

## **AIX Performance Tuning Course Summary**

### **Description**

This course combines lectures and hands-on exercises that teach the skills necessary to understand, analyze and tune AIX Version 6.1 performance.

### **Objectives**

At the end of this course, students will be able to:

- Understand how AIX6 uses CPU, real memory, I/O and network
- Analyze AIX performance issues
- Tune AIX kernel parameters to optimize performance

### **Topics**

- Performance tuning commands
- Understanding and tuning CPU usage
- Real memory usage and paging
- Physical, Logical and File System I/O
- Network Performance

### **Audience**

This course is designed for experienced AIX V5 system administrators who will manage performance tuning issues for IBM's AIX 6.1 operating system.

### **Prerequisites**

Students should have strong background working with the AIX V5 operating system, including a good understanding of process management, memory monitoring, LVM configuration and network management.

### **Duration**

Two and one half days

## **AIX Performance Tuning**

### **Course Outline**

- I. Performance Tuning Commands**
  - A. The Importance of Baselines
  - B. Gathering data
  - C. AIX6 Tuning Commands
  - D. /etc/tunables files
  
- II. CPU Performance**
  - A. The Process Life Cycle
  - B. Priority Calculation and Run Queues
  - C. Mode and Context Switching
  - D. The Importance of Cache
  - E. SMT
  - F. Monitoring CPU Usage
  
- III. Real Memory and Paging**
  - A. The Memory Access Stack
  - B. How Virtual Memory Works
  - C. VMM Terminology
  - D. The Page Stealer
  - E. Tuning Page Replacement
  - F. Monitoring Memory Usage
  - G. Page Space Policies
  
- IV. Physical and Logical I/O**
  - A. LVM Issues and Tuning
  - B. Physical Disk I/O
  - C. Monitoring Disk and LV I/O
  - D. File System Performance Issues
  - E. Monitoring File Systems
  - F. File System Tuning
  
- V. Network Performance**
  - A. The TCP/IP Stack
  - B. Network Memory Usage
  - C. Network Protocols
  - D. Tuning the Stack
  - E. Monitoring Network Performance