



## DevOps Training Series: Site Reliability Engineering (SRE) Foundation<sup>SM</sup>

This course introduce the principles and practices that enable an organization to reliably and economically scale critical services.

Introducing a site-reliability dimension requires organizational re-alignment, a new focus on engineering and automation, and the adoption of a range of new working paradigms.

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| Programme code    | 10013292   |
| Duration and time | 2 days<br>9:30-17:30   |
| Venue             | 1/F, HKPC Building,<br>78 Tat Chee Avenue, Kowloon Tong  |
| Medium            | Cantonese, supplemented with<br>English terminology  |
| Course fee        | HK\$7,800<br>(May apply up to HK\$5,200* subsidy)  |
| Prerequisite      | An understanding and knowledge of<br>common DevOps terminology and<br>concepts and related work experience<br>are recommended. |

### Course Description

Highlighting the evolution of SRE and its future direction, this course will equip participants with the practices, methods, and tools to engage people across the organization involved in reliability and stability evidenced through the use of real-life scenarios and case stories. Upon completion of the course, participants will have tangible takeaways to leverage when back in the office such as understanding, setting and tracking Service Level Objectives (SLO's).

Developed by leveraging key SRE sources, engaging with thought-leaders in the SRE space and working with organizations embracing SRE to extract real-life best practices and to teach the key principles and practices necessary for starting SRE adoption. This course positions participants to successfully complete the SRE Foundation certification exam.

#### RTTP Training Grant Application

Companies should submit their RTTP training grant application for their employee(s) via <https://rttp.vtc.edu.hk/rttp/login> at least two weeks before course commencement. Alternatively, [application form](#) could be submitted by email to [rttp@vtc.edu.hk](mailto:rttp@vtc.edu.hk) along with supporting documents.

## Course Objectives

The learning objectives include a practical understanding of:

- ✓ The history of SRE and its emergence at Google
- ✓ The inter-relationship of SRE with DevOps and other popular frameworks
- ✓ The underlying principles behind SRE
- ✓ Service Level Objectives (SLO's) and their user focus
- ✓ Service Level Indicators (SLI's) and the modern monitoring landscape
- ✓ Error budgets and the associated error budget policies
- ✓ Toil and its effect on an organization's productivity
- ✓ Some practical steps that can help to eliminate toil
- ✓ Observability as something to indicate the health of a service
- ✓ SRE tools, automation techniques and the importance of security
- ✓ Anti-fragility, our approach to failure and failure testing
- ✓ The organizational impact that introducing SRE brings

## Course Outline

### Introduction

- Course Goals & Agenda

### Module 1: SRE Principles & Practices

- What is Site Reliability Engineering?
- SRE & DevOps: What is the Difference?
- SRE Principles & Practices

### Module 2: Service Level Objectives & Error Budgets

- Service Level Objectives (SLO's)
- Error Budgets
- Error Budget Policies

### Module 3: Reducing Toil

- What is Toil?
- Why is Toil Bad?
- Doing Something About Toil

### Module 4: Monitoring & Service Level Indicators

- Service Level Indicators (SLI's)
- Monitoring
- Observability

### Module 5: SRE Tools & Automation

- Automation Defined
- Automation Focus
- Hierarchy of Automation Types
- Secure Automation
- Automation Tools

### Module 6: Anti-Fragility & Learning from Failure

- Why Learn from Failure
- Benefits of Anti-Fragility
- Shifting the Organizational Balance

### Module 7: Organizational Impact of SRE

- Why Organizations Embrace SRE
- Patterns for SRE Adoption
- On-Call Necessities
- Blameless Post-Mortems
- SRE & Scale
- Shifting the Organizational Balance

### Module 8: SRE, Other Frameworks, The Future

- SRE & Other Frameworks
- The Future

### Additional Sources of Information

### Exam Preparations

- Exam Requirements, Question Weighting, and Terminology List
- Sample Exam Review

## Certification Exam

Successfully passing (65%) the 60-minute examination, consisting of 40 multiple-choice questions, leads to the SRE (Site Reliability Engineering) Foundation certificate. The certification is governed and maintained by the DevOps Institute.

## Target Audience

- Anyone starting or leading a move towards increased reliability
- Anyone interested in modern IT leadership and organizational change approaches
- The target for IT professionals including:

- 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

## Trainer Information

**Paulino KOK** has over 30 years experience in the technology field holding various positions from application development, infrastructure technology, portfolio, program & project management, service management, security & risk management, leadership coaching, innovation design thinking facilitation, employment engagement & HR people operations, and agile & digital transformation. He has worked for financial, manufacturing and retail industries of multi-national companies, of which two are components of the Dow Jones Industrial Index and Fortune 100 Best Companies.

**Paulino is an accredited Trainer of DevOps Institute.**

## Special to HKCS members

- ❖ May enjoy up to HK\$300 Bookstore Coupon. **Promo Code: CS11HK2020**
- ❖ Can apply for the **certification of CPD hours**, this course hours will be counted.  
Please visit: <http://www.hkcs.org.hk/continuous-professional-development-cpd/> for your information about CPD Hours.

## Enrolment Methods

1. Scan the QR code to complete the enrolment and payment online OR
2. Mail the crossed cheque with payee name "Hong Kong Productivity Council" (in HK dollar) to HKPC Academy, Hong Kong Productivity Council, 3/F, HKPC Building, 78 Tat Chee Avenue, Kowloon (attention to Mr Desmond CHAN).  
Please indicate the course name and course code on the envelope.



[Enrolment Link](#)

Supporting Organisations (In arbitrary order)

