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Executive summary ............................................................................................................................. 1
The IRS Security Summit ...................................................................................................................... 1
About the ISAC .................................................................................................................................. 1
Protecting America’s tax ecosystem ..................................................................................................... 2
ISAC timeline ..................................................................................................................................... 3
Important terms in this report ................................................................................................................. 4
ISAC success metrics ............................................................................................................................. 5
Accomplishments in three areas ............................................................................................................ 5
I. Participation ..................................................................................................................................... 6
     Maximizing collective knowledge to better protect taxpayers ......................................................... 6
         Before the ISAC: Limited participation and partnership ............................................................... 6
         Current state: Growing engagement, trust, and collaboration .................................................... 7
II. Contribution ................................................................................................................................... 8
     Removing barriers for partners to contribute timely, actionable, and clear alerts ......................... 8
         Before the ISAC: Fractured and unreliable information ............................................................... 8
         Current state: One-stop shop ....................................................................................................... 8
III. Analysis ....................................................................................................................................... 10
     Providing leads that enable partners to validate and refine their fraud filters .............................. 10
         Before the ISAC: Data wasn’t helpful ........................................................................................... 10
         Current state: Actionable leads are delivered in real time .......................................................... 10
     How the ISAC works with data ....................................................................................................... 11
Looking forward ................................................................................................................................ 13
The ISAC’s key areas of focus .............................................................................................................. 13
ISAC leadership .................................................................................................................................. 14
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The IRS Security Summit

In March 2015, the IRS convened a public-private partnership to respond to the growing threat of tax identity theft and stolen identity refund fraud. This group, called the IRS Security Summit, is made up of IRS officials, CEOs of leading tax preparation firms, software developers, payroll and tax financial product processors, financial institutions, tax professionals, and state tax administrators.

The Summit has improved safeguards in the tax return submission pipeline, keeping false returns out of the system, improving internal fraud filters, and preventing fraudulent refunds from being paid out.

The following are selected accomplishments since 2015:

- Between 2015 and 2017, the number of reported identity theft victims fell nearly 65 percent.
- Tax returns with confirmed identity theft decreased about 30% between 2016 and 2017.
- In 2017, the IRS didn’t send out $6 billion in refunds that were fraudulently claimed.

In 2016, Security Summit partners agreed there was a need for a formal public-private partnership where sharing could take place in a collaborative environment based on partner-agreed rules.

About the ISAC

In January 2017, the partnership was formed with equal partners from the IRS, industry, and states. The IRS Federally Funded Research and Development Center (FFRDC) worked with the Security Summit partners to develop a more formal centralized information-sharing process. Having served more than 20 years as the IRS’ research and development center, the FFRDC provides a stable, IRS-affiliated platform to facilitate information-sharing.
The resulting partnership formed the pilot Identity Theft Tax Refund Fraud - Information Sharing and Analysis Center (IDTTRF-ISAC) for the 2017 tax filing season. The FFRDC is serving as the IDTTRF-ISAC’s Trusted Third Party (TTP). TTPs facilitate information-sharing among entities that wouldn’t otherwise do so.

By establishing the IDTTRF-ISAC, this unprecedented partnership among the IRS, the states and the private sector formed a new line of defense to protect the tax ecosystem and taxpayers by merging ideas, addressing legal barriers, and opening channels of communication.

“The true test of the effectiveness of the ISAC is fraud prevented and disrupted.”

— Endorsing statement from the American Coalition for Taxpayer Rights (ACTR), the Council for Electronic Revenue Communication Advancement (CERCA), the Federation of Tax Administrators (FTA), and the Free File Alliance (FFA)

Protecting America’s tax ecosystem

The ISAC’s purpose is to:

- Facilitate information exchange for tax administration purposes related to identity theft tax refund fraud.
- Provide a forum for participants to discuss real-time responses to such fraud schemes.
- Promote the advancement of data analysis, capabilities, methodologies and strategies to detect, reduce, and prevent this type of fraud.

Public-private information-sharing centers have been established in multiple industries involved in critical infrastructure, including aviation, financial services, and healthcare. ISAC infrastructure and participation take years to develop and become fully operational, even without major legal barriers to information sharing. The IDTTRF-ISAC is now in its second season of processing data and information, and the strong increase in participation is yielding increased value.

