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Session: 480154

@server iSeries

Operations Console
V5R3 Enhancements and More

Marvin Levi

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iSeries Operations Console V5R3 Enhancements and More

Topics

- Operations Console quick overview
- Connectivity Options and Configuration is easier
- Requirements for Operations Console
- New property page features
- Remote Control Panel
- Console takeover and recovery
- LPAR Configuration
- Demo – Twinax convert to LAN Console if time permits

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Slide 1

iSeries Operations Console V5R3 Enhancements

Operations Console Overview

- Operations Console allows a personal computer (PC) to become a local or remote console to your iSeries server. This eliminates the need for a twinaxial connection and allows a system administrator to monitor/control the system(s) from another location.

LAN

iSeries

Local Console

iSeries   PAGE 3

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Slide 2
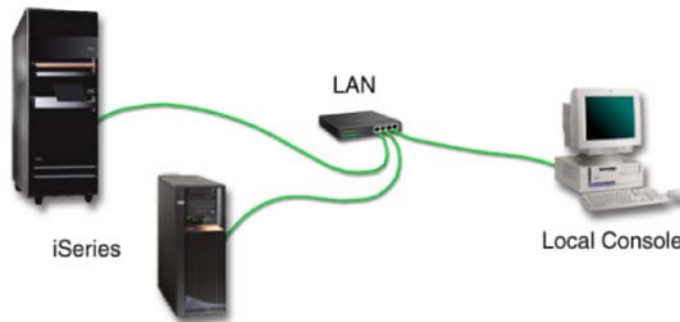
Requirements for Operations Console

- PC Operating System
  - Windows 2000 Professional
    - Recommend Service Pack 4
  - Windows 2003
  - Windows XP
    - Recommend Service Pack the latest
  - Windows 98 (not supported)
  - Windows Me(not supported)
  - Windows NT Workstation 4.0 or later, with Remote Access Service installed.
    - Requires Service Pack 6
- iSeries Access for Windows
  - Latest Service Pack available

iSeries   PAGE 4

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Requirements for Operations Console

- PC Hardware requirements

Operating System (1,2)	Operations Console PC
Windows NT 4.0	Pentium 300 MHz recommended 64 MB memory minimum (128 MB recommended)
Windows 2000/2003/XP Professional	Pentium 500 MHz (P6 or equivalent compatible microprocessor) 256 MB memory minimum

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Requirements for Operations Console

- Support cards for LAN Connectivity

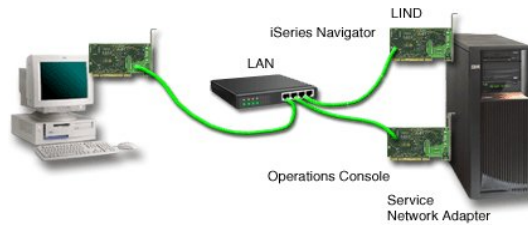| Card Number	Description
2744	PC1 100 Mbps Tokenring Adapter
2838	PC1 100/10 Mbps Ethernet IOA
2849	PC1 100/10 Mbps Ethernet IOA

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Requirements for Operations Console

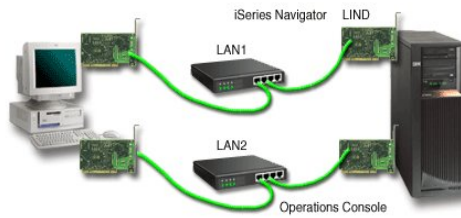| Model	LAN console card location	Operations Console async card location for the cable
170, 250	not supported	C08
720	not supported	C09
730, 740	not supported	See the Cabling information.
270	C06, second C05	C07
800, 810	C06, second C05	C07
820	C04, second C03, third C11	C06
825	Integrated Ethernet Port, (C03, C02, C01)(1)	C06
830, SB2	C04, second C06, third C10	C02
840, SB3	C04, second C06, third C10	C02
870, 890	C04, C06, C07, C08, C09	C02
Note: (1)These locations will only be available if the Integrated Ethernet Port is not operational.		

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Requirements for Operations Console

- iSeries Navigator
- XPF

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Requirements for Operations Console

• Preferred
  – iSeries Navigator
  – XPF

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iSeries Operations Console

• Configuring console is easier

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iSeries Operations Console

- Configuring console is easier/ Select Functions page removed

iSeries

PAGE 11

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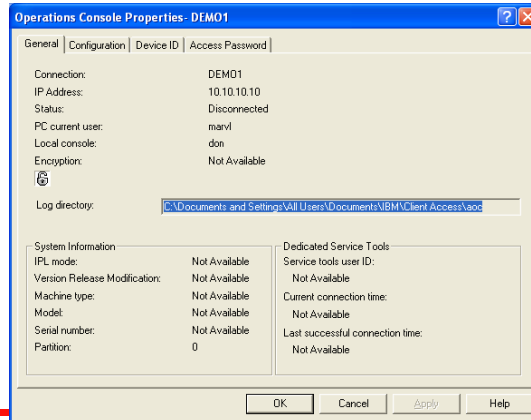

iSeries Operations Console

- New property page features
  - Add/remove functions through property pages
  - Re-configuration wizard removed
  - LAN configurations default with Remote Control Panel
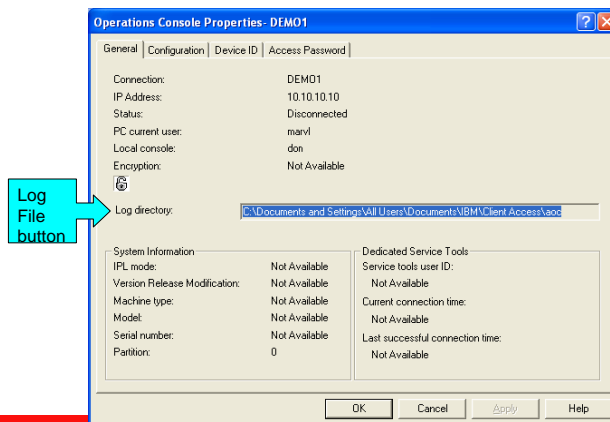 - Direct configurations default to console only

