

WELCOME TO AUTO-ISAC!

MONTHLY VIRTUAL COMMUNITY CALL

August 3, 2022

This Session will be recorded.



DHS TRAFFIC LIGHT PROTOCOL (TLP) CHART

COLOR	WHEN SHOULD IT BE USED?	HOW MAY IT BE SHARED?
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From: https://www.us-cert.gov/tlp



AGENDA

Time (ET)	Topic
11:00	Welcome➤ Why We're Here➤ Expectations for This Community
11:05	 Auto-ISAC Update ➤ Auto-ISAC Activities ➤ Heard Around the Community ➤ What's Trending
11:15	DHS CISA Community Update
11:20	Featured Speaker: Gilad Bandel, Business Development, Cymotive Title: "Continuously automated vulnerability management for safer cars and regulatory compliance"
11:45	Around the Room ➤ Sharing Around the Virtual Room
11:55	Closing Remarks



WELCOME - AUTO-ISAC COMMUNITY CALL!

<u>Purpose</u>: These monthly Auto-ISAC Community Meetings are an opportunity for you, our Members & connected vehicle ecosystem Partners, to:

- ✓ Stay informed of Auto-ISAC activities
- ✓ Share information on key vehicle cybersecurity topics
- ✓ Learn about exciting initiatives within the automotive community from our featured speakers

<u>Participants</u>: Auto-ISAC Members, Potential Members, Strategic Partners, Academia, Industry Stakeholders and Government – *the whole of the automotive industry*

Classification Level: **TLP:GREEN** - May be shared within the Auto-ISAC Community and "off the record"

How to Connect: For further info, questions or to add other POCs to the invite, please contact us!

(<u>sharmilakhadka@automotiveisac.com</u>)





ENGAGING IN THE AUTO-ISAC COMMUNITY

- ❖ Join
 - **❖** If your organization is eligible, apply for Auto-ISAC Membership
 - **❖** If you aren't eligible for Membership, connect with us as a Partner
 - Get engaged "Cybersecurity is everyone's responsibility!"



Participate

- **❖** Participate in monthly virtual conference calls (1st Wednesday of month)
- **❖** If you have a topic of interest, let us know!
- Engage & ask questions!

21 *Navigator Partners*

46 Supplier & Commercial

Vehicle Members

OEM Members

- Share "If you see something, say something!"
 - **❖** Submit threat intelligence or other relevant information
 - **❖** Send us information on potential vulnerabilities
 - Contribute incident reports and lessons learned
 - Provide best practices around mitigation techniques

17
Innovator
Partners

Membership represents 99% of cars and trucks on the road in North America

Coordination with 26
critical infrastructure ISACs
through the National Council of
ISACs (NCI)



2022 - 2023 BOARD OF DIRECTORS

EXECUTIVE COMMITTEE (EXCOM)



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MEMBER ROSTER As of August 1, 2022

Aisin	Garrett	MARELLI	Qualcomm
Allison Transmission	General Motors (Cruise-Affiliate)	Mazda	Renesas Electronics
Aptiv	Geotab	Mercedes-Benz	Stellantis
Argo AI, LLC	Harman	Meritor	Subaru
AT&T	Hitachi	Mitsubishi Motors	Sumitomo Electric
AVL List GmbH	Honda	Mitsubishi Electric	Tokai Rika
Blackberry Limited	Hyundai	Mobis	Toyota (Woven Planet-Affiliate)
BMW Group	Infineon	Motional	TuSimple
BorgWarner	Intel	Navistar	Valeo
Bosch (Escrypt-Affiliate)	John Deere Electronic	Nexteer Automotive Corp	Veoneer
Canoo	Kia	Nissan	Vitesco
Continental (Argus-Affiliate)	Knorr Bremse	Nuro	Volkswagen
Cummins	Lear	NXP	Volvo Cars
Denso	LGE	Oshkosh Corp	Volvo Group
EFS	Lucid Motors	PACCAR	Waymo
Faurecia	Luminar	Panasonic (Ficosa-Affiliate)	Yamaha Motors
Ford	Magna	Polaris	ZF

Eight Pending: Thyssenkrupp; Cymotive; AAM, Flex, Ferrari, ChargePoint; Nuspire, KTM



UPCOMING EVENTS

- Upcoming Meetings
 - Community Call:
 - Wednesday, September 14 Speaker: Tim Weisenberger, SAE International Title: "SAE EV Charging Public Key Infrastructure Program" Time: 11 12:00 p.m. TLP:WHITE
 - Joint AWG & IT/OT Workshop: Tuesday, September 6th 9 a.m. 4 p.m. at the Henry in Dearborn, MI. Click here for registration. TLP:AMBER// Members Only
 - Members Teaching Members:
 - Wednesday, August 17 Speaker: Moritz Minzlaff, Escrypt Title: "Benefits of an automotive security maturity model" Time: 10 11:30 a.m. TLP:AMBER
- > Announcements
 - ➤ Auto-ISAC Cybersecurity Summit Registration is Open! Both in-person and virtual venue. Dates: September 7-8, 2022 in Dearborn, MI at The Henry Hotel. Your Company PoC has the "free passes" please check with them!







