



Security Built in and Built to Last

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Security Continues to be a Challenge

**Data breaches cost \$654 billion,
expose 2.8 billion data records in the U.S.**

Source: Forgerock U.S. Consumer Data Breach Report
<https://www.forgerock.com/resources/view/92170441/industry-brief/us-consumer-data-breach-report.pdf>

The average enterprise uses 75 security products to secure their network.

Defense in depth: Stop spending, start consolidating
<https://www.csoonline.com/article/3042601/defense-in-depth-stop-spending-start-consolidating.html>

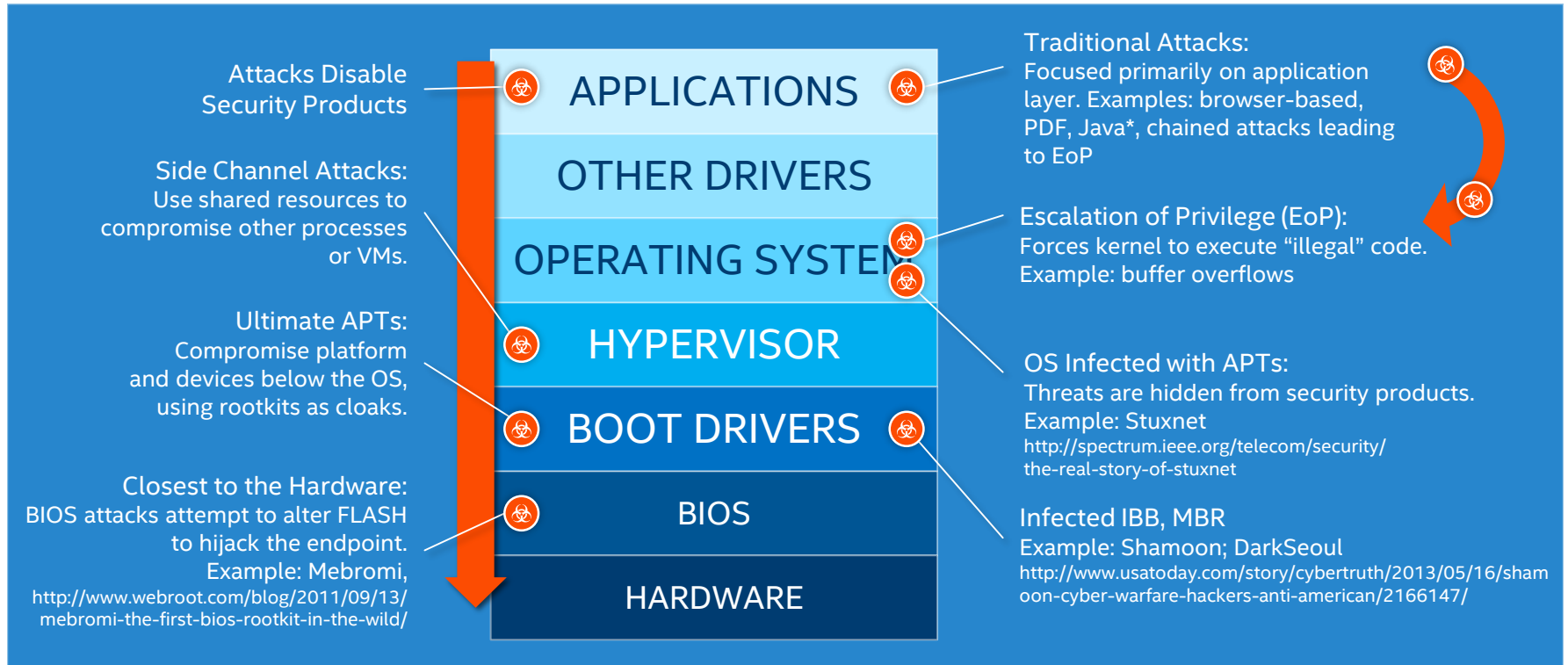
"Complexity is the Worst Enemy of Security"

