SORINTlab
BUILDING GREAT TECHNOLOGY

SSL – Shift Security Left

Digital Technology Service

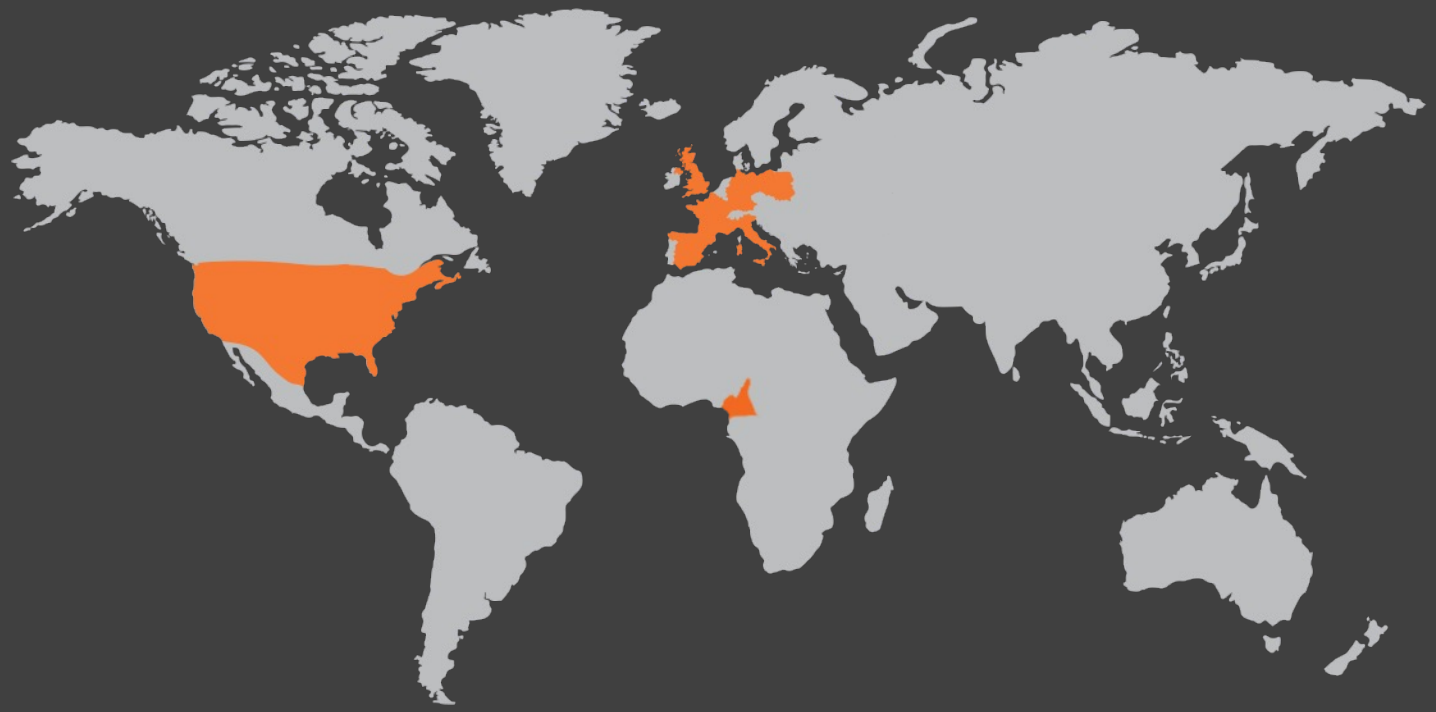
LUD: June 2023

Agenda

- Who are we
- Overview
- Addressing SSL
  - Why – A Brief History
  - DevSecOps
  - SSL & DevSecOps
  - What Sorint Offers
  - Closer Look
  - Leading To
- Success Stories
- Related by Sorintains – Bonus slide
- Going Forward