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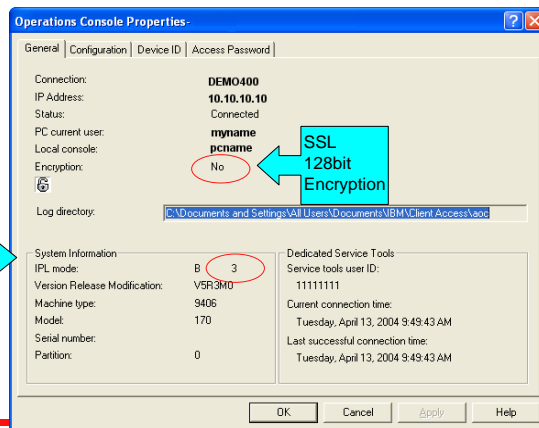
PAGE 12

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iSeries Operations Console

- Configuring console is easier
  - Focus on configuring a connection
  - Auto detect and configure
  - Add/remove functions through property pages
  - Windows 98 and Me are not supported

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iSeries Operations Console

- New property page features

Operations Console Properties

General | Configuration | Device ID | Access Password

Connection:	**DEMO400**
IP Address:	**10.10.10.10**
Status:	Connected
PC current user:	**myname**
Local console:	**pcname**
Encryption:	No

SSL 128bit Encryption

Log directory: C:\Documents and Settings\All Users\Documents\IBM\Client Access\aoc

System Information
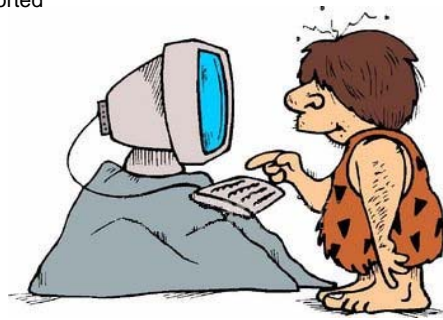
e.g. 3 indicates LAN console type

IPL mode:	B	3
Version Release Modification:	V5R3M0	
Machine type:	9406	
Model:	170	
Serial number:		
Partition:	0	

Dedicated Service Tools
Service tools user ID:
    11111111
Current connection time:
    Tuesday, April 13, 2004 9:49:43 AM
Last successful connection time:
    Tuesday, April 13, 2004 9:49:43 AM

OK | Cancel | Apply | Help

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PAGE 16
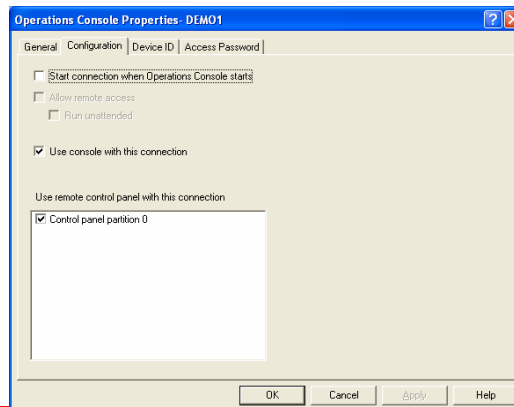
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iSeries Operations Console

- New property page features/SSL 128-bit Encryption
  - Part of iSeries Access for Windows V5R3 install
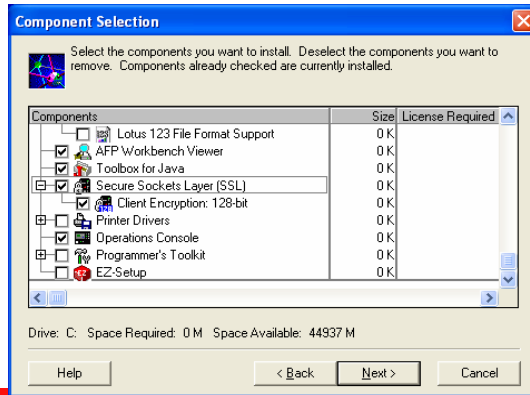
© 2005 IBM Corporation
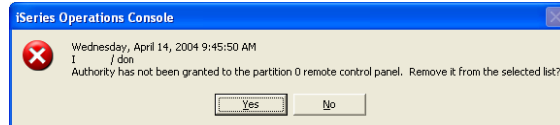
iSeries

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iSeries Operations Console

- Remote Control Panel

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Slide 1

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iSeries Operations Console

- Remote Control Panel
  - On connection authorization for RCP is verified

iSeries Operations Console

Wednesday, April 14, 2004 9:45:50 AM
I   / don
Authority has not been granted to the partition 0 remote control panel. Remove it from the selected list?

[Yes]   [No]

  - Choosing Yes will also remove the message from appearing again
  - The message is new, but the authorization has always been verified

Old message
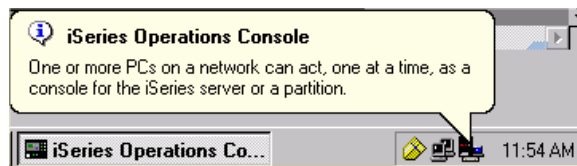
iSeries Operations Console

Remote control panel connection to SYSTEM1 failed. Do you want to try again?

