



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>

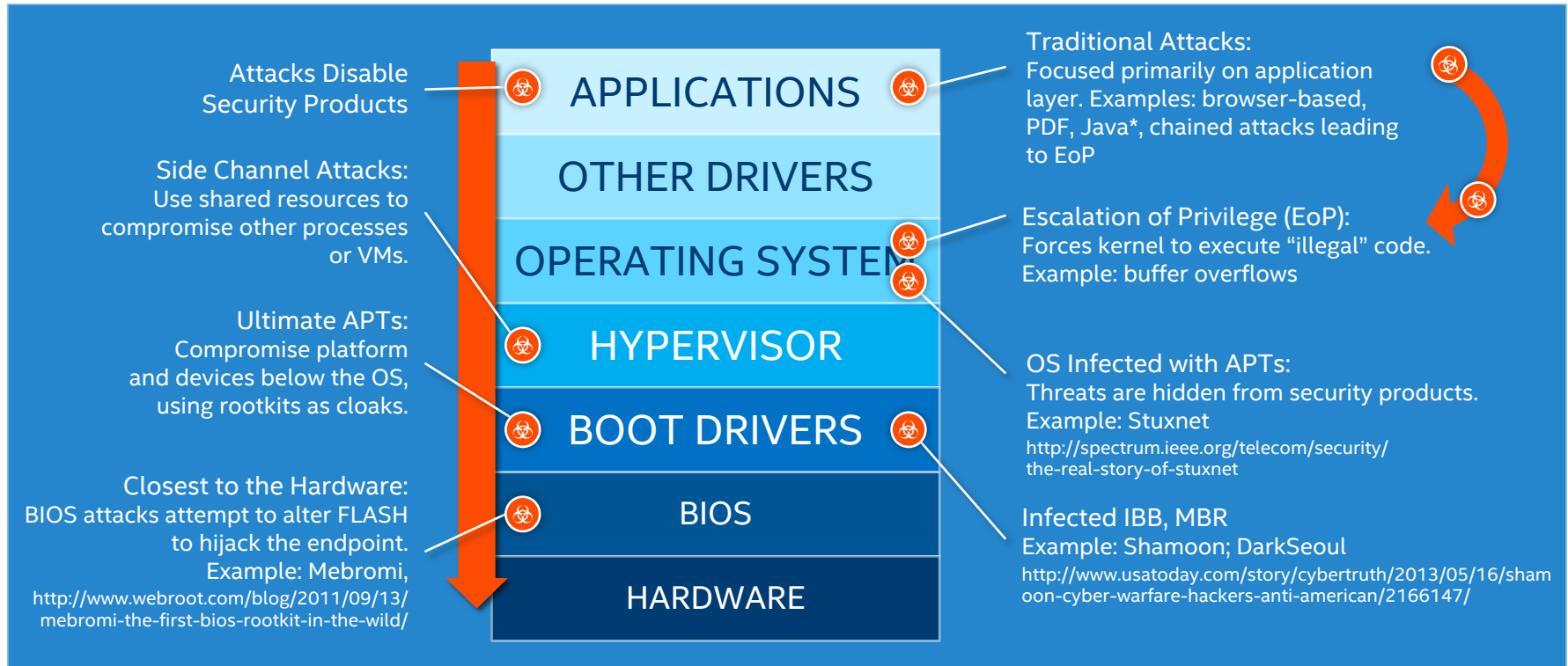
"Complexity is the Worst Enemy of Security"