17 Offices
3 Continents

SORINT.lab



EUROPE
Milan, Rome, Bergamo, Turin, Padova,
London, Madrid, Frankfurt, Paris,
Wroclaw, Brasov, Bologna, Lecce

USA
San Diego

AFRICA
Douala

Other Business Units

SORINT.SEC SORINT.TEK experim a cloud of skills

Facts on Sorintians

+900 Skilled People

Cloud Engineers

SREs

DevOps Engineers

Developers

+40K

Training hours per year

+50

Technical Sircles

Methodology

ISO 27001

ISO 20000

ISO 9001

ISO 14001

PM Methodology

Prince2

PMI

Agile

SCRUM/UX

+35

Years of experience, with a Startup mindset

+250

Large Enterprise Customers

Industries

Finance & Insurance,

Utility & Telco,

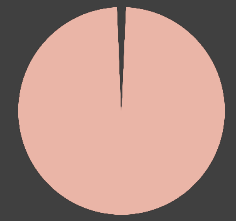
Industry & Services,

Transport,

Public Administration

98%

Customer Retention Rate




INTESA SANPAOLO
BANCA 5
Deutsche Bank
ING
BANCO BPM
widiba
CRÉDIT AGRICOLE
illimity
IBL Banca
BPER: Banca
Creval
UniCredit
BBVA
Santander
BORSA ITALIANA
nexi
sia
cdp
cassa depositi e prestiti
Vittoria Assicurazioni
REALE MUTUA
Allianz
ENGIE
2i Rete Gas
Terna
a2a smart city
iren
SKY
vodafone
TIM
FASTWEB
un passo avanti
Visura
TINEXTA GROUP
InfoCert
TINEXTA GROUP
allitude
IRIDEOS
LIS Holding
IGT
EUROBET
Sisal
CAREL
DANIELI
intercos GROUP
ICA
Q8
MBE
MAIL BOXES ETC.
MENARINI
AIFA
AGENZIA ITALIANA DEL FARMACO
Agenzia Entrate Riscossione
Ministero della Difesa
DE CECCO
ESSELUNGA
EVOCA GROUP
MARELLI
ITALDESIGN
LAMBORGHINI
brembo
SEA
Milan Airports
Orio al Serio international airport
S.A.C.B.O. S.p.A.
DIESEL
Ermenegildo Zegna
UNITED COLORS OF BENETTON.
INDITEX

Clients

Technology Partners

SSL – Shift Security Left

- Promotes security as a common responsibility shared by all teams involved in software development.
- Focusing on
  - Speed vs Security
  - Skill vs Mindset
  - Lack vs Positive Communication

Addressing SSL

Security activities can not be left until end of development

Insecure designing can lead to deadlocks. Impossible to fix bugs

Vulnerabilities lead to increase in cost and time

Dev and security teams need to collaborate regularly

Increased in complexity in recent software. Llargely “assembled”

Lack security skills/knowledge during all stages of development

Protecting sensitive data. Mitigating insider threats and solid regulation compliance

Security activities are usually not adapted in agile methodologies

Addressing SSL – Why?

