

Enabling Secure Connected Vehicles

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Argus Cyber Security

By Next Year – 100s Millions Connected Cars



Car Hacked on 60 Minutes – Feb 2015



Car Hack Played Out by Hollywood

Possible Attack Scenarios



Financial Cyber Ransom



Car Theft



Targeted Attacks



Hacktivism



Data Theft / Privacy invasion



Mass Events

Almost All Brands Hacked!

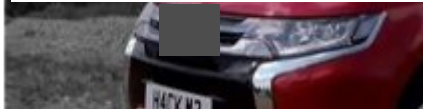
An Inside Look At The Mitsubishi Outlander Hack

White hat hacker finds WiFi flaws in mobile app for Mitsubishi working on fix. Police say vehicle electronics co-opted to bypass ignition cc

Nissan Leaf electric cars hack vulnerability disclosed

HACKERS FOOL TESLA'S AUTOPILOT TO HIDE AND SPOOF LES

HACKERS CUT A CAR'S BRAKES VIA A COINTEGRATED GADGET



BREAKFAST, LUNCH AND SUMMER

Meal programs step up to try to meet needs of so many hungry kids



FCA recalls 1.4M cars, trucks after hacking

Federal agency opens investigation

By Brent Swartz
Executive Editor

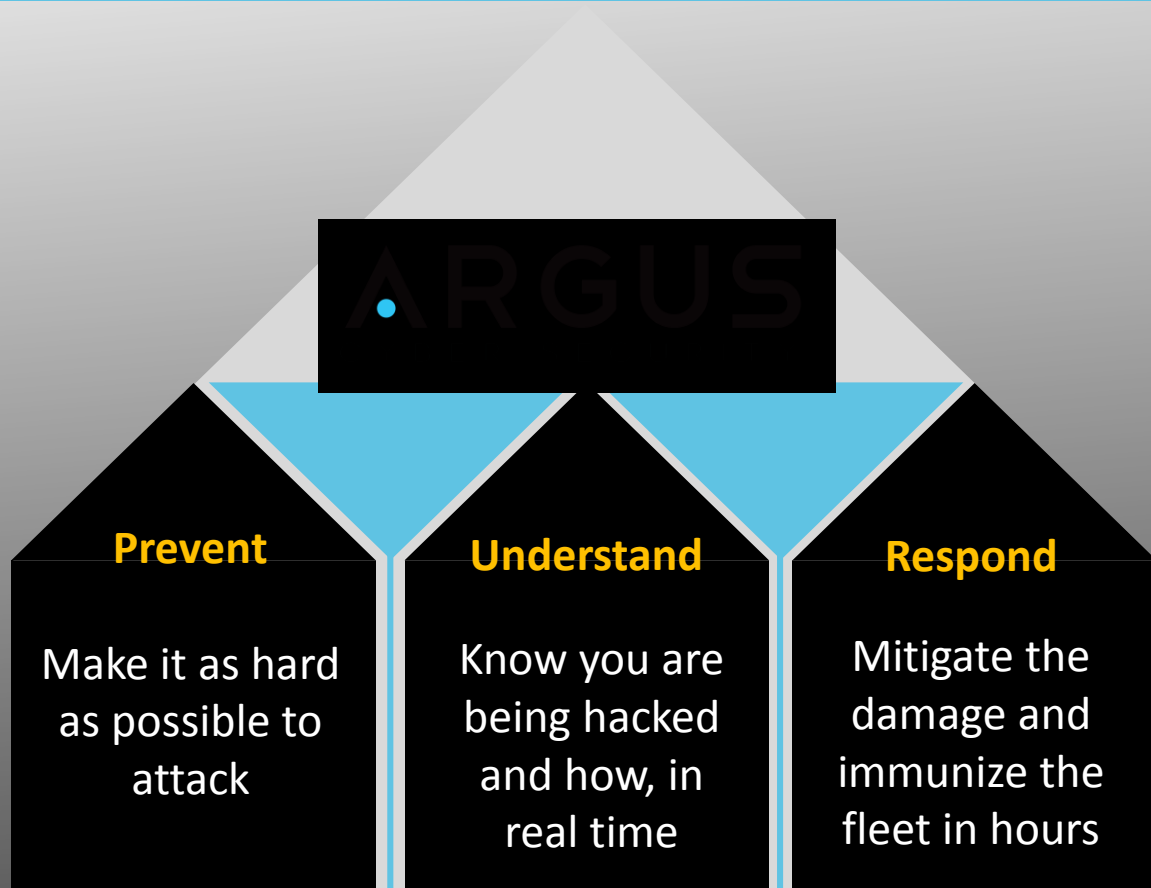
Under pressure from federal regulators, and Friday it will recall 1.4 million cars and trucks to protect them from cybersecurity attacks just days after Wired magazine re-

ductive ignition switches last year by General Motors and the ongoing recall of millions of air bags by Takata.