Bruce Schneier, *Information Security*
November 19, 1999

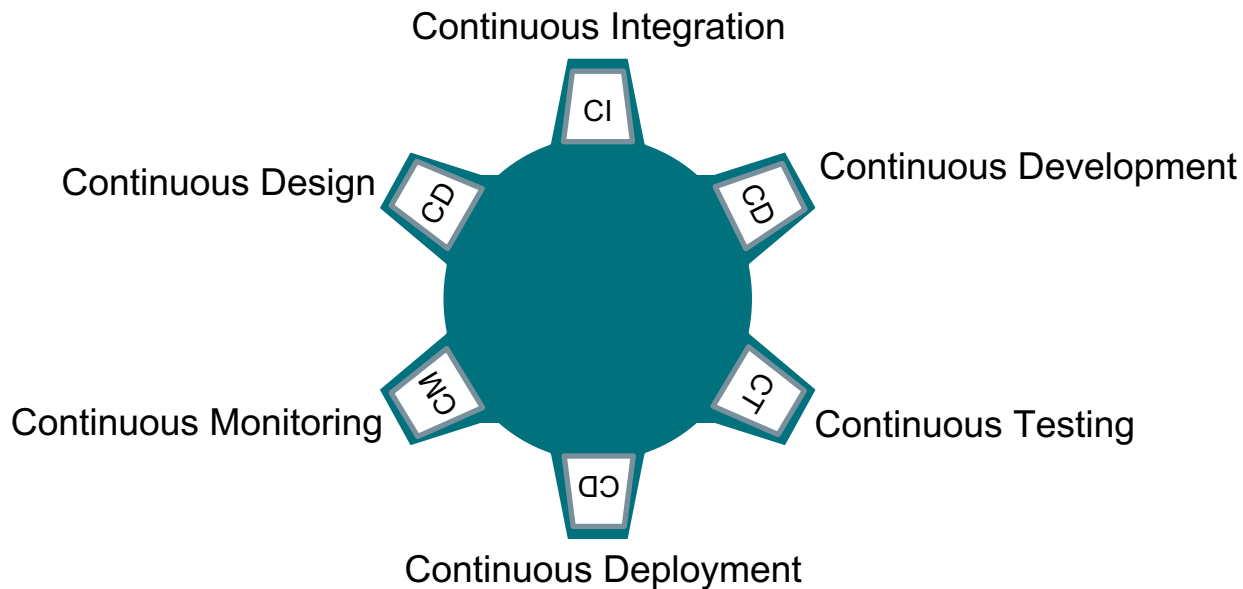
*The average large enterprise spends \$16.7 million annually on
security software and salaries of the professionals who maintain
it. - Bromium*



