# CASE STUDY

"At COE Security, we build, operate, and transfer world-class security solutions, empowering businesses with resilience and trust."

Joseph Henderson

## COE SECURITY LLC

USA | BRAZIL | UAE | INDIA

CASESTUDY

## DRIVING SECURITY FORWARD IN THE CONNECTED AUTOMOTIVE ERA

COE SECURITY

# Measurable Impact Our Security in Numbers

- 1,500+ Global Engagements
- 95% Client Satisfaction
- 10+ Years of Cybersecurity Excellence
- 15K+ Critical Vulnerabilities Identified
- 1M+ Security Incidents Managed
- $350M+ Costs Saved
- $2.5B+ Transactions Secured
- 24/7/365 Threat Monitoring & Response
- Proactive Threat Hunting
- Cutting-Edge Security Technologies
- Dedicated Security Advisors
- Zero-Day Exploit Mitigation
- Incident Response Planning & Execution
- Security Awareness Training
- Customizable Security Solutions

## Client Profile

A global automotive manufacturer integrating advanced connectivity and autonomous driving features into its vehicle lineup

## Challenges Faced

With the rise of connected vehicles and autonomous systems the client faced increasing cybersecurity risks and regulatory pressures. The organization needed to enhance its security posture while ensuring compliance with industry standards such as ISO 21434 and UNECE WP29

- Securing Connected Vehicles Addressing vulnerabilities in vehicle-to-vehicle and vehicle-to-infrastructure communications
- Protection Against Cyber Threats Mitigating risks from remote hacking data breaches and software manipulation
- Regulatory Compliance Meeting evolving cybersecurity regulations and safety standards for automotive security
- Secure Software Updates Implementing over-the-air update mechanisms without exposing vehicles to security threats

## Solution

The automotive manufacturer partnered with COE Security to develop and implement a robust cybersecurity framework ensuring vehicle security and regulatory compliance

We're Hiring!

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COE SECURITY LLC Tel: 1-855-263-7328  USA | Brazil | UAE | India  https://www.coesecurity.com

# Compliance & Regulatory Mastery

- ISO 45001
- HIPAA & HITRUST
- NIST & NIST 800-171
- ISO 27001
- PCI DSS
- CMMC
- CIS Controls
- SOC 2
- CCPA & NYDFS
- EU CRA
- FedRAMP
- GDPR
- UK Cyber Essentials
- Essential Eight - Australia

## Risk Assessment and Security Architecture Review

- Conducted a comprehensive cybersecurity risk assessment focusing on vehicle components telematics and cloud infrastructure
- Mapped security gaps against ISO 21434 and UNECE WP29 requirements developing a tailored roadmap for compliance
- Established a secure-by-design framework for integrating cybersecurity into the vehicle development lifecycle

## Threat Mitigation and Secure Communication Implementation

- Strengthened encryption and authentication protocols for secure in-vehicle and external communications
- Implemented intrusion detection and prevention systems to monitor and respond to real-time threats
- Developed secure software update processes including digital signatures and integrity verification

## Compliance Readiness and Regulatory Alignment

- Assisted in meeting ISO 21434 cybersecurity standards and UNECE WP29 regulations for automotive security
- Conducted security validation and penetration testing to assess resilience against cyberattacks
- Provided training for engineering and security teams on best practices for automotive cybersecurity

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# Our Cybersecurity Arsenal: Beyond Protection- We Build Resilience

- Application Penetration Testing (Thick/Thin)
- Mobile Application Penetration Testing
- API Penetration Testing
- Network Penetration Testing
- Operational Technology Security Testing
- Cloud Penetration Testing
- AI & LLM Security Audit and Pen Testing
- Red Teaming & Social Engineering Services
- Product & Hardware Penetration Testing
- IoT Security
- Security Operations Center Services (24/7)
- Custom Security Services

## Continuous Compliance and Regulatory Readiness

- Implemented an automotive security operations center for real-time monitoring and threat intelligence
- Developed incident response plans tailored to connected vehicle ecosystems
- Established a continuous compliance framework to adapt to emerging threats and regulatory updates

## Results

With COE Security's expertise the automotive manufacturer successfully strengthened its cybersecurity framework leading to

- Enhanced Vehicle Security Reduced risk of cyberattacks through robust security measures across vehicle systems
- Regulatory Compliance Achieved compliance with ISO 21434 and UNECE WP29 ensuring continued market approval
- Improved Consumer Trust Strengthened brand reputation by demonstrating a proactive approach to vehicle cybersecurity
- Future-Ready Cybersecurity Positioned the company to stay ahead of evolving threats in the connected automotive industry

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## COE SECURITY

# Industries We Protect with Cutting-Edge Security

- Financial Services
- Healthcare
- Retail
- E-commerce
- Government
- Cryptocurrency
- Blockchain Technology
- Automotive
- Transportation/Logistics
- Energy & Utilities
- Hospitality/Tourism
- Entertainment/Media
- Manufacturing
- Education
- Telecommunications
- HiTech & Information Technology

## We're Hiring!

## Client Testimonial

COE Security's expertise in automotive cybersecurity was invaluable in helping us secure our connected vehicles. Their structured approach ensured we met regulatory requirements while implementing cutting-edge security solutions to protect our customers and brand.

"Peace of mind in a world of cyber threats. That's what we deliver."

*Joseph Henderson*

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