Advanced Tools for AIX Performance Analysis

Duration: 4 Days Course Code: AN52G

Overview:

Develop the skills to use kernel traces, trace based utilities, and svmon to measure and analyze CPU, memory, and I/O performance issues on IBM systems running AIX. Reinforce each lecture during extensive hands-on lab exercises and get practical experience applicable to their performance management requirements.
This course provides lectures and hands on labs in a face-to-face classroom setting. The course is also offered in a live virtual classroom environment (ILO - Instructor Led Online) with hands-on labs Advanced Tools for AIX Performance Analysis (ILO) (AX520).

Target Audience:

The audience for this advanced training include AIX technical support personnel, performance benchmark personnel, and AIX system administrators.

Objectives:

- Use the trace facility to collect data and create a trace report
- Use the kernel trace facilities to analyze CPU performance issues
- Describe causes and impacts of high context switching rates
- Identify what causes a thread to block and what causes a later wake up
- Explain the relationship between the output of svmon -G, svmon -P, and svmon -S
- Calculate the amount of memory in use on the system
- Explain the relationship between svmon, vmstat, and ipcs output
- Categorize the memory in use on the system by segment type
- Identify which processes are using the most memory
- Identify which segments are using the most paging space
- Describe the characteristics of asynchronous I/O, synchronous I/O, direct I/O and concurrent I/O
- Identify if the expected type of I/O is being executed
- Tune asynchronous I/O

Prerequisites:

You are expected to have extensive AIX skills. These skills can be obtained by attending the following courses:

- Power Systems for AIX IV: Performance Management (AN510)
- Power Systems for AIX IV: Performance Management (ILO) (AX510)

Content:

Day 1

- (00:30) Welcome
- (01:00) Unit 1 - Trace Facilities
- (01:00) Exercise 1 - Trace Facilities
- (02:30) Unit 2 - Advanced Memory Topics - I
- (00:20) Exercise 2 - Advanced Memory Topics - I

Day 2

- (02:30) Unit 3 - Advanced Memory Topics - II
- (00:40) Exercise 3 - Advanced Memory Topics - II
- (02:00) Unit 4 - Advanced CPU Topics - I
- (00:30) Exercise 4 - Advanced CPU Topics - I
- (00:25) (optional) Exercise 4 - Advanced CPU Topics - I (Part 2)

Day 3

- (02:00) Unit 5 - Advanced CPU Topics - II
- (00:30) Exercise 5 - Advanced CPU Topics - II
- (02:00) Unit 6 - Advanced I/O Topics - I
- (00:45) Exercise 6 - Advanced I/O Topics - I - Part 1
- (00:30) (optional) Exercise 5 - Advanced CPU Topics - II (Parts 2 ; 3)

Day 4

- (00:35) Exercise 6 - Advanced I/O Topics - I - Part 2
- (02:00) Unit 7 - Advanced I/O Topics - II
- (01:45) Exercise 7 - Advanced I/O Topics - II
- (00:20) (optional) Exercise 7 - Advanced I/O Topics - II - (Part 3)

Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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