![ISAO Standards Organization logo]

ISAO Standards Organization
Improving the Nation's Cybersecurity Posture

R-CISC

YEAR IN REVIEW
2017

CIAS | LMĨ
Complex Problems. Practical Solutions. | R-CISC
RETAIL CYBER INTELLIGENCE SHARING CENTER

ABOUT THE ISAO SO

SELECTION: In October 2015, the U.S. Department of Homeland Security selected a team led by The University of Texas at San Antonio, with support from LMI and the Retail Cyber Intelligence Sharing Center (R-CISC), to form the Information Sharing and Analysis Organization Standards Organization (ISAO SO), a non-governmental organization, to facilitate the implementation of Presidential Executive Order 13691.

EXECUTIVE ORDER: Provide guidelines for robust and effective information sharing and analysis related to cybersecurity risks, incidents, and best practices.

MISSION: Improve the Nation's cybersecurity posture by identifying standards and guidelines for robust and effective information sharing related to cybersecurity risks, incidents, and best practices.

A LETTER FROM THE EXECUTIVE DIRECTOR

2017 has been a landmark year for the Information Sharing and Analysis Organization Standards Organization (ISAO SO).

After a successful 2016 featuring the publication of our four initial guideline documents, the focus of the ISAO SO shifted beyond the initial documents to expanding outreach to the information sharing global community. This year has seen incredible growth in information sharing organizations and the outreach of the ISAO SO.

Our efforts at engaging with the community are at an all-time high. With the success of this fall's inaugural International Information Sharing Conference, we have a renewed sense of progress and vision for this meaningful project. Hearing from practitioners from across the globe provided critical feedback that the work we are doing is making an impact in the daily efforts of industry leaders.

Seeing the support from the public and private sector underscored that information sharing is an issue for both. Cybersecurity challenges impact everyone and information sharing is a critical component of any cybersecurity strategy.

One of the biggest takeaways of 2017 has been that cybersecurity is a team sport. Everywhere we travel, we've heard how information sharing organizations lean on their members and other organizations to drive forward.

I'd like to thank our staff, working group leadership, working group members, and the community at large for their dedication to this project and for their efforts in increasing the security and resiliency of our nation.

Sincerely,

Gregory B. White, Ph.D.
Executive Director
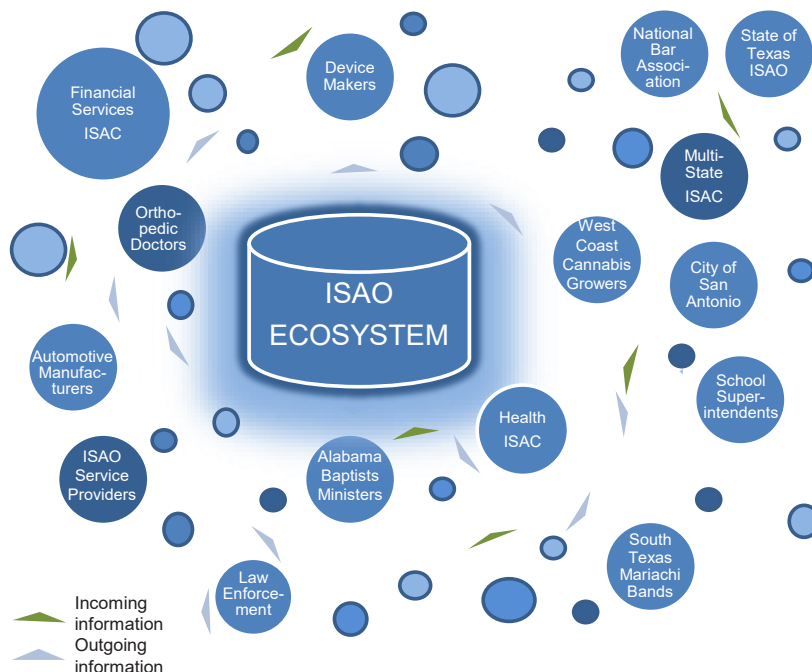ISAO Standards Organization