More information here



BOSCH escrypt



AUTO-ISAC INTELLIGENCE



AUTO-ISAC INTELLIGENCE

- ➤ Know what we track daily: <u>subscribe</u> to the DRIVEN; know our strategic view of the cyber threat environment: read the TLP:GREEN Threat Assessment in our 2021 Annual Report
 - Send feedback, contributions, or questions to <u>analyst@automotiveisac.com</u>
- > Intelligence Notes
 - Geopolitical tensions are: extremely high in and around Ukraine (PBS) and between Russia and the West (The Telegraph); high around the Taiwan Strait (The Hill); and appear to be building around the Korean Peninsula (The Associated Press) and the Middle East (The Times of Israel). Such developments could add to an already heightened cyber threat environment. Organizations within the automotive community should be routinely looking for indications that their business networks, industrial systems, or products may be compromised (CISA-Technical Approaches to Uncovering and Remediating Malicious Activity, CISA Shields Up).
 - We continue to see ransomware groups attacking automotive companies' business networks (Active Groups: <u>Cuba</u>, <u>Hive</u>, <u>Lockbit 3.0</u>, <u>Black Basta</u>).
 - We continue to see and internally discuss technology-enabled vehicle theft research and incidents. Notable open-source reports are included in the Auto-ISAC DRIVEN.
 - Notable Tactics Techniques and Procedures: Deploying Malware via ISO Container Files (<u>Proofpoint</u>); Follina-Based Phishing (<u>Security Affairs</u>); Bug Bounties Offered by Threat Actors (<u>BleepingComputer</u>); Threat Actor Use of Pen Testing Tools (<u>Trend Micro</u>).



CISA RESOURCE HIGHLIGHTS



Case Study: Apple Releases Security Updates for Multiple Products

Regardless of industry, service providers need to monitor threats.

Apple has released security updates to address vulnerabilities in multiple products. These updates address vulnerabilities attackers could exploit to take control of affected systems.

CISA encourages users and administrators to review the Apple security updates and apply necessary releases.

Read more here: Apple Releases

Security Updates for Multiple Products |

CISA



Think about it: What are potential cyber threats to your organization today?



North Korean State-Sponsored Cyber Actors Use Maui Ransomware

CISA, the Federal Bureau of Investigation (FBI), and the Department of the Treasury (Treasury) have released a joint Cybersecurity Advisory (CSA), North Korean State-Sponsored Cyber Actors Use Maui Ransomware to Target the Healthcare and Public Health Sector, to provide information on Maui ransomware, which has been used by North Korean state-sponsored cyber actors since at least May 2021 to target Healthcare and Public Health (HPH) Sector organizations.

CISA, FBI and Treasury urge network defenders, regardless of industry, to examine their current cybersecurity posture and apply the recommended mitigations in this joint CSA, which include:



Train users to recognize and report phishing attempts.

Enable and enforce multifactor authentication.

Install and regularly update antivirus and antimalware software on all hosts.

North Korean State-Sponsored Cyber Actors Use Maui Ransomware to Target the Healthcare and Public Health Sector | CISA



Case Study: Atlassian Releases Security Advisory for Questions for Confluence App, CVE-2022-26138

Regardless of industry, service providers need to monitor threats.

Atlassian has released a security advisory to address a vulnerability (CVE-2022-26138) affecting Questions for Confluence App. An attacker could exploit this vulnerability to obtain sensitive information. Atlassian reports that the vulnerability is likely to be exploited in the wild.

CISA encourages users and administrators to review Atlassian's security advisory, Questions For Confluence Security Advisory 2022-07- 20, and apply the necessary updates immediately.



Think about it: What are potential cyber threats to your organization today?

Read more here: Atlassian Releases Security Advisory for Questions for Confluence App, CVE-2022-26138 | CISA



CNMF Discloses Malware in Ukraine

The current geopolitical conflict has affected organizations all over the world, regardless of industry. Some of the greatest exploitations have resulted in financial, human resource, and other losses.



CNMF has issued warnings.

U.S. Cyber Command's Cyber National Mission Force (CNMF), in close coordination with the Security Service of Ukraine, has released a list of indicators of compromise (IOCs) of malware seen in Ukraine. According to CNMF, "Ukrainian partners are actively sharing malicious activity they find with us to bolster collective cyber security, just as we are sharing with them."



We want to help you fight this vulnerability.

Read more here: CNMF Discloses Malware in Ukraine | CISA

CISA encourages users and administrators to review U.S. Cyber Command's press release, Cyber National Mission Force discloses IOCs from Ukrainian networks, as well as their VirusTotal and GitHub pages for more information. See Mandiant's report, Evacuation and Humanitarian Documents used to Spear Phish Ukrainian Entities, for additional information.



KEVs Catalog

CISA strongly urges all organizations to reduce their exposure to cyberattacks by prioritizing timely remediation of Catalog vulnerabilities as part of their vulnerability management practice.



