KernelSphere Technologies

IBM AIX 7.1

By
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Certified Adv Technical Expert (AIX)

IBM AIX 4.3/5.1/5.2/5.3/6.1/HACMP/Virtualization/Open Disk/Certified

KERNELSPHERE TECHNOLOGIES

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About Faculty:

- ➢ Overall 14 yrs of exp in IT industry
- ➢ Exp in various Flavors of UNIX like SOLARIS, HP-UNIX & AIX
- ➢ Worked on SOLARIS & HP-UNIX from 1998 to 2001
- ➢ Technical service professional for AIX in IBM Banglore
- ➢ 2001-05, supported IBM Global customer
- ➢ 2005-07, in CSC Hyd as Principal Consultant AIX, Supported Dupont, Nissan, BBT etc.
- ➢ 2007-09, Consultant in US for AIX/Storage for Global Clients like Chrysler, Toyota
- ➢ As a lecturer Unix Admin in university of south carolira school of engineering US 2008
- ➢ 2009-10, CSC Hyd, Principal Consultant AIX/Storage
- ➢ Currently as IT-Architect virtualization/AIX/Storage in one of Top MNC Since Jan 2011
- ➢ Design & Configured AIX Solution in many pharma Companies in Hyd
- ➢ He is certified Adv. Technical expert CATE in Aix
- ➢ IBM AIX 4.3/5.1/5.2/5.3/6.1 Certified
- ➢ IBM HACMP 5.1/6.1 certified
- ➢ IBM enterprise technical support for AIX
- ➢ IBM certified virtualization technical support for AIX & LINUX
- ➢ IBM certified high end disk for open system
- ➢ Sun Solaris certified in 2001 & HP-UNIX certified in 2003
- ➢ EMC/NetApp/CCNA/Oracle Certified
- ➢ We are supporting various customer in Hyd for AIX under his guidance

About Kernel: Kernel being into Services, Solutions, Consulting and Learning Services in infrastructure technologies, has deep understanding of both technology and business processes and is competent of effectively aligning people, processes, data and technology.

Kernel supports organizations of every kind to reach the next level of service excellence through infrastructure technologies services from global Enterprises to small/medium business corporations; Kernel provides effective technology and consulting services in infrastructure space.

Kernel consists of accomplished IT consultants and management experts, with 700000 man-hours of experience, has competency in architecture, development and administrative solutions and services within infrastructure horizon. Kernel believes in business based on trust, collaboration, candor and mutual respect and assures partners and clients of progressive business growth.

Lab Infrastructure: Our Lab is fully equipped with latest infrastructure with Power 6 and IBM X-series dual Xeon Based servers, EMC clarion, Netapp Unified Storage, Brocade FC switches, Cisco FC switches, Cisco L4 switch, and all the servers are integrated with SAN. All the servers are monitored by Nagios monitoring agent with OTRS ticketing system. All the students will have an individual access to the servers through thin clients remotely. Students will be exposed to the real time scenarios through which they can get good exposure on the subject. To help the student in their practical sessions, there will be lab faculties available all the time.

COURSE CONTENT

Basic by Musab/Sairam – Support various kernel customer in hyd

- File system of UNIX
- Architecture of UNIX
- Creating, removing, copying, moving files & Directories
- Using Files & Directories
- Wildcard characters
- Input /Output – Redirections
- File/Directory Permissions
- Vi-Editor:
- Usage of filter commands

AIX Introduction

- Introduction to AIX
- Introduction P-Series P5, P6 and P7 Hardware features
- AIX 7.1/6.1 vs AIX 5.3
- Evolution of AIX servers and AIX OS
- Using SMIT(System Management Interface Tool)
- Example of smit usages

Devices

- Object Data Manager (ODM)
- Device Terminology
- Device States
- Configuring the devices
- Issues in device in real time-various scenario solving techniques, resolving ODM issues for Device

Logical Volume Manager

- Benefits of LVM
- Logical Volume Manager components
- Physical storage
- Logical storage
- Volume Groups

- Uses of Logical Volumes
- File Systems
- LVM questionnaire includes real time issue related to LVM
- Real Time Disk replacement procedure with scenario
- File system issues discussion in various global accounts space mgmt, scripts in real time to manage file system

Paging Space

- What is paging space?
- Using Paging Space
- Changing Paging Space
- Paging space scenario, issues, consequence of paging space issues, technique to resolve & maintain, Pg Sp on SAN, Pg space video

Security & User Administration

- User accounts
- Groups
- Security logs
- Security Files
- Changing ownership
- Role based access control (RBAC)
- Login sequence
- Regaining root's password
- Real time discussion on admin task and different users like Sapadm, oradba, db2dba, users of various other application issues like cognos, websphere, automobile applications

Configuring SAMBA in Aix for Windows sharing**,** scenario in real time

Scheduling

- Cron, scenario of cron issues, solving root & app user cron issues, cron mgmt
- At

AIX Installation New & complete overwrite, migration installation
Problem Determination

- The errpt command various example, scenario based
- The system error log
- Starting and stopping error logging

