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# CI Systems PY VII Accomplishments and Planned Activities

Jack Barth (PI)

Craig Risien (Co-PI, PM)

Jim Housell (IT Architect)

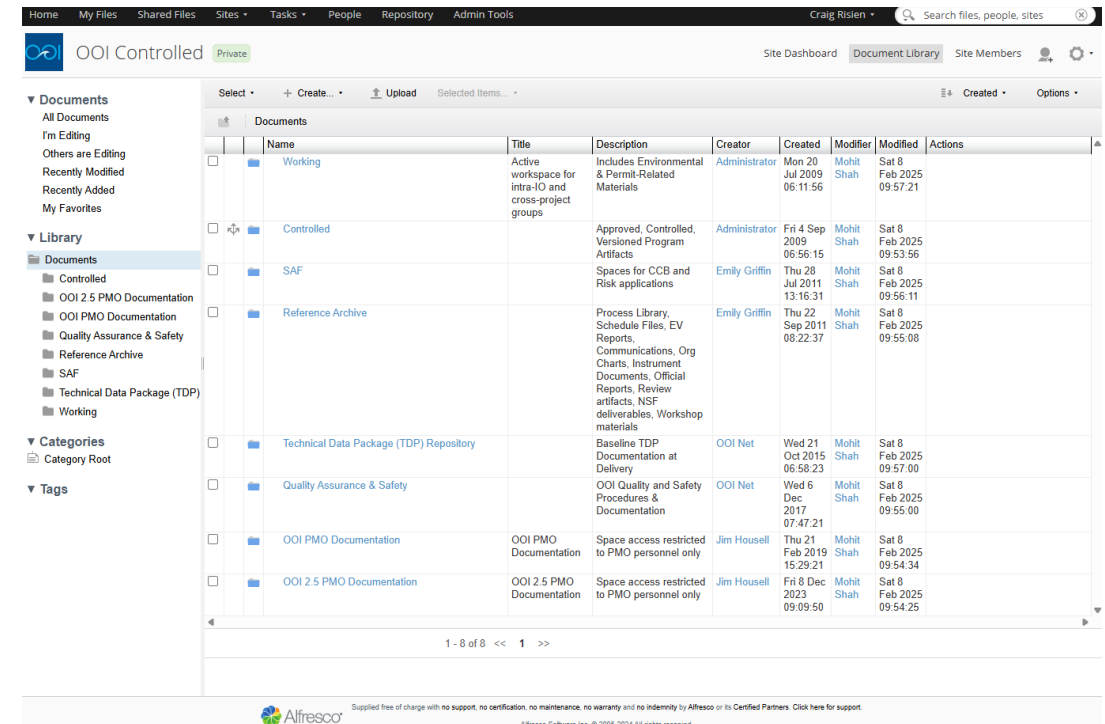
Casey Dinsmore (DevOps)

Pei Kupperman (Finance)



# Eliminated Technical Debt

- Upgraded Alfresco from v4.2 (released in 2013) to v23.2 Community Edition (released in 2024); added CILogon for user authentication.
- Archived and shutdown Confluence v3.4.7 (released in 2011).
- Migrated servers from CentOS 7 (EOL June 2024) to AlmaLinux 9 (EOL May 2032).
- Migrated servers from Ubuntu 20.04 (EOL May 2025) to Ubuntu 22.04 (EOL April 2032).