[Yes]   [No]

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Slide 2

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iSeries Operations Console

- The Operations Console icon has been added to the taskbar notification area.
- This allows Operations Console to display messages that otherwise maybe hidden behind other desktop applications.
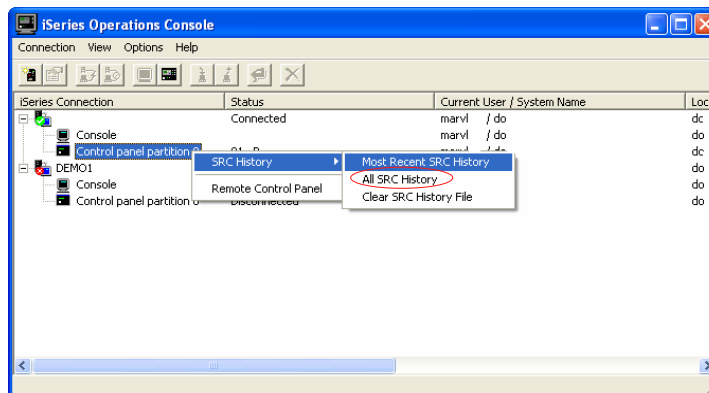
iSeries Operations Console
One or more PCs on a network can act, one at a time, as a console for the iSeries server or a partition.

iSeries Operations Co...   11:54 AM

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iSeries Operations Console

- Remote Control Panel
  - Show/Hide columns
  - Move Columns
  - Improved error messages
  - System Tray Icon

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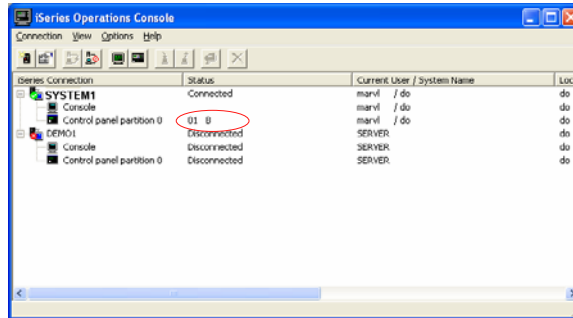
iSeries Operations Console

- Remote Control Panel
  - System Reference Codes/From the IPL time

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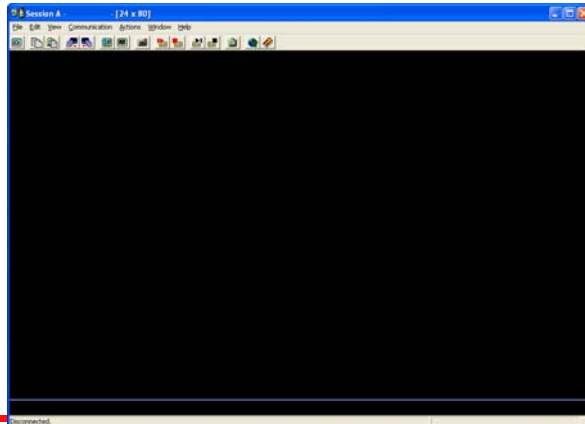
11

iSeries Operations Console

- Console takeover and recovery
  - Microsoft Winsock layer
  - Not an Alternate Console
  - Always get green on black
  - Console modes are honored
  - After a successful takeover, whether from the same device or a different device, all data sent to the console will be delivered
  - If the outage was long enough and there were many screens buffered, the screen refreshes will be rapid, but all screen data will be sent until the console is up-to-date
  - When the takeover option is turned off a console-capable device will bypass the signon screen and be taken directly to the screen showing current console status

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iSeries Operations Console

- Console takeover and recovery
- A new function consisting of control panel functions 65 and 21 has been created to aid in the recovery or debug of Operations Console problems. It will allow the user to do the following:
  - Change the console mode value.
  - Clear the associated LAN adapter's associated data used for Operations Console or the service tools server
  - Deactivate and reactivate the LAN adapter associated data used for Operations Console or the service tools server
  - Dump all the flight recorders commonly associated with Operations Console
    - This will reduce the need for main storage dumps which causes tremendous impact to the users.
- All of the above functions can also be done on an SST screen via native macro.
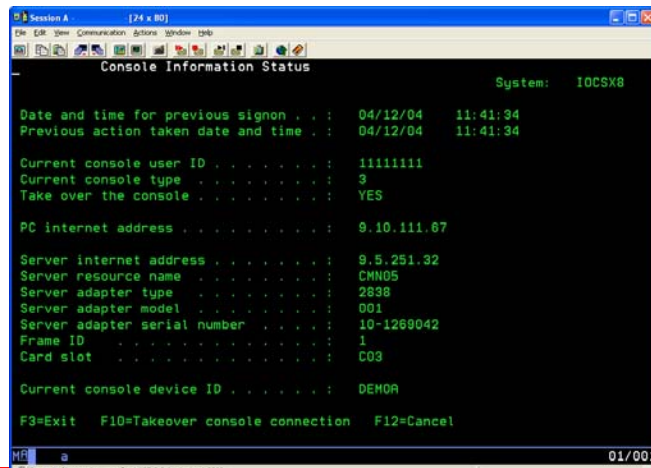
iSeries Operations Console

- Where is the console?