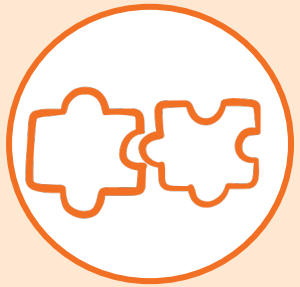
Let’s take a step back

Failing to firmly prioritize software security can lead to serious consequences

Lack of understanding

Cost

Time constraint

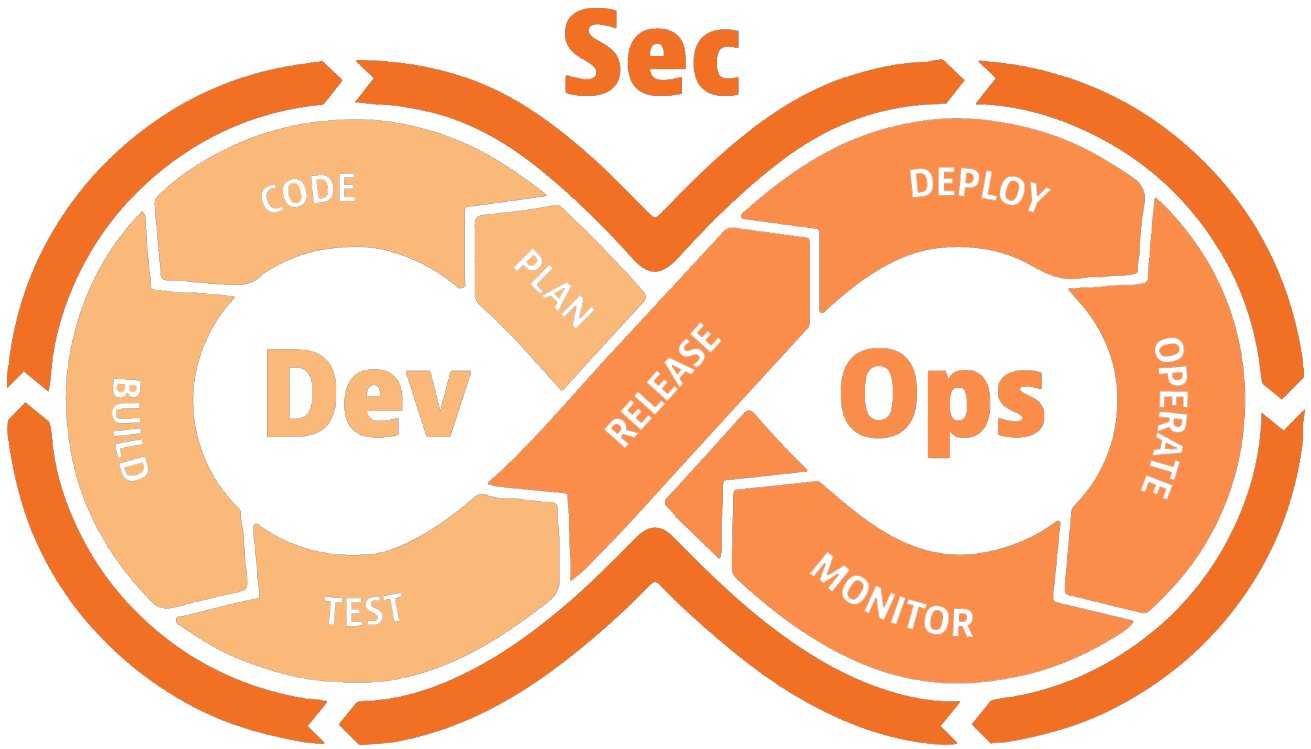


Prioritization of features over security

Perception of invincibility

That’s when Develops methodology came to light

DevSecOps



The ”Sec” process wraps the well-known DevOps framework which is already in place for most companies that build software.

Pillars of DevSecOps

Rapid, cost-effective software delivery

In a non-DevSecOps environments security issues can easily be both time and cost consuming.

Improved, proactive security

Cybersecurity issues are address as soon as they are identified. In all SDLC/stages. Before additional dependencies are used, placed, or coded.

Accelerated security vulnerability patching

The ability to identify and patch common vulnerabilities and exposures Common Vulnerabilities Exposures. (CVE) is diminished.

