CYBER IS A TEAM SPORT

Cyber Capacity Building: Through Sport & For Sport

A Cyber Workforce Development Program in cyber threat intelligence and information sharing that leverages crowdsourcing strategies, and builds national resilience by developing talent in communities and spurring innovation.

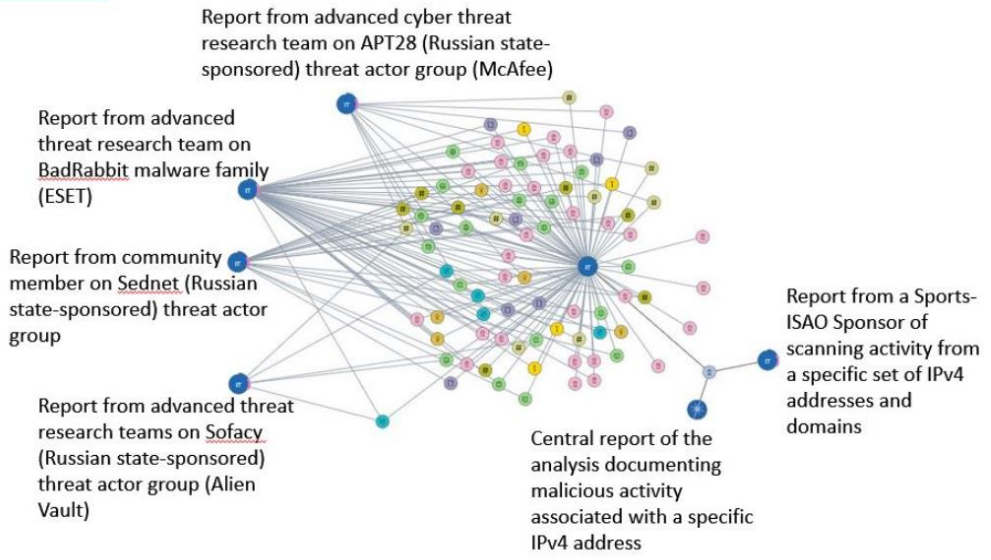
"THE ELIXIR OF SPORT" – RALLYING ITS POWER TO SPUR CAPACITY-BUILDING

A PROPOSAL TO SPONSOR A WORKFORCE DEVELOPMENT INITIATIVE

The objective is to obtain sponsors to offer student scholarships and to help financially underwrite programmatic elements of a unique sports-themed training initiative that develops talent in a career field facing critical shortages: cyber threat intelligence and information sharing.

Who We Are and What We Do:
Sports-ISAO is a program office of the Cyber Resilience Institute (CRI), a 501(c)(3) nonprofit. Sports-ISAO recently supported US Government security operations during the Winter Olympics in Pyeongchang with cyber threat intelligence. After the cyberattack on the Opening Ceremony, Sports-ISAO also provided daily reports to the United States Olympic Committee. Figure 1 provides a visual depiction with source correlation remarks.

Figure 1



This Figure indicates the sort of link analysis and cyber threat hunting, often fused with social media intelligence and geopolitical assessment, that enabled Sports-ISAO to issue a report highlighting a change of tactics from Fancy Bear, which was a principal adversary of concern during the Games. The team also incorporated an advanced correlation tool that, through attack models and predictive algorithms, complemented the analysts' work with course of action data.

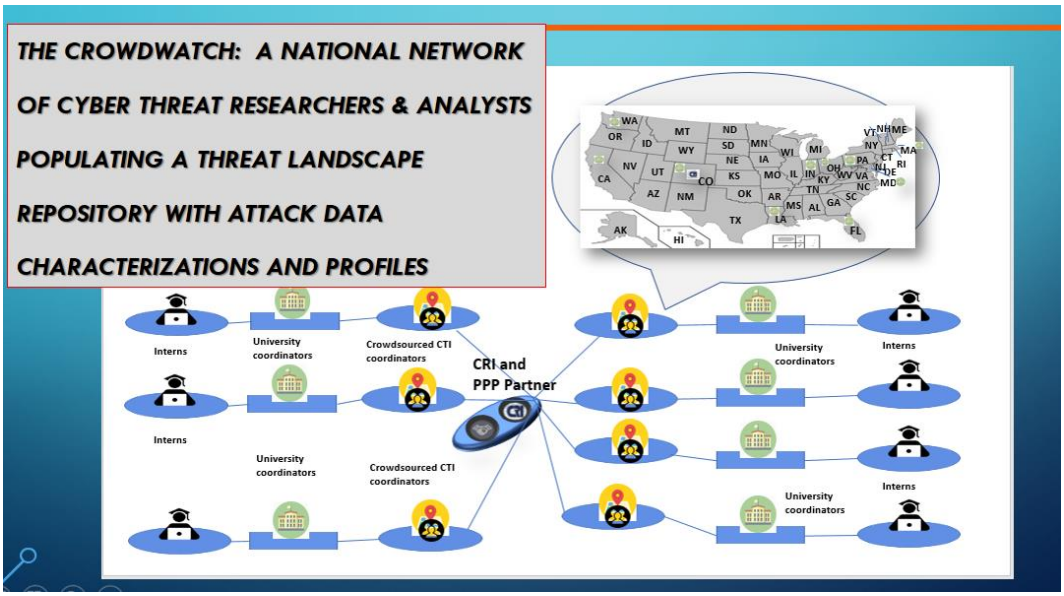
Our Programs:

