T&E Meets APT: A Secure Engineering Perspective from Industry

THE VALUE OF PERFORMANCE.
NORTHROP GRUMMAN

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Security Engineering: Simplified

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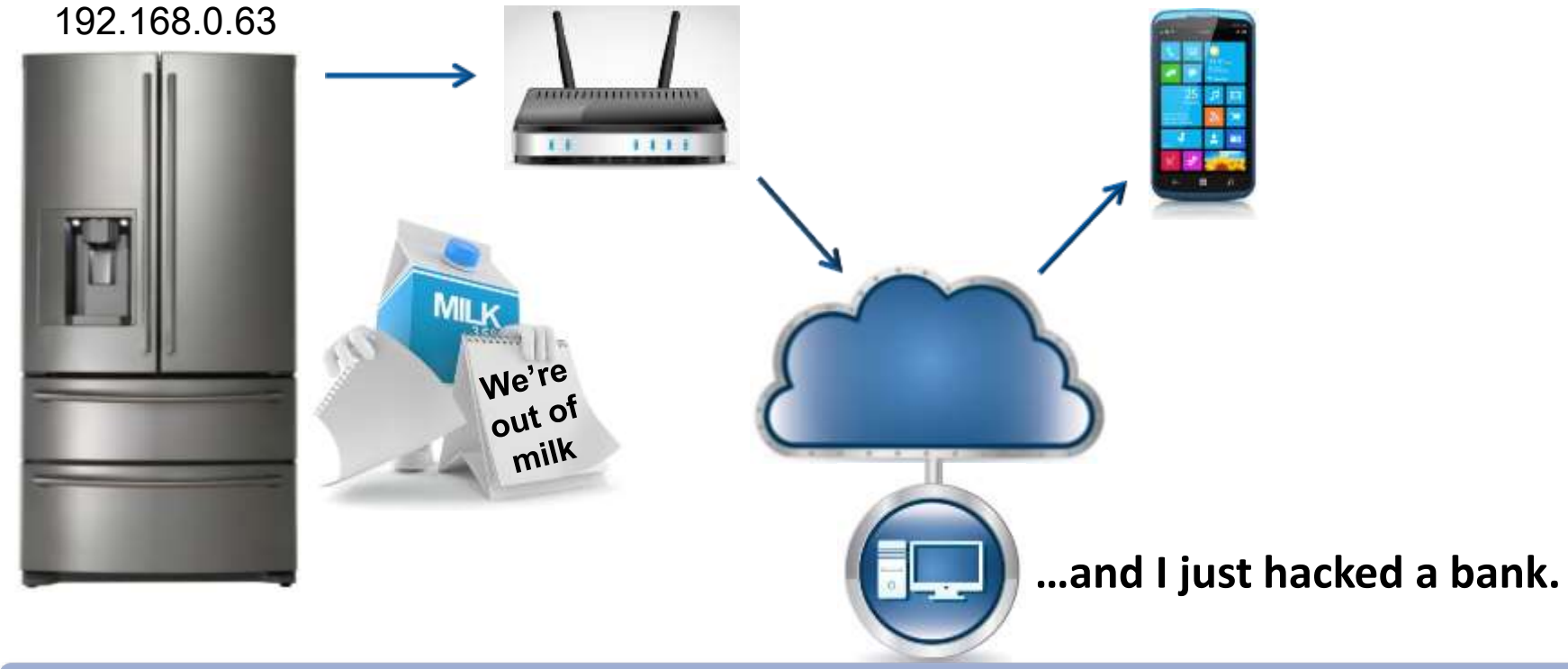
- Continuously improve your C4ISR architecture with security in mind
  - Think: “Secure by Design”
- The Internet of Things (and a lesson for us)



Where Should We Protect From?

Cyber Threats…Are They Really Everywhere?