Automation compatible with modern development

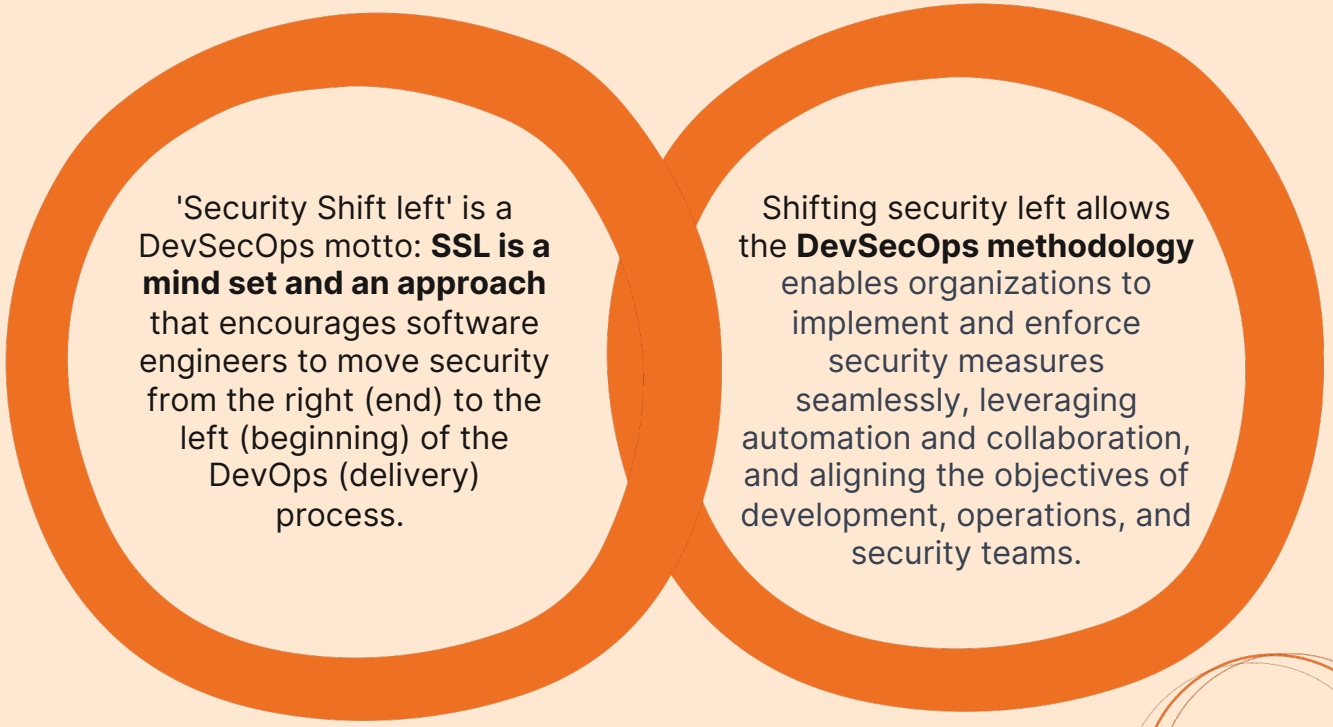
Can be integrated into an automated test suite for operations teams if an organization uses a CI/CD pipeline to ship their software.

A repeatable and adaptive process

A mature implementation of DevSecOps ensures consistent security across changing environments and requirements. Resulting in a solid automation, configuration management, orchestration, containers, immutable infrastructure, and even serverless compute environments.

SSL vs DevSecOps

Relationship lies in their shared goals



- Speed vs Security
- Skill vs Mindset
- Lack vs Positive Communication

80%

Skills gap. 80% of organizations tell us they have a hard time finding and hiring security professionals and 71% say it's impacting their ability to deliver security projects

*Gartner's Security and Risk Management Summit

Sorint’s Tailored Journey

How we shift security to the left

Educational-level

Developers' security self-assessment

Knowledge-level

AppSec design

Implementation-level

Security tools consultancy

Culture-level

Stakeholders' security awareness

Closer Look

Areas and fields of focus

Developers security self-assessment

Measure the overall development team knowledge about security related-topics.

Identify lack of common security principles/knowledge.

Build a roadmap to plan the actual "Shift Left".

