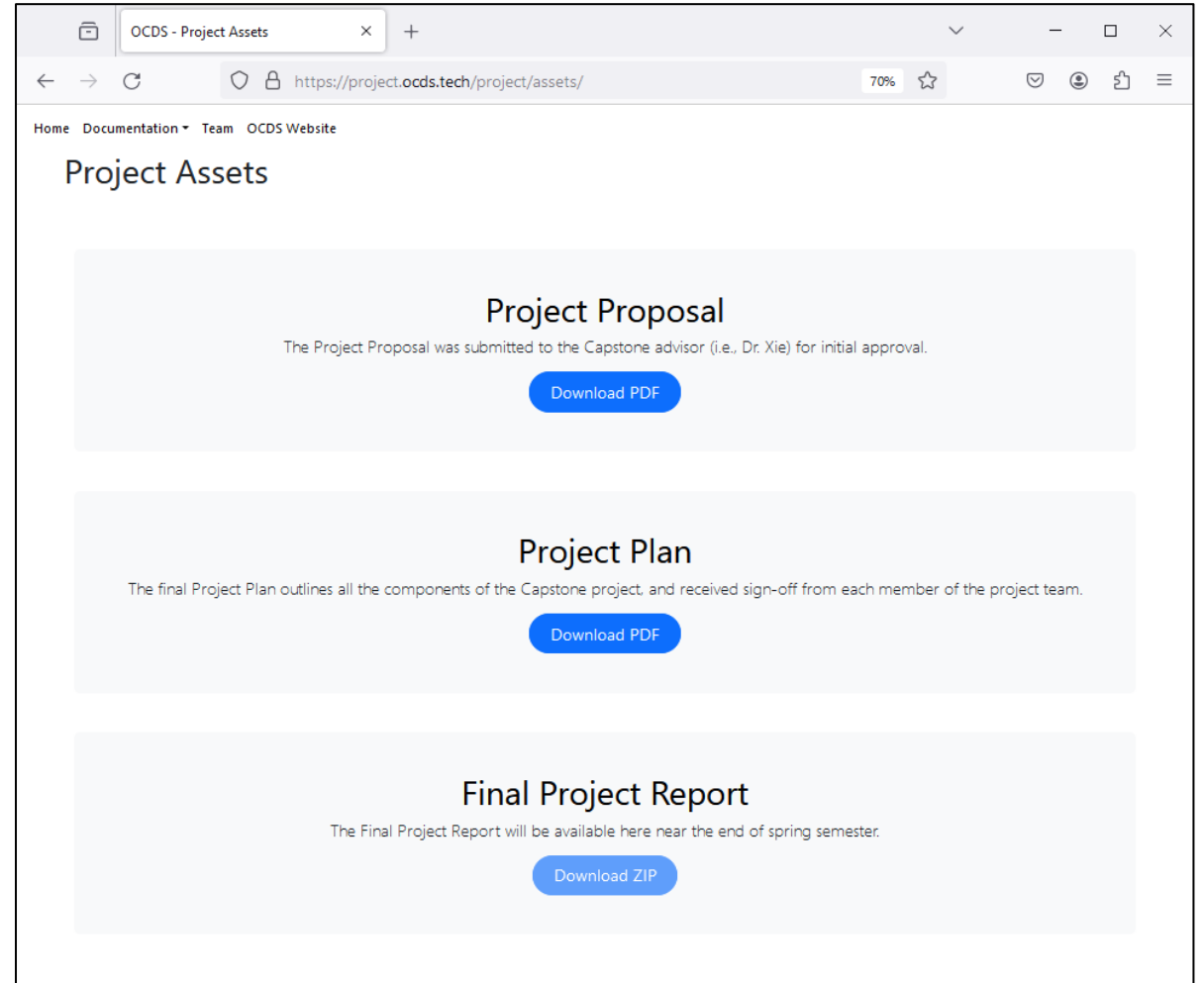
The screenshot shows a web browser window with the address bar at <https://project.ocds.tech/project/milestones/>. The page title is "Milestones" and the navigation menu includes "Home", "Documentation", "Team", and "OCDS Website". The main content area features three milestone cards, each with a title, a descriptive paragraph, and a "Download PPT" button.

Milestones

Milestone #1
Milestone #1 focused on the initial organization of the project. We divided work amongst the team members to focus on overall project management, development of business documentation, creation of server and website infrastructure, and the initial development of our AI Cybersecurity Chatbot.
[Download PPT](#)

Milestone #2
Milestone #2 focused on building out the items initiated in the first milestone. The initial business and project websites were put into production, early examples of the AI Chatbot were tested, and our first business documents (e.g. business plan and training materials were completed).
[Download PPT](#)

Milestone #3
Milestone #3 focused on finalizing many of the outstanding project elements. A new version of the AI Chatbot was in development and undergoing heavy testing. The business and project websites were still undergoing development but more elements were published onto the production server. Additional business offerings were also finalized. ** Milestone #3 will be completed by April 21, 2024.
[Download PPT](#)



The screenshot shows a web browser window with the address bar at <https://project.ocds.tech/project/assets/>. The page title is "Project Assets" and the navigation menu includes "Home", "Documentation", "Team", and "OCDS Website". The main content area features three asset cards, each with a title, a descriptive paragraph, and a download button.

Project Assets

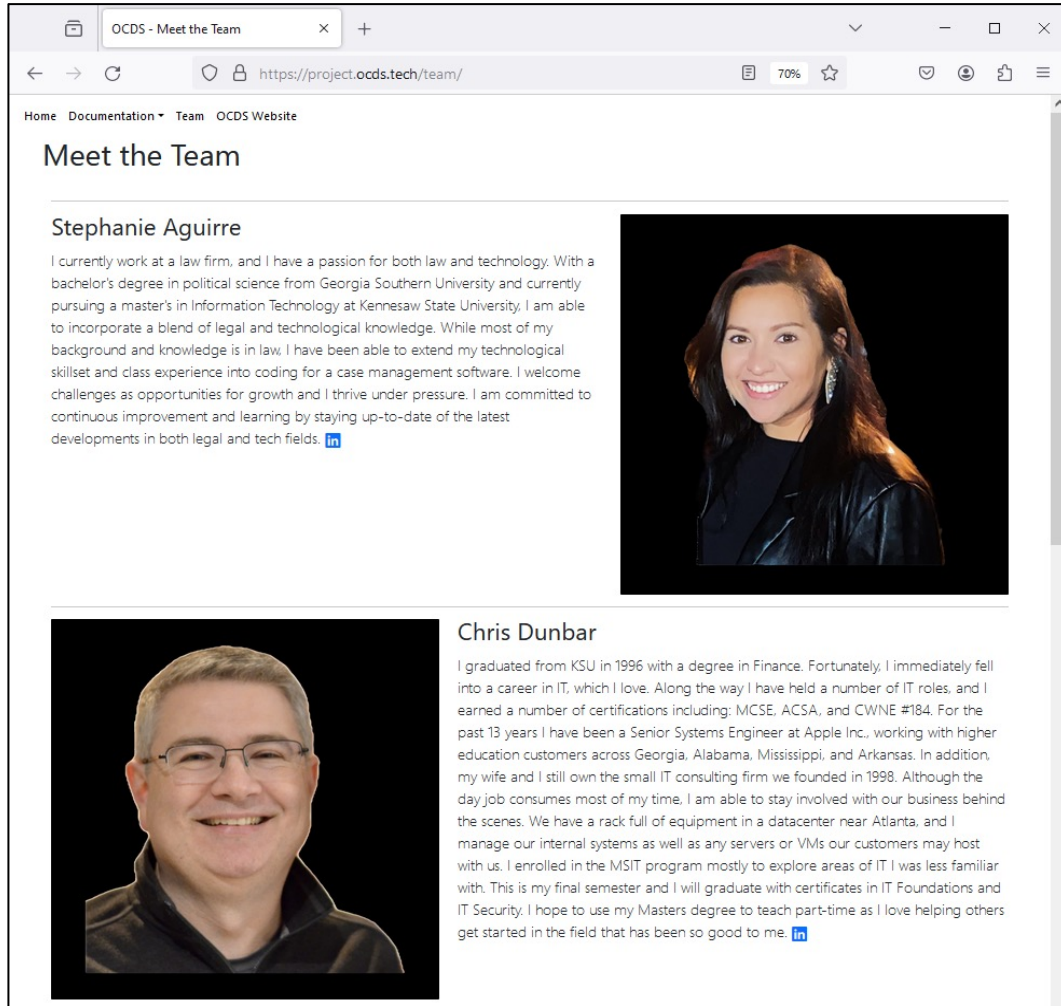
Project Proposal
The Project Proposal was submitted to the Capstone advisor (i.e., Dr. Xie) for initial approval.
[Download PDF](#)

Project Plan
The final Project Plan outlines all the components of the Capstone project, and received sign-off from each member of the project team.
[Download PDF](#)

Final Project Report
The Final Project Report will be available here near the end of spring semester.
[Download ZIP](#)




Release Project Website into Production



Scott Gilstrap

Born and raised in Rome, GA, joined the Navy right out of high school. Graduated Naval Nuclear Power School and served as a Nuclear Reactor Operator for 6 years aboard nuclear ballistic missile submarines. Honorably discharged and settled in Baton Rouge, LA (Geaux Tigers) working at Riverbend Nuclear Plant as a reactor operator for 6 more years. Moved back home to Rome, GA, entering the IT field as a telephone technical support agent and ascending through multiple roles such as Server Engineer, Network Engineer, Storage Engineer, Network Services Supervisor, IT Manager, and Global IT Service Delivery Manager. Shortly after moving back to Rome joined the Navy Reservers as an Information Technologist and still serving today. Picked up multiple certifications and degrees along the way. CompTIA A+, Network+ and Security+, CISSP, CCNA, MCP, MCSA, MCSE, ITIL 4, AWS Certified Practitioner, Azure Fundamentals, Agile Scrum Master, Associates of Applied Technology from Georgia Highlands College, Bachelor of Science in Business Administration from Shorter University and a Master of Science in Information Technology with Graduate Certificates in Information Security and IT Enterprise Management from Kennesaw State University (May 2024). [in](#)



Owner: Chris Dunbar



Release Project Website into Production



Ryan LeBlanc

I am a dedicated professional with a strong background in cybersecurity, system administration, and infrastructure management. With a Bachelor's degree in IT from Kennesaw State University, I have honed my skills in analyzing and safeguarding digital systems against potential threats. My experience extends to serving in the United States Navy, where I developed a disciplined approach to problem-solving and a keen understanding of security protocols. Throughout my career, I have demonstrated proficiency in implementing robust security measures, optimizing system performance, and ensuring seamless operation of complex networks. [in](#)

Justin Place

Experienced and innovative IT professional with a passion for leveraging technology to drive business growth and optimize operations. With a solid background in deploying systems, system administration and cybersecurity, I thrive in dynamic environments where I can apply my technical skills and strategic mindset to solve complex challenges and make sure systems are compliant with DCSA standards. I received hands-on experience through a part-time job at Kennesaw State University's Housing IT department; a Co-Op opportunity with GTRI; as well courses taken. I have since started working at GTRI full-time gaining more experience with security related operations. I hold a Bachelor's degree in Information Technology from Kennesaw State University, where I developed a strong foundation in the field of Information Technology with a focus on security. My coursework covered a variety of topics including policy, application development/design and programming, providing me with a well-rounded understanding of IT principles and practices. [in](#)

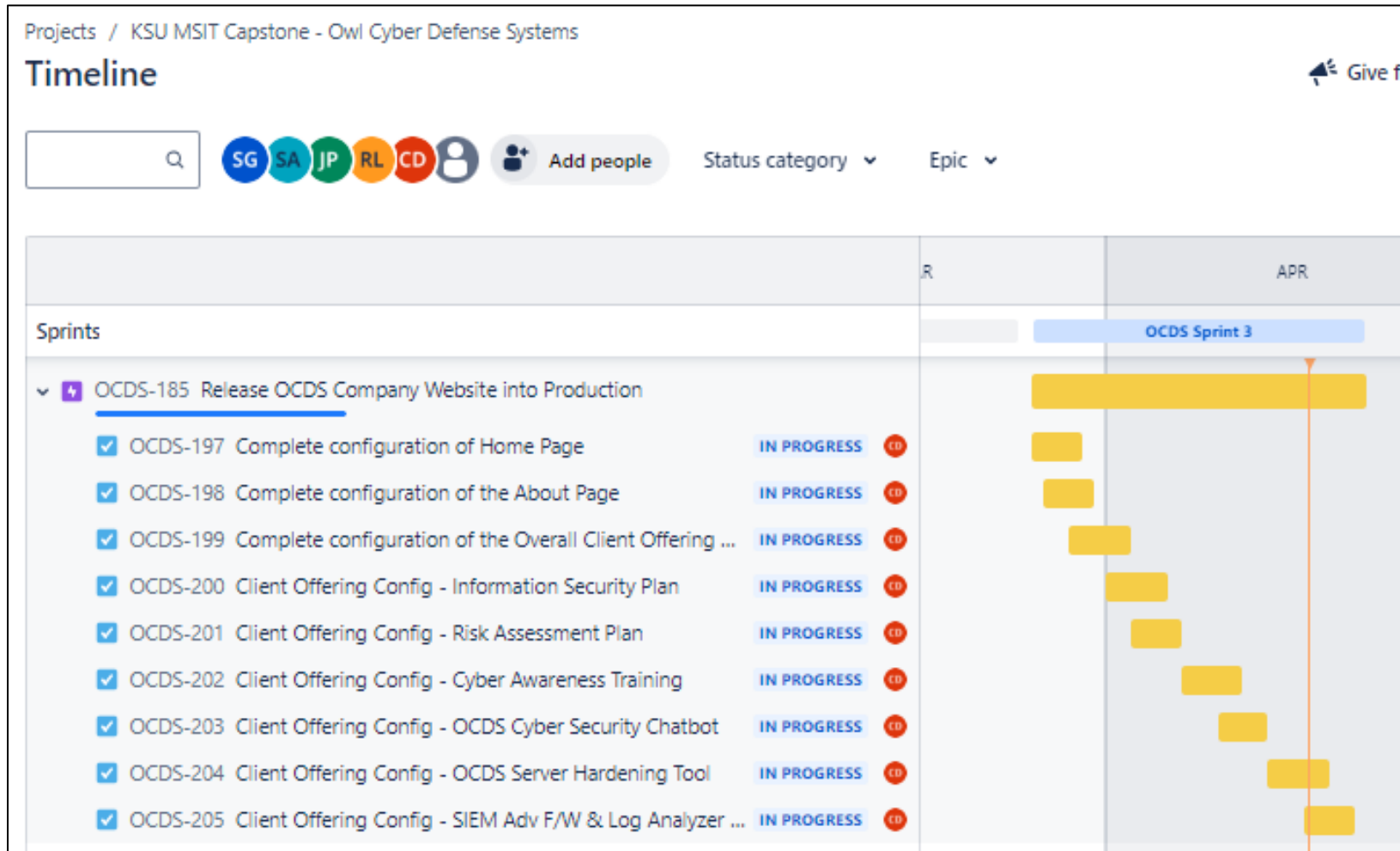


Epic: Release OCDS Company Website into Production

Chris Dunbar



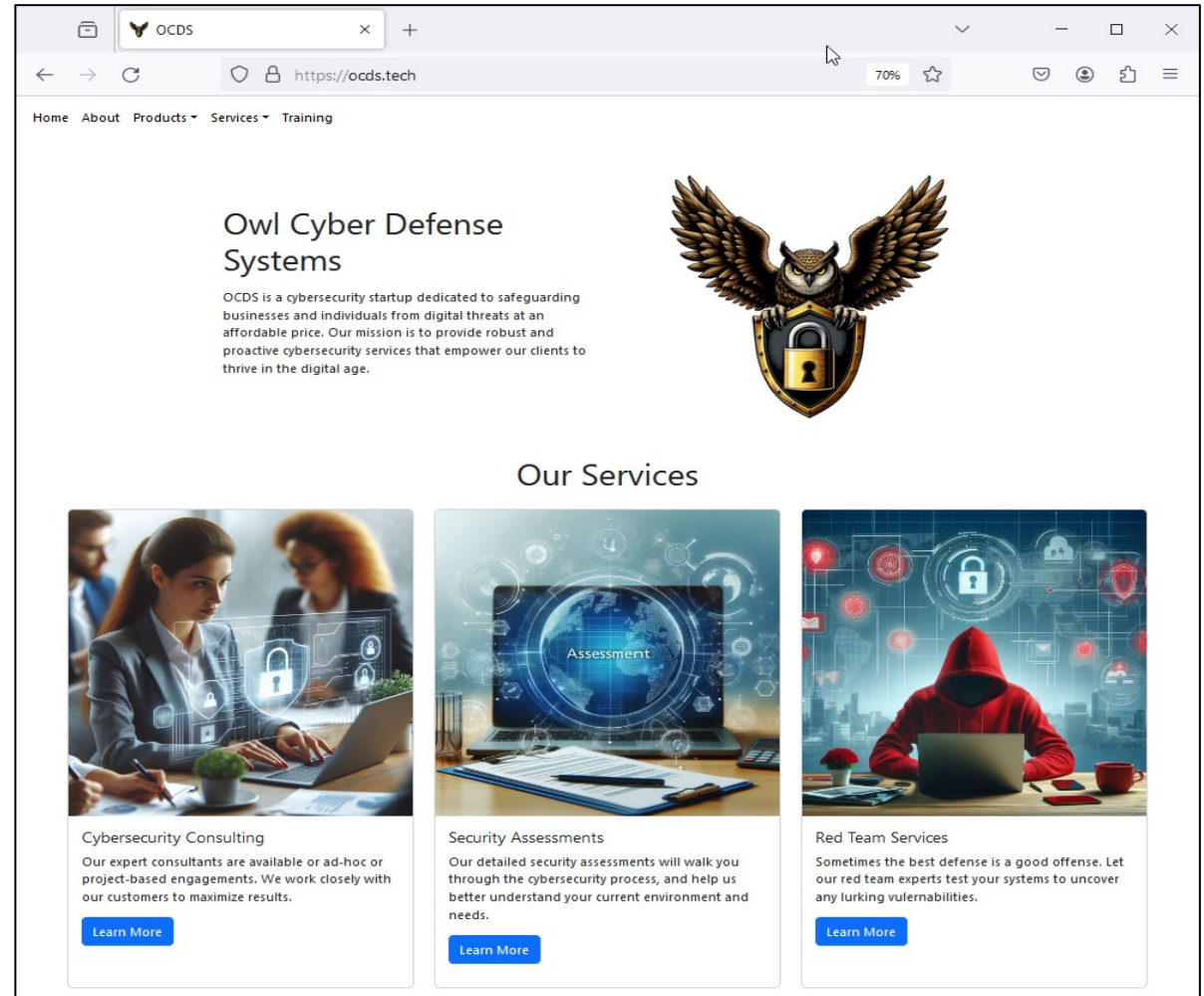
Release OCDS Company Website into Production