Bruce Schneier, *Information Security*
November 19, 1999

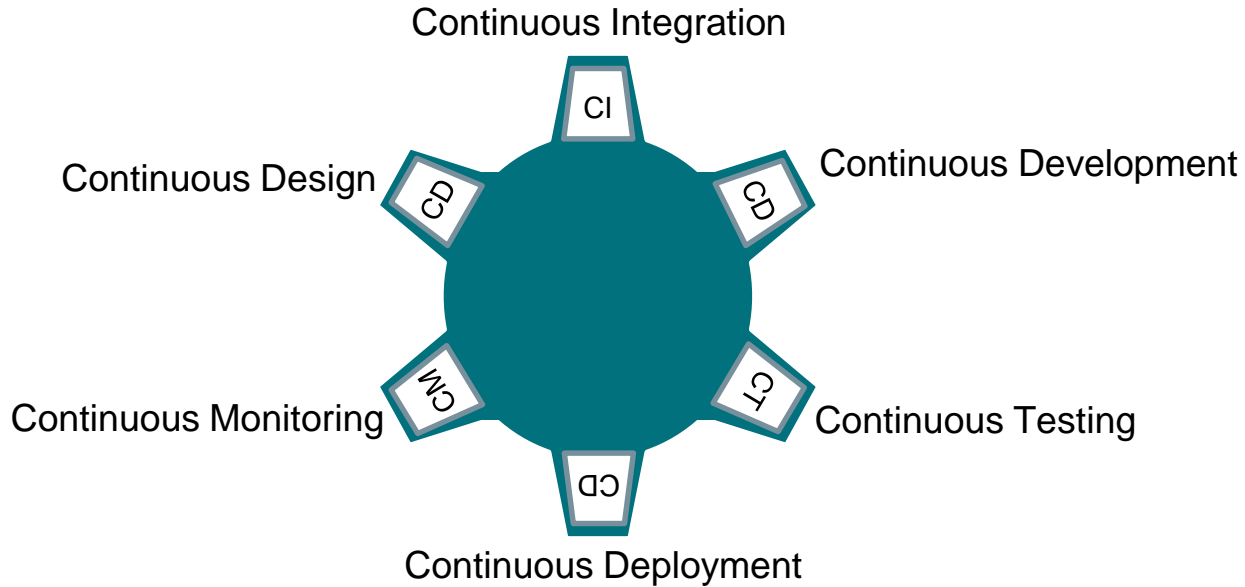
The average large enterprise spends \$16.7 million annually on security software and salaries of the professionals who maintain it. - Bromium