AppSec design

Evaluate/identify possible threats and how to address each of them.

Deliver a threat model that is a conceptual representation of the system and the threats that have been identified.

Security tools consultancy

Implement and configure SCA, SAST and DAST tools within the CI/CD pipeline.

Experts advise best practices to properly configure these tools, and support developers to better understand the results.

Suitable AST tools depending on projects.

Developers security awareness

Best practices for secure/defensive coding and how to avoid common mistakes.

Support developers to build their own “security mindset”

Customized trainings/workshops .

Day x — Continues support — Continues support — Continues support — Day y

Experts Involved

Shift Security Left(SSL)

DevArch

SecOps

Senior masterminds

Cesare Pizzi

Reverse Engineer, Incident Responder, Opensource Developer and Contributor

CTF player, trainer, regular speaker at DEFCON, Insomni'hack, Nullcon

Luca Famà

Application Security Consultant

+7 years of experience in the security field. CTF player, bug hunter and cyber security enthusiast.

Some prestigious certifications

OFFENSIVE security OSED

GIAC REVERSE ENGINEERING MALWARE GREM

Leading to

Manifestation of success

Secure Design and Culture

Threat Modelling

Secure Implementation

Secure Verification

Production Security Monitoring

Incident Management

Success stories

Delivered by: Sorintians

Confidential

A Well-known Ffinancial Institution

Introduce Shift Security Left

Challenge

Client is developing a critical software app. Requirements included:

- Compliance with industry standards and regulations.
- Regulate and intermediate the workflow and pipelines.
- Introduce and increase security awareness and practices.
- No security measures implemented. Low security awareness.

Going forward

Intensive self-assessment sessions with security and development teams.

Accepting the challenge - Solution and Implementation

In a proposal form.

- A new workflow to remove obstacles between the teams.
- Workshop to introduce new tools and how to use/read the outputs: e.g.
  - SAST(Static Analysis Security Testing) to find vulnerability patterns in source code.
  - SCA (Software Composition Analysis) assessment done by third-party tool.
- Help development team choose the final pipeline tools.

Result & delivery

- Discussed all the finding with both teams. (Security Development)
- Submitted multiple reports on the security level of the application.
- Agreed on a smooth and seamlessly automated workflow embraces security.
- Guide a solid security-aware culture throughout the company. Long-lasting and will influence other software projects in the company.

Bonus Slide

Related Solutions and Tools by Sorintians

Sorint Sec
Business Unit

Sorint.SEC is the Cybersecurity Company of Sorint.Lab Group that operates exclusively and continuously on issues related to Information Security.

sec.sorint.it

Agola – CI/CD Redefined
Open-source software product

Star 1.3k

CI/CD system with a lot of great features like advanced and reproducible workflows (runs), containerized tasks, fully distributed, high-available and much more. Featured on Cloud Native Landscape.

www.agola.io

DevOps Engineering
Technology Consultant Service

Advanced set of practices, tools, and technologies that power automation throughout the development, testing, and deployment phases.

inquire

SYNwall
Open-source software product

Star 260

A zero-configuration (IoT). A different way to think firewalling. Brings to you a totally new way to approach firewalling: you don't have to worry anymore about rules, IP, ports, etc

github/SYNwall

REW - sploit
Open-source software product

Star 127

Emulate and Dissect MSF and *other* attacks. Rew-sploit helps you analyze Windows shellcode or attacks coming from Metasploit Framework, Cobalt Strike, or other malicious or obfuscated code.

github.com/REWsploit

Dock12
Blog

A port bar on Ceres Station in "The Expanse". This aims to be a place where people can chat (like in a bar) about topics related to security and more.

dock12.sorint.com

Going Forward

How we can move forward from here

One hour workshop

Read more on /sorintlab

Alternative approach

BUILDING GREAT
TECHNOLOGY

SORINT lab

IT | ES | UK | DE | US | FR | PL | CMR | RO