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iSeries Operations Console Basics

Where's the console?


```
Console Information Status
                                          System:  IOCSX8

Date and time for previous signon . . :   04/12/04   11:41:34
Previous action taken date and time . :   04/12/04   11:41:34

Current console user ID . . . . . . . :   11111111
Current console type  . . . . . . . . :   3
Take over the console . . . . . . . . :   YES

PC internet address . . . . . . . . . :   9.10.111.67

Server internet address . . . . . . . :   9.5.251.32
Server resource name  . . . . . . . . :   CMN05
Server adapter type . . . . . . . . . :   2838
Server adapter model  . . . . . . . . :   001
Server adapter serial number  . . . . :   10-1269042
Frame ID  . . . . . . . . . . . . . . :   1
Card slot . . . . . . . . . . . . . . :   C03

Current console device ID . . . . . . :   DEMOA

F3=Exit   F10=Takeover console connection   F12=Cancel
```

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iSeries Operations Console

- Each PC requires a Service Tools Device ID (Profile)

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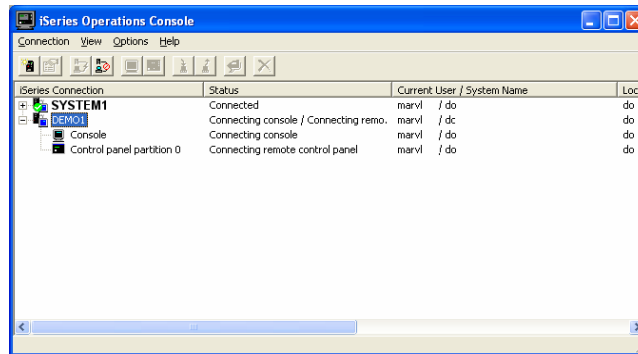
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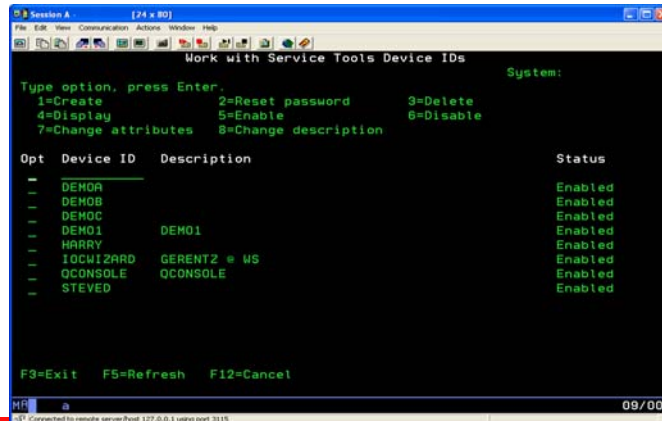
iSeries Operations Console

- Must remember the Access password
- The Access password can be the same on any PC
- Do not have to remember the Service Tools Device ID Password
- Should never have to re-synchronize the Service Tools Device ID Password

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iSeries Operations Console

• Where is the console?

iSeries

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iSeries Operations Console

• Console takeover and recovery

iSeries

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iSeries Operations Console

- Console takeover and recovery

iSeries   PAGE 31

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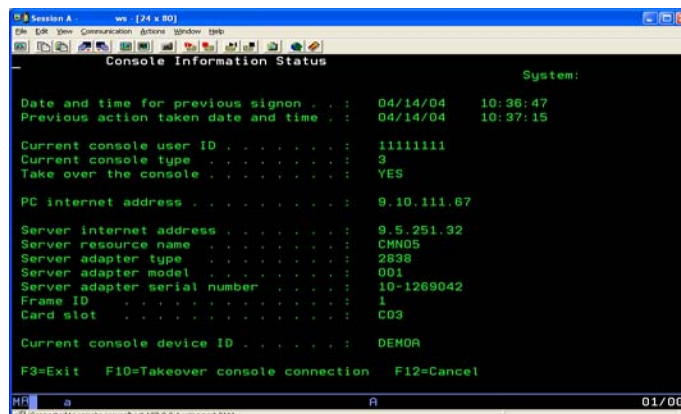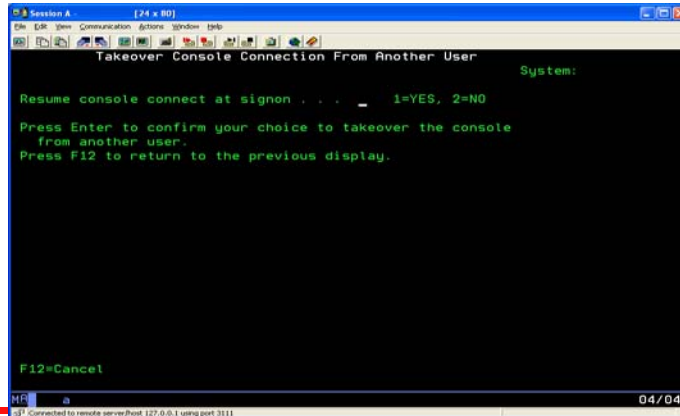
iSeries Operations Console

- Scenario 1 – Changing console mode from direct to LAN
  - 65 / 21 A602500A (Read mode)
  - 65 / 21 A603500B (Edit mode, increment value)
  - 21 A603500C (Set value)

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iSeries Operations Console

- Scenario 1 – Changing console mode from LAN to direct
  - 25 / 26 (CE mode, if needed)
  - 65 / 21 A603500A (Initial read back console mode value)
  - 65 / 21 A604500B (Entered edit mode and incremented value by one, if on a server supporting HMC)
  - 65 / 21 A6C3500B (increment value by one again)
  - 65 / 21 A6A3500B (increment value by one again)
  - 65 / 21 A6DD500B (increment value by one again)
  - 65 / 21 A601500B (increment value by one again)
  - 65 / 21 A602500B (increment value by one again but this is now the value we want)
  - 21 A602500C (The last 21 sets the value; causes SLIC to clean up LAN connection data, if any; activates async line)
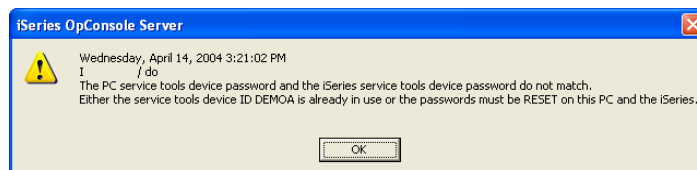

