The Situation

Calhan High School instructor Jeff McGuirk noticed a significant gap between local education in cyber security and the key skills that business hiring managers were looking for in candidates. Indicative of the growing cyber skills shortage globally and combined with his observations that students graduating school were not equipped with the “soft” professional skills employers expect, Jeff saw an opportunity to modernize how cyber security concepts were taught at Calhan High School.

“It really helps you develop skills starting from Linux and on from there and it’s great for helping you learn about and figure out networks and ports, which are a big part of hacking.”

– Calhan student
The Solution

Jeff was introduced to Circadence at a cyber security conference in June 2019. When he learned about Circadence’s Project Ares® gamified cyber learning platform, he immediately saw the benefit it could bring to Calhan High School students enrolled in the Computer Information Technology program that he was teaching.

Jeff envisioned and eventually implemented an entire cyber security curriculum that incorporated Project Ares’ immersive lab environment into the classroom. Project Ares was embraced by 16 students in September 2019 and continues to be used today as a learning tool. Students are using the platform to prepare for an A+ Exam through CompTIA at the end of the class term. Students played the cyber learning games, learned Linux basics, and leveraged the platform’s Media Center to understand cyber concepts and build skills relevant to real-world cyber job duties. Students were introduced to cyber tools like Wireshark and Packet Sniffing and basic Python programming, too.

In the future, Jeff envisions launching a ‘cyber consortium’ in partnership with other schools in the same district to empower students to develop and pursue an interest in IT and cyber security throughout their school career. The programs would help students design, create and implement systems that are cyber secure so that regardless of the career field they enter into, they understand the importance of practicing good cyber hygiene.
The End-User Benefits

• Students are building professional skills that enable them to stand out during internship and job interviews.

• Students are taking ownership of their own learning and doing so voluntarily thanks to the gamified elements in the platform, which keep them engaged and enticed to keep learning.

• Students receive tangible results in Project Ares: receiving either an in-platform Project Ares work role certificate or official CompTIA certification for those who take and pass the exam.

Learn more about Calhan High School at www.calhanschool.org.

Calhan High School Fast Facts

Industry: K-12 Education

Number of students: 175

Students using Project Ares: 16

“Learning through gamification has proven to be a wonderful way for students to learn and retain what they learn. The fact that they don’t just teach theoretical content on cybersecurity but actually get hands-on experience using the tools a real security analyst will use in their job is amazing. It has really upped ‘the game’ when it comes to education.”

– Mr. David Slothower, Superintendent of Calhan School District
Project Ares by Circadence is an immersive, gamified, cyber learning platform. Within Project Ares, artificial intelligence is combined with virtual machine orchestration, operational tools, network activity, and a library of authentic threat activities. The result is learning engagement for single players and teams in offensive and defensive battle room and mission learning exercises that mirror real-life threat scenarios.

Visit [www.circadence.com](http://www.circadence.com) to learn more.

Circadence® Corporation is a market leader in next generation cybersecurity readiness. Circadence’s ecosystem is the first fully immersive, AI-powered cybersecurity learning and assessment platform for government and enterprise organizations.

Circadence’s solutions modernize outdated and largely generic cybersecurity training with an advanced online gaming platform that delivers persistent, immersive and real-to-life experiences that match and adapt to a contemporary threat environment. Contact us at 303.413.8800 or [www.circadence.com/contact](http://www.circadence.com/contact)

**LOCATIONS**

**Headquarters – Circadence Corporation**  
1900 9th Street, Suite 300  
Boulder, CO 80302

**Advanced Research & Development Facility**  
398 E. Main Street, CDF Building, 2nd Floor  
Tupelo, MS 38804

**Center For Cyber Autonomy & Data Sciences**  
9665 Chesapeake Drive, Suite 401  
San Diego, CA 92123

**Washington, D.C. Sales Office**  
6715 Whittier Avenue, 3rd Floor  
McLean, VA 22101