CISA has added 2 new vulnerabilities to its Known Exploited Vulnerabilities Catalog in the month of July. These types of vulnerabilities are a frequent attack vector for malicious cyber actors and pose significant risk to the federal enterprise.



Additional Resources from CISA

□ CISA Homepage - https://www[.]cisa[.]gov/
 □ CISA NCAS - https://www[.]cisa[.]gov/shields-up
 □ Free Cybersecurity Services and Tools - https://www[.]cisa[.]gov/free-cybersecurity-services-and-tools
 □ CISA News Room - https://www[.]cisa[.]gov/cisa/newsroom
 □ CISA Blog - https://www[.]cisa[.]gov/publications-library
 □ CISA Cyber Resource Hub - https://www[.]cisa[.]gov/cyber-resource-hub
 □ CISA Cybersecurity Directives - https://cyber[.]dhs[.]gov/directives/





For more information: cisa.gov

Questions?
Central@cisa.dhs.gov
1-888-282-0870



AUTO-ISAC COMMUNITY MEETING

Why Do We Feature Speakers?

- **❖** These calls are an opportunity for information exchange & learning
- **❖** Goal is to educate & provide awareness around cybersecurity for the *connected vehicle*

What Does it Mean to Be Featured?

- ❖ Perspectives across our ecosystem are shared from Members, government, academia, researchers, industry, associations and others.
- ❖ Goal is to showcase a rich & balanced variety of topics and viewpoints
- * Featured speakers are not endorsed by Auto-ISAC nor do the speakers speak on behalf of Auto-ISAC

30+
Featured
Speakers to
date

How Can I Be Featured?

❖ If you have a topic of interest you would like to share with the broader Auto-ISAC Community, then we encourage you to contact us!

7 Best
Practice
Guides
available on
website

2000+
Community
Participants







FEATURED SPEAKER



GILAD BANDEL, CYMOTIVE

BUSINESS DEVELOPMENT AND MARKETING



Gilad drives CYMOTIVE's automotive cybersecurity business development and product marketing. His focus is on delivering to the market state-of-the-art, unique and innovative solutions - automotive for cyber-security protection.

Gilad is an accomplished executive with over 30 years of experience in the cyber-security and networking industries. Having covered markets in Europe, America and the APAC region, Gilad is a renowned expert in conceptualizing and developing go-to-market strategies. He specializes in business development for cyber-security solutions for automotive, IoT, critical infrastructure and homeland security markets.

Prior to joining Cymotive, Gilad served as VP of Product and Marketing at Arilou Automotive Cybersecurity, as VP of Product at Radiflow and as Director of Product Management at CyberSeal (a Magal Security company). Earlier positions held include VP of R&D, and CTO at leading networking, telecommunication and homeland security companies.



TLP:WHITE 4 August 2022

Continuously automated vulnerability management for safer cars and regulatory compliance

Gilad Bandel
Cymotive Technologies



About



Founded in 2016 by leaders of Israel's National Security Services



Selected cyber partner of the Volkswagen Group

Financially Strong & Profitable

A full lifecycle smart mobility platform

A growing workforce

~200 employees 85% cyber experts

A global footprint

Israel, North America, Europe & Asia **Industry certifications**

ISO 9001, ISO/IEC 90003, TISAX, A-SPICE® Level 2



Automotive vulnerability management – why?

OEMs, Fleet owners/operation and Tier 1/2s must address and manage **risks** emerging from embedded **software** running in the vehicle

- Comply with the process regulation required for **homologation**
- Perform a documented intrinsic secured development



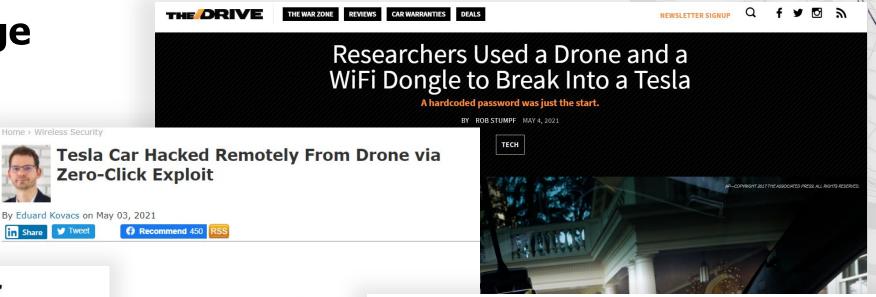


Challenges and motivation

	Development Type a		Type approval	Postproduction	
owr	eet	Identify and manage cybersecurity risks during software development	Provide evidence for cybersecurity type approval certification	Continuously monitor cybersecurity risks during fleet lifespan	Protect against brand damage and recovery costs due to cyber attacks
Tier	1/2		Provide OEM with evidence necessary for cybersecurity type approval	Continuously monitor cybersecurity risks during the ECU lifespan	Protect against impact due to cybersecurity cases detected by OEM