INFORMATION SHARING ECOSYSTEM

DIGEST OF INFORMATION SHARING GROUPS

- Advanced Cyber Security Center
- Arizona Cyber Threat Response Alliance (ACTRA)
- Automotive ISAC
- Aviation ISAC
- Cybersecurity Analysis, Intelligence and Information Research Institute (CAIIRI)
- California Cybersecurity Information Sharing Organization (CalCISO)
- Center for Model Based Regulation
- Columbus Collaboratory
- Communications ISAC
- Cyber Information Sharing and Collaboration Program (CISCP)
- Defense Industrial Base ISAC

- Defense Security Information Exchange (DSIE)
- Downstream Natural Gas ISAC (DNG ISAC)
- Electricity ISAC
- Emergency Management and Response ISAC
- Energy Analytic Security Exchange (EASE)
- EnergySec
- Financial Services ISAC
- GICSR Global Situational Awareness Center (GSAC)
- Global Resilience Federation (GRF)
- Healthcare Ready

- HITRUST
- Hospitality Technology Next Generation
- Indiana ISAC
- Information Technology ISAC
- InfraGard
- International Association of Certified ISAOs (IACI)
- IoT ISAO
- Legal Services ISAO
- Maritime and Port Security ISAO
- Maritime ISAC
- Maryland ISAO
- Medical Device ISAO
- Mid-Atlantic Cyber Center (MACC)
- Multi-State ISAC
- National Council of ISACs
- National Credit Union ISAO
- National Cybersecurity Society
- National Health ISAC (NH-ISAC)
- Northeast Ohio CyberConsortium
- Oil and Natural Gas ISAC
- Real Estate ISAC
- Regional Information Sharing Systems
- Research and Education Network ISAC
- Retail Cyber Intelligence Sharing Center (R-CISC)
- Retail Industry ISAO – National Retail Federation
- Small and Mid-Sized Business ISAO (SMB ISAO)
- Southern California ISAO
- Sports ISAO
- Supply Chain ISAC
- Surface Transportation, Public Transportation, and Over-The-Road Bus ISACs
- Texas CISO Council
- Trustworthy Accountability Group (TAG)
- Water ISAC

ECOSYSTEM OVERVIEW

The concept of the ecosystem overview demonstrates how the flow of incoming and outgoing information could look as the ecosystem expands from dozens to hundreds of information sharing groups.

7
Standards Documents Published

7
Standards Documents in Development

23
New Information Groups

2
New Working Groups Launched

5
Online Roundtable Discussions

VALUE OF THE ISAOS

An ISAO is a group created to gather, analyze, and disseminate cyber threat information; they offer a more flexible approach to self-organized information sharing activities amongst communities of interest. Additionally, each ISAO may determine for itself whether it will share information with the government. Any group with a shared interest in collaborating to improve its members' individual and collective cybersecurity posture can form an ISAO.

What makes the ISAO construct so powerful is its potential to widely and rapidly propagate critical cybersecurity threat and incident response information across numerous communities of interest that are currently underserved from a cybersecurity perspective. By establishing a scalable model,

ISAOs can be constructed to meet the modest needs of a niche local market or the challenging demands of an 8,000-company software trade association. We are now in a position to create a national network of ISAOs that could rapidly share information about threats at a pace and scale that would dramatically reduce the effective lifespan of an adversary exploit and alter the balance between offense and defense.

ISAO SO LEADERSHIP MEETING

SAN ANTONIO

The ISAO SO hosted an in-person meeting with working group leadership on the campus of UTSA in San Antonio, TX, and via webinar, this past July. The meeting was the first of two in-person events the group planned for the year, and was meant to reinforce guidance provided by the ISAO SO to the working groups.

Working Group leaders shared details of the current documents in development, timelines, and topics for future documents based on the needs of the information sharing community.

Dr. Greg White, Executive Director of the ISAO SO, set the stage for the day by leading a rousing dialogue on ISACs and ISAOs, discussing the importance for small businesses and organizations to start building trust within informal groups—getting started is key. He voiced his delight with the body of knowledge being produced by the working group volunteers, while highlighting areas where work still needs to be done. Dr. White closed by encouraging the working group leaders (several of whom participated in the fall International Information Sharing Conference) to act as ambassadors by sharing the news of the conference with their networks.

