

1 Problem

CYBERATTACKS ON CARS

Cause Map

What	Problem(s)	Potential for cyberattacks on vehicles
When	Date	Ongoing
Where	Facility, site	Vehicles worldwide
	Task being performed	Transportation

Experts warn that vehicles are vulnerable

By now, you have probably heard of the "internet of things" and the growing concern about the number of things potentially vulnerable to cyberattacks as more and more everyday objects are designed to connect to the internet. According to a new report by the Government Accountability Office (GAO), cyberattacks on vehicles should be added to the list of potential cybersecurity concerns

Impact to the Goals

Safety	Potential for injuries or fatalities
Customer Service	Potential for car to behave unpredictably
Regulatory	Government agencies working to respond to threat
Property/Equipment	Potential for damage to vehicle/other property
Labor/ Time	Investigation/response to issue

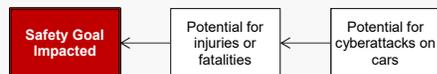
"Modern vehicles contain multiple interfaces - connections between the vehicle and external networks - that leave vehicle systems, including safety-critical systems, such as braking and steering, vulnerable to cyberattacks."

- from GAO report "Vehicle Cybersecurity" dated March 2016

2 Analysis

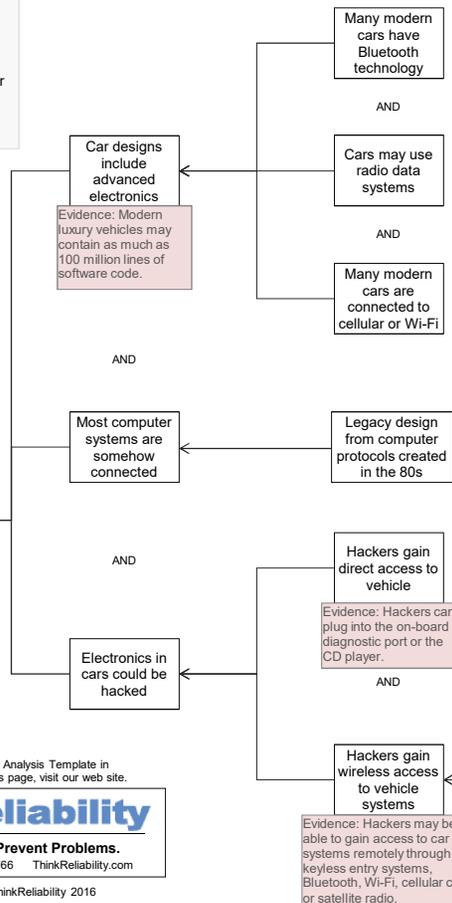
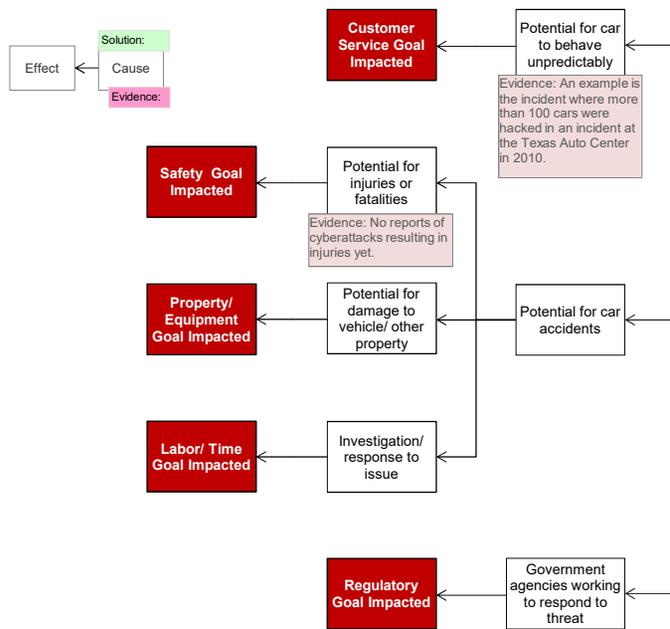
Basic Level Cause Map - Start with simple Why questions.

Basic Cause-and-Effect



Cyberattacks on cars could happen because most modern car designs include advanced electronics that connect to outside networks and these electronics could be hacked. Hackers can gain access to systems in the car via direct access to the vehicle (by plugging into the on-board diagnostic port or the CD player) or they may be able to gain access remotely through a wireless network.

More Detailed Cause Map - Add detail as information becomes available.

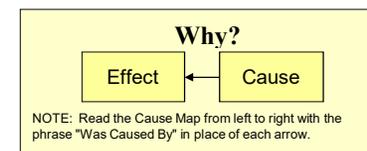


Cause Mapping is a Root Cause Analysis method that captures basic cause-and-effect relationships supported with evidence.

CAUSE MAPPING

Problem Solving • Incident Investigation • Root Cause Analysis

- Step 1 Problem** - What's the Problem?
- Step 2 Analysis** - Why did it happen?
- Step 3 Solutions** - What will be done?



For a free copy of our Root Cause Analysis Template in Microsoft Excel, used to create this page, visit our web site.

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