Brand Damage







Technologie / #Drone #IA #Intelligenceartificielle #AirForce

Comment cette Tesla a été piratée par un drone en quelques minutes! Démonstration



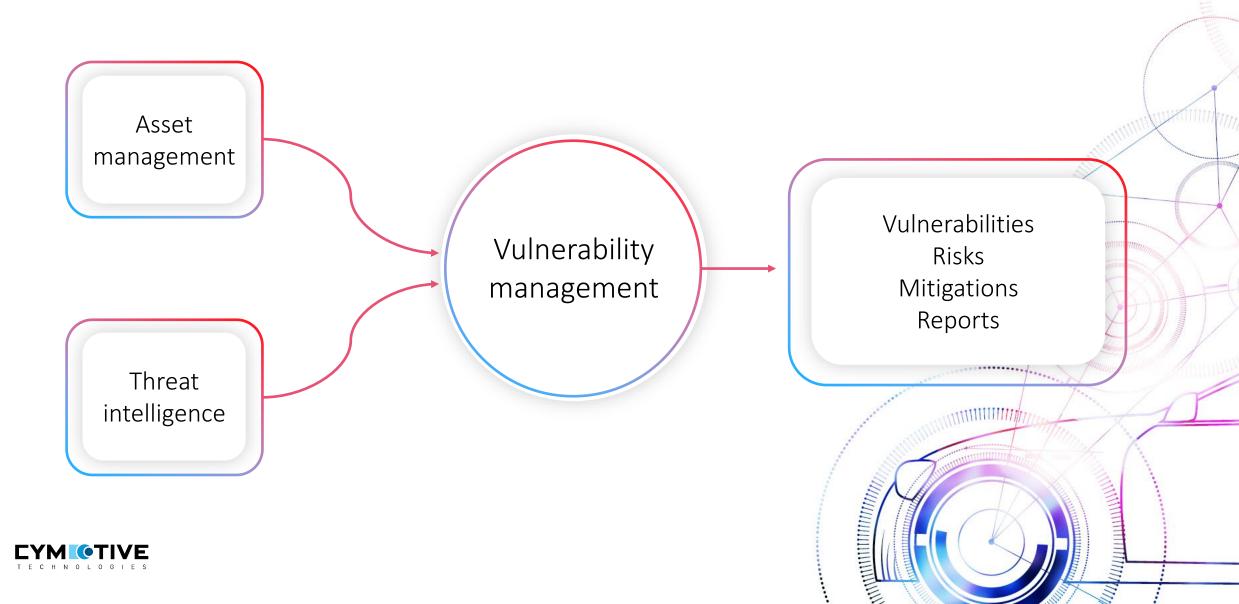








Vulnerability management overview

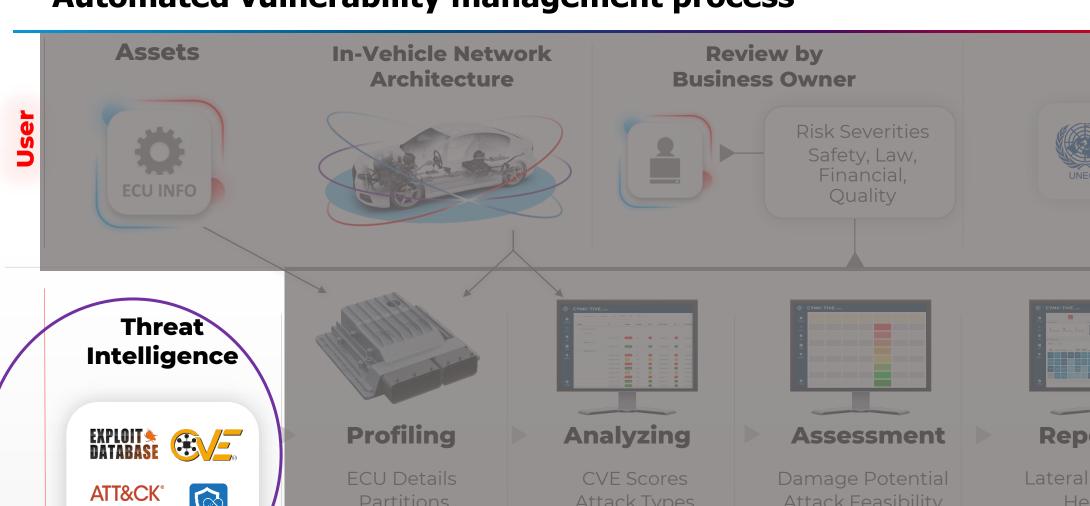


Gained values of proper vulnerability management

- Reduced costs of development, certification and maintenance while strengthening the vehicle's security protection
- Fulfills regulation requirements UNR 155 following ISO/SAE 21434
- Manages the risks and provides recommended mitigation
- Provides ongoing visibility and insight of the critical vulnerabilities