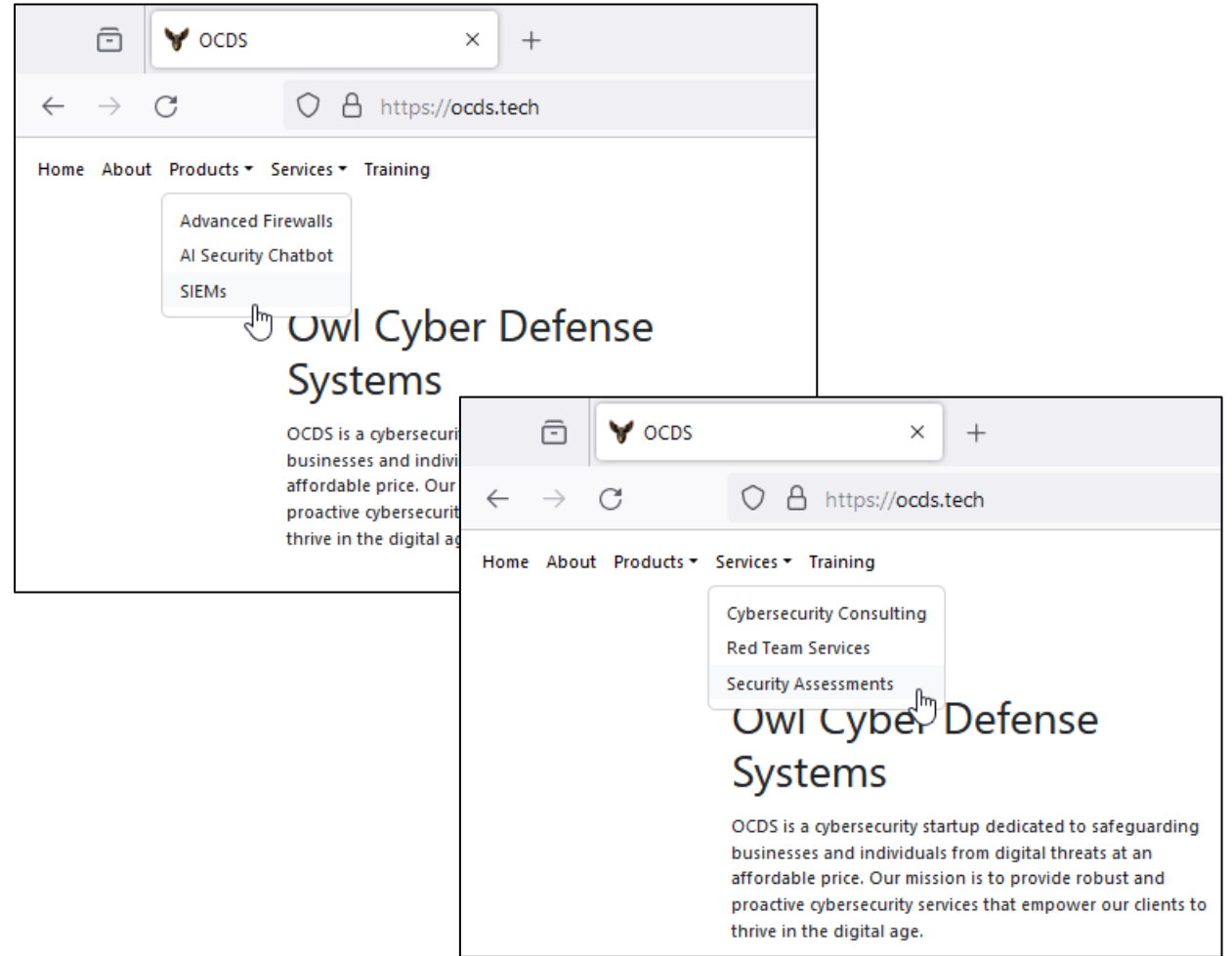
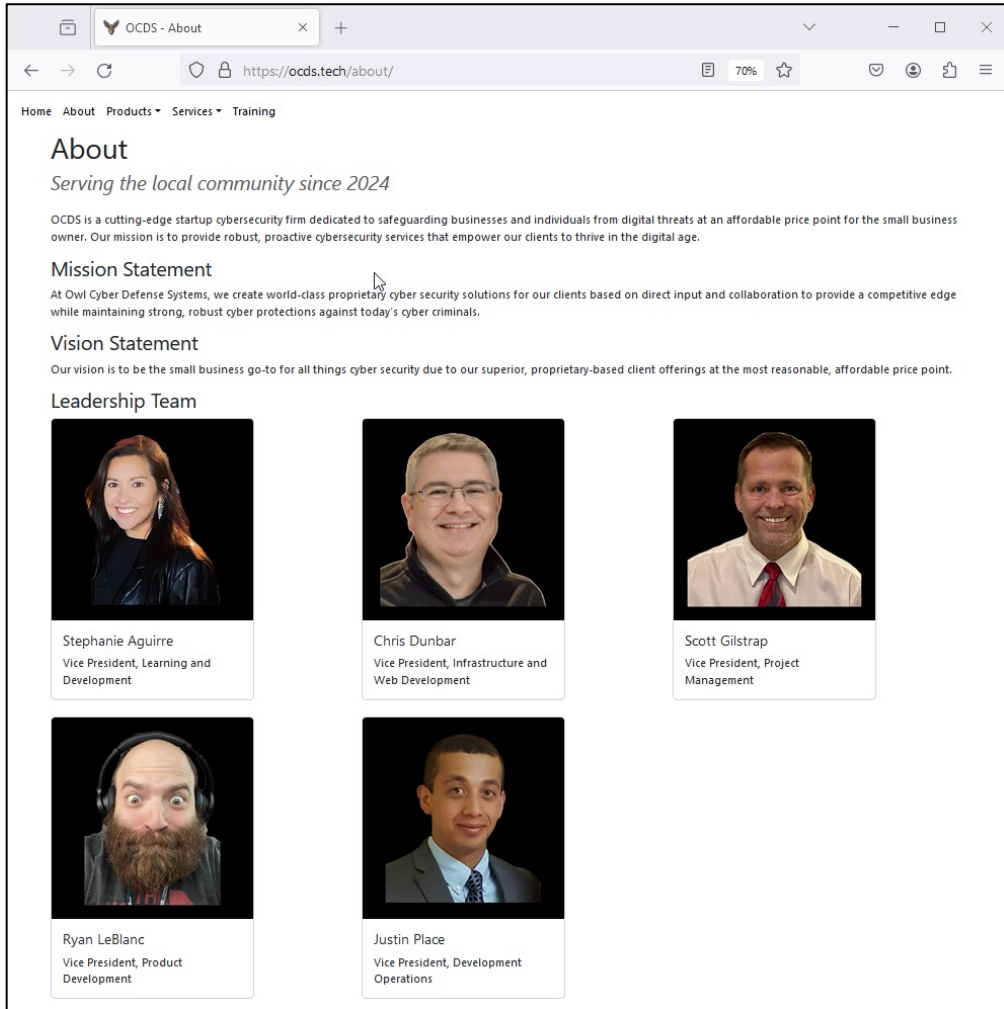
Complete/On Track

Release OCDS Company Website into Production

- Company website URL: <https://ocds.tech/>
- Hugo & Bootstrap
- **Home**
 - Cybersecurity Consulting
 - Security Assessments
 - Red Team Services
- **About**
 - Mission & Vision Statements
 - Leadership Team
- **Products** – Firewalls, AI Chatbot, SIEMs
- **Services** – Cybersecurity Consulting, Red Team, Security Assessments
- **Training** – 3 modules

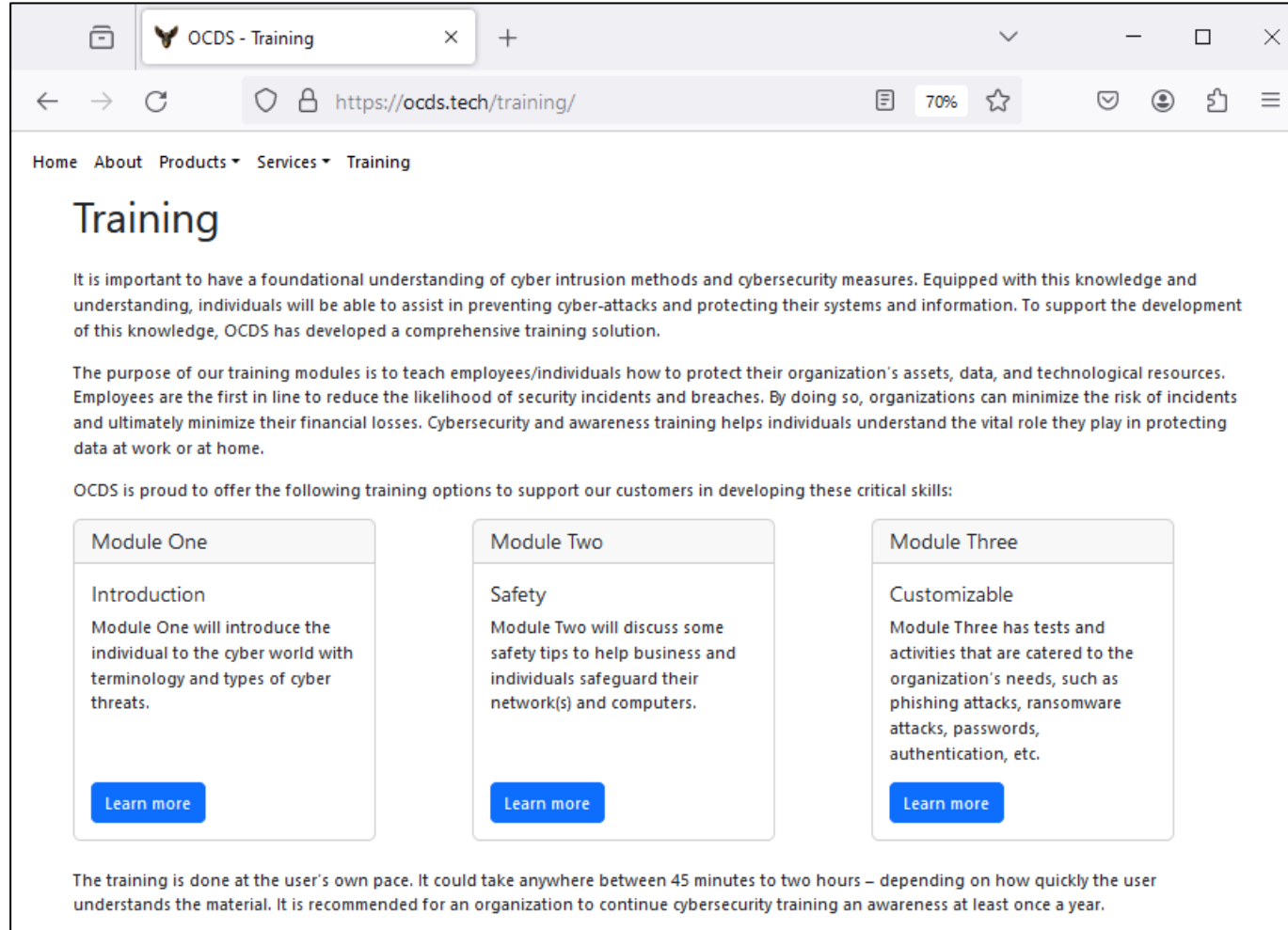


Release OCDS Company Website into Production



Owner: Chris Dunbar

Release OCDS Company Website into Production



The screenshot shows a web browser window with the address bar displaying `https://ocds.tech/training/`. The page title is "OCDS - Training". The navigation menu includes "Home", "About", "Products", "Services", and "Training". The main heading is "Training".

It is important to have a foundational understanding of cyber intrusion methods and cybersecurity measures. Equipped with this knowledge and understanding, individuals will be able to assist in preventing cyber-attacks and protecting their systems and information. To support the development of this knowledge, OCDS has developed a comprehensive training solution.

The purpose of our training modules is to teach employees/individuals how to protect their organization's assets, data, and technological resources. Employees are the first in line to reduce the likelihood of security incidents and breaches. By doing so, organizations can minimize the risk of incidents and ultimately minimize their financial losses. Cybersecurity and awareness training helps individuals understand the vital role they play in protecting data at work or at home.

OCDS is proud to offer the following training options to support our customers in developing these critical skills:

Module One	Module Two	Module Three
Introduction Module One will introduce the individual to the cyber world with terminology and types of cyber threats.	Safety Module Two will discuss some safety tips to help business and individuals safeguard their network(s) and computers.	Customizable Module Three has tests and activities that are catered to the organization's needs, such as phishing attacks, ransomware attacks, passwords, authentication, etc.
Learn more	Learn more	Learn more

The training is done at the user's own pace. It could take anywhere between 45 minutes to two hours – depending on how quickly the user understands the material. It is recommended for an organization to continue cybersecurity training an awareness at least once a year.

Epic: Release OCDS Business Plan into Production

Scott Gilstrap



Release OCDS Business Plan into Production

Projects / KSU MSIT Capstone - Owl Cyber Defense Systems

Timeline

Search: SG SA JP RL CD Add people Status category Epic

Sprints

OCDS-183 Release OCDS Business Plan into Production

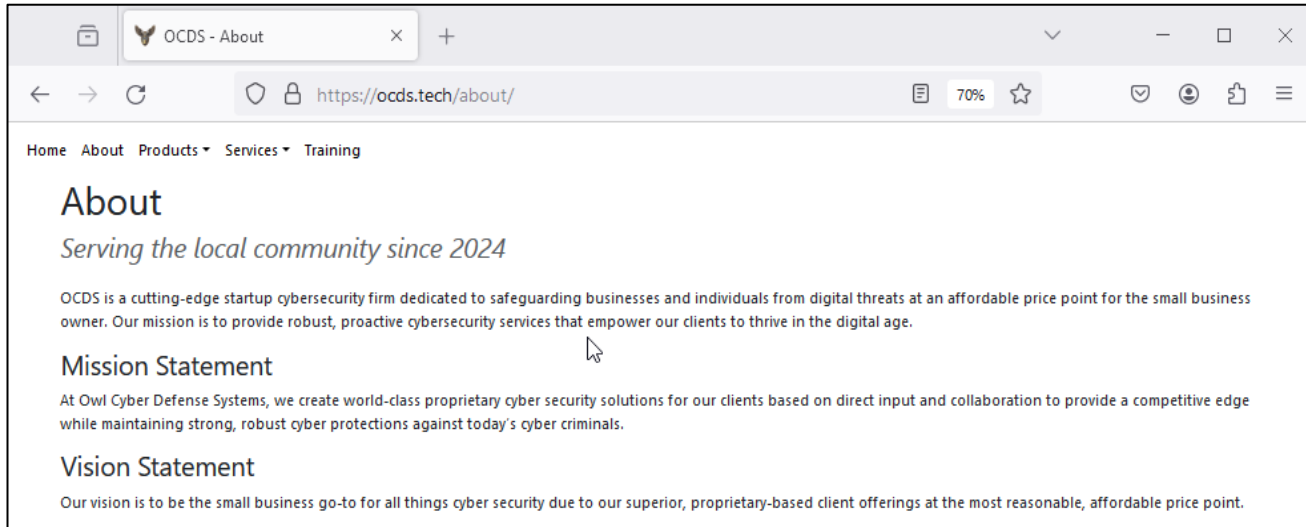
- OCDS-218 Review Business Plan **DONE** 50
- OCDS-219 Make Appropriate Changes to Business Plan **DONE** 50
- OCDS-220 Coordinate w Webmaster to Incorporate Business Plan ... **IN PROGRESS** 50
- OCDS-221 Sign off on Business Plan in Production **IN PROGRESS** 50

Complete/On Track



Release OCDS Business Plan into Production

- Verified Business Plan is complete (24-page document)
- Worked with Webmaster for the Business Plan to be accessible from the **Project Website**
- Worked with Webmaster to ensure the **Mission Statement** and **Vision Statement** from the Business Plan are displayed on the **Company Website**



Business Plan

Business Plan

Date: March 03, 2024

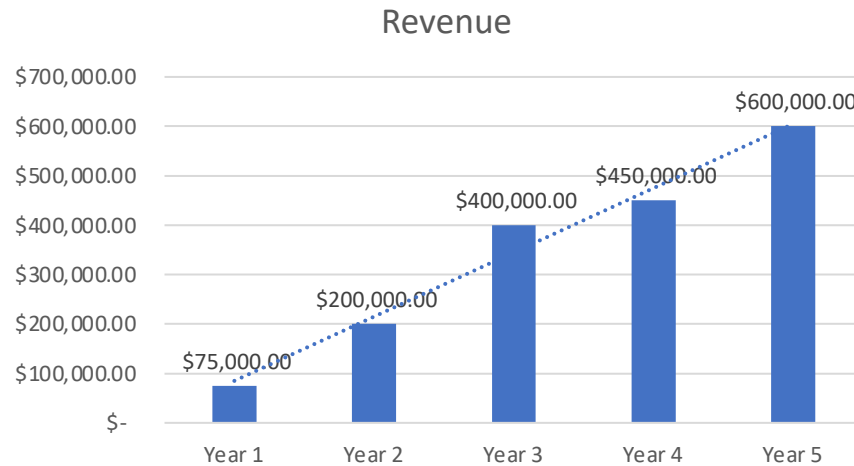
Table of Contents

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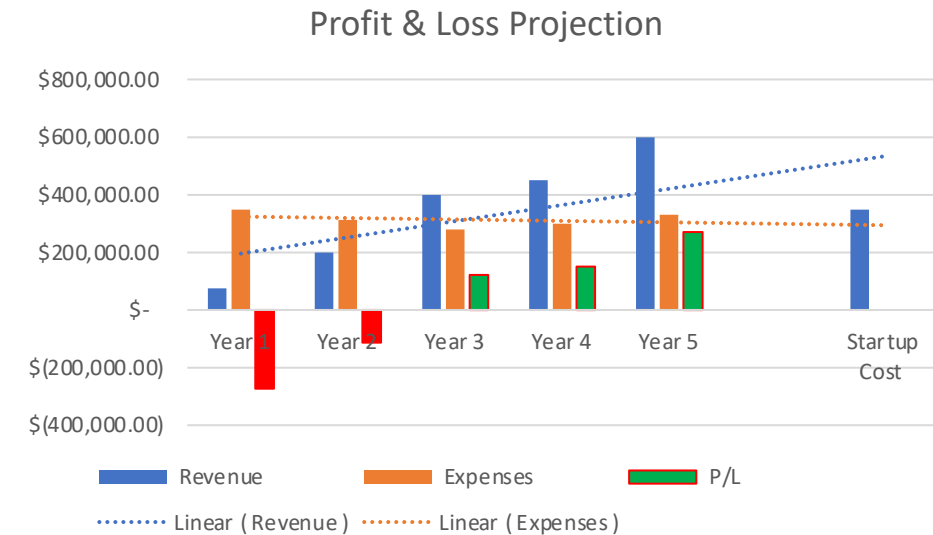
Release OCDS Business Plan into Production

Expense	Cost
Certifications	15,000
Education and Training	25,000
Technology and Equipment	10,000
Business Structure/Legal Fees	1,500
Office Space and Utilities	10,000
Marketing and Branding	25,000
Insurance	1,750
Personnel Costs	250,000
Miscellaneous Expenses	10,000
Total	\$348,250



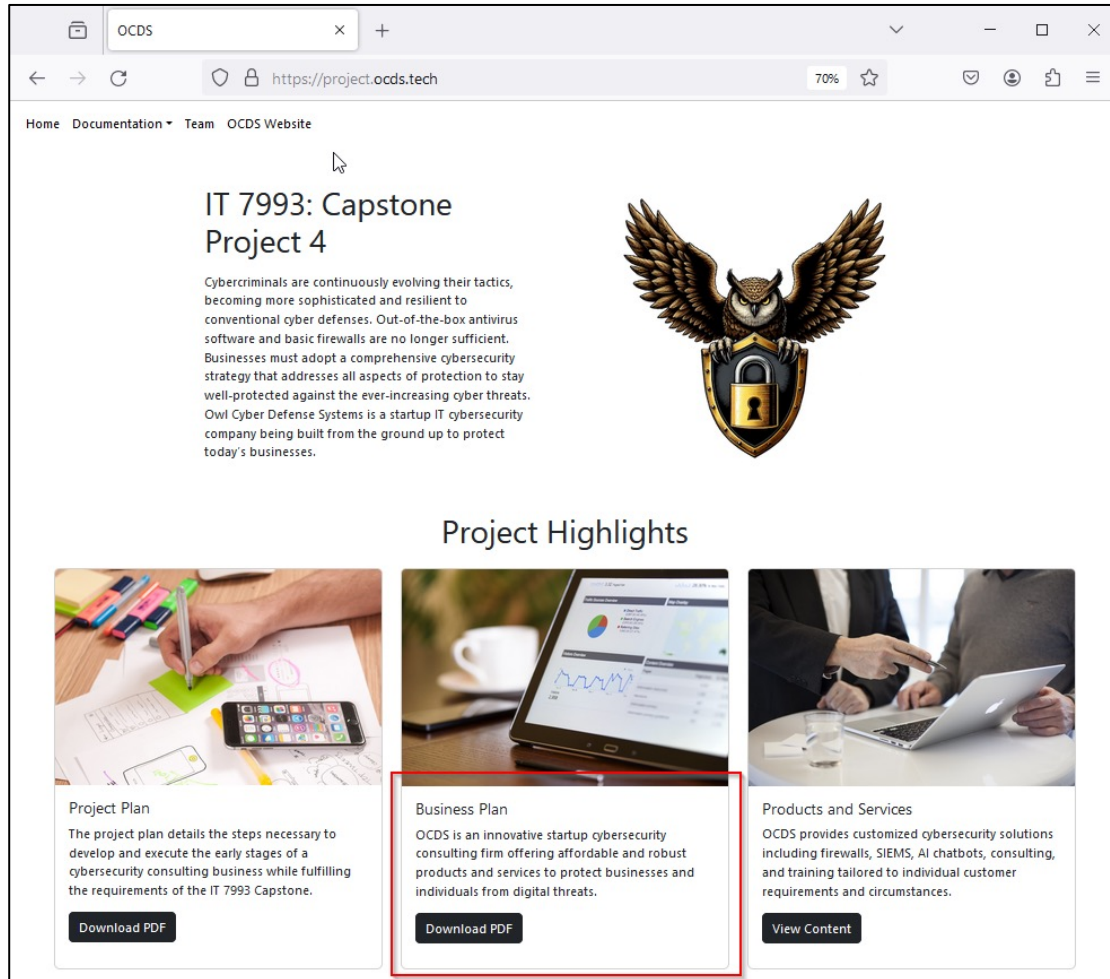
Year	Revenue	Expenses	P/L
Year 1	\$ 75,000.00	\$ 348,250.00	\$(273,250.00)
Year 2	\$ 200,000.00	\$ 313,425.00	\$(113,425.00)
Year 3	\$ 400,000.00	\$ 278,600.00	\$ 121,400.00
Year 4	\$ 450,000.00	\$ 300,000.00	\$ 150,000.00
Year 5	\$ 600,000.00	\$ 330,000.00	\$ 270,000.00
Startup Costs	\$ 348,250.00		

OCDS Client Offering	Retail Cost
Proprietary IT Security Plan	\$699.99
Proprietary Risk Management & Assessment Plan	\$499.99
AI-enabled Security Chatbot Tool	\$1499.99
SIEM Tool	\$999.99
Cyber Awareness Training	\$399.99 per course