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iSeries Operations Console

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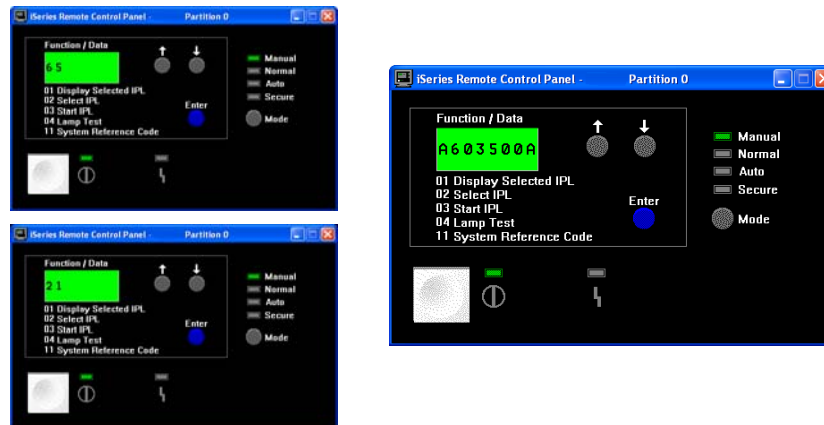
iSeries Operations Console

- 65+21 can also assist recovery or gather data in addition to changing the console mode value
  - A6C3500B will clear the LAN adapter's data
    - This is the equivalent to doing a PF6 (clear) when on the screen showing the LAN adapter's network data) and a PF7 to store it
  - A6A3500B will cause the LAN adapter to deactivate and then reactivate
    - This is the same as doing a PF17 on the screen showing the LAN adapter's network data
  - A6DD500B will dump all Operations Console related flight recorders to vlogs (except D-mode where vlog support isn't present)
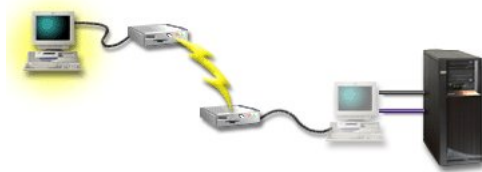   - The vlogs will be 4A00 major code

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iSeries Operations Console

- Console takeover and recovery
  - Recovery of console takes about 75 seconds
  - PC auto resynchronizes the device ID
    - In V5R3 you will get a specific error message indicating the need to reset the device ID password. Only then should you perform a reset.
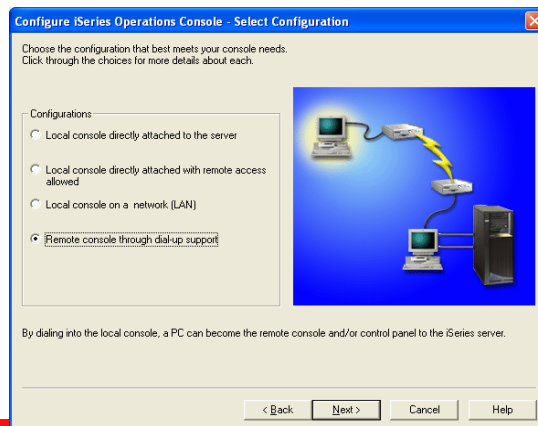 - 7-65s will reset the host device ID QCONSOLE

iSeries OpConsole Server

Wednesday, April 14, 2004 3:21:02 PM
I   / do
The PC service tools device password and the iSeries service tools device password do not match.
Either the service tools device ID DEMOA is already in use or the passwords must be RESET on this PC and the iSeries.
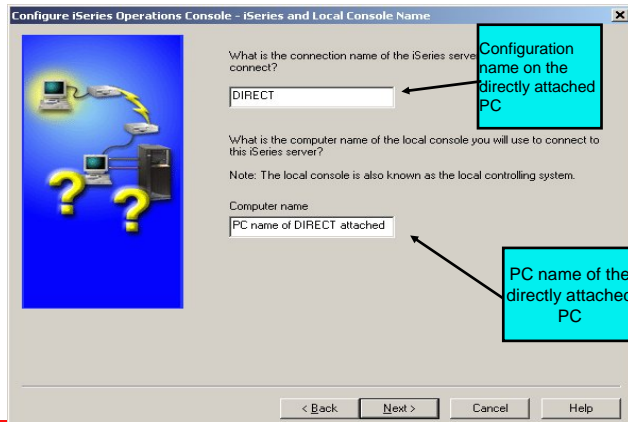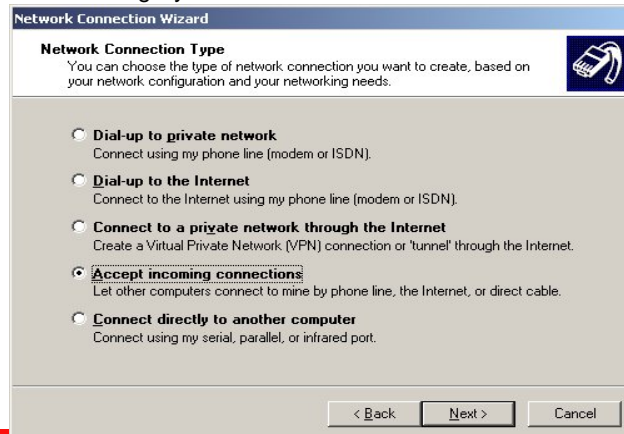
OK

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iSeries Operations Console

• Remote Controlling System

iSeries Operations Console

• Remote Controlling System

Configure iSeries Operations Console - Select Configuration

Choose the configuration that best meets your console needs.
Click through the choices for more details about each.