- Syslog discussion, usage of syslog to troubleshoot
- Various scenario of syslog
- Various example of using diag
- Diagnostics , what is diag , what is diag cd, its usage in real time

Backup and Restore

- mksysb backup – rootvg on NIM, running mksysb scripts like in real time on nim
- fixing backup scripts failure issues
- Performing mksysb like real time through NFS, Run scripts for mksysb through cron, resolving script issues.
- altvg backup and different Methods for alt disk
- Mirroring rootvg
- SAN Boot from EMC
- Multibos, customers using multibos in INDIA
- Real Time discussions on back ups
- Discussion about Datavg & othervg backup
- Backup through TSM, TSM agent issues, solving backup issues

Networking

- What is TCP/IP
- Configuring TCP/IP
- DNS
- What is DNS
- Why DNS, DNS in Global & DNS in Company
- DNS Client Configuration, DNS Server files
- Configuring Ether channel (NIB and Link Aggregation) Physical switch side configuration, on Cisco 4006 series switch
- Real time networking issues with AIX, technique to resolve n/w issues various tools, Vlan in AIX discussion, Vlan configuration in AIX settings needed in switch.
- Configuring router as gateway between two networks
- Discussion on task related for AIX admin in TCPIP
- How to avoid downtime, things you need to take care in real time

Network File Sharing (NFS)

- Configuring NFS Server though command line & smitty & understanding their roles
- Exporting NFS directories
- Mounting an NFS directory at Client, client side issues, import host & DNS in NFS, issues
- Discussion of real time scenarios, troubleshooting on NFS Using rpcinfo,

nfsstat, nfsthread

- Discussing thread concept, conse vence of reaching max thread for nfs, how to resolve

Software Installation

- Packaging definitions, lpp, package, fileset, apar etc
- Software Installation and Maintenance
- Software different states, scenario to be used
- Life cycle of TL, downloading TL from fix central
- nfs usage in TL upgrade
- Upgrading TL to latest levels like
- TL-11, TL-12
- Known Issues during TL upgrade Pre-requisite for TL upgrade, software broken issues, fixation

Real time tools

- Installing SSH, various of SSH, SSL
- Generating SSH keys, enabling SSH in different hosts for password less login for ROOT, real time issues, how to resolve them
- SCP, SFTP, RSYNC, SUDO, BASH, scenario to used rsync, scp, sftp
- Usage of this tools in real time
- Upgrading SSH, SSL
- Configure send mail in AIX , entries in sendmail.cf issues etc.

Performance Tuning

- Issues with CPU, most known issues, how to deal them
- Issues with Memory, collection of data through tools, like nmon, sar, topas, vmstat memory issues, paging role in issues
- Issues with I/O
- Real time Perf issue discussion, running perfpmr. Sh on AIX

Real Time Monitoring Tools

- Filemon, Netmon, Svmon, Nmon, Nmon Analyser, Netmon, Tcpdump, Lparstat, Mpstat, vmstat, iostat, sar
- How to log call with IBM
- Configuring nmon analyzer to generate, report, usage of LPARirrd tools in real time

- Usage of Ganglia in reports

Printers

- Types of Printer in AIX
- AIX and System V print sub system
- Configuring HP Network printer, various issues in printing, H/W & software issues, printer P1 issues scenario
- Various Troubleshooting methods

Storage usage in AIX

- Discussing EMC Storage in AIX, various other storage like Hitachi, NetApp

Configuring Power path, Integrating of Clarion Luns in AIX*

- Real time issues related with Storage in AIX, how to work with powerpath
- Configuring Netapp SAN through iSCSI using Netapp disk
- How to use vlan & etherchannel in NetApp with cisco switch

Discussions on LPAR

- How to create lpar, min-desire & max setting, how to settings
- How to Reboot lpar, determine correct
- Increasing Memory, CPU, Adapters on Lpars Dynamically- DLPAR

Usage of HMC

- How to activate Lpar through HMC, profile in lpar, modifying profile
- Shutting down Lpar through HMC, collecting dumps,

WPAR

- It's usage in Industry.
- Creating WPAR & using WPAR
- How to create a File System in WPAR, assigning IP add losing to WPAR, client using wpar

Basic of NIM Configuration & installing LPAR

Discussion on real time scenarios around 100 real time tickets, problem mgmt, change management

Configuring Ground Works Monitoring Agent, ITIL Processes

Generate & simulate real time Tickets, solve them, ticketing system, closing tickets, industry best practices.

Resume Preparation for AIX

Placement Assistance.

Pre-Requisite	Unix Basic
Duration	

Course Duration	**IBM AIX 7.1**

Basic UNIX batch starting on	**IBM AIX 7.1** batch starting on

Course Fee:

: **Other Courses We Offer:**

IBM HACMP	LINUX ADMIN 6.4
IBM LPAR & VIO	Linux Cluster
EMC-SAN, NAS	Linux Virtualization
EMC-ISILON	SQL DBA
NETAPP 8.0	ORACLE DBA
TSM, Data Domain, Avamar	ORACLE RAC
HADOOP*	VMWARE 5.5
MCITP	VMware-VDI
VCS-On Aix, Lin, Sun, Win	Citrix-VDI
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