Attacks are Moving Down the Stack

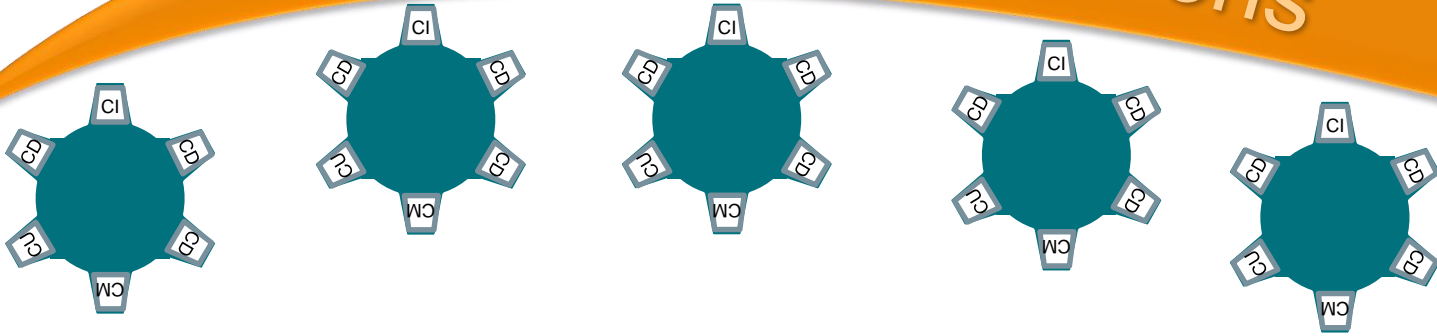


Continuous Everything

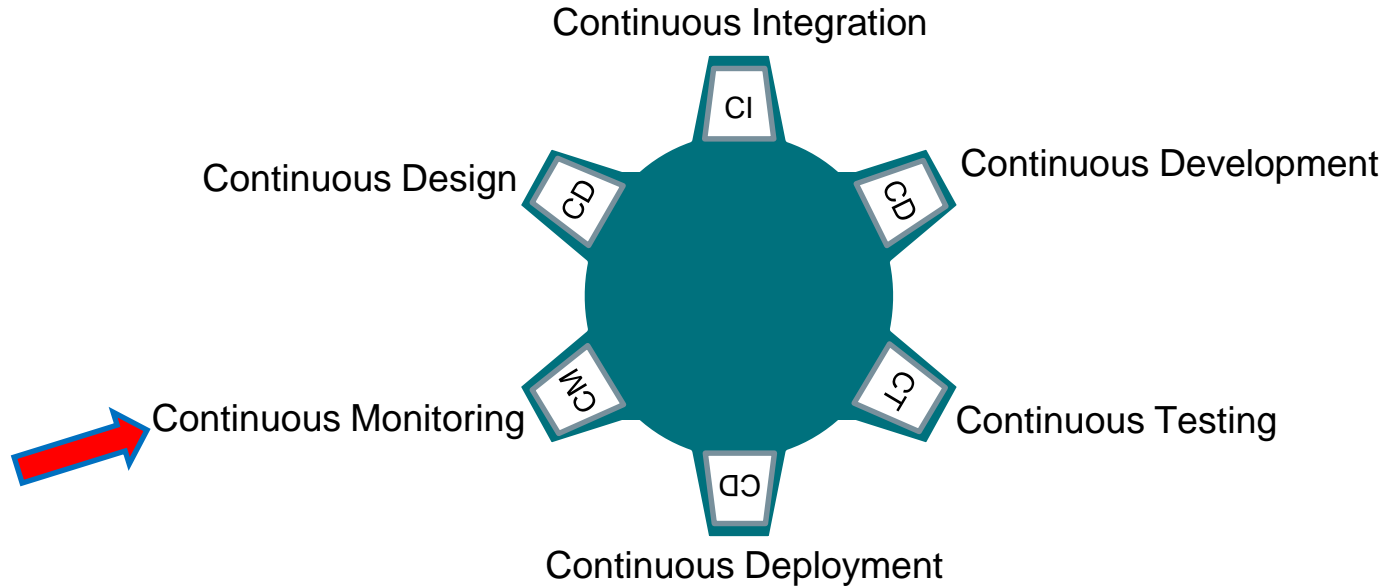


Continuous Everything

Enterprise Applications

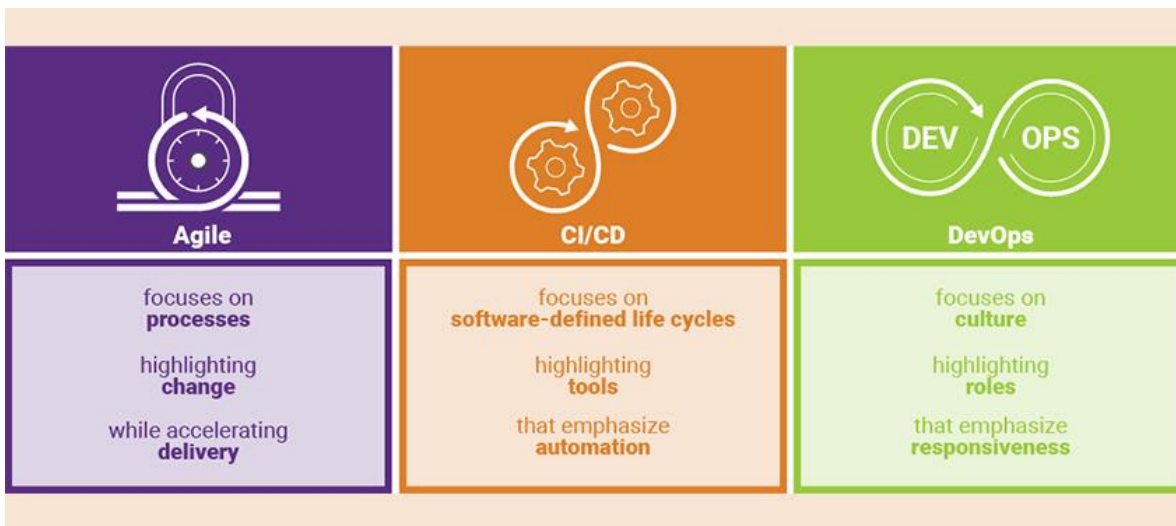


Security Built in...?



Security Built in...?