CRI has a mission of promoting the buildout of cyber capacity at community levels, as a strategy to address the Down Market Gap[1]. A program that has been developed, in partnership with Sports-ISAO, is a workforce effort to leverage the excitement and passion of sport to generate interest and activity around cyber threat intelligence and information sharing – the ***c-Watch Program***. This "ISAO Operations Course" provides students with foundational knowledge as well as tool and platform training to support intelligence collection, analysis and reporting. Once graduated from the program, eligible candidates enter ***The CrowdWatch***, our national network of apprentice-hunters,

[1] The Down Market Gap refers to the lack of appetite for cyber spend below the enterprise market, and the resulting low level of cyber hygiene in communities across the country, particularly among small and mid-sized businesses. This gap presents systemic risk because of the supply chain and the interconnectivity and interdependencies of all Internet users.

whom we make available for staff augmentation and outsourced analytics. Figure 2 depicts our plans to scale ***The CrowdWatch***.

Figure 2



c-Watch course students receive experiential learning during the Capstone, which is a Live ISAO operation (a Pop-up SOC) with distributed hunters and analysts who participate during a major sports event. Past Pop-Up SOCs have coincided with the 2016 Rio Olympics, the 2017 IAAF World Championships, and apprentices from ***The CrowdWatch*** even helped with the 2018 Winter Games. To date, over 100 students have participated in the training. Below, in Figure 3, are the universities whose students participated in Sports-ISAO Pop-Up SOC operations, and a testimonial to the left.

Figure 3

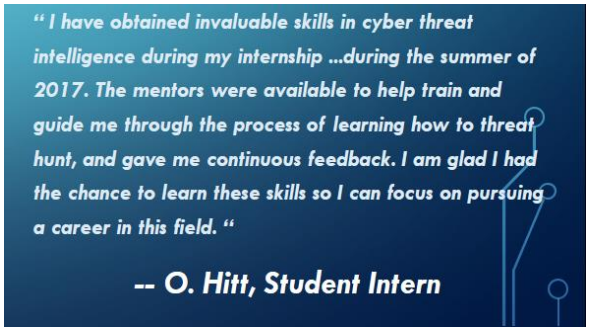


Figure 4. Testimonial from Intern-turned-Apprentice in ***The CrowdWatch.***

Next steps with ***c-Watch*** is training to commence later this spring, with a Capstone event of the World Cup 2018. More information can be found at: https://c-market.us/site/index.php/home/c-watch/c-watch-course/ [2]

<u>Our Goal</u>:

Sports-ISAO seeks to provide regular support to the sports industry in the areas of cyber threat intelligence and information sharing, such as:

- Surge support via Pop-Up SOC operations

[2] c-Watch is offered via the c-Market™, a separate DHS-funded project that is designed to address the Down Market Gap through a different approach. CRI holds the DHS contract that is building out the c-Market™.

- Staff augmentation
- Outsourced analytics
- Sport-centric IOC repository (data from across leagues)
- Cyber Threat Intelligence training
- ISAO establishment support, consulting, or systematic engagement of Sports-ISAO

Our Program Leadership:

Doug DePeppe specializes in private-public partnerships in Community Cyber, and reducing cyber risk as a cyberlaw attorney. He has designed and instructed cyber courses at multiple universities, and engages in speaking globally on cybersecurity, cyberlaw and private-public partnerships. He has published pieces and articles on the subjects, including in BNA and in Forbes. In addition to his cyberlaw practice at **eos**edge Legal, a firm he founded, he is Board President of the Cyber Resilience Institute, Co-Founder of the Sports-ISAO, and a partner in cyber intelligence firm, CTIN. Mr. DePeppe's credentials include:

- White House 60-day Cyberspace Policy Review
- Subject Matter Expert to White House-directed Electricity Sector Cybersecurity Risk Management Maturity Model
- Govt Relations WG Chair, ISAO Standards Organization
- Chair, RC3 Cyber Working Group
- Adjunct Professor, UMUC Cybersecurity Masters
- Retired, US Army JAG Corps
- LLM, George Washington University Law School