Release OCDS Business Plan into Production




OCDS

https://project.ocds.tech

Home Documentation Team OCDS Website

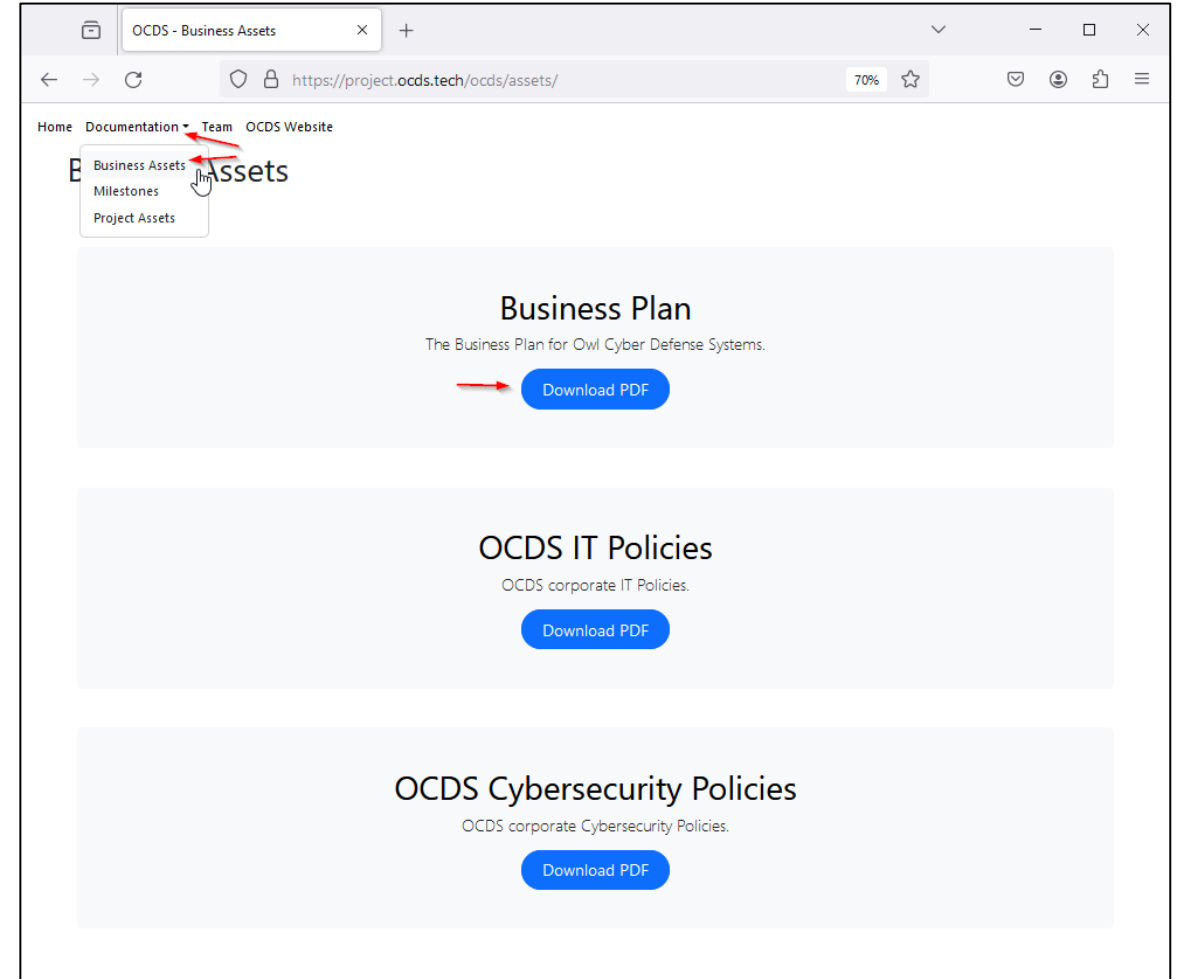
IT 7993: Capstone Project 4

Cybercriminals are continuously evolving their tactics, becoming more sophisticated and resilient to conventional cyber defenses. Out-of-the-box antivirus software and basic firewalls are no longer sufficient. Businesses must adopt a comprehensive cybersecurity strategy that addresses all aspects of protection to stay well-protected against the ever-increasing cyber threats. Owl Cyber Defense Systems is a startup IT cybersecurity company being built from the ground up to protect today's businesses.



Project Highlights

- Project Plan**
The project plan details the steps necessary to develop and execute the early stages of a cybersecurity consulting business while fulfilling the requirements of the IT 7993 Capstone.
[Download PDF](#)
- Business Plan**
OCDS is an innovative startup cybersecurity consulting firm offering affordable and robust products and services to protect businesses and individuals from digital threats.
[Download PDF](#)
- Products and Services**
OCDS provides customized cybersecurity solutions including firewalls, SIEMS, AI chatbots, consulting, and training tailored to individual customer requirements and circumstances.
[View Content](#)



OCDS - Business Assets

https://project.ocds.tech/ocds/assets/

Home Documentation Team OCDS Website

- Business Assets
- Milestones
- Project Assets

Business Plan

The Business Plan for Owl Cyber Defense Systems.

[Download PDF](#)

OCDS IT Policies

OCDS corporate IT Policies.

[Download PDF](#)

OCDS Cybersecurity Policies

OCDS corporate Cybersecurity Policies.

[Download PDF](#)

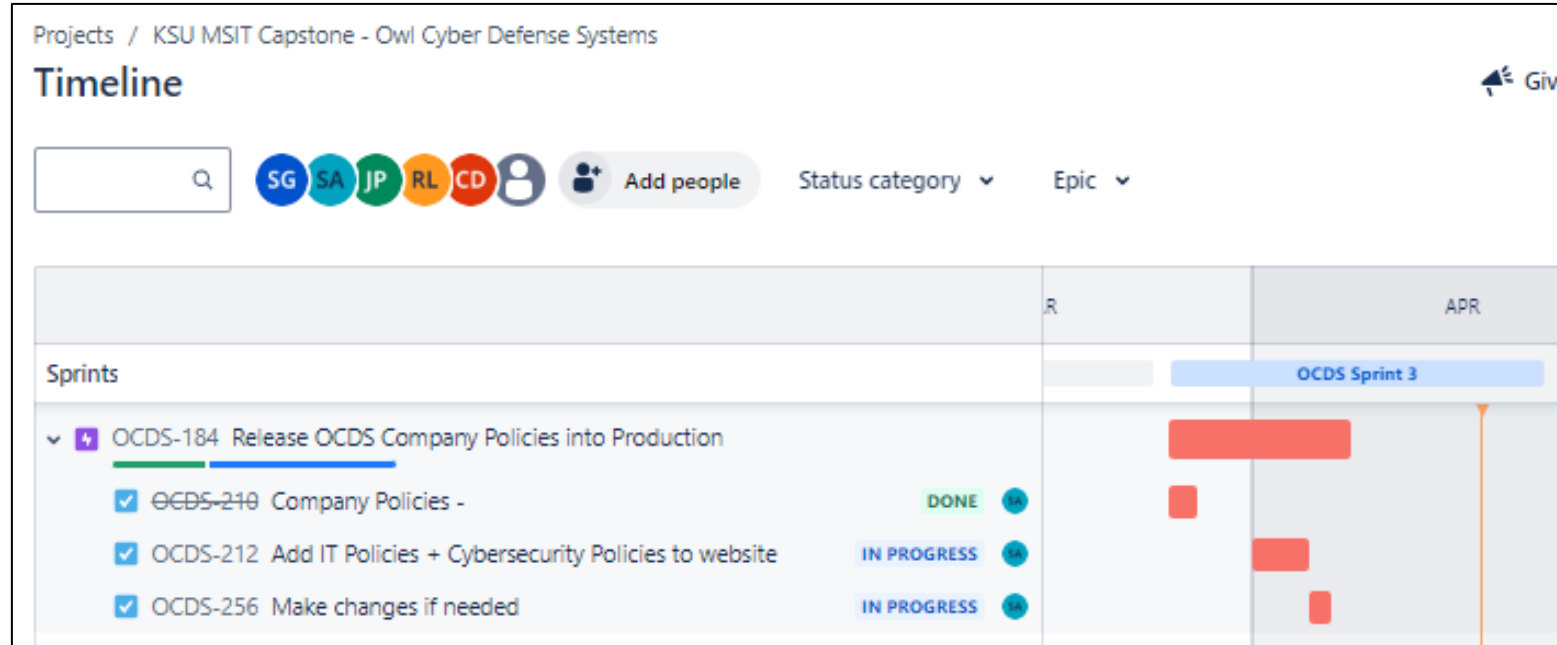
Owner: Scott Gilstrap

Epic: Release OCDS Company Policies into Production

Stephanie Aguirre



Release OCDS Company Policies into Production



Complete



Release OCDS Company Policies into Production

- Company policies have been reviewed and successfully completed
- Polices are part of the Business Plan and accessible on the Websites
 - Equal Opportunity
 - Workplace Health & Safety
 - Code of Conduct
 - Attendance & Time Off (PTO)
 - Ethics Policy
 - Substance Abuse
 - Compensation & Benefits
 - Remote Work
 - Access Control
 - AUP – Acceptable Use Policy
- Updated by OCDS each quarter
- Each employee required to read and agree to each year

Owl Cyber Defense Systems Business Plan	
Date: March 03, 2024	
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Business Strategy

Executing the details laid out in this business plan from sale & marketing strategies to company policies to financial considerations OCDS will invest in quality personnel and provide appropriate means to help them create best in class client offerings to provide cyber protection for our clients.

IT Goals

Aligning with business goals the Information Technology departments will provide OCDS employees with safe, secure, and well performing technology devices and strive for a solid strategy to improve year over year.

- Purchase developer class laptops for all technology staff and business class laptops for business leaders.
- Implement an advanced proprietary Security Information and Event Management (SIEM) system for each client.
- Create a cloud security policy framework for clients by implementing robust IT Security Plans to monitor cloud workloads for vulnerabilities and increase security posture.
- Develop world-class Cyber Awareness Training programs for clients.
- Identify potential partners and establish communication channels to facilitate integrating threat intelligence feeds and jointly develop solutions for mutual benefit.
- Experiment with emerging technologies (AI, blockchain, etc.).

IT Strategy

The OCDS IT leaders will consistently communicate and collaborate with OCDS business leaders to facilitate alignment. Alliance will be consistent and facilitated by a quarterly sync-up meeting to discuss and re-align goals and strategies. Following the details of this Business Plan, specifically the technology aspects, the OCDS Technology Department will reinvest in appropriate hardware to focused on the IT goals that are synchronized to help the business meet their

goals. Technology personnel will focus on developing products to meet the deliverables to our client offerings to meet the business goals.

Company Policies

Company policies play a crucial role in ensuring the smooth functioning of an organization.

- OCDS will set expectations via written policies detailing what is expected from company employees to including but not limited to performance, values, and behavior. These policies will provide a framework for employees to understand their roles and responsibilities within the organization.
- OCDS will strive to maintain consistency and fairness. OCDS well-defined policies will ensure consistency across the company. When everyone follows the same guidelines, it promotes fairness and prevents favoritism.
- Company policies will serve as a guideline for federal or state regulatory requirements to maintain compliance with laws. They help OCDS stay compliant with labor laws, industry-specific regulations, and legal obligations.
- Legal protection will be afforded as OCDS policies will act as pre-warnings for employees. By outlining the consequences of failing to abide by the rules, OCDS will be protected legally. In case of disputes or claims, these documented policies will be valuable evidence.
- OCDS will promote a positive work environment via well-crafted policies contributing to a safe and enjoyable work environment. OCDS policies will relate to workplace health and safety, employee fraternization, and remote work helping to create a positive atmosphere for everyone.

OCDS Company Policies are as follows:

- **Equal Opportunity Policy:** Ensures fair treatment and prevents discrimination based on protected classes (e.g., race, gender, age, religion) in hiring and employment practices.

- **Workplace Health and Safety:** Addresses safety protocols, emergency procedures, and preventive measures.
- **Employee Code of Conduct:** Sets behavioral standards and expectations.
- **Attendance, Vacation, and Time-Off:** Clarifies leave entitlements and procedures.
- **Ethics Policy:** Guides employees on ethical behavior and integrity.
- **Substance Abuse:** Addresses drug and alcohol use in the workplace.
- **Compensation and Benefits:** Details salary, benefits, and incentives.
- **Remote Work:** Outlines guidelines for working remotely.
- **Access Control:** Only authorized users can have access to the organization’s IT resources, hardware, software, data, and network.
- **Acceptable Use Policy (AUP):** Set of rules that govern how an OCDS computer network, website, or service may be used. Outlines both permissible and prohibited actions. The OCDS AUP will serve as a roadmap for responsible and secure use of technology resources and maintain order, protecting assets, and fostering a respectful digital environment.
 - **Usage Guidelines:** Define acceptable behavior for users. Specify what actions are allowed and what constitutes misuse. By adhering to these guidelines, users contribute to a positive and secure environment.
 - **Network Security:** To maintain network security these OCDS practices will define and prevent unauthorized access, data breaches, and other security risks. E.g., this policy will prohibit sharing login credentials or attempt systems hacking, etc.
 - **Resource Allocation:** Address resource allocation. Ensure fair usage of network bandwidth, storage, and computing power. Prevent excessive or inappropriate use that could impact overall system performance.
 - **Legal Compliance:** Ensure OCDS compliance with legal requirements. Address copyright infringement, privacy laws, and intellectual property rights. Following this section of the AUPs, OCDS will avoid legal repercussions.
 - **Risk Mitigation:** Mitigate risks associated with misuse. Discourage activities like spreading malware, engaging in cyberbullying, or violating user privacy. These AUP policy section will protect both users and OCDS.

- **Bringing Own Device to Work (BYOD):** An individual can bring their own device to work, but company software must be installed to protect the organization from malicious software.
- **Social Media:** Under no circumstances should the organization’s property (i.e. software, hardware, data) should be on any social media platform. This could lead to legal and cybersecurity risks.
- **User accounts and passwords:** Everyone will have their own account and password(s). If an individual is no longer a part of the organization, then their account will be deleted. Passwords must be updated every ninety (90) days to ensure protection from hackers.
- **Backing Up Information:** Information from devices will be routinely backed up every fifteen (15) days to ensure that information is not lost in case of a cyber-attack. It is also to maintain the integrity of the organization’s IT resources.
- **Purchase and Installation of Software:** All hardware and software must be appropriate and provide value for the organization. It must be able to integrate within the other devices of the organization. If an installation or purchase must occur, then it must go through the IT manager for approval. From there, the IT manager will send the approval to the IT team, who will buy it and have it installed from a reliable and authorized vendor.
- **Incident Response:** If you see or receive something out of the ordinary, identify the incident and then report it. The incident will be properly escalated to the appropriate personnel to handle and respond to the incident. Once the incident has been dealt with, then an evaluation of the incident must occur in order to see how well it worked and whether anything else must be done to properly manage the incident.
- **Wireless Use:** To maintain regulation of wireless network access to the organization’s IT resources. User authentication is required before accessing the organization’s wireless networks. The organization monitors all wireless network to ensure reliable access. The organization reserves the right to restrict and/or move any device(s) that have access to the wireless network to prevent infection or any negative impacts to the IT resources.
- **Security Awareness and Training:** Should be administered to all individuals of the organization so they can properly handle tasks without jeopardizing the organization’s information and data. Providing proof of completion is required.

- **Data Retention:** All data retrieved from the organization will be stored for three (3) years. After the three (3) years, the data will be completely destroyed and wiped from the organization’s backup and storage. All outdated and duplicate data will be removed to keep storage space available. Data includes documents, records, transaction information, contracts, emails or other messaging applications, and customer information.
- **Email Usage:** Personal use of company email is not allowed. This reduces the risk of receiving spam email that could contain phishing or pharming content. Email exchange must be done on-premises or using a virtual machine to access user’s desktop. In case of an email security breach, the IT manager and supervisor must be notified. The organization has the right to monitor, read, intercept, store, and disclose emails.
- **Data and Information Security:** The availability, integrity, and confidentiality of the organization’s information must be protected from corruption, theft, or unauthorized access.

Using a project-based pricing strategy OCDS will charge a flat fee per project as opposed to a direct exchange of money for time. Pricing will be estimated based on the value of the project deliverables. For some projects the strategy will consist of flat fee from the estimated time of the project. OCDS uses this strategy as it is good for consultants providing business services.

Using the value-based model OCDS will price product offerings or services based on what the customer is willing to pay. OCDS could charge more for products we will set prices based on customer interest and data to maintain the competitive pricing and establish OCDS as the most affordable option for our clients while maintaining a modest profit margin. The goal is to increase client sentiment and loyalty while prioritizing clients in other areas of the business. This model also works well in any price-sensitive industry such as client-based products and services.

The pricing structure will fluctuate and will be posted and adjusted via the OCDS website.

Product & Services Line

Product Offering(s)

- AI-enabled network and server hardening tool
- Advanced firewall, SIEM, and Log Analyzer

Service Offerings

- Client IT Security Plan proprietary build-out
- Client Risk Management Plan proprietary build-out
- Client Cyber Awareness Training

Pricing Model

OCDS pricing is based on a combination of a **project**-based and a **value**-based pricing model.

Market Analysis

Target Market

The OCDS target market is the small business who is most likely a sole proprietary ownership with one to 10 employees. These small businesses may only have one or just a few products. They may be retail small businesses as well. Industries will vary. They may be professional and business service related. These small businesses are the heart of America. At more than 90% of U.S. businesses 33.3 million businesses are small business in the United States [1]. These businesses are our target market because they usually can’t afford the cyber protections required for robust defense and they are the ones who need it the most because a successful cyber attack against their business will most likely put them out of business. OCDS needs to help protect these businesses.

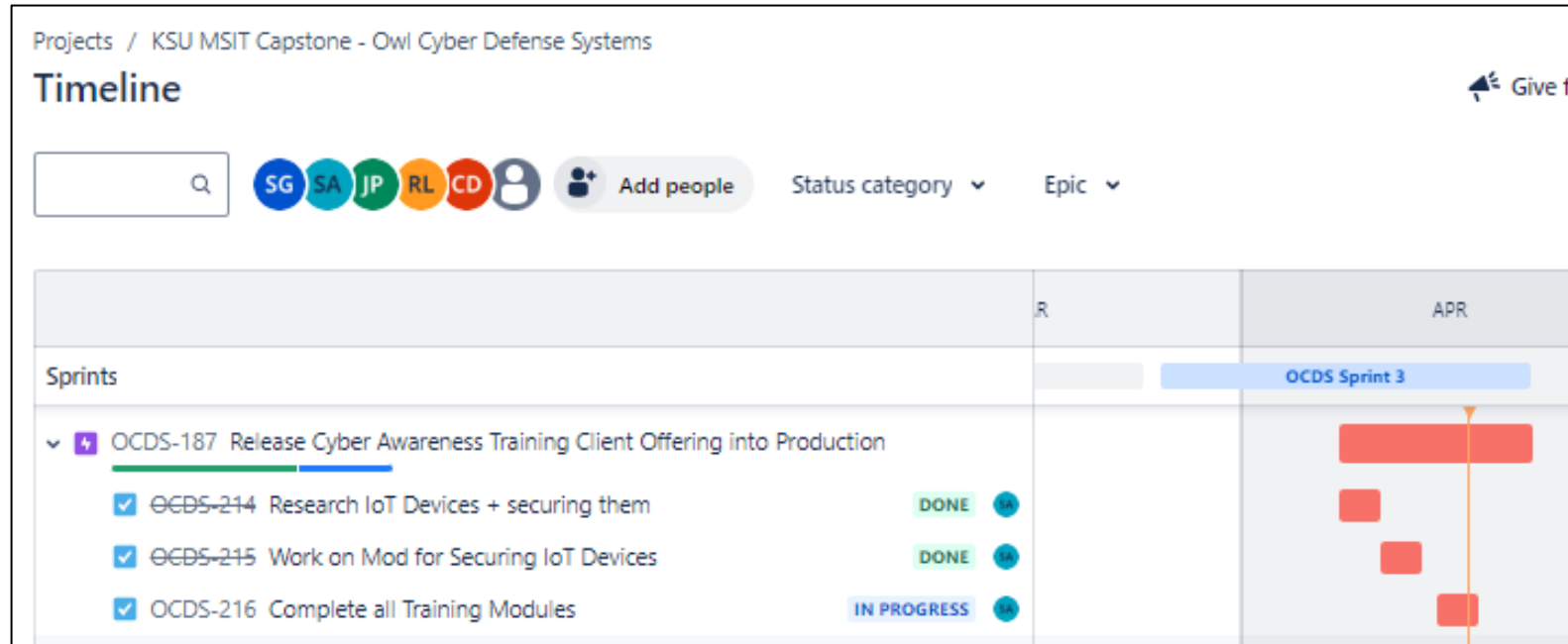
Reference

Epic: Release Cyber Awareness Training Client Offering into Production

Stephanie Aguirre



Release Cyber Awareness Training Client Offering into Production



On Track – no risks



Release Cyber Awareness Training Client Offering into Production

- Employees of small businesses experience 350% more social engineering attacks than those at larger enterprises.
- OCDS offers three training modules
 - 1) **Module 1:** Introduction – terminology and types of threats
 - 2) **Module 2:** Safety and cyber attack prevention.
 - 3) **Module 3:** Customized per client with activities and tests.
- Proprietary Cyber Awareness Training prepare specifically for Scrappy Tax Service
 - [CyberSecurity Training for Scrappy-Tax-Service.pptx \(sharepoint.com\)](#)

The screenshot shows a web browser window with the URL <https://ocds.tech/training/>. The page title is "Training" and it features a navigation menu with "Home", "About", "Products", "Services", and "Training". The main content area is titled "Training" and contains the following text:

It is important to have a foundational understanding of cyber intrusion methods and cybersecurity measures. Equipped with this knowledge and understanding, individuals will be able to assist in preventing cyber-attacks and protecting their systems and information. To support the development of this knowledge, OCDS has developed a comprehensive training solution.

