

DevOps Engineering

Digital Technology Service



Agenda

- Who are we
- Overview
- Addressing CI/CD
- CI/CD
 - Pillars of CI/CD
 - Sorint's Tailored Journey
 - Experts Involved
 - Closer Looks
- Success Stories
- Testimonials
- Bonus slide - Related by Sorintians
- Going Forward

17 Offices
3 Continents

EUROPE

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

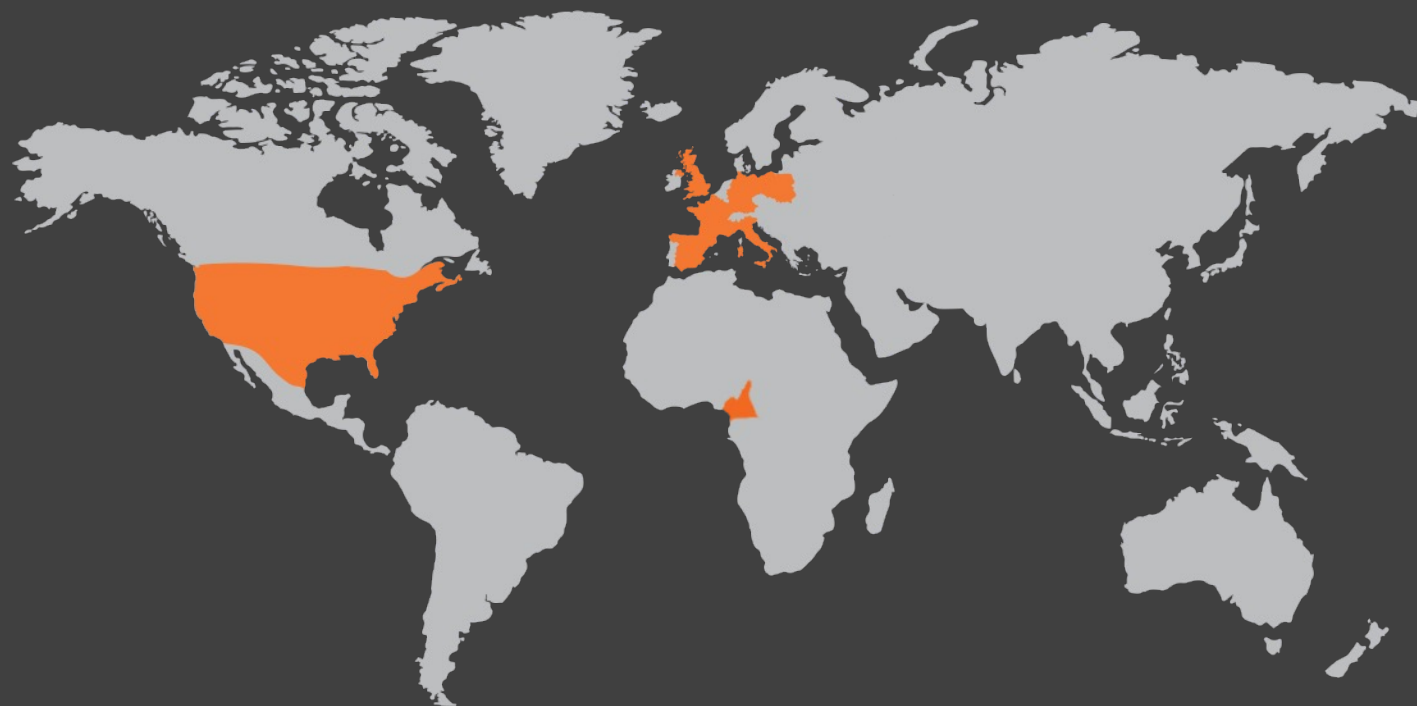
USA

San Diego

AFRICA

Douala

Other Business Units





Overview Facts

900+

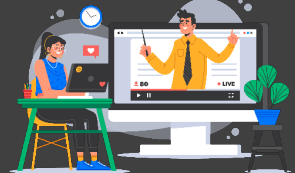
Tech-Savvy

Cloud Engineers
SREs
DevOps Engineers
Full Stack Developers



+40000

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



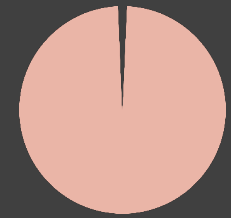
Market

Finance & Insurance,
Utility & Telco,
Industry & Services,
Transport,
Public Administration



