Oracle Solaris 11 Performance Management NEW

Duration: 5 Days

What you will learn

This Oracle Solaris 11 Performance Management course introduces you to performance tuning principles. Learn to monitor utilities and use tuning tools for the Oracle Solaris 11 Operating System.

Learn To:

Use the Oracle Solaris 11 OS and third-party tools to analyze performance.
View and set tunable parameters for the global or a non-global zone.
Monitor and report on process and thread activity.
Modify CPU scheduling and virtual memory operations.
Describe system caches and system buses.
Tune I/O, the ZFS File System and network subsystems.
Evaluate system workloads.
Assess system performance.
Determine the cause of system performance issues.
Configure system resource for best performance.
Optimize software running on UltraSPARC CMT technology.
Tune the Solaris 11 OS.

Monitor System Efficiency

You'll also review Solaris subsystems and utilities to monitor system efficiency, including: kstat, sar, vmstat, iostat, netstat, mpstat, nfsstat, ps, prstat, pmap, the proc tools, truss, dtrace, the DTrace Toolkit, cpustat, cputrack, swap, lockstat and mdb.

Optimize Performance

This course also includes a section about optimizing system resources and tuning Solaris virtualization. You'll also review content related to key Cloud performance technologies, like Solaris Integated Load Balancer and data flows control.

Hands-On Practice

The Oracle Solaris 11 Performance Management course includes robust hands-on practices. These labs will help you apply best practices and techniques to reinforce critical thinking and skills.

Audience

Data Center Manager

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Support Engineer
System Administrator

Related Training

Required Prerequisites

Configure and administer Oracle Solaris 11 networking

Create and manage Oracle Solaris 11 storage

Employ advanced systems administration skills in a networked Oracle Solaris 11 OS server environment

Oracle Solaris 11 Advanced System Administration

Suggested Prerequisites
Oracle Solaris 11 ZFS Administration NEW

Oracle Solaris 11 Zones Administration NEW

Course Objectives

Identify ways to measure or load subsystems

Configure resource management with zones and pools

Use system monitoring tools including DTrace

Determine the cause of system performance issues

Use system configuration tool

Course Topics

Introducing Performance Management
Introduction to Performance Management
Performance Analysis Concepts
Monitoring tools in Oracle Solaris 11
System Configuration Assessment

kstat Monitoring Tools
The kstat Monitoring Tools

procfs Monitoring Tools
Introduction to procfs-based tools

DTrace
Introduction to DTrace
DTrace Architecture

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DTrace Toolkit
DTrace Virtualization Tool

Other Significant Tools
The swap Utility
The cpustat Utility
The mdb Utility
The Solaris Studio dbx Utility

Processes and Threads
Operating System Theory
Process Concepts
Threads and Locking
Process-Related Tunable Parameters
CPU Scheduling Classes
Managing Scheduling Classes

System Caches and Buses
Cache Concepts
CMT architecture
System Buses
Assessing System Buses

System Memory
System Memory Concepts
Virtual Memory 2
Monitoring Memory utilization

ZFS File System
The ZFS File System
Tuning the ZFS file system

Network Performance Management
Network Performance Concepts
Oracle Solaris 11 Networking
Configuring networks for best performance
Network Resource management
TCP
Network Monitoring

Resource Management
Resource Management
Projects and Tasks
Resource Controls
Resource Pools
Resource Capping

Oracle Solaris Virtualization Performance Management
Oracle Solaris Zones
Oracle Solaris Zones Resource Management
Network Virtualization
Oracle VM Server for SPARC

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Applying the Performance Analysis Approach

Performance Testing and Benchmarks

Performance Testing Tools

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