Mark Rosinski, who was sworn in as the administrator of NHTSA in December, said Friday that his agency encouraged FCA to move quickly to issue recall notices and beef



Argus Cyber Security Philosophy



Maximum Prevention – Security in depth

Prevent

24 Granted and Pending Automotive Cyber Security Patents

In-Vehicle



ECU
Protection



In-Vehicle
Network
Protection



Connectivity
Protection

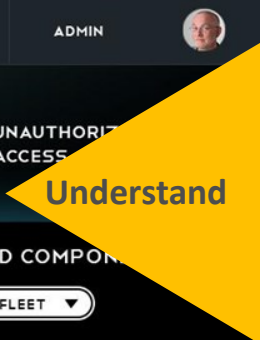
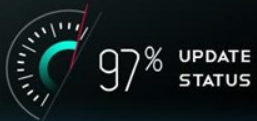


Lifespan
Protection



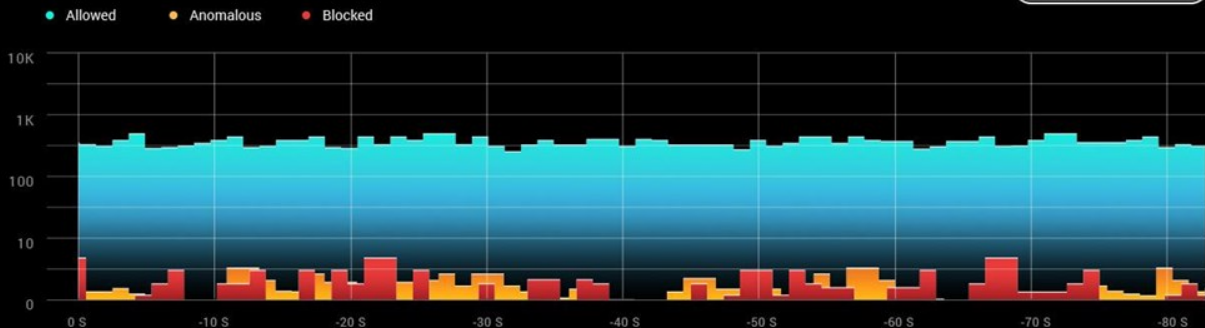
Aftermarket
Protection

Out-of-Vehicle



IN-VEHICLE TRAFFIC

MAGNA'S FLEET

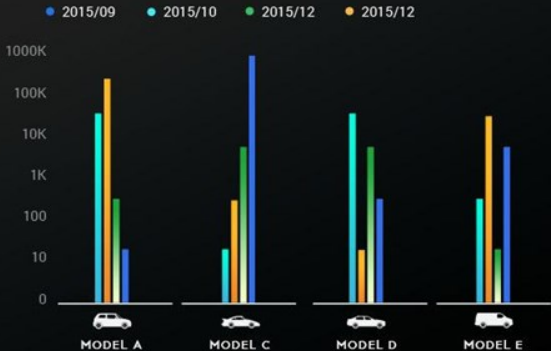


ATTACKED COMPONENTS

MAGNA'S FLEET



ATTACKS PER MODEL



CHECK POINT CAPSULE SECURITY INCIDENTS

SEVERITY	SOURCE	DESTINATION	MALWARE ACTIVITY
High	Argus Demo	192.117.2.58	Communicate with C&C
Low	Magna car	192.79.2.126	Access to malicious site
Low	Magna C	192.5.46.181	Communicate with C&C