The purpose of our training modules is to teach employees/individuals how to protect their organization's assets, data, and technological resources. Employees are the first in line to reduce the likelihood of security incidents and breaches. By doing so, organizations can minimize the risk of incidents and ultimately minimize their financial losses. Cybersecurity and awareness training helps individuals understand the vital role they play in protecting data at work or at home.

OCDS is proud to offer the following training options to support our customers in developing these critical skills:

- Module One**
Introduction
Module One will introduce the individual to the cyber world with terminology and types of cyber threats.
[Learn more](#)
- Module Two**
Safety
Module Two will discuss some safety tips to help business and individuals safeguard their network(s) and computers.
[Learn more](#)
- Module Three**
Customizable
Module Three has tests and activities that are catered to the organization's needs, such as phishing attacks, ransomware attacks, passwords, authentication, etc.
[Learn more](#)

The training is done at the user's own pace. It could take anywhere between 45 minutes to two hours – depending on how quickly the user understands the material. It is recommended for an organization to continue cybersecurity training an awareness at least once a year.



Release Cyber Awareness Training Client Offering into Production



Owner: Stephanie Aguirre



Release Cyber Awareness Training Client Offering into Production

Welcome to Cybersecurity training!

- Cyber security is defending computers, servers, electronic devices, data, and networks from malicious attacks.
- Cyber attacks happen daily and the attacks are always evolving
- With the growing cyber attacks, there is an increase to cybersecurity
- We developed this training guide to help individuals, like yourself, better understand the risks of the cyberworld





Release Cyber Awareness Training Client Offering into Production

TRAINING PROGRAM MODULE 1

- The first module will introduce you to the cyber world with terminology and types of cyber threats





Release Cyber Awareness Training Client Offering into Production

TRAINING MODULE 2

- This second module will discuss some safety tips to help business and individuals safeguard their network(s) and computers





Release Cyber Awareness Training Client Offering into Production

How to protect your systems and electronic devices?



End-user protection - an individual (the user) could accidentally upload malware to a desktop or mobile device, and it could spread to the network.



Security protocols must be in place



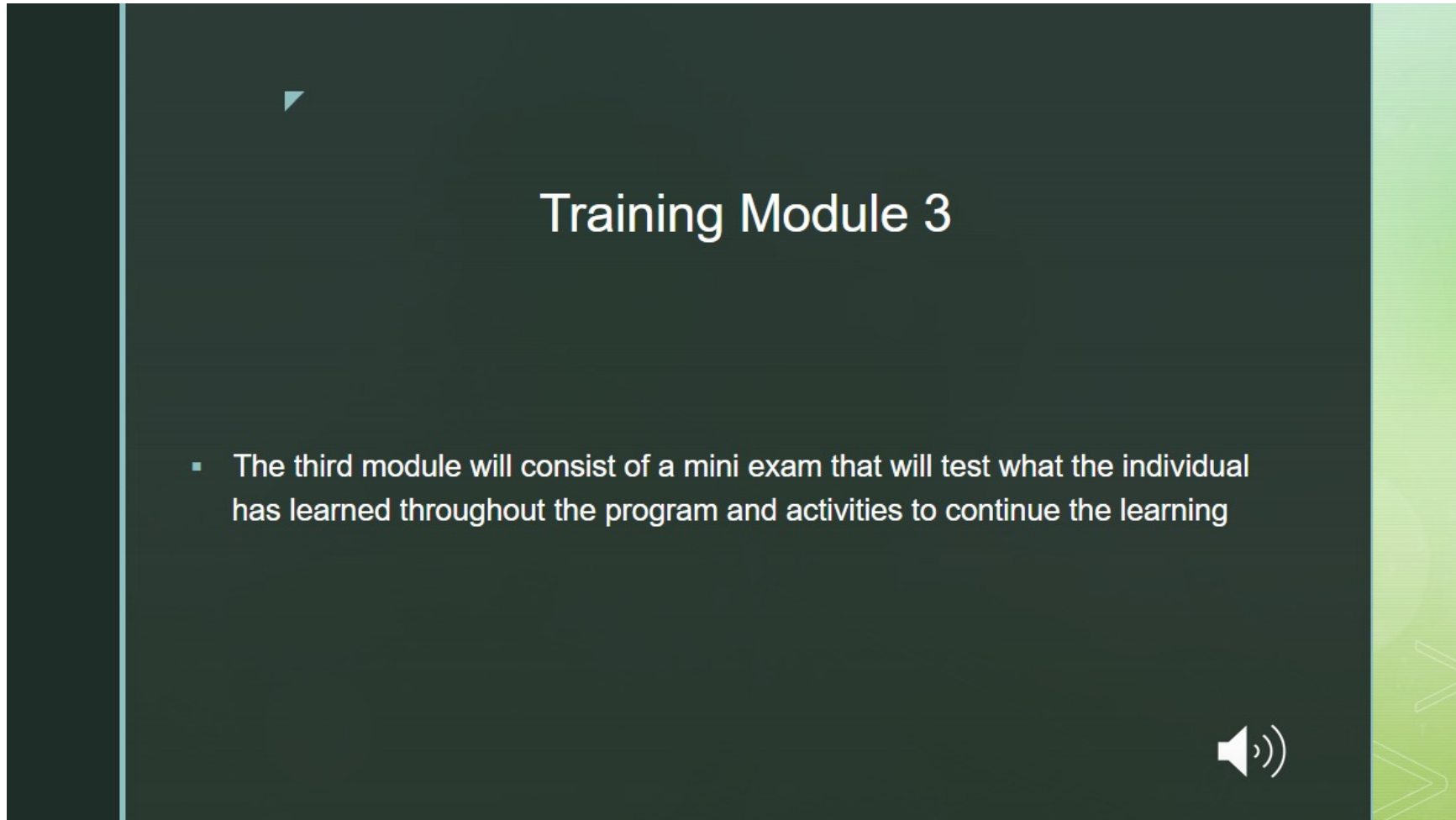
Cyber security training programs help professionals identify new threats and ways to combat them. Employees need to be educated and up to date on how to protect their devices and network.



Our training program offers safety tips and tests to help business and individuals guard themselves against cyber threats and attacks



Release Cyber Awareness Training Client Offering into Production

A dark green presentation slide with a light green vertical bar on the right side. The slide contains the title 'Training Module 3' and a single bullet point. A speaker icon is located in the bottom right corner of the slide area.

Training Module 3

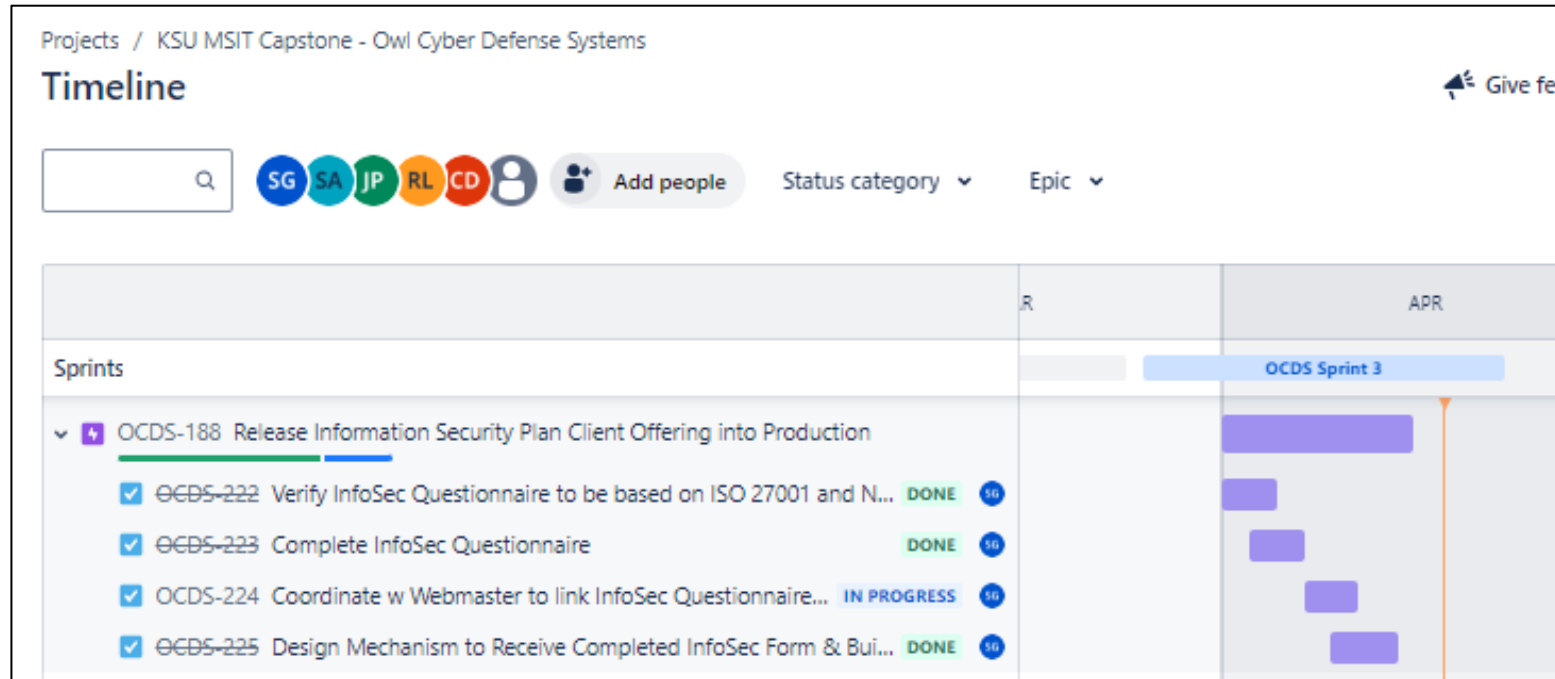
- The third module will consist of a mini exam that will test what the individual has learned throughout the program and activities to continue the learning

Epic: Release Information Security Plan Client Offering into Production

Scott Gilstrap



Release Information Security Plan Client Offering into Production



Complete/On Track



Release Information Security Plan Client Offering into Production

- Completed and deployed the IT Security Planning Questionnaire into Production
- Based questions and data collection on two primary information security standards
 - **NIST 800-53** – Standards for Security and Privacy Controls
 - **ISO 27001** – Information Security Management System (ISMS)
- 17 Sections
- 27 Questions
- 10 File Upload Points
 - Supporting Documentation



OCDS
IT Security Planning
Questionnaire

With a completed form the OCDS Security Team will design a proprietary Information Security Plan for your business.

[Start now](#)

A promotional banner for the OCDS IT Security Planning Questionnaire. The top half features a blurred background of a financial market dashboard with various charts and data points. The bottom half is a white box with a teal border containing the title "OCDS IT Security Planning Questionnaire" in teal, a descriptive sentence, and a teal "Start now" button.

• <https://forms.office.com/r/6jnRL8eX8j?origin=lprLink>



Release Information Security Plan Client Offering into Production

- Overall Process
 - **Determine all company Assets**
 - **Identify vulnerabilities with each asset**
 - Threat analysis
 - Identify threats to each vulnerability
 - Assess threat impact to company if vulnerability is exploited
 - Assess the likelihood of the threat exploiting each vulnerability
 - Calculate the Level of Risk
 - Determine acceptability of Risk
 - If not acceptable identify treatment options using security controls to mitigate the Risk
 - Create Risk Assessment & Treatment Plan
 - Create Statement of Acceptance
 - Addressing residual risks
- OCDS process details of IT Security Planning Process
 - This part is the asset identification stage
 - Client completes initial IT Security Planning Questionnaire
 - OCDS Receives and logs response
 - Using the detailed asset identifications OCDS creates a proprietary Risk Assessment Questionnaire for client to complete



Release Information Security Plan Client Offering into Production

Company Demographics

1. What is your contact information?
- Your name and role
- Business/company name
- E-mail
- Phone number
- Address *

Enter your answer

2. In what industry does your business operate? *

Enter your answer

3. What are your company's Business Goals and Objectives? *

Enter your answer

Section 2

Security Team | Roles & Responsibilities

4. Does your company have an Information Security Officer/Director or an Information Technology Officer/Director? If so, what is(are) their name(s), title(s), and team structure(s)? Describe their role(s) in Information Security. *

Enter your answer

5. Does your company have a dedicated IT Security Team? If so, what is the structure? *

Enter your answer

Section 3

Company Policies

6. Does your company have established Company Policies? If so, what are they? List the policy names. Provide documentation. *

Enter your answer

7. Does your company have a specific company Acceptable Use Policy? If so, provide documentation. *

Enter your answer

Section 4

Employee Training

8. Does your company have an existing Employee Cyber Awareness Training Program? If so, describe and provide documentation. *

Enter your answer

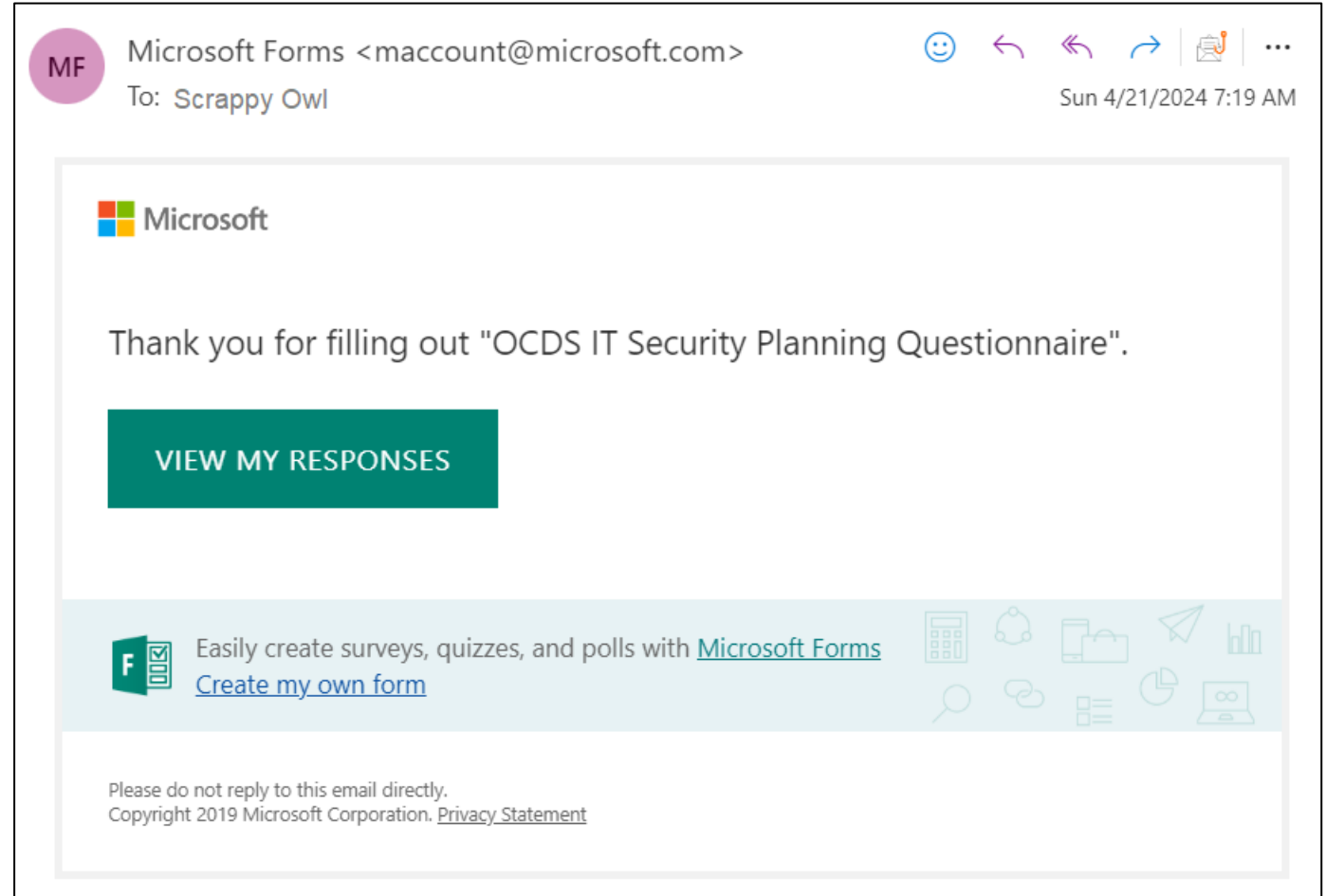
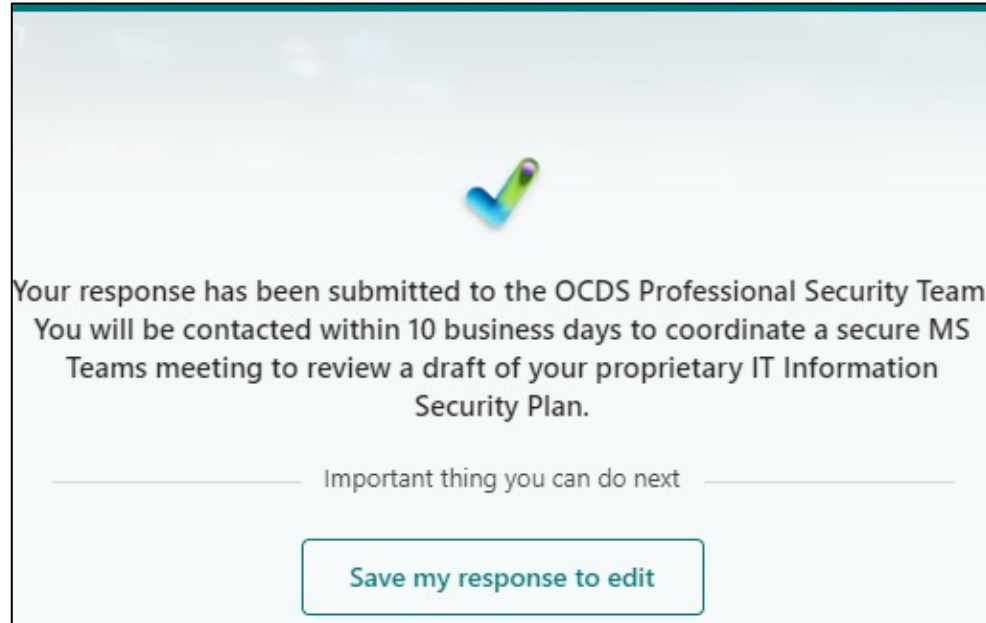
Section 5