QNX **EOL**







Software

Attack Types Exploits

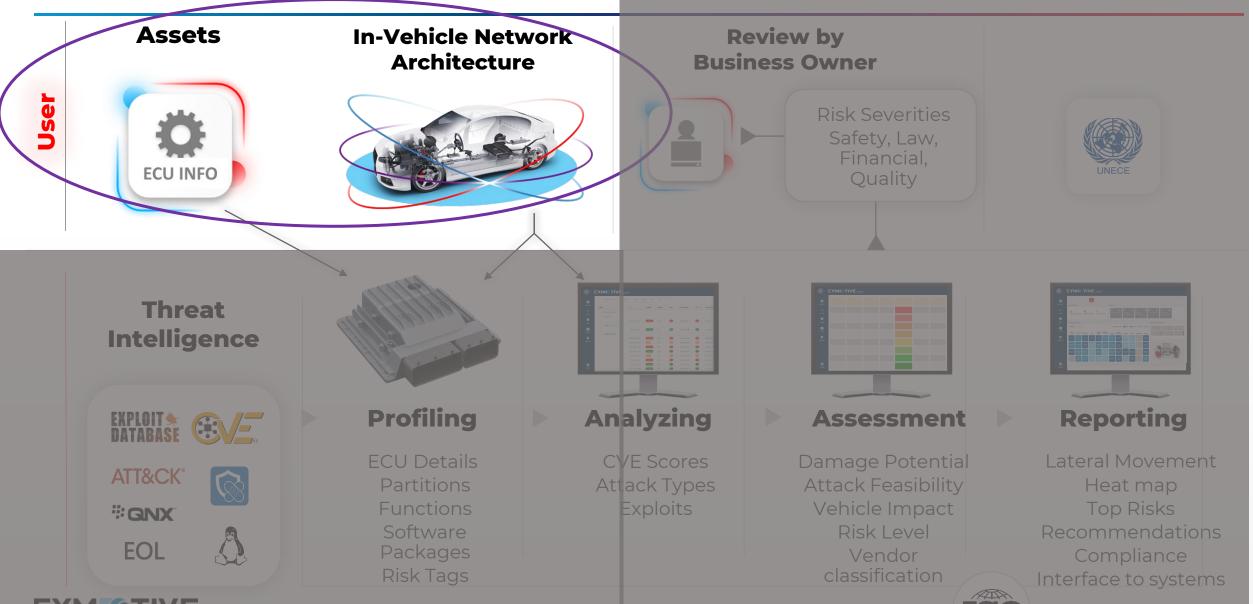
Attack Feasibility Vehicle Impact Vendor classification