Configurations
- Local console directly attached to the server
- Local console directly attached with remote access allowed
- Local console on a network (LAN)
- Remote console through dial-up support

By dialing into the local console, a PC can become the remote console and/or control panel to the iSeries server.

< Back   Next >   Cancel   Help

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iSeries Operations Console

- Remote Controlling System
  - Remote Controlling System to Local Controlling System (RCS to LCS)
  - IBM Desktop on Call
  - Remotely Possible
  - Virtual Network Computing (VNC)
  - PC Anywhere
  - Search Google/Directory with any of the names above to find great information

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iSeries Operations Console

- Configuring Secondary Partitions

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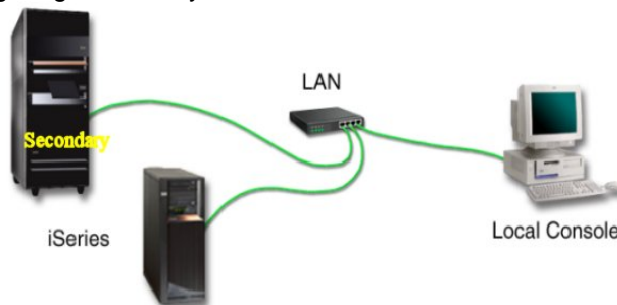
Configuring Secondary Partitions

- LPAR has already been created
- Create secondary
- Tag the LAN card IOP
- Tag for ECS
- Configure PC for LAN console
- Configure LAN connection on the PC that will be used for the console for the secondary
- Specify either DNS name of adapter or the IP address of LAN card(this is the information from your network administrator)
- After 'D' mode IPL (to create secondary)
- SRC's C600 4016 to C600 4031 - system looking for the console. It establishes connection and uploads IP information
- Use the ACCESS password previously configured
- UserID of 11111111 / 11111111

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Configuring Secondary Partitions

- IPL continues. Console connected.
  - NEED to set Console Type to LAN (at DST) prior to next IPL or will NOT find console
  - After a scratch install will also have to set the Console Type to LAN
  - After a scratch install will have to reset the PC service tools device ID password

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Configuring Secondary Partitions

- Tag the LAN card IOP for Operations Console
  - Select option 11= Work with system partitions

```
Use Dedicated Service Tools (DST)
                                              System:
Select one of the following:

    1. Perform an IPL
    2. Install the operating system
    3. Work with Licensed Internal Code
    4. Work with disk units
    5. Work with DST environment
    6. Select DST console mode
    7. Start a service tool
    8. Perform automatic installation of the operating system

    10. Work with remote service support
    11. Work with system partitions

    13. Work with system security


Selection
    __

F3=Exit   F12=Cancel
```

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Configuring Secondary Partitions

- Tag the LAN card IOP for Operations Console
  - Select option 7=Select console resource on the selected partition

```
Work with Partition Configuration
                                              System:
Type option, press Enter.
   7=Select console resource      8=Select alternate IPL resource
   9=Select default electronic customer support resource
   10=Change comm options  11=Delete  12=Change oper env  13=Change host

          Partition
Option  Identifier   Name
           0          PRIMARY
   7_      1

F3=Exit    F5=Refresh                  F9=Work with shared processor pool
F10=Work with Virtual LAN configuration  F11=Work with partition status
F12=Cancel                             F23=More options
```
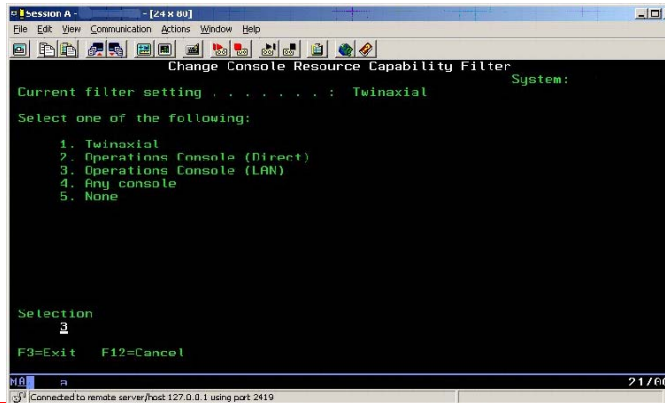
iSeries   PAGE 46

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Configuring Secondary Partitions

- Tag the LAN card IOP for Operations Console
  - Press F9=Change capability filter

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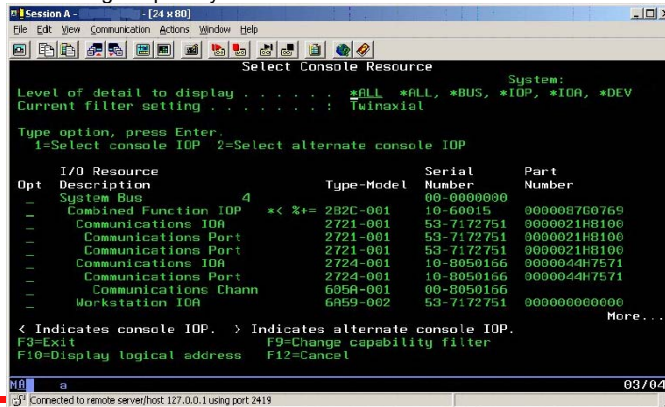
Configuring Secondary Partitions

- Select option 3. Operations Console (LAN)

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Configuring Secondary Partitions

- Enter option 1=Select console IOP on the IOP you wish to use
- < Operations Console, + ECS, > Alternate Console

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Configuring Secondary Partitions

- Tag for ECS
- Select option 9=Select default electronic customer support resource

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Configuring Secondary Partitions

- The LAN adapter attached to the selected IOP will now be activated on the next D-Mode IPL for LIC install.
- The IP configuration must have been setup on the console PC and the console PC must be on the "local LAN" with the system.
- The LAN adapter will be able to be used for the console on the D-Mode IPL for LIC install and the first A-Mode IPL after the LIC install only.
- You must set the DST console type to Operations Console (LAN) for the console to be available on the LAN for future IPLs.
- Must also set the console type to Operations Console whenever you scratch install and must reset the PC Service Device ID password.