With the benefits of sharing alerts and information in the ISAC, all stakeholders (including states and industry) work in a trusted environment where they have a broader view of suspicious patterns and a secure platform to communicate this information – all to achieve a shared objective: to disrupt and prevent identity theft tax refund fraud.
ISAC timeline

- **2015**: IRS Security Summit forms
- **2016**: IRS announces plans for ISAC
- **2017**: Fraud simulation exercise conducted. ISAC holds kick-off meeting with 40 representatives from IRS, industry, states
- **2018**: Online platform launches with 18 participating organizations. FTA endorses ISAC. ISAC Senior Executive Board established. 63 participating organizations
Important terms in this report

**Alerts** are issued by members within the ISAC’s secure environment to report any tax ecosystem threats. This is like a neighborhood listserv for the tax ecosystem, with immediate reports of breaches, compromised identification numbers, or other suspect data.

**Leads** identify refund fraud patterns, suspicious activity, and suspected fraud. Industry participants are required to submit secure “lead reports” to the IRS and states. The TTP aggregates and anonymizes the leads so that industry can work collaboratively with the IRS and states to bolster fraud detection and prevention. The tax ecosystem is only as strong as the weakest link in the system. Leads provide a comprehensive view of cyber threats across the ecosystem to help identify vulnerabilities and emerging cyber threats.

**The Analysts’ Community of Practice (ACoP)** is a forum where ISAC members share ideas, knowledge, best practices, and concerns related to the detection and prevention of identity theft fraud. These forums help facilitate a stronger network of analysts whose regular participation maximizes the collective knowledge across the IRS, tax industry and states.

**The Trusted Third Party (TTP)** is an essential component of any information-sharing center. TTPs facilitate information-sharing among entities where sharing otherwise wouldn’t occur – all to achieve a shared goal that protects the entire ecosystem. The IDTTRF-ISAC’s Trusted Third Party allows competitive and disparate entities in the tax industry, and federal and state taxing agencies to contribute information that defends the entire tax ecosystem from external threats.
“With some of the data breach information, we identified some cases of identity theft we wouldn’t have otherwise caught. That’s a success that we can put some numbers to.”

– ISAC state partner

**Accomplishments in three areas**

From the ISAC’s proof of concept in 2016 to its operational pilot in 2017, this report highlights the ISAC’s key accomplishments across three measures:

1. Levels of industry and state participation in the ISAC
2. Volume and quality of alert and data contributions that identify ecosystem threats
3. Volume and quality of ISAC’s data analysis to identify suspected fraud

This report also outlines the ISAC’s strategic plans going forward, to ensure a tax ecosystem where taxpayers can confidently file their taxes safely and securely.
“Its unique value is allowing us to engage with other states and industry and see what they’re doing. We can share common points of view, as well as differing ones, which helps us think outside the box of what we’re currently doing.”

– ISAC industry partner

Maximizing collective knowledge to better protect taxpayers

A key initiative for the ISAC is to facilitate information-sharing about incidents, patterns, tactics and emerging schemes among the tax industry and states. The goal is to create a comprehensive picture of the identity theft landscape, with patterns from multiple ISAC partners shared in one central location to inform all participants.

Before the ISAC: Limited participation and partnership

As one partner said, “Prior to the ISAC, some of the Summit partners had difficulty even participating in meetings together because our interests seemed so divergent. Now, we are sitting at the same table, making decisions together about how to solve this problem.”

Before the ISAC partnership, each community (IRS, states and industry) had identified problems related to identity theft and were attempting to address them within their community. Consequently, there was no communication about concerns (real or perceived) or about solutions.

HIGHLIGHTS THROUGH 2018 TAX SEASON

- >400% increase in membership since January 2017
- More than 400 portal users
- 210% more partners are accessing the ISAC versus Jan.-March 2017
- 280% more partners are accessing analytics versus Jan.-March 2017
"IRS has taken important steps to improve its ability to respond to the ongoing challenge of IDT refund fraud. ... The ISAC pilot goes beyond existing fraud information sharing efforts and has strengthened collaboration among stakeholders."

– Government Accountability Office (GAO) Report to the Committee on Finance, U.S. Senate

Current state: Growing engagement, trust, and collaboration

As of 2018, all states and virtually all major stakeholders in private industry are participating in the ISAC. Members agree that seeing what others are doing will help them get a bigger picture and identify more instances of fraud.

The ability to connect in the ISAC portal is unprecedented because it enables members to build a network and learn new strategies and tactics by leveraging others’ knowledge and expertise.

