

Transport Canada's Vehicle Cyber Security Initiatives

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OUTLINE

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Transport Canada(TC) 's Approach to Vehicle Cyber Security

2

Vehicle Cyber Security Landscape

3

TC's Vehicle Cyber Security Strategy



1 TC's Approach

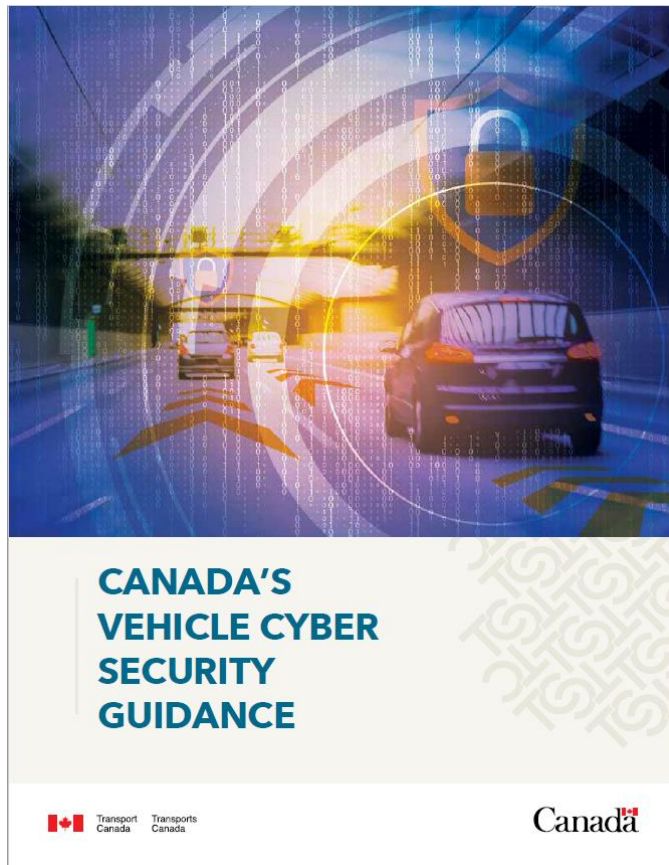
Vehicle Cyber Security

- Increased connectivity and automation in vehicles introduces opportunities for safety, efficiency, and convenience but can also present cyber security risk.
- TC continues to work with national and international stakeholders to lead a coordinated, forward-looking, and safety-focused approach to vehicle cyber security that:
 - *Incorporates vehicle cyber security considerations into policy and regulatory frameworks*
 - *Promotes awareness and foster a modernized, innovative approach to vehicle cyber security*
 - *Addresses emerging and adjacent issues in the vehicle cyber security landscape*
- This work is part of a broader approach to ensure the safe introduction of new vehicle technologies.



1 TC's Approach

Tools and Guidance



1 TC's Approach

Ongoing Initiatives

- ✓ **Stakeholder engagement** to monitor emerging developments, identify opportunities for collaboration, and gather information to inform our products
- ✓ Participate in **Canadian and international working groups** on vehicle cyber security
- ✓ Work with **other lead federal departments** to advance vehicle cyber security, including developing policy, guidance and monitoring legislative initiatives
- ✓ Monitor ongoing **international work to develop vehicle cyber security regulations, standards and guidance**
- ✓ Facilitate **vehicle cyber security research** projects



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TC's Approach

To learn more:

Connected and automated vehicles

From: [Transport Canada](#)



 <p>Understanding connected and automated vehicles Learn about connected and automated vehicles, and why we are supporting their safe testing and adoption in Canada.</p>	 <p>Connected and automated vehicle safety: what you need to know Learn about how these technologies can help you avoid collisions, and how to use them safely.</p>	 <p>Funding programs for connected and automated vehicles We are supporting a number of initiatives to advance connected and automated vehicle technologies in Canada.</p>	 <p>Vehicle cyber security Learn more about our work on vehicle cyber security</p>
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- TC's website highlights our policies and guidance documents as well other useful information on emerging vehicle technologies in Canada.
- TC has a dedicated vehicle cyber security webpage featuring the department's activities and publications.
- Links: canada.ca/automatedvehicles
canada.ca/driverassistance