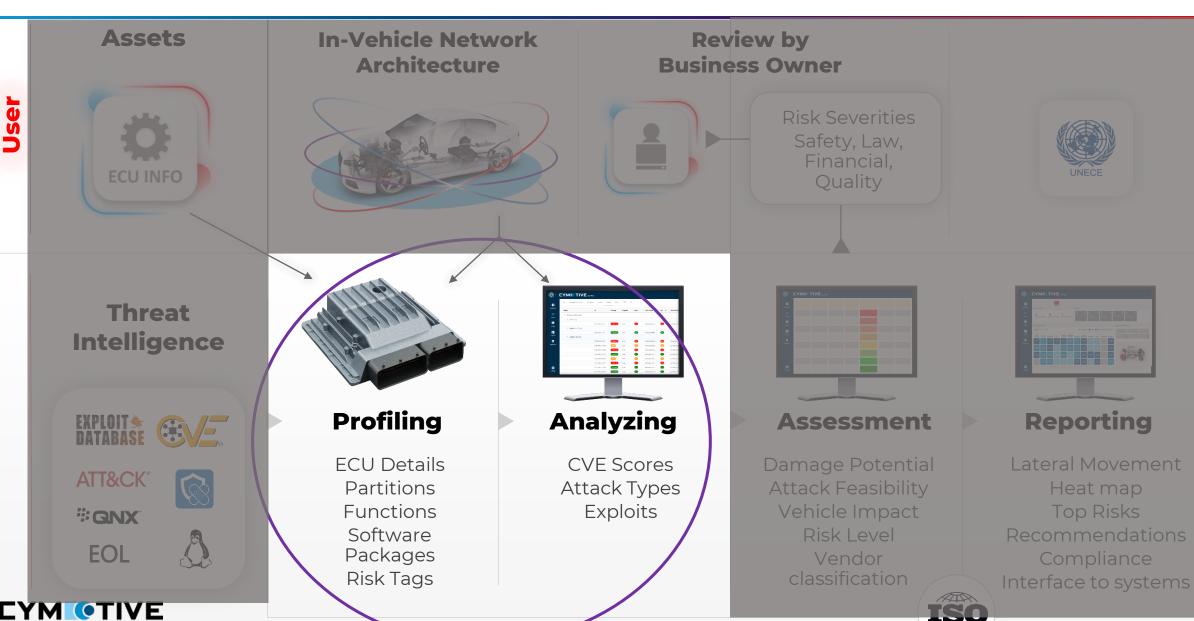


Reporting

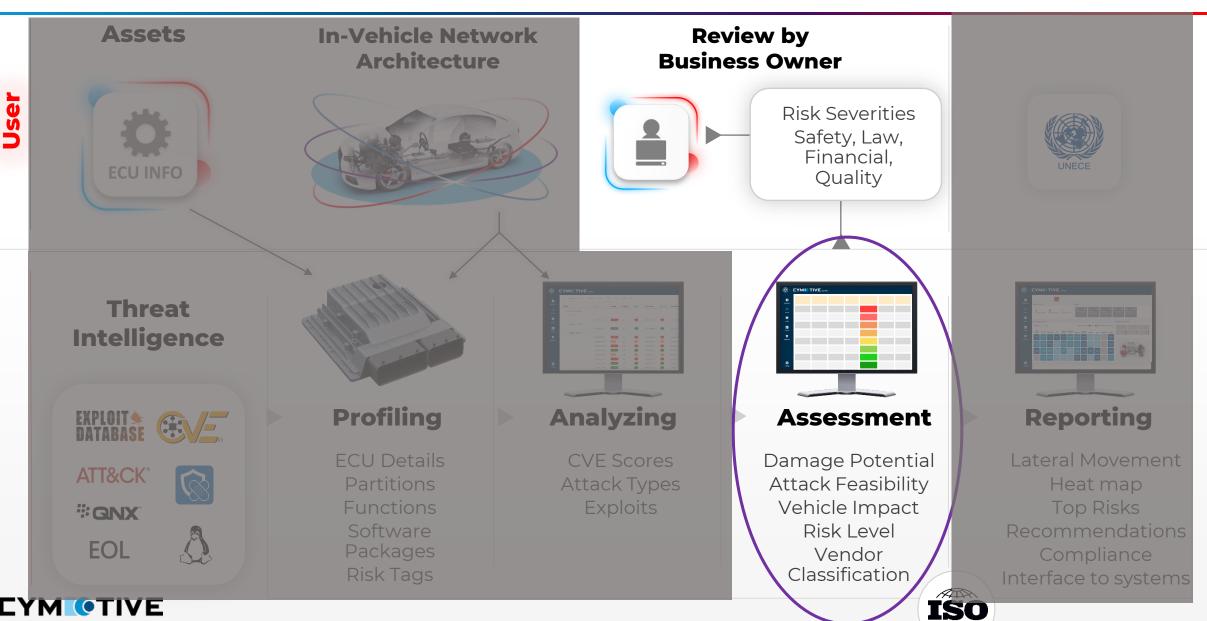
Lateral Movement Heat map Recommendations Interface to systems

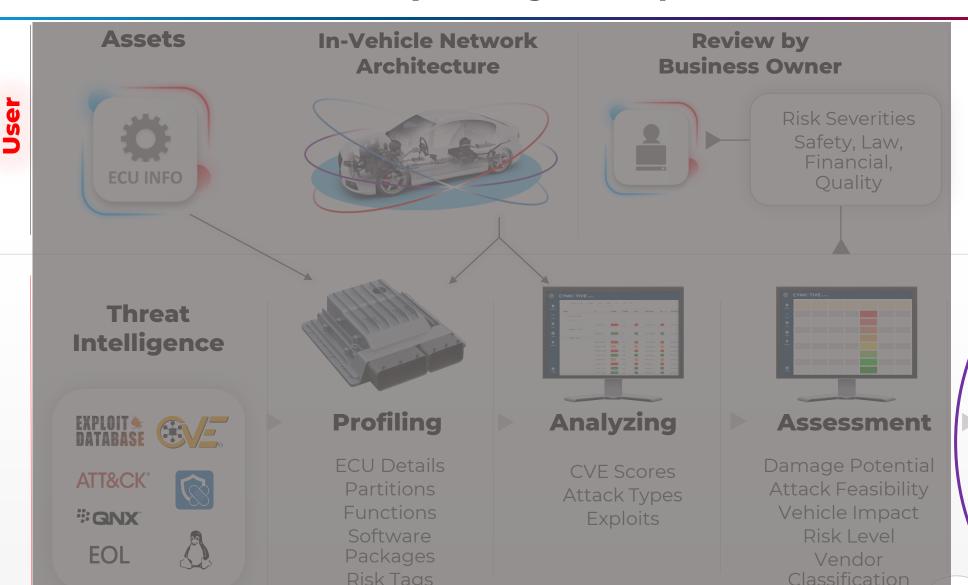






Heat map









Reporting

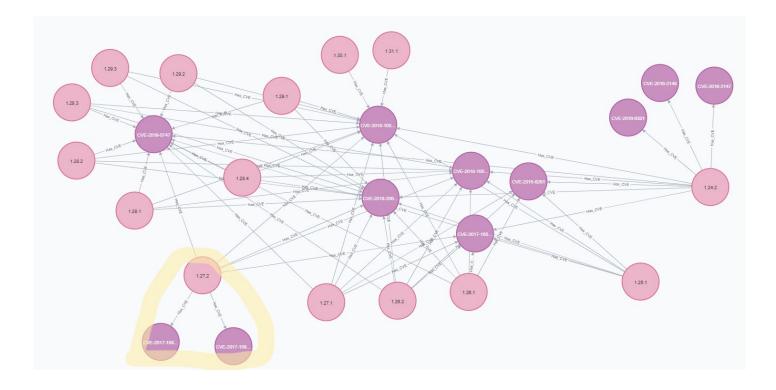
Lateral Movement
Heat map
Top Risks
Recommendations
Compliance
Interface to systems

Mitigation plan for risk minimization

Once a vulnerability has been discovered, the ideal solution is to fix or remediate it, before it can become a security threat. For this, we must always check a few different parameters.