98%

Customer
Retention
Rate



INTESA  SANPAOLO



Clients

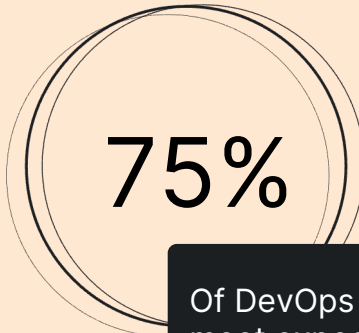


Technology Partners

CI/CD Continuous Integration and Deployment



- Advanced set of practices, tools, and technologies that power automation throughout the development, testing, and deployment phases.
- **When implemented correctly**, it enables efficiency and optimization across various IT processes.
- Processes that include:
 - Continuous Integration & Deployment. CI/CD
 - Configuration management
 - Infrastructure as Code (IaC)
 - Monitoring and logging
 - Incident management and response
 - Collaboration and communication
 - Agile and Lean practices

A graphic featuring the number 75% inside a circle, which is part of a larger circular design with concentric lines.

75%

Of DevOps initiatives will fail to meet expectations due to issues around organizational learning and change. Through 2022.

*Gartner predicts 2019

Addressing



Slow and inefficient development and deployment



Communication issues between development and operations teams



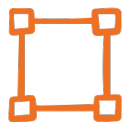
A lot of manual and error-prone processes



Challenges in managing the Infrastructure



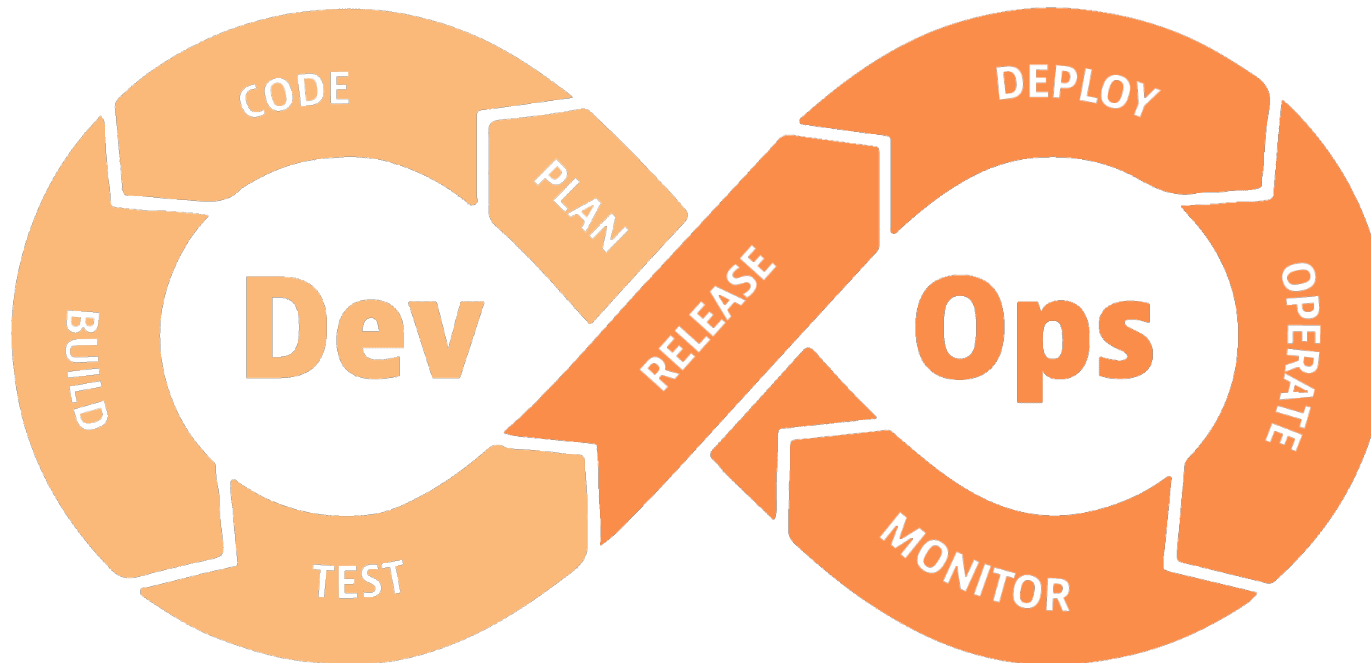
Limited monitoring and control



Lack of flexibility



CI/CD Diagram



Pipeline key components:

- Source code management
- Continuous integration (CI)
- Continuous delivery (CD)
- Deployment
- Testing and quality assurance
- Monitoring and feedback

Pillars of CI/CD



Agility and speed in software development and deployment processes



Automation of SDLC. Automation reduces manual errors, increases efficiency, and enables rapid iteration and delivery



Security. Protecting sensitive data. 