The afternoon rounded out with a robust conversation about document development procedures, needs assessment for future documents, planning and analysis of future documents, outlines, request for comment periods for the public, the editorial process, new publications prioritization, and retention and recruitment for the working groups.
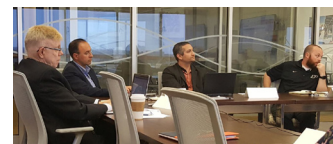
NEW WORKING GROUPS LAUNCHED

Based on input from the first public forum, the ISAO SO established six initial working groups: ISAO Creation, ISAO Capabilities, Information Sharing, Privacy and Security, Support, and Government Relations. After the ISAO SO published its initial set of voluntary standards and guidelines, the needs of the community evolved and the support working group disbanded. Two new working groups were added in 2017, including:

• International: Working on the development of guidelines for ISAOs and companies who plan to share cybersecurity information internationally. Providing ISAOs with the knowledge required to make informed decisions regarding the sharing of cybersecurity information across national borders and the addition of international members. Discussing and addressing the advantages, obstacles, and global restrictions that may impact how ISAOs operate.

• Analysis: Identifying and addressing methods and associated issues regarding analyzing indicators with respect to Information Sharing and Analysis Organizations.

DOCUMENT DEVELOPMENT

2017 PUBLISHED PRODUCTS ON ISAO.ORG

The ISAO SO published three new documents, including:

- ISAO SP 1000: Forming a Tax Exempt Entity

- ISAO SP 4000: Protecting Consumer Privacy in Cybersecurity Information Sharing

- ISAO SP 8000: FAQs for ISAO General Counsels

ISAO SP 1000:
Forming a Tax Exempt Entity
v1.0

September 13, 2017

ISAO SP 4000:
Protecting Consumer Privacy in
Cybersecurity Information Sharing
v1.0

July 26, 2017

ISAO SP 8000: FAQs for
ISAO General Counsels
v1.0

September 21, 2017
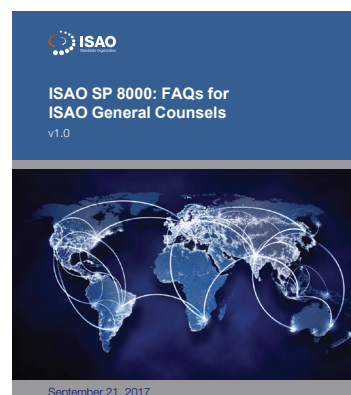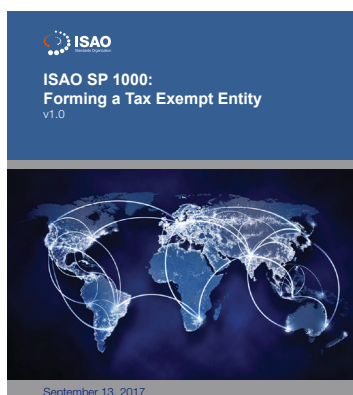
Documents in Development for 2018:

- ISAO 200-1: Foundational Services and Capabilities

- ISAO SP 2000: Crisis Action Playbook

- ISAO 300-2: Automated Information Sharing

- ISAO 500-1: U.S. Transnational Cybersecurity Information Sharing

- ISAO SP 6000: A Framework and Model for State-Level ISAOs

- ISAO SP 6001: State-Level Enabling and Partnering with Private Sector ISAOs

- ISAO 700-1: Introduction to Analysis

CONNECTING WITH THE COMMUNITY

RSA CONFERENCE

The ISAO SO team traveled to San Francisco in February of 2017 to exhibit at RSA, one of the largest information security conferences in the world. Limited edition ISAO Cyber Threat Defender booster packs, along with starter decks, were given out to attendees to attract attention to the booth. The team talked about information sharing and support services available from the ISAO SO, and hosted a breakout meeting at the Marriott Marquis to discuss the value of information sharing and analysis organizations. A packed exhibit hall offered invaluable interactions with the cybersecurity community.
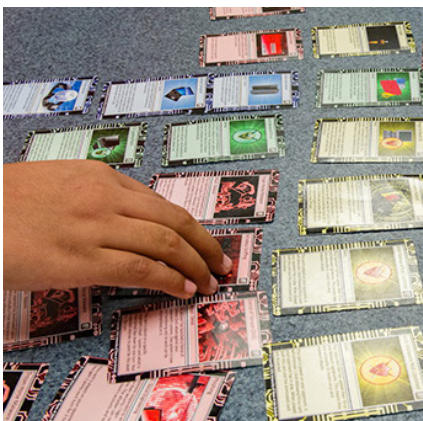