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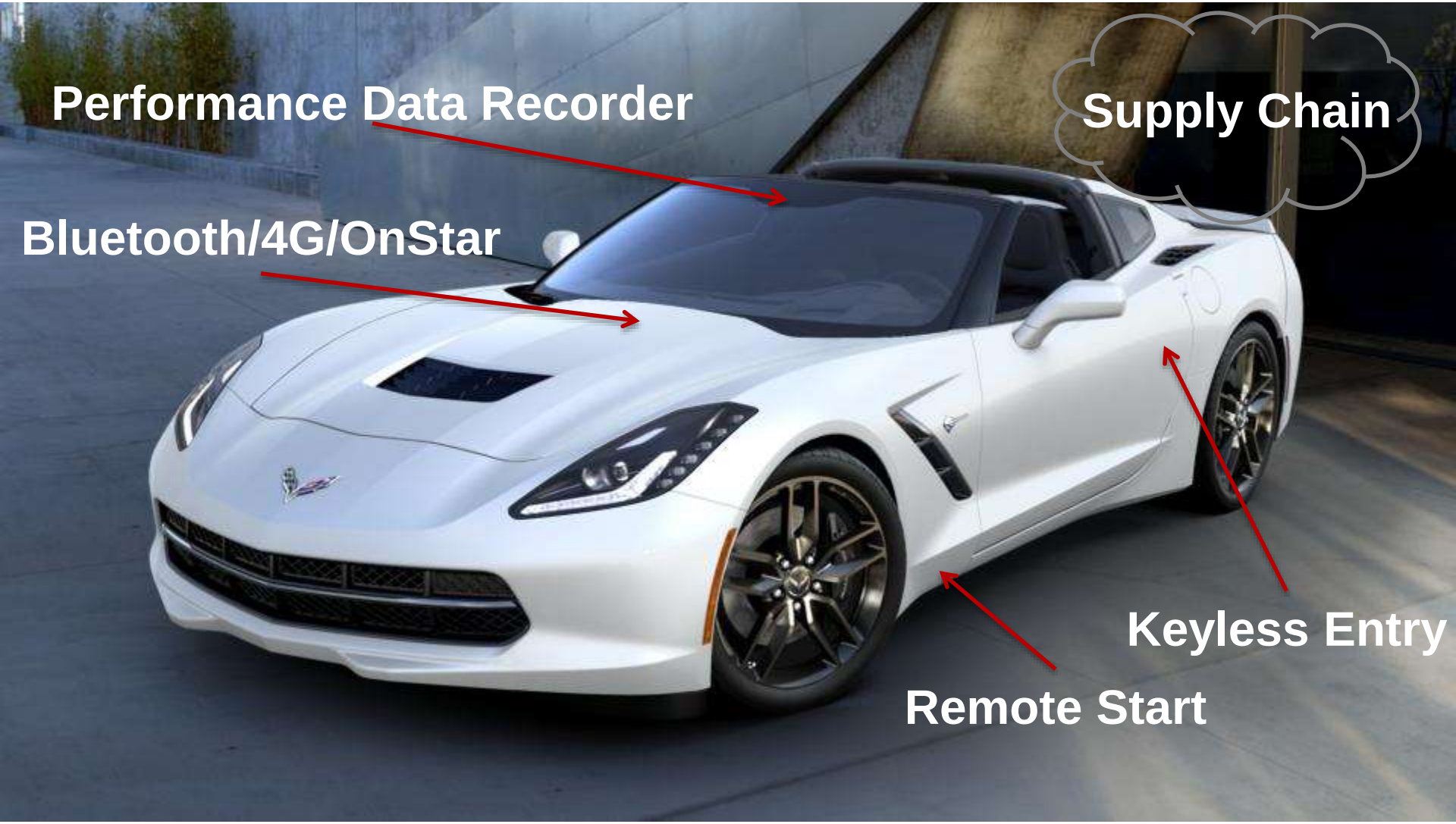
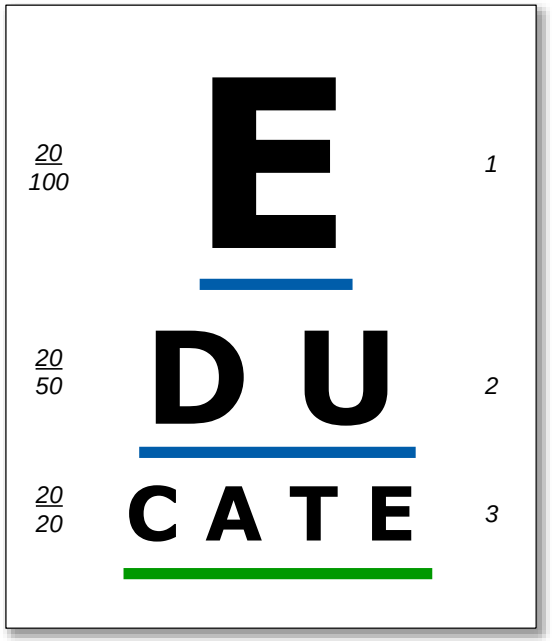
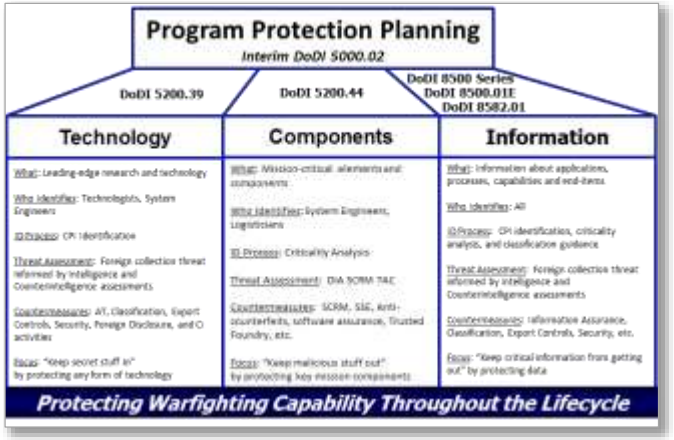