Governance, risk, and compliance 



Communication and culture 



Scalable and resilient software/infrastructure



Customer-Centricity and business value. Improve customer experience, responsiveness, and satisfaction



Continuous Improvement



Inline with Agile methodologies

35.9%

DevOps/DevSecOps most practised software development methodology globally used by software development teams. Respondents reasons:

- Faster time to market.
- Security, code quality.
- Improved communication and collaboration among developers.

*Statista 2022

Sorint's Tailored Journey

Instantiated from

Every journey is a unique challenge, but our know-how:



DevOps philosophy and
GitOps practices



Adopted DevOps practices.
Implemented complex CI & CD
pipelines to automate
workflow from development,
to delivering a solid
ecosystem.

To prominent market entities
in Europe and US



Hands-on
knowledge on all
trending tools



Sorint's Tailored Journey

Instantiated from



Less pipelines, more effective deployments

+5K

Configured, maintained, and
managed pipelines.

+50K

Deployments
in 2022

+200

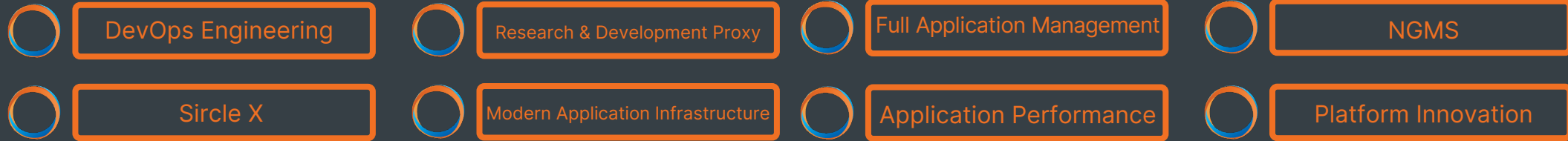
Projects in 2022

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

Figures mentioned are rough estimates



Experts Involved

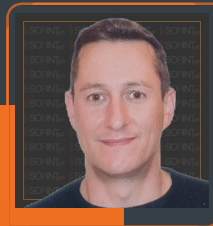


Senior masterminds

Luigi Leoni

Head of DevOps - Software Architect

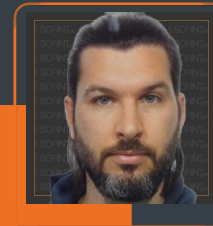
+18 years of experience in software development. +9 years of experience in DevOps practices. DevOps evangelist and Opensource passionate



Mateus Pavei

DevOps Architect Engineer

+8 years of experience in DevOps practices and CI/CD solution delivery



Alessio Carmazzi

Senior Solution - Architect Consultant

+10 years of experience in enterprise IT infrastructure and application architecture



Some prestigious certifications



Closer Look

Areas and field of focus



Coaching and Training

In terms of culture, methodologies and processes.

Tools

Support in the selection, implementation or optimization of different tools.

Enhancement

Analysing the existing implemented pipeline(s), and delivery enhancement-related reports and solutions.

New Implementations

New implementations
From testing to, architectural and methodologies.

Performance and Monitoring

Introduce performance management applications

All Journey

The whole process

Some common tools



VCS



Project management



CI/CD



Key management



Artifact management



Provisioning



Application definition



Platforms



Success stories



Delivered by: Sorintians



Confidential

A Well-known Corporate and Investment Bank Initiate a DevOps Practice

Challenge

Used by core banking offices.

Client's requirement included:

- Adapt a DevOps practice.
- Accelerate software development & delivery.
- Guarantee a robust software.

Going forward

Intensive requirement gather sessions, software assessment and product selection.

Accepting the challenge - Solution and Implementation

Proposed a tailor-made CI/CD solution. That included:

In a proposal form, an architected CI/CD solution from scratch.

