



DAFITC 2023

Driving Organizational Change: How Public & Private Partnership Has Impacted the Department of Defense — The TRON and Puckboard Story

Who We Are



ESTABLISHED IN HAWAII SINCE 1990

Our passion is to put Hawaii on the map to become a thriving tech destination, reducing the reliance on tourism while promoting high-tech as a career path here at home.

30+ YEAR HISTORY 120+ EMPLOYEES

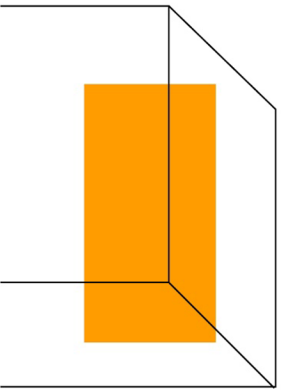
IN HAWAII AND CONTIGUOUS UNITED STATES



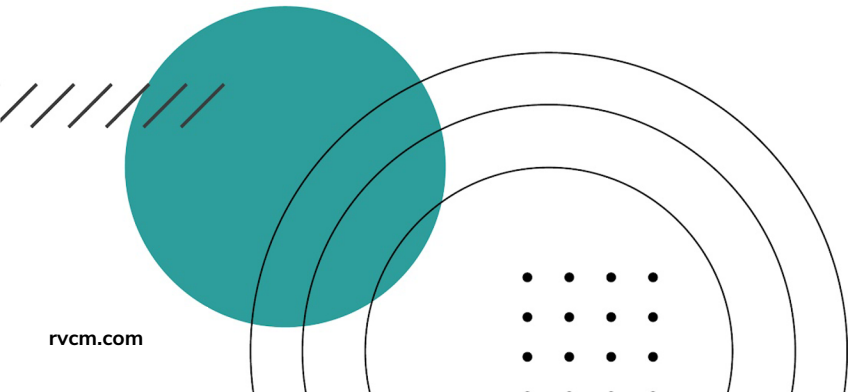


Customers We Serve





Technical Expertise Overview





Agile Software Development

Our approach to Agile software development allows us to develop compliant, high-quality software faster than ever before.

- Project Management
- Application Design & Development
- IT Operations & Maintenance
- Cloud & K-Native Architecture
- Cloud Hosting & Support Network
- System Design
- Database Design & Development
- Cybersecurity Assessment



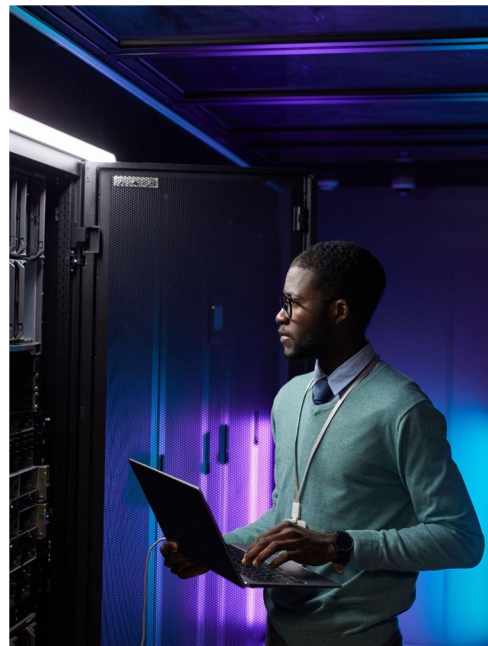


DevSecOps

DevSecOps enables cross-functional team members to deliver projects with speed, functionality, and innovation that is backed by a security foundation.

Software Highlights

- Tasked with leading DevSecOps efforts for high-priority COVID-19 response applications.
- Led the first formal DevSecOps application onboarding and upskilling within the DoD, which has grown to support more than 14 applications teams in the first 6 weeks.
- First team with approved Kubernetes cluster and application deployment in a Cloud One Impact Level 4 environment.
- Part of the team working to create the first self-service DevSecOps as a service model in the DoD.



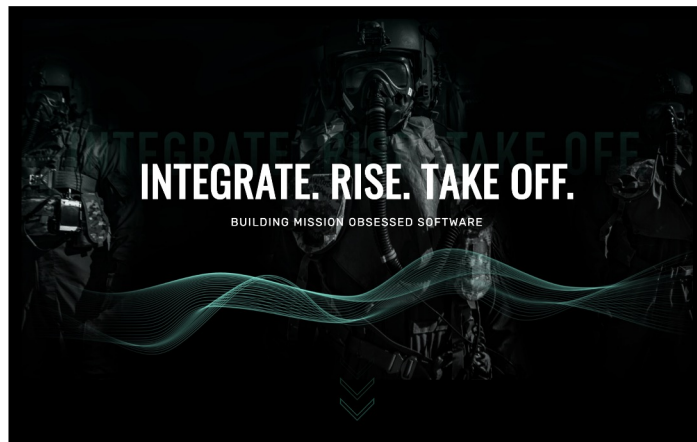


User-Centered Design

By combining research, visual and interaction design, and other human-centered design methodologies, we create products that are modern, thoughtful, and powered by the people who use them.

