

The Solace logo is a large, teal-colored wordmark oriented vertically on the left side of the page. The background of the page features a grayscale photograph of a person in a white lab coat looking at a computer monitor in a classroom or training environment.

## INTRODUCTION TO SOLACE APP DEVELOPMENT & ADMINISTRATION

### Course Overview

This intensive, four-day, instructor-led on-site classroom course provides a hands-on introduction into operational management of Solace products, and how to configure & administer various features for applications which leverage Solace Messaging. In this course, you will also learn how to develop applications using one of Solace Enterprise Messaging APIs.

### Course Objectives

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

- Understand at a high level the various features and capabilities provided by the Solace product line, and how to administer them
- Configure Solace Message Routers for role-based administration
- Setup, secure, and monitor messaging environments for applications
- Configure guaranteed delivery, and implement exchange patterns for applications that are not tolerant to data loss
- Troubleshoot and monitor health of Solace products
- Understand how to deploy Solace Messaging for High Availability, and Disaster Recover
- Develop applications using Solace Enterprise Messaging APIs
- Implement various messaging patterns using the Solace APIs

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

**Course Duration:** Four days of training

**Target Audience:** This course is designed for developers, engineers, system administrators, and operations staff responsible for configuring, managing, and monitoring Solace Messaging, along with understanding the basics of application development using Solace Enterprise APIs.

#### Prerequisites:

- Basic understanding of application development using either Java, C, or .NET
- Basic understanding of TCP/IP networking concepts
- Prior knowledge of Enterprise Integrations using messaging is helpful but not required

**Pricing:** Please contact us at [services@solace.com](mailto:services@solace.com)

**More Information:** To learn more, contact your account executive or email [services@solace.com](mailto:services@solace.com).

# COURSE MODULES

## Introduction

### The Motivation for Solace

- Introduction to Messaging Concepts
- Introduction to Solace product line

### Administration Fundamentals

- Solace Administration Basics
- Exercise: SolAdmin & CLI basics
- Role-based Administration
- Solace Virtualization Overview
- Exercise: Create Message-VPNs

## Solace Messaging Fundamentals

### Direct Messaging

- Topics Structures and Hierarchies
- Non-Persistent Messaging Overview
- Load Balancing Consumption (DTO)
- Consumption Performance (Eliding)
- Exercise: Implement & validate Publish-Subscribe pattern

### Authentication & Authorization

- Client Application Authentication Overview
- Authorization Rules & Profile

- Exercise: Configuring client-usernames, Client-Profiles, ACL profiles & Publish-subscribe Message Exchange Pattern

### Persistent Messaging

- Solace's Introduction to Guaranteed Messaging
- Guaranteed Messaging Patterns
- Guaranteed Messaging Management
- Exercise: Implement & validate messaging patterns using Queues

## Operational Management Monitoring & Troubleshooting

- Monitoring Overview
- Managing Logs with Syslog Integrations
- Monitoring using SEMP
- Exercise: Automating provisioning tasks using SEMPv2
- Exercise: Troubleshooting common application & messaging problems

### Managing Solace

- System Backups
- Configuration Backup
- Exercise: Backing up Message-VPN configurations
- System Upgrades

### Robustness & Fault Tolerance

- High Availability
- Exercise/Demo: Performing controlled HA failover
- Disaster Recovery and Data Replication

### Federation

- Bridging Solace Messaging
- Exercise: Setup VPN Bridges
- Multi-Node Routing
- Exercise: Setup a Solace Messaging network using MNR

### Developing Messaging Applications

- Introduction to Solace Messaging APIs
- Initializing & Connecting
- Sending & Receiving Messages
- Message Types
- Structuring Data
- API Logging & Diagnostics
- Best Practices
- Exercises: Various coding exercises using Solace Samples on Github

### Optional

- Caching with Solace (SolCache)
- Monitoring with ITRS Geneos (SolGeneos)
- Solace Messaging using REST