- Customized SWLC with heavy automation tools. Automate new project onboarding, QA onboarding, fully code QA and simplify deployment on OKD/VMs.
- Openshift Origin as container platform.
- Centralized login process on EFK with customized "Fluentd" configuration as a new logging system.
- Pipeline to supported (Java, Python, TS, C/C++)

Result & delivery

- Delivered in several phases. Main phase in 3-4 month.
- +544 projects managed by centralized & extensible CI/CD pipelines.
- Introduction to GitOps principles.
 - Versioning deployment code.
 - Code review for deployment changes.
- Supported the development team to integrate legacy/new software in CI/CD solution.
- Started managing SWLC and QA. (Assigned at later stages)
- Introduced an automated QA badge (by third party)

Success stories



Delivered by: Sorintians



Confidential

Well know Italian Retail - Store Chain Enhance the CI/CD Practice

Challenge

Issues in DevOps practices.

Client's requirement included:

- Fix legacy CI/CD pipeline.
- Overhaul and refactor CI/CD processes.
- Implement a maintainable workflow. In terms of tech and culture.

Going forward

Intensive requirement gather sessions, software assessment and product selection.

Accepting the challenge - Solution and Implementation

In a proposal form. A re-architected CI/CD solution. That included:

- Introduce several new software and use already effectively installed.
- Introduce GitOps principles:
 - Separate build code from deployment code.
 - Replace imperative pipeline with declarative one.
 - Versioning deployment code.
 - Code review for deployment changes.
- Influence client's team and create a dynamic workflow.

Result & delivery

- Delivered in several phases. Main phase in 1-2 month.
- Solution was executed 100% effectively.
- Implemented generic Jenkins CI pipeline to build and publish application containers.
- Declarative management of Jenkins Jobs (both CI and CD).
- Drastic changes in culture approach. Lead to a positive workflow.
- Documentation, required alignments.
- Took the learnings and closed the challenge.

Success stories



Delivered by: Sorintians



Confidential

Research and Intelligence Services Migration and major changes in the CI/CD tools

Challenge

Client's requirement included:

- Migrate from Docker Swarm to K8S.
- Substitute BitBucket/Bamboo to OpenSource alternatives.
- Implement CI/CD with new infrastructure (different VCS and target system).

Going forward

Understanding the environment through round tables.

Accepting the challenge - Solution and Implementation

In a proposal form. An executable timeline for:

- Software selection (Rancher as cluster management tool, GitLab as VCS, Tekton as CI/CD tool).
- Installation and configuration of Rancher and K8s clusters.
- Migrate VCS tool (from BitBucket to Gitlab).
- Introducing GitOps principles.

Result & delivery

- Delivered in several phases. Main phase in 1-2 month.
- Solution was executed 100% effectively.
- Implemented generic tasks (build, push to registry, deploy to k8s...etc) in Tekton..
- Implemented Tekton pipeline for the CI/CD.
- Integrate GitLab and Tekton using Tekton triggers.
- Documentation, required alignments.
- Took the learnings and closed the challenge.

[Floatingpoint.sorint.com](https://floatingpoint.sorint.com)

Bonus Slide

Related Solutions and Tools by Sorintians



Agola – CI/CD Redefined

Open-source software product

☆ Star 1.3k

Agola is a 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



SSL – Shift Security Left

Technology Consulting Service

SSL promotes security as a common responsibility shared by all teams involved in software development. The service follows DevSecOps as a methodology.

[inquire](#)



Going Forward

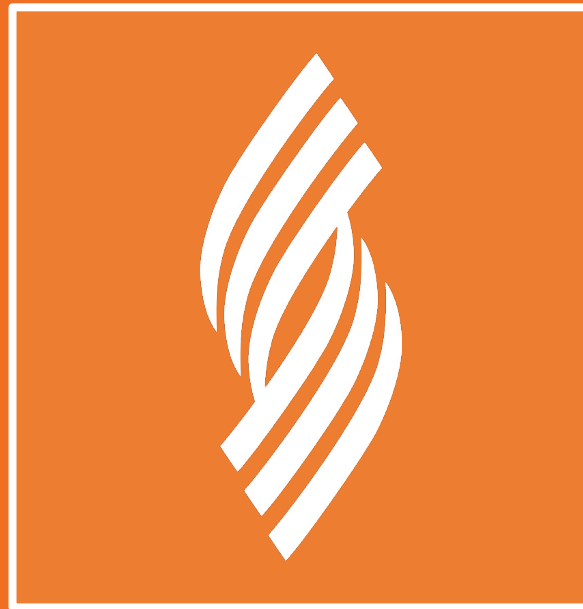
How we can move forward from here

One hour
workshop

Read more on
/sorintlab



Alternative
approach



BUILDING GREAT
TECHNOLOGY



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