Design Highlights

- Named “Design Practice Lead” for TRON Air Force and Platform One
- Lead UI/UX design and research initiatives for TRON Air Force and the Puckboard scheduling application
- Creation and implementation of user-centered design curriculum for DoD software teams through Platform One



Tron was founded in December 2018 by 4 Airmen in an empty classroom, all of them trying to find ways to make life better for their communities.



Learn more at tron.dso.mil



Platform One Development



Platform One allows users to deploy a DevSecOps Software Factory and start solving software problems with a 90% solution from Day 1, instead of starting from scratch.

Platform One and RVCM work together on the following value streams:

Big Bang

- IAC with all recommended best practices from NIST, DISA, and Cloud Providers
- Deploy DoD Compliant, Reliable, and Scalable Kubernetes Control-Plane

Iron Bank

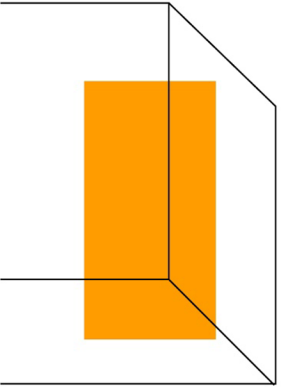
- Build distro-less containers
- Scan containers with multiple tools including TwistLock, nchore, and OpenSCAP
- Export and package Iron Bank images for deployment in Air-Gapped environments
- Support customers with vendor container images approved through Iron Bank process

Party Bus

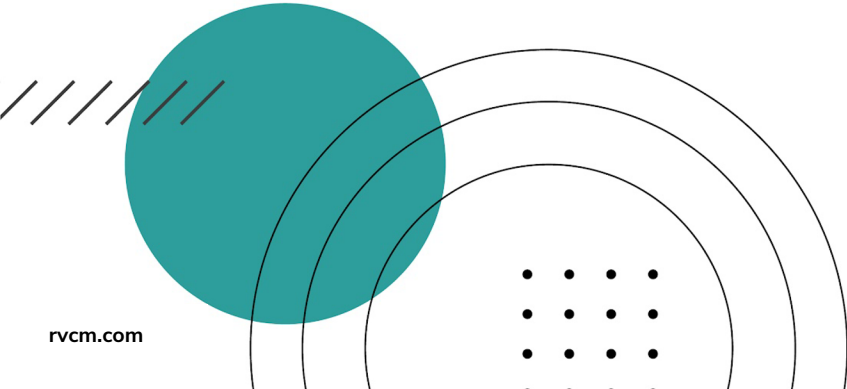
- Multi-tenant Kubernetes deployment for customer mission applications
- Integrate and execute secure CI/CD for application teams using Party Bus pipeline tool
- Onboard application teams and DSO engineers through 3-day training workshops

CNAP

- Integrate Single sign On using AppGate
- Customize AppGate for Kubernetes-based centralized logging and security monitoring
- Integrate cloud native identity and Access Management solutions using KeyCloak



TRON AF Software Development Lab





RVCM + TRON Partnership



- RVCM secures SBIR Phase II (Topic Number AF191-005) for DevSecOps services and TRON establishment: a government enablement and software development accelerator foundation
- September 2019: RVCM and TRON collaborate to create the TRON Software Factory (DevLab)
- "RevaTRON" team: DevSecOps engineers, software developers, user-experience designers, and TRON Airmen
- TRON's custom DevSecOps pipeline created in collaboration with Platform One
- This enabled external DoD clients to use the same pipelines to deploy their applications in P1 environment, gain a CtF, and extend their application's use throughout the DoD (reciprocity).
- Puckboard development team includes Air Force Airmen
- Open data architecture allows Airmen, DoD civilians, and partners to contribute
- We have replicated this process for more than 300 applications and provided customized pipeline support.