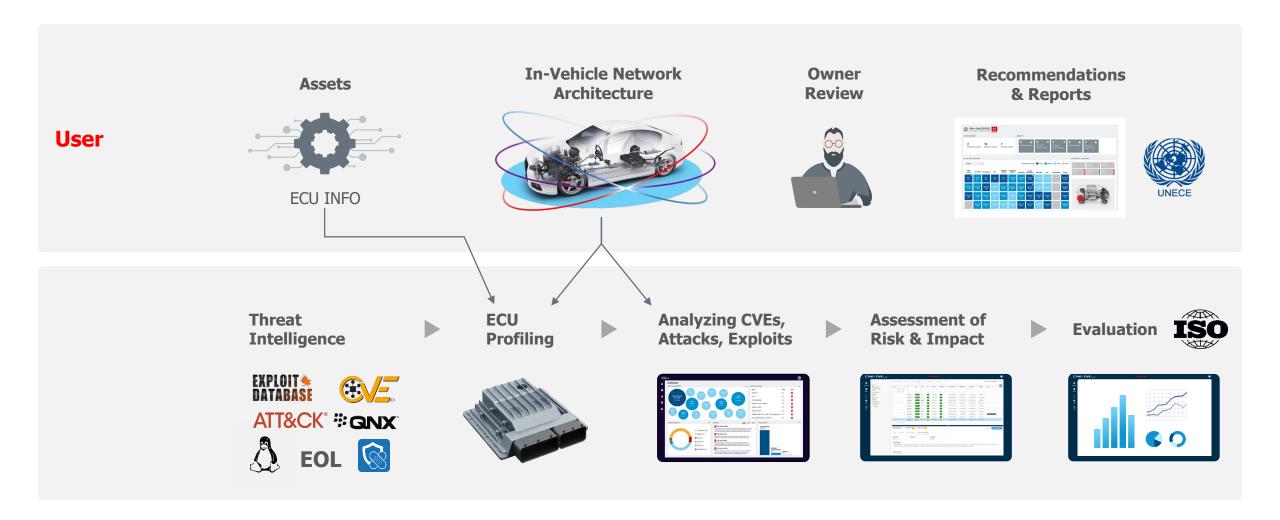
Customers receive a scored, prioritized list of critical vulnerabilities that require mitigation.

Vendor	Software	Current Version	Patches for Critical CVEs	Recommended Version
1	Linux Kernel	4.4	CVE-2016-10229 CVE-2016-7117 CVE-2018-20961	5.4 5.10
2	CURL	7.59.0	CVE-2019-5482 CVE-2019-5481 CVE-2018-0500 CVE-2018-16839	7.78.1 – 7.81.1





Automated Process Vulnerability Management





Things to remember

Continuous vulnerability management is a major cornerstone of the cybersecurity management system, required for regulation compliance and vehicle safety

Proper asset acquisition and supply chain management is a real challenge

All software development organizations should perform risk minimization as early as possible in the secured software development lifecycle by applying proper controls to mitigate vulnerabilities in a prioritized fashion

Product based vulnerability management such as Cymotive Car Alert increases the security while reducing the associated costs and shortens the development schedule

The process can be done internally by cybersecurity experts if available or outsourced to a professional service company





Thank You

cymotive.com

gilad.bandel@cymotive.com

OPEN DISCUSSION

ANY QUESTIONS ABOUT THE AUTO-ISAC OR FUTURE
TOPICS FOR DISCUSSION?



How to Get Involved: Membership

IF YOU ARE AN OEM, SUPPLIER OR COMMERCIAL VEHICLE, CARRIER OR FLEET, PLEASE JOIN THE AUTO-ISAC!

> REAL-TIME INTELLIGENCE SHARING

- > DEVELOPMENT OF BEST PRACTICE **GUIDES**
- > Intelligence Summaries
- > EXCHANGES AND WORKSHOPS

> REGULAR INTELLIGENCE **MEETINGS**

> TABLETOP EXERCISES

> CRISIS NOTIFICATIONS

- WEBINARS AND PRESENTATIONS
- > Member Contact Directory > Annual Auto-ISAC Summit Event

To learn more about Auto-ISAC Membership, please contact michaelshokouhi@automotiveisac.com. For Partnership, please contact sharmilakhadka@automotiveisac.com.



