

**Delivery Method:** Instructor-led private on-site classroom

**Course Duration:** Two days of training

**Target Audience:** This course is designed for architects, developers, engineers, and system administrators responsible for optimizing and tuning their Solace Messaging and applications for performance

#### **Prerequisites:**

- Completion of the Introduction to Solace Administration 101 course is required
- Understanding of the Solace Enterprise APIs
- Understanding of TCP/IP networking concepts

**Pricing:** Please contact us at services@solace.com

**More Information:** To learn more, contact your account executive or email **services@solace.com.** 

# INTRODUCTION TO SOLACE PERFORMANCE TUNING

## **Course Overview**

Performance is always a concern for certain class of Solace applications that require low latency, high throughput or both. Ensuring peak performance is not a simple checklist of parameters or features. The Solace Performance Tuning Course is a two-day deep dive into all the things to consider when optimizing applications leveraging Solace Messaging. The course covers everything from the host and operating system tuning, network tuning options, Solace Messaging (PubSub+ Appliance and PuSub+) configurations, and API options & design. The course considers deployment in the LAN, over the WAN and within the cloud.

## **Course Objectives**

Upon completion of this course, participants will be able to do the following:

- Understand all the tunable options for Solace Messaging, what they are for, and how to adjust them for peak performance based on the operating environment
- Understand host and CPU tuning for application & API performance
- Understand network tuning and troubleshooting related to Solace Messaging
- Optimize applications for non-persistent & persistent messaging, for operating in a Cloud environment, and optimize for scaling
- Monitor Solace Messaging & applications for performance

## **COURSE MODULES**

#### Introduction

Performance Concepts

## Performance Tuning Fundamentals

## **Host Tuning**

- Host-side Tuning
- Effects of CPU on Performance
- Host Tuning for Best Performance
- Inter-Process
  Communication (IPC)

#### **Network Performance**

- Effects of Network on Performance
- Network Related Tuning
- Solace Network Tunable Options

#### **Direct Messaging**

- Performance Considerations for Direct Messaging
- Message Shaping and Performance Options
- Serialization and Marshalling

#### **Guaranteed Messaging**

- Understanding Guaranteed Deliver Protocol
- Guaranteed Delivery Client & API Tuning
- Understanding Performance Issues: HA & DR

#### **Cloud & Virtualization**

- Solace PubSub+ & Cloud Virtualization Overview
- PubSub+ & Cloud

#### Performance

 PubSub+ & Architectural Issues to Consider for Performance

## **Messaging API Performance**

- Java-based API Performance
- C-based API Performance
- HTTP-based API Performance

## Caching

- SolCache Overview
- SolCache Instance Performance
- SolCache Distributed Cache Performance

## **Maintaining Performance**

- Monitoring for Performance
- Statistics & Capacity Planning





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