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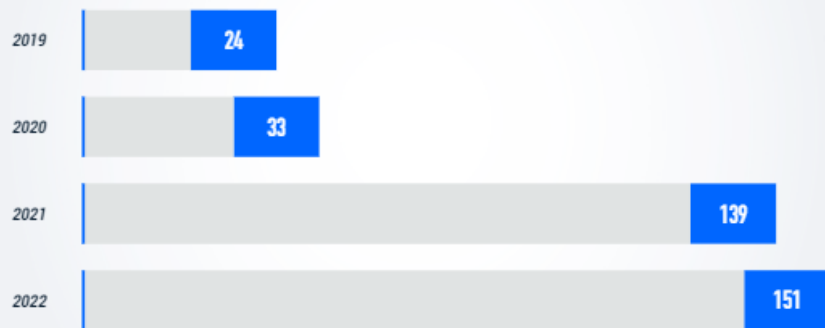
Vehicle Cyber Security Landscape

Stats

According to the Upstream 2023 Global Automotive Cybersecurity Report....

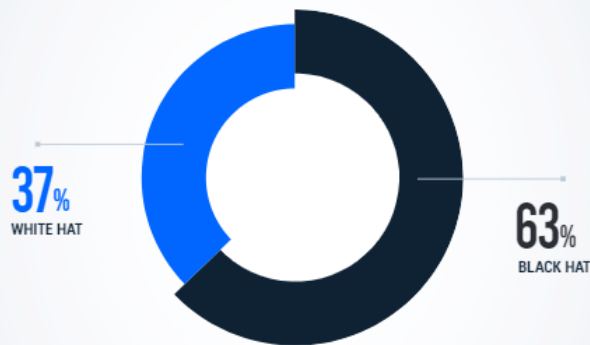
Number of automotive-related CVEs found in 2019-2022

The automotive industry has experienced 347 CVEs since 2019, 151 in 2022, compared with 139 in 2021.

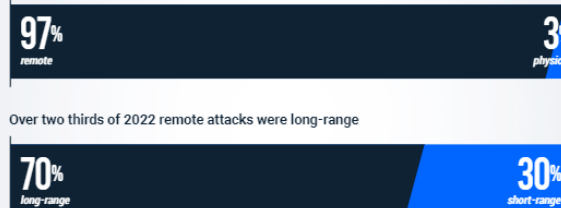


Most attacks in 2022 – 63% of incidents - were carried out by black hat actors

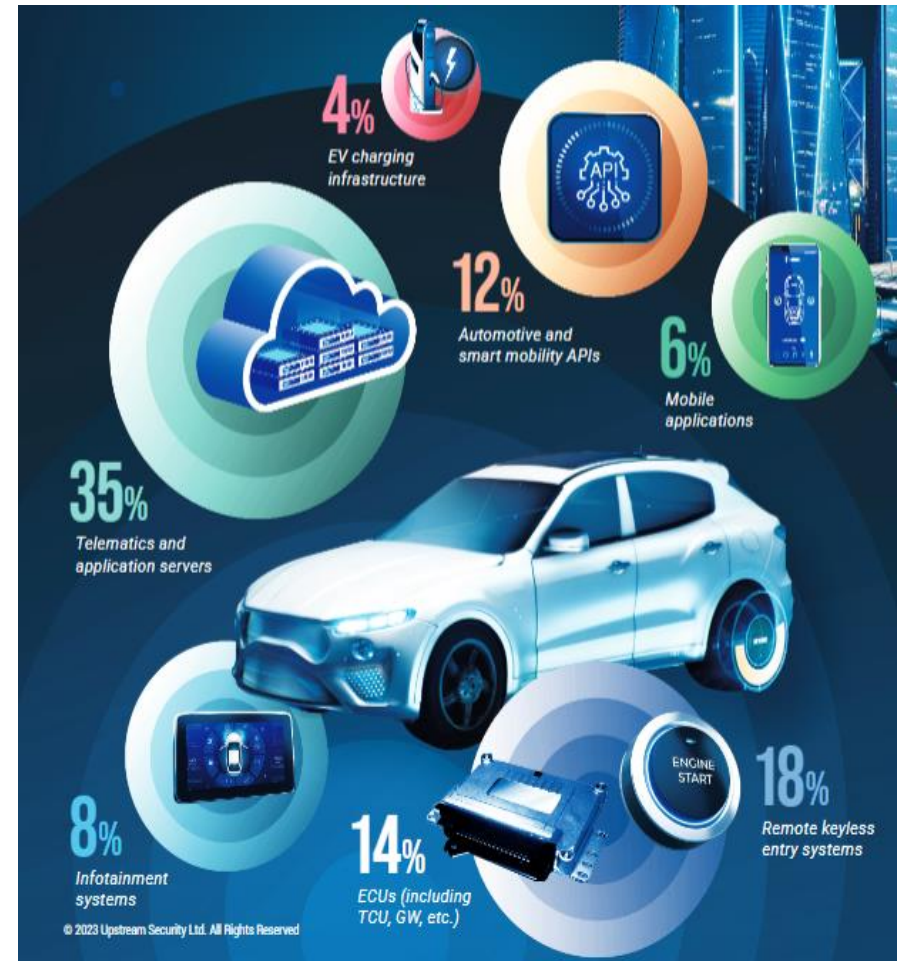
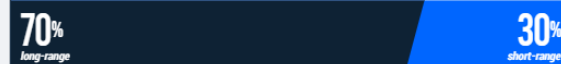
WHITE HAT BLACK HAT