AUTO-ISAC PARTNERSHIP PROGRAMS

Strategic Partnership

- For-profit companies such as "Solutions Providers" that sell connected vehicle cybersecurity products & services.
- Examples: Hacker ONE, Upstream, IOActive, Karamba, Grimm
- Must be approved by Executive Director and the Membership & Benefit Standing Committee (MBSC).
- 2. Formal agreements: NDA, SPA, SoW, CoC required.
- 3. In-kind contributions allowed. Currently no fee.
- 4. Does not overtly sell or promote product or service.
- 5. Commits to support the Auto-ISAC's mission.
- Engages with the automotive ecosystem, supporting & educating Auto-ISAC Members and its Community.
- Develops value added Partnership Projects to engage with the Auto-ISAC, its Member, and Community.
- 8. Summit Sponsorship allowed for promotion. Summit Booth priority.
- 9. Engagement must provide Member awareness, education, training, and information sharing
- 10. Builds relationships, shares, and participates in information sharing Auto-ISAC activities.
- 11. Supports our mission through educational webinars and sharing of information.

Community Partnership

- Community Partners are companies, individuals, or organizations with a complementary mission to the Auto-ISAC, with the interest in engaging with the automotive ecosystem, supporting, and educating Members and the community.
- Includes Industry Associations, Government Partners, Academia, Research Institution, Standards Organizations, Non- Profit, Technical Experts, Auto-ISAC Sponsors.
- Examples: Autos Innovate, ATA, ACEA, JAMA, MEMA, CLEPA, CISA, DHS, FBI, NHTSA, NCI, UDM etc.
- 1. No formal agreement required.
- 2. No approval required.
- 3. Added to **Auto-ISAC Community Distro** List to stay engaged in Community events and activities.
- 4. Participate in Auto-ISAC Monthly Community Calls.
- 5. Learn what is trending in the ISACs and hear from key leaders during the special topic of interest presentation.
- 6. Added to Auto-ISAC DRIVEN list to receive our daily cyber automotive newsletter.
- 7. Part of the Network with Automotive Community and the extended automotive ecosystem.
- 3. Invitation to attend and support our yearly Summit.

CURRENT PARTNERSHIPS

MANY ORGANIZATIONS ENGAGING



COMMUNITY PARTNERS

INNOVATOR

Strategic Partnership (17)

ArmorText

Cybellum

Deloitte

FEV

GRIMM

HackerOne

Irdeto

Itemis

Karamba Security

KELA

Pen Testing Partners

Red Balloon Security

Regulus Cyber

Saferide

Security Scorecard

Trustonic

Upstream

NAVIGATOR

Support Partnership

AAA

ACEA

ACM

American Trucking

Associations (ATA)

ASC

ATIS

Auto Alliance

EMA

Global Automakers

IARA

IIC

JAMA

MEMA

NADA

NAFA

NMFTA

RVIA

SAE

TIA

Transport Canada

COLLABORATOR

Coordination Partnership

AUTOSAR

Billington Cybersecurity

Cal-CSIC

Computest

Cyber Truck Challenge

DHS CSVI

DHSH

DOT-PIF FASTR

FBI

GAO

ISAO

Macomb Business/MADCAT

Merit (training, np)
MITRE

VIIIIXL

National White Collar Crime Center

NCFTA NDIA

NDIA

NHTSA NIST

Northern California Regional Intelligence

Center (NCRIC)

NTIA - DoCommerce

OASIS ODNI

Ohio Turnpike & Infrastructure Commission

SANS

The University of Warwick

TSA

University of Tulsa

USSC

VOLPE

W3C/MIT Walsch College

TLP:WHITE

BENEFACTOR

Sponsorship Partnership

2021 Summit Sponsors-

Celerium

Cyware

Denso

NDIAS

IOActive

Claroty

Deloitte

Finite State

Tanium

Recorded Future

PaloAlto Networks

Upstream

Securonix

Zimperium

Micron

Block Harbor SecurityScorecard

Booz Allen

CybelAngel

ATT Ford

Cybellum

2020 Summit Sponsors-Claroty

Upstream

Escrypt

Blackberry Cybellum

Blockharbor C2A

Synopsis Intsignts

ValiMail



AUTO-ISAC BENEFITS

- ➤ Focused Intelligence Information/Briefings
- ➤ Cybersecurity intelligence sharing
- ➤ Vulnerability resolution
- ➤ Member to Member Sharing
- ➤ Distribute Information Gathering Costs across the Sector
- ➤ Non-attribution and Anonymity of Submissions
- ➤Information source for the entire organization
- ➤ Risk mitigation for automotive industry
- ➤ Comparative advantage in risk mitigation
- ➤ Security and Resiliency





Building Resiliency Across the Auto Industry



THANK YOU!





OUR CONTACT INFO

Faye Francy

Executive Director



20 F Street NW, Suite 700 Washington, DC 20001 703-861-5417 fayefrancy@automotiveisac.com

Sharmila Khadka

Information Technology Executive Coordinator



20 F Street NW, Suite 700 Washington, DC 20001 443-962-5663 sharmilakhadka@automotiveisac.com



www.automotiveisac.com @auto-ISAC

TLP:WHITE