Agile, CI/CD, DevOps, ... Where is Security?



What's the difference between agile, CI/CD, and DevOps?

Posted by John Steven on Monday, March 19th, 2018

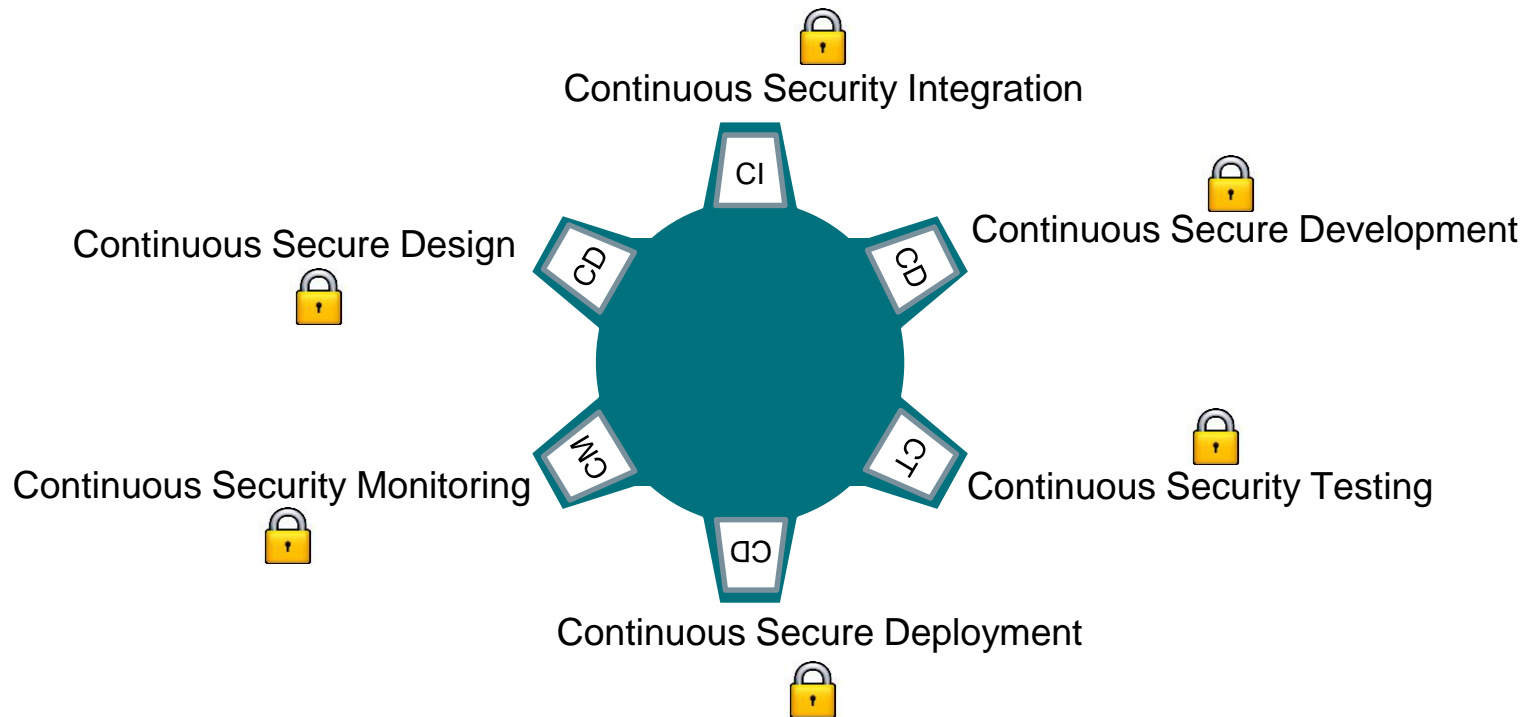
<https://www.synopsys.com/blogs/software-security/agile-cicd-devops-glossary/>