Security Engineering and Vulnerability Analysis
Enable Successful Cyber Testing

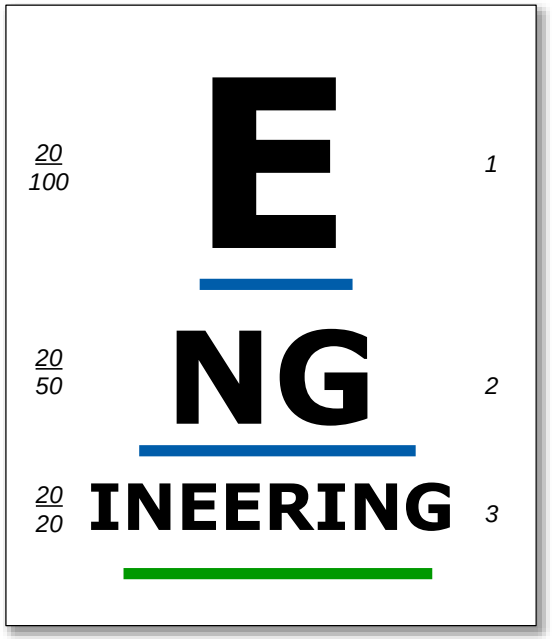
Maintain your Vision with Education



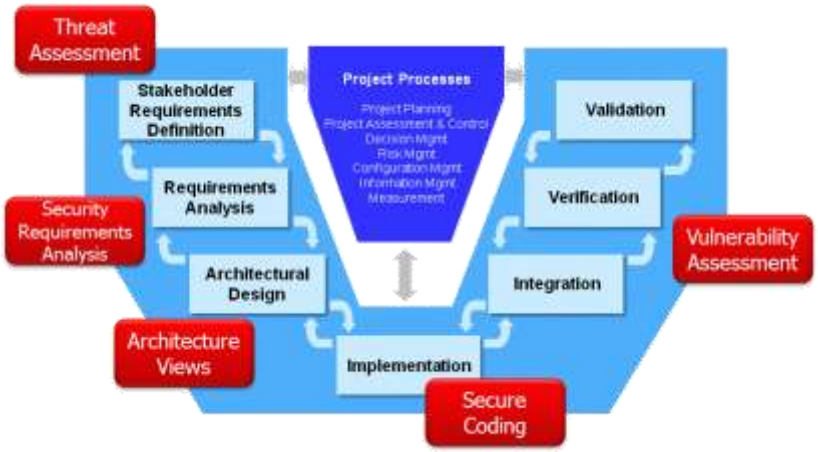
- Industry is starting to account for topics such as Secure Architecture and Secure Coding in their training material
- We educate our application developers about risks to the supply chain and what to watch for
- We use training material from customers to stress importance of material to the audience

