



# Business Risk to Application Security. Building Trust into Your Software

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# What is business based on?

- Trust
- Risk
- Velocity

What is business based on?

**Trust**




July 5, 1993

*"On the Internet, nobody knows you're a dog."*

What is business based on?

**RISK**

# What is business risk?

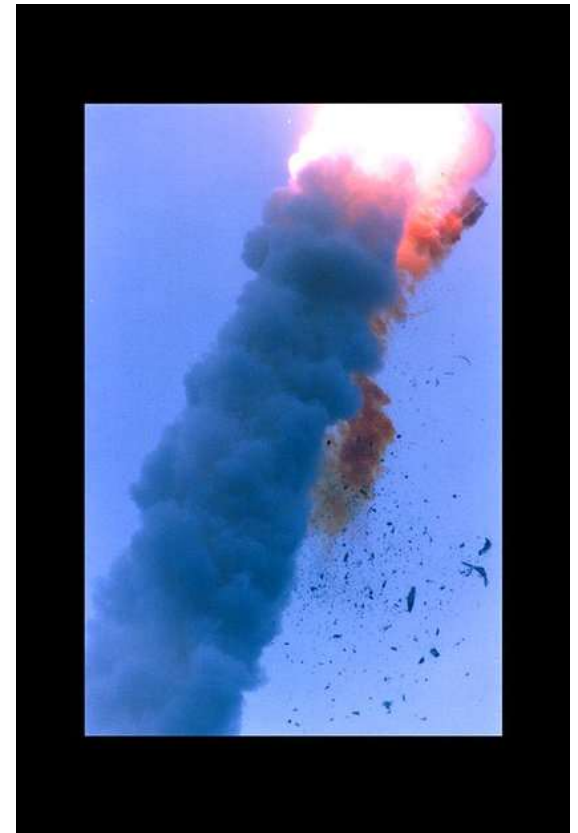


**Business Risk**  
*['biz-nəs 'risk]*

The exposure a company or organization has to factors that could lower its profits or lead it to fail.



# What is business risk?





# The cost of a Cybersecurity Incident

- Reputational damage
  - If your favorite company is losing all your data – will someone else share their data?
- Lost customer
  - Will you continue to do business with them?
- Regulatory fines and investigation cost
- Incident cost
  - System downtime
  - Remediation cost

Cost of a Cybersecurity incident can be much higher than the cost of a physical incident.

It can nowadays even go as far as loosing live.

# The Cost of a Data Breach



Average Mega Breach (several 100 Million records) easily goes over US\$ 300M

What is business based on?

**Velocity**

# On Mobility we have come a long way

Draisine (nicknamed the hobby horse)



- **Karl Freiherr von Drais**
- April 1785 – 10 December 1851
- 1817 – round trip

[https://en.wikipedia.org/wiki/Karl\\_Drais](https://en.wikipedia.org/wiki/Karl_Drais)

With a lot of stages in between



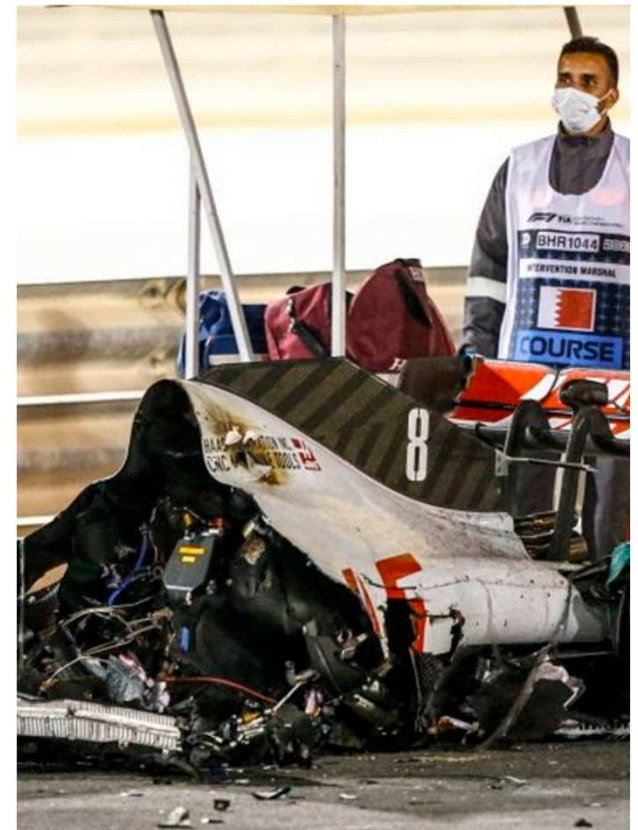
- Production 1921-1925
- Assembly Munich, Germany
- Engine Five-cylinder radial
- Top speed 85 km/h / 142 km/h
- Transmission No clutch;  
1-speed fixed  
transmission

<https://en.wikipedia.org/wiki/Megola>

To where we are today



We know, what can happen if we cannot slow down quickly



What enables velocity?