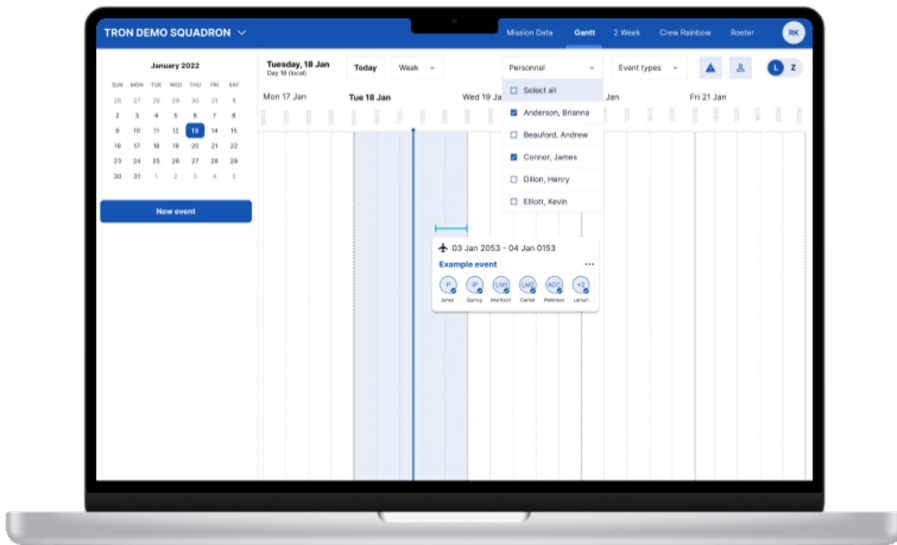
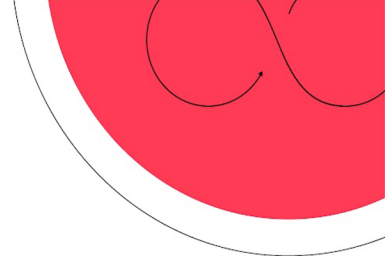
What is Puckboard?

The future of collaborative scheduling in the DoD.

Puckboard is a live, collaborative scheduling and post mission paperwork suite available to service members worldwide. Puckboard increases accuracy and efficiency while also relieving Aircrew stress, reducing time spent on calculations and decreasing costs.



Learn more at
puckboard.dso.mil





Puckboard Story

Puckboard began with an automated scheduling application designed to reduce the cognitive workload experienced by flight schedulers.

The application started with USMC MV-22 squadron in San Diego before being adapted to the USAF C-17 airframe at Hickam in September 2019.



TIMELINE

2019

Puckboard Scheduling starts with USMC MV-22 squadron in San Diego, CA

September 2019

Puckboard Scheduling is adapted by USAF C-17 airframe at Hickam in Hawaii

May 2020

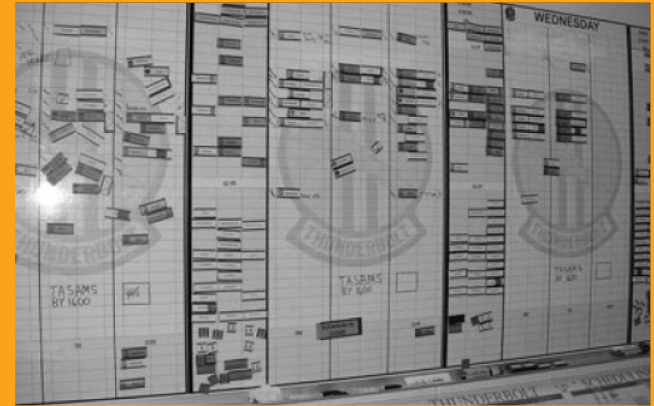
Puckboard Logging launches at Joint Base Charleston's Palmetto Spark in South Carolina

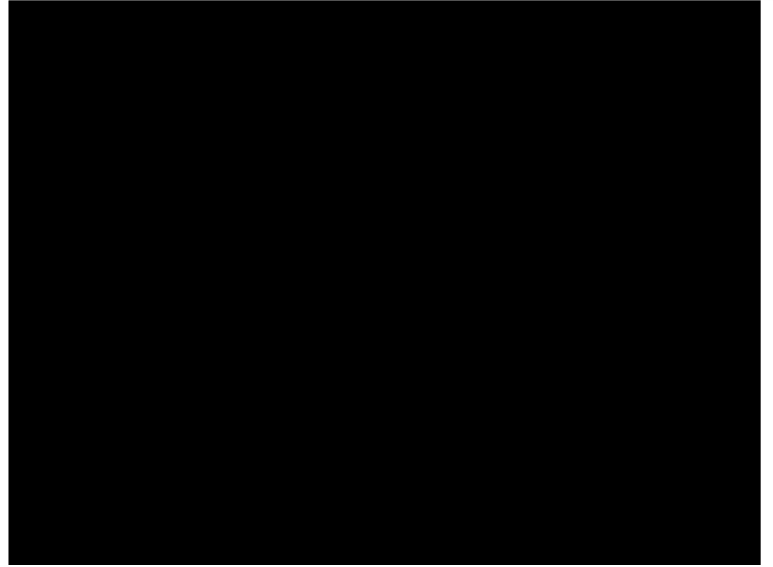
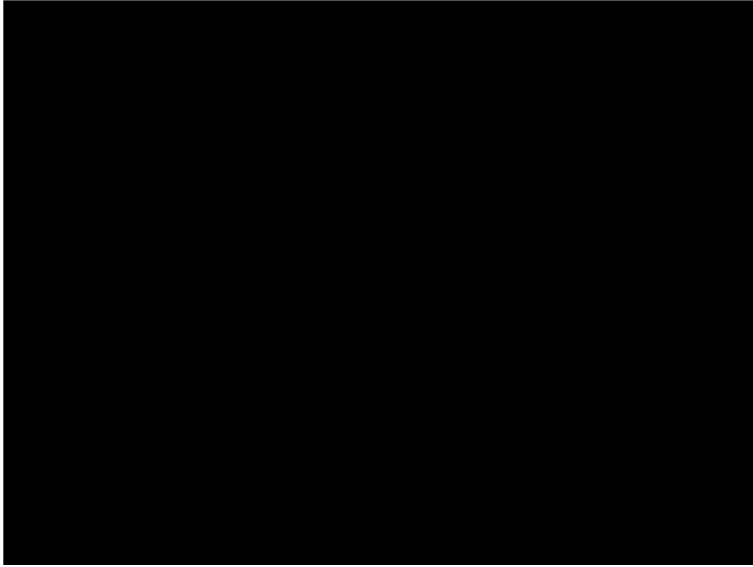
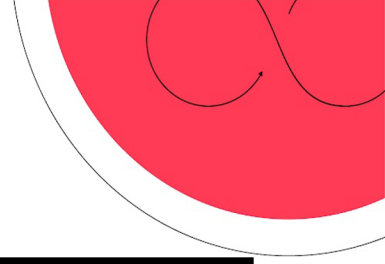
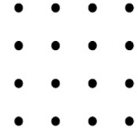
June 2020