The ISAC is dynamic and interactive, offering real-time communications among partner organizations. Partners note the usefulness of the ISAC portal, an open but secure (NIST 800-53 and IRS Publication 4812 compliant with two-factor authentication) environment that allows states, the IRS, and industry to quickly, easily, and confidentially share best practices and techniques.

Especially for some partners from smaller entities with limited resources, the ISAC enables them to connect with and learn from more mature and experienced partners.

Since the ISAC pilot launched in 2017 with 18 participating organizations, the partnership has increased to more than 60 organizations. In that time, more than 400 users have been added to the ISAC, resulting in growing engagement through sharing of leads, alerts, and other information.

With this momentum from increasing participation from all groups, ISAC members are seeing the early results of information sharing that better protects taxpayers.
“We were spinning our wheels trying to figure out a situation. At about the same time another participant posted an alert that confirmed what we were seeing. It accelerated our research and gave us a greater degree of confidence in what we were seeing.”

– ISAC financial institution partner

Removing barriers for partners to contribute timely, actionable, and clear alerts

The ISAC provides never-before, real-time sharing of threats and other fast-moving suspicious activities – allowing members to improve fraud filters and stop fraudulent refunds or require additional taxpayer authentication to ensure that the money is going to the legitimate taxpayer, and not a fraudster.

Before the ISAC: Fractured and unreliable information

Before the ISAC, state partners disseminated alerts through email listservs that would frequently reach people not involved with fraud prevention in state agencies. Unclear communication and repetitive emails made it difficult for states to follow.

Many times, alerts didn't provide actionable information, and there was no feedback mechanism in place. There was no mechanism at all for industry partners to share information among themselves or with states.

“Like a radar array, the IDTTRF-ISAC serves as an early warning alarm for states, industry, and the IRS for refund fraud, identity theft schemes, and cybersecurity issues.

– IRS Security Summit 2016 annual report

Current state: One-stop shop

Now, analysts log in to the ISAC to share an alert or securely view the details shared by other partners. The ISAC provides a cleaner way for partners to get to usable information in an alert and incorporate it into their fraud filters. All parties contributing alerts provide actionable information and receive feedback on the usefulness of their alerts.
Alert and data contribution by the ISAC partners has increased by more than six times since January 2017. With the establishment of the ISAC portal, many of the barriers that prevented sharing of suspicious activity across the community have been removed.

Not only is alert-sharing immediate, but the ISAC will also take suspicious activity data in any format, and ingest, analyze and share the data across the partnership. Trust built within the partnership has grown to include multiple types of data contributed by 36 organizations.

**HIGHLIGHTS THROUGH 2018 TAX SEASON**

**6X** More alerts & data since January 2017

**Fewer barriers:**
- ISAC can receive and return data in *any format*
- Alerts are instant

The entire ecosystem is better protected.
Compared with Jan-March 2017:
- **133% increase** in organizations contributing alerts.
- **150% increase** in organizations uploading confirmed identity theft.
“The site is super-helpful in getting the entirety of the leads reports schema, pattern categories, pattern descriptions. Being able to create filters based on what other companies and states are doing has been very beneficial.”

-- ISAC industry partner

“Having all the leads at your fingertips to research is something we’ve never had before.”

-- ISAC state partner

Providing leads that enable partners to validate and refine their fraud filters

The ISAC consumes partner data, such as leads, confirmed fraud and other suspicious activity, and identifies commonalities. This allows members from the entire ecosystem to narrow down their efforts to specific suspicious indicators and stop the true fraud while processing valid returns and refund requests.

Before the ISAC: Difficult to coordinate efforts

Before the ISAC, disparate data sources made it difficult to coordinate fraud detection and prevention efforts. A cumbersome process delayed analysts’ reaction to fraud schemes identified by industry partners, and states had a difficult time providing feedback on the leads.

Current state: Actionable leads are delivered in real time

Now, the leveraged power of the states, industry and the TTP allows the ISAC to identify patterns that no individual partner could see before. New datasets are being
consistently added, and ISAC partners have a holistic view of all the data on a secure platform.

Partners access information through the ISAC portal, which is a trusted, highly secure environment that provides de-identified metrics to the entire ISAC membership community. Dashboard metrics are updated on a live basis as data flows into the ISAC. Twice daily, analysis is conducted and provided to partners through ISAC analytics and visualization tools that include data on trends in refund fraud.