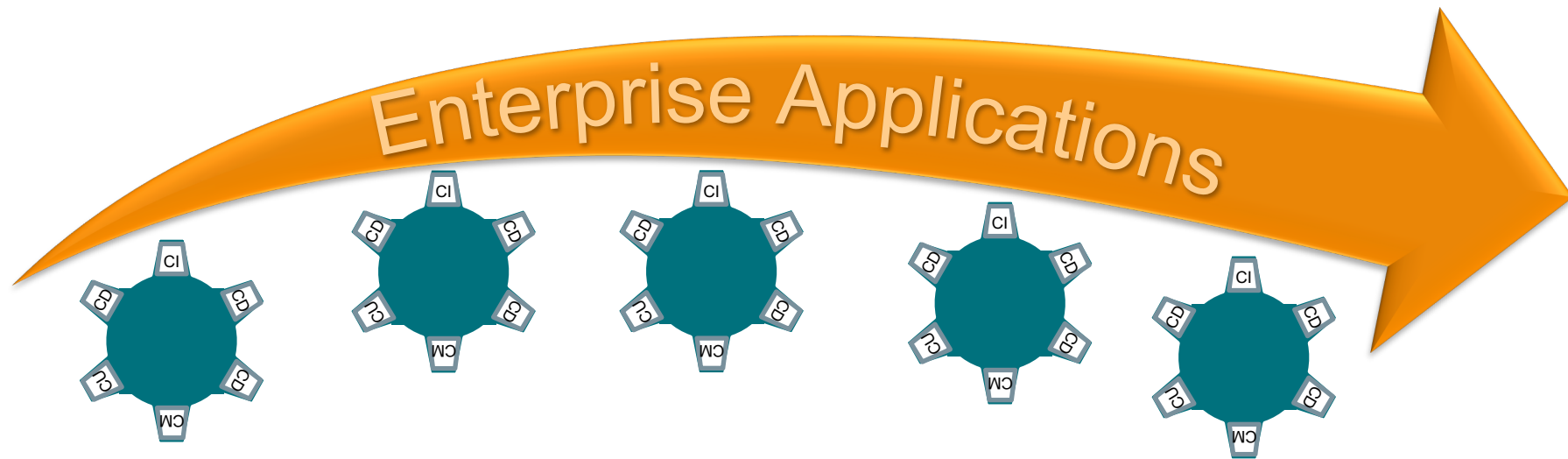
Attacks are Moving Down the Stack



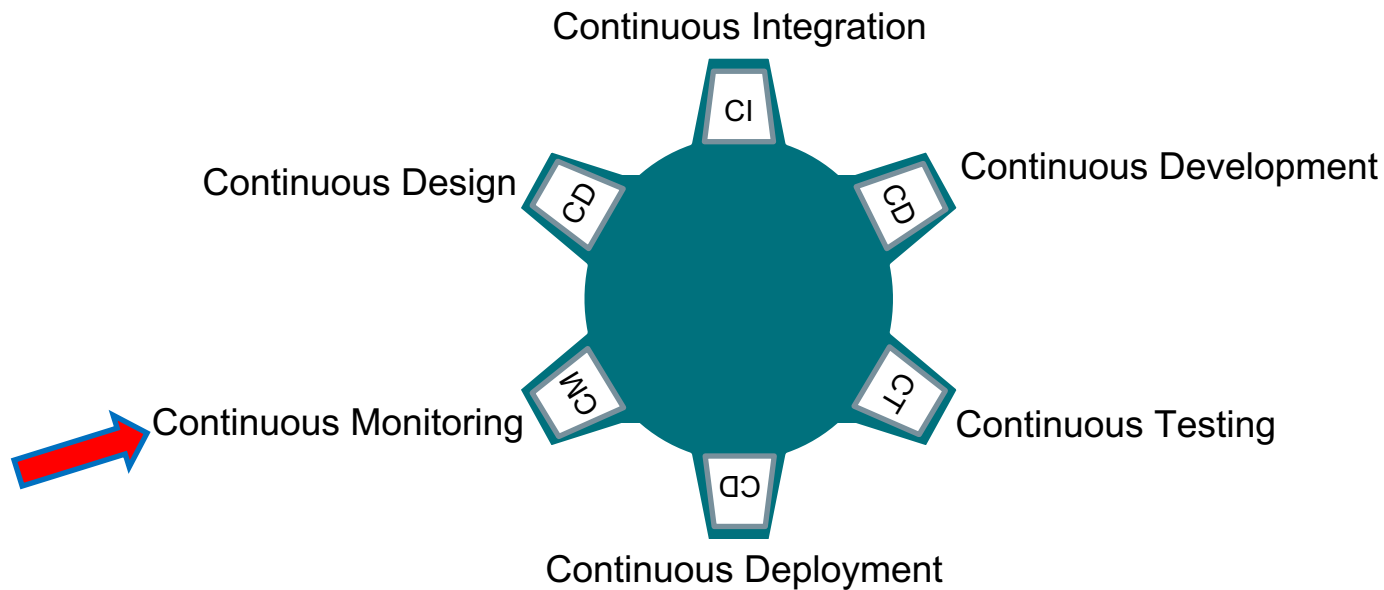
Continuous Everything



Continuous Everything

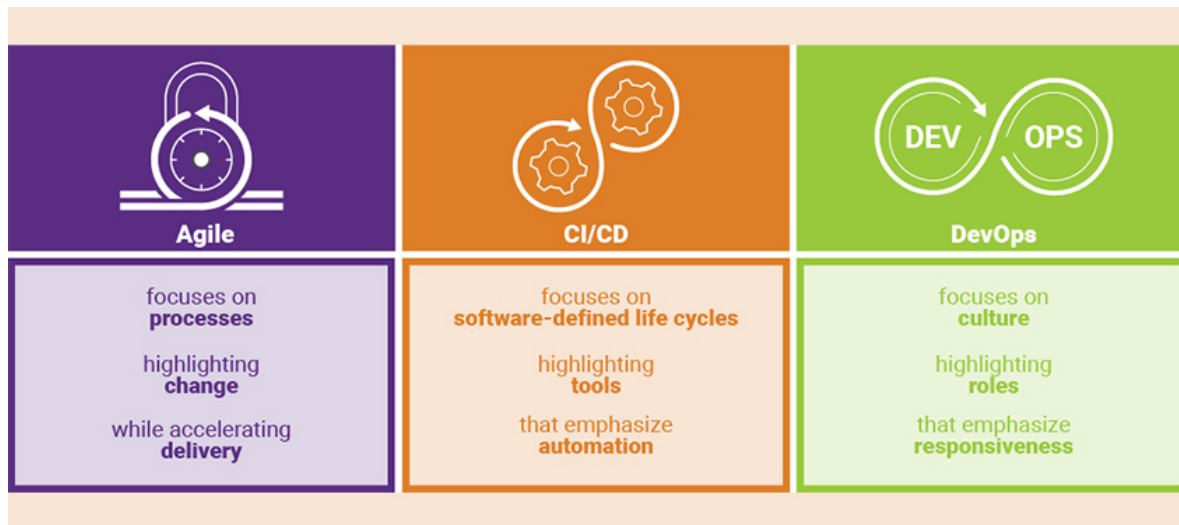


Security Built in...?



