Interfacing CA-OPS/MVS with USS and Enterprise Event Management

Course Summary

Description

This course is designed to help technical staff learn the skills needed to automate and manage applications running in a z/OS UNIX System Services environment, using CA-OPS/MVS and CA Common Services components. At the completion of this course, attendees will understand how to install, implement, program, and debug the OPS/MVS interface to UNIX System Services (USS) and Network and Systems Management (CA NSM). Quizzes and hands-on programming labs are used to reinforce the presented topics.

Topics

At the conclusion of the course, students will understand:

- What UNIX System Services is and why it needs automated.
- Essential skills for navigating the UNIX side of MVS.
- CA Common Services overview.
- How to install and configure the required and optional components of CA Common Services
- How to install the OPS/MVS UNIX System Services interface components.
- How to code and test OPS/MVS USS rules
- How to manage z/OS UNIX resources with OPS/MVS StateMan.
- How to code REXX execs that use the ADDRESS USS environment.
- How to deploy two-way communications with other NSM servers for Enterprise-wide systems management.
- Case study: Interfacing OPS/MVS with the IBM MVS HTTPD Web Server.

Audience

This course is intended for automation analysts and system programmers who are responsible for designing, building, and monitoring systems managed by CA-OPS/MVS.

Prerequisites

Attendees should be familiar with MVS in general, OPS/MVS, the OPS/REXX programming language, and UNIX System Services. ProTech courses MVS Skill Pack, Multi-platform REXX Programming, Understanding and Using CA-OPS/MVS, and z/OS UNIX System Services Introduction provide this background knowledge.

Duration

Three days

Note: Optionally, the instructor can be retained for additional day(s) to provide on-site installation and programming expertise.

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Course Outline

1. CA Common Services Overview

A. Enterprise Systems Management
B. Point Products vs Framework Based
C. What to Monitor & Manage
D. Basic SNMP Concepts
E. Enterprise Management Solutions
F. NSM Family Tree
G. NSM Architecture
H. Auto Discovery
I. Real World Interface
J. Business Process Views
K. Event Management
L. NSM Event Manager
M. Enterprise Management Client
N. Distributed State Machine (DSM)
O. NSM Platform Coverage
P. What Is CA Network and Systems Management for z/OS?
Q. Other Relevant Products
R. CA NSM SSM OPS/MVS Option

2. Event Manager

A. The NSM Event Console
B. Starting the Windows Event Console
C. The Event Console Display
D. The Event Console Legend
E. Replying to an Event
F. Event Console Message Details
G. Event Console Message Annotation
H. Event Console Command Line
I. MVS NSM Event Console

3. Network Management

A. Basic SNMP Concepts
B. SNMP Architectural Model
C. Management Components
D. Management Information Base (MIB)
E. SNMP Services
F. Get-Next Request
G. Default UDP Ports for SNMP
H. SNMP Standards
I. Management Information Base
J. Object Identifier
K. Index in MIB II
L. Index Example
M. MIB II
N. SNMP Authentication
O. Example for snmpget
P. Example of snmpwalk
Q. Example of snmptrap

4. Using the OPS/MVS UNIX System Services Interface

A. UNIX System Services
B. CA- Common Services
C. OPS/MVS UNIX Interface
D. CA-Common Services Architecture
E. USS OSF Server Class
F. ADDRESS USS Environment
G. USS AOF Rules
H. UNIX System Service Msg Event
I. USS Event Variables
J. USS Event Scope
K. Example USS Rule
L. USS Log Monitoring
M. Calling the LOG Monitor Script
N. OPSINFO() Enhancements
O. OPSUSS(' Process') Function
P. OPSUSS('Process') Syntax
Q. OPSUSS Function: Process Usage
R. Selected OPSUSS() Return variables
S. OPSUSS(' User') & OPSUSS('Group')
T. OPSUSS('Set') Function
U. OPSUSS Function: Examples
V. Running OPS/REXX in USS
W. OPS/REXX and USS: HFS Files
X. OPS/REXX Execution from USS Shell
Y. OPS/REXX Execution from Telnet
Z. OPS/REXX Execution from OMVS
AA. OPS/REXX Execution in UNIX REXX
BB. OPS/REXX Commands in USS
CC. ADDRESS USS Environment
DD. Address USS USSCMD Example
EE. Address USS Return Codes
FF. Address USS CMD Example
GG. Address USS API Keywords
HH. Address USS DOM
II. Address USS PING
JJ. Address USS REPLY
KK. Address USS WTO Example
LL. Address USS WTOR Example
MM. Terminating OPSUSS Servers

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Course Outline (cont'd)

5. Installing and Configuring OPS/MVS USS Support

A. Reasons to Install OPS USS Interface
B. USS Installation Checklist
C. Installation Jobs: INSTSMPU
D. Installation Jobs: INSTUSEX
E. Parameters and Customization
F. Customizing the OPSUSS Proc
G. Customizing the OPSUSS ENVFILE
H. OPS/MVS USS Parameters
I. Activating OPS/MVS USS
J. Monitoring OPS/MVS USS w/ OpsView
K. Sending work to OPS/MVS USS
L. ADDRESS USS Example
M. Common USS Questions

6. Crossing Platforms with OPS/MVS and Common Services

A. Manage Enterprise-Wide Events
B. Monitoring Activity with WorldView
C. Role of Event Management
D. Using Event Console as USS Console
E. Capture USS User Log Message
F. USS Event Management
G. Sample Script for Log Records
H. Generate Message in the User Log
I. Capture of User Log
J. Echo in OPSLOG
K. Enterprise Management
L. NSM Set of Commands
M. Send Command from USS to Windows
N. Execute windows Cmd from USS
O. Controlling the Message
P. Send Msg from TSO to Windows
Q. Executing CAWTO from TSO REXX
R. Message from TSO REXX
S. Send Commands Across Platforms
T. Send Cmd from z/OS to Windows
U. Sending a Cmd to Windows
V. Receiving the Result
W. Send Cmds from OPS/REXX to Windows
X. Execute from OPS/REXX
Y. Checking the Command
Z. Communication with Non-NSM Nodes
AA. Sending SNMP Traps w/ OPS/MVS
BB. Communicating with Freeware
CC. Send Msg from Windows to z/OS
DD. Sending the Message
EE. CAWTO from Windows to z/OS
FF. Send Cmd from Windows to z/OS
GG. Sending the Command
HH. See the Result in the z/OS System Log
II. Send Cmd Through OPS/MVS
JJ. Sending a Command from Windows
KK. Receiving a Command on z/OS
LL. OPS/MVS Captures USS Message
MM. Execute Cmd, Return Result
NN. OPSLOG Reports All Operations
OO. Windows Receives Cmd Response