# Every business is software business

Watts S. Humphrey, around two decades ago

- FedEx: The information about the package is as important as the package itself.
- The original space shuttle, a relic from 1982, only required **400,000 lines** of code to launch a crew and several tons of fuel into orbit.
- The Falcon 9 launcher by SpaceX: between 4 and 10 million lines of code.
- Airplanes
  - 747: around 400.000 LoC
  - 777: around 2.600.000 LoC
  - 787: around 6.500.000 LoC
- Modern car: **around 100 million** lines of code,
  - Expectation is around 300 million lines of code by 2030.

# Every business is software business

Watts S. Humphrey, around two decades ago

- Pipelines being shutdown
  - Colonial Pipeline attack
- Financial Industries
  - Equifax, Heartland
- Automotive
  - Jeep Cherokee
- Hospitals
  - University hospital of Düsseldorf ransomware attack

# Why software risk *is* business risk

If...

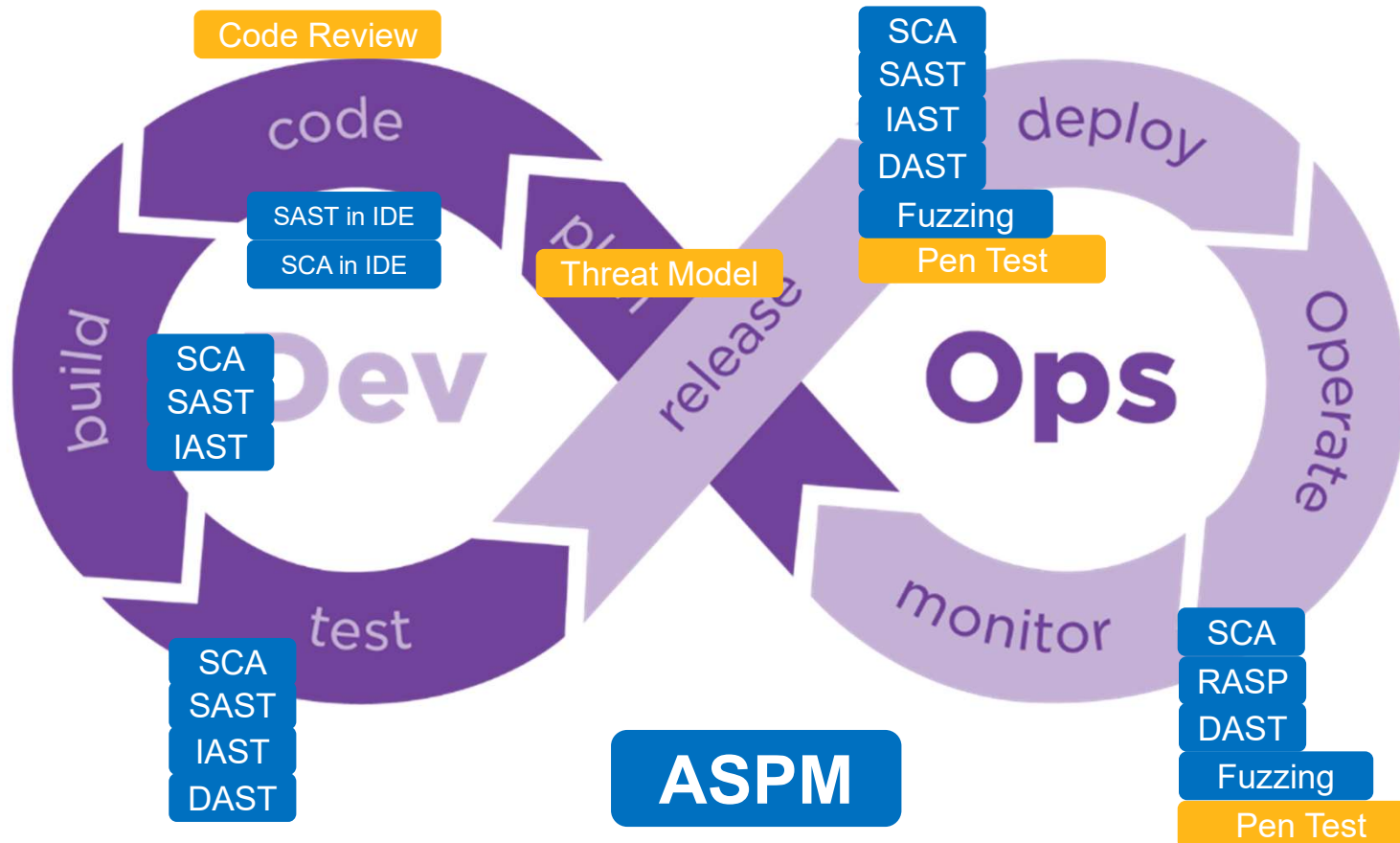
Every company is a software company

Then...