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

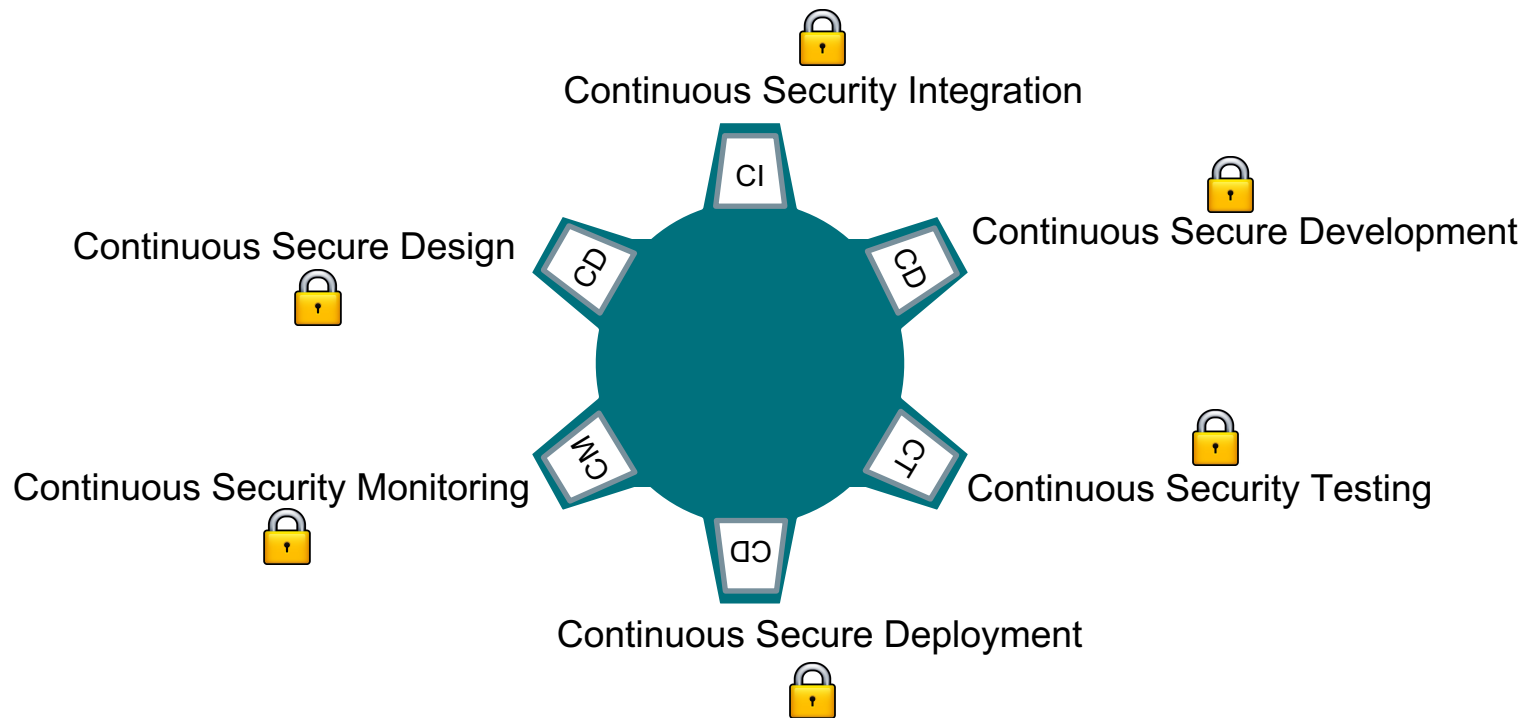
<https://www.synopsys.com/blogs/software-security/agile-cicd-devops-glossary/>



Security Built in...!