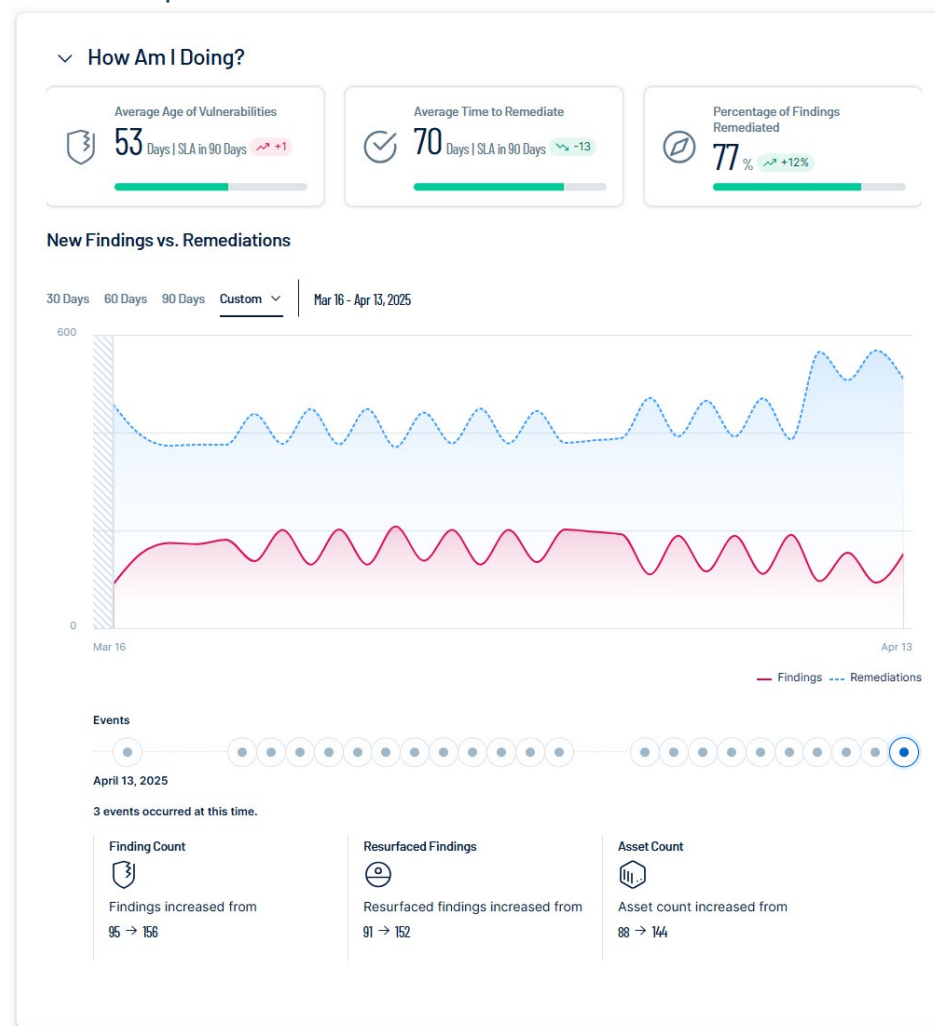


# Implemented a Patch (*Risk*) Management Solution

- **Tenable: Vulnerability scanning & remediation tracking.**
- **Ansible: Automated setup, maintenance, and updating of system configurations.**



## Known Exploitable Vulnerabilities



tenable Vulnerability Management | Scans > Scan Details

001 - Axiom - Agent Weekly Scan

VULNERABILITY MANAGEMENT SCANS

Vulns by Plugin | Vulns by Asset | History

Filters Search 7 Results

SEVERITY	NAME	FAMILY	INSTANCES
Info	Nessus Scan Information	Settings	20
Info	OS Identification and Installed Software Enumer...	Misc.	20
Info	Unix / Linux Running Processes Information	General	20
Info	Netstat Portscanner (SSH)	Port scanners	16
Info	Remote listeners enumeration (Linux / AIX)	Service detection	15
Info	Linux Mounted Devices	General	13
Info	Netstat Ingress Connections	Misc.	2

