Site Reliability Engineering (SRE) Practitioner (SREP)

ID SREP **Prix** CHF 1 810,– (Hors Taxe) **Durée** 3 jours

A qui s'adresse cette formation

The target audience for the SRE Practitioner course are professionals including:

- Anyone focused on large-scale service scalability and reliability
- Anyone interested in modern IT leadership and organizational change approaches
- Business Managers
- Business Stakeholders
- Change Agents
- Consultants
- DevOps Practitioners
- IT Directors
- IT Managers
- IT Team Leaders
- Product Owners
- Scrum Masters
- Software Engineers
- Site Reliability Engineers
- System Integrators
- Tool Providers

Pré-requis

It is highly recommended that learners attend the SRE Foundation course with an accredited DevOps Institute Education Partner prior to attending the SRE Practitioner course. An understanding and knowledge of common SRE terminology, concepts, principles and related work experience are recommended. Please note: the DevOps Institute Site Reliability Engineering (SRE) Foundation (SREF) certification is a prerequisite to the SRE Practitioner exam.

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Course Introduction

Module 1: SRE Anti-patterns

- Rebranding Ops or DevOps or Dev as SRE
- Users notice an issue before you do
- Measuring until my Edge
- False positives are worse than no alerts
- Configuration management trap for snowflakes
- The Dogpile: Mob incident response
- Point fixing
- Production Readiness Gatekeeper
- Fail-Safe really?

Module 2: SLO is a Proxy for Customer Happiness

- Define SLIs that meaningfully measure the reliability of a service from a user's perspective
- Defining System boundaries in a distributed ecosystem for defining correct SLIs
- Use error budgets to help your team have better discussions and make better data-driven decisions
- Overall, Reliability is only as good as the weakest link on your service graph
- Error thresholds when 3rd party services are used

Module 3: Building Secure and Reliable Systems

- SRE and their role in Building Secure and Reliable systems
- Design for Changing Architecture
- Fault tolerant Design
- Design for Security
- Design for Resiliency
- Design for Scalability
- Design for Performance
- Design for Reliability
- Ensuring Data Security and Privacy

Module 4: Full-Stack Observability

- Modern Apps are Complex & Unpredictable
- Slow is the new down
- Pillars of Observability
- Implementing Synthetic and End user monitoring
- Observability driven development
- Distributed Tracing
- What happens to Monitoring?
- Instrumenting using Libraries an Agents

Module 5: Platform Engineering and AIOPs

- Taking a Platform Centric View solves Organisational scalability challenges such as fragmentation, inconsistency and unpredictability.
- How do you use AIOps to improve Resiliency

- How can DataOps help you in the journey
- A simple recipe to implement AIOps
- Indicative measurement of AIOps

Module 6: SRE & Incident Response Management

- SRE Key Responsibilities towards incident response
- DevOps & SRE and ITIL
- OODA and SRE Incident Response
- Closed Loop Remediation and the Advantages
- Swarming – Food for Thought
- AI/ML for better incident management

Module 7: Chaos Engineering

- Navigating Complexity
- Chaos Engineering Defined
- Quick Facts about Chaos Engineering
- Chaos Monkey Origin Story
- Who is adopting Chaos Engineering
- Myths of Chaos
- Chaos Engineering Experiments
- GameDay Exercises
- Security Chaos Engineering
- Chaos Engineering Resources

Module 8: SRE is the Purest form of DevOps

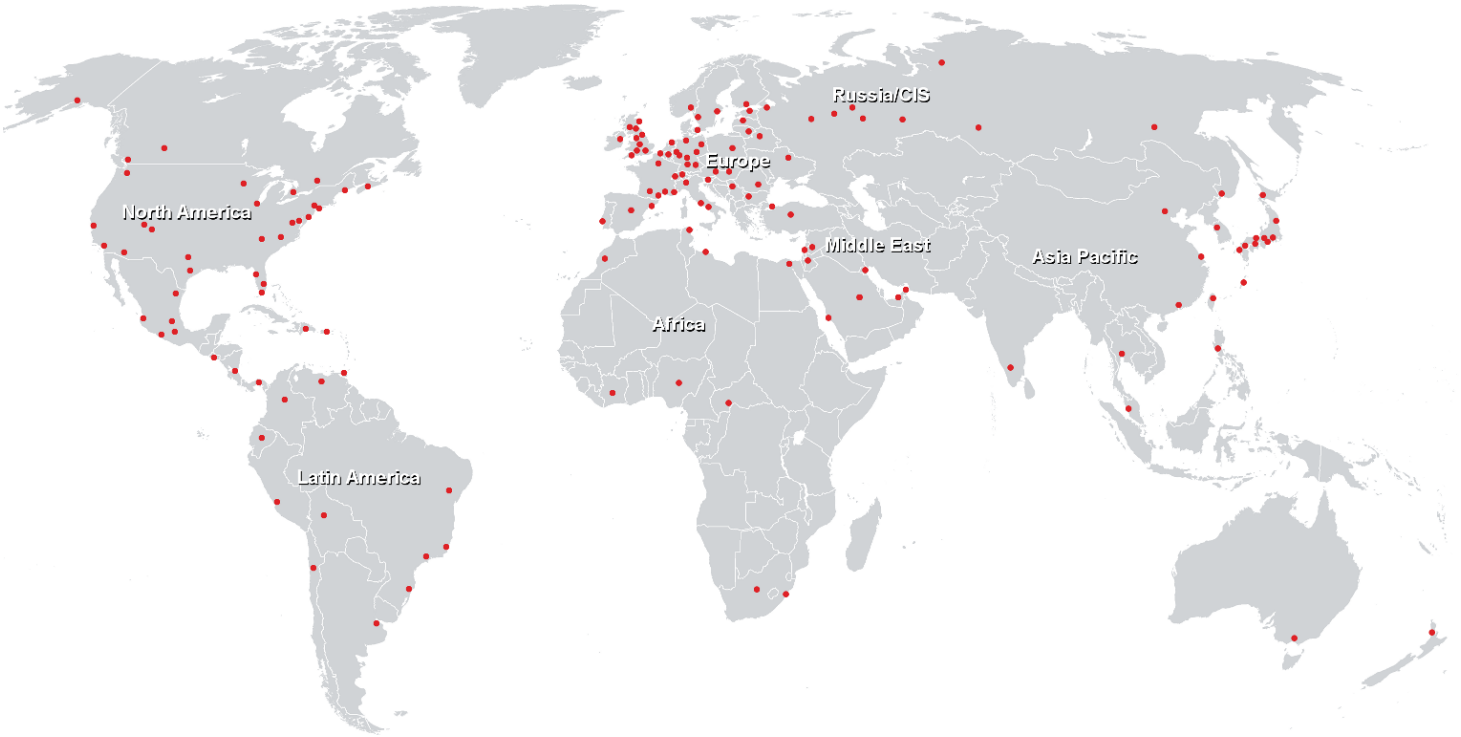
- Key Principles of SRE
- SREs help increase Reliability across the product spectrum
- Metrics for Success
- Selection of Target areas
- SRE Execution Model
- Culture and Behavioral Skills are key
- SRE Case study

Post-class assignments/exercises

- Non-abstract Large Scale Design (after Day 1)
- Observability and Monitoring (after Day 2)
- Chaos Engineering Instrumentation

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Centres de formation dans le monde entier





Fast Lane Institute for Knowledge Transfer (Switzerland) AG

Husacherstrasse 3
CH-8304 Wallisellen
Tel. +41 44 832 50 80

info@flane.ch, https://www.flane.ch