# Oracle Solaris 11 Dynamic Tracing (DTrace) Ed 2

Duration: 3 Days

## What you will learn

This Oracle Solaris 11 Dynamic Tracing training is designed for advanced system administrators, application or kernel developers, and software support personal that can use DTrace to diagnose applications and system problems. The course introduces students to the DTrace technology along with the various system observability tools, such as sar, vmstat, mpstat, iostat, netstat, prstat, kstat, and procfs to identify issues. In addition, the course also covers creating custom D scripts, best practices of using DTrace, and a few case studies around using DTrace to solve issues.

Learn To:

Describe Dynamic Tracing. Create DTrace Scripts to Collect System Information. Trace User Applications with DTrace. Perform Anonymous and Speculative Tracing in DTrace. Apply Best Practices for Using DTrace.

## Benefits To You

The Oracle Solaris 11 Dynamic Tracing course provides you with the ability to use DTrace to diagnose application and system problems. You first learn about the basic topics, such as DTrace features and architecture, and then move to advanced topics, such as creating DTrace scripts to collect system information, tracing user applications, performing anonymous and speculative tracing, and applying best practices for using DTrace scripts.

#### Audience

Application Developers Support Engineer System Administrator Systems Architects

## **Related Training**

Required Prerequisites Describe general concepts of operating systems

Manage system processes

Read and write scripts

Administer the Oracle Solaris 11 Operating System

Oracle Solaris 11 System Administration Ed 5

Oracle Solaris 11 Advanced System Administration Ed 5

Transition to Oracle Solaris 11 Ed 4

Suggested Prerequisites Oracle Solaris 11 Network Administration Ed 3

Course Objectives Describe Dynamic Tracing

Create DTrace Scripts to Collect System Information

Trace User Applications With DTrace

Apply Anonymous and Speculative Tracing in DTrace

Apply Best Practices for Using DTrace

**Course Topics** 

## **Course Overview**

Course Goal Skills Gained Course Agenda Introductions Your Learning Center

## Introduction to Dynamic Tracing

Overview of the DTrace Technology Describe the DTrace Architecture Examine a DTrace Command Describe the D Programming Language

## **Creating DTrace Scripts to Collect System Information**

List and Use Utilities for Monitoring System Performance Obtain System Call Information Observe System Memory Activities Track System wide Events Related to CPU View Disk I/O Statistics Observe Network I/O Statistics Create Custom System Monitoring Tools

## **Tracing User Applications With DTrace**

Use the pid Provider to Set Probes in User Code and Libraries

Use DTrace to Profile an Application Use DTrace to Access Application Variables

# Anonymous and Speculative Tracing in DTrace

Discuss and Use Anonymous Tracing Facility Discuss and Use Speculative Tracing Facility

# Applying Best Practices for Using DTrace

Minimize DTrace Performance Impact Tune DTrace Buffers Write Error-Free DTrace Scripts Identify the Privileges Necessary to Run DTrace Operations