Make Security part of every phase

DEVOPS



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

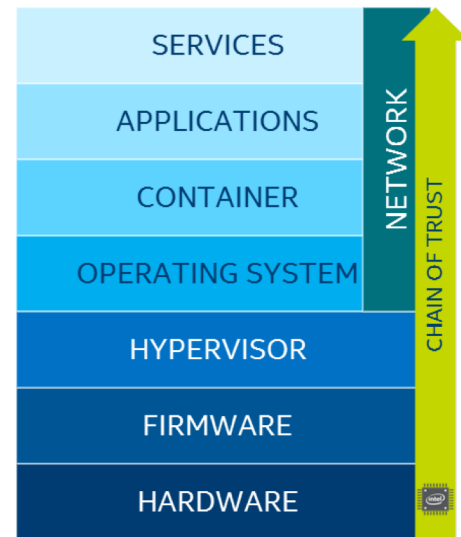


Measure and maintain system integrity at boot time

RUNTIME SECURITY



Isolate and protect workloads



... Built to Last

From Solutions to Services and beyond

- Modular Security Design
- Infrastructure Libraries for Security



- SW Defined Security



- Security SaaS

- Security Tools



... 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

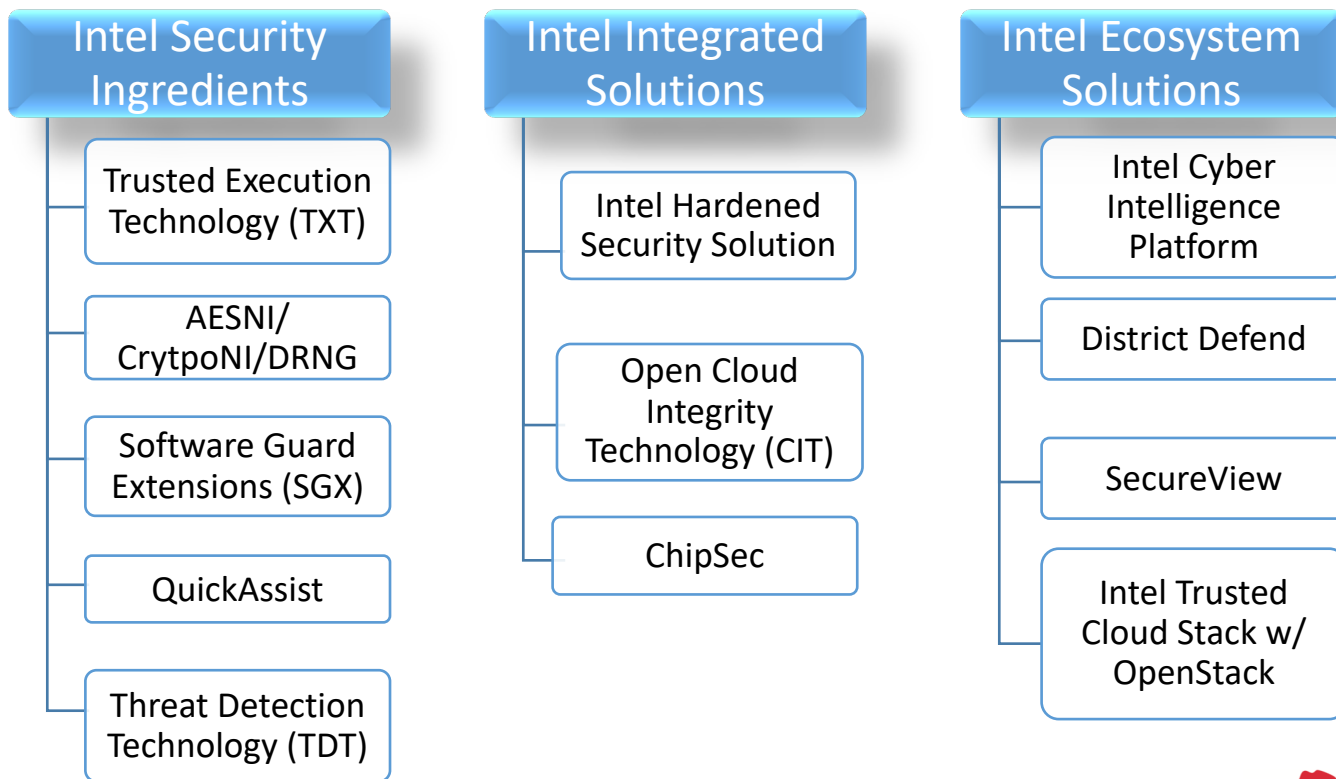
- Automated Testing
- Automated Assessment
- Automated Compliance
- Automated Audit
- Automated Deployment
- Automated Update
- Automated Patching
- Automated Throttle
- Automated Decommissioning
- Automated Recovery
- Automated ...

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

Security Built in & Built to Last

Intel delivers security capabilities and solutions

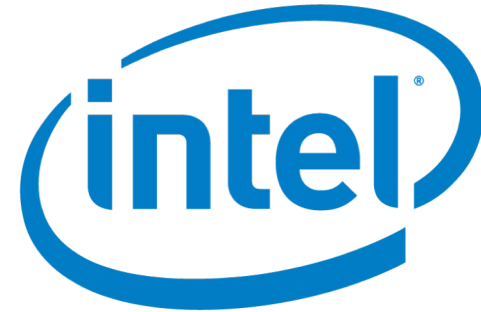


Thank you!

Joint Development Drives Innovation



Unleashing the power of
compute through software



Driving innovation
in processing

20+ YEARS OF COLLABORATION FUELING BUSINESS SPEED.