Compliance Requirements
SOC2 | ISO 27001 | GDPR | HIPPA | PCI DSS | CMMC

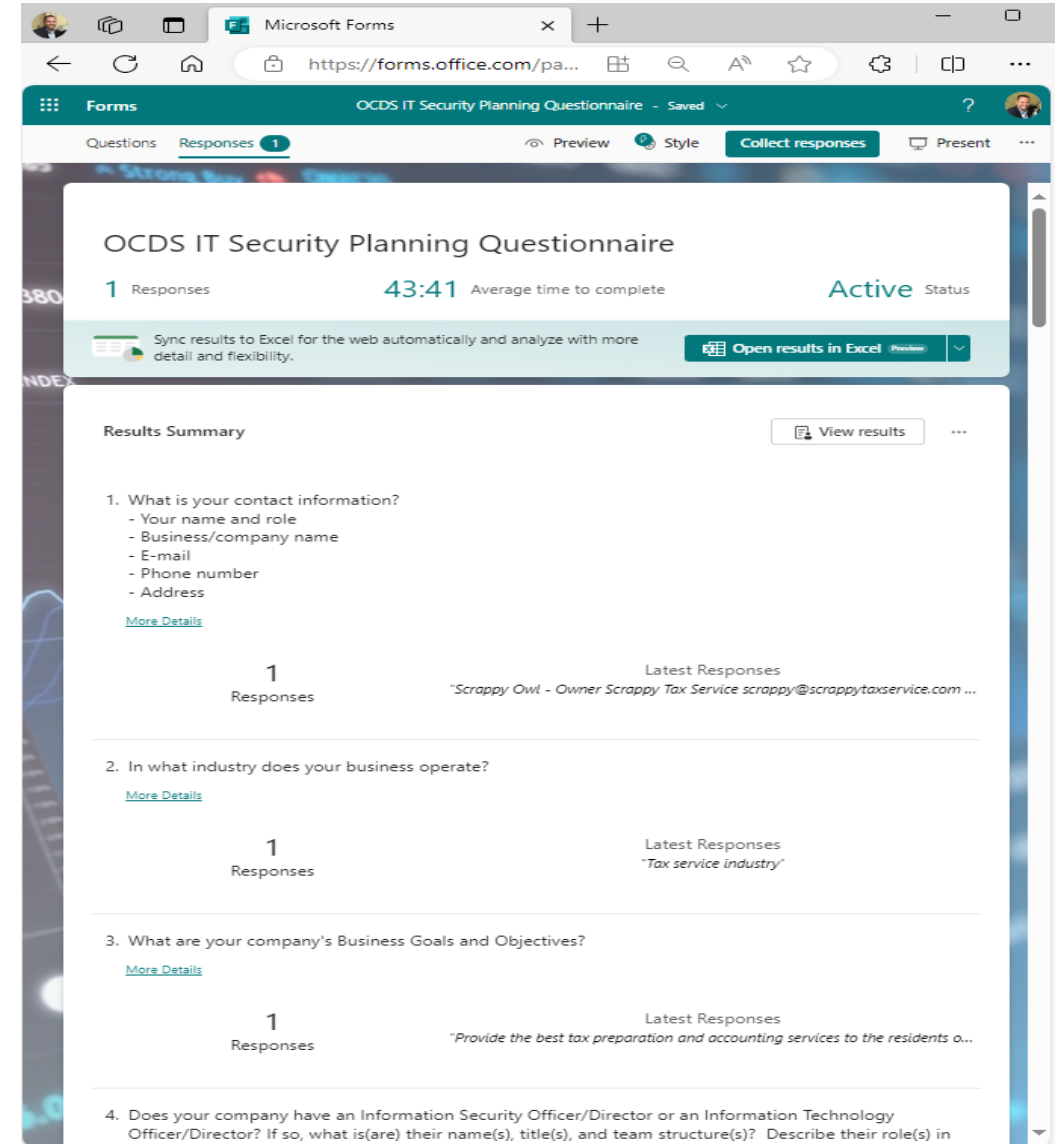
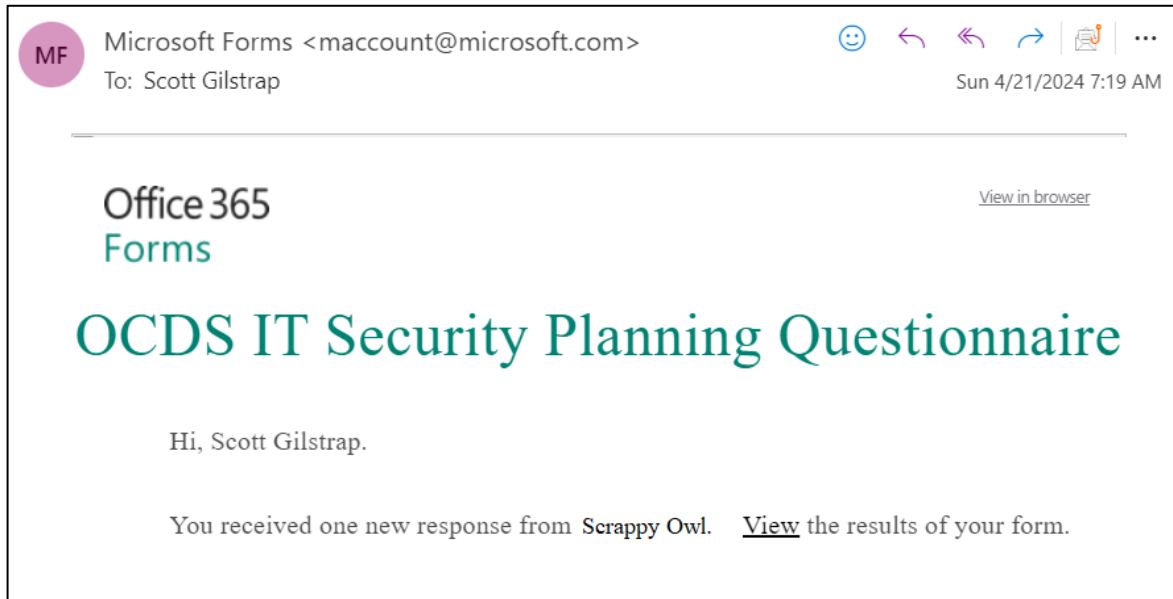
9. Does your company currently have any federal regulatory compliance or audit requirements? If so, list all compliance requirements and how you maintain/ensure compliance. Provide documentation. *

Enter your answer

SG Release Information Security Plan Client Offering into Production



SG Release Information Security Plan Client Offering into Production

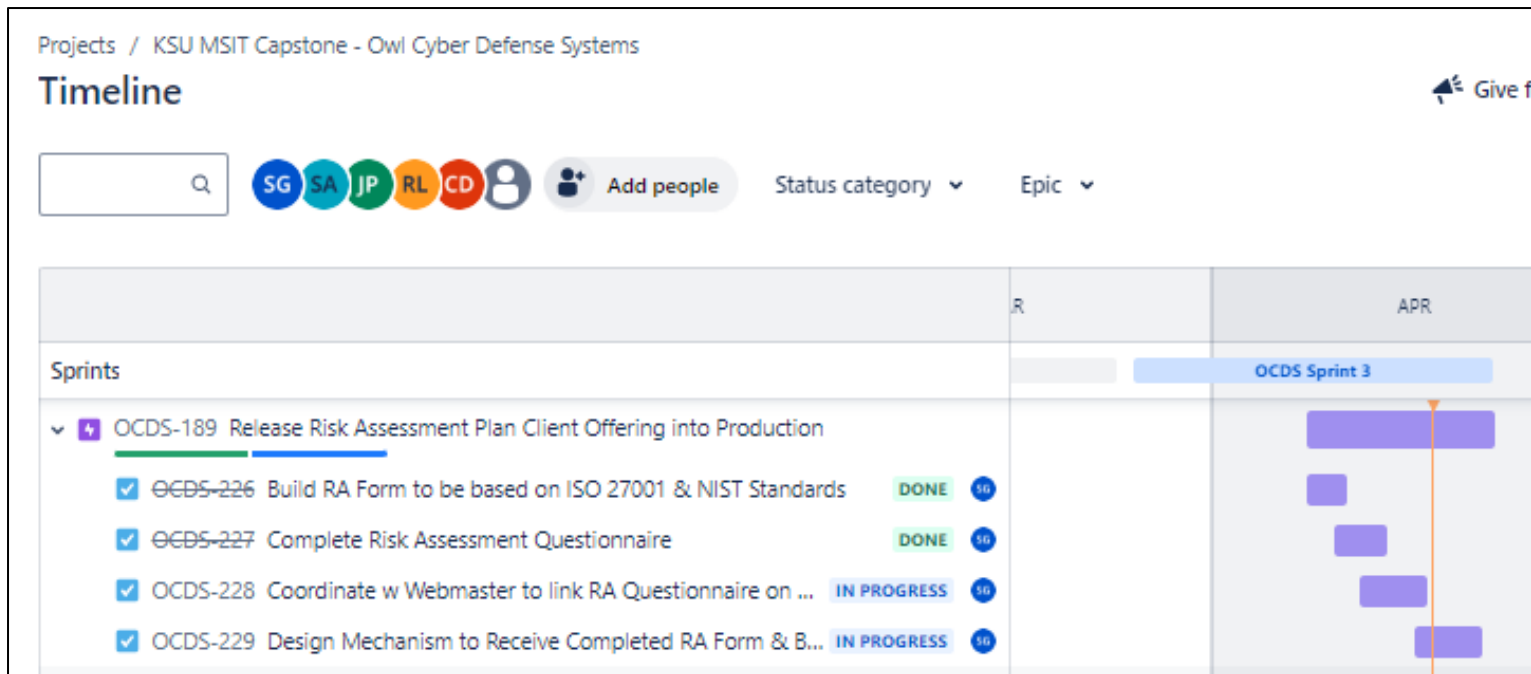


Epic: Release Risk Assessment Plan Client Offering into Production

Scott Gilstrap



Release Risk Assessment Plan Client Offering into Production



On Track – no risks



Release Risk Assessment Plan Client Offering into Production

- Overall Process
 - Determine all company Assets
 - Identify vulnerabilities with each asset
 - **Threat analysis**
 - Identify threats to each vulnerability
 - Assess threat impact to company if vulnerability is exploited
 - Assess the likelihood of the threat exploiting each vulnerability
 - **Calculate the Level of Risk**
 - **Determine acceptability of Risk**
 - **If not acceptable identify treatment options using security controls to mitigate the Risk**
 - **Create Risk Assessment & Treatment Plan**
 - **Create Statement of Acceptance**
 - Addressing residual risks
- OCDS process details of Risk Assessment Pan
 - This section is the Risk Assessment and Management stage
 - OCDS creates a proprietary Risk Assessment Questionnaire for client to complete
 - Client completes the multi-form, detailed Risk Assessment Questionnaire
 - OCDS creates a Risk Assessment Treatment Plan
 - Client reviews the Risk Assessment Treatment Plan and accepts
 - Documentation is recorded and all parties sign/agree to the developed IT Security and Risk Management Plan



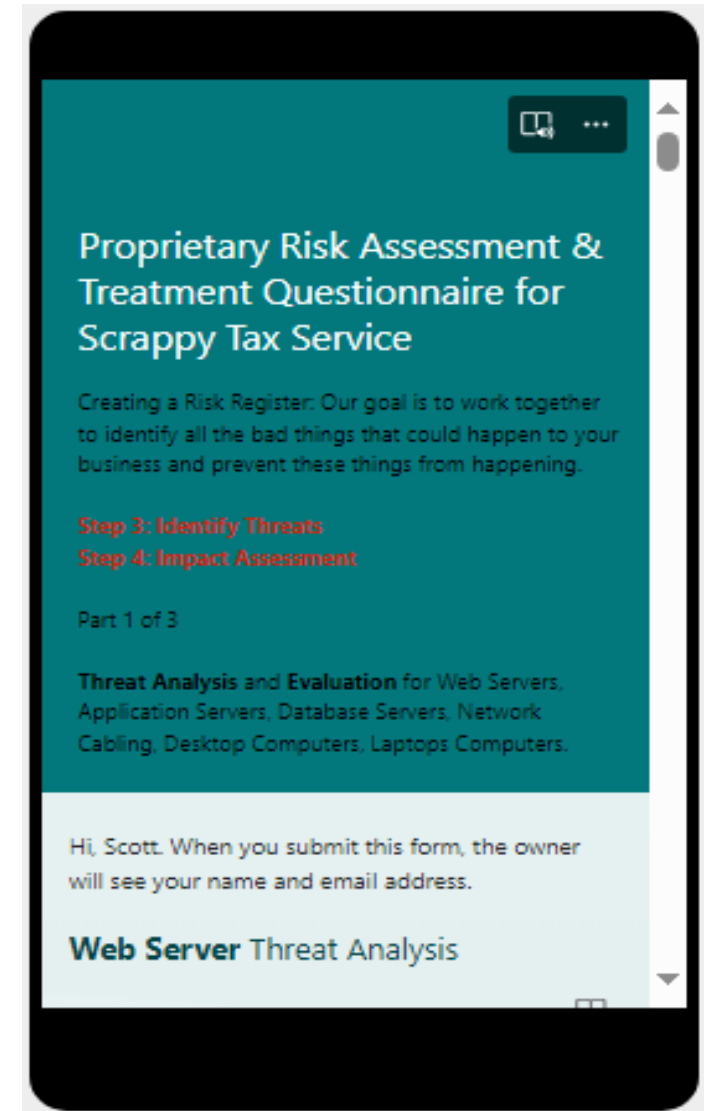
Release Risk Assessment Plan Client Offering into Production

NIST 800-53 – Standards for Security and Privacy Controls

ISO 27001 – Information Security Management System

This a multi-form process designed specifically for each client

- Threat Identification and Impact Analysis (Impact & Likelihood Assessment):
 - Step 1 of 3: <https://forms.office.com/r/eaZpRaMDH9?origin=lprLink>
 - Step 2 of 3: <https://forms.office.com/r/UQdQsCCSZg?origin=lprLink>
 - Step 3 of 3: <https://forms.office.com/r/bj2kaz9nkS?origin=lprLink>
- Based on the answers to the above questionnaires OCDS calculates Risk Levels:
- Client accepts Risks that are of an appropriate level
- OCDS identifies treatment options using appropriate security controls to mitigate each risk to an acceptable level
- Client accepts treatment options and Risk Treatment Plan
- OCDS generates two reports:
 - 1) Risk Assessment and Treatment
 - 2) Statement of acceptance of residual risks





Release Risk Assessment Plan Client Offering into Production

Example of a Risk Register

Risk Treatment Options:

- **Decrease** the risk using safeguards
- **Avoid** the risk
- **Accept** the risk
- **Transfer** the risk to a third party

Asset Area	Vulnerability	Threat	Impact	Likelihood	Level	Risk Owner
Remote workspace	Lack of access to facilities, rooms or offices	Unauthorized entry into facilities, rooms or offices	1 – Medium	2 – High	3 Not Acceptable	Scrappy Owl
Remote workspace	Lack of access to facilities, rooms or offices	Unauthorized entry into facilities, rooms or offices	1 – Medium	1 – Medium	2 Acceptable	Scrappy Owl
ScrappyWebSvr1	Inadequate / incompatible equipment	Interruption of power supply from public network	0 – Low	2 - High	2 Acceptable	Feisty Nightjar
ScrappyWebSvr1	Inadequate / incompatible equipment	Equipment failure	1 – Medium	1 – Medium	2 Acceptable	Feisty Nightjar
ScrappyWebSvr1	Test & prod environments not separated	Unauthorized Access: Employee	1 – Medium	2 – High	3 Not Acceptable	Feisty Nightjar
ScrappyWebSvr1	Test & prod environments not separated	Unauthorized Access: Attacker	2 – High	1 – Medium	3 Not Acceptable	Feisty Nightjar

Epic: Release OCDS Information Security Chatbot Client Offering into Production

Ryan LeBlanc



Release OCDS Information Security Chatbot Client Offering into Production



Complete

Release OCDS Information Security Chatbot Client Offering into Production

- Powered by RTX
- Used **NIST 800-53** information security controls and standards to populate datasets to teach the OCDS Chatbot
- Used PyCharm and Visual Studio Code scripting to modify RTX Chatbot source code
- OCDS Chatbot utilized NIST standards to appropriately answer client security questions providing security advice based on NIST standards
- This enables our clients to ask IT security questions and receive the appropriate answer to properly secure their environment

The screenshot shows the 'Chat with OCDS' application interface. At the top, there's a title 'Chat with OCDS' with a small logo. Below the title, there are two main configuration panels: 'AI model' and 'Dataset'. The 'AI model' panel has a dropdown menu currently set to 'Mistral 7B int4'. The 'Dataset' panel shows supported file types (.txt, .pdf, .doc) and a 'Folder Path' dropdown set to 'C:/Users/Ryan/AppData/Local/NVIDIA/ChatWithRTX/RAG/trt-llm-rag-windows-main/dataset'. Below these panels, there's a text line: 'Default dataset is a sampling of articles recently published on GeForce News'. The interface features four yellow buttons with white text: 'How does OCDS generate responses?', 'Whos is OCDS?', 'What can OCDS do?', and 'What is NIST-800-53?'. At the bottom, there's a chat input area with a placeholder 'Chat with OCDS...' and a yellow button with a bird icon. Below the input area are three icons: a refresh icon, a back icon, and a trash icon. At the very bottom, there's a disclaimer: 'Chat with response quality depends on the AI model's accuracy and the input dataset. Please verify important information. Chat with OCDS is powered by RTX CHATBOT, Source code can be found here: <https://github.com/NVIDIA/trt-llm-rag-windows> The chatbot install can be found here: https://us.download.nvidia.com/RTX/ChatWithRTX_installer_3_5.zip



Release OCDS Information Security Chatbot Client Offering into Production

- Default dataset – STIG xml & business proposal file.
- OCDS Security Chatbot provides appropriate answers to security questions and an output file for the clients.
- Examples:
 - What is NIST 800-53?

Chat with OCDS

AI model
Select AI model
Mistral 7B Int4

Dataset
.txt, .pdf, .doc files supported
Folder Path
C:/Users/Ryan/AppData/Local/NVIDIA/ChatWithRTX/RAG/trt-llm-rag-windows-main/dataset

What is NIST-800-53?

NIST-800-53 is a publication from the National Institute of Standards and Technology (NIST) that provides security and privacy controls for information systems and organizations. It is a revision of the original NIST-800-53 publication, which was first published in 2005. The publication is available for free from the NIST website and is intended to be used by both government and non-government organizations. It is consistent with the requirements of the Office of Management and Budget (OMB) and the Federal Information Security Modernization Act (FISMA), and is subject to release under the Freedom of Information Act (FOIA). The publication is intended to provide guidance on security and privacy controls for information systems and organizations, and to help organizations protect their sensitive data from cyber threats.

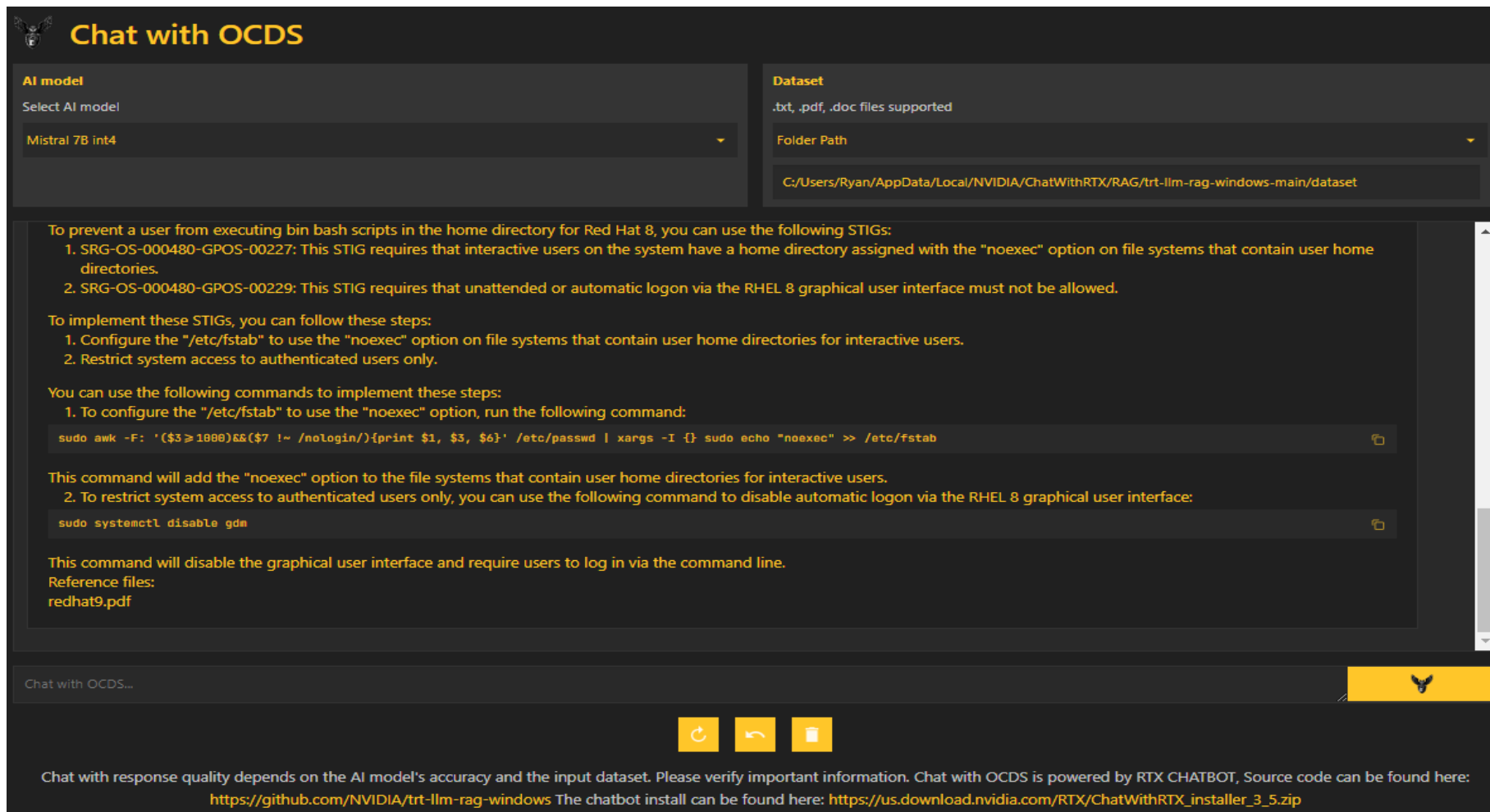
Reference files:
NIST.SP.800-53r5.pdf

Chat with OCDS...

Chat with response quality depends on the AI model's accuracy and the input dataset. Please verify important information. Chat with OCDS is powered by RTX CHATBOT, Source code can be found here: <https://github.com/NVIDIA/trt-llm-rag-windows> The chatbot install can be found here: https://us.download.nvidia.com/RTX/ChatWithRTX_installer_3_5.zip

Release OCDS Information Security Chatbot Client Offering into Production

- Default dataset – STIG xml & business proposal file.
- OCDS Security Chatbot provides appropriate answers to security questions and an output file for the clients.
- Examples:
 - STIG implementation



Chat with OCDS

AI model
Select AI model
Mistral 7B int4

Dataset
.txt, .pdf, .doc files supported
Folder Path
C:/Users/Ryan/AppData/Local/NVIDIA/ChatWithRTX/RAG/trt-llm-rag-windows-main/dataset

To prevent a user from executing bin bash scripts in the home directory for Red Hat 8, you can use the following STIGs:

1. SRG-OS-000480-GPOS-00227: This STIG requires that interactive users on the system have a home directory assigned with the "noexec" option on file systems that contain user home directories.
2. SRG-OS-000480-GPOS-00229: This STIG requires that unattended or automatic logon via the RHEL 8 graphical user interface must not be allowed.

To implement these STIGs, you can follow these steps:

1. Configure the "/etc/fstab" to use the "noexec" option on file systems that contain user home directories for interactive users.
2. Restrict system access to authenticated users only.