ATTACK ORIGINS



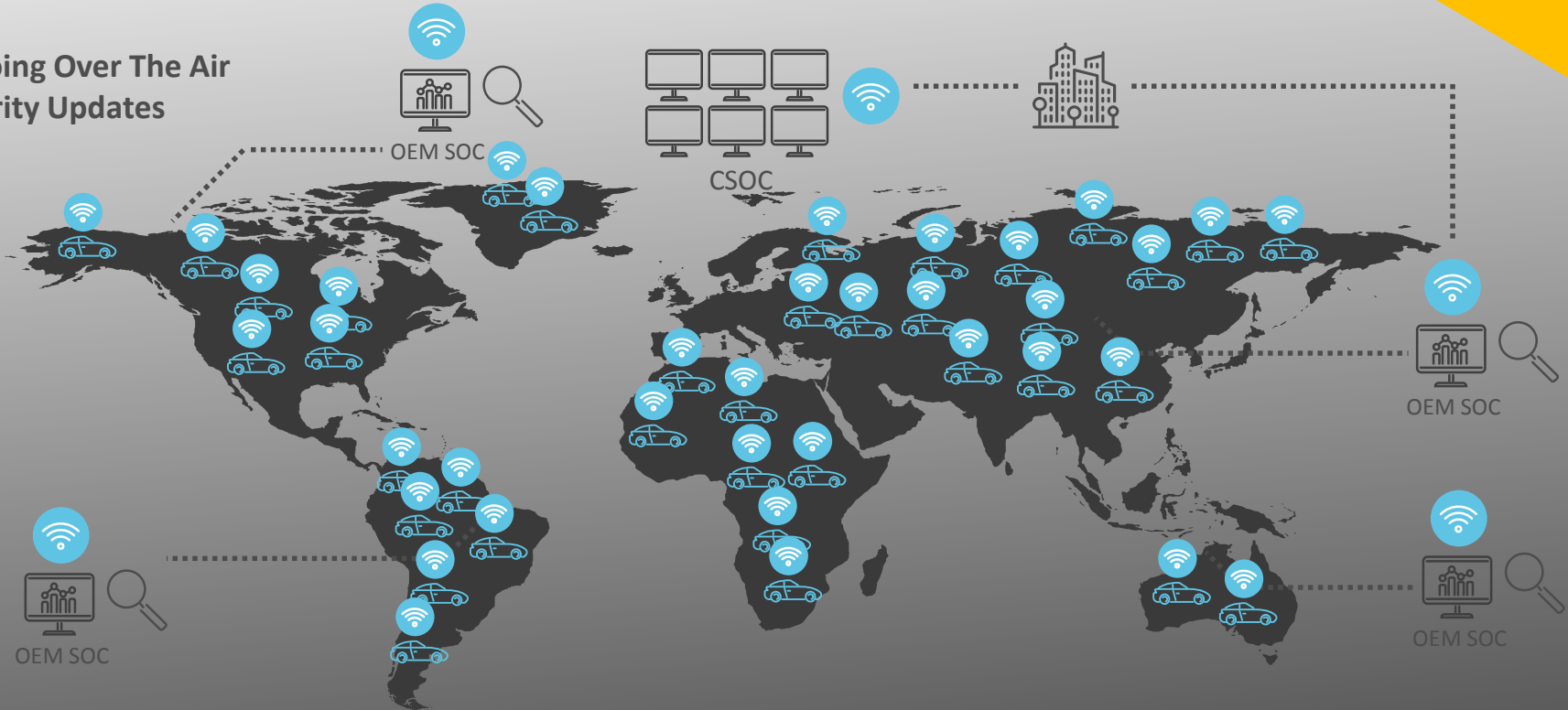
ATTACKS TREND



Ongoing Monitoring & Mitigation

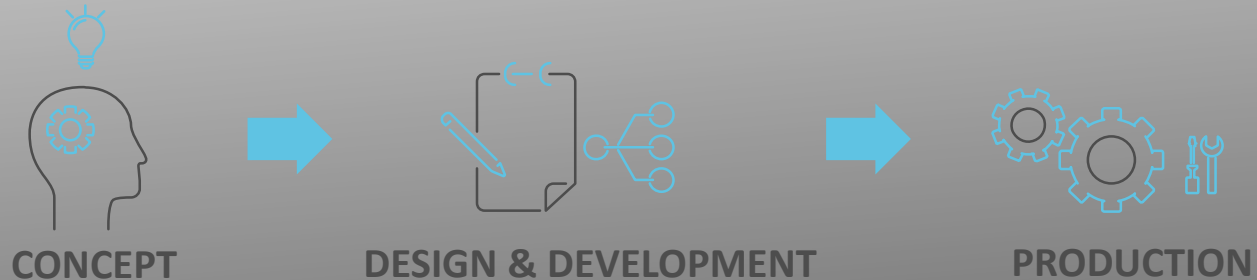
Respond

Ongoing Over The Air
security Updates



Supporting OEMs and suppliers – Concept → Production

+40,000 Automotive Cyber Research Hours



Leading Automotive Cyber Security

Argus Demos 7 Live Hacks with Industry Leaders at CES 2017



Global Presence



Silicon Valley, US

Michigan, US

Stuttgart, Germany

Tel Aviv, Israel

Tokyo, Japan

The Future Must Be Cyber Safe...



Drive Home Cyber Safe!