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Configuring Secondary Partitions

- LAN Console uses BOOTstrap Protocol (BOOTP) to configure the iSeries service IP communication stack. This IP stack configuration plus iSeries serial number is requested in the wizard setup.
- Set up PC based on your IP address information - from your network administrator - and instructions in Operations Console Setup guide.
- The iSeries system, activates the LAN card and broadcasts BOOTP requests.
- The PC replies with the information submitted during this setup.
- The iSeries then stores and uses the configuration information.
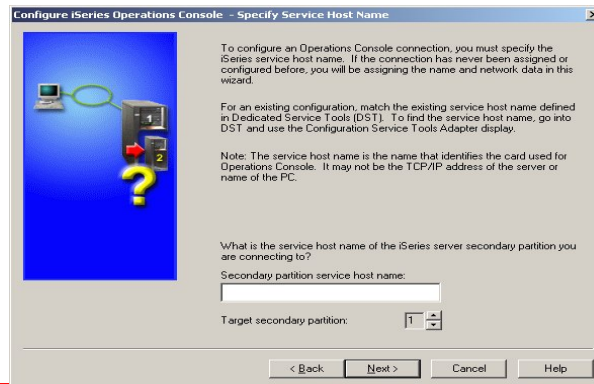- ** Place the PC and iSeries on the same network (a one-time set up requirement)

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Configuring Secondary Partitions

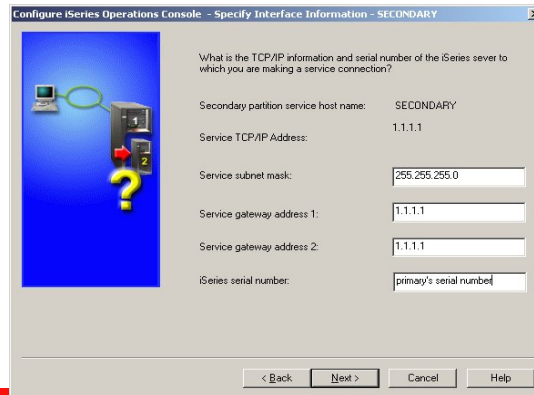• Place the PC and iSeries on the same network (a one-time set up requirement)
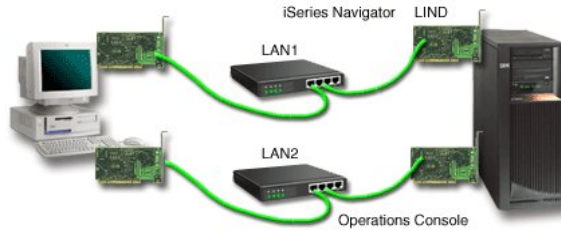
Configuring Secondary Partitions

• Configure the PC for LAN Console
  – Specify the secondary's partition number

Configuring Secondary Partitions

- Configure the PC for LAN Console
  - Enter the serial number of the iSeries machine and the secondary's IP information.
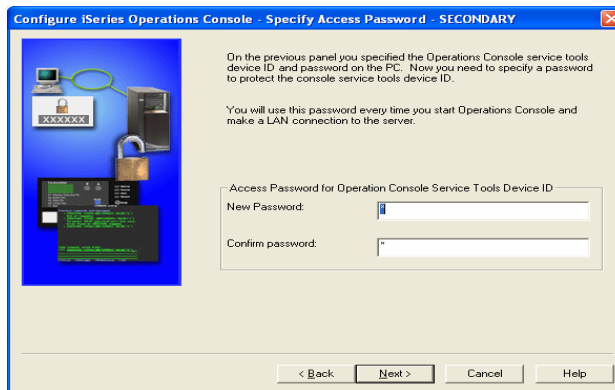

Configuring Secondary Partitions

- Configure the PC for LAN Console
  - There will be a device ID for each secondary.

Configuring Secondary Partitions

• Configure the PC for LAN Console
  – Enter an access password. Can be the same as other configurations.

Configure iSeries Operations Console - Specify Access Password - SECONDARY

On the previous panel you specified the Operations Console service tools device ID and password on the PC. Now you need to specify a password to protect the console service tools device ID.

You will use this password every time you start Operations Console and make a LAN connection to the server.

Access Password for Operation Console Service Tools Device ID
New Password:
Confirm password:

< Back   Next >   Cancel   Help

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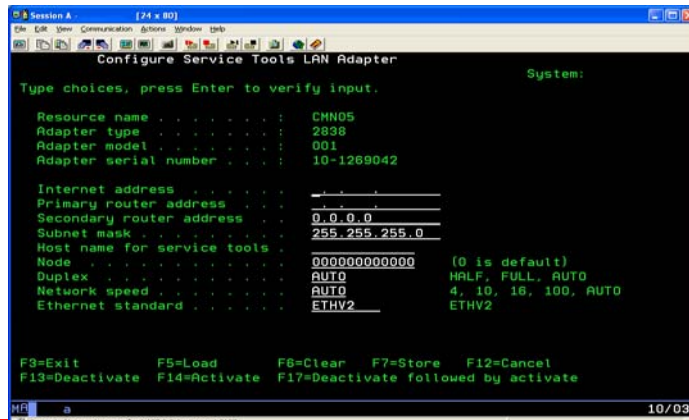