Leads are sorted in multiple ways, including by state, and leads are delivered in digestible formats for use right away. As a result, analysts can quickly identify returns to review, prevent schemes from evolving, and proactively stop fraudulent refunds.

This is especially helpful for states and companies with limited budgets and sparse IT resources. They leverage the ISAC to immediately raise their defenses and improve their ability to fight identity theft – meaning the entire tax ecosystem is stronger. State analysts can also provide feedback on these leads so that industry partners can refine their fraud filters to become more effective and reduce false positives.

The ISAC conducts analytics on numerous datasets looking for suspicious activity. During the 2018 filing season so far, partner organizations have accessed these datasets more than 700 times. For filing season 2018, the ISAC has acquired three new suspicious activity data sources that are analyzed and shared within the ISAC. These sources are combined to highlight the most suspicious activity and allow for easy consumption by the entire partnership. The ISAC also identifies compromised credentials, through investigative sources and non-indexed data, and partners confirm that this information helps them further secure their environments.

### How the ISAC works with data

The Trusted Third Party (TTP):
- Receives and analyzes data from ISAC participants and other sources.
- Provides anonymized, aggregated reports and visualizations that help members to better detect and stop identity theft refund fraud.
- Offers a secure platform to help users quickly find significant data anomalies.
- Supports users to help maximize the benefits of ISAC tools and analytic products.

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<tr>
<th>Data ingest</th>
<th>Data aggregation &amp; augmentation</th>
<th>Data analysis</th>
<th>Data visualization</th>
<th>Data reporting &amp; sharing</th>
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III. ANALYSIS
III. ANALYSIS

HIGHLIGHTS THROUGH 2018 TAX SEASON

- Leads are sorted in multiple ways, including by state.
- Data is consumable.
- Leads, confirmed identity theft, and numerous other data sources are analyzed every day.

700 DATASETS ACCESSED OVER 700 TIMES from Jan.-March 2018
“...As active participants in the ISAC, we believe the year-over-year reduction in identity theft tax refund fraud is largely attributable to the enhanced communication and information sharing among the IRS, state departments of revenue and private industry fostered through the IRS Security Summit process, including through the newly established ISAC.”

— Endorsing statement from ACTR, CERCA, FTA, and FFA

**ISAC’s key areas of focus**

As the ISAC looks forward to its third year in operation, the public-private partnership is focusing on several key areas of opportunity to further bolster infrastructure, membership, and protections.

**Grow breadth and depth of membership and participation**
The ISAC will continue to grow member participation from private sector and other government agencies, and provide opportunities to deepen members’ participation with clear guidelines and an easy-to-use system.

**Build member capabilities and deepen engagement**
The ISAC provides a unique opportunity to maximize collective knowledge for a shared objective of protecting the tax ecosystem. The ISAC will develop more opportunities through the Community of Practice to teach fraud analysts new methods of fighting fraud and how to improve their own analysis.

**Improve technical capabilities**
The ISAC will continue building analytical capabilities within the ISAC portal, improve ease of use, and create a full circle of feedback for members. Improving the technology’s ease of using while advancing its analytical capabilities will help members grow their ability to spot and deter fraud.

**Partner with other entities that identify ecosystem threats**
The ISAC will investigate new opportunities for partnership and build engagement with other threat-monitoring organizations to deepen threat intelligence.

**Improve threat identification and sharing**
Legal and regulatory developments may increase the ISAC’s capability to seamlessly share aggregated information.
The ISAC Senior Executive Board and its committees have equal representation from the IRS, state, and tax industry.

The Senior Executive Board:
- Provides guidance in strategic areas, including operating procedures, membership criteria, vision and mission
- Communicates with IRS leadership, state revenue agencies and private sector tax organizations
- Develops and approves procedures, activities and communications by or on behalf of the ISAC
- Develops and shares topics for study and analysis

**Senior Executive Board Co-Chairs**

Michael C. Beebe, IRS Co-chair; Director, Return Integrity & Compliance Services, Wage & Investment Division, Internal Revenue Service

Courtney M. Kay-Decker, State Co-chair; Director, Department of Revenue, State of Iowa

Bernard F. McKay, Industry Co-chair; Chief Public Policy Officer, VP Global Corporate Affairs, Intuit, Inc.
This report is available at www.irs.gov/privacy-disclosure/security-summit