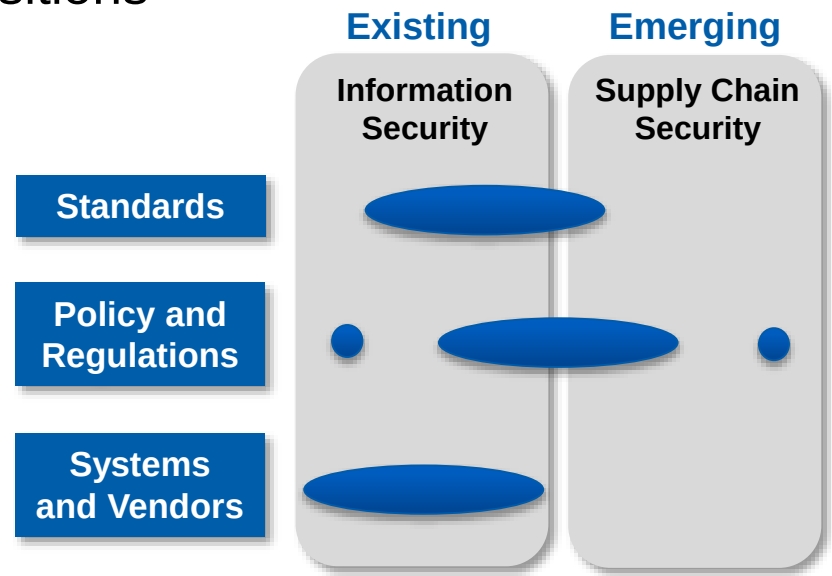


Focus on Engineering

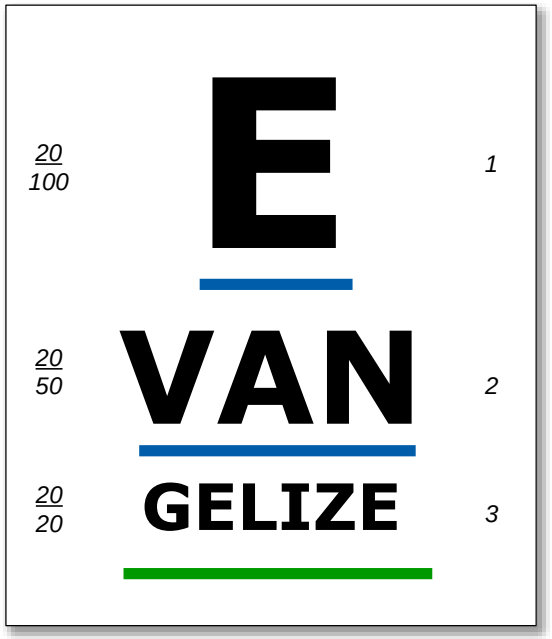


- The development of processes around System Security Engineering is a natural extension of the formal Systems Engineering process
- Engineering a solid system to protect the integrity of the supply chain is necessary
- New CDRLs, such as security plans and security architecture views, will be required for future acquisitions

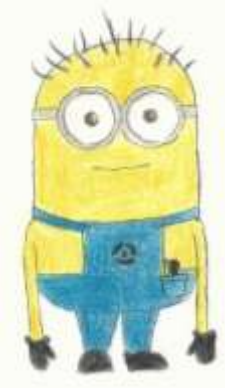




Evangelists Lead Culture Change



- Changing the culture of decades of Systems Engineering is hard work, and requires dedicated evangelists
- Convincing engineers that spending time and money building more secure systems, instead of making the aircraft fly further, is an uphill battle
  - *Especially when their customers haven't expressed an interest in security*
- Grow your own minions!



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Awareness and Recommendations

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- Understand that entertainment is raising awareness of threat vectors
  - Popular television shows, such as 

  - Best selling games, such as 

- Tighten up the relationship between end users, acquisition teams, and industry to make sure expectations are met
- Ensure that your supply chain is not the weak point in your defense
- Secure the design data of your system – it is critical

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