Security Built in...!

Make Security part of every phase

DEVORISES



Security Built in...

How do we get there?

- Infrastructure Matters & Needs to be leveraged up the stack & Applied End to End
 - Hardware Security capabilities
 - Infrastructure Security capabilities Infrastructure Layer(s) (VMM, OS, Orchestration, etc.) Security capabilities
 - Software Defined Network Security



Threat Intelligence and Analytics



Host & System Security



Data and Application Security



Network Security



Identity & Access Management

INTEGRITY

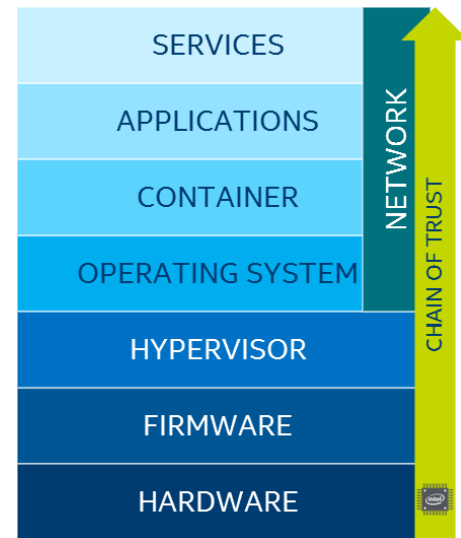
Assured configuration

PROTECTED BOOT

Measure and maintain system integrity at boot time

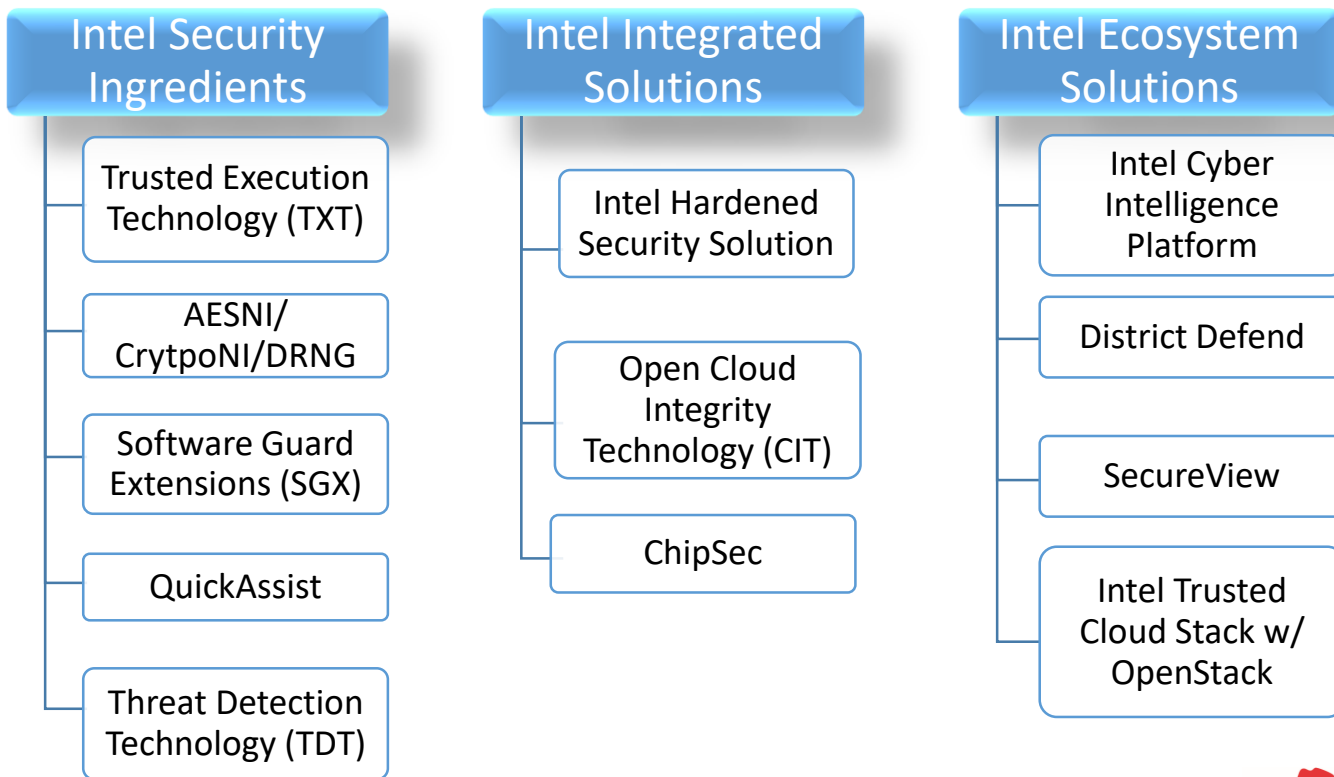
RUNTIME SECURITY

Isolate and protect workloads



Security Built in & Built to Last

Intel delivers security capabilities and solutions



Red Hat



... Built to Last

Build once, deploy everywhere

- Build it in:
 - Develop and Distribute Infrastructure Libraries for Security to teams
- Configure it in:
 - Provide Predefined and Configured Security & Policies for Containers, VMs, & NFVs