Migrating from Twinax to Operations Console

• Change console type
• From DST select 5 to Work with DST environment
• Select 2 System devices
• Select 6 Console mode
• Choose 3 for Operations console (LAN)

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Migrating from Twinax to Operations Console

• Configure LAN adapter
  – From DST select 5 to Work with DST environment
  – Select 2 System devices
  – Select 6 Console mode
  – Choose 3 for Operations console (LAN)
  – The Verify Operations Console Adapters screen will be displayed
  – From the Verify Operations Console Adapters screen press F11
  – Enter the IP Address
  – Enter the Primary and Secondary gateway
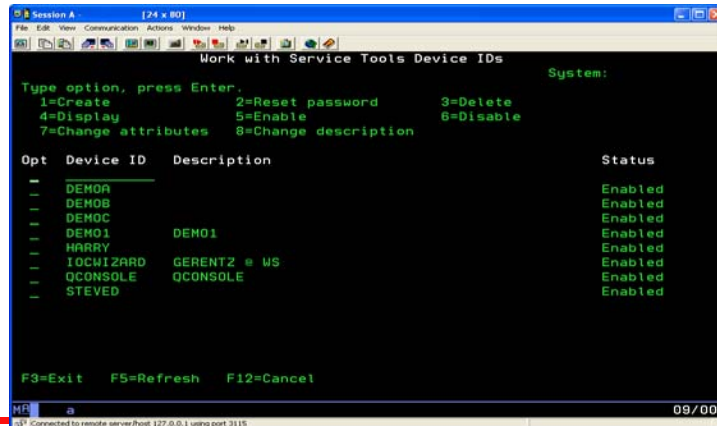 – Enter the Subnet mask
  – F7 to store

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Migrating from Twinax to Operations Console

▪ Configure LAN adapter

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Migrating from Twinax to Operations Console

- Create a Service Tools Device ID


```
Session A -            [24 x 80]
File  Edit  View  Communication  Actions  Window  Help
                      Work with Service Tools Device IDs
                                                    System:
Type option, press Enter.
   1=Create            2=Reset password      3=Delete
   4=Display           5=Enable              6=Disable
   7=Change attributes 8=Change description

Opt  Device ID   Description                        Status
  _
  _   DEMOA                                          Enabled
  _   DEMOB                                          Enabled
  _   DEMOC                                          Enabled
  _   DEMO1       DEMO1                              Enabled
  _   HARRY                                          Enabled
  _   IOCWIZARD   GERENTZ @ WS                       Enabled
  _   QCONSOLE    QCONSOLE                           Enabled
  _   STEVED                                         Enabled




F3=Exit   F5=Refresh   F12=Cancel
                                                         09/003
Connected to remote server/host 127.0.0.1 using port 3115
```

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Migrating from Twinax to Operations Console

- Create a Service Tools User ID


```
Session A - IOCSP8.ws - [24 x 80]
File  Edit  View  Communication  Actions  Window  Help
                      Work with Service Tools User IDs
                                           System:   IOCSX8
Type option, press Enter.
   1=Create            2=Change password     3=Delete
   4=Display           5=Enable              6=Disable
   7=Change privileges 8=Change description

Opt  User ID   Description                        Status
  _
  _   CAWLEY                                        Enabled
  _   QSECOFR    QSECOFR                            Enabled
  _   QSRV       QSRV                               Enabled
  _   TESTER                                        Enabled
  _   TOMFOHRD   RANDY TOMFOHRDE                    Enabled
  _   11111111   11111111                           Enabled
  _   22222222   22222222                           Enabled




F3=Exit   F5=Refresh   F12=Cancel
                                                         09/003
Connected to remote server/host 127.0.0.1 using port 3137
```

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Migrating from Twinax to Operations Console

- LAN card placement is important (slides 8 and 9)
- Remove the Twinax cable from the iSeries machine
- Required IPL or 65/21
- Can reset the iSeries QCONSOLE password by entering 7 - 65s from the control panel

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iSeries Operations Console

- Windows XP
  - The following error message is received when limited authority is detected to access the XP key container file.

    iSeries OpConsole Server
    ⚠️ The current access password entered is not valid.
    Please enter the valid access password.
    [OK]

  - Whomever creates the first Operations Console configuration on an XP machine will be the only user with authority to connect a console. This is because XP's security limits access to the key container file. This is true for administrators as well.
  - The key container file is used to encrypt the access and service tools device passwords.
  - CWBOPSEC executed in a DOS Window with no parameters displays help.
  - Use CWBOPSEC /adminkey to set only administrator authority or CWBOPSEC /allkey to set all authority.
- Windows 2000
  - In our testing we found that Windows 2000 security also limits access to the key container file. CWBOPSEC can be used here as well to resolve this issue.

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iSeries Operations Console

- Operations Console quick overview
- Connectivity Options and Configuring console is easier
- Requirements for Operations Console
- New property page features
- Remote Control Panel
- Console takeover and recovery demo
- LPAR Configuration
- Demo – Twinax convert to LAN Console if time permits
- Questions?

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iSeries Operations Console Intermediate Configuration

- Evaluation
  - Session ID: 409033
  - Session title: iSeries Operations Console Intermediate Configuration
  - Agenda key: 44CJ
  - Speaker: Marvin Levi

Thank you for attending!

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iSeries Operations Console Intermediate Configuration

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Operations Console V5R3 Enhancements and More

Evaluation

- Session: 480154
- Agenda Key: 21GB
- Session Title:

     Operations Console V5R3 Enhancements and More

- Speaker: Marvin Levi

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