Jane Ginn has over 30 years of international business experience in engineering consulting, information technology, and cyber security threat intelligence. She has expertise in cybersecurity training program curriculum design, network design using defense-in-depth concepts, red/blue team design and execution, cybersecurity exercise development, vendor product evaluation and ISAO member on-boarding, threat analysis and risk assessment. She is a Principal at cyber intelligence firm, CTIN, Board Treasurer at Cyber Resilience Institute, and Co-Founder of the Sports-ISAO. Ms. Ginn's credentials include:

- Co-Secretary, OASIS Cyber Threat Intelligence – Technical Committee (STIX/TAXII standards)
- Technical Adviser, European Network Information & Security Agency (ENISA) Threat Landscape Stakeholders' Group
- Adviser to five Commerce Secretaries (International Trade, 1994 – 2001)
- MS, Information Assurance, Norwich University
- Masters, Environmental Science & Regional Planning (MRP), Washington State University

David Powell is the Chief Operating Officer for the Federal Business Council, (FBC) a Federal Contractor. David is a co-founder of CyberMaryland Conference, National Cyber Education Map, National Cyber Map, the original CyberHive at UMBC, and has produced the National Cyber Security Hall of Fame since its inception. FBC was recently selected to provide a primary support role to MITRE in the establishment of the National Cyber Center of Excellence, Federally Funded Research and Development Corporation and works together with NIST and LifeJourney to develop the National Initiative for Cyber Education. He is currently spearheading multiple initiatives geared to defining and advancing community cyber activities throughout the country. Mr. Powell's credentials include:

- Board Member, US Army Cavalry and Armor Association
- Maryland Cyber Advisory Board
- Trustee for the Howard County General Hospital, a member of Johns Hopkins Medicine
- Co-founder CyberUSA

Stephen Campbell specializes in researching and defending against cyber and physical threats from non-state actors. As founder of Non-State Threat Intelligence and strategic advisor to **eos**edge Legal, he encourages clients to take an intelligence-led approach toward assessing and mitigating risk. This involves sizing up a client's assets, their perceived value to attackers and their unique attack surface. It requires a current appreciation of the motivations of attackers and their ever-changing tactics, techniques and procedures. And it demands up-to-date insights into evolving security technologies and best practices. Mr. Campbell's credentials include:

- Master of Arts in Law and Diplomacy, The Fletcher School, Tufts University
- Certified Information Systems Security Professional
- Research Advisor to Professor Richard H. Shultz, expert on armed groups, 2009-2014
- B.Sc. (Hons) Physics, University of Glasgow
- Graduate curriculum development on intelligence and asymmetric warfare

Sponsor and Partner Options:

Sports-ISAO seeks industry partners and benefactor sponsors willing to help with a universal and societal strategy of leveraging the magnetism of sport to help drive adoption of cyber solutions to address the Down Market Gap, as well as workforce gaps and other initiatives.[3] Partnering with Sports-ISAO and participating in advocacy from the "platform of sport" would provision a powerful rallying function to improve adoption of cyber hygiene measures.

Proposal 1: Fiscal sponsorship to support the offering of scholarships for students to register and attend the ***c-Watch Program***. CRI and Sports-ISAO seek to offer scholarships to qualifying students in order to attract a national cadre of college students, and to function as a pipeline for progression into ***The CrowdWatch***.

Proposal 2: Fiscal sponsorship to support the offering of paid summer internships for apprentices in ***The CrowdWatch*** to be placed among placement accepting partners for summer work and potential permanent hire after college. This arrangement would include appropriate publicity as part of a partnership with Sports-ISAO to promote the cyber workforce, and agreement to continue the internships for ***The CrowdWatch*** students for a period of years.

Proposal 3: Fiscal sponsorship to support general programming, such as counter-propaganda research and capacity building, curriculum design in cyber threat and social media intelligence, and advanced technology research and development.

Open Proposals: Additional areas of sponsorship interest, proposed by the sponsor, will be considered as well.

Benefits and Outcomes of Sponsorship:

- ☒ Help to close the talent gap
- ☒ Brand benefits from social benefit action
- ☒ Recognition on marketing materials
- ☒ Access to university partners
- ☒ Status reports and Updates
- ☒ Access to top talent
- ☒ Recognition at events[4]
- ☒ Tax benefits from contributions
- ☒ Access to threat intelligence
- ☒ Preference for CRI programs

As a 501(c)(3) nonprofit, contributions to CRI are tax deductible.

Contact Information:

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[3] Sports-ISAO is in talks with the US Government to promote a Sport as Laboratory strategy. That is, to create a surge capability of threat hunters and analysts that converge in an ISAO to both support the major sport activity, but also to establish a pseudo-early warning system whereby collection of new variant malware and new TTPs is obtained from sport and shared along with defensive measures cross-sector and to provide early capability to improve critical infrastructure defenses.

[4] For example, conferences and events are conducted by the leadership team (e.g., CyberUSA Conference).