- Integrate it in:
 - Use Security Tools that can be integrated in, Drive vendors to give you APIs
 - Demand Integrated and Integratable solutions
- Create a Baseline of Security to cover the 80%
 - Innovate for the last 20%
- Automate it:
 - Automate as much as you can



... Built to Last

Automation will set you free

- Automated Testing
- Automated Assessment
- Automated Compliance
- Automated Audit
- Automated Deployment
- Automated Update
- Automated Patching
- Automated Throttle
- Automated Decommissioning
- Automated Recovery
- Automated ...

Security Built in & Built to Last

- Security across the lifecycle
- Security integration up and down the stack - From HW to SW to Services and beyond
- Drive Modularity, SW defined, and Services for security too
- Security: Build once deploy everywhere
- Automation will set you free

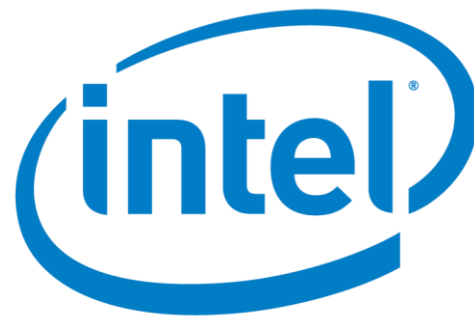
Thank you!

Joint Development Drives Innovation



Red Hat

Unleashing the power of
compute through software



Driving innovation
in processing

20+ YEARS OF COLLABORATION FUELING BUSINESS SPEED.