ISAC/ISAO TOURS

In addition to exhibiting at conferences, the ISAO SO executive team visited with ISACs and ISAOs throughout the country in 2017. The team learned about the history of each of the information sharing organizations they visited, including how they got started, organizational structure, services and capabilities being offered, primary reason for sharing, and what key strategies they use for building trust with members. Meeting with and building relationships with various information sharing organizations is key to the success of the ISAO SO, and helps the SO determine what guidelines are needed and what types of support are needed.

ON THE ROAD

The executive team also participated in several key events and conferences throughout 2017. Events included the National Governor's Association (NGA) meeting, Illinois Chamber of Commerce 2nd Annual Cybersecurity Conference in Chicago, the Cyber Resilience Institute in Colorado Springs, and the 6th Annual Cybersecurity Summit in Washington D.C. to name a few.

National Governor's Association Meeting

Illinois Chamber of Commerce 2nd Annual Cybersecurity Conference

Cyber Resilience Institute

6th Annual Cybersecurity Summit
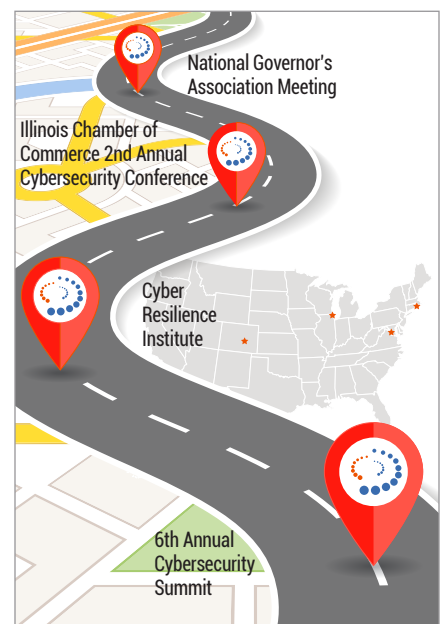
GROWING AND SUPPORTING THE ECOSYSTEM

NATIONAL LIST OF ISAOs

The ISAO SO created a national list of information sharing groups in 2016, and used 2017 to significantly expand the number of information sharing groups included. The list not only provides the names of the groups, but also includes a brief synopsis, link to their website, and contact information. The purpose of this initiative is to provide the community with a comprehensive list of information sharing groups and their services. The listing has proven to be especially helpful to new and emerging ISAOs as they begin to navigate the information sharing ecosystem.

ISAO SO MARKETPLACE

The Marketplace is designed to serve as a one-stop shop for information sharing organizations to discover services, tools, and capabilities to assist growing their organizations. The Marketplace connects ISAOs with solutions for their operational needs. This centralized collection of products, services and capabilities is designed to assist ISAOs as they establish their operations, meet the needs of their membership, and grow to be a successful information sharing organization.

NEW AND EMERGING ROUNDTABLE DISCUSSIONS

The ISAO SO hosted five online roundtable discussion calls with guest speakers in 2017. The calls were open to all registered information sharing organizations, as well as individuals interested in learning more about starting an ISAO. The roundtables provided an opportunity for peer discussions, the sharing of knowledge, and a trusted forum to present challenges and discuss solutions.

ISAO SO Marketplace

National Registry of ISAOs

New and Emerging Roundtable Discussions
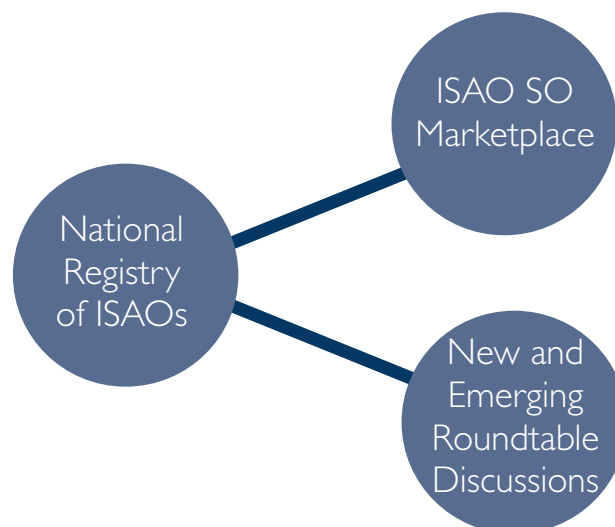
INTERNATIONAL INFORMATION SHARING CONFERENCE (IISC)