Scan Details

STATUS: Completed

START TIME: 04/13/2025 at 12:05 AM

TEMPLATE: Advanced Agent Scan

Agent Details

REPORTED: 20 of 20

GROUPS: Axiom\_Agents

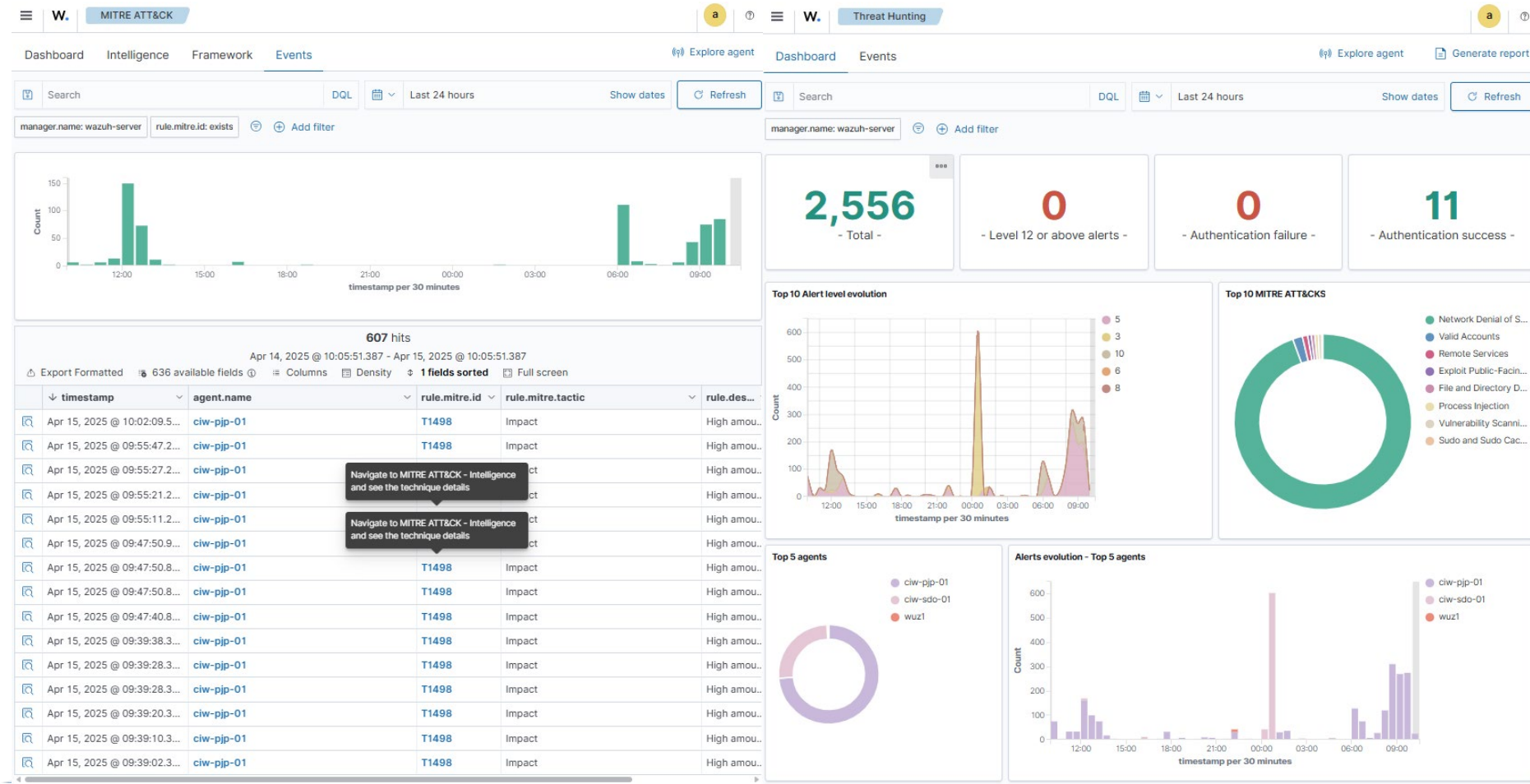
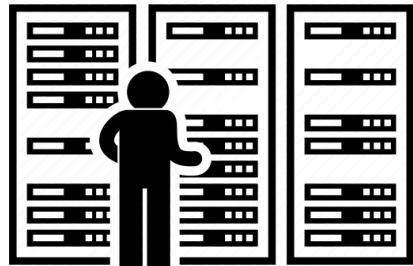




# Created a Log Aggregation & Analysis System

- System, Audit, Tomcat, Apache and Nginx logs.
- Wazuh: Open Source security platform, provides Extended Detection and Response (XDR) and Security Information and Event Management (SIEM).

wazuh.



# PY VII Q3 and Q4 Planned Activities

- Participate in a Trusted CI Framework reassessment pilot program
- Work with CyberSecOp on IR & DR plans and tabletop exercises.
- Use Ansible and CIS Benchmarks to achieve 100% IG2 compliance.
- Investigate upgrading to Apache Cassandra v5.1.
- Continue system maintenance and support.

## CIS-CAT Pro Dashboard

The screenshot displays the CIS-CAT Pro Dashboard interface. At the top, there is a dark blue header with the CIS logo. Below the header, the version number 'v3.5.0' is visible. The main section is titled 'Configuration Assessment Results' with a blue notification bubble containing the number '1'. Below the title, there are two buttons: 'Export...' and 'Delete'. The dashboard shows the following details:

- Benchmark:** Oregon State University, Oregon AlmaLinux OS 9 Benchmark, v2.0.0
- Profile:** Level 2 - Server
- Target Primary ID:** ciw-dhcp.intra.oceanobservatories.org
- Start Time:** 4/12/25, 1:22 AM
- End Time:** 4/12/25, 1:34 AM
- Report Score:** 100% ⓘ
- CIS Controls Version:** 8.0 ▼

Under the 'Results:' section, there are three tabs: 'Results View' (selected), 'CIS Controls V8.0 View', and 'Exceptions List'. The 'Results View' tab shows a list of seven categories, all with a score of 100%:

Category	Score
1 :: Initial Setup	100%
2 :: Services	100%
3 :: Network	100%
4 :: Host Based Firewall	100%
5 :: Access Control	100%
6 :: Logging and Auditing	100%
7 :: System Maintenance	100%



# An OOI Digital Assistant: Making it easier to access and use OOI data and information

- Partnership with the CEOAS Research and Academic Computing Services (RACS) group: Chris Sullivan (Director) + Dhruv Desai, Ethan Eggert, Abhishek Enaguthi, and Grant Towers (students).
- Retrieval-Augmented Generation (RAG)-based chat system (Llama 3 (LLM) + Vector DB).
- RAG extends LLM capabilities to an organization's internal knowledge base, without the need to retrain the LLM.



## The Ocean Observatories Initiative ChatBot







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# Questions?

Jack Barth (PI)  
([jack.barth@oregonstate.edu](mailto:jack.barth@oregonstate.edu))

Craig Risien (Co-PI, PM)  
([craig.risien@oregonstate.edu](mailto:craig.risien@oregonstate.edu))