You can use the following commands to implement these steps:

1. To configure the "/etc/fstab" to use the "noexec" option, run the following command:

```
sudo awk -F: '($3 ≥ 1000) && ($7 != /nologin/){print $1, $3, $6}' /etc/passwd | xargs -I {} sudo echo "noexec" >> /etc/fstab
```

This command will add the "noexec" option to the file systems that contain user home directories for interactive users.

2. To restrict system access to authenticated users only, you can use the following command to disable automatic logon via the RHEL 8 graphical user interface:

```
sudo systemctl disable gdm
```

This command will disable the graphical user interface and require users to log in via the command line.

Reference files:
redhat9.pdf

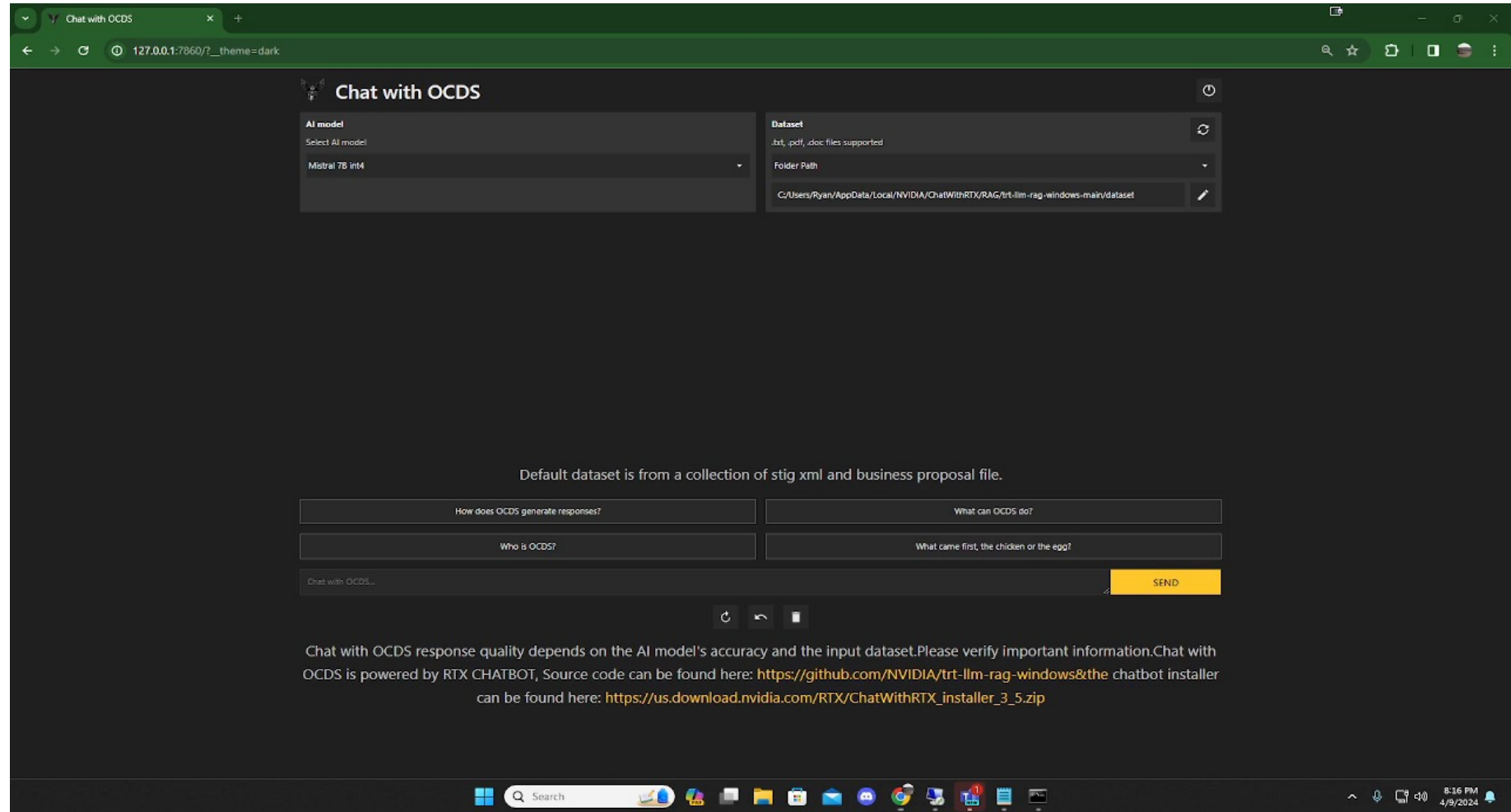
Chat with OCDS...

Chat with response quality depends on the AI model's accuracy and the input dataset. Please verify important information. Chat with OCDS is powered by RTX CHATBOT, Source code can be found here: <https://github.com/NVIDIA/trt-llm-rag-windows> The chatbot install can be found here: https://us.download.nvidia.com/RTX/ChatWithRTX_installer_3_5.zip



Release OCDS Information Security Chatbot Client Offering into Production

- Click image to play video (older color scheme)
- Default dataset – STIG xml & business proposal file.
- OCDS Security Chatbot provides appropriate answers to security questions and an output file for the clients.
- Examples:
 - What can OCDS do?
 - Provide me fixes to ensure home is not executable in FSTAB.
 - In Ubuntu provide me fixes to make sure password history is on compliance with STIGs.

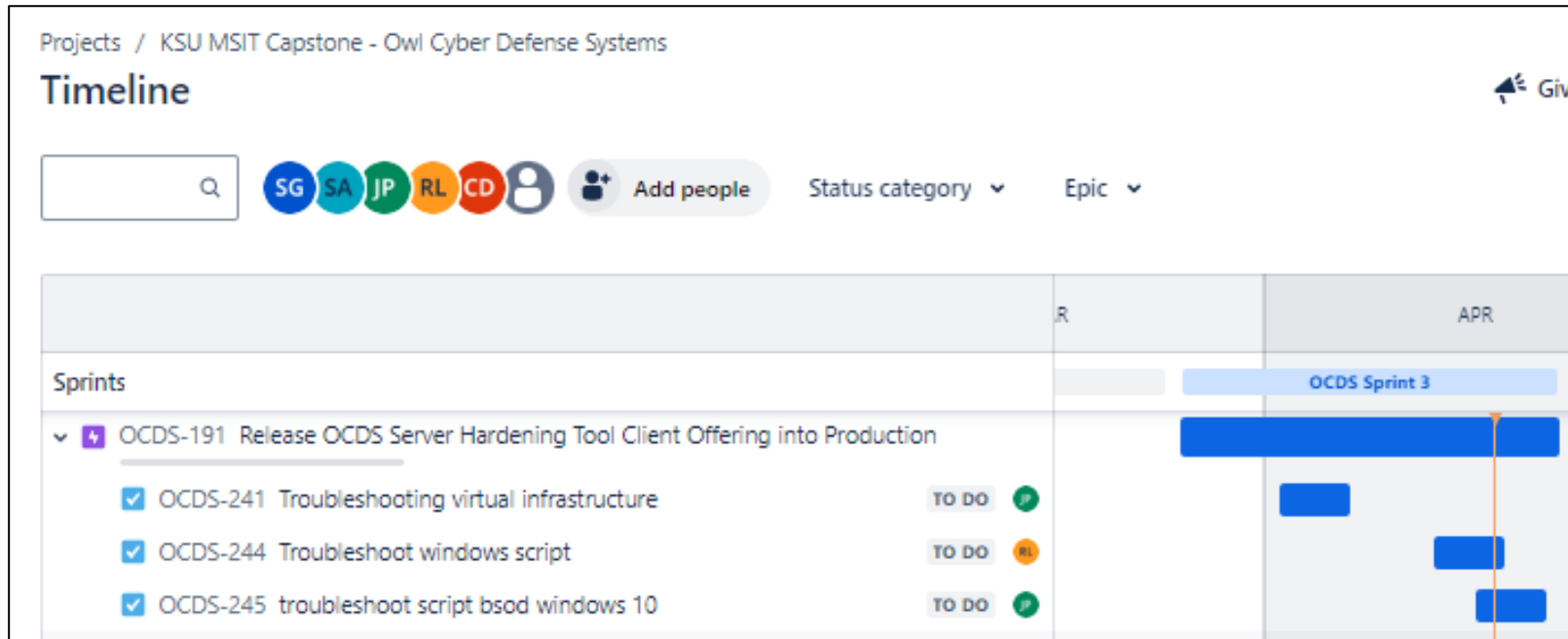


Epic: Release OCDS Server Hardening Tool Client Offering into Production

Justin Place



Release OCDS Server Hardening Tool Client Offering into Production

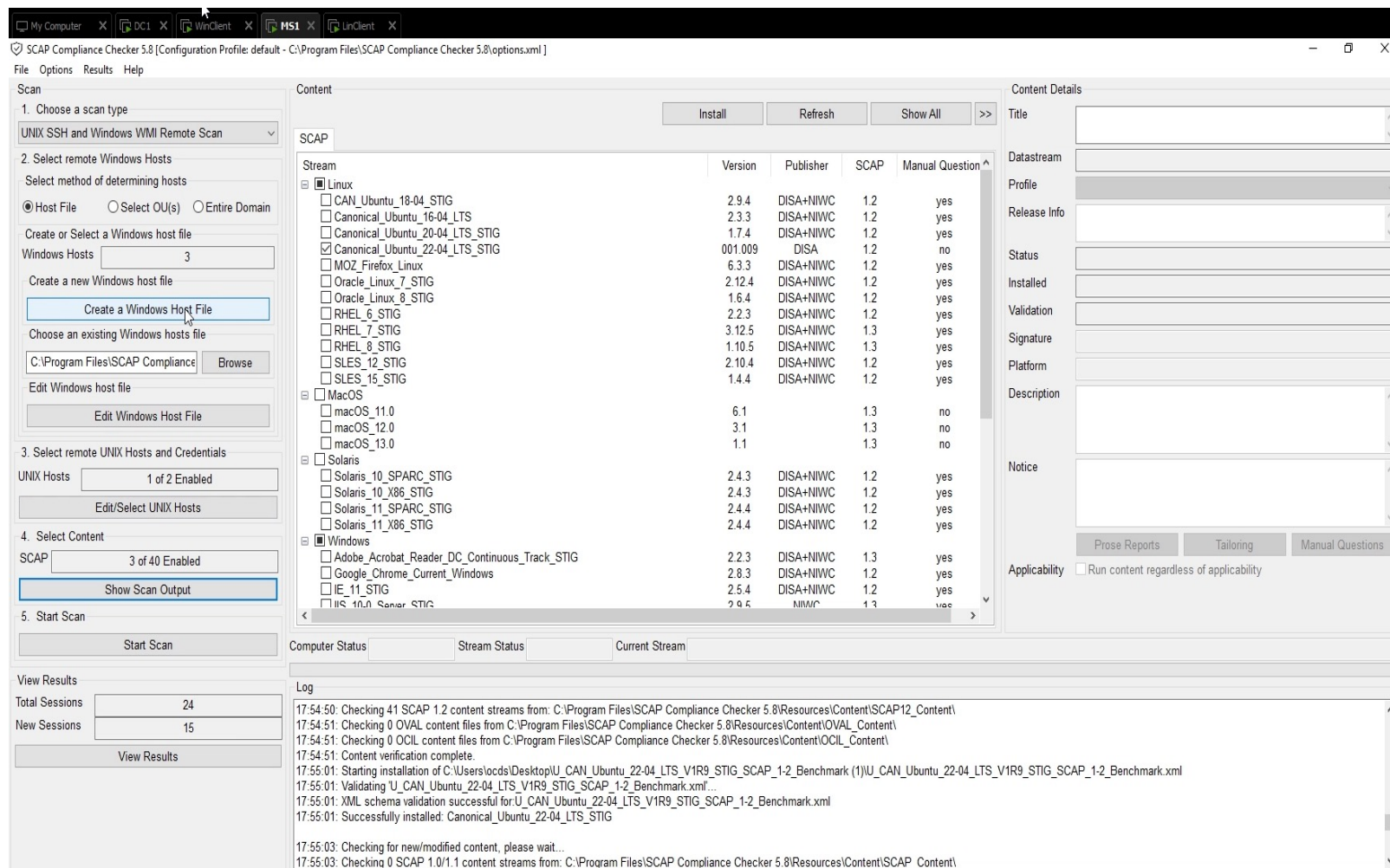


Complete/On Track



Release OCDS Server Hardening Tool Client Offering into Production

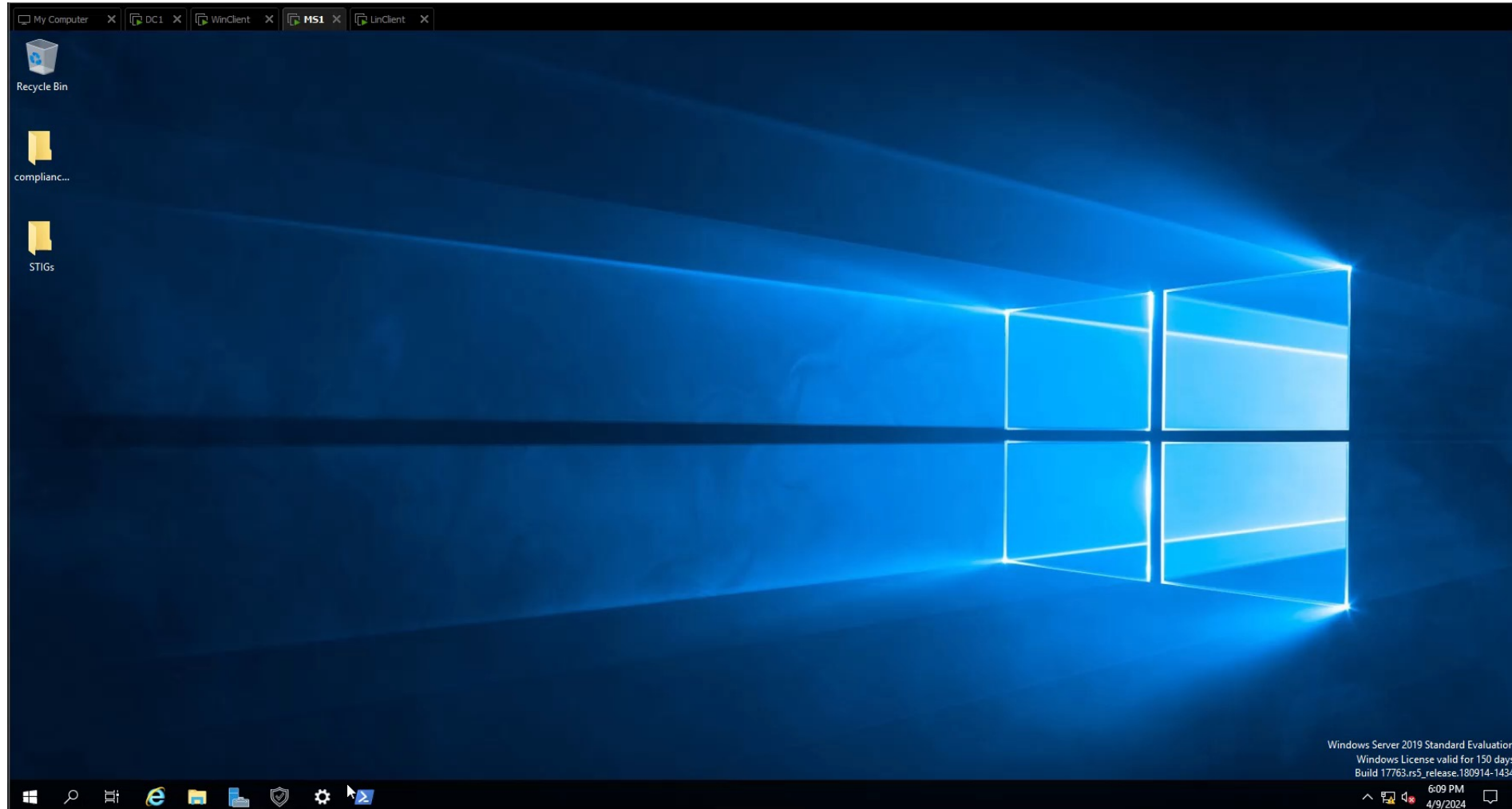
- Completely built out and hosting entire virtual infrastructure on VMWare Workstation
 - DC1
 - Win10Client (Windows 10)
 - UC1 (Ubuntu client)
 - MS1
- PSSession
- PowerShell / SSH
- STIG – Security Technical Implementation Guide
- SCAP – Security Content Automation Protocol
- Pre-STIG scan / Post-STIG scan





Release OCDS Server Hardening Tool Client Offering into Production

- Click image to play video
- Hardening process based on NIST guidelines and appropriate STIGs
- Pings all VMs from MS1 showing connectivity
- Enter PSSession to show STIG & run script – changes registry
- SSH to Ubuntu client
- Launch SCAP
- Host files
- Run scans
- Scores



Navigation: Back Forward Reload Search find in report

Match Case Whole Words 0 of 0

Identity Authenticated:	true
Release Info:	Enhanced Content 2.4.4 Date: 2023-08-04, based on Release: 2.4 Benchmark Date: 11 May 2023

Results: High Severity (CAT I)

Automated Checks

- o V-205711 - Windows Server 2019 Windows Remote Management (WinRM) client must not use Basic authentication. - Fail
- o V-205713 - Windows Server 2019 Windows Remote Management (WinRM) service must not use Basic authentication. - Fail
- o V-205724 - Windows Server 2019 must not allow anonymous enumeration of shares. - Fail
- o V-205802 - Windows Server 2019 must disable the Windows Installer Always install with elevated privileges option. - Fail
- o V-205804 - Windows Server 2019 Autoplay must be turned off for non-volume devices. - Fail
- o V-205805 - Windows Server 2019 default AutoRun behavior must be configured to prevent AutoRun commands. - Fail
- o V-205806 - Windows Server 2019 AutoPlay must be disabled for all drives. - Fail
- o V-205919 - Windows Server 2019 LAN Manager authentication level must be configured to send NTLMv2 response only and to refuse LM and NTLM. - Fail

Manual Checks

Results: Medium Severity (CAT II)

Automated Checks

- o V-205627 - Windows Server 2019 must be configured to audit Account Management - User Account Management failures. - Fail
- o V-205629 - Windows Server 2019 must have the number of allowed bad logon attempts configured to three or less. - Fail
- o V-205630 - Windows Server 2019 must have the period of time before the bad logon counter is reset configured to 15 minutes or greater. - Fail
- o V-205631 - Windows Server 2019 required legal notice must be configured to display before console logon. - Fail
- o V-205633 - Windows Server 2019 machine inactivity limit must be set to 15 minutes or less, locking the system with the screen saver. - Fail
- o V-205636 - Windows Server 2019 Remote Desktop Services must require secure Remote Procedure Call (RPC) communications. - Fail
- o V-205637 - Windows Server 2019 Remote Desktop Services must be configured with the client connection encryption set to High Level. - Fail
- o V-205638 - Windows Server 2019 command line data must be included in process creation events. - Fail
- o V-205639 - Windows Server 2019 PowerShell script block logging must be enabled. - Fail
- o V-205644 - Windows Server 2019 must force audit policy subcategory settings to override audit policy category settings. - Fail
- o V-205648 - Windows Server 2019 must have the DoD Root Certificate Authority (CA) certificates installed in the Trusted Root Store. - Fail
- o V-205649 - Windows Server 2019 must have the DoD Interoperability Root Certificate Authority (CA) cross-certificates installed in the Untrusted Certificates Store on unclassified systems. - Fail
- o V-205650 - Windows Server 2019 must have the US DoD CCEB Interoperability Root CA cross-certificates in the Untrusted Certificates Store on unclassified systems. - Fail
- o V-205651 - Windows Server 2019 users must be required to enter a password to access private keys stored on the computer. - Fail
- o V-205662 - Windows Server 2019 minimum password length must be configured to 14 characters. - Fail
- o V-205671 - Windows Server 2019 "Access this computer from the network" user right must only be assigned to the Administrators and Authenticated Users groups on domain-joined member servers and standalone or nondomain-joined systems. - Fail
- o V-205672 - Windows Server 2019 "Deny access to this computer from the network" user right on domain-joined member servers must be configured to prevent access from highly privileged domain accounts and from unauthenticated access on all systems. - Fail
- o V-205673 - Windows Server 2019 "Deny log on as a batch job" user right on domain-joined member servers must be configured to prevent access from highly privileged domain accounts and from unauthenticated access on all systems. - Fail
- o V-205674 - Windows Server 2019 "Deny log on as a service" user right on domain-joined member servers must be configured to prevent access from highly privileged domain accounts. No other groups or accounts must be assigned this right. - Fail
- o V-205675 - Windows Server 2019 "Deny log on locally" user right on domain-joined member servers must be configured to prevent access from highly privileged domain accounts and from unauthenticated access on all systems. - Fail
- o V-205676 - Windows Server 2019 Allow log on locally user right must only be assigned to the Administrators group. - Fail
- o V-205686 - Windows Server 2019 must prevent the display of slide shows on the lock screen. - Fail
- o V-205687 - Windows Server 2019 must have WDigest Authentication disabled. - Fail
- o V-205688 - Windows Server 2019 downloading print driver packages over HTTP must be turned off. - Fail
- o V-205689 - Windows Server 2019 printing over HTTP must be turned off. - Fail