Nearly all 2022 attacks are remote



Over two thirds of 2022 remote attacks were long-range



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Vehicle Cyber Security Landscape

International Standards and Regulatory Work



Best Practices

(NHTSA, Auto-ISAC, BlackBerry, ACEA, etc.)

Guidance

(NIST, J3061, TC's Cyber Guidance, etc.)

Standards

(ISO/SAE3134, ISO26262, etc.)

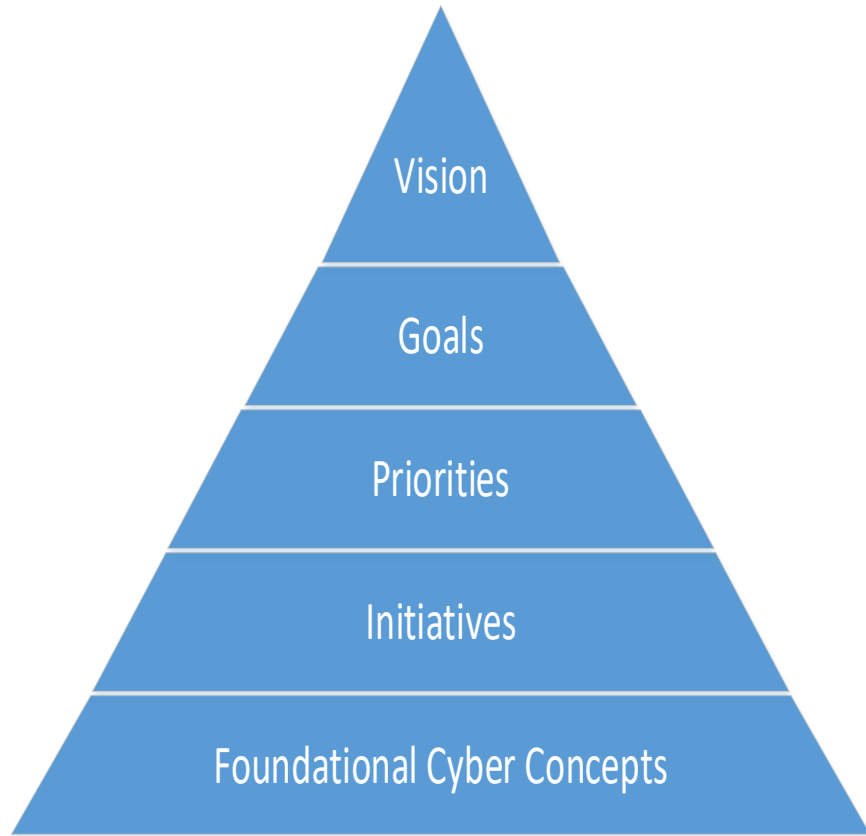
Regulations

(UNECE R155 and R156)

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TC's Vehicle Cyber Security Strategy

Overview



Vision

Transport Canada will continue to be a leader in ensuring a secure and resilient automotive cyber security ecosystem to support the safety of our national transportation system into the future

TC's Vehicle Cyber Security Strategy

Goals and Priorities



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TC's Vehicle Cyber Security Strategy

Workforce development



Goal 2

Priority 2.3: Public awareness and education on vehicle cyber security

“The Department continues to monitor efforts underway across federal government departments to build the cyber security workforce of the future and address the cyber security talent gap.”



Thank you

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