The ISAO SO hosted nearly 200 participants from across the globe in Washington D.C. for the inaugural International Information Sharing Conference. The two-day event, held with participation from the Department of Homeland Security (DHS) and the U.S. Chamber of Commerce, brought together the public and private sector to discuss the future of information sharing efforts.

Day one of the conference was highlighted by high-profile keynote addresses from major information sharing and cybersecurity leaders including Thomas Schreck, Chairman of the international Forum of Incident Response and Security Teams (FIRST). Ed Harris, Senior Manager, Global Security Ops, Risk & Compliance for VF Corporation, gave a riveting address on the value of information sharing in the retail sector. Jeanette Manfra, Assistant Secretary of Cybersecurity and Communications at DHS, gave the lunchtime keynote address and participated in the first-ever induction to the Information Sharing Hall of Fame.

In addition to these keynote speakers, representatives from MITRE, Surevine, TruSTAR Technology, Global Resilience Federation (GRF), and Johns Hopkins University Applied Physics Laboratory, to name a few, presented in breakout sessions throughout the conference. Leaders from several information sharing organizations, including the National Credit Union ISAO, Trustworthy Accountability Group (TAG), Arizona Cyber Threat Response Alliance (ACTRA), regional ISAOs, the Financial Services ISAC, and the Electricity ISAC also addressed the conference during afternoon breakout sessions. Finally, sponsor NC4 delivered a technology demonstration displaying solutions to help ISAOs provide more value to their members with two platforms.

IISC 2017 TESTIMONIALS

"I want to thank the ISAO SO for the work they put in to making the inaugural International Information Sharing Conference a success. The efforts of the ISAO SO and all of those involved to strengthen the information sharing ecosystem is truly making a difference. I also have to thank all the fantastic speakers and panelists for providing such wonderful and thought-provoking information. I look forward to attending future conferences.**"**

—NICK STURGEON,
SECURITY OPERATIONS CENTER DIRECTOR,
PONDURANCE (FORMERLY OF THE IN-ISAC)

"The Conference was a valuable opportunity to connect with people representing many different parts of the information sharing community and deepen relationships.**"**

—DAVID TURETSKY,
CO-CHAIR WORKING GROUP 4,
PRIVACY AND SECURITY

"The First Annual ISAO Conference brought together the information sharing leaders from across the country to increase the dialogue and continue to elevate the cyber threat sharing ecosystem. I was honored to participate in the program. It was immensely valuable and I hope it continues each year.**"**

—CARL ANDERSON
CHIEF LEGAL OFFICER & SENIOR VICE PRESIDENT
OF GOVERNMENTAL AFFAIRS,
HITRUST

HALL OF FAME AWARDS

The ISAO SO presented the inaugural Information Sharing Hall of Fame Awards at the International Information Sharing Conference on October 31, 2017. The awards recognized those individuals and companies who have demonstrated the highest standards of professional competence and selflessness and have contributed significantly to the promotion of the information sharing ecosystem.

Nominations were accepted on the ISAO SO website, ISAO.org, and considered and approved by an awards panel comprised of ISAO SO Directors and members of the Cybersecurity Information Sharing Community at large.

The winners in the two award categories for 2017, included:

Information Sharing Hall Of Fame 2017 Inductee—Individual:

**David Powell,
CyberUSA and
Federal Business Council**

Mr. Powell is the CEO of the Federal Business Council. He also co-founded CyberMaryland, one of the first community-based information sharing and collaboration efforts nationally, and more recently CyberUSA. CyberUSA is a collaboration of states focused on a common mission purpose of enabling innovation, education, workforce development, enhanced cyber readiness and resilience—all while connecting the cyber ecosystem of the United States and its Allies.