Puckboard collaborates with MIT Lincoln Laboratory to begin AI initiative

March 2023

Puckboard kicks off initiative to support standardizations, evaluations, and training for Aircrew.







Impact of Puckboard

- Conflict Identification and Resolution
- Ability to request to be on events
- Customizable event, role, and conflict types.
- Artificial Intelligence
(optimization and human factors value prediction)
- Multi-branch, multi-squadron capability with Squadron Relationships
- Multiple Airframe Role Management
- User Management & CAC Authentication
- Architecture for Integration

20.5K+

TOTAL
USERS

475+

TOTAL UNITS
ONBOARDED

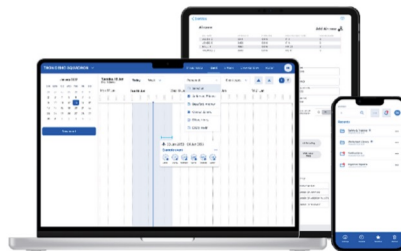
202K+

TOTAL EVENTS
SCHEDULED

44K+

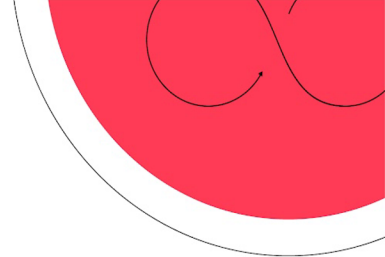
TOTAL AIRCREW
REQUESTS TO
WORK

AVAILABLE ACROSS
DEVICES



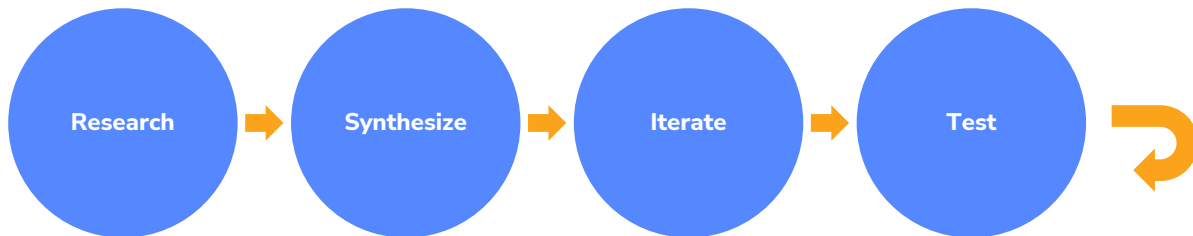


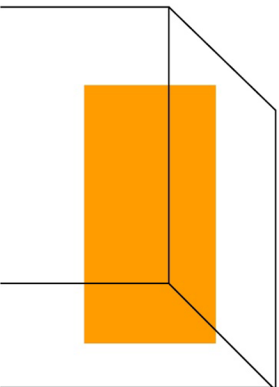
Our Team and Process



Puckboard Suite products are built with User Centered Design. Our design process starts with discovery and research, followed by synthesis and iterative prototyping. Our main goal is to empathize with participants to streamline processes for the USAF.

We are lucky to have a number of volunteer Airmen who participate in regular feedback sessions with our team.





Thank You!