Library
Type here to search

My Computer OCDS Domain DC1 MS1 WinClient LinClient US1 UbuServer

DNS Manager

File Action View Help

Name	Type
dc1.ocds.domain	
Forward Lookup Zones	
_msdcs.ocds.domain	
ocds.domain	
Reverse Lookup Zones	
Trust Points	
Conditional Forwarders	
_msdcs	Start of Authority (SOA)
_sites	Name Server (NS)
_tcp	Host (A)
_udp	Host (A)
DomainDnsZones	
ForestDnsZones	
(same as parent folder)	
(same as parent folder)	
(same as parent folder)	
dc1	Host (A)
MS1	Host (A)
Win10Client	Host (A)
us1	Host (A)
uc1	Host (A)

```

Windows PowerShell
PS C:\Users\ocds> ping dc1

Pinging dc1.ocds.domain [192.168.155.134] with 32 bytes of data:
Reply from 192.168.155.134: bytes=32 time<1ms TTL=128
Reply from 192.168.155.134: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.155.134:
    Packets: Sent = 2, Received = 2, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
Control-C
PS C:\Users\ocds> Enter-PSSession dc1
[dc1]: PS C:\Users\OCDS\Documents> hostname
dc1
[dc1]: PS C:\Users\OCDS\Documents>
  
```

```

Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

PS C:\Users\ocds> ping win10client

Pinging win10client.ocds.domain [192.168.155.136] with 32 bytes of data:
Reply from 192.168.155.136: bytes=32 time<1ms TTL=128
Reply from 192.168.155.136: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.155.136:
    Packets: Sent = 2, Received = 2, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
Control-C
PS C:\Users\ocds> Enter-PSSession win10client
[win10client]: PS C:\Users\ocds.OCDS\Documents> hostname
Win10Client
[win10client]: PS C:\Users\ocds.OCDS\Documents>
  
```

```

Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

PS C:\Users\ocds> hostname
MS1
PS C:\Users\ocds>
  
```

```

ocds@ocds.domain@us1: ~
ocds@ocds@192.168.155.138's password:
Welcome to Ubuntu 22.04.4 LTS (GNU/Linux 5.15.0-100-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/pro

System information as of Sun Mar 17 10:49:46 PM UTC 2024

System load: 0.06787109375   Processes:            225
Usage of /: 24.9% of 28.36GB   Users logged in:      0
Memory usage: 11%           IPv4 address for ens33: 192.168.155.138
Swap usage: 0%

Expanded Security Maintenance for Applications is not enabled.

3 updates can be applied immediately.
To see these additional updates run: apt list --upgradable

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

Failed to connect to https://changelogs.ubuntu.com/meta-release-lts. Check your Internet connection or proxy settings

Last login: Sun Mar 17 22:48:42 2024 from 192.168.155.137
ocds@ocds.domain@us1: $ ls /
bin  cdrom  etc  lib  lib64  lost+found  mnt  proc  run  snap  swap.img  tmp  var
boot  dev  home  lib32  libx32  media  opt  root  sbin  srv  sys  usr
ocds@ocds.domain@us1: $ hostnamectl
Static hostname: us1
    Icon name: computer-vm
    Chassis: vm
    Machine ID: 1487a11ef57e40d9ae23865e52e6c3fe
    Boot ID: 4e64229f85e84862908cab763789c728
    Virtualization: vmware
Operating System: Ubuntu 22.04.4 LTS
    Kernel: Linux 5.15.0-100-generic
    Architecture: x86-64
    Hardware Vendor: VMware, Inc.
    Hardware Model: VMware Virtual Platform
ocds@ocds.domain@us1: $
  
```

```

ocds@ocds.domain@uc1: ~
Reply from 192.168.155.139: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.155.139:
    Packets: Sent = 2, Received = 2, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms
Control-C
PS C:\Users\ocds> ssh ocds@ocds@192.168.155.139
The authenticity of host '192.168.155.139 (192.168.155.139)' can't be established.
ECDSA key fingerprint is SHA256:ZjldSdfG5PlyYv1yuiUM7JnqtC4pSxotvcvZW0hwnJA.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '192.168.155.139' (ECDSA) to the list of known hosts.
ocds@ocds@192.168.155.139's password:
Welcome to Ubuntu 22.04.4 LTS (GNU/Linux 6.5.0-25-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/pro

Expanded Security Maintenance for Applications is not enabled.

3 updates can be applied immediately.
To see these additional updates run: apt list --upgradable

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

Last login: Fri Mar 15 19:46:55 2024 from 192.168.155.137
ocds@ocds.domain@uc1: $ ls /
bin  cdrom  etc  lib  lib64  lost+found  mnt  proc  run  snap  swapfile  tmp  var
boot  dev  home  lib32  libx32  media  opt  root  sbin  srv  sys  usr
ocds@ocds.domain@uc1: $ hostnamectl
Static hostname: uc1
    Icon name: computer-vm
    Chassis: vm
    Machine ID: 3e3c5206b1d24718a408efa94d1c114b
    Boot ID: ede42d8598784dcf8b72e3e497b409eb
    Virtualization: vmware
Operating System: Ubuntu 22.04.4 LTS
    Kernel: Linux 6.5.0-25-generic
    Architecture: x86-64
    Hardware Vendor: VMware, Inc.
    Hardware Model: VMware Virtual Platform
ocds@ocds.domain@uc1: $
  
```

Share this window

Library

Type here to search

- My Computer
 - powerstig
 - Rocky
- OCDS Domain
 - UbuServer
 - US1
 - LinClient
 - WinClient
 - MS1
 - DC1

My Computer

Recycle Bin

Active Directory Users and Computers

File Action View Help

Name	Type
MS1	Computer
UC1	Computer
US1	Computer
WIN10CLIENT	Computer

Active Directory Users and Computers

File Action View Help

Name	Type	DC Type
DC1	Computer	GC

```

Windows PowerShell
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PS C:\Users\ocds> hostname
MS1
PS C:\Users\ocds>
  
```

```

Windows PowerShell
PS C:\Users\ocds> ping dc1

Pinging dc1.ocds.domain [192.168.155.134] with 32 bytes of data:
Reply from 192.168.155.134: bytes=32 time<1ms TTL=128
Reply from 192.168.155.134: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.155.134:
    Packets: Sent = 2, Received = 2, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
Control-C
PS C:\Users\ocds> Enter-PSsession dc1
[dc1]: PS C:\Users\OCDS\Documents> hostname
dc1
[dc1]: PS C:\Users\OCDS\Documents>
  
```

```

Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

PS C:\Users\ocds> ping win10client

Pinging win10client.ocds.domain [192.168.155.136] with 32 bytes of data:
Reply from 192.168.155.136: bytes=32 time<1ms TTL=128
Reply from 192.168.155.136: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.155.136:
    Packets: Sent = 2, Received = 2, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
Control-C
PS C:\Users\ocds> Enter-PSsession win10client
[win10client]: PS C:\Users\ocds.OCDS\Documents> hostname
Win10Client
[win10client]: PS C:\Users\ocds.OCDS\Documents>
  
```

```

ocds@ocds.domain@us1: ~
PS C:\Users\ocds> ping 192.168.155.138

Pinging 192.168.155.138 with 32 bytes of data:
Reply from 192.168.155.138: bytes=32 time<1ms TTL=64
Reply from 192.168.155.138: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.155.138:
    Packets: Sent = 2, Received = 2, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
Control-C
PS C:\Users\ocds> ssh ocds@ocds@192.168.155.138
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See https://ubuntu.com/esm or run: sudo pro status

Failed to connect to https://changelogs.ubuntu.com/meta-release-lts. Check your Internet connection or proxy settings

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ocds@ocds.domain@us1: $ ls /
bin  cdrom  etc  lib  lib64  lost-found  mnt  proc  run  snap  swap.img  tmp  var
boot  dev  home  lib32  libx32  media  opt  root  sbin  srv  sys  usr
ocds@ocds.domain@us1: $
  
```

```

ocds@ocds.domain@uc1: ~
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

PS C:\Users\ocds> ping 192.168.155.139

Pinging 192.168.155.139 with 32 bytes of data:
Reply from 192.168.155.139: bytes=32 time<1ms TTL=64
Reply from 192.168.155.139: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.155.139:
    Packets: Sent = 2, Received = 2, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms
Control-C
PS C:\Users\ocds> ssh ocds@ocds@192.168.155.139
The authenticity of host '192.168.155.139 (192.168.155.139)' can't be established.
ECDSA key fingerprint is SHA256:Zjldsd65PLYVY1yuiUM7JnqtC4pSxotvcvZw0hwnJA.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '192.168.155.139' (ECDSA) to the list of known hosts.
ocds@ocds@192.168.155.139's password:
Welcome to Ubuntu 22.04.4 LTS (GNU/Linux 6.5.0-25-generic x86_64)

 * Documentation:  https://help.ubuntu.com
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 * Support:        https://ubuntu.com/pro

Expanded Security Maintenance for Applications is not enabled.

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To see these additional updates run: apt list --upgradable

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

Last login: Fri Mar 15 19:46:55 2024 from 192.168.155.137
ocds@ocds.domain@uc1: $ ls /
bin  cdrom  etc  lib  lib64  lost-found  mnt  proc  run  snap  swapfile  tmp  var
boot  dev  home  lib32  libx32  media  opt  root  sbin  srv  sys  usr
ocds@ocds.domain@uc1: $
  
```

Share this window

Library

Type here to search

- My Computer
 - powerstig
 - Rocky
- OCDS Domain
 - UbuServer
 - US1
 - LinClient
 - WinClient
 - MS1
 - DC1

SCAP Report Viewer [C:\Users\ocds\SCC\Sessions\2024-03-17_160319\Results\SCAP\WIN10CLIENT_SCC-5.8_2024-03-17_160319_Non-Compliance_MS_Windows_10_STIG-2.8.4...

Navigation: Back Forward Reload Search find in report 0 of 0

Non-Compliance Report - Microsoft Windows 10 STIG SCAP Benchmark - NIWC Enhanced with Manual Questions

SCAP Compliance Checker - 5.8

Score | System Information | Content Information | Results | Detailed Results

Score

37.22%

Adjusted Score: 37.22%
Original Score: 37.22%
Compliance Status: RED

SCAP Report Viewer [C:\Users\ocds\SCC\Sessions\2024-03-17_160319\Results\SCAP\MS1_SCC-5.8_2024-03-17_160319_Non-Compliance_Windows_Server_2019_S...

Navigation: Back Forward Reload Search find in report 0 of 0

Non-Compliance Report - Microsoft Windows Server 2019 STIG SCAP Benchmark - NIWC Enhanced with Manual Questions

SCAP Compliance Checker - 5.8

Score | System Information | Content Information | Results | Detailed Results

Score

44.21%

Adjusted Score: 44.21%
Original Score: 44.21%
Compliance Status: RED

Pass: 84	Not Applicable: 20	BLUE: Score equals 100
Fail: 106	Not Checked: 63	GREEN: Score is greater than or equal to 90
Error: 0	Not Selected: 0	YELLOW: Score is greater than or equal to 80
Unknown: 0	Informational: 0	RED: Score is greater than or equal to 0
Fixed: 0	Total: 273	

SCAP Report Viewer [C:\Users\ocds\SCC\Sessions\2024-03-17_160319\Results\SCAP\DC1_SCC-5.8_2024-03-17_160319_Non-Compliance_Windows_Server_2019_STIG-2...

Navigation: Back Forward Reload Search find in report 0 of 0

Non-Compliance Report - Microsoft Windows Server 2019 STIG SCAP Benchmark - NIWC Enhanced with Manual Questions

SCAP Compliance Checker - 5.8

Score | System Information | Content Information | Results | Detailed Results

Score

47.47%

Adjusted Score: 47.47%
Original Score: 47.47%
Compliance Status: RED

System Information

Target Hostname:	MS1
Operating System:	Microsoft Windows Server 2019 Standard Evaluation
OS Version:	1809
Domain:	ocds.domain
FQDN:	MS1.ocds.domain
Processor:	Intel(R) Core(TM) i9-9900K CPU @ 3.60GHz
Processor Architecture:	Intel64 Family 6 Model 158 Stepping 13
Processor Speed:	3600 mhz
Physical Memory:	2048 mb
Manufacturer:	VMware, Inc.
Model:	VMware7,1
Serial Number:	VMware-56 4d 88 e8 40 ad 55 ad-c4 60 c6 e8 a3 c6 98 56

Remote Scan Status

Status: Finished Total: 3 Pending: 0 Scanning: 0 Finished: 3 Error: 0 Results: 21 Logs: 3

Host	OS	Status	Message
DC1	Microsoft Windows Se... Standard Evaluation	Finished	Finished - Results: 7 Logs: 1
MS1	Microsoft Windows Se... Standard Evaluation	Finished	Finished - Results: 7 Logs: 1
WIN10CLIENT	Microsoft Windows 10 Education	Finished	Finished - Results: 7 Logs: 1

Remote Scan Status

Status: Finished Total: 2 Pending: 0 Scanning: 0 Finished: 2 Error: 0 Results: 0 Logs: 0

Host	Local System Name	OS	Status	Message
192.168.155.138	US1	Ubuntu 22 amd64	Finished	Finished - No Applicable Content
192.168.155.139	UC1	Ubuntu 22 amd64	Finished	Finished - No Applicable Content

Sessions

File Home Share View

This PC > Local Disk (C:) > Users > ocds > SCC > Sessions

Name	Date modified	Type	Size
2024-03-15_164930	3/15/2024 4:50 PM	File folder	
2024-03-15_165409	3/15/2024 5:00 PM	File folder	
2024-03-15_175027	3/15/2024 5:57 PM	File folder	
2024-03-15_175901	3/15/2024 6:03 PM	File folder	
2024-03-15_180334	3/15/2024 6:06 PM	File folder	
2024-03-15_180649	3/15/2024 6:08 PM	File folder	
2024-03-15_180908	3/15/2024 6:14 PM	File folder	
2024-03-15_181436	3/15/2024 6:27 PM	File folder	
2024-03-15_182747	3/15/2024 6:41 PM	File folder	
2024-03-15_184301	3/15/2024 6:43 PM	File folder	
2024-03-17_155623	3/17/2024 4:00 PM	File folder	
2024-03-17_160319	3/17/2024 4:09 PM	File folder	
2024-03-17_160356	3/17/2024 4:06 PM	File folder	
2024-03-17_160654	3/17/2024 4:08 PM	File folder	
2024-03-17_160850	3/17/2024 4:09 PM	File folder	
scanSessions	3/17/2024 4:08 PM	Data Base File	45 KB

Library

- My Computer
 - powerstig
 - Rocky
 - OCDS Domain
 - UbuServer
 - US1
 - LinClient
 - WinClient
 - MS1**
 - DC1

Filter by session, hostname or content.

Sessions

Scan Session	Status	Directory	Files	Size (MB)	Hosts	Content	Errors	Warnings	Ave %	Max %	Min %
2024-03-17_160319		C:/Users/ocds/SCC/Sessions/2024-03-17_160319/	27	30.83	3	2	0	3	42.97	47.47	37.22
2024-03-17_155623	* new *	C:/Users/ocds/SCC/Sessions/2024-03-17_155623/	9	10.43	1	1	0	1	47.47	47.47	47.47
2024-03-15_182747	* new *	C:/Users/ocds/SCC/Sessions/2024-03-15_182747/	9	10.04	1	1	0	1	37.22	37.22	37.22
2024-03-15_180334	* new *	C:/Users/ocds/SCC/Sessions/2024-03-15_180334/	18	20.79	2	1	0	2	45.84	47.47	44.21
2024-03-15_175901	* new *	C:/Users/ocds/SCC/Sessions/2024-03-15_175901/	18	20.79	2	1	0	2	45.84	47.47	44.21
2024-03-15_175027	* new *	C:/Users/ocds/SCC/Sessions/2024-03-15_175027/	81	35.42	3	6	0	8	36.02	75	0

Results

Host Name	Content	Score	Errors	Warnings
DC1	Windows_Server_2019_STIG	47.47	0	1
MS1	Windows_Server_2019_STIG	44.21	0	1
WIN10CLIENT	MS_Windows_10_STIG	37.22	0	1

Reports XML Checklist Logs

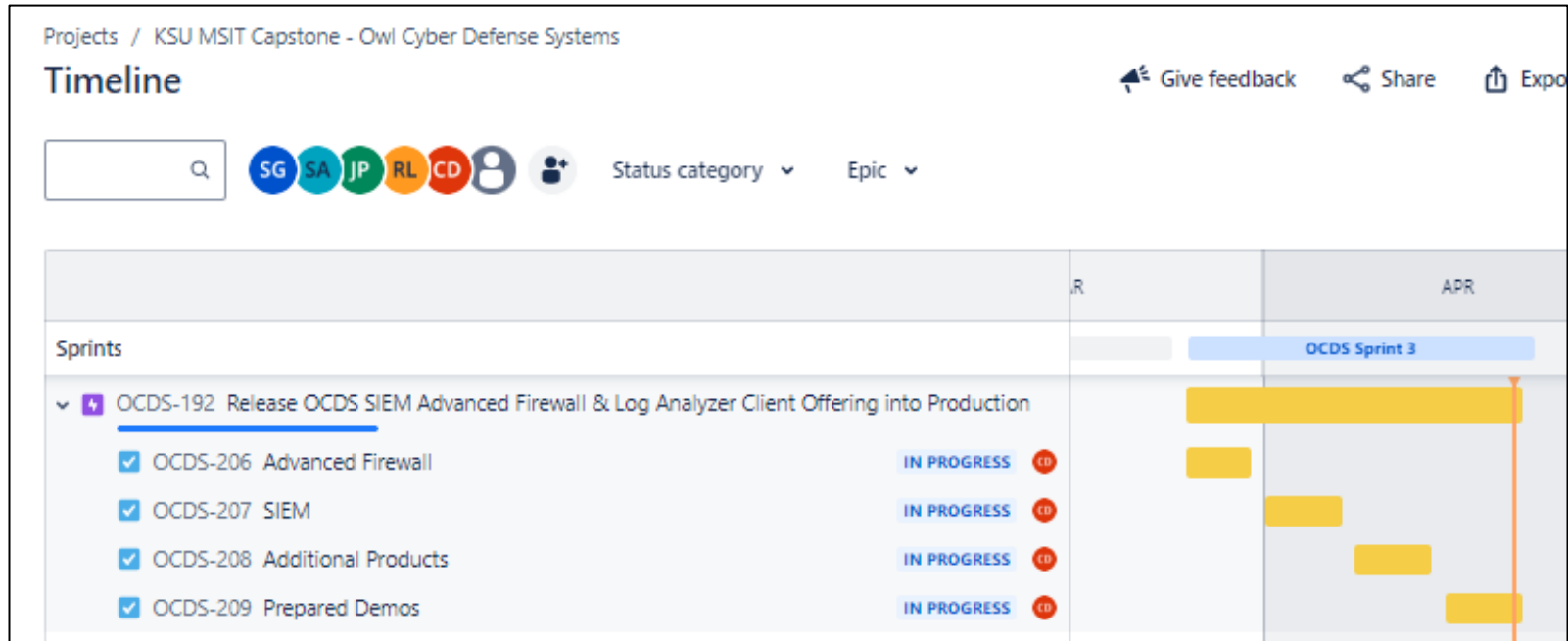
Report Type	Format	Filename	Size (MB)
All Settings	HTML	Results/SCAP/DC1_SCC-5.8_2024-03-17_160319_All-Settings_Windows_Server_2019_STIG-2.4.4.html	1.89
Non-Compliance	HTML	Results/SCAP/DC1_SCC-5.8_2024-03-17_160319_No...ompliance_Windows_Server_2019_STIG-2.4.4.html	0.76

Epic: Release OCDS SIEM Advanced Firewall & Log Analyzer Client Offering into Production

Chris Dunbar



Release OCDS SIEM Advanced Firewall & Log Analyzer Client Offering into Production

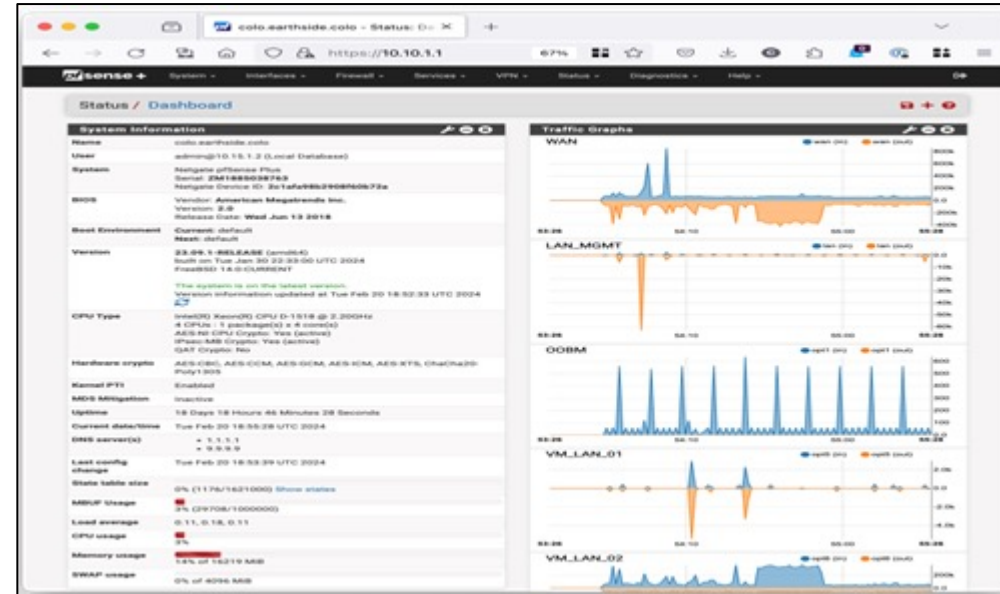


Complete/On Track



Release OCDS SIEM Advanced Firewall & Log Analyzer Client Offering into Production