Information Sharing Hall Of Fame 2017 Inductee—Organization:

The MITRE Corporation

MITRE's contributions to ISAOs, formerly a space signified by cyber capacity building that included threat data sharing and other features, exemplify its "people in partnership" core value, as shown through its demonstrated commitment to public-private partnerships, and by catalyzing and providing strategic guidance to regional ISAOs such as the Advanced Cyber Security Center, the Northeast Ohio Cyber Consortium (NEOCC), the California Cybersecurity Information Sharing Organization (CalCISO), and the emerging Mid-Atlantic Cyber Center (MACC); and supporting the development of cyber information-sharing automation standards, such as STIX, TAXII, and CyBOX. Finally, MITRE has committed to support the ISAO Standards Organization through engaged participation in nearly all of the working groups.

GISLA AWARDS

Nominated by the Department of Homeland Security, the ISAO SO was selected as a finalist for the Most Valuable Industry Partner (MVIP) – Team Category at the 2017 U.S. Government Information Security Leadership Awards (GISLA) at the Marriott Wardman Park in Washington, D.C. in May of this year.

The GISLA program was established in 2004 to recognize government information security leaders, individuals or teams, whose commitment to excellence is advancing the nation's cybersecurity program in six areas: workforce, technology, process and policy, community awareness, industry partners, and cybersecurity up-and-comers.

"We are honored to have the ISAO Standards Organization team recognized as a finalist for the GISLAs. This accolade as a finalist in the Team Category speaks to the hard work of the entire ISAO SO staff and working group volunteers. Our work would not be possible without the incredible support, dedication, and tenacity of the whole team."

—DR. GREGORY B. WHITE,
EXECUTIVE DIRECTOR, ISAO SO

COMMUNICATIONS HIGHLIGHTS

2017 Speaking Engagement Highlights:

- FS-ISAC Fall Summit
- Cross-Sector Leadership Forum
- Defense Transportation Fall Conference
- Midwest Cyber Center

- MS-ISAC Annual Meeting
- IT and Communications Sector Annual Meeting
- San Antonio Cyber Committee
- Integrated Cyber

- National Governor's Association Summit on Cyber Challenges
- Western Regional FBI InfraGard Information Sharing Initiative

Social Media

↗ **5,092** Profile visits in 2017

↗ **534** ISAO SO account doubled its followers

↗ **112,000** Over 112,000 impressions in 2017

Web Growth

ISAO.ORG INCREASED IN PAGE VIEWS AND UNIQUE VISITS EVERY 3-MONTH PERIOD OF 2016

FIRST TIME USERS	TOTAL USERS
63.5%	**13,488**

In the News

FIFTH DOMAIN CYBER · cyberscoop · CySer GROUP

UTSA Today · FCW The Business of Federal Technology · StreetInsider.com if you're not inside...you're outside

fender bender · CYWARE · the cyberwire Daily Podcast

DARK Reading · SECURITY.WORLD News Source For The Physical Security Industry

Marketing DIVE · TechHealth Perspectives Insights on the Laws and Regulations Related to New Health Technologies

Nextgov · KLTV abc · sNEWSi Choose Your News

WaterWorld

INSIDE CYBERSECURITY

DAILY NEWS

ISAO standards body to renew call for third-party certification of info-sharing groups

INFORMATION SHARING: CONFERENCE TO FOCUS ON INDUSTRY CHALLENGE

ABOUT US

The Center for Infrastructure Assurance and Security (CIAS) at The University of Texas at San Antonio (UTSA), LMI, and the Retail Cyber Intelligence Sharing Center (R-CISC) form the ISAO Standards Organization. The team brings experience in both cybersecurity and standards development.

ISAO
Standards Organization

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CIAS
UTSA has a national reputation for innovation in cybersecurity programs, exercises, competitions, and training, especially with sectors, states, and communities.

LMĨ
LMI is a mission-oriented consulting firm with over 55 years of public service, including developing open standards, engaging communities, and building trust among competitors.

R-CISC
R-CISC operates the Retail Information Sharing and Analysis Center, and effectively promotes cybersecurity and data privacy for the $500 billion retail/services industry.