Problems in your software create risk  
for your business

# What enables velocity in Software Development

Detecting issues in all areas of the lifecycle and adjust immediately when they occur



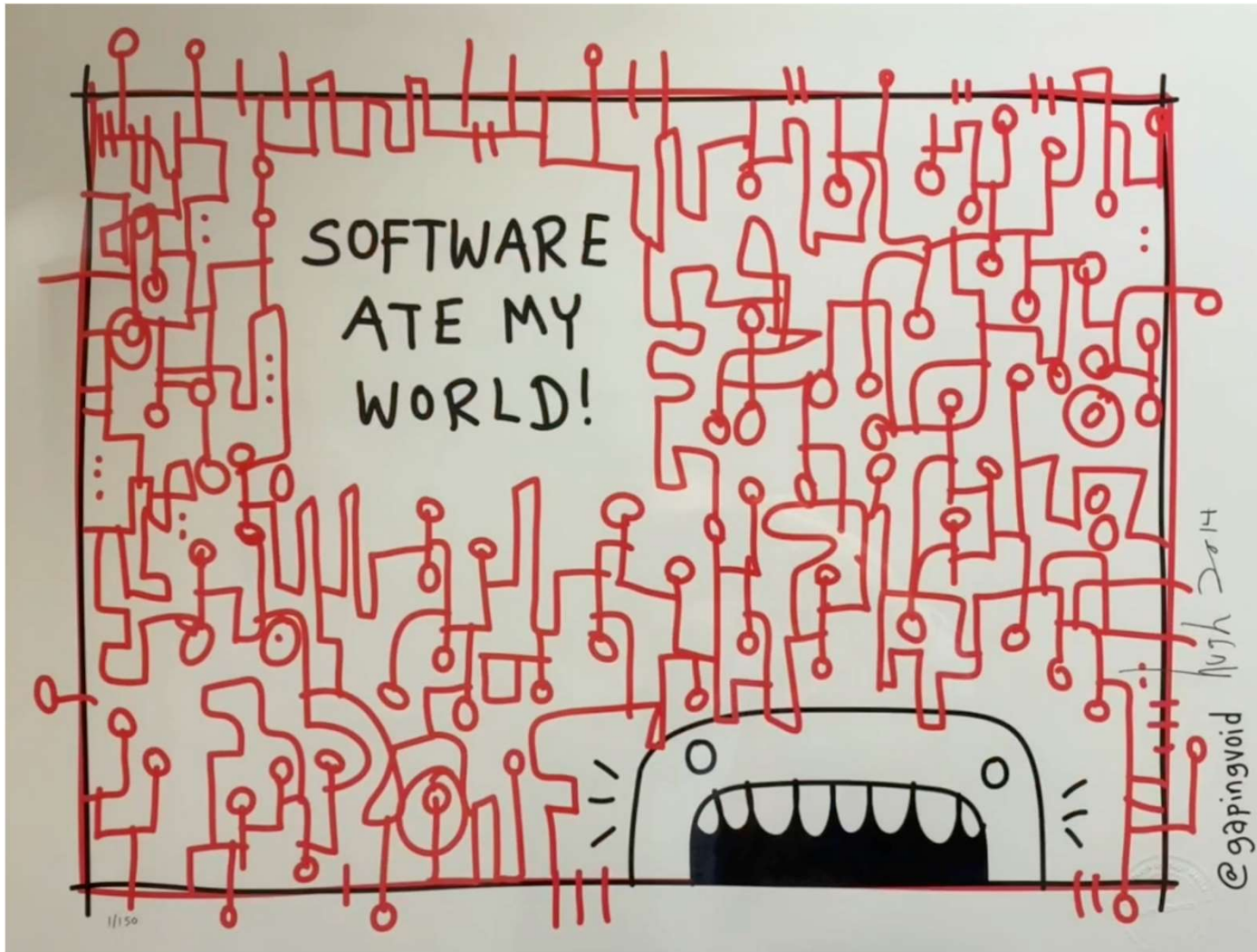
What enables business velocity?

# Trust in Software and Systems

*If you can't trust your software,  
how can you depend on it to run  
**your** business at the velocity required?*

Let's work together so we can all develop software in an uncomfortable speed by build the necessary safeguards into the SDLC.

This will allow us to take the risk to run this software with the necessary trust in it.





Thank You

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