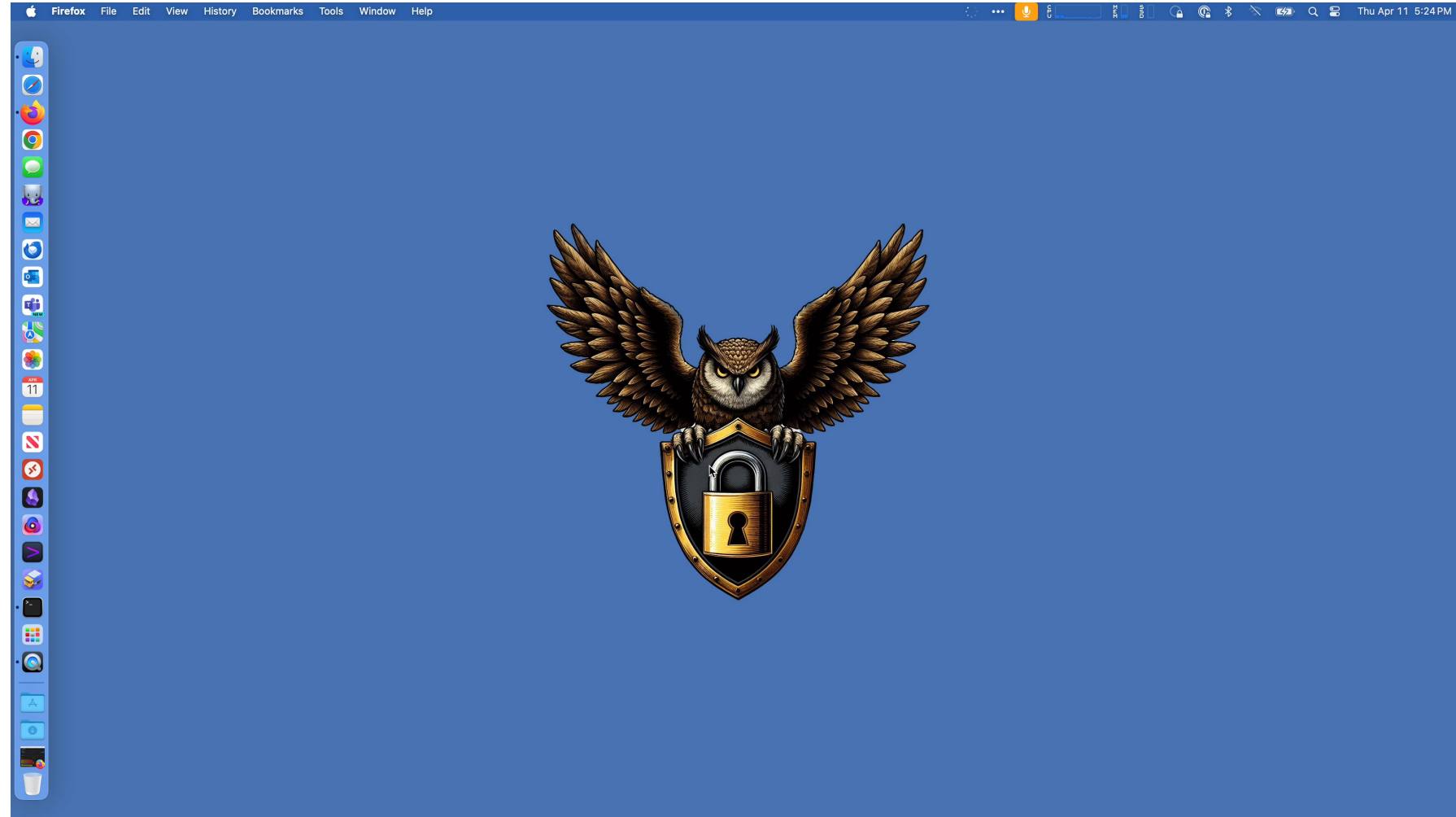
- Configured Security Onion VM and open source SIEM network & security monitoring tool for client offering.
- Configured SPAN port at data center
- Self-hosted on VMWare ESXi virtual infrastructure





Release OCDS SIEM Advanced Firewall & Log Analyzer Client Offering into Production

- Click to play video
- Hardening process based on NIST guidelines and appropriate STIGs
- Pings all VMs from MS1 showing connectivity
- Enter PSSession to show STIG & run script – changes registry
- SSH to Ubuntu client
- Launch SCAP
- Host files
- Run scans
- Scores



Sprint 3 Time Tracking

Sprint 3 Person-hour Time Tracking (Real-time Jira project export)

Person-hours ★ [Filter details](#)

Apps ▼ Share ▼ Export issues ▼ LIST VIEW || DETAIL VIEW ||| ⋮

Search Issues Project: KSU MSIT Capstone - Owl Cyber D... Type ▼ Status ▼ Assignee ▼ Sprint: OCDS Sprint 3 ⊗ ⋮ More + + Go back to filter + Save filter ▼ BASIC JQL

Type	Sprint	Summary	Assignee	Status	Due date ↑	Original estimate	Time ▼
<input checked="" type="checkbox"/>	OCDS Sprint 3	Create Products catalog on website	CD Chris Dunbar	TO DO ▼	Mar 05, 2024	5 hours	
<input checked="" type="checkbox"/>	OCDS Sprint 3	Review Business Plan	SG Scott Gilstrap	DONE ▼	Mar 27, 2024	3 hours	2 hours
<input checked="" type="checkbox"/>	OCDS Sprint 3	Company Policies -	SA Stephanie Aguirre	DONE ▼	Mar 27, 2024	5 hours	2 hours
<input checked="" type="checkbox"/>	OCDS Sprint 3	Patch chatbot.	RL Ryan LeBlanc	DONE ▼	Mar 28, 2024	3 hours	1 hour
<input checked="" type="checkbox"/>	OCDS Sprint 3	Finalize site layout	CD Chris Dunbar	DONE ▼	Mar 28, 2024	3 hours	2 hours
<input checked="" type="checkbox"/>	OCDS Sprint 3	Complete configuration of Home Page	CD Chris Dunbar	IN PROGRESS ▼	Mar 29, 2024	3 hours	
<input checked="" type="checkbox"/>	OCDS Sprint 3	Take VM Snapshots	JP Justin Place	DONE ▼	Mar 30, 2024	3 hours	15 minutes
<input checked="" type="checkbox"/>	OCDS Sprint 3	Make Appropriate Changes to Business Plan	SG Scott Gilstrap	DONE ▼	Mar 30, 2024	3 hours	2 hours
<input checked="" type="checkbox"/>	OCDS Sprint 3	Advanced Firewall	CD Chris Dunbar	IN PROGRESS ▼	Mar 30, 2024	3 hours	
<input checked="" type="checkbox"/>	OCDS Sprint 3	Complete configuration of the About Page	CD Chris Dunbar	IN PROGRESS ▼	Mar 30, 2024	3 hours	
<input checked="" type="checkbox"/>	OCDS Sprint 3	Complete configuration of the Overall Client Offering Catalogue Page	CD Chris Dunbar	IN PROGRESS ▼	Apr 02, 2024	3 hours	
<input checked="" type="checkbox"/>	OCDS Sprint 3	Coordinate w Webmaster to Incorporate Business Plan on Websites	SG Scott Gilstrap	IN PROGRESS ▼	Apr 03, 2024	3 hours	2 hours
<input checked="" type="checkbox"/>	OCDS Sprint 3	Finalize site navigation	CD Chris Dunbar	DONE ▼	Apr 03, 2024	3 hours	
<input checked="" type="checkbox"/>	OCDS Sprint 3	Verify InfoSec Questionnaire to be based on ISO 27001 and NIST Standards.	SG Scott Gilstrap	DONE ▼	Apr 04, 2024	3 hours	5 hours
<input checked="" type="checkbox"/>	OCDS Sprint 3	Add IT Policies + Cybersecurity Policies to website	SA Stephanie Aguirre	IN PROGRESS ▼	Apr 04, 2024	5 hours	3 hours, 38 mi
<input checked="" type="checkbox"/>	OCDS Sprint 3	Client Offering Config - Information Security Plan	CD Chris Dunbar	IN PROGRESS ▼	Apr 05, 2024	3 hours	
<input checked="" type="checkbox"/>	OCDS Sprint 3	Troubleshooting virtual infrastructure	JP Justin Place	TO DO ▼	Apr 06, 2024	3 hours	
<input checked="" type="checkbox"/>	OCDS Sprint 3	Complete InfoSec Questionnaire	SG Scott Gilstrap	DONE ▼	Apr 06, 2024	3 hours	2 hours
<input checked="" type="checkbox"/>	OCDS Sprint 3	Sign off on Business Plan in Production	SG Scott Gilstrap	IN PROGRESS ▼	Apr 06, 2024	3 hours	1 hour
<input checked="" type="checkbox"/>	OCDS Sprint 3	SIEM	CD Chris Dunbar	IN PROGRESS ▼	Apr 06, 2024	3 hours	
<input checked="" type="checkbox"/>	OCDS Sprint 3	Client Offering Config - Risk Assessment Plan	CD Chris Dunbar	IN PROGRESS ▼	Apr 06, 2024	3 hours	

Person-hours Automated Report: Week-1 24-30Mar24

Sprint	OCDS Sprint 3	▼
Issue Type	Task	▼
Week of	24-30Mar24	▼
Updated	(All)	▼

Row Labels	Sum of Time Spent Calc
⊕ Chris Dunbar	2
⊕ Justin Place	0.25
⊕ Ryan LeBlanc	1
⊕ Scott Gilstrap	4
⊕ Stephanie Aguirre	2
Grand Total	9.25

Sprint	OCDS Sprint 3	▼
Issue Type	Task	▼
Week of	24-30Mar24	▼
Updated	(All)	▼

Row Labels	Sum of Time Spent Calc
⊖ Chris Dunbar	2
Create Products catalog on website	0
Finalize site layout	2
Complete configuration of Home Page	0
Advanced Firewall	0
Complete configuration of the About Page	0
⊖ Justin Place	0.25
Take VM Snapshots	0.25
⊖ Ryan LeBlanc	1
Patch chatbot.	1
⊖ Scott Gilstrap	4
Review Business Plan	2
Make Appropriate Changes to Business Plan	2
⊖ Stephanie Aguirre	2
Company Policies -	2
Grand Total	9.25

Person-hours Automated Report: Week-2 31Mar-06Apr24

Sprint	OCDS Sprint 3	▼
Issue Type	Task	▼
Week of	31Mar-06Apr24	▼
Updated	(All)	▼

Row Labels	Sum of Time Spent Calc
⊕ Chris Dunbar	6.7
⊕ Justin Place	3.0
⊕ Scott Gilstrap	10.0
⊕ Stephanie Aguirre	3.6
Grand Total	23.4

Sprint	OCDS Sprint 3	▼
Issue Type	Task	▼
Week of	31Mar-06Apr24	▼
Updated	(All)	▼

Row Labels	Sum of Time Spent Calc
⊖ Chris Dunbar	6.7
Complete configuration of the Overall Client Offering Catalogue Page	1.0
Finalize site navigation	0.5
Client Offering Config - Information Security Plan	1.0
SIEM	2.0
Client Offering Config - Risk Assessment Plan	2.2
⊖ Justin Place	3.0
Troubleshooting virtual infrastructure	3.0
⊖ Scott Gilstrap	10.0
Coordinate w Webmaster to Incorporate Business Plan on Websites	2.0
Verify InfoSec Questionnaire to be based on ISO 27001 and NIST Standards.	5.0
Complete InfoSec Questionnaire	2.0
Sign off on Business Plan in Production	1.0
⊖ Stephanie Aguirre	3.6
Add IT Policies + Cybersecurity Policies to website	3.6
Grand Total	23.4

Person-hours Automated Report: Week-3 07-13Apr24

Sprint	OCDS Sprint 3	▼
Issue Type	Task	▼
Week of	07-13Apr24	▼
Updated	(All)	▼

Row Labels	Sum of Time Spent Calc
⊕ Chris Dunbar	5.0
⊕ Ryan LeBlanc	5.3
⊕ Scott Gilstrap	11.0
⊕ Stephanie Aguirre	8.3
Grand Total	29.6

Sprint	OCDS Sprint 3	▼
Issue Type	Task	▼
Week of	07-13Apr24	▼
Updated	(All)	▼

Row Labels	Sum of Time Spent Calc
⊖ Chris Dunbar	5.0
Client Offering Config - Cyber Awareness Training	3.0
Additional Products	1.0
Client Offering Config - OCDS Cyber Security Chatbot	1.0
⊖ Ryan LeBlanc	5.3
update chatbot	5.3
⊖ Scott Gilstrap	11.0
Build RA Form to be based on ISO 27001 & NIST Standards	2.0
Coordinate w Webmaster to link InfoSec Questionnaire on Company Website	3.0
Complete Risk Assessment Questionnaire	3.0
Design Mechanism to Receive Completed InfoSec Form & Build IT InfoSec Plan	3.0
⊖ Stephanie Aguirre	8.3
Research IoT Devices + securing them	3.6
Work on Mod for Securing IoT Devices	4.7
Grand Total	29.6

Person-hours Automated Report: Week-4 14-20Apr24

Sprint	OCDS Sprint 3	▼
Issue Type	Task	▼
Week of	14-20Apr24	▼
Updated	(All)	▼

Row Labels	Sum of Time Spent Calc
⊕ Chris Dunbar	9.1
⊕ Justin Place	3.0
⊕ Ryan LeBlanc	3.0
⊕ Scott Gilstrap	11.0
⊕ Stephanie Aguirre	3.0
Grand Total	29.1

Sprint	OCDS Sprint 3	▼
Issue Type	Task	▼
Week of	14-20Apr24	▼
Updated	(All)	▼

Row Labels	Sum of Time Spent Calc
⊖ Chris Dunbar	9.1
Publish near-final draft to production	0.0
Work with each team members to upload appropriate content	0.0
Client Offering Config - OCDS Server Hardening Tool	3.0
Prepared Demos	3.0
Client Offering Config - SIEM Adv F/W & Log Analyzer Tool	3.0
⊖ Justin Place	3.0
troubleshoot script bsod windows 10	3.0
⊖ Ryan LeBlanc	3.0
Troubleshoot windows script	3.0
⊖ Scott Gilstrap	11.0
Coordinate w Webmaster to link RA Questionnaire on Company Website	2.0
Verify Company Policies Complete & in Production	3.0
Verify Company Website Complete & in Production	1.0
Verify Project Website Complete & in Production	1.0
Verify Business Plan Complete & in Production	1.0
Design Mechanism to Receive Completed RA Form & Build IT Risk Management Plan	3.0
⊖ Stephanie Aguirre	3.0
Complete all Training Modules	3.0
Grand Total	29.1

Sprint 3 Person-hour Time Tracking (Team Totals)

- Chris Dunbar
- Justin Place
- Ryan LeBlanc
- Scott Gilstrap
- Stephanie Aguirre

Sprint	OCDS Sprint 3						
Issue Type	Task						
Week of	(All)						
Updated	(All)						
Sum of Time Spent Calc	TeamMember	Chris Dunbar	Justin Place	Ryan LeBlanc	Scott Gilstrap	Stephanie Aguirre	Grand Total
Tasks							
Create Products catalog on website		0.0					0.0
Review Business Plan					2.0		2.0
Company Policies - Patch chatbot.						2.0	2.0
Finalize site layout		2.0		1.0			3.0
Complete configuration of Home Page		0.0					0.0
Take VM Snapshots			0.3				0.3
Make Appropriate Changes to Business Plan					2.0		2.0
Advanced Firewall		0.0					0.0
Complete configuration of the About Page		0.0					0.0
Complete configuration of the Overall Client Offering Catalogue Page		1.0					1.0
<hr/>							
Client Offering Config - SIEM Adv F/W & Log Analyzer Tool		3.0					3.0
Preparer Final Presentation					0.0		0.0
Upload Milestone-3 Documents					0.0		0.0
Department Presentation					0.0		0.0
Deliver Project Deliverable Pkg to Owner					0.0		0.0
Final Project Report					0.0		0.0
Grand Total		22.8	6.3	9.3	36.0	17.0	91.3

Project Performance & Experience

Recap/Review/Reflection

Milestone 3 Goals

Strategic Objective:

Establish the OCDS cybersecurity business providing small businesses cost effective tools to increase their cybersecurity protection posture at an affordable rate

Sprint 3

Mar 26 – Apr 21, 2024

Operational Objectives

- Business Plan fully completed and published
- Company Policies published in Business Plan
- Project Website deployed and released into production with all documentation
- Company Website deployed and released into production
- Cyber Awareness Training Modules deployed and released into production on website
- IT Security Plan deployed and released into production on the website
- Proprietary Risk Assessment deployed and released into production on the website
- AI Security Chatbot deployed and released into production on the website
- Server Hardening Tool deployed and released into production
- SIEM Advanced Firewall and Log Analyzer deployed and released into production

Project Performance & Experience

- **Accomplishments**

- Staying on track to complete each milestone task in a timely matter. Creating the cyber security training and awareness training modules.
- Getting a mixture of code working to initially create a chatbot and create python scrips to format datasets so the chatbot could learn.
- Implemented and adjusted the RTX chatbot to be more OCDS specific/proprietary.
- Created a Windows 10, two Ubuntu (desktop and server) systems and two Server 2019 VM's. Created virtualized domain infrastructure to include three Windows OS's and two Linux OS's. Assisted in the development of AI training model data used for chat bot.
- Used Jira for a complete project for the first time and created the automated Person-hour export. Used Microsoft Forms to create the IT Security Planning Tool as well as the proprietary Client Risk Assessment tool. Also created the detailed and robust company Business Plan.

- **Challenges**

- Deciding on the presentation format of our cyber security training and awareness for this project. Researched a lot of different trainings to get an idea on what to do for ours and the look & feel.
- Learning and becoming efficient at Python coding. There was also an ML/AI learning curve.
- A few challenges faced were joining Linux machines to the virtualized domain. Editing AI training model data for accuracy. Training original AI bot for optimal accuracy. Creating PowerShell script to automate STIG process.
- Trying to figure out how to get AI to collect all the data from the client and generate an automated Risk Assessment. I ended up with some automation, but I still had some manual effort as well to generate the proprietary Risk Assessment Plan for the client.
- Time management was a big challenge. With a fulltime career being on the verge of a promotion to Director, taking Scrum Master certification courses, being in the Navy Reserves in the process of transferring to the Army National Guard as a Cyber Warrant Officer, and managing a family all while taking this Capstone class and working this project has proven to be very taxing and time consuming.
- Configuring the Span Port correct in the data center for the SIEM data collection.

Project Performance & Experience

- **Lessons Learned**

- Time goes by fast when researching information for a project and applying all the information learned. You think you have all the time in the world, but before you know it — it's time to submit the final project.
- ML/AI is only as good as the dataset that is prepared, and ML/AI can be created to be bias as the dataset is what it builds from.
- Over the course of the semester, I learned a lot regarding AI. I learned about the different models and methods that could be used in creating and training an AI. How to trim the AI dataset for increased accuracy.
- Good, detailed planning and adherence to that plan is always required when a lot is going on.
- Thorough research is key to collecting data, developing a good plan, and executing on that plan.
- Communication is extremely important for a multifaceted project – always keep everyone informed. Meet and/or exchange information often. Adherence to the scrum meeting methodology is important to good project tracking and a successful project.

- **Opportunities for Improvement**

- Time management is still something to work on. Hold ourselves accountable every day instead of tackling all tasks in one day and having one day of research/working on the project.
- Python coding experience and better understanding of ML/AI language models, and the intricate networks that are designed to make them self learn.
- More precise datasets for AI model. Learn more about how the different AI datasets work and how to optimize model used for optimal performance. Increase PowerShell scripting knowledge.
- Stay focused on my current topic at hand. Finish a thought or a task before trying to multi-task too much and get too much going at one time causing a lose of focus and losing track of current task status. If multi-tasking is required keep good notes and log everything.
- Execute on the plan. Learn to be concise in my delivery. Stay focused on short, deliberate, well-worded and informative speaking points.

Next Steps

What's next for OCDS

- OCDS at C-Day! – April 25, 2024
- Department presentation of OCDS project – April 28, 2024
- Final Project Report by May 5, 2024
- Each member to conduct...
 - End Term Peer Evaluation by May 1, 2024
 - Capstone Self Reflection by May 1, 2024
 - Career Profile (LinkedIn) by April 28, 2024
- Celebrate success!
 - A good project manager/scrum master will drive a project team and pull out the teams' best during a project
 - It's important to celebrate success at the end of a successful project!

The background of the slide is a repeating geometric pattern of overlapping squares and rectangles in various shades of yellow, creating a textured, woven appearance. A solid black horizontal band runs across the middle of the slide, containing the text.

Thank You!



KENNESAW STATE
UNIVERSITY

<https://project.ocds.tech>

IT-7993 IT Capstone Project

ID: G01/W01-P4

Title: Owl Cyber Defense Systems

Sponsor: Dr. Ying Xie

April 23, 2024



Team Members: Scott Gilstrap, Stephanie Aguirre,
Chris Dunbar, Justin Place, Ryan LeBlanc